

36th

生物醫學 聯合學術年會



2022 The 36th Joint Annual Conference of Biomedical Science

大會手冊



GOOD HEALTH
& WELL-BEING

3

2022

26-27

國立陽明交通大學

N Y C U 陽明校區活動中心

3月25日

Online 壁報論文發表

中國生理學會
中華民國臨床生化學會
台灣分子生物影像學會

台灣毒物學學會
中華民國解剖學學會
中華民國細胞及分子生物學學會

台灣藥理學會
中華民國免疫學會
台灣生物化學及分子生物學學會



National Core Facility for Biopharmaceuticals

Gene Platform



RNA Technology Platform and Gene Manipulation Core

(Distinguished Research Fellow Lin-Chao Sue)



National Center for Genome Medicine

(Research Fellow Jer-Yuarn Wu)



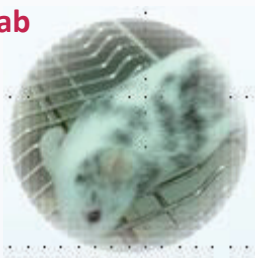
Genomics Center for Clinical and Biotechnological Applications

(Prof. Muh-Hwa Yang)



Pharmacogenomics Lab

(Prof. Sung-Liang Yu)



Animal Model



Taiwan Mouse Clinic and Animal Consortium--National Comprehensive Mouse Phenotyping and Drug Testing Center

(Research fellow Chen, Chih-Cheng)



Transgenic mouse models core facility

(Prof. Shu-Wha Lin)



Taiwan Zebrafish Technology and Resource Center

(Associate Investigator Yun-Jin Jiang)

Imaging and Structure Analysis



The Synchrotron Radiation Protein Crystallography Core Facility

(Associate Research Fellow Yuch-Cheng Jean)



The Bio-image Core

(Prof. Wen-Tai Chiu)



Translational biomedical imaging platform

(Associate Research Fellow Chia-Ning Shen)



International Institute for Macromolecular Analysis and Nanomedicine Innovation, i-MANI

(Associate Prof. Shang-Rung Wu)

High-Tech Services Free Consultations

Bioinformatics



National Biomedical Data Service and Analysis Computing Platform

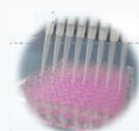
(Associate Research Fellow Yu-Tai Wang)



Bioinformatics Core Facility for Biotechnology and Pharmaceuticals

(Distinguished Investigator Chao A. Hsiung)

Bioresources



Human Disease Induced Pluripotent Stem Cells Service Consortium

(Research fellow Patrick C.H. Hsieh)



The establishment of a clinico-pathological network and database on hepatocellular carcinoma in Taiwan and Taiwan lung cancer tissue/specimen and information resource center

(Academician Yun-Fan Liaw)



Natural Product Libraries and High-Throughput Screening Core

(Associate Prof. Chia-Hung Yen)



Resource center for Drosophila as a biomedical research model

(Prof. Chau-Ti Ting)



Elevating Taiwan C. elegans core facility

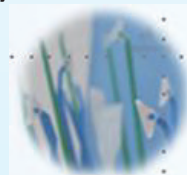
(Distinguished Prof. Yi-Chun Wu)



Taiwan Yeast Bio-Resources Center

(Prof. Fang-Jen (Scott) Lee)

BSL-3 Laboratories



Biosafety level 3 core facility

(Prof. Wen-Chien Ko)



Emerging Infectious Diseases Core Facility Platform

(Dr. Kau, Jyh-Hwa)



BSL3 Research and Analysis Laboratory

(Prof. Sui-Yuan Chang)





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生物醫學聯合學術年會

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大會會長的話

各位生醫學界的研究夥伴們 新年如意：

值此福虎開春之際，歡迎大家參加 3/25、26、27 於線上會議平台及國立陽明交通大學陽明校區所舉行的第三十六屆生醫年會！這場生醫學界的年度盛事，雖然在過去兩年因受到 COVID-19 疫情影響而無法舉行，今年九大學會齊心協力，做好了萬全的準備，以全新客製化虛擬演講廳及廠商展間，搭配實體會議同步直播，以「虛實整合」的方式呈現九大學會精采的演講、研討會及口頭論文競賽，有別於往例議程只排在周末，今年我們將以星期五一整天安排所有學會的線上壁報論文發表，讓每位論文發表者都有上線解說的時段。重要的是，所有議程都能因應各種疫情狀況如期舉行、不會延期或取消，而為了達成這個任務，諸多虛實整合的安排及相關配套措施，都將為國內大型研討會的創舉！

疫情改變了全世界人類的生活習慣、人際互動及國際移動，加上因地球環境變遷，對人類生理與心理健康的影響，衍生出許多新的疾病風險因子。近來精準健康醫療與健康長壽等大型專案及跨國研究計畫，便是推動學研界共同投入健康促進的重要指標。中國生理學會有幸輪到本屆主辦學會，特別揭示「生醫研究乃為促進人類健康與福祉」的出發點，以 WHO 全球永續發展目標 SDG3: “Good Health and Well-being” 做為大會主題，並邀請到長年以來致力於推動諸多國家型跨領域生醫專案計畫、現任高雄長庚轉譯醫學中心講座教授、並擔任國際生理學聯盟 (IUPS) 主席的華瑜教授，擔任大會演講講員。生醫年會的學會組成主要是以基礎及轉譯醫學研究領域，各學會所推出精彩研討會，例如生理學會的「跨器官系統的對話」、毒理學會的「奈米安全與健康」、細分與生化學會的「蛋白質結構與功能」、藥理學會的「Retrospect and prospect of cellular therapy」、藥理與毒理學會的「芳香烴受體研究的前景」等等，從生物分子、細胞、器官系統、到環境因子，都將在本屆各研討會發表重要研究成果，讓各學會會員師生們共榮交流，激盪出更多嶄新的發想，讓生醫研究題材能與時俱進、生生不息。

最後，謹在此感謝參與本屆大會籌辦的九大學會秘書處、理監事、線上及實體場地委員會及工作人員。與會者只要完成報名，即可在線上虛擬展廳中，觀看各場演講及瀏覽廠商展區，我們也將依疫情指引開放實體會議報名，請各位會員把握報名時段，不要錯過！ Good Health and Well-being，預祝大會順利成功，我們 3/25-27 生醫年會見！

李怡萱 謹誌於 2022 年 2 月
中國生理學會 理事長

1F 會場平面圖



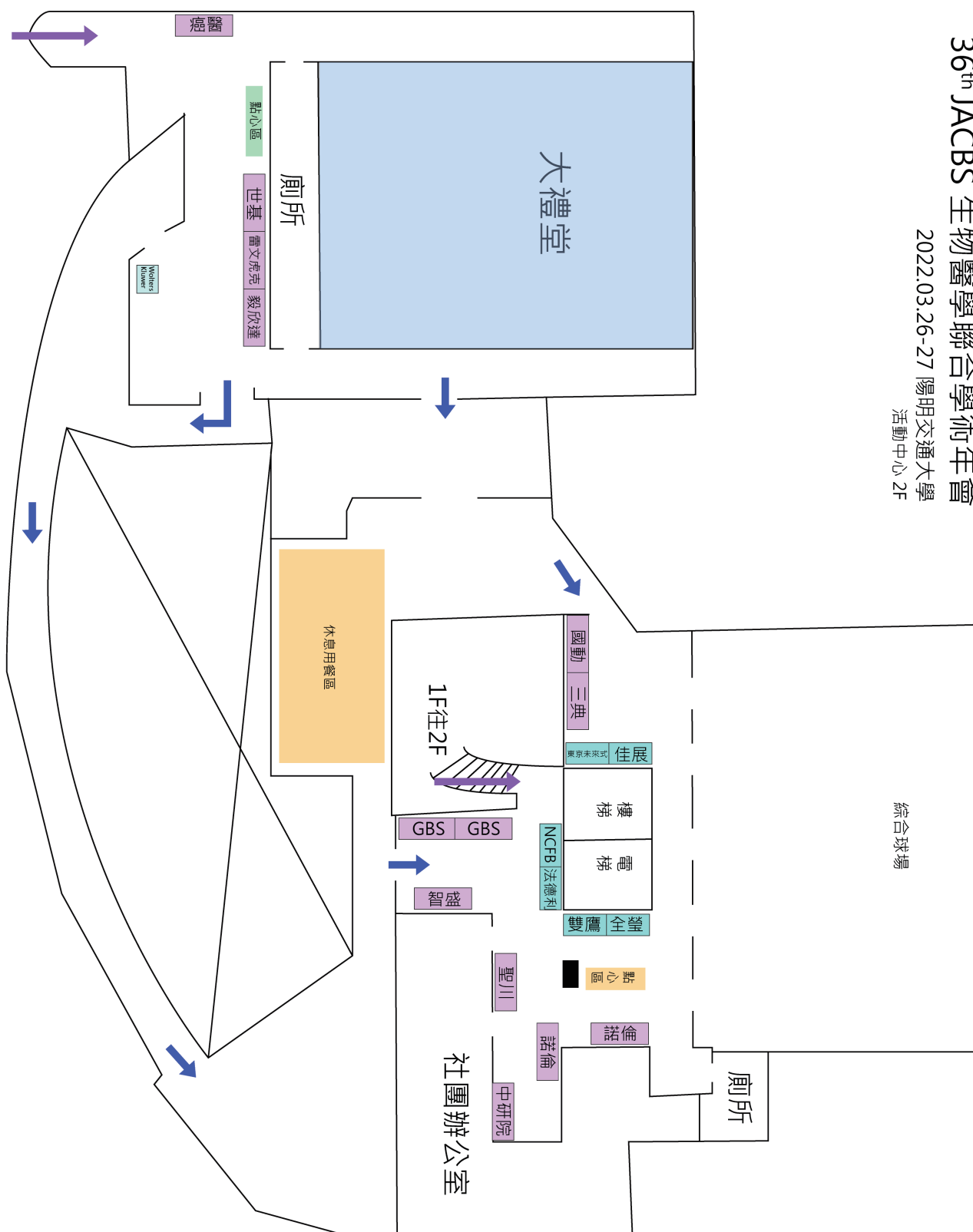


生物醫學聯合學術年會

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2F 會場平面圖

36th JACBS 生物醫學聯合學術年會
2022.03.26-27 陽明交通大學
活動中心 2F





第 36 屆生物醫學聯合學術年會 參與學會暨理事長與秘書長名單

學會名稱	理事長	秘書長
中國生理學會	李怡萱	李青澔
台灣藥理學會	林琬琬	林泰元
中華民國解剖學學會	陳天華	江青樹
台灣生物化學及分子生物學學會	鄭子豪	王琬菁
中華民國免疫學會	司徒惠康	顧正崙
台灣分子生物影像學會	林康平	柯建志
中華民國臨床生化學會	徐慧貞	郭靜穎
中華民國細胞及分子生物學學會	陳瑞華	郭紘志
台灣毒物學學會	李志恒	姜至剛



生物醫學聯合學術年會

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第 36 屆生物醫學聯合學術年會 會議資訊

	時間	會議室
開幕式	3 月 26 日 10:30 – 11:00	大禮堂
大會演講	3 月 26 日 11:00 – 12:00	大禮堂

各學會特別演講及會員大會 時間表

學會名稱	特別演講	會員大會
中國生理學會	3 月 26 日 09:00–10:30 表演廳	3 月 26 日 16:00–16:30 表演廳
台灣藥理學會	3 月 26 日 13:00–14:00 大禮堂	3 月 26 日 14:00–14:30 大禮堂
中華民國解剖學學會	3 月 26 日 09:30–10:30 第一會議室	3 月 27 日 11:00–12:00 第三會議室
台灣生物化學及分子生物學學會	3 月 26 日 09:30–10:30 大禮堂	
中華民國免疫學會	3 月 26 日 09:30–10:30 第三會議室	
台灣分子生物影像學會	3 月 26 日 13:30–14:30 第三會議室	3 月 27 日 11:00–12:00 第一會議室
中華民國臨床生化學會	3 月 26 日 09:00–10:00 第二會議室	
中華民國細胞及分子生物學學會	3 月 26 日 09:30–10:30 大禮堂	
台灣毒物學學會	3 月 26 日 13:00–14:00 大禮堂	3 月 26 日 16:30–17:00 多功能會議室



大會議程 Program at a glance

時間 / 地點	03 月 25 日				
	線上論文Q&A				
09:00~12:00	毒物學會壁報論文	免疫學會壁報論文	臨床生化學會壁報論文	解剖學會壁報論文	分子影像學會壁報論文
12:00~13:30	中場休息				
13:30~17:00	藥理學會壁報論文	生理學會壁報論文	生化學會壁報論文	細分學會壁報論文	



生物醫學聯合學術年會

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大會議程 Program at a glance

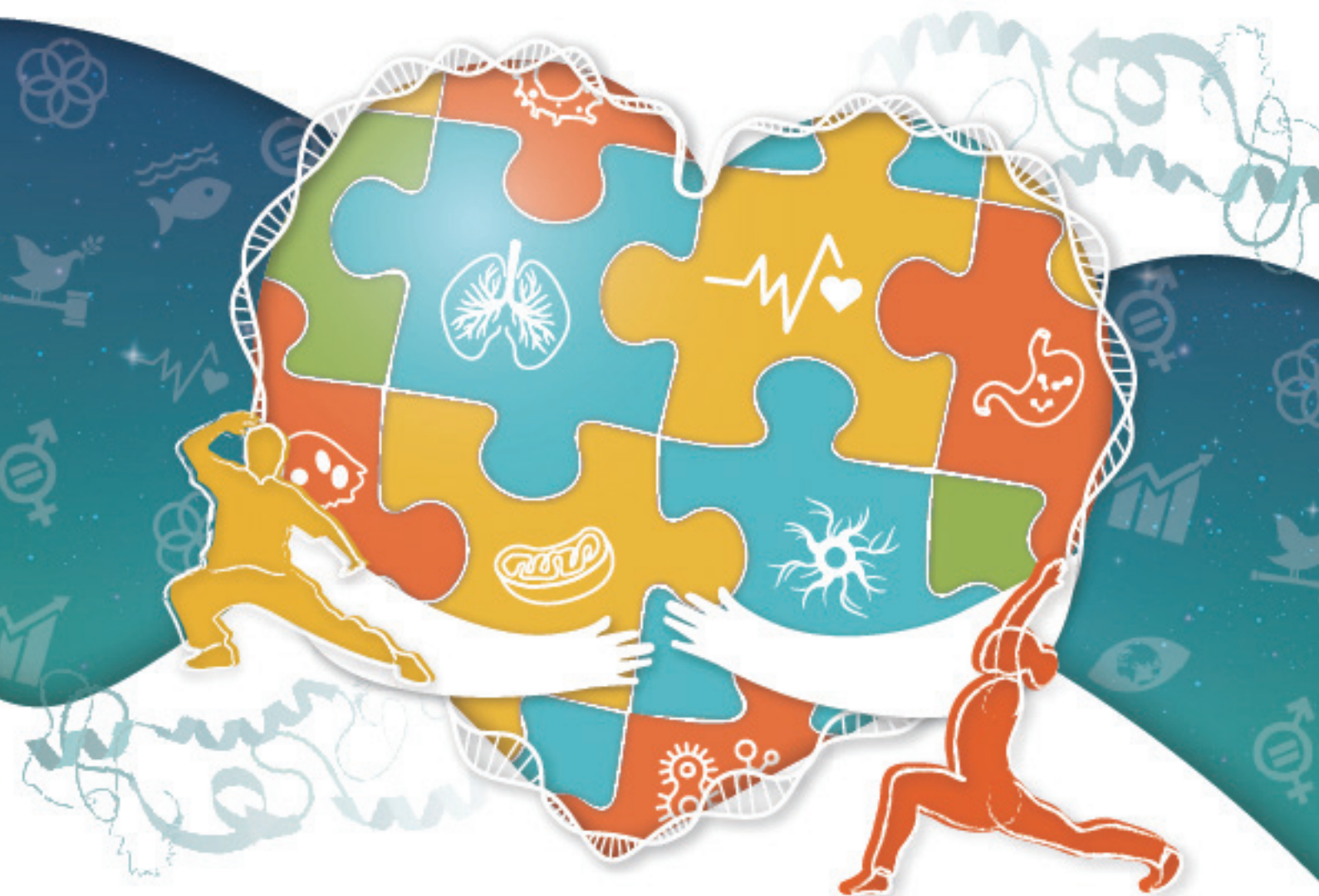
時間 / 地點	3月26日						
	大禮堂	表演廳	第一會議室	第二會議室	第三會議室	多功能會議室	守仁樓105講堂
08:30-09:00	大會報到						
09:00-09:30	細分x生化學會 開幕式 09:20-09:30 Joint Symposium of CSCMB and TSMBM	生理學會 Physiology Symposium: Organ system crosstalk in health and diseases		臨床生化學會 Keynote 座長: 方偉宏 常務理事 Khosrow Adeli (IFCC President, The Hospital for Sick Children, University of Toronto)			
09:30-10:00	Keynote 09:30-10:30 Heroes Emerging from Chaotic Time-- Marker-guided effective therapy (Mget) 座長: 陳瑞華 理事長 (中央研究院生物化學研究所) 鄭子豪 理事長 (陽明交通大學生物化學分子生物研究所) 洪明奇 (中國醫藥大學)	Keynote 座長: 李怡萱 理事長 余佳慧 教授 (台大生理所) Chae Hun Leem (Department of Physiology, University of Ulsan; FAOPS President)	解剖學會 Keynote Two Vignettes of in Neonatal Brain Injury: Monocyte-to-Microglia Transition and the Mechanisms of Hypothermia Protection 座長: 徐佳福 教授 曾家義 (School of Medicine, University of Virginia)		免疫學會 09:30-09:40 開幕式 司徒惠康 理事長 Keynote 09:40-10:30 座長: 顧正壽 秘書長 Jean-Laurent Casanova (Rockefeller University; Howard Hughes Medical Institute)	藥理學會 【研究生論文獎】 決選演講 座長: 張文昌 講座教授	毒物學會 9:00-10:20 研究生口頭論文競賽
10:00-10:30							
10:30-11:00	大會開幕式 @大禮堂 致詞: 陳鴻震 司長(科技部生科司)・林奇宏 校長(國立陽明交通大學)						
11:00-12:00	大會特別演講 @大禮堂 主持人: 李怡萱 理事長 華瑜 特聘講座教授 (高長庚生物醫學轉譯研究所) President, International Union of Physiological Sciences (IUPS)						
12:00-13:00		萊富生命	諾倫	華東	伯森		
13:00-13:30	藥理 x 毒理學會 Keynote 座長: 林琨瑛 理事長 李志恒 理事長 陳文彬 (台大藥理所)	生理學會 Physiology Symposium: Organ system crosstalk in health and diseases 座長: 李宗玄 教授 (台大生理所) 郭余民 (成大細胞生物與解剖所) 吳偉立 (成大生理所) 莊志立 (國衛院分子與基因醫學所) 陳毓君 (成大生理所) 趙需文 (北醫生理學科)	解剖學會 Symposium I : Pathogenesis studies in animal models 座長: 陳玉伶 教授 (台大解剖暨細胞生物所) 王淑慧 (台大解剖暨細胞生物所) 劉煥輝 (中山醫大解剖學科) 陳澄 (國防生物暨解剖所) 施耀翔 (高醫大解剖學科)	臨床生化學會 Symposium 座長: 徐慧貞 理事長 周文堅 (臺大醫學院) 張淑媛 (臺大醫技系) 顧文輝 (台北病理中心)	分子影像學會 Keynote Yasuhisa Fujibayashi (Chief Technical Officer, CMI Inc., Tokyo) 座長: 劉仁賢 (甄興核醫)	大會主題論文競賽 Good Health & Well-being 13:20-15:00 座長: 李青濤 秘書長	
13:30-14:00							
14:00-14:30	藥理學會 會員大會				分子影像學會 Symposium 14:10-17:00 座長: 蔡秋光 (清大核工所) 陳怡然 (南方科技) 盧家鋒 (陽明交大醫放系)	毒物學會 15:10-16:30 研究生口頭論文競賽	
14:30-15:00	細分x生化學會 14:30-16:40 Session I Protein Structure and Function 座長: 郭毓志 秘書長 (中研院細胞與個體生物研究所) 徐尚德 (中央研究院生物化學研究所) 黃介經 (陽明交通大學生物化學分子生物研究所) 蘇士哲 (清華大學生命科學及生物資訊與結構生物學) 詹適立 (臺大醫學院生物化學暨分子生物學科)		免疫學會專題演講 The modern approach of immune therapy 座長: 郭敬玲 教授 (長庚生醫所) 顧正壽 秘書長 楊皇煌 (林口長庚紀念醫院) 黃麗蓉 (國衛院分子與基因醫學所) 凌嘉鴻 (中研院生化所)				
15:00-15:30						毒物學會會員大會 16:30-17:00 座長: 李志恒 理事長	
15:30-16:00							
16:00-16:30		生理學會 會員大會 16:00-16:30 座長: 李怡萱 理事長				毒物學會理事會議 17:00-17:30	
16:30-17:00							
17:00-17:30							



大會議程 Program at a glance

時間 / 地點	3 月 27 日									
	大禮堂	表演廳	第一會議室	第二會議室	第三會議室	多功能會議室				
08:30~09:00	大會報到									
09:00~09:30	細分學會 口頭論文報告 座長：郭結志 秘書長	藥理與毒理聯合研討會： Prospect for the Study of Aryl Hydrocarbon Receptor (AHR) in Pharmacology/Toxicology 演講者： 藥理學會-洪千惠 (高雄榮總) 林煥嬪 (國衛院) 毒物學會-鄭幼文 (北醫藥學) 許美鈴 (中興生醫) 座長： 劉興華 教授、王湘翠 副教授	分子影像學會 Symposium 9:10~10:00 劉仁賢 (振興核醫) 座長：林康平 (中原電機) 分子影像學會 口頭演講競賽 10:10~11:10 座長：李易展 (陽明交大醫放) 頒獎及分子影像學會 會員大會 11:30~12:00 主持人：林康平 理事長	臨床生化學會 口頭論文競賽 座長：郭靜穎 秘書長	解剖學會 口頭論文競賽 座長：江青樹 秘書長 會員大會 1H	免疫學會論文競賽 座長：徐嘉林 副秘書長				
09:30~10:00										
10:00~10:30										
10:30~11:00										
11:00~11:30						生理學會 口頭論文競賽 座長：楊世斌 (中研院生醫所)				
11:30~12:00										
12:00~13:00		GenScript								
13:00~13:30										
13:30~14:00	細分x生化學會 Joint Symposium of CSCMB and TSBMB Session II Novel Technologies 座長: 王琬菁 秘書長 林玉俊 (清大生科院分醫所) 陳世清 (中研院生醫所) 廖仲麒 (新析生物科技公司) 鄭添祿 (高醫大生醫暨環生系)	藥理學會 Symposium Retrospect and prospect of cellular therapy 座長：林泰元 秘書長 劉越萍司長(衛福部醫事司) 邱士華教授 (陽明交通大學) 沈欣欣博士 (工研院生醫所) 魏子堂 (台大藥理所) 林泰元 (台大藥理所)	Physiological Seminar 座長: 吳鈺琳 教授 郭瑋庭 (台大口生所) 黃騰緯 (中醫大生醫所) 孫羽佑 (中山生技醫藥研究所) 丘淑玲 (中研院細胞與個體生物學研究所)	免疫學會專題演講 Innate cells in immunity 座長：陳念榮 副教授 徐嘉琳 副秘書長 李建国 (台大免疫所) 黃景政 (美國凱斯西儲大學病理學科) 葛一樊 Ivan Dzhagalov (陽明交通微免所)	解剖學會 Symposium (II): 跨維與跨領域技術探討胞內動態到環境反應 座長：吳佳慶 教授(成功大學) 謝青華 (高長庚醫院外科部) 謝明佑 (中國醫藥大學) 王家義 (成功大學) 許益超 (馬偕醫學院)	毒物學會研討會：Nanosafety and health 王應然 (成大環醫所) 莊枚奇 (北醫呼吸) 李青濤 (北醫生理) 座長: 李志恒教授				
14:00~14:30										台灣毒物學學會 口頭暨壁報論文競賽頒獎 座長：台灣毒物學學會理事長
14:30~15:00										
15:00~15:30										
15:30~16:00	中場休息 15:40-15:50		生理學會 壁報暨口頭論文頒獎典禮 15:45~16:00 座長：李怡萱理事長							
16:00~16:30	閉幕式 細分x生化學會 15:50-17:00									
16:30~17:00	壁報論文競賽頒獎 座長：陳瑞華 理事長 鄭子豪 理事長									

大會特別演講
Plenary Lecture





大會特別演講 Plenary Lecture

111 年 3 月 26 日 (週六) 11:00–12:00

地點：大禮堂

座長：李怡萱理事長

講題：Nitric oxide in health and disease: Overview perspectives of a senior physiologist

講員：華瑜 特聘講座教授

單位：高長庚生物醫學轉譯研究所；International Union of Physiological Sciences (IUPS)
President



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

Speaker :

華瑜

Julie Y. H. Chan



Current Position :

Distinguished Chair Professor and Director, Institute for Translation Research in Biomedicine,
Chang Gung Memorial Hospital, Kaohsiung, Taiwan

President, International Union of Physiological Sciences (IUPS)

Education/Training :

1979 B.Sc. in Biology, National Taiwan Normal University, Taipei, Taiwan

1981 M.S. in Physiology, Indiana State University, Terre Haute, IN, U.S.A.

1989 Ph.D. in Neuroscience, Washington State University, Pullman, WA, U.S.A.

Professional and Research Experience :

2019– Distinguished Chair Professor, Institute for Translation Research in Biomedicine (ITRBM),
Chang Gung Memorial Hospital, Kaohsiung, Taiwan

2011–19 Chair Professor, ITRBM, Chang Gung Memorial Hospital, Kaohsiung, Taiwan

2012–17 Director, Department of Medical Research, Chang Gung Memorial Hospital, Kaohsiung,
Taiwan

2007–11 Head, Division of Basic Medical Research, Veterans General Hospital, Kaohsiung, Taiwan

1998–11 Senior Principal Investigator, 1996–98 Senior Principal Investigator, 1990–96 Principal
Investigator, Department of Medical Research, Veterans General Hospital, Taipei, Taiwan

Major Honors:

2002–05 Convener, Physiology Study Section, National Science Council, Taiwan

2003– Associate Editor, Journal of Biomedical Sciences

2011–15 President, 2005–11 Vice-President, Federation of Asian and Oceanian Physiological

Awards and Honors :

2000 Outstanding Research Award, Taiwan Pharmacological Society

2000–12 Outstanding Research Award, Executive Yuan, Taiwan

2001 S.C. Wang Outstanding Research Award in Neuroscience, Taiwan

2004–15 Outstanding Research Award, National Science Council, Taiwan

2019 Life-time Achievement Award, Federation of Asian and Oceanian Physiological Societies

Selected Publications :

Chan SHH, Wang LL, Chang KF, Ou CC, Chan JYH. Altered temporal profile of heat shock factor
1 phosphorylation and heat shock protein 70 expression induced by heat shock in nucleus tractus
solitarius of spontaneously hypertensive rats. *Circulation*, 2003;107:339–345.

Chan SHH, Wu CWJ, Chang AYW, Hsu KS, Chan JYH. Transcriptional upregulation of brain-derived
neurotrophic factor in rostral ventrolateral medulla by angiotensin II: Significance in superoxide
homeostasis and neural regulation of arterial pressure. *Circulation Research*, 2010;107:1127–1139.

Chan SHH, Chan JYH. Brain stem NOS and ROS in neural mechanisms of hypertension.
Antioxidants and Redox Signaling, 2014;20:146–163.



Nitric oxide in health and disease: Overview perspectives of a senior physiologist

Julie Y.H. Chan

Institute for Translational Research in Biomedicine, Chang Gung Memorial Hospital, Kaohsiung, Taiwan

Manifests of bodily functions are initiated with cellular and molecular events, the outcome of which is expressed eventually at the organismal level via activities in the tissues and organs. A healthy condition ensues when integrations of these multilevel events are executed in “good” rapport and are operating in the “physiological” zone. “Pathophysiological” conditions will be instigated when they turn into “bad” relationships, leading to disease development. The “ugly” scenario will emerge on breaking down of the multilevel integration system that prompts the “pathological” state, leading to fatality.

One illustrative example of the good, bad and ugly aspects of the multilevel integration system is blood pressure. Maintenance of a stable blood pressure requires integration at the level of systems (neural, hormonal, humoral and immune systems); organs (heart, blood vessel, kidney and brain); cells (endothelial cells, smooth muscle cells, neurons, immune cells and perivascular adipocytes). A molecule that is intimately associated with these events is nitric oxide (NO). This gaseous molecule has seized the spotlight of contemporary research in biomedicine when the Nobel Prize in Physiology or Medicine in 1998 was awarded to Robert F. Furchgott, Louis J. Ignarro and Ferid Murad for the discovery concerning NO as a signaling molecule in the cardiovascular and nervous systems.

NO is produced by three isoforms of nitric oxide synthase (NOS), NOS I, II and III, with commonly assigned stereotypic and universal cellular functions. Our work over the last two decades, however, has revealed that depending on the exhibition of differential enzyme kinetics, tissue distribution, genetic regulation and signaling pathways, NO derived from individual NOS isoforms at the cellular level may be functionally expressed as either physiological, pathophysiological or pathological changes at the organismal level.

Using the control of sympathetic vasomotor activity in animal models of hypertension and brain death as an illustrative example, the good, bad and ugly roles of NO in the multilevel integrative system involved in neural regulation of blood pressure in health and disease will be highlighted in this lecture. My take-home message is that integrative physiology as the functional outcome of all biochemical and biophysical processes at the molecular, cellular, tissue, organ, and whole-body levels should be regarded as the kernel of biomedical research.



2022 The 36th Joint Annual Conference of Biomedical Science

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生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

學會特別演講 Keynote Speech

論文編號：L1（中華民國細胞及分子生物學學會 x 台灣生物化學及分子生物學學會）

111 年 3 月 26 日（週六）時間：09:30–10:30

地點：大禮堂

座長：陳瑞華理事長、鄭子豪理事長

講題：Heroes Emerging from Chaotic Time—Marker-guided effective therapy (Mget)

講員：洪明奇校長

單位：中國醫藥大學

論文編號：L2（中國生理學會）

111 年 3 月 26 日（週六）時間：09:00–10:30

地點：表演廳

座長：李怡萱理事長、余佳慧教授

講題：Model based analysis of diabetes and the new proposed index of DM

講員：Chae Hun Leem, Professor

單位：FAOPS President, Department of Physiology, University of Ulsan

論文編號：L3（中華民國解剖學學會）

111 年 3 月 26 日（週六）時間：09:30–10:30

地點：第一會議室

座長：徐佳福教授

講題：Two Vignettes of in Neonatal Brain Injury: Monocyte-to-Microglia Transition and the Mechanisms of Hypothermia Protection

講員：管家義 教授

單位：School of Medicine, University of Virginia

論文編號：L4（中華民國臨床生化學會）

111 年 3 月 26 日（週六）時間：09:00–10:00

地點：第二會議室

座長：方偉宏常務理事

講題：Value and Impact of Lab Medicine in Healthcare and Public Health

講員：Prof. Khosrow Adeli

單位：IFCC President, The Hospital for Sick Children/University of Toronto



學會特別演講 Keynote Speech

論文編號：L5（中華民國免疫學會）

111 年 3 月 26 日（週六）時間：09:30–10:30

地點：第三會議室

座長：顧正崙秘書長

講題：The human genetic and immunological determinants of life-threatening COVID-19

講員：Dr. Jean-Laurent Casanova

單位：Howard Hughes Medical Institute, The Rockefeller University

論文編號：L6（台灣藥理學會 X 台灣毒物學學會）

111 年 3 月 26 日（週六）時間：13:00–14:00

地點：大禮堂

座長：林琬琬理事長、李志恒理事長

講題：Target therapy for cardiomyopathy: from cardiac omics to drug development

講員：陳文彬副教授

單位：台大醫學院藥理學研究所

論文編號：L7（台灣分子生物影像學會）

111 年 3 月 26 日（週六）時間：13:00–14:00

地點：第三會議室

座長：劉仁賢 主任

講題：Spotlight to a series of research works on Cu-ATSM development and possible application in oncology and neurology

講員：Yasuhisa Fujibayashi

單位：Chief Technical Officer, CMI Inc., Tokyo



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

Speaker :

洪明奇

Mien-Chie Hung



Current Position :

President, China Medical University

Education/Training :

Postdoctoral Fellow, Massachusetts Institute of Technology, Cambridge, MA, (PI: Robert A. Weinberg, Ph.D.), 1/1984 – 8/1986

Professional and Research Experience :

Member, Presidential Science Prize Steering Committee 總統科學獎委員會, 2020–2021

Member, National Taiwan University Advisory Committee, 2020–present

Member, Review Committee “Yu-Shan Scholars recruitment program”, Ministry of Education 教育部「玉山學者」計畫【醫學】領域審議委員, 2020–present

Member, Academic Advisory Board (AAC), Institute of Molecular Biology, 01/01/2020–12/31/2022 & Biomedical Translation Research Center (BioTReC), National Biotechnology Research Park (NBRP), February 1, 2021 to October 17, 2022. Academia Sinica

Adjunct Researcher, Genomics Research Center, Academia Sinica, 2021

Awards and Honors :

Selected as a candidate of the 2021 Highly Cited Researchers (Clarivate).

John P. McGovern Award for Outstanding Teaching, The University of Texas Health Science Center in Houston, 1990, 1993, 1999 and 2018

The University of Texas M. D. Anderson Cancer Center LeMaistre Outstanding Achievement Award, 2011.

Fellow, Section of Biological Sciences, American Association for the Advancement of Science, AAAS, 2010

Selected Publications :

154 out of 582 peer-reviewed publications are published in journals which impact factor is 10 or above, of which 65 (48 CNS—Cell, Nature, Science series) serves as a corresponding (first or co-corresponding) author and 89 (62 CNS) as a co-author. 110 out of 154 are published in Cell, Nature, Science series. Life time h-index (Scopus)=127, Google Scholar 155

Jiang Z, Lim SO, Yan M, Hsu JL, Yao J, Wei Y, Chang SS, Yamaguchi H, Lee HH, Ke B, Hsu JM, Chan LC, Hortobagyi GN, Yang L, Lin C, Yu D, Hung MC. Tyro3 induces anti-PD-1/PD-L1 therapy resistance by limiting innate immunity and tumoral ferroptosis. J Clin Invest Apr 15;131(8):139434, 2021. doi: 10.1172/JCI139434.

Liu CX†, Zha Z†, Zhou C†, Chen Y, Xia W, Wang YN, Lee HH, Yin Y, Yan M, Chang CW, Qiu Y, Li H, Li CW, Hsu JM, Hsu JL, Wang SC, Ren N*, Hung MC*. Ribonuclease 7-driven activation of ROS1 is a new potential therapeutic target in hepatocellular carcinoma. J of Hepatology Apr 74(4):907–918, 2021. † Equal contribution; *Co-corresponding authors.



Heroes Emerging from Chaotic Time--Marker-guided effective therapy (Mget)

Mien-Chie Hung

China Medical University, Taichung, Taiwan

Anti-PD-1/PD-L1 therapy is a promising approach in cancer therapy. We showed that glycosylation of PD-L1 is required for its protein stability and interaction with PD-1 (Nature Communications 2016). We demonstrated TNF α as a major factor triggering cancer cell immunosuppression against T cell surveillance via stabilization of programmed cell death-ligand 1 (PD-L1) (Cancer Cell 2016). In collaboration with StCube Pharmaceuticals Inc., we have developed monoclonal antibodies against glycosylation-specific PD-L1. Impressive therapeutic effect was observed through antibody-drug-conjugate approach (Cancer Cell 2018a & Cancer Res 2020). Furthermore, we developed effective combination therapy by metformin-activated AMPK kinase to downregulate PD-L1 through alteration of glycosylation of PD-L1 and (Molecular Cell 2018). Our group has conducted a series of vigorous studies to identify additional potential targets to overcome PD-1/PD-L1 resistance and develop effective combination therapy including c-MET inhibitors (Gastroenterology 2019), IL-6/JAK1 pathway (J Clin Invest 2019), and Galectin-9 (Nature Comm 2021). These findings provide potential therapeutic strategies to enhance cancer immune therapy efficacy by targeting PD-L1 stabilization to combat multiple cancer types. We reported a novel PD-L1 function that is independent of its role in immune checkpoint in Nature Cell Biology 2020--PD-L1 in the nucleus harbors a nuclear transcriptional activity and promotes tumor pyroptosis downstream of TNF α . More recently, we further identified molecular mechanisms that caused resistance to anti-PD-1/PD-L1 therapy (J Clin Invest, 2021) and currently are developing new therapeutic approach to overcome the resistance. This talk will include our discoveries on developing therapies for lung or pancreatic cancers (Cancer Cell 2018b, 2018c); a new methodology to retrieve antigen by protein deglycosylation improves predictive ability of PD-L1 as a biomarker for immunotherapy. (Cancer Cell 2019, AJCR in press). We identified the inhibition of the protein kinase activity of PCK1 as a potential treatment strategy in HCC (Nature 2020) and currently developed high throughput screening strategy to identify potential inhibitors for treatment.

During the pandemic, the research team at China Medical University in Taichung has successfully used our experience and expertise in cancer targeted therapy to target SARS-CoV-2. In this talk I will briefly summarize our results from screened multiple natural products libraries. (AJCR 2020,2021). For instance, both tannic acid and peimine have inhibitory effects on SARS-CoV2 infection. Tannic acid is a bioactive compound that can be found in berries and grapes, and peimine is an active ingredient of Chuan Bei. We found that tannic acid serves as a potent dual inhibitor of viral main protease Mpro and TMRPRSS2 protease on the host cells, and peimine inhibits several variants of SARS-CoV-2 cell entry via blocking the interaction between viral spike (S) protein and ACE2 on the host cells, respectively. The goal is to identify natural products that may help for prevention and therapy of Covid-19 through inhibition of SARS-CoV-2.



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

Speaker :

Chae Hun Leem

L2



Current Position :

Professor : Department of Physiology, University of Ulsan College of Medicine

President : The Federation of Asian and Oceanian Physiological Society

President : The Korean Physiological Society

Education/Training :

1989 Medicine Seoul National University of College of Medicine (B.S., M.D.)

1992. Physiology Seoul National University (M.S.)

1994. Physiology Seoul National University (Ph.D.)

Professional and Research Experience :

1994. ~ 1997. : Postdoctoral Researcher, Oxford University Laboratory of Physiology

1997 ~ 2008 : Lecturer, Assistant Professor, Associate Professor

2007 ~ 2008 : Visiting Scholar of UCSD

2008 ~ Present : Professor

Selected Publications :

Pham DD, Lee YS, Chi S, CH Leem, The mean of fasting, 1-h, and 2-h plasma glucose levels is superior to each separate index in predicting diabetes, Diabetes Res. Clin. Prac. 2021

YK Jeon, JB Youm, K Ha, JH Woo, HY Yoo, CH Leem, SH Lee, SJ Kim Teaching cardiac excitation-contraction coupling using a mathematical computer simulation model of human ventricular myocytes Adv. in Physiol. Edu. 44 (3), 323 – 333 2020

M Hwang, CH Lim, CH Leem, EB Shim In silico models for evaluating proarrhythmic risk of drugs APL bioengineering 4 (2), 3 2020

DD Pham, JH Lee, KH Hong, YJ Jung, SJ Kim, CH Leem Seasonal effects on resting energy expenditure are dependent on age and percent body fat Clinical Nutrition 39 (4), 1276–1283



Model based analysis of diabetes and the new proposed index of DM.

Duong Duc Pham and Chae Hun Leem

Department of Physiology, University of Ulsan College of Medicine/Asan Medical Center

Diabetes mellitus (DM), the control disorder of the blood glucose, is a worldwide problem nowadays. The diagnostic criteria are quite clear, and the many kinds of the treatment strategy were developed and used. However, the glucose control is basically worked in a systematic way and the gaps are still existed in the glucose control status and the pathophysiology. To identify the status of the glucose system, many systematic models were developed but most of them are too simple to apply to the clinics to identify the pathophysiology. In our body, basically four organ systems are involved to control blood glucose, the intestinal absorption, pancreas insulin secretion, hepatic glucose control, and the peripheral organs. In addition, the insulin dynamic system is involved in this system. Oral glucose tolerance tests (OGTTs) are used commonly to diagnose diabetes mellitus (DM). The changes on blood glucose and insulin by OGTTs contain information of the intestinal absorption, hepatic control of glucose and insulin, pancreatic insulin secretion and peripheral tissue glucose and insulin control. Using OGTT data, we tried to develop the model to reconstruct the blood glucose control system to understand how control glucose. From this model, we developed new indices of DM. From the model, we found clear gender differences in the intestinal glucose absorption kinetics, glucose sensitivity in the pancreas, maximal insulin production capacity and endogenous glucose production. We also identified the dysfunctional organs for glucose and insulin regulation in prediabetic and DM conditions. Model showed glucose level of 60 minutes could be an useful index to identify the disorder of glucose control. We investigate the association of the mean of plasma glucose (PG) concentration measured at 0, 60, and 120 min (GLUM0.60.120) during oral glucose tolerance test (OGTT) and the risk of type 2 diabetes (T2DM), and to compare its predictability with that of other indices such as GLUM0.60, GLUM0.120, GLUM60.120, GLUauc, FPG, 1-h PG, 2-h PG, HbA1c, IGT, WHO Pre-DM, ADA Pre-DM, and the well-known San Antonio Diabetes Prediction Model (SADPM). We examined data of 7533 T2DM-free participants acquired from the Korean Genome and Epidemiology Study. The adjusted HRs and 95% confidence interval for an increase in SD of GLUM0.60.120 was 2.50 (2.36–2.65) and 1.88 (1.74–2.04) in T2DM-free and normal glucose tolerance (NGT) participants, respectively. The AUC of GLUM0.60.120 was higher than the other indices. In conclusion, model derived data may allow a personalized and targeted approach for health issues related to glucose and insulin and the averaging of fasting PG, 1-h, and 2-h PG values resulted in a substantial strong predictor of T2DM that improved the predictability of each index. (Supported by the grant No. NRF-2015M3A9B6028310, NRF-2014M3A9D7034366 & 10068076 from MSIT)



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

Speaker :

管家義

Chia-Yi (Alex) Kuan

L3



Current Position :

Professor

Education/Training :

1981–1989 M.D. National Taiwan University, Taipei, Taiwan

1991–1997 Ph.D. Neurobiology, Yale University School of Medicine, New Haven, CT

1997–2000 Postdoctoral Fellow, Dept. of Neurobiology, Yale University, New Haven, CT

Professional and Research Experience :

1988–1989 Intern, National Taiwan University Hospital, Taipei, Taiwan

1989–1991 Medical Officer, Chinese Air Forces, Taiwan (mandatory military service)

1997–1999 Instructor of Neuroanatomy at Yale University School of Medicine, New Haven, CT

2001–2007 Assistant Professor, Division of Developmental Biology, Department of Pediatrics, Cincinnati Children's Hospital Medical Center, Cincinnati, OH

2007–2012 Associate Professor (tenured), Division of Developmental Biology and Neurology, Cincinnati Children's Hospital Medical Center, Cincinnati, OH

2012–2017 Associate Professor (tenure-track 2012–2015; tenured 2015–2017), Department of Pediatrics, Division of Neurology, Emory University School of Medicine, Atlanta, GA

2014–2017 Director of Research, Division of Neurology, Department of Pediatrics, Emory University School of Medicine, Atlanta, GA

2018–Present Professor, Department of Neuroscience, University of Virginia School of Medicine, Charlottesville, VA

Selected Publications :

<http://www.ncbi.nlm.nih.gov/pubmed/?term=Kuan+Rakic+P+or+Chia-Yi+Kuan>



3月26日(六) 09:30–10:30

第一會議室

Two Vignettes of in Neonatal Brain Injury: Monocyte-to-Microglia Transition and the Mechanisms of Hypothermia Protection

Chia-Yi (Alex) Kuan

Department of Neuroscience, University of Virginia School of Medicine

I will use recent studies (published and unpublished) in my laboratory to illustrate two intriguing features of neonatal brain injury. The first concerns the ontogeny of microglia, the brain resident myeloid cells. It is widely believed that microglia are solely derived from yolk sac progenitors, with minimal or no contribution by the hematopoietic monocytes. Even in brain injury such as experimental autoimmune encephalomyelitis, the blood-borne monocytes are reported to promote acute inflammation and then disappeared in the brain. Some even say that monocytes and microglia live in parallel universes. However, this strict dichotomy has been challenged by the recent CCR2-CreER-based fate-mapping studies in murine embryos and neonates. In the presentation, I will briefly review the long debate of microglia ontogeny, the pros and cons of various research methods to address this issue, and the recent fate-mapping findings with tamoxifen-dosed CCR2-CreER mice, which label the progeny of CCR2⁺ monocytic cells and distinguish them from the brain resident microglia. I will discuss the potential impacts of monocyte-derived “microglia” on the development of neural network and perhaps the impairments of cognitive functions.

Secondly, I will report the results of our recent photoacoustic microscopy (PAM) study of experimental newborn hypoxic-ischemic (HI) brain injury, which may shed insights into the mechanisms of hypothermic protection. We used PAM to measure the cerebral metabolic rate of oxygen (CMRO₂) in awake neonatal mice through their intact skull during and immediately after unilateral carotid artery ligation and exposure to hypoxia (the Vannucci model) for hours. We found that hypoxia per se paradoxically increased CMRO₂, whereas the combination of hypoxia and the carotid artery ligation markedly repressed CMRO₂ during HI, and triggered a rapid rebound to overshoot of CMRO₂ immediately after HI. The rise of post-HI CMRO₂ was correlated with an increase of respiration and emission of superoxide, but reduced membrane potential, in isolated cortical mitochondria. This pattern suggests uncoupling of mitochondria oxidative-phosphorylation (OXPHOS) during acute recovery from cerebral HI. Importantly, post-HI cooling prevented the overshoot of CMRO₂ and maintained the mitochondrial integrity after HI. Moreover, >80% reduction of CMRO₂ at 24 h post-HI was coupled to large cerebral infarction. These results suggest that HI induced, while hypothermia suppressed the uncoupling of OXPHOS in neonatal brains. Further, optical measurement of CMRO₂ may be a sensitive means to detect brain injury and enables titration of therapeutic hypothermia in human neonates.



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

Speaker :
Khosrow Adeli



Current Position :

- Division Head
- Clinical Biochemistry, Department of Paediatric Laboratory Medicine, the Hospital for Sick Children
- Full Professor
- Laboratory Medicine and Pathobiology, University of Toronto
- Biochemistry, University of Toronto
- Physiology, University of Toronto
- Senior Scientist
- Molecular Medicine, Research Institute, the Hospital for Sick Children
- President
- International Federation of Clinical Chemistry and Laboratory Medicine (IFCC)
- Director
- Point of Care Testing Program, the Hospital for Sick Children
- Vice Chair
- Quality, Dept. of Laboratory Medicine and Pathobiology, University of Toronto
- Editor-in-Chief
- Critical Reviews in Clinical Laboratory Sciences

Education/Training :

1998 Fellow, Clinical Biochemistry, Canadian Academy of Clinical Biochemistry (FCACB), Toronto, Canada

Professional and Research Experience :

- 2000 – 2020 Program Director
- Postdoctoral Training Program in Clinical Chemistry, Laboratory Medicine and Pathobiology, University of Toronto
- 2013 – 2018 Chair
- Communications and Publications Division, International Federation of Clinical Chemistry and Laboratory Medicine (IFCC)

Awards and Honors:

- Lifetime Achievement Award, Faculty of Medicine, University of Ottawa.
- Richard G. Hegele Award for Excellence in Research and Innovation
- AACC Norman P. Kubasik Award
- AACC Academy Outstanding Research Award
- Hungarian Society of Laboratory Medicine Award

Selected Publications :

Bohn MK, Yousef P, Steele S, Sepiashvili L, Adeli K. Multi-Inflammatory Syndrome in Children: A View into Immune Pathogenesis from a Laboratory Perspective. J Appl Lab Med. Epub 2021 Aug 31. doi:10.1093/jalm/jfab114. PubMed PMID: 34463724.



3 月 26 日 (六) 09:00–10:00

第二會議室

Value and Impact of Lab Medicine in Healthcare and Public Health

Khosrow Adeli

IFCC (International Federation of Clinical Chemistry & Laboratory Medicine)

Laboratory medicine is central to healthcare delivery and public health, providing objective data to healthcare professionals that is integral to inform clinical decision-making, including the prognosis, diagnosis, treatment, and monitoring of patients. Indeed, evidence-based laboratory data is necessary to provide appropriate, effective, and high-quality patient care. Laboratory professionals directly support patient care and public health. While their profession is vital to healthcare, health systems tend to be not aware of their crucial and central role in healthcare delivery. Unfortunately, the field of laboratory medicine has gone without much recognition within healthcare organizations and the public, leading to poor visibility of its essential service.

As President of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC), with the help of the Executive Board, I have developed a new strategic plan to continue its mission of “advancing excellence in laboratory medicine for better healthcare worldwide”. As part of this plan, IFCC will strongly promote the value of laboratory medicine by gathering evidence to demonstrate the value of lab medicine in healthcare delivery, particularly in the context of clinical decision-making. The evidence gathered from around the world will then be used to promote the critical role of laboratory medicine in healthcare to key stakeholders, including governments, healthcare professionals, and the public.

In addition to directly promoting the value of laboratory medicine, the IFCC strategic plan involves several other initiatives to increase visibility of the field. One such initiative is to directly impact healthcare and patient outcomes by working with and supporting developing countries to advance various programs, such as global newborn screening. Another aim of the IFCC is to directly contribute to global lab quality via the development of an international IFCC external quality assurance program, particularly for developing countries, and creation of a global reference interval database. Becoming the largest worldwide provider of free distance learning (eLearning) in the field of laboratory medicine is also a large focus of the new strategic plan. To do so, IFCC is developing comprehensive eLearning/eAcademy programs to support global education at no cost, such as our live webinar series. Given the enormous impact the pandemic has had on the laboratory community and general public, IFCC has used some of these strategies to aid in the fight against the COVID-19 pandemic.

Ultimately, in all our endeavors, IFCC is committed to encouraging and supporting a culture of innovation and increasing productivity. In this session, I will provide a more in-depth look into these plans, their potential impact, progress made so far, and future directions. With these exciting initiatives, I hope we can all look forward to a promising future for the field of laboratory medicine.



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

Speaker :

Jean-Laurent Casanova

L5



Current Position :

Levy Family Professor, The Rockefeller University
Investigator, Howard Hughes Medical Institute
Head, St. Giles Laboratory of Human Genetics of Infectious Diseases
Senior Attending Physician, The Rockefeller University Hospital
Professor, University of Paris

Education/Training :

11/1988–11/1992 Ph.D.

Ludwig Institute for Cancer Research, Lausanne, Switzerland (Mentors: Janet L. Maryanski and H. Robson MacDonald), and Pasteur Institute & Jussieu Faculty of Sciences, Pierre et Marie Curie University, Paris, France, EU (Mentor: Philippe Kourilsky)

Professional and Research Experience :

Post-doctoral training including residency/fellowship:

11/1992–11/1995

Resident in Pediatrics, Assistance Publique–Hôpitaux de Paris, France, EU

11/1995–09/1999

Clinical and Research Fellow, Pediatric Immunology and Hematology (Heads: Claude Griscelli and Alain Fischer), Necker Hospital for Sick Children and School of Medicine, Assistance Publique–Hôpitaux de Paris, Paris Descartes University, France, EU

Academic positions:

02/2014–

Investigator, Howard Hughes Medical Institute, New York, USA

12/2020–

Levy Family Professor, The Rockefeller University, New York, USA

Awards and Honors:

2020– Member, Association of American Physicians

2020– Chevalier de l'ordre de la Légion d'Honneur, France, EU

2021– Member, Royal Academy of Medicine, Belgium, EU

2021 Doctor JuanAbarca International Award of Medical Sciences, Spain, EU

2022 Doctor Honoris Causa, Katholieke Universiteit Leuven, Belgium, EU

Selected Publications :

Béziat, V. et al. Humans with inherited T cell CD28 deficiency are susceptible to skin papillomaviruses but are otherwise healthy. *Cell* 184, 3812–3828.e30 (2021).

Yang, R. et al. Human T-bet Governs Innate and Innate-like Adaptive IFN- γ Immunity against Mycobacteria. *Cell* 183, 1826–1847.e31 (2020).



The human genetic and immunological determinants of life-threatening COVID-19

Jean-Laurent Casanova, MD, PhD
The Rockefeller University, New York

Autosomal inborn errors of type I IFN immunity and autoantibodies against these cytokines underlie at least 10% of critical COVID-19 pneumonia cases. We report very rare, biochemically deleterious X-linked TLR7 variants in 16 unrelated male individuals aged 7 to 71 years (mean: 36.7 years) from a cohort of 1,202 male patients aged 0.5 to 99 years (mean: 52.9 years) with unexplained critical COVID-19 pneumonia. None of the 331 asymptotically or mildly infected male individuals aged 1.3 to 102 years (mean: 38.7 years) tested carry such TLR7 variants ($p = 3.5 \times 10^{-5}$). The phenotypes of five hemizygous relatives of index cases infected with SARS-CoV-2 include asymptomatic or mild infection ($n=2$, 5 and 38 years), or moderate ($n=1$, 5 years), severe ($n=1$, 27 years), or critical ($n=1$, 29 years) pneumonia. Two boys (aged 7 and 12 years) from a cohort of 262 male patients with severe COVID-19 pneumonia (mean: 51.0 years) are hemizygous for a deleterious TLR7 variant. The cumulative allele frequency for deleterious TLR7 variants in the male general population is $< 6.5 \times 10^{-4}$. We also show that blood B cell lines and myeloid cell subsets from the patients do not respond to TLR7 stimulation, a phenotype rescued by wild-type TLR7. The patients' blood plasmacytoid dendritic cells (pDCs) produce low levels of type I IFNs in response to SARS-CoV-2. Overall, X-linked recessive TLR7 deficiency is a highly penetrant genetic etiology of critical COVID-19 pneumonia, in about 1.8% of male patients below the age of 60 years. Human TLR7 and pDCs are essential for protective type I IFN immunity against SARS-CoV-2 in the respiratory tract. Furthermore, circulating autoantibodies (auto-Abs) neutralizing high concentrations (10 ng/mL, in plasma diluted 1 to 10) of IFN- α and/or - ω are found in about 10% of patients with critical COVID-19 pneumonia, but not in subjects with asymptomatic infections. We detect auto-Abs neutralizing 100-fold lower, more physiological, concentrations of IFN- α and/or - ω (100 pg/mL, in 1/10 dilutions of plasma) in 13.6% of 3,595 patients with critical COVID-19, including 21% of 374 patients > 80 years, and 6.5% of 522 patients with severe COVID-19. These antibodies are also detected in 18% of the 1,124 deceased patients (aged 20 days–99 years; mean: 70 years). Moreover, another 1.3% of patients with critical COVID-19 and 0.9% of the deceased patients have auto-Abs neutralizing high concentrations of IFN- β . We also show, in a sample of 34,159 uninfected subjects from the general population, that auto-Abs neutralizing high concentrations of IFN- α and/or - ω are present in 0.18% of individuals between 18 and 69 years, 1.1% between 70 and 79 years, and 3.4% > 80 years. Moreover, the proportion of subjects carrying auto-Abs neutralizing lower concentrations is greater in a subsample of 10,778 uninfected individuals: 1% of individuals < 70 years, 2.3% between 70 and 80 years, and 6.3% > 80 years. By contrast, auto-Abs neutralizing IFN- β do not become more frequent with age. Auto-Abs neutralizing type I IFNs predate SARS-CoV-2 infection and sharply increase in prevalence after the age of 70 years. They account for about 20% of both critical COVID-19 cases in the over-80s, and total fatal COVID-19 cases.



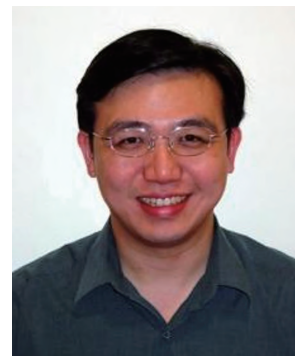
生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

Speaker :

陳文彬

Wen-Pin Chen



Current Position :

Associate professor, Institute of Pharmacology, National Taiwan University.

Director, Laboratory Animal Center, College of Medicine, National Taiwan University

Education/Training :

Department of Pharmacy, National Taiwan University. B.S., 1989–1993.

Institute of Pharmacology, NTU. MSc., 1993–1995.

Institute of Pharmacology, NTU. Ph.D., 1996–2002.

Center of Genomic Medicine, NTU. PostDoc, 2002–2008.

Cardiovascular Research Center, Massachusetts General Hospital, Boston, USA. PostDoc, 2009–2010.

Professional and Research Experience :

Institute of Pharmacology, NTU; Assistant professor, 2011–2016.

Institute of Pharmacology, NTU; Associate professor, 2016–present.

Awards and Honors:

台灣大學醫學院青杏獎 (2016)

台灣大學教學傑出獎 (2020)

Selected Publications :

Yang KC, Chuang KW, Yen WS, Lin SY, Chen HH, Chang SW, Lin YS, Wu WL, Tsao YP, Chen WP*, Chen SL (2019) Deficiency of nuclear receptor interaction protein leads to cardiomyopathy by disrupting sarcomere structure and mitochondrial respiration. *J Mol Cell Cardiol* 137: 9–24. (* Corresponding author)

Fan SM, Chang YT, Chen CL, Wang WH, Pan MK, Chen WP, Huang WY, Xu Z, Huang HE, Chen T, Plikus MV, Chen SK, Lin SJ. External light activates hair follicle stem cells through eyes via an ipRGC–SCN–sympathetic neural pathway. *Proc Natl Acad Sci U S A*. 2018;115(29):E6880–E6889.

Ho YS, Tsai WH, Lin FC, Huang WP, Lin LC, Wu SM, Liu YR and Chen WP*. Cardioprotective Actions of TGFbetaRI Inhibition Through Stimulating Autocrine/Paracrine of Survivin and Inhibiting Wnt in Cardiac Progenitors. *Stem cells*. 2016;34:445–55. (*corresponding author)

Chen WP*, Liu YH, Ho YJ and Wu SM. Pharmacological inhibition of TGFbeta receptor improves Nkx2.5 cardiomyoblast-mediated regeneration. *Cardiovascular research*. 2015;105:44–54. (*corresponding author)



Target therapy for cardiomyopathy: from cardiac omics to drug development

Wen-Pin Chen

Department and Graduate Institute of Pharmacology

Cardiomyopathy (CMP) is a rare heart disease and one of the major causes of heart failure. Pediatric cardiomyopathy patients with early onset and poor prognosis have high mortality rate of about one-half dying within 5 years after diagnosis even given cutting-edge therapy. Though many DNA variants were identified to be associated with CMP, it is appealing the medications targeting to the pathogenic signaling pathways mediated by mutant genes. Among CMP, left ventricular noncompaction (LVNC) exhibits especially high risk of sudden cardiac death around 23% in LVNC during 15-years follow-up. This lecture will take an example of developing target therapy for LVNC. LVNC is characterized by spongy myocardium with multiple deep intertrabecular recesses in ventricular cavity and can coexist with hypertrophic or dilated CMP. More than 16 genetic variants were identified to be associated with LVNC. A LVNC family met at NTU hospital had missense mutations in both TNNT2 (encoding troponin T) and MYPN (myopalladin) by next generation sequencing-based cardiac disease gene panel test. Knock-in mice having human orthologous mutant Tnnt2 and mutant Mypn were generated by CRISPR/Cas9 technology to demonstrate that mutant Tnnt2 mainly contributed to LVNC pathogenesis. Human cardiomyocytes derived from LVNC patient's iPSC (LVNC-iPSC-CM) exhibited the disease phenotypes including growth defect of cardiomyocytes, the decrease of myocyte contraction, the loss of β -adrenergic responsiveness, and mitochondrial dysfunction with marked decrease of OXPHOS (OCR) and glycolysis (ECAR) measured by seahorse. Causal integration of multi-omics (transcriptome, proteome and metabolome) of LVNC-iPSC-CM proposed CMP features related to the downregulation of cardiac functional genes involving muscle contraction and mitochondrial metabolism controlled under an upstream regulator EZH2. Pulldown TNNT2 and further identification of the interaction proteins by LC-MS/MS found a switch from HAT with wild type TNNT2 to HDAC1 with mutant TNNT2 in myocyte nuclei, which led to the increase of H3K27ac and H3K9ac marks in Ezh2 promoter region validated by ChIP-qPCR in parallel with transcriptional upregulation of Ezh2 measured by absolute qPCR. Drug being able to block the interaction between mutant TNNT2 and HDAC1 could inhibit abnormal upregulation of EZH2, recovered functional gene expressions, and prominently improved cardiac function in both iPSC-CM in vitro and LVNC mice in vivo.

In conclusion, multi-omics data can comprehensively depict mutant gene-induced pathogenic signaling cascades and highlight the feasible pharmacology strategy to develop target therapy for CMP.



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

Speaker :
Yasuhisa Fujibayashi



Current Position :

Chief Technical Officer, CMI Inc., Tokyo
Visiting Professor of Radiology, Keio University, Tokyo
Visiting Researcher, National Institutes of Quantum Science and Technology, Chiba
Visiting Professor, Nagasaki University, Nagasaki
Emeritus Professor, University of Fukui, Fukui

Education/Training :

1978 B.S. Pharmaceutical Sciences, Kyoto University
1980 M.S. Pharmaceutical Sciences, Kyoto University
1986 Ph.D. Radiopharmaceutical Chemistry, Kyoto University
1995 D.Med. Sci. Nuclear Medicine, Kyoto University

Professional and Research Experience :

2010–2016 Director, Molecular Imaging Center, National Institute of Radiological Sciences, Chiba
1999–2010 Professor of Molecular Imaging
Director, Biomedical Imaging Research Center, University of Fukui, Fukui
1993–1999 Associate Professor
Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto
1983–1993 Assistant Professor, Radioisotopes Research Laboratory
Kyoto University Hospital, Kyoto

Awards and Honors:

The Japanese Society of Nuclear Medicine Award (1994)
The Best Paper Award for Annals of Nuclear Medicine (1996)
The Best Paper Award for Japanese Journal of Nuclear Medicine (1997)
The Best Paper Award for the Journal of Nuclear Cardiology (2000)

Academic activity

Society of Radiopharmaceutical Sciences (Past President)
Society for Molecular Imaging (merged to WMIS now) (Past-President)
World Molecular Imaging Society (Fellow)
Federation of Asian Societies for Molecular Imaging (Past-President)
Japanese Society for Molecular Imaging (Founding President)
Japanese Society of Nuclear Medicine (Past Council member)

Selected Publications :

245 peer reviewed papers.



3月26日(六) 13:00-14:00

第三會議室

Spotlight to a series of research works on Cu-ATSM development and possible application in oncology and neurology

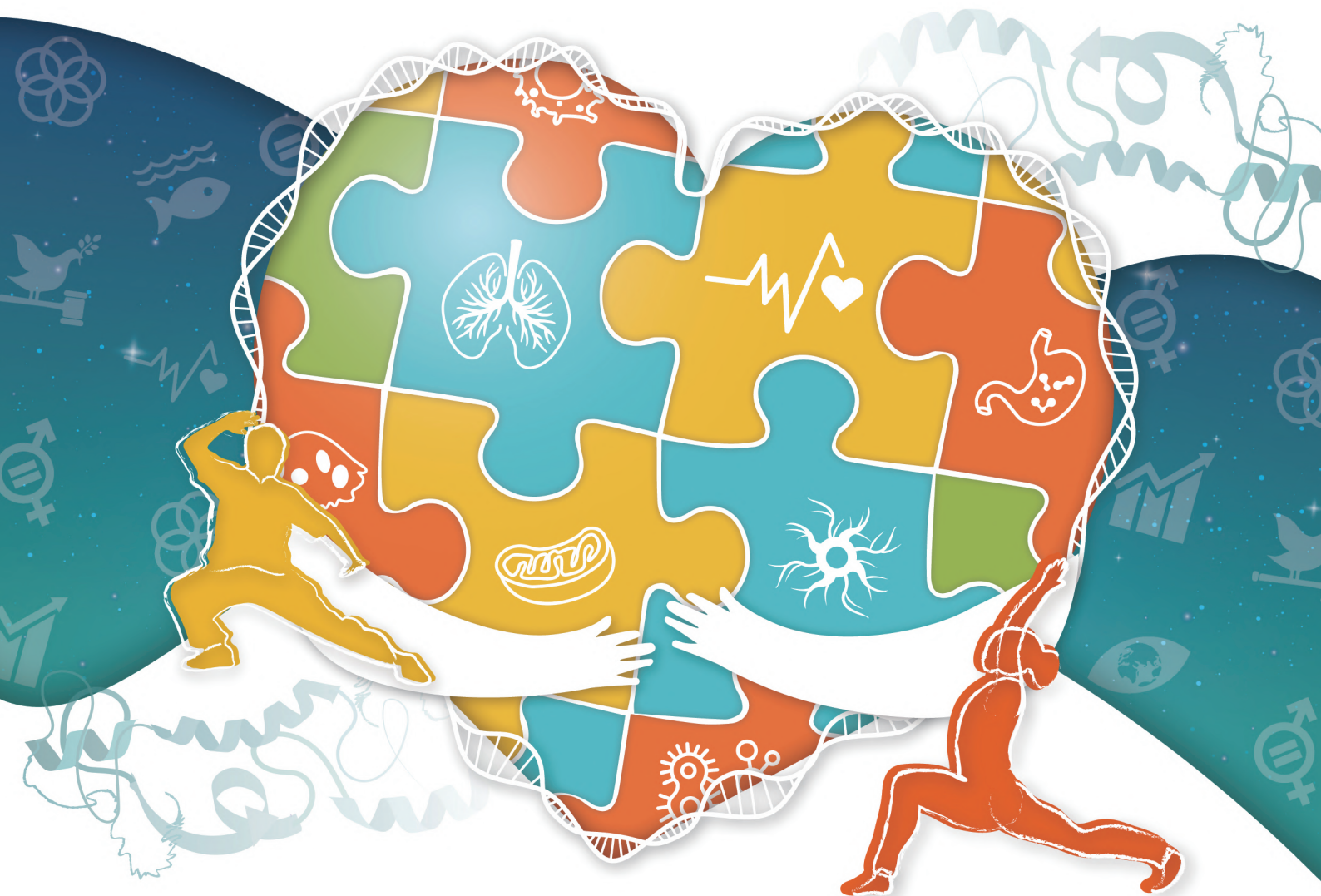
Dr. Yasuhisa Fujibayashi, Ph.D. D.Med.Sci

Department of Diagnostic Radiology, Keio University School of Medicine, Tokyo, Japan

National Institutes of Quantum Science and Technology, Chiba, Japan

Cu-diacetyl-bis(N4-methylthiosemicarbazone)(Cu-ATSM) has been recognized as a PET radiopharmaceutical for imaging of abnormally reduced states in relation to hypoxic metabolism. Principle design of Cu-ATSM is simple, but has wide applicability not only in oncology but neurology. This review is focused on the background, conceptual design and some examples of possible application and limitation of Cu-ATSM. Basic as well as clinical studies have demonstrated the usefulness and limitations of radio-Cu-ATSM as a diagnostic imaging agent. From the recent application of ^{64}Cu , potential of $[^{64}\text{Cu}]$ -ATSM for the targeted radionuclide therapy of cancer with cancer stem(cell-like) cell rich region, has been clarified. Oxidative stress in neurodegenerative diseases has been also a target of Cu-ATSM, not only as a diagnostic imaging agent, but as a therapeutic drug with selective Cu delivery system to the Cu depleted region in amyotrophic lateral sclerosis (ALS) as well as Parkinson's disease in animal models. As a selective Cu delivery system to the region of over-reduced and/or highly oxidative stress, Cu-ATSM would bring a new concept of diagnostic and/or therapeutic tool

研討會演講
Symposia





台灣藥理學會 X 台灣毒物學學會

主題：Prospect for the Study of Aryl Hydrocarbon Receptor (AHR) in Pharmacology/Toxicology

時間：111 年 3 月 27 日（週日）

地點：表演廳

座長：劉興華教授、王湘翠副教授

編號	時間	講題 & 講員
S01	09:30-09:55	The aryl hydrocarbon receptor on vascular complication: Friend or Foe? / 許美鈴教授 Institute of Biomedical Sciences, College of Life Sciences, National Chung Hsing University, Taichung, Taiwan
S02	09:55-10:20	Langerhans cell migration and T cell polarization: aryl hydrocarbon receptor as an important interplay between skin and environmental insults: focusing on arsenic and benzopyrene / 洪千惠臨床教授 (Department of Dermatology, Kaohsiung Veterans General Hospital School of Medicine, National Yang Ming Chiao Tung University)
S03	10:20-10:45	The role of aryl hydrocarbon receptor in ophthalmic diseases, from pharmacological and toxicological perspective/ 鄭幼文教授 (School of Pharmacy, Taipei Medical University)
S04	10:45-11:10	Application of aryl hydrocarbon receptor in toxicological studies of chemical mixtures: ambient particulate matter as an example/ 林嬪嬪教授 (National Health Research Institutes)
	11:10-11:30	Discussion



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

台灣毒物學學會

主題：Nanosafety and health
時間：111 年 3 月 27 日（週日）
地點：多功能會議室
座長：李志恒教授

編號	時間	講題 & 講員
S05	13:30-14:00	The Current Understanding of Autophagy in Nanomaterial Toxicity and Its Implementation in Safety Assessment-Related Alternative Testing Strategies: Take the Ag/ZnO NPs for example/ 王應然教授（成功大學工業衛生學科暨環境醫學研究所）
S06	14:00-14:30	Occupational Exposure of Metal Fume Nanoparticle and Respiratory Toxicity/ 莊校奇副教授（臺北醫學大學呼吸治療學系）
S07	14:30-15:00	Nanoparticles induced cytotoxic effects on cerebral and retinal endothelial cells. / 李青濤副教授（臺北醫學大學生理學科）



台灣藥理學會

主題：Retrospect and Prospect of Cellular Therapy

時間：111 年 3 月 27 日（週日）

地點：表演廳

座長：林泰元副教授

編號	時間	講題 & 講員
S08	13:30-14:00	Human induced pluripotent stem cells as a tool to study the cardiovascular effects of marijuana and discovery of selective cannabinoid CB1 antagonists / 魏子堂助理教授 (台大藥理學研究所)
S09	14:00-14:30	The updated application of CRISPR/Cas9-mediated gene-editing in retinal inherited disease/ 邱士華主任 (臺北榮民總醫院醫學研究部)
S10	14:30-15:00	Full-thickness skin tissue printing system/ 沈欣欣副主任 (工業技術研究院)
S11	15:00-15:30	台灣細胞治療的挑戰與展望 / 劉越萍司長 (衛生福利部醫事司)
S12	15:30-16:00	Pharmacology of cellular therapy: monitoring systemic safety and bio-distribution of mesenchymal stem cells/ 林泰元副教授 (台大藥理所)



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

中華民國臨床生化學會

主題：Precision Laboratory Medicine and Sustainable Healthcare

時間：111 年 3 月 26 日（週六）

地點：第二會議室

座長：徐慧貞 理事長

編號	時間	講題 & 講員
S13	13:30-14:10	Precision Medicine– from blood cancers/ 周文堅 教授 (臺大醫院檢驗醫學部主任)
S14	14:10-14:50	Inhibition of SARS-CoV-2 infection including the Omicron variant by a broad-spectrum siRNA/ 張淑媛 教授 (臺大醫技系, 臺大醫院檢驗醫學部副主任)
S15	14:50-15:30	Precision Medicine: the utility of LC-MS/ 顧文輝 執行長 (台北病理中心)



中華民國細胞及分子生物學學會 x 台灣生物化學及分子生物學學會

主題：Protein Structure and Function

時間：111 年 3 月 26 日（週六）

地點：大禮堂

座長：郭紘志秘書長

編號	時間	講題 & 講員
S16	14:30-15:00	Structure-activity relationship of SARS-CoV-2 spike variants/ 徐尚德副研究員 (中央研究院生物化學研究所)
S17	15:00-15:30	Liquid-liquid phase separation in the tales of intrinsically disordered proteins/ 黃介嶸副教授 (國立陽明交通大學生化暨分子生物研究所)
S18	15:40-16:10	Spectral Evidence of Chemokine Filament/ 蘇士哲教授 (國立清華大學生命科學系及生物資訊與結構生物所)
S19	16:10-16:40	Structural basis of transcription regulation by the MerR family of regulators/ 詹迺立教授 (臺大醫學院 生物化學暨分子生物學科)

主題：Novel Technologies

時間：111 年 3 月 27 日（週日）

地點：大禮堂

座長：王琬菁秘書長

編號	時間	講題 & 講員
S20	13:30-14:00	Precise Control of Microtubule disassembly in living cells/ 林玉俊副教授 (國立清華大學生命科學院分子醫學研究所)
S21	14:00-14:30	Multi-omic approaches towards molecular profiling of human diseases/ 陳世清助研究員 (中央研究院生物醫學科學研究所)
S22	14:40-15:10	Optoproteomics: microscopy-based subcellular proteomics/ 廖仲麒執行長 (新析生物科技股份有限公司)
S23	15:10-15:40	One-Step Formulation of mPEGylated Liposome by Anti-mPEG Bispecific Antibodies for Cancer Targeted Therapy/ 鄭添祿講座教授 (高雄醫學大學生物醫學暨環境生物學系)



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

中華民國免疫學會

主題：The modern approach of immune therapy

時間：111 年 3 月 26 日（週六）

地點：第一會議室

座長：郭敏玲 教授 / 顧正崙 秘書長

編號	時間	講題 & 講員
S24	15:30-16:10	High dimensional single cell analysis in immune related disease Speaker II / 楊 皇 煜 博 士 (Chief, Advanced Immunology Laboratory, Linkou Chang Gung Memorial Hospital)
S25	16:10-16:50	"Improving CAR-T technology for treatment of solid tumors" Speaker III / 黃麗蓉 博士 (Associate Investigator, Institute of Molecular and Genomic Medicine, National Health Research Institutes.)
S26	16:50-17:30	"CRISPR genome engineering of human natural killer cells"/ 凌 嘉 鴻 (Assistant research fellow, Institute of Biological Chemistry, Academia Sinica)

主題：Innate cells in immunity

時間：111 年 3 月 27 日（週日）

地點：第二會議室

座長：陳念榮 副教授 / 徐嘉琳 副秘書長

編號	時間	講題 & 講員
S27	13:30-14:10	"Stress sensing and metabolic circuits in tumor-associated macrophages"/ 黃 景 政 博 士 (Assistant Professor, Department of Pathology, Case Western Reserve University School of Medicine, USA)
S28	14:10-14:50	"Plasmacytoid dendritic cell enhances TLR signaling-mediated B cell response and autoantibody production through a p38 MAPK-STAT1 axis"/ 李 建 國 博 士 (Professor, Graduate Institute of Immunology, College of Medicine, National Taiwan University.)
S29	14:50-15:25	"Thymic macrophages consist of two populations with distinct localization and origin"/ 葛一樊 博 士 (Associate Professor, Institute of Microbiology and Immunology, National Yang-Ming Chiao-Tung University)



中國生理學會

主題：Symposium I: Organ system crosstalk in health and diseases

時間：111 年 3 月 26 日（週六）

地點：表演廳

座長：李宗玄 教授

編號	時間	講題 & 講員
S30	13:00-13:30	Roles of glutamate transports in metabolic disorder-related depression and Alzheimer's disease / 郭余民 教授（國立成功大學解剖學科暨細胞生物與解剖學研究所）
S31	13:30-14:00	Crosstalk between gut and brain in the regulation of social behavior / 吳偉立 助理教授（國立成功大學生理學科暨研究所）
S32	14:00-14:30	Gut dysbiosis mediates extra-intestinal diseases: Insights from fly models / 莊志立 研究員（國衛院分子與基因醫學研究所）
S33	14:30-15:00	Adipose tissue and the nervous system / 陳珮君 副教授（國立成功大學生理學科暨研究所）
S34	15:00-15:30	The potential role of polyploidization & de-polyploidization in physiopathological significance/ 趙需文 副教授（台北醫學大學）

主題：Symposium I: Physiological Seminar

時間：111 年 3 月 27 日（週日）

地點：第一會議室

座長：吳鈺琳 教授

編號	時間	講題 & 講員
S35	13:30-14:00	Noncanonical functions of tight junction proteins - Occludin and ZO-1 determine the mucosal homeostasis / 郭瑋庭 助理教授（台大醫學院口腔生物學研究所）
S36	14:00-14:30	MED12-related disorders and hearing loss symptom / 黃騰緯 助理教授（中國醫藥大學生物醫學研究所）
S37	14:30-15:00	Infiltrating monocytes promote inflammation-sensitized neonatal brain injury and contribute to the resident microglial pool/ 孫羽佑助理教授（中山大學 生技醫藥研究所）
S38	15:00-15:30	AMPA-type glutamate receptor function in neurodevelopmental disorders/ 丘淑鈴助研究員（中央研究院細胞與個體生物學研究所）



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

中華民國解剖學學會

主題：Pathogenesis studies in animal models

時間：111 年 3 月 26 日（週六）

地點：第一會議室

座長：陳玉伶教授

編號	時間	講題 & 講員
S39	13:30-14:00	The effects of corylin on obesity./ 王淑慧 副教授 (台灣大學)
S40	14:00-14:30	Abnormal Chondroitin Sulfate in Tumor Microenvironment of Glioma / 劉炯輝 副教授 (中山醫學大學)
S41	14:30-15:00	The impact of uremic toxin indoxyl sulfate on striated muscles / 陳澄 教授 (國防醫學院)
S42	15:00-15:30	Characterization the role of hypertension in brain function impairment and Alzheimer's disease / 施耀翔 助理教授 (高雄醫學大學)

主題：跨維與跨領域技術探討胞內動態到環境反應

時間：111 年 3 月 27 日（週日）

地點：第三會議室

座長：吳佳慶 教授

編號	時間	講題 & 講員
S43	13:30-14:00	Sharing of the experience in exosome research from isolation, characterization, and experiments in the cells and animals/ 謝青華 部長 (高雄長庚紀念醫院外科部)
S44	14:00-14:30	Recent Strategies in 3D Cell Printing toward Tissue Biofabrication and Precision Medicine/ 謝明佑 副教授 (中國醫藥大學)
S45	14:30-15:00	From centrosome to primary cilia upon DNA damage/ 王家義 教授 (成功大學)
S46	15:00-15:30	Stem Cell-based therapeutic approaches for sensorineural hearing loss/ 許益超 副教授 (馬偕醫學院)



台灣分子生物影像學會

主題：Symposium

時間：111 年 3 月 26 日（週六）

地點：第三會議室

座長：楊逢羿 教授、林康平 理事長、楊邦宏 教授

編號	時間	講題 & 講員
S47	14:10-15:00	Ultrasound in molecular imaging and therapy/ 葉秩光特聘教授 (Institute of Nuclear Engineering and Science, National Tsing Hua University, Taiwan)
S48	15:10-16:00	Optical Microscope for Healthcare in Digital Way/ 陳怡然董事長 (Southport Corporation Inc. Taiwan)
S49	16:10-17:00	MRI Radiomics and Machine Learning in Brain Tumors/ 盧家鋒教授 (Department of Biomedical Imaging and Radiological Sciences, National Yang Ming Chiao Tung University, Taiwan)

主題：Symposium

時間：111 年 3 月 27 日（週日）

地點：第一會議室

座長：林康平 特聘教授

編號	時間	講題 & 講員
S50	09:10-10:00	Noncellular Regenerative Therapy in the Treatment of Alzheimer's Disease and Osteoporosis / 劉仁賢教授 (Director, Department of Nuclear Medicine & Xi-Yun PET Center)



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science



3月27日(日) 09:30–09:55

表演廳

The aryl hydrocarbon receptor on vascular complication: Friend or Foe?

Meei-Ling Sheu

Institute of Biomedical Sciences, College of Life Sciences, National Chung Hsing University, Taichung, Taiwan

Vascular endothelial cells (VECs) that interior surface of blood vessels and lymphatic vessels participate in physiological, pathological inflammatory processes and mechanistic insights. The vascular complications of diabetes are the most serious manifestations of the disease. The aryl hydrocarbon receptor (AhR) is a ligand-activated transcription factor that has emerged as an important player in diabetes control. Activation of AhR by environmental molecules, endogenous or dietary metabolites and regulates innate and adaptive immune responses. Binding of this receptor by different tissues or organ has led to seemingly opposite responses in different diabetic models. In this talk, I will present two sides of the same coin, with the beneficial and deleterious roles of AhR evaluated using known endogenous or exogenous ligands, deficient mice or agonist and antagonists. On one hand, AhR induces pro-inflammatory and oxidative stress role since its activation in glomerular mesangial cells evokes the infiltration of macrophage and extracellular matrix (ECM) accumulation in the diabetic nephropathy (DN). On the other hand, AhR deficiency under diabetic condition aggravate vasopermeability, vascular leakage, inflammation, blood-retinal barrier breakdown, capillary degeneration, neovascularization and exacerbates diabetic retinopathy (DR) features. The unraveling knowledge of the molecular mechanism between AhR and microvascular complication will bring novel breakthrough therapies and enable parties to bring novel effective treatments for management of diabetic microvascular complication.



S2

3 月 27 日 (日) 09:55–10:20

表演廳

Langerhans cell migration and T cell polarization: aryl hydrocarbon receptor as an important interplay between skin and environmental insults: focusing on arsenic and benzopyrene

Chien-Hui Hong

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The aryl hydrocarbon receptor (AhR) acts as an environmental sensor regulating immune responses. In the skin, AhR is expressed in several cell types, including epidermal Langerhans cells (LC), and dermal dendritic cells (DC). I reported that AhR activation by benzopyrenes (BP), a major PAH in smoke, is accentuated in AD skin. In mice, BP increases LC migration in vivo, and increases Th2 cytokines during in vitro challenge. The increased cytokines were reduced in the AhR-defected mice.

For DC, patients with arsenical cancers showed an impaired CCL21-mediated DC migration in vitro. Arsenic-fed mice had defective DC migration toward popliteal lymph nodes when injected with allogenic DC via foot pad. Using skin from arsenical cancers and normal controls, I found an increased expression of STAT3, a transcriptional factor that impairs DC activation. Arsenic induced VEGF production via STAT3 activation in keratinocytes. While VEGF by itself minimally induced the expression of CD86 and MHC-II in DC, arsenic-induced DC activation was abolished by VEGF pretreatment. I concluded that STAT3-dependent VEGF production from keratinocytes abrogates DC activation and migration by arsenic, which could be a plausible regional mechanism of immunosuppression in arsenical cancers.

According to studies from us and others, how AhR activates or dampens cutaneous immune responses remain controversial, owing to differences in the cell-specific functions of AhR and different ligands. Therefore, we sought to investigate the role of AhR in LC and langerin⁺ and negative DC in the skin. We generated Langerin-specific mice lacking AhR in LC and Langerin⁺ dermal DC. These were then tested in an epicutaneous protein (ovalbumin, Ova) sensitization model. Immunofluorescence microscopy and flow cytometry revealed that Langerin-AhR^{-/-} mice harbored a decreased number of LC with fewer and stunted dendrites in the epidermis as well as a decreased number of LC in skin-draining lymph nodes (LN). Moreover, in the absence of AhR, we detected an enhanced Th2 (increased IL-5 and IL-13) and T regulatory type-1 (Tr1) (IL-10) response when LN cells were challenged with Ova in vitro, though the number of regulatory T cells (Treg) in the LN remained comparable. Langerin-AhR^{-/-} mice also exhibited increased blood levels of Ova-specific immunoglobulin E (IgE). In conclusion, deletion of AhR in langerin-expressing cells diminishes the number and activation of LC, while enhancing Th2 and Tr1 responses.



S3

3月27日(日) 10:20–10:45

表演廳

The role of aryl hydrocarbon receptor in ophthalmic diseases, from pharmacological and toxicological perspective

Yu-Wen Cheng

School of Pharmacy, Taipei Medical University

The aryl hydrocarbon receptor (AHR) is a ligand-activated transcription factor, which senses environmental, metabolic, and endogenous inputs into precisely targeted cellular responses. From initially believed to be a receptor binding and mediating toxicity of TCDD, AHR has been shown to be involved in regulating numerous physiological processes beyond toxic agent metabolism and clearance. It is clear from recent studies that AHR has more complex and diverse functions.

Preliminary, we found that exposure to PAHs (e.g., smoking) would decrease AHR protein level in lung tissues, together with the change of the physiological state of the cells (Autophagy dysfunction/ Smad activation) by increasing EMT capability, showing that AHR had the effect of inhibiting EMT. Reduction of AHR also reduces Smad4, BNIP3 ubiquitination, facilitating EMT and increasing cellular migration, suggesting that the decrease of AHR proteins would promote cancer, respiratory reconstruction, and vascular regeneration. We believed AHR play an important role in cellular variability or the degree of malignancy in cancer.

There are increasing evidences showed the Ahr-null mice had revealed alterations in the liver, immune system, ovary, heart, eyes, and other organs, further emphasizing the role of AHR-mediated regulation of numerous physiological processes beyond toxic agent metabolism and clearance. Recently, we found AHR has also been shown to regulate inflammation via the STAT3-SOCS3 pathway, leading to retinopathy in Ahr-/-mice, as a result of carcinogen, benzo(a)pyrene (BP) treatment. The human RPE cell line has revealed that the AHR upregulates SOCS3 expression in response to BP treatment, leading to the protection of RPE cells against inflammatory damage. To further investigate the role of AHR in ocular diseases, we developed blue-light/A2E induced dry-form AMD, Laser-induced wet-form AMD, IOP-induced Glaucoma, Endotoxin-induced uveitis, and Diabetic retinopathy as animal models for mechanistic studies and drug development.

Herein, we summarized our current investigates of the AHR from environmental PAH to AMD. Ocular diseases are a relatively new area of research. Our studies so far indicate that this receptor is involved in the modulation of pathogenic pathways, which regulate several conditions and should be considered as the potential of targeting the AHR pathway as a therapeutic strategy for certain ocular diseases.



S4

3 月 27 日 (日) 10:45–11:10

表演廳

Application of aryl hydrocarbon receptor in toxicological studies of chemical mixtures: ambient particulate matter as an example

Pinpin Lin

National Health Research Institutes

Toxicology is a multidisciplinary science and aims to assess the potential health risk of chemicals by understanding adverse effects of chemicals on biological systems. Integration of advances in technology and sciences will allow us to better support risk-based evaluations for decision-making and to improve public and environmental health. However, one of the challenges in environmental toxicology is to assess risk of chemical mixtures, such as ambient particulate matter (PM). Aryl hydrocarbon receptor (AhR) is one of the most important receptors in environmental toxicology. Because AhR ligands are widely distributed in the environment and AhR activation plays roles in functions of multiple organs. Polycyclic aromatic hydrocarbons (PAHs) are classical AhR ligands and more than 20 kinds of PAHs were detected in ambient PM. Therefore, we developed an AhR activation-based risk assessment framework for PM in Taiwan areas. Later, we discovered a role of AhR in PM-induced vascular dysfunction and identified an AhR-related biomarker for PM exposure.



3月27日(日) 13:30–14:00

多功能會議室

The Current Understanding of Autophagy in Nanomaterial Toxicity and Its Implementation in Safety Assessment–Related Alternative Testing Strategies: Take the Ag/ZnO NPs for example

Ying-Jan Wang

Department of Environmental and Occupational Health, College of Medicine, National Cheng Kung University

Nanotechnology has rapidly promoted the development of a new generation of industrial and commercial products; however, it has also raised some concerns about human health and safety. To evaluate the toxicity of the great diversity of nanomaterials (NMs) in the traditional manner, a tremendous number of safety assessments and a very large number of animals would be required. For this reason, it is necessary to consider the use of alternative testing strategies or methods that reduce, refine, or replace (3Rs) the use of animals for assessing the toxicity of NMs. Autophagy is considered an early indicator of NM interactions with cells and has been recently recognized as an important form of cell death in nanoparticle-induced toxicity. Impairment of autophagy is related to the accelerated pathogenesis of diseases. By using mechanism-based high-throughput screening in vitro, we can predict the NMs that may lead to the generation of disease outcomes in vivo. Thus, a tiered testing strategy is suggested that includes a set of standardized assays in relevant human cell lines followed by critical validation studies carried out in animals or whole organism models such as zebrafish (*Danio rerio*) for improved screening of NM safety. A thorough understanding of the mechanisms by which NMs perturb biological systems, including autophagy induction, is critical for a more comprehensive elucidation of nanotoxicity. A more profound understanding of toxicity mechanisms will also facilitate the development of prevention and intervention policies against adverse outcomes induced by NMs. The development of a tiered testing strategy for NM hazard assessment not only promotes a more widespread adoption of non-rodent or 3R principles but also makes nanotoxicology testing more ethical, relevant, and cost- and time-efficient.



S6

3月27日(日) 14:00-14:30

表演廳

Occupational Exposure of Metal Fume Nanoparticle and Respiratory Toxicity

Hsiao-Chi Chuang

School of Respiratory Therapy, Taipei Medical University

The *Occupational Outlook Handbook* published by the US Bureau of Labor Statistics reports that there were about 53,500 Americans employed as welding, soldering, and brazing machine setters, operators, and tenders in 2012 (Bureau of Labor Statistics U.S. Department of Labor, 2015). The report shows that a large number of workers are potentially threatened by exposure to metal fumes. Metal fume fever is a flu-like occupational disease caused by the inhalation of metal fumes, which contain such metals as Zn, Mn, Cu, Cd, Ni, and Al, and which leads to respiratory and systemic syndromes that often occur in workers exposed to metal fumes when welding galvanized metal and melting metal (Ahsan et al., 2009; American Welding Society, 2002; Fine et al., 1997). Metal fume fever is considered to be a reversible symptom after exposure; however, increasing clinical evidence has found that exposure to metal fumes results in adverse health effects. For example, workers using an acetylene torch to dismantle galvanized steel in a poorly ventilated area were diagnosed with diffuse alveolar damage to the lungs (Bydash et al., 2010). Clinical observations imply that exposure to metal fumes can result in irreversible health impacts. Evidence accumulated from epidemiological studies indicates an association between the inhalation of welding fumes and an increased risk of cardiopulmonary and neurological disease. However, the effects of metal fume nanoparticle on respiratory toxicity remain unclear, which is still an emergent occupational health issue.



3月27日(日) 14:30–15:00

多功能會議室

Nanoparticles induced cytotoxic effects on cerebral and retinal endothelial cells.

Ching-Hao Li

Department of Physiology, School of Medicine, Taipei Medical University

Gold nanoparticles (Au-NPs) and titanium dioxide nanoparticles (TiO₂-NPs) have extensive applications in electronics and biomedicine, resulting in increased exposure and prompting safety concerns for human health. After absorption, nanoparticles enter circulation and effect endothelial cells. We previously showed that exposure to Au-NP (40–50 nm) collapsed endothelial tight junctions and increased their paracellular permeability. Inhaled nanoparticles have gained significant attention due to their biodistribution in the brain. We found that treatment with Au-NP induced aquaporin 1 (AQP1) expression in cerebral endothelial cell line, bEnd.3, involving the caveolin-1 (Cav1) dependent repression on extracellular regulated protein kinases (ERK) activity. Au-NP-mediated AQP1 induction increased endothelial permeability to water. Mice receiving intranasally administered Au-NPs displayed cerebral edema, significantly augmented AQP1 protein levels; furthermore, mild focal lesions were observed in the cerebral parenchyma. Ocular contact with TiO₂-NPs may occur accidentally in certain cases. TiO₂-NP treatment apparently induced a broken structure of the junctional plaques, conferring decreased transendothelial electrical resistance, a permeable paracellular cleft, and improved cell migration in human retinal endothelial cells (HRECs). This might involve rapid activation of metalloproteinase, a disintegrin and metalloproteinase 17 (ADAM17), and ADAM17-mediated claudin-5 degradation. For the in vivo study, C57BL/6 mice were administered a single dose of TiO₂-NP intravitreally and then subjected to a complete ophthalmology examination. Fluorescein leakage and reduced blood flow at the optical disc indicated a damaged inner blood-retinal barrier (BRB) induced by TiO₂-NPs. As a consequence, the retinal electrophysiology has been alleviated. Taken together, our data demonstrate that nanoparticles can damage the physiological function of endothelial cells at nanogram levels.



S8

Human induced pluripotent stem cells as a tool to study the cardiovascular effects of marijuana and discovery of selective cannabinoid CB1 antagonists

Tzu-Tang Wei

Department and Graduate Institute of Pharmacology, College of Medicine, National Taiwan University

Marijuana is the most widely used illicit drug worldwide. Epidemiological studies indicate that marijuana increases the risk of coronary artery disease. Adverse cerebrovascular and peripheral vascular effects are also associated with marijuana use. In addition, synthetic cannabis drugs have been approved by the FDA for treating chemotherapy-induced nausea and vomiting, which also show cardiovascular side effects. Thus, both medical and recreational marijuana have adverse cardiovascular side effects. Cannabinoid CB1 receptor signaling is involved in a variety of pathophysiological processes and selective CB1 antagonists show therapeutic potential. However, the current repertoire of CB1 antagonists has psychiatric side effects and limited application. Therefore, developing new CB1 antagonists are an unmet and growing clinical need. Here we found compound TW-1, an isoflavone abundantly presenting in soybeans, partially docked into the CB1 receptor and inhibited CB1 activity, suggesting that compound TW-1 was a novel CB1 antagonist. Human endothelial cells were more sensitive to Δ^9 -tetrahydrocannabinol (Δ^9 -THC) than cardiomyocytes and cardiac fibroblasts. To determine the mechanism of Δ^9 -THC pathological effects on the vasculature, we generated human induced pluripotent stem cell-derived endothelial cells (hiPSC-ECs) from five healthy individuals. CB1 receptor was expressed in all hiPSC-ECs, whilst CB2 expression was low. Δ^9 -THC induced inflammation and oxidative stress via NF- κ B signaling activated in hiPSC-ECs. Knockdown of CB1 receptor with siRNA, abrogation of receptor expression with CRISPR and TW-1 treatment could rescue the effect of Δ^9 -THC. Furthermore, TW-1 blocked Δ^9 -THC-induced endothelial dysfunction in mice models. To gain a better understanding of the effects of marijuana use in vivo, regular marijuana smokers were recruited. The pilot study in sixteen marijuana smokers showed an increase of inflammatory cytokines and chemokines of serum samples after 90 minutes smoking. Our investigations reveal that Δ^9 -THC causes endothelial dysfunction via the CB1 receptor. TW-1 is a novel CB1 antagonist that can be used for preventing Δ^9 -THC-induced side effects.



生物醫學聯合學術年會

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3月27日(日) 14:00–14:30

表演廳

The updated application of CRISPR/Cas9-mediated gene-editing in retinal inherited disease

Shih-Hwa Chiou

Director, Department of Medical Research, Taipei Veterans General Hospital

The homology independent targeted integration (HITI) strategy enables effective CRISPR/Cas9-mediated knockin of therapeutic genes in nondividing cells in vivo, promising general therapeutic solutions for treating genetic diseases like X-linked juvenile retinoschisis. Herein, supramolecular nanoparticle (SMNP) vectors are used for codelivery of two DNA plasmids—CRISPR Cas9 genome editing system and a therapeutic gene, Retinoschisin 1 (RS1)—enabling clustered regularly interspaced short palindromic repeats (CRISPR)–associated protein 9 (CRISPR/Cas9) knockin of the RS1 gene with HITI. Through small-scale combinatorial screenings, two SMNP vectors, with Cas9 and single guide RNA (sgRNA)–plasmid in one and Donor–RS1 and green fluorescent protein (GFP)–plasmid in the other, with optimal delivery performances are identified. These SMNP vectors are then employed for CRISPR/Cas9 knockin of RS1/GFP genes into the mouse Rosa26 safe-harbor site in vitro and in vivo. The in vivo study involves intravitreally injecting the two SMNP vectors into the mouse eyes, followed by repeated ocular imaging by fundus camera and optical coherence tomography, and pathological and molecular analyses of the harvested retina tissues. Mice ocular organs retain their anatomical integrity, a single-copy 3.0-kb RS1/GFP gene is precisely integrated into the Rosa26 site in the retinas, and the integrated RS1/GFP gene is expressed in the retinas, demonstrating CRISPR/Cas9 knockin of RS1/GFP gene.



3月27日(日) 14:30-15:00

表演廳

S10

Full-thickness skin tissue printing system

Chih-Ching Liao, Yu-Bing Liou, Yang-Cheng Lin, Li-Wen Lai, Hsin-Hsin Shen

Biomedical Technology and Device Research Laboratory, Industrial Technology Research Institute

ITRI's multi-disciplinary teams have developed an efficient full-thickness, full-function skin tissue printing system, where its most unique "formula and process" allows for complete keratinocyte differentiation, which requires only 6 days; ITRI's skin equivalent is complete and shrinkage-proof, as the skin equivalent for testing purposes needs to be complete in order to prevent leakage.

Skin equivalent must feature normal skin morphology, cell viability and barrier function that are capable of accurately reflecting the skin irritation and corrosion caused by the tested object. The skin equivalent produced by ITRI has a tissue structure exactly the same to human skin epidermis, meaning the non-transformed human keratinocyte stacking with a high degree of differentiation resulting in multi-layered structure (including basal layer, stratum spinosum, granulosum, and corneum). It also features skin tissue barrier function: including the production of fat content and same ratio to human skin (e.g.: phospholipids, glucosylceramides, acylglucosylceramides, trace ceramides, cholesterol, fatty acids, triglycerides, and cholesterol esters...etc.), therefore capable of rapid and effective resistance against the penetration of toxic substances.



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3月27日(日) 15:00–15:30

表演廳

Regulatory Update of Cell Therapy in Taiwan

Liu Yueh-Ping

Ministry of Health and Welfare

Since Dr. James Thomson first established a line of human embryonic stem cells more than 20 years ago, the potential of regenerative medicine has evoked global attentions. The new scheme of regenerative medicine in Japan provided by the 2013 Reform has enabled significant progress in regenerative medicine and also inspired Taiwan Government.

On September 4th, 2019, the Ministry of Health and Welfare (MOHW) in Taiwan issued the revised version of the “Regulation Governing the Application of Specific Medical Examination Techniques and Medical Devices”. Since then cell therapies to treat medical issues including cancer, degenerative joint disease and skin wounds are available at permitted hospitals in Taiwan. After careful consideration of critical feedback from medical associations, industrial experts, and academic institutes, the new amendment was issued this February. The aim of the amendment is to transform Taiwan into a hub for regenerative medicine in Asia and is committed to establishing a comprehensive regulatory and R&D environment for such procedures.



S12

3月27日(日) 15:30–16:00

表演廳

Pharmacology of cellular therapy: monitoring systemic safety and bio-distribution of mesenchymal stem cells

Thai-Yen Ling

Institute of Pharmacology, College of Medicine, National Taiwan University

Mesenchymal stem/stromal cells (MSCs) are a promising resource for cell-based therapy because of their high immunomodulation ability, tropism towards inflamed and injured tissues, and their easy access and isolation. Currently, there are more than 1,100 registered MSC clinical trials globally. However, a lack of standardized methods to characterize cell safety, efficacy, and biodistribution dramatically hinders the progress of MSC utility in clinical practice. In this study, we summarize the current state of MSC-based cell therapy, focusing on the systemic safety and biodistribution of MSCs. MSC-associated risks of tumor initiation and promotion and the underlying mechanisms of these risks are discussed. In addition, MSC biodistribution methodology and the pharmacokinetics and pharmacodynamics of cell therapies are addressed. Better understanding of the systemic safety and biodistribution of MSCs will facilitate future clinical applications of precision medicine using stem cells.



3月26日(六) 13:30–14:10

第二會議室

Precision Medicine— from blood cancers

Wen-Chien Chou

The Department of Laboratory Medicine, National Taiwan University Hospital

Cancer cells are derived from normal counterparts. Therefore, there are great similarities between them. Finding the differences is the pre-requisite of targeted therapy. Different from solid tumors, systemic therapy is necessary to treat blood cancers. The conventional chemotherapy results in great toxicities, therefore, the elderly cannot tolerate standard regimens of chemotherapy, leading to inferior survival.

During the past 20 years, target therapy has revolutionized the philosophy of cancer treatment. Target therapy is not that selective to cancer cells. In fact, most target therapeutics bring side effects. The difference between target therapies and conventional chemotherapy lies in avoidance of cytotoxic effects to the replication machinery in the cells, so the side effects of target therapy are usually much smaller than chemotherapy. Thus, target therapy is applicable to frail and elderly patients. The life quality is also significantly improved.

Leukemia is the paradigm in target therapy because it is the first cancer treated by this way, and with the greatest success, thanks to the easy availability of the leukemia cells and the well-studied hierarchy of blood cells. Moreover, the mutation burden in leukemia cells is generally less than in other cancers, making targeting to the pathogenic alterations easier.

In this lecture, I intend to deliver the following concepts:

What are the known genetic aberrations in acute myeloid leukemia? How do these genetic alterations function in pathogenesis of leukemia?

How do we detect these alterations in our clinical laboratories?

What are the target therapeutics effective to control the leukemia?

How do we monitor the residual diseases by these genetic alterations?



3月26日(六) 14:10–14:50
第二會議室

S14

Inhibition of SARS-CoV-2 infection including the Omicron variant by a broad-spectrum siRNA

Sui-Yuan Chang

Professor, Department of Clinical Laboratory Sciences and Medical Biotechnology, National Taiwan University College of Medicine

The emergence of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) Omicron variant has raised some uncertainty about the long-term efficiency of vaccine strategy. The development of new therapeutics against a wide range of SARS-CoV-2 variants is imperative. In this study, an inhalable siRNA, C6G25S, which covers 99.8% of current SARS-CoV-2 variant sequences, was designed. First, in the cell-based assay, C6G25S was shown to inhibit previously circulating strains, including the Alpha, Delta, Gamma and Epsilon, at picomolar ranges of IC₅₀ in vitro. The effectiveness of C6G25S against the Omicron variant was also confirmed. In the in vivo K18-hACE2-transgenic mice animal model, C6G25S was shown to significantly suppress the production of viral RNA and infectious virions in both prophylactic treatment (100% inhibition) and co-treatment (96.2% inhibition). Moreover, C6G25S could prevent virus-associated extensive pulmonary alveolar damage, vascular thrombi, and immune cell infiltrations. Our data suggests that C6G25S could provide as an alternative and effective approach to combating the COVID-19 pandemic in the future.



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3月26日(六) 14:10-14:50

第二會議室

Precision Medicine: the utility of LC-MS

KU, WEN-HUI

Taipei Institute of Pathology

Precision medicine has revolutionized the management of different disease types. However, many treated patients do not respond, or experience an intolerable side effect. Thus, it is necessary to identify accurate dosage for the most efficient and effective use of target/chemotherapy. We will introduce the background of current situation of therapeutic drug monitoring. Additionally, we will provide an overview of laboratory techniques used in monitoring serum drug level, and discuss current and future directions for therapeutic drug monitoring.



Structure-activity relationship of SARS-CoV-2 spike variants

Shang-Te Danny Hsu

Institute of Biological Chemistry, Academia Sinica

The surge of COVID-19 infection cases is spurred by emerging SARS-CoV-2 variants since early 2020. By integrating cryo-EM, mass spectrometry, biophysics and pseudovirus assays, we systematically characterize the structure-activity relationships of essentially all variants of concerns since the COVID-19 pandemic began. Collectively, we have reported over 50 cryo-EM structures, corresponding to the spike protein of the wild type (WT), D614G (B.1), Alpha (B.1.1.7), Beta (B.1.351), Gamma (P.1), Delta (B.1.617.2) and Kappa (B.1.617.1) variants in different functional states with and without its receptor, ACE2. We revealed an unusual cold denaturation process of WT spike that can be eliminated by a single D614G mutation. We also revealed an exquisite molecular switch unique to the Alpha variant that modulates the conformational opening and closing of the receptor binding domain (RBD). Importantly, we showed that the mutations on the N-terminal domain not only alter the conformation of the highly antigenic supersite of the Delta variant, but also remodel the glycan shield by deleting or adding N-glycans of the Delta and Gamma variants, respectively. Substantially enhanced ACE2 binding was observed for all variants, whose mutations on the RBD modulate the electrostatics of the binding interfaces. Despite their abilities to escape host immunity, all variants can be potently neutralized by three unique RBD-specific antibodies.



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3月26日(六) 15:00–15:30

大禮堂



Liquid–liquid phase separation in the tales of intrinsically disordered proteins

Jie–rong Huang

National Yang Ming Chiao Tung University

Tons of biomolecules react in a cell simultaneously, but how does one biomolecule “know” where and when to react? The prevailing intrinsically disordered proteins (IDPs; >30% in eukaryotic cells) or proteins with intrinsically disordered regions (IDRs; >50% in eukaryotic cells), which do not adopt a defined three–dimension structure, may play a role in the spatiotemporal control of biochemical reactions. Recent studies have demonstrated that some IDPs undergo liquid–liquid phase separation (LLPS) to respond to environmental changes (e.g. temperature, pH) to determine the timing of a reaction (“when”). The increased local concentration within phase–separated droplets also controls the location (“where”) to react. The physicochemical properties of these ID regions probably govern the location and timing for a molecule to react. In this talk, I will use TDP–43, galectin–3, and Musashi protein families as examples to demonstrate how the physicochemical properties of IDRs can relate to their cellular functions and diseases.



Spectral Evidence of Chemokine Filament

Shih-Che Sue

Institute of Bioinformatics and Structural Biology, National Tsing Hua University

Chemokines, as chemotactic cytokines, generally controls their chemotaxis function through constituting different oligomers. CC-type chemokine ligand 5 (CCL5) shows ability to recruit lymphocytes and the degree of oligomerization determines its inflammatory activity. The most well-known CCL5 structure is a CC-type chemokine dimer which is determined either by X-ray crystallography or nuclear magnetic resonance (NMR) methods. However, the structure was characterized in an acidic condition and brought very limited information for explaining how CCL5 oligomerizes. Although previous studies reported several oligomerization mechanisms, the lacking of decisive experiment makes the mechanisms still inconclusive. Here, we try to clarify CCL5 oligomerization mechanism by combining protein mutagenesis, small-angle X-ray scattering (SAXS), transmission electron microscopy (TEM) and NMR methods. Through substitution of critical charged residues, we develop a process to prepare soluble CCL5 aggregate with an extra-large molecular size. Using the sample, a filamentous CCL5 image is captured by TEM. We determine the interface responsible for molecular assembling and a structural model is further built with the assistance of SAXS. The model reports substantial charge-charge interactions and the critical charged residues are conserve in the close-related chemokines. Thus, we confirm more chemokine members with the same ability to form filament in solution. The filament structure should be considered important for CC-type chemokine function. We will extend the study to how the CCL5 filamentous process regulates the binding to different receptors, particularly sulfated glycosaminoglycans and G-protein coupled receptor.



3月26日(六) 16:10–16:40

大禮堂

Structural basis of transcription regulation by the MerR family of regulators

Nei-Li Chan

Institute of Biochemistry and Molecular Biology, NTU

The MerR family of transcriptional regulatory proteins activate the expression of multiple heavy metal and antibiotic resistance operons by a unique DNA-distortion mechanism. By reshaping the promoter DNA structure, the misoriented core promoter elements are aligned for productive association with the RNA polymerase. Given that the binding sites of MerR family proteins differ widely in length and sequence, it has remained unresolved how varied regulator–DNA interactions produce similar functional outcomes. We report herein the cryo–EM structures of the transcription initiation complexes assembled by the homodimeric Hg(II)–bound *E. coli* MerR, RNA polymerase holoenzyme, and the operator/promoter region of *mer* operon. Structural analysis reveals that specific operator recognition and sequence-independent DNA distortion by inducer-bound MerR family proteins can be simultaneously achieved via fine-tuning the positions of the two symmetrically arranged DNA-binding domains. The operator binding specificity is conferred by precise positioning the recognition helices at distinct location in the DNA major groove via controlled sliding along the respective helical axis. The parallel placement of the two recognition helices at fixed distance ensures effective clamping of the operator DNA. Considerable flexibility observed for MerR and the bent operator implicates that detachment of the RNA polymerase core enzyme from promoter can proceed without being interfered by the bound MerR. Moreover, the cryo–EM structure of RNA polymerase bound to a DNA with an additional 1–bp longer spacing between core promoter elements suggests how apo MerR may act as a suppressor to reduce the basal transcription activity of *mer* operon. Our findings elucidate how small variations on the basic promoter architecture allows the construction of numerous regulatory systems.



3 月 27 日 (日) 13:30–14:00
大禮堂



Precise Control of Microtubule disassembly in living cells

Yu–Chun Lin

Institute of Molecular Medicine, National Tsing Hua University

Microtubules (MTs) tightly regulate various cellular activities. Our understanding of MTs is largely based on MT–targeting agents, which, however, are insufficient to dissect the dynamic mechanisms of specific MT populations due to their slow effects on the entire pool of MTs. To address this limitation, we have used chemogenetics and optogenetics to disassemble specific MT subtypes including tyrosinated MTs, primary cilia, mitotic spindles, and intercellular bridges, by rapidly recruiting engineered MT–cleaving enzymes onto target MTs in a reversible manner. Acute MT disassembly swiftly halted vesicular trafficking and lysosomal dynamics. It also immediately triggered Golgi and ER reorganization and slowed the fusion/fission of mitochondria without affecting mitochondrial membrane potential. Cell rigidity was increased after MT disruption owing to increased contractile stress fibers. MT disruption prevented cell division but did not cause cell death during interphase. These tools enable to uncover new insights of how MTs precisely regulate cellular architectures and functions.



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3月27日(日) 14:00–14:30

大禮堂

Multi-omic approaches towards molecular profiling of human diseases

Shih-Yu Chen

Institute of Biomedical Sciences, Academia Sinica

The ability to detect and quantify more types of biomolecules at higher resolutions is crucial for our understanding of biological functions in cells and tissues. For example, single-cell level analyses by fluorescence-based flow cytometry have been a mainstay of immunologic inquiry for nearly four decades. By employing stable metal isotopes or oligo barcodes as tags followed by mass spectrometry or complementary barcodes rendering, mass cytometry and multiplexed imaging facilitate high dimensional, quantitative analysis of molecules at single-cell resolution in non-adherent cells and tissue sections, respectively.

By taking advantage of the multiparametric single cell analysis platform including mass cytometry, multiplexed imaging and single cell RNAseq, thorough characterization of complex cellular samples could be achieved. For example, within host-pathogen interactions, we demonstrated that natural killer cell subsets are correlated with the virus clearance of SARS-CoV-2 and the up-regulation of the inhibitory ligands to NK cells could be a mechanism of immune evasion utilized by SARS-CoV-2. In the COVID-related lung fibrosis, the interactions between fibroblasts and macrophages are critical for the disease progression. Similarly, within the tumor microenvironment, sustained antigen stimulations from the environment might drive the differentiations of immune cells. Together, our data demonstrated that by systematically profiling the cell-cell interactions within the microenvironment, new principles of immune regulations in response to cancers or invading pathogens could be revealed.



3 月 27 日 (日) 14:40–15:10
大禮堂

Optoproteomics: microscopy-based subcellular proteomics

Jung-Chi Liao
Syncell Inc.

Mapping the subcellular spatial proteome is essential to understand cellular activities underlying cell physiology and pathology. Here, we introduce an integrated platform combining epifluorescence microscopy, multiphoton illumination, automated region of interest assigning, photochemical biotinylation, biochemical purification, and mass spectrometry to achieve region-specific protein isolation and identification at ~240 nm precision. We termed this technology “optoproteomics”, a novel solution to connecting the field of microscopy with mass spectrometry-based proteomics.



3月27日(日) 15:10–15:40

大禮堂

One-Step Formulation of mPEGylated Liposome by Anti-mPEG Bispecific Antibodies for Cancer Targeted Therapy

Tian-Lu Cheng

Department of Biomedical Science and Environmental Biology, Kaohsiung Medical University, Kaohsiung, Taiwan

Methoxy-polyethylene glycol Fab (mPEG) modified nano-molecules (mPEG-NPs, such as liposomes, micelles, nanoparticles and proteins) are highly regarded as the third generation therapeutic agents. PEGylated nanoparticles (PEG-NPs) can be chemically modified by ligands or antibodies to increase their targeting specificity. However, this method often leads to the generation of heterogeneously modified Ab-PEG-NPs (variations in number and orientation of Ab), which limits its clinical applicability. To overcome these problems, we have developed bispecific antibodies (BsAb) by fusing anti-HER2 or anti-EGFR scFv to the C-terminus of a humanized anti-methoxy polyethylene glycol Fab (anti-mPEG) to form mPEGxHER2 or mPEGxEGFR BsAbs. The anti-mPEG end of the BsAbs could noncovalently bind to the methoxy ends of mPEG-NPs. The other anti-HER2 or anti-EGFR end confers mPEG-NPs with HER2 or EGFR specificity for targeting of HER2 or EGFR expressing cancer cells. Our results demonstrate that BsAbs can simultaneously bind to mPEG on mPEG-NPs and to EGFR or HER2 expressed on cancer cells. One-step mixing of mPEGxHER2 or mPEGxEGFR with mPEG-NPs endowed the NPs with specificity to EGFR or HER2 on cancer cells and also significantly increased cancer cell killing by α HER2/EGFR-liposomal doxorubicin (α HER2/EGFR-Lipo/Dox) to EGFR+ and HER2+ cancer cells. We also demonstrated that the fluorescent intensity of α EGFR-Lipo/IR780 was enhanced 232.8% in EGFR+ tumors as compared to EGFR- tumors. α HER2-Lipo/ICG (IR dye) could also specifically target to HER2 positive but not HER2 negative tumors. Importantly, mPEGxEGFR significantly increased the anticancer activity of Lipo/DOX® against EGFR+ tumors. We believe that anti-mPEG BsAbs can provide a simple one-step method for non-covalent modification of any mPEG-NP, allowing increased specific targeting and therapeutic efficacy of mPEG-NPs such as liposomes, micelles and gold nanoparticles for tumors in the clinic.



3月26日(六) 15:30–16:10
第一會議室

S24

High dimensional single cell analysis in immune related disease

Huang–Yu Yang
Chang Gung Memorial Hospital

High–dimensional single–cell technologies, such as flow cytometry, mass cytometry and single cell RNA sequencing, are crucial for deciphering complicated biomedical disorder. Immunoprofiling and profiling transcriptomes at the single–cell level have helped us to understand the heterogeneity of cell populations, disease status and developmental lineages. Here, we will present two examples based on the current cutting–edge technologies and their applications of high dimensional single cell data for further insights into human immunology and pathophysiology of various diseases.



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3月26日(六) 16:10–16:50

第一會議室

Improving CAR–T technology for treatment of solid tumors

Li–Rung Huang

National Health Research Institutes (NHRI)

The U.S. FDA approved two CAR–T products, Kymriah and Yescarta, in 2017, which have shown astonishing achievements in the treatment of relapsed or refractory hematological malignancies. These two products are second-generation CAR–T cells, using CD28 or 4–1BB signaling domains in CAR designs. However, the efficacy of current CAR–T technologies for treatment of solid tumors is not as promising as that for the treatment of hematological malignancies. The main reason is the immunosuppressive tumor microenvironment (TME) that inhibits CAR–T activation or shields tumor cells from CAR–T cells. When T cells continue to be stimulated by tumor antigens but fail to effectively remove antigens, T cells experience T–cell exhaustion, which is characterized by reduced proliferation, cytotoxicity, and cytokine production, and high expression of immune checkpoints on the surface.

CAR designs able to overcome the immunosuppression of solid tumors are the keys for the development of effective CAR–T technology against solid tumors, including that able to suppress the expression or signaling of immune checkpoints, that co-expressing PD–1, TGF β or FasL dominant negative receptors or that targeting T–cell exhaustion–related transcriptional regulation. In this talk, I will review the current designs and also some potential targets to be utilized in CAR constructs for the prevention of CAR–T exhaustion in TME of solid tumors.



3月26日(六) 16:10–16:50
第一會議室

CRISPR genome engineering of human natural killer cells

Steven Lin

Institute of Biological Chemistry, Academia Sinica

Genetic engineering is a major driving force in the development of immunotherapy, but it is very challenging in natural killer (NK) cells. NK cells are highly sensitive to exogenous DNA, which is needed to introduce DNA modifications of interest. Conventional DNA delivery approaches such as plasmid and synthetic DNA transfection and electroporation lead to rapid NK cell death. Retroviral and lentiviral transductions are feasible, but require high viral dosages and poses a risk of insertional mutagenesis. To overcome these limitations, we have established a robust CRISPR genome-editing platform, by the nucleofection of Cas9 ribonucleoproteins, to enable precise gene knockout and knock-in in human NK cells. We demonstrated that CRISPR genome editing was an effective approach to study NK immunology, rewire the immunological circuitry, and enhance the anti-cancer activities of NK cells



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3月27日(日) 13:30–14:10

第二會議室

Stress sensing and metabolic circuits in tumor-associated macrophages

Stanley Huang, PhD

Department of Pathology, Case Western Reserve University, USA

Chronic inflammation triggers compensatory immunosuppression to stop inflammation and minimize tissue damage. Studies have demonstrated that endoplasmic reticulum (ER) stress augments the suppressive phenotypes of immune cells; however, the molecular mechanisms underpinning this process and how it links to the metabolic reprogramming of immunosuppressive macrophages remains elusive. Here, we found that the tumor microenvironment increased the activity of a protein kinase RNA-like ER kinase (PERK) ER stress signaling to promote immunosuppressive (M2) immunity in tumor-associated macrophages (TAMs). Loss of PERK signaling impeded mitochondrial metabolism and fitness critical for M2 macrophages. Moreover, PERK activation mediated the upregulation of PSAT1-mediated serine biosynthesis; increased serine biosynthesis supported mitochondrial function and α -ketoglutarate (α -KG) production required for epigenetic modification. Our findings delineate a previously undescribed connection between PERK signaling and serine metabolic network pivotal for the immunosuppressive function of macrophages.



S28

A tale of two professional antigen-presenting cells: crosstalk between DCs and B cells

Chien-Kuo Lee

Graduate Institute of Immunology, National Taiwan University College of Medicine

We are interested in understanding the crosstalk between dendritic cells (DCs) and B cells, two professional antigen-presenting cells. Plasmacytoid dendritic cells (pDCs) were able to cooperate with B cells to boost humoral immunity in response to stimulation with TLR ligands and pathogens. Moreover, follicular B cells (FO B) were more sensitive to pDC-mediated effects than marginal zone B cells (MZ B) and pDC preferentially migrated toward T-B border and interacted with FO B following stimulation. Adoptive transfer of B cells into Rag1^{-/-} mice that had been depleted of pDCs also reduced IgM production in response to R848, suggesting an essential role of pDC in T-independent antibody response in vivo. Differentially expressed gene (DEG) and gene set enrichment analyses (GSEA) showed that IFN- γ and MAPK pathways were highly enriched in the pDC/B cell coculture system upon stimulation. IFNAR1 deficiency in both B cells and pDCs showed even more profound impairment in B cell response compared to deficiency in B cells alone, suggesting that IFN- γ responsiveness in both cells contributed to the enhanced response. Moreover, STAT1 was directly activated by S727 phosphorylation in B cells in a p38 MAPK-dependent manner in response to TLR7 stimulation. S727 phosphorylation-deficient mutation of STAT1 or treatment with SB203580, a p38 MAPK inhibitor, attenuated the synergism between pDCs and B cells. In addition to pDC, we also found that cDC was capable of enhancing B cell response. Among different cDC subsets, cDC1 preferentially cooperate with MZ B and augmented its activation and cytokine production in vitro and migrated toward marginal zone and interacted with MZ B in vivo in response to *Streptococcus pneumoniae* stimulation. Collectively, we have demonstrated that DCs can provide T-independent help to intensify B cell response by increasing their activation, proliferation, differentiation and autoantibody production and that there is selective crosstalk between different subsets of DCs and B cells. Moreover, we define a crucial role of IFN- γ /TLR-mediated signaling pathway in pDC and B cells through a p38 MAPK-STAT1 axis in controlling humoral immunity.



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3月27日(日) 14:50–15:25

第二會議室

Thymic macrophages consist of two populations with distinct localization and origin

Ivan Dzhagalov

Institute of Microbiology and Immunology, National Yang-Ming Chiao-Tung University

Tissue-resident macrophages are essential for protection from pathogen invasion and maintenance of organ homeostasis. The ability of thymic macrophages to engulf apoptotic thymocytes is well appreciated, but little is known about their ontogeny, maintenance, and diversity. Here, we characterized the surface phenotype and transcriptional profile of these cells and found out that they express typical tissue-resident macrophage genes yet also exhibit organ-specific features. Thymic macrophages were most closely related to spleen red pulp macrophages and Kupffer cells and shared the expression of the transcription factor SpiC with these cells. Using shield chimeras, transplantation of embryonic thymuses, and fate mapping, we found that three distinct waves of precursors generate thymic macrophages. Moreover, some of them proliferated in situ. Single-cell RNA sequencing showed that the macrophages in the adult thymus are composed of two populations with distinct localization and origin. Altogether, our work defines the phenotype, origin, and diversity of thymic macrophages.



3月26日(六) 13:00–13:30

表演廳

S30

Roles of glutamate transports in metabolic disorder-related depression and Alzheimer's disease

Yu-Min Kuo

Department of Cell Biology and Anatomy, College of Medicine, National Cheng Kung University

Impaired glutamate clearance resulting from dysfunctions of glial glutamate transporters has been implicated in depression and Alzheimer's disease (AD) with unclear mechanisms. Here, we investigated the role of astroglia-related disturbance in glutamatergic transmission in the onset of metabolic disorder-related depression (Met-dep) and AD. To characterize the causal relationship in the Met-dep, we adopted a 12-week high-fat diet (HFD) to induce metabolic disorder and depressive phenotypes in mice. Retrograde tracing and chemogenetic inhibition showed that the hyperactive ventral hippocampal glutamatergic afferents to the nucleus accumbens determined the exhibition of depression-like behavior in HFD mice. Using lentiviral knockdown and overexpression approaches, we proved that HFD-induced downregulation of glial glutamate transporters, GLAST and GLT-1, contributed to the observed circuit maladaptations and subsequent depression-like behaviors. Finally, we identified a potential therapeutic agent, riluzole, which could mitigate the HFD-induced behavioral deficits by normalizing the expressions of GLAST and GLT-1 and ventral hippocampal glutamatergic afferents to the nucleus accumbens. In the study of AD pathogenesis, we found that knockdown of GLAST and GLT-1 in the dorsal hippocampus enhanced tau phosphorylation and impaired spatial learning and memory in female 3xTg-AD mice without affecting amyloid plaque load. These effects could be reproduced by kainic acid treatment, an analog of glutamate and a widely used excitant to induce neuronal excitotoxicity. Overall, astrocyte-mediated disturbance in glutamatergic transmission underlies the Met-dep and AD-related tauopathy.



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3月26日(六) 13:30–14:00

表演廳



Crosstalk between gut and brain in the regulation of social behavior

Wei-Li Wu

Department of Physiology, College of Medicine, National Cheng Kung University

Social interactions among animals mediate essential behaviors, including mating, nurturing, and defence. Impairment in social behavior is the core symptom for several neuropsychiatric disorders. Within this decade, numerous studies showed that the gut microbiota contribute to social behavior, but the gut–brain connections that regulate this complex behavior and its underlying neural basis are unclear. In this talk, I will share our findings that the microbiome modulates neuronal activity in specific brain regions of mice to regulate social behaviors.

First, we identified specific gut bacteria can restrain the activation of the HPA axis, and show that the microbiome can affect social behaviors through paraventricular nucleus of the hypothalamus (PVN) that mediate the canonical stress responses signaling in the brain. Second, we recently discovered that bacterial metabolites derived from bacterial fermentation control social novelty through a distinct neural population in anterodorsal bed nucleus of stria terminalis (adBNST). Altogether, we provide the evidence that gut microbiome can modulate host behaviors through discrete neuronal circuits in the brain.



S32

Gut dysbiosis mediates extra–intestinal diseases: Insights from fly models

Jyh–Lyh (Jerry) Juang

Institute of Molecular and Genomic Medicine, NHRI

Inter–organ cross–talk is a fundamental and conserved control mechanism to maintain organismal homeostasis, but understanding of this field is still limited. *Drosophila* is an excellent genetic model system for studying inter–organ communication. Here I will present two examples of gut–extraintestinal organ communication studies done in our lab by using *Drosophila* models. The first example is focused on gut–fat/liver axis immune communication. We demonstrated that after feeding *Drosophila* larvae with enterobacteria Ecc15, the intestine responded by generating excessive amounts of reactive oxygen species (ROS). Upon the induction of gut ROS, the fat body initiates a systemic innate immune response. This communication pathway is done via nitric oxide (NO) and hemocytes in carrying the ROS stress signal to the fat body, which then activates the Relish/NF– κ B transcription factor and induces an antimicrobial peptide response in the fat body. This finding suggests that gastronomical health might have a significant impact on the immune responses in adipose/liver tissue in the body. The second example concerns the gut–brain axis in Alzheimer’s disease (AD). Recent studies suggest that brain neuroinflammation may also be provoked by peripheral stimulatory signals driven by intestine. By using *Drosophila* as a model organism of AD, we were able to test this hypothesis. Our results show that the induction of intestinal dysbiosis by Ecc15 infection exacerbated neurodegeneration, as evidenced by an array of AD–related phenotypes, including increases in neuronal apoptosis, humoral inflammatory response, and ROS and decreases in lifespan and locomotor activity. Furthermore, we find that immune hemocytes pass signals from the dysbiotic gut to the AD brain that exacerbate neurodegeneration. The motility of the immune hemocytes was found to be increased by enteric infection. The mobilized hemocytes are then attracted towards the AD brain in an ROS–dependent manner. This finding is important because it substantiates the functional potential of gut–brain axis in modulating AD progression.



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3月26日(六) 14:30–15:00

表演廳

Adipose tissue and the nervous system

Pei-Chun Chen

Department of Physiology, Institute of Basic Medical Sciences, College of Medicine, National Cheng Kung University

The prevalence of obesity and depression is increasing around the world. From epidemiological studies, obesity and depression display a high correlation. ATP-sensitive potassium channels (KATP) channels are coupled with the metabolic state to membrane excitability. Recent evidence indicates a coincidence that brown adipose tissue (BAT) activity may contribute to mood disorders, increasing suicide mortality around puberty. The mesolimbic dopamine system is most often associated with rewarding. We hypothesize that KATP channels in the BAT are essential in depression through BATokine releasing to strengthen dopaminergic transmission. Our results found that mice fed with a high-fat diet (HFD) developed depression and metabolic syndromes. The removal of BAT induced depressive symptoms. Infusion of glibenclamide (GB), an anti-diabetic drug, in the BAT of HFD mice improved not only metabolic disorders but also reduced depressive symptoms. Next, we found KATP channels are functionally expressed in the BAT. GB infusion restored HFD-induced decreased KATP channel expression in BAT. Activation of $\beta 3$ -adrenergic receptors ($\beta 3$ AR)-mediated protein kinase A (PKA) signaling stimulated forward trafficking of KATP channels. Also, GB increased FGF21 levels in vitro and in vivo. The FGF21 receptor, composing FGFR1 and β -klotho (KLB), were dysregulated in the ventral tegmental area of HFD-fed mice while GB infusion recovered FGF21 receptors. In conclusion, the BAT KATP channels promoted BATokines release and reduced depressive symptoms via dopaminergic transmission in HFD-fed mice.



S34

The potential role of polyploidization & de-polyploidization in physiopathological significance

Heng Lin, Yen-Sung Huang, Jean-Michel Fustin, Masao Doi, Huatao Chen, Hui-Huang Lai, Shu-Hui Lin, Yen-Lurk Lee, Pei-Chih King, Hsien-San Hou, Hao-Wen Chen, Pei-Yun Young, Hsu-Wen Chao

Department of Physiology, School of Medicine, College of Medicine, Taipei Medical University

Hepatocellular carcinoma (HCC) is the most predominant primary malignancy in the liver. Genotoxic and genetic models have revealed that HCC cells are derived from hepatocytes, but where the critical region for tumor foci emergence is and how this transformation occurs are still unclear. Here, hyperpolyploidization of hepatocytes around centrilobular (CL)-region was demonstrated to be closely linked with the development of HCC cells after DEN treatment. We identified the CL-region as a dominant lobule for accumulation of hyperpolyploid hepatocytes and preneoplastic tumor foci formation. We also demonstrated that upregulation of Aurkb plays a critical role in promoting hyperpolyploidization. Increase of AURKB phosphorylation was detected on the midbody during cytokinesis, causing abscission failure and hyperpolyploidization. Injection of the AURKB inhibitor, dramatically reduced nucleus size and tumor foci number surrounding the centrilobular region in DEN-treated liver. Our work reveals an intimate molecular link between pathological hyperpolyploidy of CL-hepatocytes and transformation of HCC cells.



3月27日(日) 13:30–14:00

第一會議室

Noncanonical functions of tight junction proteins – Occludin and ZO-1 determine the mucosal homeostasis

Wei-Ting Kuo

Graduate Institute of Oral Biology, College of Medicine, National Taiwan University

Background & aims: Epithelial tight junctions are compromised in gastrointestinal disease, which leads to barrier loss and increased permeability. Nevertheless, altered expression of occludin and ZO-1 had been linked to the contribution of non-barrier functions such as hearing loss and lumenogenesis. We asked whether stress could unmask occludin and ZO-1 functions within mucosal homeostasis.

Results: Intestinal epithelial occludin loss limited severity of DSS-induced colitis due to epithelial resistance to apoptosis through intrinsic and extrinsic pathways. Promoter analysis revealed that occludin enhances CASP3 transcription and, conversely, that occludin downregulation reduces caspase-3 expression. Analysis of biopsies from patients with inflammatory bowel disease and normal controls demonstrated that disease-associated occludin downregulation was accompanied by and correlated with reduced caspase-3 expression. Next, we generated intestinal-specific ZO-1 KO mice to study the role of ZO-1 in vivo due to its embryonic lethality. These mice were hypersensitive to mucosal insults and displayed defective repair. Furthermore, ZO-1-deficient colonic epithelia failed to upregulate proliferation and Wnt signaling in response to damage. ZO-1 was associated with centrioles in interphase cells and mitotic spindle poles during division. In the absence of ZO-1, mitotic spindles failed to correctly orient, resulting in mitotic catastrophe and abortive proliferation.

Conclusions: The tight junction protein occludin regulates apoptosis by enhancing caspase-3 transcription. ZO-1 makes critical, tight junction-independent contributions to Wnt signaling and mitotic spindle orientation, essential for mucosal repair. These data suggested that tight junction proteins have non-barrier functions that impact epithelial survival and repair. Investigating the mechanisms will bridge a knowledge gap essential for developing therapies to overcome occludin and ZO-1 downregulation in mucosal diseases.



3 月 27 日 (日) 14:00–14:30
第一會議室

MED12-related disorders and hearing loss symptom

Teng-Wei (Peter) Huang

Graduate Institute of Biomedical Sciences, China Medical University, Taichung, Taiwan (R.O.C.)

Mediator protein complex subunit 12 (MED12) is a core component of the basal transcriptional apparatus and plays a critical role in the development of many tissues. Mutations in MED12 are associated with human X-linked intellectual disability syndromes and hearing loss; however, its role in nervous system function remains undefined. We show that temporal conditional deletion of Med12 in astrocytes in the adult central nervous system results in region-specific alterations in astrocyte morphology. Surprisingly, behavioral studies revealed rapid hearing loss after adult deletion of Med12 that was confirmed by a complete abrogation of auditory brainstem responses. Cellular analysis of the cochlea revealed degeneration of the stria vascularis, in conjunction with disorganization of basal cells adjacent to the spiral ligament and downregulation of key cell adhesion proteins. Physiological analysis revealed early changes in endocochlear potential, consistent with stria-specific defects. Together, our studies reveal that Med12 regulates auditory function in the adult by preserving the structural integrity of the stria vascularis. In addition, the preliminary result suggests that Med12 function is critical for the migration of immature neurons and reactive astrocytes. Further study with the Med12 cKO mouse models we established could provide insights into the pathological mechanism underlying MED12-related disorders and may benefit the development of the possible treatment.



3月27日(日) 14:30–15:00

第一會議室

Infiltrating monocytes promote inflammation–sensitized neonatal brain injury and contribute to the resident microglial pool

Yu–Yo Sun

Institute of BioPharmaceutical Sciences, National Sun Yat–sen University, Kaohsiung, Taiwan

Monocytes often interact with tissue macrophages after injury, but their pathological functions and outcomes in neonatal cerebral hypoxia–ischemia (HI) remain uncertain. Herein we used three fate–mapping methods (CX3CR1GFP/+; CCR2RFP/+ reporter mice, transfer of actin–GFP+ monocytes, and tamoxifen–dosed CCR2–CreER; R26R–GFP mice) plus genetic and pharmacological intervention of monocytic influx to investigate these issues. Analysis using CX3CR1GFP/+; CCR2RFP/+ mice showed an influx of CCR2+ monocytes across the choroid plexus that quickly became CX3CR1+ amoeboid microglial cells (AMCs) in perinatal brains. This influx of CCR2+ monocytes declined postnatally, but reemerged after HI or lipopolysaccharide–sensitized HI (LPS/HI) brain injury, particularly in the hippocampus even without clear local damage. The CCR2–CreER–based fate–mapping showed that CCR2+ monocytes first became CD68+ TNFα+ macrophages within 4 d after LPS/HI, and sustained as TNFα+ MHCII+ macrophages or converted to Tmem119+ Sall1+ P2RY12+ microglial cells with a ramified morphology at one to five months of recovery. Genetic deletion of the chemokine receptor CCR2 markedly reduced monocytic influx, the expression of M1– and M2–like cytokines, and brain tissue degeneration. Post–LPS/HI application of RS102895 (a CCR2 antagonist) also reduced brain atrophy and the expression of pro–inflammatory cytokines, leading to improved cognitive functions at 45 d after the insult. These results suggest that monocytes promote neuroinflammation and acute brain damage after neonatal LPS/HI injury, and assimilate into the resident microglial pool to exert long–term deleterious effects. Hence, blocking monocytic influx may be an effective treatment of neonatal brain injury.



S38

AMPA-type glutamate receptor function in neurodevelopmental disorders

Shu-Ling Chiu

Institute of Cellular and Organismic Biology and Neuroscience Program of Academia Sinica, Academia Sinica

AMPA-type glutamate receptors (AMPA_Rs) are neurotransmitter receptors that mediate the majority of fast excitatory synaptic transmission in the brain. The number of AMPA_Rs at post-synapses are dynamically regulated to impact synaptic efficacy and synaptic plasticity, and is therefore thought to be critical for human cognition. However, how do AMPA_Rs traffic in and out of synapses and how does AMPA_R regulate human cognitive behaviors remain unclear. Our lab studies the molecular and cellular basis of AMPA_R trafficking and function, and the underlying mechanism by which AMPA_Rs impact human cognitive disorders. In combination of cell biology, electrophysiology, mouse genetics and animal behavior approaches, we found that endosomal trafficking systems play important roles in delivering AMPA_Rs to synapses in an activity-dependent manner. Moreover, mutations of AMPA_Rs and AMPA_R-associated endosomal trafficking proteins identified from neurodevelopmental disorders impair synaptic AMPA_R number, function and neuronal connectivity. Most importantly, mice carrying these mutations or lacking these proteins recapitulated human cognitive abnormalities in learning and memory as well as social behaviors. Together, we demonstrated a direct function link of AMPA_R trafficking and function to human cognitive disorders, and provided mechanistic insights into how AMPA_Rs malfunctions contribute to intellectual disability and autism spectrum disorder.



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3月26日(六) 13:30–14:00

第一會議室

The effects of corylin on obesity.

Shu Huei Wang

Department of Anatomy and Cell Biology, College of Medicine, National Taiwan University, Taipei, Taiwan

Obesity is a major cause of metabolic syndrome and type II diabetes, and it presents with metabolic disorders, such as hyperglycemia, hyperlipidemia, and insulin resistance. Brown adipose tissue (BAT) activation or beige adipocytes in white adipocytes (WAT) (browning) is a novel strategy for the prevention and treatment of obesity and related diseases. Corylin, a flavonoid compound extract from *Psoralea corylifolia* L., has been shown to exert anti-inflammatory, anticancer, and anti-atherosclerotic effects and ameliorate hyperlipidemia and insulin resistance. The present study showed that corylin increases BAT activation and the formation of beige adipocytes in mouse WAT, which appeared to be primarily mediated by SIRT1 and β 3-AR.



S40

Abnormal Chondroitin Sulfate in Tumor Microenvironment of Glioma

Chiung-Hui Liu¹, Kuo-Chen Wei², , Wen-Chieh Liao¹, Yin-Hung Chu¹

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The goal of our laboratory is to develop new treatments for human cancers by exploring the roles of abnormal glycosaminoglycan (GAG) accumulation in tumor microenvironment (TME). More recently, we have focused on chondroitin sulfate (CS)-modifying enzymes (e.g., chondroitin sulfate synthases (CHSYs) and dermatan sulfate epimerase (DSE)), which are frequently overexpressed in human gliomas and are associated with the poor survival of patients with this type of tumor. We found that these enzymes not only altered CS formation in the tumorous cells and tumor TME, but also promoted tumor cell growth and invasiveness by regulating the activities of receptor tyrosine kinases and integrins. Interestingly, our preliminary tests of CS56 immunostaining on a glioma tissue array demonstrated an unusual CS signal surround neoplastic vessels in a subset of glioma patients (37/85; 43.5%) but did not detect in normal brain tissue (0/5). Additionally, we tested the effects of recombinant CS-binding peptides on glioma cells in vitro, and found the cell viability and mobility were suppressed. Thus, such CS-specific targeting may allow the possible modulation of the interactions among the glioma cells themselves and cells in TME. We hypothesize that methods for blocking the functions or the accumulation of CS in glioma tissue have great potential to be developed into novel treatments for patients with glioma.



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3月26日(六) 14:30–15:00

第一會議室

The impact of uremic toxin indoxyl sulfate on striated muscles

Ying Chen

National Defense Medical Center

Uremic sarcopenia and cardiovascular (CV) disorders alter patients with chronic kidney disease (CKD). Indoxyl sulfate (IS) and p-cresyl sulfate are compounds, which cannot be removed by hemodialysis, may cause tissues damage in CKD. The recent findings of IS on skeletal myotube and cardiomyocytes will be introduced. JNK is involved in IS-induced muscle atrophy and connexin 43 (Cx43) reduction in C2C12 myotube and primary cultured cardiomyocytes, respectively. In nephrectomy-induced CKD animals, alteration in skeletal muscles and Cx43 expression in cardiac muscles are indicated. Our findings identify that uremic toxin IS may activate JNK signaling to remodel skeletal muscle cells and Cx43 assembly. JNK-targeted inhibition may regard as therapeutic approach in uremic myopathy.



3 月 26 日 (六) 15:00–15:30

第一會議室

S42

Characterization the role of hypertension in brain function impairment and Alzheimer's disease

Shih Yao-Hsiang

Department of Anatomy, school of medicine, Kaohsiung Medical University, Kaohsiung, Taiwan

高血壓 (Hypertension, HTN) 與腦功能及阿茲海默氏症 (Alzheimer's Disease, AD) 有關, HTN 會造成腦血管病變、血腦屏障 (Blood-Brain Barrier, BBB) 受損。但 HTN 影響腦功能及 AD 的機制仍不清楚。然而, HTN 是否會直接影響腦功能與惡化 AD, 或者 HTN 與兩者的變化僅只是老化的共病現象, 目前仍待闡明。為了釐清高血壓與腦功能的因果關係, 我們使用二腎一夾法 (2-Kidney-1-Clip, 2K1C) 證明 HTN 可以在 wild type 小鼠上 (1) 影響海馬迴相關記憶功能及 (2) 減少成年海馬迴神經新生及樹突分支。另外我們也利用 2K1C 在不同年齡的 AD 疾病小鼠模型 (3xTg) 上證明了高血壓會惡化 AD 相關的病理變化, 包含了類澱粉蛋白沉澱、澱蛋白磷酸化及記憶受損。同時也觀察到組織學相關的血腦屏障受損及樹突突觸減少現象。同時, 我們在 7 個月大的蘭嶼迷你豬身上, 進行腹主動脈窄化手術 (abdominal aortic constriction, AAC) 已引起高血壓, 並證明了高血壓後會引起豬隻腦中的乙型類澱粉蛋白 ($A\beta$) 的量增加與 Tau 磷酸化 (pT212-Tau 及 pS412-Tau) 程度的上升, 間接說明了高血壓也能在非基因調控的動物模型中加速 AD 相關的病理形成。結論我們認為高血壓可能透過影響成年海馬神經新生造成腦功能受損, 此外也會加速 AD 的病理惡化速度。



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3月27日(日) 13:30–14:00

第三會議室

Sharing of the experience in exosome research from isolation, characterization, and experiments in the cells and animals

Ching-Hua Hsieh

Department of Plastic Surgery, Kaohsiung Chang Gung Memorial Hospital

Exosomes are a group of secreted membrane vesicles characterized by nanoscale dimensions and a complex composition made up of proteins, lipids and nucleic acids. The release of exosomes occurs by the fusion of multivesicular bodies with the plasma membrane and serves for intercellular communication. In this presentation, we will share our experience of exosome research in the past five years and describe our know-how, propose possible solution, and point out pitfall and obstacle in a practical point of view. These topics will include (1) the isolation of exosomes from a variety of extracellular vesicles such as microvesicles or apoptotic bodies and the current concept of small extracellular vesicles; (2) different kinds of isolation methods for exosomes (ultracentrifugation, size-exclusion chromatography, density gradient medium, and polymer precipitation); (3) characterization of the exosomes based on minimal information for studies of extracellular vesicles (MISEV); (4) our experience in the exploring the function of exosome in the in vitro experiment, regarding the different function of subpopulation of exosomes, transfection of exosomes, and the exploration of exosomal content; (5) our experience in exploring the function of exosome treatment in the mice, especially the consideration of the amount, the way, and the biodistribution of exosome treatment.



S44

Recent Strategies in 3D Cell Printing toward Tissue Biofabrication and Precision Medicine

Ming–You Shie

School of Dentistry, China Medical University

The capability to replicate human organs and tissue for clinical applications is one of the ultimate goals of tissue engineering. Cell bioprinting technology utilizing three–dimensional (3D) printing techniques allowed us to fabricate artificial tissues and organs and such fabrication techniques have led us to a new paradigm in tissue engineering as compared to the past. Of the numerous printing techniques currently available, extrusion printing is the most commonly used technique for cell printing applications due to its low cost and wide range of available materials such as ceramics, hydrogels and composites. However, there are many major hurdles in organ and tissue fabrication which includes difficulties in fabricating mimicry complex structural features and functional vasculatures and also difficulties in mimicking biophysical and biochemical characteristics in the printed constructs. Therefore, one of the goals for us was to develop bone scaffolds with blood vessels. Currently, there are numerous other tissue engineering studies being conducted which includes osteochondral regeneration, vascular grafts, nerve conduits, multi–cell skin tissue, etc., of which many of them are well–validated in vivo test. The development and evolution of bioprinting techniques had increased the chance to fabricate physiologically similar human organ and tissue that used for high–throughput measurement of drug testing. The organ–on–chip system can manufacture with integrated microfluidics to allow for the precise control and mimics of cellular environments with various cell types. Further control over these cellular microenvironments can be completed with biofabrication, allowing for one–step manufacturing of a 3D micro–environment with multiple materials and cell types to mimic native micro–environments. Cellular behaviors vary drastically between a 2D and a 3D culture system as cell behaviors are highly dependent on the physical, mechanical and biological characteristics of their micro–environment. Therefore, current technologies allowed us to fabricate 3D culture systems that could provide long–term cell–cultured and allowed specific stimulation which in turn enabled us to better understand the physiological processes of disease as well as the development of new novel therapies. We hope the 3D biofabrication system will express a profound impact on the understanding of physiological processes and study of diseases formation, as well as enhancement of our current therapy processes.



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science



3月27日(日) 14:30–15:00

第三會議室

From centrosome to primary cilia upon DNA damage

Chia-Yih Wang

Department of Cell Biology and Anatomy, College of Medicine, National Cheng Kung University

The DNA-PK maintains cell survival when DNA damage occurs. In addition, aberrant activation of the DNA-PK induces centrosome amplification, suggesting additional roles for this kinase. Here, we showed that the DNA-PK-p53 cascade induced primary cilia formation (ciliogenesis), thus maintaining the DNA damage response under genotoxic stress. Treatment with genotoxic drugs led to ciliogenesis. Upon genotoxic stress, several DNA damage signaling were activated, but only the DNA-PK-p53 cascade contributed to ciliogenesis, as pharmacological inhibition or genetic depletion of this pathway decreased genotoxic stress-induced ciliogenesis. Interestingly, in addition to localizing to the nucleus, activated DNA-PK localized to the base of the primary cilium (mother centriole) and daughter centriole. Genotoxic stress also induced autophagy. Inhibition of autophagy initiation or lysosomal degradation or depletion of ATG7 decreased genotoxic stress-induced ciliogenesis. Besides, inhibition of ciliogenesis by depletion of IFT88 or CEP164 attenuated the genotoxic stress-induced DNA damage response. Thus, our study uncovered the interplay among genotoxic stress, the primary cilium, and the DNA damage response.



S46

Stem Cell-based therapeutic approaches for sensorineural hearing loss

Yi-Chao Hsu

Institute of Biomedical Sciences, Mackay Medical College

The human auditory system can be divided into the outer ear, middle ear, and inner ear. It is a delicate sensory system that receives different frequencies of sound. Any small defect, damage, or cell death in the inner ear can result in hearing loss with varying severities. The human hearing is composed of the inner ear, the sensory epithelium, lateral wall, and auditory nerves. To date, billions of people worldwide experience hearing loss, predominantly, sensorineural hearing loss (SNHL) due to damage or loss of the sensory hair cells, spiral ganglion neurons, or defects in the inner ear. Stem cell-based therapies therefore seem promising to treat SNHL by repairing cochlear tissue damage or replacing cochlear cells. Moreover, induced pluripotent stem cell (iPSC)-based clinical trials are currently being tested for their efficacy to treat several neurological disorders, such as age-related macular degeneration, spinal cord injury, and Parkinson's disease. Herein, we discuss the progress and therapeutic potentials for using different types of stem cells to treat SNHL.



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science



3月26日(六) 14:10–15:00

第三會議室

Ultrasound in molecular imaging and therapy

Dr. Chih-Kuang Yeh

Institute of Nuclear Engineering and Science, National Tsing Hua University, Taiwan

The discipline of medical imaging is expanding beyond an assessment of anatomical structure to functional imaging and an assessment of the nature and extent of disease. This advancement is made possible by recent discoveries in molecular science, which provide the opportunity to design targeted contrast agents. Targeted imaging using ultrasound relies on contrast agents to localize a specific molecular signature or physiologic system and combines the efficacy of a contrast agent with an adhesion molecule to target the contrast directly to the desired region. Current ultrasound contrast agents are encapsulated microbubbles and have demonstrated effectiveness in cardiology and radiology. These contrast agents become identifiers of a specific molecular signature either by their preferential uptake by a physiologic system or by specific targeting of the agent through incorporation of adhesion molecules into the microbubble shell. Targeted ultrasound contrast agents provide an opportunity to image physiology or pathology that might be otherwise difficult to distinguish from the surrounding tissue without targeted contrast enhancement.



3 月 26 日 (六) 15:10–16:00

第三會議室

Optical Microscope for Healthcare in Digital Way

Dr. I-Jen Chen

Southport Corporation Inc. Taiwan

As a new concept in optical engineering, digital optics, also named software-defined optics brings new possibilities into many optical applications in the last decade. Especially in the bio-medical field, digital optics has changed the way scientists and engineers think, use, and build up the microscope. The non-scan two-photon microscope and multi-point Raman microscope have shown their great performance on bio-medical samples in many cases. In this talk, how digital optics improves the confocal, two-photon, and Raman microscope with the concept of software-defined optics will be addressed. Novel microscopes developed by Southport, including the software-defined microscope, pure optical super-resolution microscope, and the multi-foci optical tweezer and their applications will also be introduced.



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science



3月26日(六) 16:10-17:00

第三會議室

MRI Radiomics and Machine Learning in Brain Tumors

Dr. Chia-Feng Lu

Department of Biomedical Imaging and Radiological Sciences, National Yang Ming Chiao Tung University, Taiwan

Growing evidence has revealed the feasibility of using MRI phenotypes to probe the underlying genotypes and predict the clinical outcomes in brain tumors. Radiomics, a recently developed high-throughput approach, can potentially characterize tumor phenotypes by using thousands of image features covering the entire tumor volume. To handle such a large amount of radiomic features, machine-learning algorithms with proper training data sets provide reliable models for tumor classification and outcome prediction.

In this talk, we will start by introducing the concepts of radiomics followed by the international standardized initiative to improve the robustness and reproducibility of radiomics studies. The applications of machine learning based on the MRI radiomics will be demonstrated in the predictions of molecular subtyping in gliomas and treatment responses of brain tumors after gamma knife radiosurgery. Finally, perspectives of current limitations and future developments of radiomics technique in brain tumor studies will be proposed and discussed to facilitate the machine-learning based precision medicine.



S50

Noncellular Regenerative Therapy in the Treatment of Alzheimer's Disease and Osteoporosis

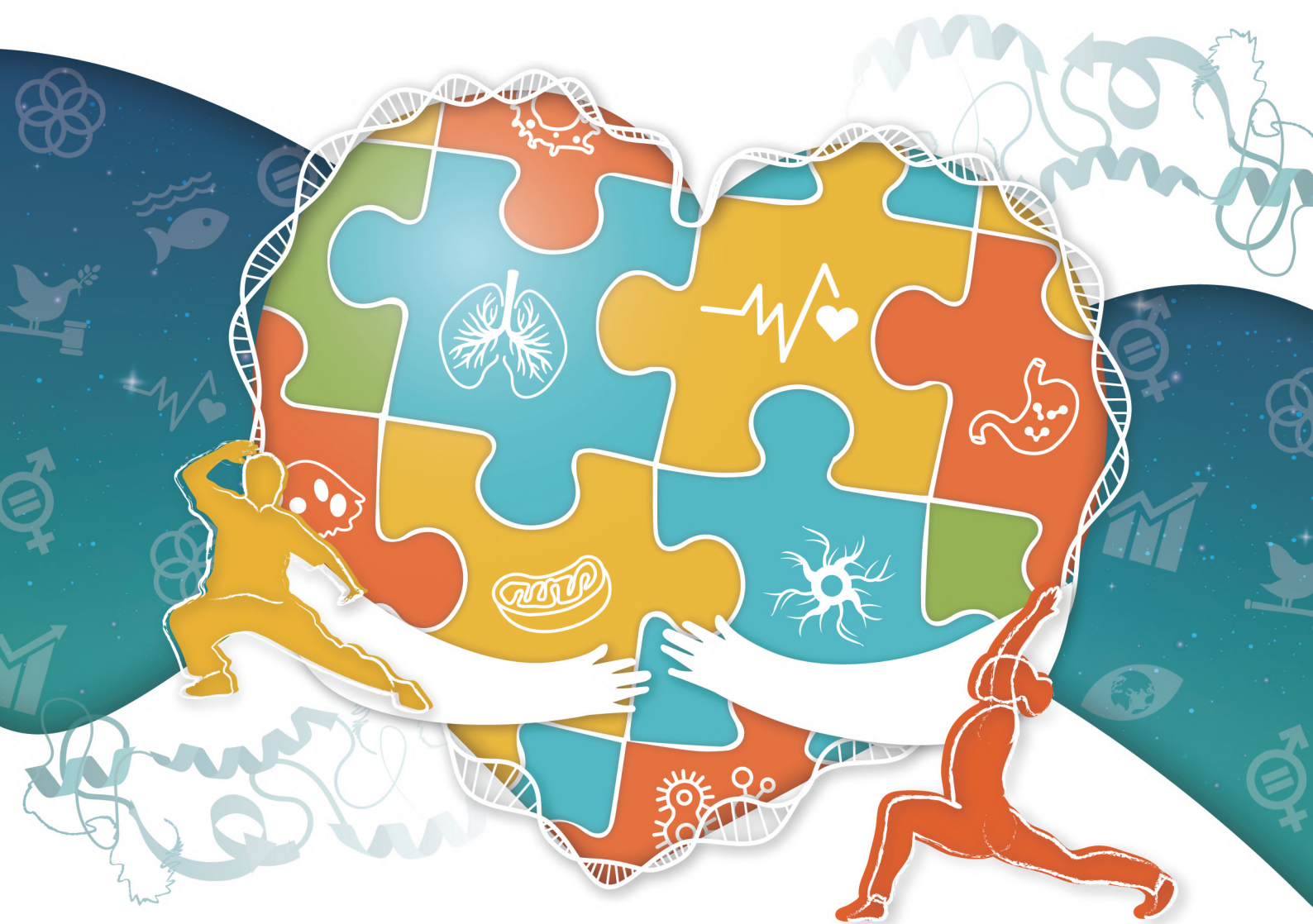
Dr. Ren-Shyan Liu

Cheng Hsin General Hospital, Taipei Veterans General Hospital, National Yang Ming Chiao Tung University, Taiwan

Owing to the tendency of aging society in the coming future, the strategy of how to maintain the health in the elder person is an important issue of regenerative medicine. Mesenchymal stem cells have already been a potential biomedical therapeutic aging in this field. Due to the limitations of stem cell therapy regarding culture of stem cells, complications of therapy and carcinogenesis risk, the extracellular vesicles of stem cell have been promoted as an alternative therapy of stem cell therapy.

The research team from NYCU, Taipei Veterans General Hospital and Cheng-Hsin General Hospital disclosed that the extracellular vesicles derived from mesenchymal stem cells (MSCEVs) are effective for treatment of small animal models of Alzheimer's disease and osteoporosis. The MSCEVs were proved not only to have the potential to reduce the amyloid accumulation in the brain and improve the cerebral glucose metabolism and cognitive function, but also to prevent the bone loss and increase the bone density in osteoporotic mice. This noncellular regenerative therapy is able to be an alternative therapy complementary to stem cell therapy in regenerative medicine.

科技新知研討會
Technology Symposium





T1

時間：3月26日(六)12:00–13:00

地點：表演廳

單位：萊富生命科技股份有限公司

1. 影像式流式細胞儀 CytPix 以及光譜式細胞分選儀 BigFoot
2. 基因分析平台的不斷進化 – 瞭解全新的數位 PCR 與基因分析儀如何提升您的研究與檢測
3. 新品速遞 – 開箱首秀！桌上多功能離心機

Speaker :

1. Nancy Hsiao, Product Manager
2. Nai-Chen Chao, Technical Sales Specialist, Genetic Sciences Group
3. David Wang (Regional Product Manager, Laboratory Product Division)
Charlie Lin (Business Development Manager, Laboratory Product Division)

全新的流式細胞儀 –Invitrogen Attune CytPix，利用流式細胞術和細胞影像數據，在無需更改實驗方法下可以同時快速輕鬆地獲取明場圖像和流式細胞分析數據組，讓您更有自信地確認細胞特徵和樣品品質。除此之外，Invitrogen 即將上市的細胞分選儀 –Bigfoot，搭配光譜式技術幫助完成多色螢光配置實驗，創新的自動化操作與高速分析分選，大幅簡化並加速實驗操作流程

From the gold-standard technology that helped power the Human Genome Project to the in-house expertise that has continued to support genomic breakthroughs the world over, Applied Biosystems is where genomics comes together. Today, we are happy to introduce you two brand new systems from Thermo Fisher Scientific, QuantStudio Absolute Q Digital PCR system, and Applied Biosystems SeqStudio Flex. With a wide range of applications from genotyping to absolute quantification, we are delivering the complete end-to-end workflow solutions that you need to ask life's biggest questions – then go out and find the answers.

全新跨時代 Thermo Scientific 多功能桌面離心機台灣首秀。開箱 Thermo Scientific 多功能桌面離心機，揭開它的電器安全性，機械安全性和生物安全性的秘密。您的實驗安全 我們來守護！



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

T2

時間：3月26日(六)12:00–13:00

地點：第一會議室

單位：諾倫科技股份有限公司

組織切片只有微米厚度的訊息？ 次世代 3D 病理影像技術的革新

Speaker：

黃元孝（諾倫科技股份有限公司執行長）

傳統病理切片技術一片 3~5 微米的厚度已是極限

僅能獲得冰山一角的樣本資訊

現在 3D 病理組織影像技術可提供更全面的訊息！

能呈現高達 2 公分厚的完整組織資訊

一起來聽聽諾倫科技如何以 3D 病理創新技術，改善目前檢測瓶頸

諾倫科技由一群生物、光學與軟體等新銳科學家與工程師

所組成的專業生物影像技術公司，擁有領先全球的 3D 全組織病理掃描影像技術

其頂尖的 3D Pathology Platform 技術平台提供一站式的全組織病理影像服務

可改善傳統病理切片技術因單一切面所產生的資訊斷層以及視覺死角

為病理檢測提供更全面精準的資訊報告



T3

時間：3月26日(六)12:00–13:00

地點：第二會議室

單位：華東醫藥股份有限公司

Breakthrough Technology in Nephrology–Transdermal measurement of glomerular filtration rate in preclinical research

Speaker :

Daniel Schock–Kusch leads the preclinical business for MediBeacon globally.

Transdermal measurement of glomerular filtration rate (tGFR) using a miniaturized fluorescence detector in combination with a fluorescent exogenous GFR tracer has become a common technique to measure kidney function in the preclinical setting. It allows GFR measurements in awake unrestrained animals and has been shown to overcome several limitations like the low precision and sensitivity of endogenous tracers like creatinine or urea and the need of repeated blood and or urine sampling. There are more than 270 published research articles and conference abstracts applying the technique in different research fields like characterization of renal function, assessment of new and existing kidney therapeutics, evaluation of nephrotoxicity, screening of novel chemical or medical agents, and fundamental understanding of kidney function. The currently available system allows the measurement of the elimination kinetics of the intravenously injected fluorescent GFR tracer FITC–Sinistrin. Based on the elimination kinetics GFR can be determined in unpigmented as well as in pigmented animals. In this overview talk transdermal GFR concepts and workflow will be described and use cases will be presented. Especially the high sensitivity of the system and the ability to monitor the GFR of the same animal repeatedly at several time points without the need of blood or urine sampling helps to reduce animal numbers and reduce the burden on these animals in preclinical studies.



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science



時間：3月26日(六)12:00–13:00

地點：第三會議室

單位：伯森生物科技股份有限公司

Friendly Neighborhood BlossomBio Supports Your Cancer Research

Speaker :

Bowen Cheng (Blossom Biotechnologies Inc.)

For many years, cancer has been the leading cause of death in Taiwan. Understanding the process regarding the initiation, progression and behavior of tumor at different level is crucial for scientists. As the research around cancer develops rapidly, previous knowledge needs to be updated frequently. This talk will cover several topics about the modernized research in cancer biology, including applications of the third generation long read sequencing in precision medicine, drug screening and development via high throughput screening platform ALPHA, cardiovascular system mimicking on a channel chip...etc.



T5

時間：3月27日(日)12:00–13:00

地點：表演廳

單位：GenScript Biotech Singapore Pte Ltd

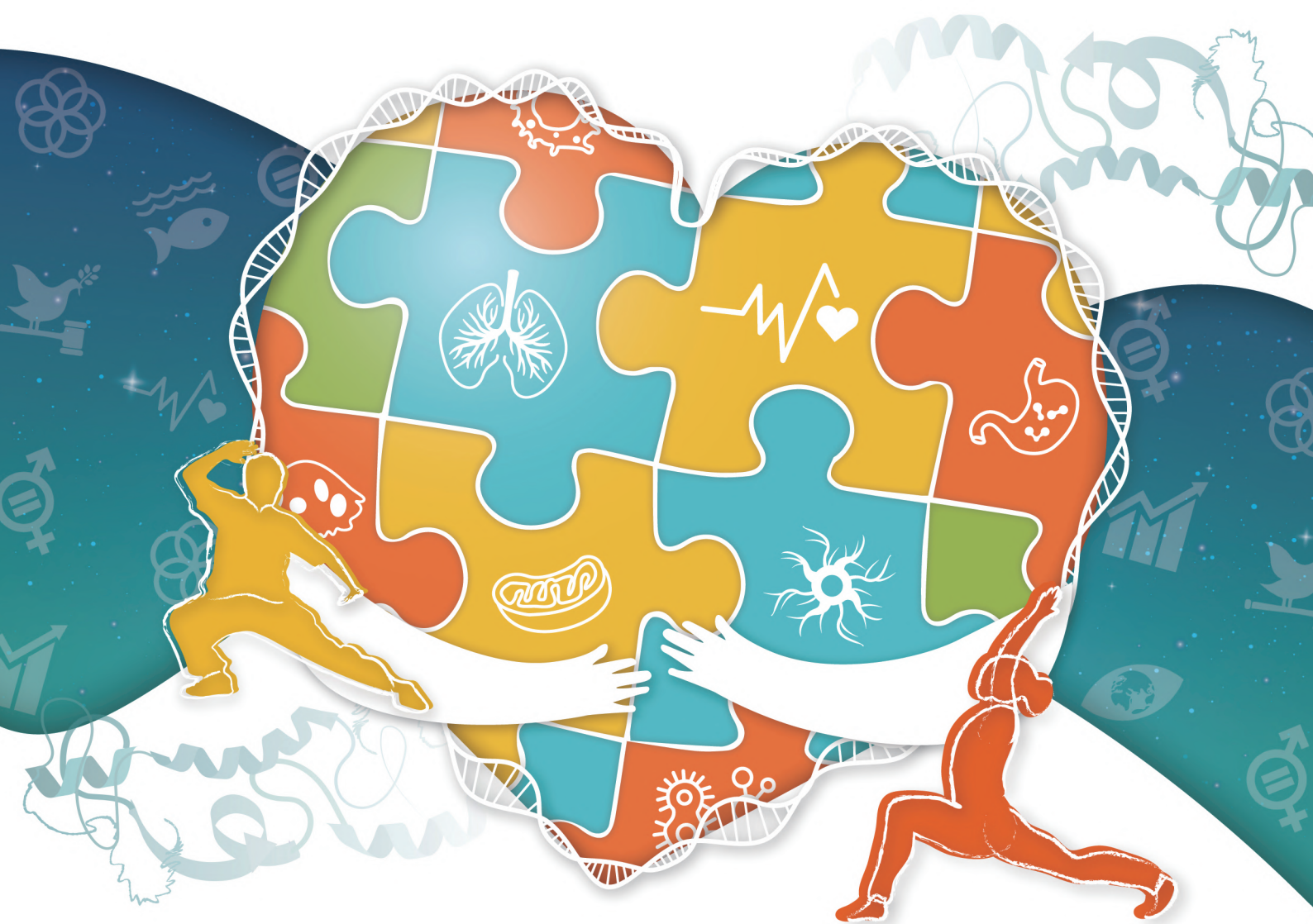
The fundamental development of CAR–T therapy from the past to the future.

Speaker :

Leo, Hsuan–wei Huang Ph. D. 黃鉉瑋 博士

The first chimeric antigen receptor T (CAR–T) cell therapy has been approved by U.S. Food and Drug Administration for certain B–cell lymphoma patients in 2017. After that, cell therapy became more and more hot topic worldwide. The CAR–T cell therapy is now being investigated in several tumor types, which included hematologic and solid tumors, respectively. The CAR–T cell therapy will acquire and isolate the T cells from the peripheral blood mononuclear cell (PBMC) of patients, then amplify and engineer the cell in vitro environments. After that, the T cells will express the CAR molecule on T cells to target tumor cells, which become the real CAR–T cell. As the CAR–T cell therapy moves into the late stage, like clinical trials, the compliance requirement of the CAR–T cell manufacturing with regulatory affairs becomes more and more important. For the best practices, antibody discovery will play an important role in the lead generation of CAR molecules. In addition, our high–throughput protein production services can help you with proofing of concept and our experienced team will help the molecule optimization if required as well as the CAR–T validation. For the virus packaging, GenScript has ready–to–use products, such as the helper plasmids for research use. Meanwhile, as a one–stop solution provider, we also offer high–quality CDMO services to our clients from plasmid to the virus with solid track records. We have registered the master file in FDA for speeding up your CAR–T cell therapy projects. Taken together, we will be the best partner from the research to the commercial stage of your projects.

口頭論文報告
Oral Presentation





口頭論文資訊

3 月 26 日

學會別	地點	時間	編號
大會主題競賽	多功能會議室	13:20-15:00	O01-O12
台灣藥理學會	多功能會議室	09:00-10:30	O16-O26、O97
台灣毒物學會	守仁樓 105 講堂	09:00-10:20	O79-O86
台灣毒物學會	多功能會議室	15:10-16:30	O87-O92

3 月 27 日

學會別	地點	時間	編號
中華民國免疫學會	多功能會議室	09:00-11:00	O27-O31
中華民國細胞及分子生物學學會	大禮堂	10:00-11:30	O43-O51
台灣分子生物影像學會	第一會議室	10:10-11:10	O93-O96
中華民國臨床生化學會	第二會議室	09:00-12:00	O72-O78
中華民國解剖學學會	第三會議室	09:00-11:00	O52-O65
中國生理學會	多功能會議室	11:00-12:30	O16-O26

* 論文編號不等於人數



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

大會主題競賽

3月26日(六) 13:20-15:00

多功能會議室

座長：李青濤 秘書長

編號	論文題目
O01	Daidzein Synergizes with Gefitinib to Activate ROS/ASK-1/JNK and Inhibit EGFR-STAT/AKT/ERK Pathways to Induce Apoptosis in Lung Adenocarcinoma Cells Thomas Gabriel Mhone ¹ , Ming-Cheng Chen ^{2,3} , Chia-Hua Kuo ⁴ , Tzu-Ching Shih ⁵ , Yu-Lan Yeh ^{8,9} , Tso-Fu Wang ^{1,2} , Ray-Jade Chen ¹⁰ , Yu-Chun Chang ¹ , Wei-Wen Kuo ¹¹ , Chih-Yang Huang ^{1,12,13,14,15*} Thomas Gabriel Mhone ¹ , Ming-Cheng Chen ^{2,3} , Chia-Hua Kuo ⁴ , Tzu-Ching Shih ⁵ , Yu-Lan Yeh ^{8,9} , Tso-Fu Wang ^{1,2} , Ray-Jade Chen ¹⁰ , Yu-Chun Chang ¹ , Wei-Wen Kuo ¹¹ , Chih-Yang Huang ^{1,12,13,14,15*}
O03	Transplanted Mouse Embryonic Stem Cell-Derived Retinal Ganglion Cells Integrate and Form Synapses in a Retinal Ganglion Cell-Depleted Mouse Model 吳祐任 ^{1,2} Tomoyo Hashiguchi ¹ Junki Sho ¹ 邱士華 ² Masayo Takahashi ^{1,3} and Michiko Mandai ¹ You-Ren Wu ^{1,2} Tomoyo Hashiguchi ¹ Junki Sho ¹ Shih-Hwa Chiou ² Masayo Takahashi ^{1,3} and Michiko Mandai ¹
O07	Deficiency of IL-21 Receptor Amplifies GM-CSF Production in CD4 T Cells to Exacerbate Experimental Autoimmune Encephalomyelitis 董佳鈴 ¹ , 簡明偉 ^{2,3} , 司徒惠康 ^{1,2,3} Jia-Ling Dong ¹ , Ming-Wei Chien ^{2,3} , Huey-Kang Sytwu ^{1,2,3}
O09	Multimodal Single-Cell Analysis Provides Novel Insights On Ankylosing Spondylitis In Females 陳信華、王瀟瑤、宋曉妮、趙文震、柳冠廷、廖玟婷、黃柔諭、柯泰名 Hsin-Hua Chen [#] , Jing-Rong Wang [#] , Hsiao-Ni Sung, Wen-Cheng Chao, Kuan-Ting Liu, Wen-Ting Liao, Jou-Yu Huang, Tai-Ming Ko #These authors contributed equally to this work: Hsin-Hua Chen, Jing-Rong Wang
O10	Aggravation of Pulmonary Fibrosis after Knockdown of the Aryl Hydrocarbon Receptor in the Insulin-Like Growth Factor 1 Receptor Pathway 吳昇懋 ^{1,8} , 蔡肇基 ² , 潘宏川 ^{3,6,7,8} , Jack L. Arbiser ⁴ , Leonardo Elia ⁵ , 許美鈴 ^{1,6,7*} Sheng-Mao Wu ^{1,8} , Jaw-Ji Tsai ² , Hung-Chuan Pan ^{3,6,7,8} , Jack L. Arbiser ⁴ , Leonardo Elia ⁵ , Meei-Ling Sheu ^{1,6,7*}
O12	Host CDK-1 and formin mediate microvillar effacement induced by enterohemorrhagic Escherichia coli 黃晟榮, 郭承儒, 黃智玟, 陳昱廷, 劉邦渝, 李忠達, 陳柏齡, 張文榮, 陳韻雯, 李澤民, 謝惠臻, 陳昌熙 Cheng-Rung Huang, Cheng-Ju Kuo, Chih-Wen Huang, Yu-Ting Chen, Bang-Yu Liu, Chung-Ta Lee, Po-Lin Chen, Wen-Tsan Chang, Yun-Wen Chen, Tzer-Min Lee, Hui-Chen Hsieh & Chang-Shi Chen



台灣藥理學會

3月26日(六) 09:00-10:30

多功能會議室

座長：張文昌 講座教授

編號	論文題目
O66	Targeting Histone Deacetylase-3 Blocked Epithelial-Mesenchymal Plasticity and Metastatic Dissemination in Gastric Cancer 吳昇懋 1, 詹以吉 2, 蔡世傳 3, 潘宏川 4, 沈錦昌 5, 楊振寧 6, 李淑華 1, 劉興華 7, 沈立偉 1, 邱乾善 8, Jack L Arbiser 9, 孟孟孝 13, 許美鈴 1,11* Sheng-Mao Wu 1, Yee-Jee Jan 2, Shih-Chuan Tsai 3, Hung-Chuan Pan 4, Chin-Chang Shen 5, Cheng-Ning Yang 6, Shu-Hua Lee 1, Shing-Hwa Liu 7, Li-Wei Shen 1, Chien-Shan Chiu 8, Jack L Arbiser 9, Menghsiao Meng 10, Meei-Ling Sheu 1
O68	Cigarette Smoke-induced LKB1/AMPK Pathway Deficiency Reduces EGFR TKI Sensitivity in NSCLC 鄭方茹 1, 2, 陳家弘 3,4, 王柏樟 5, 胡玳瑋 5, 蔡文正 6, 吳駿一 7, 湯智昕 1,5, 涂智彥 3,4, 洪明奇 2,5,8,9, 黃偉謙 5,8,9,10,* Fang-Ju Cheng1,2, Chia-Hung Chen, Bo-Wei Wang, Dai-Wei Hu, Wen-Chen Tsai, Chun-Yi Wu, Chih-Hsin Tang, Chih-Yen Tu, Mien-Chie Hung, Wei-Chien Huang3,4,5,6,*
O70	Distinct contribution of granular and agranular subdivisions of the retrosplenial cortex to remote contextual fear memory retrieval 蔡宗志, 余亭萱, 洪毓傑, 馮樂瑩, 許桂森 Tsung-Chih Tsai,1 Ting-Hsuan Yu,1 Yu-Chieh Hung,1 Lok-leng Fong,1 & Kuei-Sen Hsu1,2
O71	An Innovative NRF2 Nano-modulator induces Lung Cancer Ferroptosis and Elicits an Immunostimulatory Tumor Microenvironment 石馥瑄 1,3, 謝智雄 2, 謝宏嘉 2,3, 謝達斌 1,3,4,5,6, 王憶卿 2,3* Fu-Hsuan Shih1,3, Chih-Hsiung Hsieh2, Hung-Chia Hsieh2,3, Dar-Bin Shieh1,3,4,5,6, and Yi-Ching Wang1,3*
O97	Cigarette smoke-promoted osteopontin expression attract mesenchymal stem cells recruitment and facilitate lung cancer metastasis 江雅靖 1, 湯智昕 2* Ya-Jing Jiang1 , Chih-Hsin Tang2*



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

台灣毒物學會

3月26日(六) 09:00-10:20

守仁樓 105 講堂

座長：姜至剛 秘書長

編號	論文題目
O79	Deubiquitinase USP24 suppresses T cell antitumor activity via enhancement of PD-1 protein stability 謝宏嘉 1, 洪建中 2, 王憶卿 1 Hung-Chia Hsieh1, Jan-Jong Hung2, Yi-Ching Wang1*
O80	Cisplatin Treatment Induces Interleukin-33 Production to Promote M2-like Macrophages Polarization and ST2L Expression via IL-33/ST2L/NF-κB Signaling Loop 楊侑恩 1, 胡孟璇 2, 曾彥誠 3, 張志鵬 1,3*, 王憶卿 1,2* You-En Yang1, Meng-Hsuan Hu2, Yen-Cheng Zeng3, Chih-Peng Chang1,3*, Yi-Ching Wang1,2*
O81	Integration of Fiber Optic Particle Plasmon Resonance Sensing Technology and Competitive Inhibition Method for Rapid and Sensitive Detection of Deoxynivalenol 張廷州 1,*, 孫乙立 2, Frederik Fleissner3, 周禮君 1, 4 Ting-Chou Chang1,*, Aileen Y. Sun2, Frederik Fleissner3, Lai-Kwan Chau1, 4
O83	Melatonin thwarts epithelial mesenchymal transition and peritoneal dissemination via VDR/Twist axis 李芸萱, 吳昇懋, 許美鈴 Yun-Xuan Lee, Sheng-Mao Wu, Meei-Ling Sheu
O85	Therapeutic Potential of Aryl Hydrocarbon Receptor Inhibition on Diabetic Retinopathy 曾琬庭, 吳昇懋, 許美鈴 Wan-Ting Tseng, Sheng-Mao Wu, Meei-Ling Sheu
O86	LY294002 protects against glucocorticoid-induced adverse effects on skin dermis 黃志揚 Chih-Yang Huang



台灣毒物學會

3月26日(六) 15:10-16:30

多功能會議室

座長：姜至剛 秘書長

編號	論文題目
O87	Portable Smartphone Device with FRET-based Biosensor for the Detection of Heavy Metal Lead 賴威全 張郁芬 鄒方寧 楊德明 Wei-Qun Lai, Yu-Fen Chang, Fang-Ning Chou, De-Ming Yang
O88	Microplastics Disturbs the Gut Microbiota Community and Metabolome in the Gut-Brain Axis in Mice 李昇翰 & 鄭尊仁 Sheng-Han Lee & Tsun-Jen Cheng
O89	XBP1, an unfolded protein response effector, is attenuated in post-ischemic kidney to promote chronic kidney disease 陳佳煌, 吳家賢, 鄭佳容, 姜至剛 Jia-Huang Chen ¹ , Chia-Hsien Wu ² , Jia-Rong Jheng ³ , Chih-Kang Chiang ^{1,4*}
O90	Computational Identification of Parkinsonian Neurotoxins Using an Integrated Model Based on Adverse Outcome Pathway Concept 甘鴻霖 ¹ , 童俊維 ² , 林英琦 ^{1, 3, *} Hung-Lin Kan ¹ , Chun-Wei Tung ² , Ying-Chi Lin ^{1,3,*}
O91	Tributyltin Triggers Human Chondrocyte Senescence and Enhances Mouse Articular Cartilage Aging 鐘耀邦 ¹ , 林園宸 ¹ , 楊榮森 ² , 劉興華 ^{1*} Yao-Pang Chung ¹ , Yuan-Cheng Lin ¹ , Rong-Sen Yang ² , Shing-Hwa Liu ^{1*}
O92	Development of a therapeutic peptide for lung cancer Ting-Chien Wu ¹ , Chen-Yi Liao ¹ , Siou-Yu Wang ¹ , Yu-Ying Lin ² , Shu-Ming Chuang ² , Szu-Yu Liu ² , Chi-Hsiang Wang ² , Shang-Er Su ¹ , Wei-Ting Chen ¹ , Sheng-Wen Cheng ¹ , Cheng-Yen Chuang ³ , Feng-Di Long ⁴ , Jinghua Tsai Chang ^{1*}



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

中華民國免疫學會

3月27日(日) 09:00-11:00

多功能會議室

座長：徐嘉琳 副秘書長

編號	論文題目
O27	Conventional Dendritic Cell 1 (cDC1) and cDC2 Differentially Regulate Marginal Zone B and Follicular B Response, respectively, through a T-Independent Manner 游雅如, 李建國 Ya-Ru Yu and Chien-Kuo Lee
O28	Blimp-1 in Regulatory T Cells functions As a Switch for Crohn's Disease Development under Autoimmune Diabetes-Prone Genetic Background by Modulating Treg Suppressive Function 蔡依紋 1,2, 傅馨慧 3,4, 簡明偉 3,4, 劉鈺文 3,4, 董佳鈴 5, 許詔淵 3, 司徒惠康 2,3,4,5* Yi-Wen Tsai1,2, Shin-Huei Fu3,4, Ming-Wei Chien3,4, Yu-Wen Liu3,4, Jia-Ling Dong5, Chao-Yuan Hsu3, Huey-Kang Sytwu2,3,4,5*
O29	Decoy Receptor 3 Suppressed TLR4 and Thymus-Dependent Stimuli-Induced Humoral Immune Response 劉柏均, 黃思穎, 呂春敏 Po-Chun Liu, Szu-Ying Huang and Chuen-Miin Leu
O30	Evaluate the Anti-tumor Ability of Interleukin-2 Variants Secreted from Engineered Escherichia coli 劉程豪 1, 2, 牟昀 1* Cheng-Hao Liu1, 2 and Yun Mou1*
O31	PTEN Finetunes Cholesterol Homeostasis that Suppresses TLR9-Mediated Inflammation in B Cells 蔡佩汝, 徐偉展, 陳明玉, 詹博強, 蘇郁文 Pei-Ju Tsai, Wei-Chan Hsu, Ming-Yu Chen, Po-Chiang Chan, and Yu-Wen Su



中華民國細胞分子生物學學會

3月27日(日) 10:00-11:30

大禮堂

座長：郭紘志 秘書長

編號	論文題目
O43	Precise Control of Microtubule Disassembly in Living Cells 劉雅良, 陳筱奇, 李耕瑋, Kritika Shaiv, 陳品妤, 鄭璇, 洪詩容, 楊雯婷, 黃仕涵, 張雅筑, 王嫻築, 高竟琳, 孫品蕎, 趙明鴻, 李彥瑩, 湯銘哲, 林玉俊 Grace Y. Liu, Shiau-Chi Chen, Gang-Hui Lee, Kritika Shaiv, Pin-Yu Chen, Hsuan Cheng, Shi-Rong Hong, Wen-Ting Yang, Shih-Han Huang, Ya-Chu Chang, Hsien-Chu Wang, Ching-Lin Kao, Pin-Chiao Sun, Ming-Hong Chao, Yian-Ying Lee, Ming-Jer Tang, and Yu-Chun Lin
O44	Mechanistic study and targeting of SOX17/NRF2 transcriptional axis in esophageal squamous cell carcinoma with chemoradiotherapy resistance 謝智雄 1, 官廷徽 1, 張維倫 2, 謝達斌 3, 劉軒 4, 譚賢明 4, 郭懿瑩 1, 王憶卿 1,5* Chih-Hsiung Hsieh1, Wen-Hui Kuan1, Wei-Lun Chang2, Dar-Bin Shieh3, Hsuan Liu4, Bertrand Tan4, I-Ying Kuo1, and Yi-Ching Wang1,5*
O45	Dihydroceramide desaturase promotes the formation of intraluminal vesicles and inhibits autophagy to increase exosome production 林琬璇, 吳貞儀, 張之綱, 莊佩寰, 林志維, 朱麗安, 江安世, 何翰蓁, 詹智強, 黃舒宜 Chen-Yi Wu, Jhih-Gang Jhang, Wan-Syuan Lin, Pei-Huan Chuang, Chih-Wei Lin, Li-An Chu, Ann-Shyn Chiang, Han-Chen Ho, Chih-Chiang Chan, Shu-Yi Huang
O46	PARP1 facilitates the recruitment of DNA translocases to damaged replication forks 何彥志, 顧晨薰, 許嘉麟, 蔡翔勝, 張松彬, 冀宏源, 廖泓鈞 Yen-Chih Ho1, Chen-Syun Ku1, Jia-Lin Shiu1, Siang-Sheng Tsai1, Song-Bin Chang1, Peter Chi2, Hungjiun Liaw1,*
O47	Mechanobiological Mechanism of Cyclic Stretch-Induced Cell Columnarization 李倫維 1,2, 溫福來 2, 李耕瑋 2, 蘇亦秀 2, 湯銘哲 1,2 Lun-Wei Lee1,2, Fu-Lai Wen2, Gang-Hui Lee2, I-Hsiu Su2 and Ming-Jer Tang1,2
O48	Melatonin thwarts tumor necrosis factor receptor and peritoneal dissemination via VDR/TNFR1 axis 李芸萱, 吳昇懋, 許美鈴 Yun-Xuan Lee, Sheng-Mao Wu, Meei-Ling Sheu
O49	Anterior Cruciate Ligament Transection and Medial Meniscectomy induced Osteoarthritis in High Fat Diet Fed Rats: Effects of Lactobacillus plantarum Fermented Lemon Peel Extract 曾吉祥、陳薇恩、龔瑞林 Chi-Shung Tseng, Wei-En Chen, Zwe-Ling Kong
O50	Phase separation of CTP synthase in the regulation of intracellular amino acids 林威成 1, 王雋諺 1, 阿尚·查克拉博蒂 1,2, 黃光靖 1, 白麗美 1 Wei-Cheng Lin1, Chun-Yen Wang1, Archan Chakraborty1,2, Kuang-Jing Huang1, Li-Mei Pai1
O51	The Mechanism of Dysbindin in Regulating Retinal Waves during Development 鄭子霖, 呂明軒, 王致恬 Tzu-Lin Cheng, Ming-Hsuan Lu, and Chih-Tien Wang



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

台灣分子生物影像學會

3月27日(日) 10:10-11:10

第一會議室

座長：李易展 教授

編號	論文題目
O93	<p>The Development and Efficacy Research on Novel CXCR4 Tracer [68Ga]-APD for Atherosclerosis Imaging 翁茂琦，夏建忠，葉忠興，陳俊堂，彭正良，曾玉琴 Mao-Chi Weng, Chien-Chung Hsia, Chung-Hsin Yeh, Chun-Tang Chen, Cheng-Liang Peng, , Yu-Chin Tseng.</p>
O94	<p>Therapeutic efficacy of L-boronophenylalanine-mediated boron neutron capture therapy for colorectal peritoneal metastases. 張庭瑀 1, 張文議 2, 張智偉 2, 王信二 1, 陳一瑋 3, 洪文翔 1, 吳駿一 1* Ting-Yu Chang1, Wen-Yi Chang2, Chi-Wei Chang2, Hsin-ElI Wang1, Yi-Wei Chen3, Wen-Hsiang Hong1, and *Chun-Yi Wu1</p>
O95	<p>Amitriptyline Accelerates SERT Binding Recovery Rate in MDMA-Induced Rat Model: in vivo 4-[18F]-ADAM PET Imaging Skye Hsin-Hsien Yeh (葉信顯)1, Chuang-Hsin Chiu(邱創新)2a, Yu-Yeh Kuo (郭諭燁)3, Chi-Jung Tsai (蔡季蓉)2,4, Tsung-Hsun Yu (游宗勳)1, Wen-Sheng Huang (黃文盛)4b, Kuo-Hsing Ma 5* Skye Hsin-Hsien Yeh (葉信顯)1, Chuang-Hsin Chiu(邱創新)2a, Yu-Yeh Kuo (郭諭燁)3, Chi-Jung Tsai (蔡季蓉)2,4, Tsung-Hsun Yu (游宗勳)1, Wen-Sheng Huang (黃文盛)4b, Kuo-Hsing Ma 5*</p>
O96	<p>OncomiR miR-182-5p Suppresses the Radiation-induced Antioxidant Effect to Enhance Radiosensitivity of Head and Neck Squamous Cell Carcinoma 林旻穎、林秉澤、張御展、李易展 Min-Ying Lin, Bing-Ze Lin, Yu-Chan Chang, Yi-Jang Lee</p>



中華民國臨床生化學會

3月27日(日) 09:00-12:00

第二會議室

座長：郭靜穎 秘書長

編號	論文題目
O72	Artemisia Santolinifolia-Mediated Chemosensitization via Activation of Distinct Cell Death Modes and Suppression of STAT3/Survivin-Signaling Pathways in NSCLC 劉俊仁 Uyanga Batbold and Jun-Jen Liu
O73	CNTN4 Inhibits Tumorigenesis via Reduction of uPA-mediated Angiogenesis in Colorectal Cancer: Its Allelic Loss Predicts Adverse Survival 饒梓明 1,2, 邱士齊 3, 江紹瑜 3, 李景行 3, 蕭聿昕 3, 蔡明宏 4,5, 楊雅倩 3,6* Tzu-Ming Jao1,2, Shih-Ci Ciou3, Shao-Yu Chiang3, Jing-Xing Lee3, Yu-Xin Xiao3, Ming-Hong Tsai4,5, Ya-Chien Yang3,6*
O74	Diphenyleneiodonium (DPI) Ameliorates Cell Senescence through Facilitate Mitochondrial Fission via Drp1 Mitochondrial Translocation 廖耿楸, 陳祉蓉, 羅偉嘉, 徐臣瑋, 俞松良, 楊泮池, 蘇剛毅 Keng-Mao Liao, Chih-Jung Chen, Wei-Jia Luo, Chen-Wei Hsu, Sung-Liang Yu, Pan-Chyr Yang, Kang-Yi Su
O75	Development of MALDI-TOF MS based assay for DNA repair enzyme - hSMUG1 張惠嵐, 張倖林, 蘇剛毅, 林亮音, 方偉宏 Hui-Lan Chang, Shing-Lin Chang, Kang-Yi Su, Liang-In Lin, Woei-horng Fang
O76	Ergosterol Peroxide Functions as a Novel NTCP Inhibitor to Suppress Hepatitis Delta Virus Infection 邱韋中 1, 呂翊瑄 1, 黃瑋 1* Wei-Chung Chiou1, Yi-Syuan Lyu1, Cheng Huang1*
O77	Killer-cell immunoglobulin-like receptor (KIR) genetic profile in Taiwan 沈似紋 1, 李宜哲 2, 劉萬騏 2, 吳韶涵 1,2, 蔡明宏 3,4, 楊雅倩 1,2* Ssu-Wen Shen1, Yi-Che Lee2, Wan-Chi Liu2, Shau-Han Wu1,2, Ming-Hong Tsai3,4, Ya-Chien Yang1,2*
O78	Amino Acid Restriction Induces a Long Non-Coding RNA UBA6-AS1 to Regulate GCN2-Mediated Integrated Stress Response in Breast Cancer 吳宜臻 1, 郭靜穎 1,2 Yi-Zhen Wu1, Ching-Ying Kuo1,2,



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

中華民國解剖學學會

3月27日(日) 09:00–11:00

第三會議室

座長：江青樹 秘書長

編號	論文題目
O52	Long term intake L-tyrosine supplementation may cause skeletal muscle atrophy in mice 李宇恆, 龔秀妮 Yu-Heng Lee, Hsiu-Ni kung
O53	Cell therapy for left ventricular heart failure 葉建宏、蕭鎮源、黃柏勳、陳天華、黃正雄、傅毓秀 Jian-Hong Ye, Chen-Yuan Hsiao, Po-Hsun Huang, Tien-Hua Chen, Cheng-Hsiung Huang, Yu-Show Fu
O54	Honokiol blocked migration and metastasis in gastric cancer by down-regulating ATF3/CXCR7 signaling 王思婷 1, 吳昇懋 1, 許美鈴 1 Sih-Ting Wang, Sheng-Mao Wu, Meei-Ling Sheu
O55	Regulation of Eag1 and hErg Potassium Channel Proteostasis via Differential Degradation by Two E3 Ubiquitin Ligases 方雅菁, 湯志永, 鄭瓊娟 Ya-Ching Fang, Chih-Yung Tang, and Chung-Jiuan Jeng
O56	The Regulatory Role of miR-194 and miR-192 in the Hepatic Bile Acid Synthesis 許芊芃, 陳柏均, 許書豪 * Chien-Peng Hsu, Po-Chun Chen, Shu-Hao Hsu*
O57	The Therapeutic Effects and The Relative Mechanisms of Isoxanthohumol on Restenosis 張庭瑜、王淑慧 Ting-Yu Chang, Shu-Huei Wang
O58	Honokiol Thwarts Epithelial–Mesenchymal Transition and Peritoneal Dissemination by Regulating YY1/HSP27 in Gastric Cancer 張愛, 吳昇懋, 許美鈴 * Ai-Chang, Sheng-Mao Wu, Meei-Ling Sheu*
O59	Comparison of diabetes rat model induced by different period of high fat diets and different dosage of streptozotocin 謝欣妤, 蔡佩君, 蕭鎮源, 徐佳福, 陳天華 Hsin-Yu Hsieh1, Pei-Jiun Tsai 1,2, Chen-Yuan Hsiao3, Jia-Fwu Shyu4, Tien-Hua Chen 1,5*
O60	The Therapeutic Effects and The Relative Mechanisms of Corylin on Nonalcoholic Fatty Liver Disease. 劉祐瑜, 王淑慧 * You-Yu Liu, Shu-Huei Wang*
O61	TEE ameliorates fructose-induced intestinal inflammation damages 蕭安 1, 林妤叡 1, 蔡帛蓉 2, 龔秀妮 * An Hsiao1, Yu-Jui Lin1, Po-Jung Tsai 2, Hsiu-Ni Kung1*
O62	Molecular Mechanisms of Aryl Hydrocarbon Receptor Dysfunction in Psoriasis 邢相媛, 許美鈴 Hsiang-Yuan Hsing, Meei-Ling Sheu

GOOD HEALTH & WELL-BEING



中華民國解剖學學會

編號	論文題目
O63	Anterior Gradient 2 Regulates Endoplasmic Reticulum Stress in Cancer Progression and Sorafenib-Resistant Hepatocellular Carcinoma 陳以理, 陳政義 Yi-Li Chen, Cheng-Yi Chen
O64	To study the effects of particulate matter on high fat-induced mitochondrial dysfunction in cardiomyocytes and the related mechanisms 傅斯顥 1, 賴財春 1, 李紫琳 1, 陳玉伶 1* SZU-JU FU1, Tsai-Chun Lai1, Tzu-Lin Lee1, Yuh-Lien Chen1*
O65	Enhancement of farnesoid X receptor inhibits migration, adhesion, and angiogenesis through proteasome degradation and VEGF reduction in bladder cancers 賴謙睿, 張欣翰, 陳澄, 吳勝堂 Chien-Rui Lai, Hsin-Han Chang, Ying Chen and Sheng-Tang Wu

中國生理學會

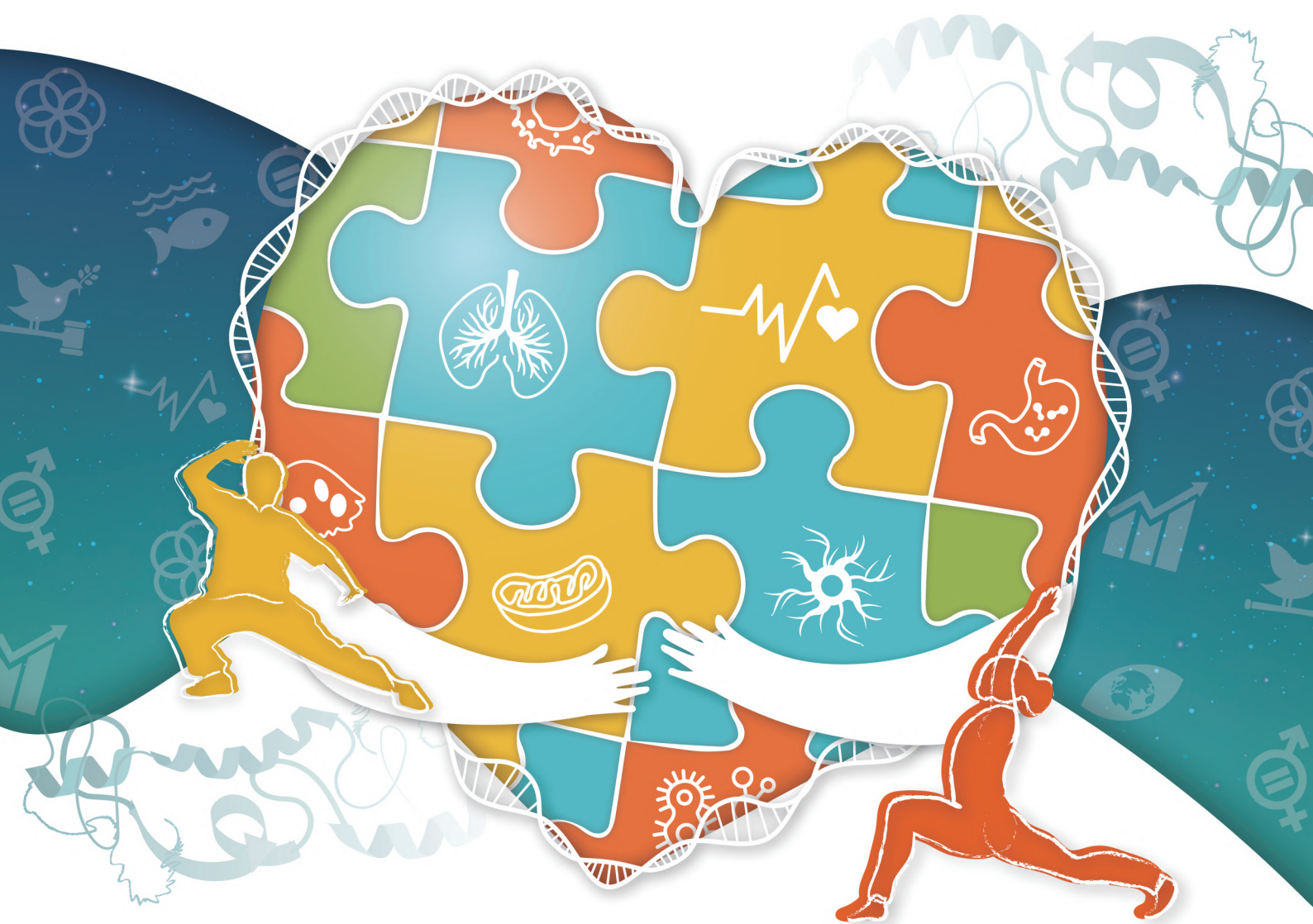
3 月 27 日 (日) 11:00-12:30

多功能會議室

座長：楊世斌 教授

編號	論文題目
O16	Genetic ablation of TRPM8 channels impairs AMPK-mediated autophagy flux and accelerates atherosclerosis progression 徐曼甄、陳嘉蕙、郭倍佳、李宗玄 Man-Chen Hsu, Chia-Hui Chen, Bei-Chia Guo, Tzong-Shyuan Lee
O17	Neuronal KATP Channels are Dispensable for Glucose Homeostasis in Mice 李昀潔、蔡欣汝、楊世斌 Athena Hsu Li, Hsin-Ju Tsai, Shi-Bing Yang
O22	Microbiota modulates locomotion via vagus-dependent glucagon-like peptide-1 signaling 賴姿廷、吳偉立 Tzu-Ting Lai, Wei-Li Wu
O23	Bacterial Internalization Induced Proinflammatory responses through Circadian Disruption in Intestinal Epithelial Cells 白宇辰, 余佳慧 Yu-Chen Pai and Linda Chia-Hui Yu
O24	Development of Fully Human Neutralizing Antibodies Targeting Chitinase-3 like-protein-1 with Anti-tumor Effect in vitro and in vivo. 蘇珮嘉 1、余旻樺 2、楊佩珊 2、郭懿瑩 1、張志鵬 1,3、王憶卿 1,2* Pei-Chia Su1, Min-Hua Yu2, Pei-Shan Yang2, I-Ying Kou1, Chih-Peng Chang1,3, Yi-Ching Wang1,2*
O26	Allosteric coupling between TM 4 and selectivity filter regulates extracellular pH gating of TALK1 potassium channels 蔡文豪, Cédric Grauffel, 黃名鉞, Sandra Postić, Marjan Slak Rupnik, 林小喬, 楊世斌 Wen-Hao Tsai 1,2, Cédric Grauffel 1, Ming-Yueh Huang 3, Sandra Postić 4, Marjan Slak Rupnik4,5,6, Carmay Lim 1, Shi-Bing Yang 1,2

壁報論文目錄
Poster Presentation



GOOD HEALTH & WELL-BEING



PY 中國生理學會

編號	論文題目
PY01	Increased Notch1 expression promotes cell proliferative, invasion, and nerve innervation in deep infiltrating endometriosis 唐筱茜 1, 李婉寧 2, 孫仲賢 3, 吳孟興 4, 蔡少正 1, 2 Hsiao-Chien Tang1, Wan-Ning Li2, Chung-Hsien Sun3, Meng-Hsing Wu4, Shaw-Jenq Tsai1, 2
PY02	The Hypoxia-Induced Circular RNA CircSFMBT2 Downregulated Tumor Progress in Breast Cancer Cells 劉家銘 1 賴亮全 1* Chia-Ming Liu1, Liang-Chuan Lai1*
PY03	The Impact of Exercise Training on Cardiac Electrophysiology and Ventricular Arrhythmia Vulnerability in Obese Rats 丁彩瑜, 阮琪昌, 胡瑜峰 Tsai-Yu Ting, Chi-Chang Juan, Yu-Feng Hu
PY04	Erinacine A Elevates Anti-inflammatory Mediators in the Post-stroke Mouse Brain 王韻清 [1], 許珮蓓 [1], 陳勁初 [2], 李麗雅 [2], 陳婉屏 [2], 李怡萱 * [1] Yun-Ching Wang[1], Pei-Chien Hsu[1], Chin-Chu Chen[2], Li-Ya Lee[2], Wan-Ping Chen[2], Yi-Hsuan Lee[1]
PY05	Response of Spinal Cord Blood Flow Following Activation of Adrenoceptors in Acute Cervical Contused Rats 劉姿廷, 李昆澤 Tzu-Ting Liu, Kun-Ze Lee
PY06	GUT MICROBIOME-RELATED EFFECTS OF BETAINE IMPROVE NASH BY MODULATING LIVER IMMUNE RESPONSES IN CHOLINE-DEFICIENT, L-AMINO ACID-DEFINED DIET-FED MICE 王芷琳 1, 古杰倫 1, 朱宸韻 1, 陳嘉晏 1, 賴世婕 1, 黃怡禎 1, 林咏霓 1, 許家柔 1, 王姿云 2, 吳莉玲 1* Chih-Lin Wang1, Jie-Lun Ku1, Chen-Jie Zhu, Chia-Yen Chen1, Shih-Chieh Lai1, Yi-Chen Huang1, Yung-Ni Lin1, Jia-Rou Hsu1, Zi-Yun Wang2 and Li-Ling Wu1*
PY07	Impact of phenylephrine on and spinal cord extravasation following acute mid-cervical contusion injury in the rat 柯佳辰, 李昆澤 Chia-Chen Ko, Kun-Ze Lee
PY08	BET Supplementation Contributes to Hepatitis B Viral Clearance in a Hydrodynamic Injection Mouse Model. 陳彥蓉, 陳思葦, 王芷琳, 李泳璵, 吳慧琳, 吳莉玲 * Yan-Rong Chen, Suu-Ting Chen, Chih-Lin Wang, Yung-Tsung Li, Hui-Lin Wu, Li-Ling Wu
PY09	The Involvement of Brown Adipocyte-Specific SAA3 Protein in Regulation of Cold-Induced Adaptive Thermogenesis through UCP1-dependent and Independent Pathways in Mice 林珮茹, 詹沛祺, 農君怡, 謝博軒 Pei-Ru, Lin, Pei-Chi, Chan, Jiun-Yi, Nong, Po-Shiuan Hsieh
PY10	Effects of FKBP51 Mutations on the Inflammatory Response in Mouse Astrocytes 周家甄 [1], 甘育菱 [1], 許珮蓓 [1], 周家丞 [4], 鄭瓊娟 [2,3*], 李怡萱 [1,3*] Jia - Zhen Zhou [1], Yu - Ling Gan [1], Pei - Chien Hsu [1], Chia-Cheng Chou[4], Chung-Jiuan Jeng[2,3*], Yi-Hsuan Lee[1,2*]
PY11	The role of aldo-keto reductase family 1 member A1 in the regulation of lineage differentiation of mesenchymal stem cells into osteoblasts and adipocytes. 林宜慧 1, 高郁捷 1, 江振豪 2, 劉英明 1,3,4 Yi-Hui Lin1, Yu-Chieh Kao1, Chen Hao Chiang2, Ying-Ming Liou1,3,4*
PY12	Regulation of Hippocampal Dynamics by Hilar Mossy Cells 吳哲瑋 Jei-Wei Wu
PY13	Sensitization of protein kinase C-δ positive neurons in central amygdala is critical for migraine chronification in a mouse model Shuu-Jiun Wang, Cheng-Chang Lien and Shih-Pin Chen
PY14	The Actions of Ultra-high Frequency Spinal Cord Stimulation (SCS) Reducing Mechanical Hypersensitivity is Different from the Conventional SCS and Possibly through a Local Conduction Block 楊金倉, 溫永銳, 徐百川 Chin-Tsang Yang, Yeong-Ray Wen, Bai-Chuang Shyu
PY15	Functional and causal coupling between neuronal activities in basal forebrain bursting neurons and midbrain dopaminergic neurons 江明憬, 鐘佑哲, 郭沐恩, 林士傑 Ming-Ching Chiang, You-Jhe Jhong, Mu-En Kuo, Shih-Chieh Lin



生物醫學聯合學術年會

2022 The 36th Joint Annual Conference of Biomedical Science

PY 中國生理學會

編號	論文題目
PY16	Ergonomic Modification of artificial intelligence-base Open Pose Light for measuring Cardiopulmonary Fitness in Adults. 陳杰, 蔡美玲 Jei Chen, Mei-Ling Tsai
PY17	Investigation of the Mechanism Underling Local Addition of Luminal Glucose-Mediated Remote Mucus Secretion by Goblet Cell 黃湘涵、郭亭攸、黃菁英 Xiang-Han Huang、Ting-You Guo、Ching-Ying Huang
PY18	Age-Related Shift in Gut Microbiota Contribute to Alteration of Gut Cannabinoid Type 1 Receptor and Myeloid Cells Innate Immune Response in Acute Restraint Stress Mice. 黃怡楨, 廖靖甄, 陳嘉晏, 賴世婕, 簡芃欣, 吳莉玲 Yi-Chen Huang, Yu-Jen Liao ¹ , Chia-Yen Chen, Shih-Chieh Lai, Chien Pong Hsin and Li-Ling Wu [*]
PY19	Differential modulation of central amygdala neurons to nociception 黃卉玟, 王凱誼, 連正章 Hui-Wen Huang, Kai-Yi Wang, Cheng-Chang Lien
PY20	Metformin inhibits development of diabetic retinopathy through targeting Calpain-9 曾曉庭, 吳昇懋, 許美鈴 Wan-Ting Tseng, Sheng-Mao Wu, Meei-Ling Sheu
PY21	Role of Serotonin and Cholecystokinin in Mucosal Neurite Outgrowth and Intestine Hyperalgesia 李姿儀, 張文音, 楊依婷, 劉韋玟, 余佳慧 * Tzu-Yi Lee, Wen-Ying Chang, Yi-Ting Yang, and Linda Chia-Hui Yu [*]
PY22	Importance of Brown adipocyte derived Serum Amyloid A3 protein in regulation of Total Energy Expenditure and Adaptive Facultative Diet-induced Thermogenesis in Mice 莊淳涵, 詹沛祺, 農君怡, 謝博軒 Chun-Han Jhuang, Pei-Chi Chan, Jiun-Yi Nong, Po-Shiuan Hsieh
PY23	Significance of Corticostriatal Glutamate in L-DOPA-induced Dyskinesia in 6-OHDA-lesioned Parkinson's Disease Mice Model 陳雅玟, 林澤言, 黃信翰, 黃予庭, 陳景宗 Ya-Wen Chen, Ze-Yan Lin, Sin-Han Huang, Yu-Ting Huang, Jin-Chung Chen
PY24	Position Effect of Spinal Magnetic Stimulation on the Diaphragmatic Motor Evoked Potential in healthy humans. 任明月、李昆澤 * Ming-Yue Ren, Kun-Ze Lee
PY25	A Distinct Subpopulation of the Hypothalamic SF-1 Expressing Neurons Encodes an Exploratory Internal State that Drives Investigative Behaviors. 林士哲, 陳一誠, 楊世斌 Shih-Che Lin, Yi-Cheng Chen, Shi-Bing Yang
PY26	Role of Gut Microbiome and Bacteria Colonization in Tumor Development of Apc(min/+) Mice 彭郁雯, 廖予謙, 李憶萱, 余佳慧 Yu-Wen Peng, Yu-Chien Liao, Yi-Hsuan Li, and Linda Chia-Hui Yu
PY27	The association of inflammation and brain functional regions in poststroke hyperglycemia and insulin resistance. 陳嘉晏, 何文孝, 周思怡 chia-yen Chen, Man-Hau Ho, Szu-Yi Chou
PY28	Increasing GLT-1 Expression Repairs Cognitive and Neuronal Deficits in a Rat Model of Epilepsy 何應瑞、曾昱璇、劉汶沅、姚景宜、謝昀儒、莊詠筑 Ying-Jui Ho ¹ , Yu-Shiuan Tzeng ^{1*} , Wen-Yuan Liu ¹ , Jin-Yi Yao ¹ , Yun-Ju Hsieh ¹ , Yong-Zhu Zhuang ¹
PY29	Lumbrokinase regulates endoplasmic reticulum stress to improve neurological deficits in ischemic stroke 王羿忻; 廖娟妙; 黃相碩 Yi-Hsin Wang, Juann-Miaw Liao, Shiang-Suo Huang
PY30	Roles of mGlu5 receptors in the central amygdala in emotional behaviors 王雅慧, 鄭函若, 連正章 Ya-Hui Wang, Han-Juo Cheng, Cheng-Chang Lien

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PY31	Rostral-caudal Effect of Cervical Magnetic Stimulation on the Diaphragm Motor Evoked Potential Following Cervical Spinal Cord Contusion in the Rat 任明月、李昆澤 * Ming-Yue Ren、Kun-Ze Lee*
PY32	Rescue effect of pentylenetetrazol-induced seizures on heart pacemaker channel in zebra fish via administration of NMN 古企蓉、王力緯、林彥昌 Kuan-Lun Li、Li-Wei Wang、Yen-Chang Lin
PY33	Nelumbo Nucifera leaf polyphenol extract and gallic acid inhibit TNF- α -induced vascular endothelial cell adhesion & foam cell formation via targeting miRNAs 鍾岱融、王朝鐘 Dai-Jung Chung, Chau-Jong Wang
PY34	Effects of Retigabine Derivative #4919 on rats subjected to myocardial ischemia-reperfusion injury. 周軒羽 1, 廖娟妙 2, 黃相碩 3 Hsuan-Yu Chou1, Jiuan-Miaw Liao2, Shiang-Suo Huang3
PY35	Circulating Exosomal MicroRNAs are Associated with HFpEF in STZ-induced Type 1 Diabetic Rats 黃君邦 1, 2, 郭昭瑜 1, 洪麗滿 1, 2* Jiung-Pang Huang1, 2, Chao-Yu Kuo1, Li-Man Hung1, 2*
PY36	Post-ischemic treatment with sodium-glucose cotransporter-2 inhibitors protect heart against myocardial ischemia reperfusion injury 蘇郁雯; 周佩儀; 王羿忻; 廖娟妙; 蔡青峰; 黃相碩 Yu-Wen Su1, Pei-I Chou1, Yi-Hsin Wang1, Jiuan-Miaw Liao1, Chin-Feng Tsai1,3, Shiang-Suo Huang1,2,4
PY37	Effects of Chalcone Derivative I-17-4U in Smooth Muscle Cell Phenotypic Switching in Atherosclerosis 吳旻珊 1, 連志峯 2, 林錦生 2, 蔡旻倩 1* Ming-Shan Wu1, Chih-Feng Lien2, Chin-Sheng Lin2, Min-Chien Tsai1*
PY38	Protective Effects of KCNQ Channel Opener, ML213, Against Myocardial Ischemia-Reperfusion Injury 劉沛勳, 黃相碩, 林惠菁 1Pei-Hsun Liu, 2Shiang-Suo Huang, 1Hui-Ching Lin
PY39	The effects of titanium dioxide nanoparticles on the physiological function of endothelial cell 詹燕茹, 溫宏諾, 陳竑愷, 李青澔 Yen-Ju Chan, Wang-Nok Wan, Hong Kai Chen and Ching-Hao Li *
PY40	Knockout of Protein A in Osteoblast Triggers Cancellous Bone Loss by Regulating Osteocyte Apoptosis and Autophagy 周心喬 1,2,3, 林松彥 1,2,3,4,5, 莊淑君 2,3, 陳崇桓 1,2,3,4,5, 王昭仁 1,2,3 Hsin-Chiao Chou, Sung-Yen Lin, Shu-Chun Chuang, Chung-Hwan Chen, Chau-Zen Wang
PY41	Klotho dysfunction leads to impairment of electroretinographic display and specific retinal damages 陳智嘉 1, 伍俊彥 2, 呂宗漢 1, 張函馨 2, 林培正 1 Zhi-Jia-Chen1, Chun-Yen Wu2, Tsung-Han Lu1, Han-Hsin Chang2, David Pei-Cheng Lin1
PY42	Efficiency evaluation and molecular mechanism of α -mangostin to meliorates Renal Fibrosis 蔡元蓓, 謝逸憲 Yuan-Pei Tsai, Yi-Hsien Hsieh
PY43	Nimbolide, a Neem Limonoid Induces ROS-Regulated Ferroptosis and Mitophagy in Endometrial Cancer 葉思奴, 謝逸憲 Sih-Wen Yeh, Yi-Hsien Hsieh
PY44	The Anti-tumor Effects and Mechanisms of PuTHs Extract on CRC in vitro. 謝汶錡 1, #, 黃雅芝 1, 2, 張凱復 1, 魏筱真 1, 李孟樵 1, 蔡女滿 1, 3 * Wen-Chi Hsieh 1, #, Ya-Chih Huang 1, 2, Kai-Fu Chang 1, Shiao-Jen Wei 1, Meng-Chiao Lee 1, Nu-Man Tsai 1, 3, *.
PY45	Evaluating the Effect of An Active Protein Component from Mushrooms on the Gut-Liver Axis And the Feasibility of Using It As An Adjunct Therapy For Chronic Hepatitis B. 陳思葦 1, 李泳聰 2, 黃博熙 2, 吳慧琳 *2, 吳莉玲 *1 Suu-Ting Chen1, Yung-Tsung Li2, Po-Hsi Huang2, Hui-Lin Wu*2 and Li-Ling Wu*1
PY46	The Recent Status of People's Medication Experience and Medication Adherence in the Community Pharmacy 廖經弘, 施承典 Ching-Hung Liao, Cheng-Dean Shih



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PY47	Analysis of the Knowledge and Skills of Pharmacy Students with the Digital Materials-Assisted Teaching 郭珉甫, 施承典 Min-Fu Kuo, Cheng-Dean Shih
PY48	A Survey Study on the Consumer Satisfaction with Pharmaceutical Services at a Community Pharmacy 蔡瓊慧, 施承典 Chiung-Hui Tsai, Cheng-Dean Shih
PY49	Probiotic VSL#3 Improved High Fat Diet-induced Nonalcoholic Steatohepatitis Through Reconstruction Of Gut Microbiota Compositions, Enhanced Gut Barrier Function And Sharping Of Intrahepatic Immunity. 林咏霓, 黃怡禎, 黃鈺琴, 王芷琳, 許家柔, 古杰倫, 朱宸杰, 簡芃欣, 王姿云, 吳莉玲 Lin, Yung-Ni; Huang, Yi-Chen; Huang, Yu-Chin; Wang, Chih Lin; Hsu, Jia-Rou; Ku, Jie-Lun; Zhu, Chen-Jie; Hsin, Chien-Pong; Wang, Zi-Yun; Wu, Li-Ling
PY50	Bromelain Activates AMP-Activated Protein Kinase to Initiate Autophagy Flux in Regulating Hepatic Lipid Clearance 胡柏安, 李宗玄 Po-An Hu, Tzong-Shyuan Lee
PY51	Study on the Feeding Safety of Jaboticaba Extract and Improvement of Obesity-Related Diseases Induced by High-Fat Diet 許晏菱, 葉宗明, 施玟玲, 王裕民 Yan-Ling Hsu, Tsung-Ming Yeh, Wen-Ling Shih, Yu-Min Wang
PY52	High-fat diet induces fatty acid synthase expression through thymine DNA glycosylase-mediated DNA demethylation 林柔函, 彭怡禎 Zou-Han Lin, I-Chen Peng
PY53	Octadecanoic Acid Inhibits Neurobehavioral Development due to an Increase of Reactive Oxidative Species (ROS) Production in Caenorhabditis elegans 陳怡綸, 謝宜君, 吳佳修, 邱郁婷, 賴韻如, 許文俐 Yi-Hsuan Chen, Yi-Chun Hsieh, Chia-Hsiu Wu, Yu-Ting Chiu, Yun-Ru Lai, Wen-Li Hsu
PY54	Conformationally altered hyaluronan mitigates the symptoms of Parkinson disease in mice 孫子喻, 張南山 Tzu-Yu Sun, Nan-Shan Chang
PY55	Effect of Copper Chelation on collective cell migration in BRAF V600E mutated Colon Carcinoma Cells 方郁嘉, 趙偉廷 Yu Jia Fang, Wei Ting Chao
PY56	Regulation of the nuclear receptor activity and its downstream gene expression 盧惠萍 Hui-Pin Lu
PY57	BRAF inhibitor-induced tumorigenesis via extracellular vesicle in the tumor microenvironment. 林哲宇, 鍾沛容, 阮氏梅香, 馬念涵 Che-Yu Lin, Pei-Jung Chung, Mai-Huong Thi Nguyen, Nianhan Ma
PY58	Loss of circular RNA expression leads to glucocorticoid receptor (GR) activation and contributes to the development of enzalutamide resistance in prostate cancer 章禮君, 林世杰 Li-Jyun, Jhang, Shih-Chieh Lin
PY59	Maternal high fructose diet induced early onset retinopathy via the suppression of synaptic plasticity mediated by mitochondrial dysfunction 陳怡君 1\$, 黃修眉 2\$, 洪純瑛 1, 吳志偉 1, 黃耀生 2, 吳芎歷 1,3* I-Chun Chen1\$, Hsiu-Mei Huang2\$, Chun-Ying Hung1, Chih-Wei Wu1, Yao-Sheng Huang2, and Kay L.H. Wu1,3*
PY60	To study the Pathological and Reproductive Roles of AGTPBP1 In Male Infertility 鄧日隆 汪雅雲 賴宗炫 林佑樺 林盈宏 Jih-Lung Teng, Ya-Yun Wang, Tsung-Hsuan Lai, Yu-Hua Lin, Ying-Hung Lin
PY61	The roles of sorafenib in liver cancer cells and the endothelial cells during angiogenesis 丘宜學 1, 鄭瓊姬 2, 賴義雄 2, 劉奕祥 2, 趙偉廷 1 Yeow Yi Xue 1, Chiung-Chi Cheng2, Yih-Shyong Lai2, Yi -Hsiang Liu2, Wei-Ting Chao 1
PY62	Investigates the role of vesicle trafficking in E-cadherin dynamics in collective migrated colon cancer cells 辜慧敏, 趙偉廷 Hui Min Koo, Wei-Ting Chao

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PY63	Interaction of E-cadherin and EGFR in the Collective Cell Migration of Colon Cancer Cells 黃真榕, 趙偉廷 Viriya Adhiguna Winarso, Wei-Ting Chao
PY64	How vitamin C affects the mechanism of osteoclast differentiation and apoptosis. 黃芊綺, 劉英明 Cian-Ci Huang, Ying-Ming Liou
PY65	Functional study of anti-oxidation and bacterial inhibition of herbal extracts 盧惠萍 Hui-Pin Lu
PY66	Matrix Rigidity Changes the Cellular Localization of Adipogenic Transcription Factors in Adipocytes 陳玉心, 梁馨尹, 吳慶龍, 王育民, 湯銘哲, 蔡曜聲 Yu-Hsin Chen, Hsin-Yin Liang, Ching-Lung Wu, Ju-Ming Wang, Ming-Jer Tang, Yau-Sheng Tsai
PY67	Exploring the role of SAMM50 in the NAFLD-related genetic variants and liver damage. 劉珣廷, 黃志富, 戴嘉言, 莊萬龍, 余明隆, 王述綺 Yi-Ting Liu, Jee-Fu Huang, Chia-Yen Dai, Wan-Long Chuang, Ming-Lung Yu, Shu-Chi Wang
PY68	VLDL/VLDLR Lipid Delivery Route Promotes Hepatitis B Virus Mediated Liver Fibrosis and Cirrhosis 楊茜如, 林文仁, 廖珮吟, 馬文隆 Cian-Ru Yang, Wen-Jen Lin, Pei-Yin Liao, Wen-Lung Ma
PY69	Targeted activation of androgen receptor signaling in the periosteum improves bone fracture repair 劉雅榮, 魏國鼎, 藍國忠, 鄭碧華, 朱天民, 黃國恩, 張傳祥, 康宏佑 Ya-Fen Liu ^{1,2} , Kuo-Ting Wei ^{1,2} , Kuo-Chung Lan ^{1,2,3} , Bi-Hua Cheng ^{1,4} , Tien-Min G Chu ⁵ , Ko-En Huang ¹ , Chawnshang Chang ⁶ , Hong-Yo Kang ^{1,2,¶}
PY70	Tektin family Proteins are involved in Tbc1d21-null mice caused sperm defects 潘佩儀 汪雅雲 林盈宏 柯智群 Pei-Yi Pan, Ya-Yun Wang, Ying-Hung Lin, Chih-Chun Ke
PY71	Short-term Hypoxia Increase Ang-(1-7) Receptor Mas Expression by Downregulated rno-miR-6315 to Protect Cardiomyocyte Injury Induced by Angiotensin II 呂尚謁 ¹ , 洪曉智 ² , 黃志揚 ^{2,3,4,5,6*} , 郭薇雯 ^{7*} Shang-Yeh Lu, Hong Wei-Zhi, Chih-Yang Huang, Wei-Wen Kuo
PY72	The role of EGFR and E-Cadherin crosstalk in colon cancer cells with the orthotopic mouse model 翁郁誠, 趙偉廷 Weng Yu-Cheng, Chao Wei-Ting
PY73	Chloroquine inhibited Rab11 mediated E-cadherin transport in collective colon cancer cell migration 侯湘凌, 趙偉廷 Xiang-Ling Hou, Wei-Ting Chao
PY74	Dasatinib suppresses anchorage dependent cell-cell contact inhibition through E-cadherin and EGFR cross talking in BRAF mutated colon cancer cells 呂意文, 趙偉廷 Yi-Wen Lu, Wei-Ting Chao
PY75	Nuclear TYRO3 Promotes Colorectal Cancer Malignancy through BRD3 范絮婷, 許佩玲, 蔡少正 Chieh-Ting Fan, Pei-Ling Hsu, and Shaw-Jenq Tsai
PY76	The role of IGF2 toward neurite outgrowth regulated by the miR-196a – IGF2BP3 pathway in Huntington's Disease 楊尚訓 Yang, Shang-Hsun
PY77	The role of E-Cadherin mediated cell division in promoting collective colon cancer cell migration 李昱霖、趙偉廷 Yu-Lin Li, Wei-Ting Chao.
PY78	Screening the Genetic Alterations for Teratozoospermia Through Next Generation Sequencing 林盈宏, 林奇葳, 黃詩凱, 賴宗炫, 汪雅雲 Ying-Hung Lin, Chi-Wei Lin, Shi-Kae Wee, Tsung-Tsuan Lai, Ya-Yun Wang
PY79	Tamoxifen Reduces High Glucose-Induced Fibrosis 吳柏儒 ¹ , 蔡仁傑 ^{2,3} , 吳坤霖 ^{1,4} , 陳炯東 ³ , 馬念涵 ^{1*} Po-Ju Wu ¹ , Jen-Chieh Tsai ^{2,3} , Kun-Lin Wu ^{1,4} , Chiung-Tong Chen ³ , Nianhan Ma ^{1*}



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PY80	Gold Nanoparticle based Colorimetric Assay Applying Transcription-mediated Isothermal Amplification for Detection of SARS-CoV-2 Variants 黃亭瑋 1、蔡昱誠 1、劉秉誠 3、張天耀 3、許吉如 3、孫俊仁 3、林文智 2、余冠毅 4、程君弘 4、劉正哲 1,3* Ting-Wei Huang1, Yu-Cheng Tsai1, Bing-Cheng Liu3, Tien-Yao Chang3, Chi-Ju Hsu3, Jun-Ren Sun 3, Wen-Zhi Lin2, Kuan-Yi Yu4, Juin-Hong Cherng4 and Cheng-Che Liu1,3*
PY81	Detecting suspended A549 lung cancer cells by 3D hollow SERS active magnetic nanoparticles using cell surface RAGE protein as a target 陳維廷, 徐培凱, 依美玲, 陳詩芸, 陳美智, 宋振銘, 林赫 Wei-Ting Chen, Pei-Kai Hsu, Trayee Dhar, Shih-Yun Chen, Mei-Chih Chen, Jenn-Ming Song, Ho Lin
PY82	Composition Analysis and Topical Anti-inflammatory Activity by Clove Essential Oil 施玟玲 1, 葉宗明 2, 洪昇孝 1 Wen-Ling SHIN1, Tsung-Ming YEH2, Sheng-Hsueh HUNG1
PY83	The Role of Microglia in Blood Pressure Elevation and Memory Loss Induced by Vascular Dementia 邱莉嫻, 張雅雯 * Li-Ying Qiu, Alice Y.W. Chang*
PY84	Rescue effect of pentylenetetrazole-induced seizures on brain pacemaker channel in zebra fish via administration of nicotinamide mononucleotide 王力緯, 李貫綸, 陳濬陪, 林彥昌 Li-Wei Wang, Kuan-Lun Li, Chun-Pei Chen, Yen-Chang Lin
PY85	Profiling of Alteration in Sphingolipid Gene Expression Patterns in Drosophila under High Sugar Diet Influence 洪呈瀝, 鄒飛洋, 葉馨淳, 蕭翊, 林琬璇, 詹智強 * Cheng-Li Hong, Fei-Yang Tzou, Hsin-Chun Yeh, Yi Hsiao, Wan-Syuan Lin, Chih-Chiang Chan*
PY86	The role of brain RAS on cerebral ischemia-induced neuronal death 馮育瑩, 張雅雯 * Yu-Ying Feng, Alice Y.W. Chang*
PY87	The effect of Clavulanic Acid in an Epilepsy Rat Model 姚景宜 *, 劉汶沅, 林品均, 曾昱璇, 謝昀儒, 傅歆淇, 莊詠筑, 何應瑞 Jing-Yi Yao*, Wen-Yuan Liu, Pin-Jiun Lin, Yu-Shiuan Tzeng, Yun-Ju Hsieh, Xin-Qi Fu, Yong-Zhu Zhuang, Ying-Jui Ho
PY88	Beneficial effects of valproate via GABAA receptor enhancement on excitotoxicity of ischemic stroke in vitro and in vivo 初銘家, 李旂緯, 張景翔, 彭子寧, 林惠菁 Ming-Chia Chu, Chi-Wei Lee, Ching-Hsiang Chang, Tzu-Ning Peng, Hui-Ching Lin
PY89	Transcranial direct current stimulation modulates hippocampal synaptic plasticity through FKBP51 signaling pathway 張景翔 1, 李旂緯 1, 初銘家 1, 林惠菁 1,2* Ching-Hsiang Chang1, Chi-Wei Lee1, Ming-Chia Chu1, Hui-Ching Lin1,2*
PY90	The Antidepressant Effect and Signaling Pathway of (S)-ketamine and (R)-ketamine in Antidepressant-resistant Mouse Model 張傑宥 1, 李旂緯 1, 初銘家 1, 張訓碩 3, 林惠菁 1,2,* Chieh-Yu Chang1, Chi-Wei Lee1, Ming-Chia Chu1, Hsun-Shuo Chang3, Hui-Ching Lin1,2,*
PY91	Environmental enrichment components required to reduce methamphetamine-induced behavioral sensitization in mice: Examinations of behaviors and neural substrates 鄭凱恩, 黃智偉, 吳少傑 Cai-N Chenga, Shaw-Jye Wua, Andrew Chih Wei Huang
PY92	To study the neural substrates for mediating the buffering effects of oxytocin exposure against stress-induced neurogenesis decreases in dentate gyrus 吳俊賢、游一龍 Chun-Hsien Wu、Lung Yu
PY93	Inhibitory Control of the Thalamic Reticular Nucleus by the Basal Forebrain 李欣蓓, 劉曉甄, 葉家維, 連正章, 林士傑 Hsin-Pei Lee, Hsiao-Chen Liu, Chia-Wei Yeh, Cheng-Chang Lien, Shih-Chieh Lin
PY94	CCL5 protects cortical neuron function by regulating M2 microglia activation after mild traumatic brain injury. 何文孝, 陳嘉晏, 周思怡 Man-Hau Ho, Chia-Yen Chen, Szu-yi Chou

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PY95	The medial prefrontal cortex, nucleus accumbens, basolateral amygdala, and the hippocampus regulate the amelioration of environmental enrichment and cue in fear behavior in animal model of PTSD 張方誌, 余英豪, 林有上, 歐貞吟, 張凱傑, 蔡志鑫, 黃智偉 Fang Chih Chang ¹ , Ying Hao Yu ^{1,2} , Yeou San Lim ¹ , Chen Yin Ou ¹ , Kai Chieh Chang ¹ , Arthur C. Tsai ³ , and Andrew Chih Wei Huang ¹
PY96	The time-course analysis of frontal gene expression profiles in the rat model of post-traumatic stress disorder and a comparison with the conditioned fear model 張邵涵, 蕭富仁 博士 & 徐百川 博士 Shao-Han Chang, Dr. Fu-Zen Shaw & Dr. Bai-Chuang Shyu
PY97	Effects of SUL on Behavioral Changes in a Rat Model of Epilepsy 曾昱璇 1*, 謝昀儒 1, 姚景宜 1, 劉汶沅 1, 何應瑞 1 Yu-Shiuan Tzeng ^{1*} , Yun-Ju Hsieh ¹ , Jin-Yi Yao ¹ , Wen-Yuan Liu ¹ , Ying-Jui Ho ¹
PY98	Spectral analysis of cardiovascular oscillations to a long-term losartan administration with and without cold stress 林鈺傑 1, 林真誠 2, 劉亞平 2, 童吉士 1 Yu-Chieh Lin, M.S. ¹ , Lin, Ph.D. ² , Ya-Ping Lue, M.D., Ph.D. ³ , Che-Se Tung, M.D., Ph.D. ^{1*}
PY99	Altered Heart Rate Variability and Default Mode Network after Practicing of Sudarshan Kriya Yoga 黃威琚 1, 黃阿敏 1* Wei-Chun Huang ¹ and A-Min Huang ^{1*}
PY100	Metabotropic Glutamate Receptor Subtype 5 Differentially Modulates Hippocampal Dentate Neurons 蔣卉綺 1, 沈宏璋 2, 王思敏 2, 連正章 2,3 Hui-Chi Chiang ¹ , Hung-Chang Shen ² , Ssu-Min Wang ² , and Cheng-Chang Lien ^{2,3}
PY101	SL-327 mitogen-activated protein kinase inhibitor disrupts morphine-induced conditioned taste aversion in brain 尤奕竣, 李彊, 吳季文, 黃智偉 Yi Chun Yu ¹ , Chiang Lee ¹ , Chi-Wen Wu ² , and Andrew Chih Wei Huang ^{1,*}
PY102	Endometriosis Sensitizes the Uterus-urethra Crosstalk in Female Rats. 陳柏叡, 吳忠信, 林則彬 Po-Jui Chen, Chung-Hsin Wu, Tzer-Bin Lin
PY103	D2 receptor antagonist haloperidol facilitates morphine-induced conditioned taste aversion but not conditioned place preference in rats 劉人瑄, 蔡羽柔, 潘靖怡, 黃智偉 Jen-Shiuan Liu, Yu Rou Cai, Jing Yi Pan, and Andrew Chih Wei Huang [*]
PY104	Evidence for the augmentation of voltage-gated sodium current produced by apocynin (4'-hydroxy-3'-methoxyacetophenone), a known NADPH-oxidase inhibitor 莊子賢, 吳勝男 Tzu-Hsien Chuang, Sheng-Nan Wu
PY105	Investigating the Role of the Deep Cerebellar Nuclei on Social Interaction in Mice Using Muscimol and Optogenetics 林羿婷, 賴文崧 Yi-Ting Lin, Wen-Sung Lai
PY106	Evidence for modifications on erg-mediated potassium current produced by SM-102, a cationic lipid known to be an ingredient of Moderna vaccine 卓昕研, 吳勝男 Hsin-Yen Cho, Sheng-Nan Wu
PY107	An Increase in FGF21 from Brown Adipose Tissue Reverses High-Fat Diet Induced Depression 郭宜盈, 陳珮君 Yi-Ying Kuo, Pei-Chun Chen
PY108	The Mechanisms of Ubiquitin Specific Protease 1 (USP1) Inhibitor ML323 in Alleviating Paraquat-induced Cell Death 黃文誼 1, 黃春霖 2,3, 黃乃瑰 4 Wen-Yi Huang ¹ , Chuen-Lin Huang ^{2,3} , Nai-Kuei Huang ⁴
PY109	Impact of cervical spinal contusion on respiratory and locomotor function in the rat 張孝森, 黃獻璋, 薛宇桓, 杜元坤, 李昆澤 Hsiao-Sen Chang, Hsien-Chang Huang, Yu-Huan Hsueh, Yuan-Kun Tu, Kun-Ze Lee



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PY110	Androgen receptor in periosteum promotes fracture healing 魏國鼎, 劉雅棻, 藍國忠, 鄭碧華, 朱天民, 黃國恩, 張傳祥, 康宏佑 Kuo-Ting Wei ^{1,2} , Ya-Fen Liu ^{1,2} , Kuo-Chung Lan ^{1,2,3} , Bi-Hua Cheng ^{1,4} , Tien-Min G Chu ⁵ , Ko-En Huang ¹ , Chawnshang Chang ⁶ , Hong-Yo Kang ^{1,2,¶}
PY111	Normobaric hyperoxia improves spinal oxygenation level and systemic circulatory function following acute mid-cervical spinal cord contusion 林彥霆, 李昆澤 Yen-Ting Lin, Kun-Ze Lee
PY112	Comorbidity of respiratory and cardiovascular dysfunction following cervical spinal cord contusion in the rat 陳叡怡, 李昆澤 Rui-Yi Chen, Kun-Ze Lee
PY113	Protein Kinase CK2-mediated signaling involves in the impulsive behavior of DRL task 趙知章, 陳碩甫, 許維中, 陸熙昀, 王傳堯, 廖瑞銘 Chih-Chang Chao, Shuo-Fu Chen, Wei-Chung Hsu, Xi-Yun Lu, Chuan-Yao Wang, Ruey-Ming Liao
PY114	Gold nanoparticle interferes with post-traumatic stress disorders symptoms in animal model 潘靖怡, 徐旻瑄, 余英豪, 歐貞吟, 黃智偉 Jing Yi Pan, Min-Hsuan Hsu, Ying Hao Yu, Chen Yin Ou, and Andrew Chih Wei Huang*
PY115	Decoding the focus of cross-modal selective attention in single trials via neuronal activity in the basal forebrain 劉思奴、林士傑 Szwenn Liu, Shih-Chieh Lin
PY116	Tri-GoFo Attenuated TNF- α -induced Lung Injury via Blockage of Intracellular Adhesion Molecule-1 expression 張尹嘉, 林維寧 Yin-Jia Jhang, Wei-Ning Lin
PY117	Methylglyoxal Induces Generation of Reactive Oxygen Species, Dysregulation of Mitochondrial Dynamics and Animal Behavioral Changes 蔡孟蓉 ¹ , 張盛堂 ¹ , 傅渝庭 ² , 劉莉庭 ² , 黃乃瑰 ³ , 黃春霖 ^{2,4} Meng-Jung Tsai ¹ , Sheng-Tang Chang ¹ , Yu-Ting Fu ² , Li-Ting Liou ² , Nai-Kuei Huang ³ , Chuen-Lin Huang ^{2, 4}
PY118	The Mechanisms of SIRT1 Activator SRT1720 in Alleviates Paraquat-Induced Cell Death 王昱棠 ¹ , 黃春霖 ^{2,3} , 黃乃瑰 ⁴ Yu-Tang Wang ¹ , Chuen-Lin Huang ^{2, 3} , Nai-Kuei Huang ⁴
PY119	Neuroinflammation cytokines interleukin-1 beta expressions under morphine-induced paradoxical effects in rats (a) 李彊 (b) 王英洲 (c) 邱偉哲 (d、e) 鄭凱恩 (d) 黃智偉 (a)Chiang Lee, (b)Ying-Chou Wang, (b、c) Wei-Che Chiu, (d、e)Cai-N Cheng, and (d) Andrew Chih Wei Huang
PY120	Examinations of interleukin-1beta expression in the medial prefrontal cortex, amygdala, and the hippocampus in fear behavior in the animal model of PTSD 洪沛濬 林敬芳 張皓媛 黃智偉 Pei-Jui Hung, Jing Fang Lin, Hao Yuan Chang, and Andrew Chih Wei Huang
PY121	Labeling and manipulation of sensitized neurons in chronic muscle pain 楊筑森、林昱伶、連正章 Zhu-Sen Yang, Yu-Ling Lin, Cheng-Chang Lien
PY122	Cannabidiol Selectively Binds to the Voltage-Gated Sodium Channel Nav1.4 in Its Slow-Inactivated State 黃燭璋, 林碧珍, 陳建霖, 李銘仁 Chiung-Wei Huang ^{1,2} , Pi-Chen Lin ³ , Jian-Lin Chen ⁴ and Ming-Jen Lee ⁵
PY123	Assessment of the Spontaneous Pain of Rat after Hemorrhage Stroke 徐百川 Bai-Chung Shyu
PY124	The age-specific effect of Akt1 on dopamine signaling and methamphetamine-induced psychosis in Akt1 mouse model of schizophrenia 羅達中, 高祥薪, 賴文崧 Da-Zhong Luo, Shiang-Shin Gau, Wen-Sung Lai
PY125	The underlying mechanisms of oxytocin- and conspecifics-associated buffering effects against stress-induced decreases in dorsal dentate cell proliferation and neurogenesis 孫莉涵, 游一龍 Li-Han Sun, Lung Yu

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PY126	Bradykinin, as a Reprogramming Factor, Induces Transdifferentiation of Brain Astrocytes into Neuron-like Cells 李宗海, 許淑晴, 謝喜龍 Tsong-Hai Lee, Shu-Ching Hsu, Hsi-Lung Hsieh
PY127	Mice lacking Asic3 facilitate nerve regeneration via PPAR γ to relieve neuropathic pain 許佳雲 1, 孫維欣 1* Jia-Yun Hsu 1 and Wei-Hsin Sun 1*
PY128	Inhibition of Dentate Gyrus Vasoactive Intestinal Polypeptide-expressing Interneurons Improves Mouse Motor Coordination 周晉帝 1, 連正章 1, 2* Jindi Chou1 and Cheng-Chang Lien1, 2*
PY129	Endocannabinoid Signaling Gates Cortical-Hippocampal Input-Driven Granule Cell Recruitment via Cholecystokinin Interneurons 葉家維 1, 李育勸 1, 連正章 1,2,* Chia-Wei Yeh1, Yu-Jui Li1, and Cheng-Chang Lien1,2,*
PY130	Mapping and Interrogating the Functional Role of Central Amygdala-Projecting Vasoactive Intestinal Polypeptide-Expressing Interneurons 王思敏, 連正章 Ssu-Min Wang, Cheng-Chang Lien
PY131	Morpho-physiological Properties of Cholecystokinin-expressing Interneurons in the Hippocampal Dentate Gyrus 連正章 Cheng-Chang Lien
PY132	Regulation of protein level and subcellular localization of p53 and Aurora A upon UVC treatment in LNCaP cells 陳巧倫, 王和善, 陳美智, 林赫 Ciao-Lun Chen, G. M. Shazzad Hossain Prince, Mei-Chih Chen, Ho Lin
PY133	The interaction effect of endothelin-1 with insulin to stimulate 3T3-L1 preadipocyte growth 蕭安淇 1, 崔以威 2, 林彥瑜 1,2, 蕭博仁 1,3, 郭佑啟 4, 高永旭 1 An-Ci Siao1, Yi-Wei Tsuei2, Yen-Yue Lin1,2, Po-Jen Hsiao1,3, Yow-Chi Kuo4, Yung-Hsi Kao1
PY134	Isoxanthohumol suppresses lipopolysaccharide-induced inflammatory responses in macrophages 高子涵, 李佳陽 Tzu-Han Kao, chia-yang Li
PY135	The role of matrix metalloproteinase-9 in lipopolysaccharide triggered cell damage and signaling pathway 廖于翔 1, 黃謙 1, 江逸凡 2, 吳兩新 1, 鍾德憲 1, 邱智賢 1* Yu-Hsiang Liao1, Chien Huang1, Yi-Fan Jiang2, Leang-Shin Wu1, De-Shien Jong1 and Chih-Hsien Chiu1*
PY136	Antibacterial Mechanism of Novel Antimicrobial Peptides Against Multi-Drug Resistant Enterotoxigenic Escherichia coli and Identification of Its Binding Targets Using Proteome Microarray 郭美儀, 鄭庭婷, 許育騰, 張雲傑, 翁育筠, 吳康琪, 陳威戎 * Wendy Mei-Yi Kwok, Ting-Ting Zheng, Yu-Teng Hsu, Yun-Jie Chang, Yu-Yun Weng, Kang-Chi Wu, Wei-Jung Chen*
PY137	The Deficiency of FKBP5 Inhibited Lipopolysaccharide-induced Acute Kidney Injury: Regulates Gut Barrier via NF κ B Pathway. 許家柔; 陳嘉晏; 賴世婕; 黃怡禎; 柯品豪; 黃鈺琴; 唐德成; 吳莉玲 Hsu, Jia-Rou; Chen, Chia Yen; Lai, Shih-Chieh; Huang, Yi-Chen1; Ko, Pin Hao; Huang, Yu-Chin; Tarng, Der-Cherng; Wu, Li-Ling
PY138	The Association of Coronavirus Disease 2019 (COVID-19) Viral Load with Disease Severity and Mortality 張智鈞*, 黃惠玲 Chih-Chun Chang*, Huei-Ling Huang
PY139	Impact of The COVID-19 Pandemic on Blood Inventory in A Dedicated COVID-19 Center 張智鈞*, 林卉蓉 Chih-Chun Chang*, Hui-Jung Lin
PY140	A critical time window for early-life antibiotic exposure on autistic-like behavior and gut microbiota dysbiosis in mice 林元元, 吳偉立 Yuan-Yuan Lin, Wei-Li Wu



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PY141	Vasicine Alleviates LPS-induced Inflammatory Responses by Suppressing NLRP3 Inflammasome Activation in Macrophages. 王穎瑄, 李佳陽 Ying-Husan Wang, Chia-Yang Li
PY142	Variation of Tear Ferning Tests between C57BL/6 and ICR Mice 陳楷文, 謝孟恬, 張菡馨, 林培正 1Kai-Wen Chen, 1Meng-Tien Hsieh, 2Han-Hsin Chang, 1David Pei-Cheng Lin
PY143	Fibrinogen Loss Contributes To Platelet Hyporeactivity In Septic Rats 高士堯, 柯宏彥, 黃瑋琛, 廖美惠, 吳錦楨, 施志勤 Shih-Yao Kao, Hung-Yen Ke, Wei-Chen Huang, Mei-Hui Liao, Chin-Chen Wu, Chih-Chin Shih
PY144	Neuromodulatory effect of exogenous melatonin on Central Post Stroke Pain in rodents 管永惠 Yung-Hui Kuan
PY145	Autologous Adipose-Derived Mesenchymal Stem Cells Combined with Shockwave Therapy Synergistically Ameliorates the Osteoarthritic Pathological Factors in Knee Joint 鄭再宏, 顏克典, 周文毅, 詹舜文, 徐山琳, 郭繼陽, 王清貞, 郭純恩, 吳思穎, 許彩金, 許傑程 Jai-Hong Cheng*, Ke-Tien Yen, Wen-Yi Chou, Shun-Wun Jhan, Shan-Ling Hsu, Jih-Yang Ko, Ching-Jen Wang, Chun-En Aurea Kuo, Szu-Ying Wu, Tsai-Chin Hsu and Chieh-Cheng Hsu
PY146	Effects of inflamed esophagitis on circadian clock system in mice 楊淑娟 1, 謝坤叡 2* Shu-Chuan Yang1, Kun-Ruey Shieh2*
PY147	miR-148a-3p expression induces radiosensitivity and reduces bystander effects in head and neck cancer cells 范皇添 1, 李安倫 1, 林書夷 1, 鍾道生 2, 王明華 3, 馬念涵 1 Pham Hoang Thien1, An-Lun Li1, Shu-Yi Lin1, Tao-Sang Chung2, Ming-Hua Wang3, Nianhan Ma1
PY148	Investigating the Role of Akt1, a Schizophrenia Candidate Gene, in Motivation 張弼翔 Pi-Hsiang Chang
PY149	Alga extract increases stem cell functions to ameliorate heart cell senescence induced by d-galactose through regulation of mitochondrial dynamics. 陳靜儀, 陳冬生, 李冠群 Chen, Jing-Yi, Chen, Tung-Sheng, Lee, Guan-Chiun
PY150	Lack of social touch alters anxiety-like and social behaviors in male mice 曾珮昀, 麻彥暄, 朱育昕, 李知霖, 鄭景全, 陳鎮鴻, 蘇鈺珊, 林愷悌, 郭崇涵 Pei-Yun Zeng, Yu-Kai Ma, Yu-Hsin Chu, Chih-Lin Lee, Ching-Chuan Cheng, Chen-Hung Chen, Yu-Shan Su, Kai-Ti Lin and Tsung-Han Kuo
PY151	Gemcitabine-resistance lung cancer cells attenuate gemcitabine-induced autophagy-dependent cell death by inhibiting JNK activity 邱致豪, 郭薇雯, 黃志揚 Chih-Hao Chiu, Wei-Wen Kuo, Chih-Yang Huang
PY152	Vitamin D3 down-regulates the expression Twist and inhibits epithelial-mesenchymal transition and peritoneal dissemination 李芸萱, 吳昇懋, 許美鈴 Yun-Xuan Lee, Sheng-Mao Wu, Meei-Ling Sheu
PY153	HP1a-mediated heterochromatin formation inhibits high dietary sugar-induced tumor progression 張哲維, 沈郁家, 顏賢章 Che-Wei Chang1,2, Yu-Chia Shen2, and Shian-Jang Yan*,1,2
PY154	Preventive and therapeutic efficacy of Ocimum gratissimum aqueous extracts against colorectal cancer 蔡芳鈴 1#, 葉哲全 2, 陳曉鈴 3, 何欣耘 3, 劉哲育 1,4 Fang-Ling Tsai1#, Je-Chiuan Ye2, Hsiao-Ling Chen3, Hsin-Yun Ho3, Jer-Yuh Liu1,4*
PY155	Anti-angiogenic and Anti-tumor Potential of CAC1, a Natural Sesquiterpene Alcohol from Cedrus Atlantica, against Glioblastoma 張凱復 1, 黃雅芝 1,2, 謝汶錡 1, 魏筱真 1, 李孟樵 1, 蔡女滿 1,3,* Kai-Fu Chang 1, Ya-Chih Huang 1,2, Wen-Chi Hsieh 1, Siao-Jen Wei 1, Meng-Chiao Lee 1, Nu-Man Tsai 1,3,*

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PY156	The role of ferroptosis in Particulate matter (PM) -mediated Chronic Obstructive Pulmonary Disease (COPD) pathogenesis 陳芷萱, 林政緯 Chih-Hsuan Chen, Cheng-Wei Lin
PY157	Investigation of the Reaction Mechanism of Cationic Anticancer Peptides Against Colorectal Cancer Cell Line WiDr and Evaluation of Their Combinatorial Effects with Chemotherapeutic Drugs 楊雅婷, 朱霽涵, 陳威戎 * Ya-Ting Yang, Pei-Han Chu, Wei-Jung Chen*
PY158	Melatonin Downregulates PD-L1 Expression and Modulates Tumor Immunity in KRAS-Mutant Non-Small Cell Lung Cancer 趙苡均、林政緯 Yi-Chun Chao、Cheng-Wei Lin
PY159	Receptor expression-enhancing protein 6 is a novel biomarker for tongue squamous cell carcinoma 劉佩芬 1*, 洪仲璟 2, 陳竣峰 3, 李政昕 4, 巫宇哲 1, 吳宛倩 1, 曾崇智 5* Pei-Feng Liu1*, Chung-Ching Hung2, Chun-Feng Chen3, Cheng-Hsin Lee1, Yu-Zhe Wu1, Wan-Qian Wu1, Chung-Chih Tseng4*
PY160	Matrix Metalloproteinase-2-Driven Nuclear Translocation of TYRO3 Intracellular Domain Promotes Colorectal Cancer Malignancy 許佩玲 1,2, 簡郡緯 1, 林博文 3, 陳思瑜 1, 蔡少正 1,4,* Pei-Ling Hsu1,2, Chun-Wei Chien1, Bo-Wen Lin3, Sih-Yu Chen1, and Shaw-Jenq Tsai1,4,*
PY161	CCDC97 facilitates DYRK1B-mediated tumor malignancy in triple negative breast cancer cells 張嘉哲, 邱建智, 劉佩芬, 吳芷瑄, 曾彥強, 李政昕, 徐志文 Chia-Che Chang, Chien-Chih Chiu, Pei-Feng Liu, Chih-Hsuan Wu, Yen-Chiang Tseng, Cheng-Hsin Lee, Chih-Wen Shu
PY162	Cytoskeleton remodeling balances anchoring and detachment of invasive leading cells 彭瑞銘, 羅佳紋, 王貝嘉 Jei-Ming Peng, Jia-Wun Luo, Pei-Chia Wang
PY163	MiRNA145 mediated the MAPK4 to inhibit cancer stem cell function 廖人儀、吳賜猛 Jen-Yi Liao, Semon Wu
PY164	Effects of a novel HSP90/EZH2 inhibitor on human glioblastoma multiforme cells 1. 張越翔、2. 王惠庭、3. 徐松柏 1.Yueh-Hsiang Chang, 2.Hui-Ting Wang, 3.Sung-Po Hsu
PY165	Targeting galectin-1 inhibits hepatoma progression by inducing ADAM17-mediated TNFR1 shedding in carcinoma-associated fibroblasts 蔡耀宗 1,2, 李芷伊 1,2, 黃彥華 2,3,4,5, 張德生 6,7, 林仲彥 8, 莊佳憲 8, 王智揚 9, Gangga Anuraga9, 張資昊 10, 史宗杰 11, 林子堯 12,13, 陳玉玲 14, Ivy Chung15,16, 李崑豪 9, 張哲菡 1,2, 楊凱卉 1,2, 崔苑琳 1,2, 葉志文 1,2, 吳明恒 1,2,5* Yao-Tsung Tsai1,2, Chih-Yi Li1,2, Yen-Hua Huang2,3,4,5, Te-Sheng Chang6,7, Chung-Yen Lin8, Chia-Hsien Chuang8, Chih-Yang Wang9, Gangga Anuraga9, Tzu-Hao Chang10, Tsung-Chieh Shih11, Zu-Yau Lin12,13, Yuh-Ling Chen14, Ivy Chung15,16, Kuen-Haur Lee9, Che-Chang Chang1,2, Kai-Huei Yang1,2, Wan-Lin Tsui1,2, Yap Chee-Voon1,2 and Ming-Heng Wu1,2,5*
PY166	Comparative Analysis of Extraorbital Lacrimal Gland Injuries Caused by Acute and Chronic Dry Eye Status 洪靖涵 1, 徐嘉筠 1, 陳楷文 1, 呂宗漢 1, 張菡馨 2, 林培正 1* Jing-Han Hung1, Chia-Yun Hsu1, Kai-Wen Chen1, Tsung-Han Lu1, Han-Hsin Chang2, David Pei-Cheng Lin1*



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PH01	Cigarette Smoke-induced LKB1/AMPK Pathway Deficiency Reduces EGFR TKI Sensitivity in NSCLC 鄭方茹 1, 2, 陳家弘 3,4, 王柏樟 5, 胡玳璋 5, 蔡文正 6, 吳駿一 7, 湯智昕 1,5, 涂智彥 3,4, 洪明奇 2,5,8,9, 黃偉謙 5,8,9,10,* Fang-Ju Cheng1,2, Chia-Hung Chen, Bo-Wei Wang, Dai-Wei Hu, Wen-Chen Tsai, Chun-Yi Wu, Chih-Hsin Tang, Chih-Yen Tu, Mien-Chie Hung, Wei-Chien Huang3,4,5,6,*
PH02	Thrombin increases expression of connective tissue growth factor via PAR1/PKC/ERK axis in human hepatic stellate cells 孔柏雄 1,2, 賴俊學 1, 黃聰龍 1,2,* Po-Hsiung Kung1,2, Jun-Xue Lai1, Tsong-Long Hwang 1,2,*
PH03	Transplanted Mouse Embryonic Stem Cell-Derived Retinal Ganglion Cells Integrate and Form Synapses in a Retinal Ganglion Cell-Depleted Mouse Model 吳祐任 1,2 Tomoyo Hashiguchi,1 Junki Sho,1 邱士華 2 Masayo Takahashi,1,3 and Michiko Mandai1 You-Ren Wu,1,2 Tomoyo Hashiguchi,1 Junki Sho,1 Shih-Hwa Chiou,2 Masayo Takahashi,1,3 and Michiko Mandai1
PH04	PARP-1 Regulates Inflammasome Activity by Poly ADP-ribosylation of NLRP3 and Interaction with TXNIP in Primary Macrophages 邱鈴雅, 黃婷茵, 林琬琬 Ling-Ya Chiu, Duen-Yi Huang, Wan-Wan Lin
PH05	Nesfatin-1 increases CCL2 expression and contributes to M1 macrophage polarization in human rheumatoid arthritis 張郡威, 湯智昕 Jun-Way Chang, Chih-Hsin Tang
PH06	Cigarette smoke-promoted osteopontin expression attract mesenchymal stem cells recruitment and facilitate lung cancer metastasis 江雅靖 1, 湯智昕 2* Ya-Jing Jiang1, Chih-Hsin Tang2*
PH07	Investigating the Role of ER-Mitochondria Junction on Store-Operated Ca ²⁺ Entry 林鈺喬, 蔡丰喬 Yu-Chiao Lin1 and Feng-Chiao Tsai1,2*
PH08	Distinct contribution of granular and agranular subdivisions of the retrosplenial cortex to remote contextual fear memory retrieval 蔡宗志, 余亭萱, 洪毓傑, 馮樂瑩, 許桂森 Tsong-Chih Tsai,1 Ting-Hsuan Yu,1 Yu-Chieh Hung,1 Lok-Ieng Fong,1 & Kuei-Sen Hsu1,2
PH09	Butyrolactone I acts as an FPR1 inhibitor and free radical scavenger to inhibit neutrophilic inflammation 汪依璿, 陳俊宇, 高定一, 廖志中, 黃聰龍 Yi-Hsuan, Chun-Yu Chen, Yu-Ting Kuo, Chih-Chuang Liaw, Tsong-Long Hwang
PH10	The functional role of FcγRIIB in acute ischemic stroke and reperfusion injury 呂彥鋒, 曾賢忠 Yan-Fong Lu1,2 Shiang-Jong Tzeng1
PH11	Study on the mechanism of GABAergic signaling in the Dravet syndrome 陳怡君?, 許筠, 徐瑞鴻, 蔡哲文, 何世因*, 劉宏輝* I-Chun Chen, Yun Hsu, Jui-Hong Hsu, Che-wen Tsai, Shih-Yin Ho*, Liou Horng Huei.*
PH12	Everolimus attenuates seizure susceptibility in Dravet syndrome mouse model 蔡哲文 1, 陳怡君 1, 林立 1, 何世因 12*, 劉宏輝 123* Che-Wen Tsai1, I-Chun Chen1, Li Lin1, Shi-Yin Ho12*, Horng-Huei Liou123*
PH13	In Vitro Evaluation of the Anti-Inflammatory Effect of KMUP-1 and In Vivo Analysis of Its Therapeutic Potential in Osteoarthritis 黃上恩, Erna Sulistyowati, 趙玉英, 吳炳男, 戴仁恭, 徐仲豪*, 葉竹來* Shang-En Huang 1, Erna Sulistyowati 2, Yu-Ying Chao 3, Bin-Nan Wu 1,4, Zen-Kong Dai 1,5, Jong-Hau Hsu 1,5,*, and Jwu-Lai Yeh 1,4,*
PH14	Visfatin Inhibition Of Mir-1264 Promotes PDGF-C Expression In Chondrosarcoma Cells And Induces Endothelial Progenitor Cells Angiogenesis 宋昌諭 1, 湯智昕 1,2 Chang-Yu Song1, Chih-Hsin Tang1,2

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PH15	Utilization of Artificial Intelligence to Investigate the Role of RNA Modification in the Development of Vessel Organoid 王則元, 簡千翎, 邱士華 Ze-Yuan Wang, Chian-Shiu Chien, Shih-Hwa Chiou
PH16	Mechanism of NLR Family Member X1 in LPS-Induced Cell Death in Microglia: Roles of PARP-1, HO-1 and RIP1 黃于玲, 林琬琬 Yu Ling Huang, Wan Wan Lin
PH17	Effects of Mesencephalic Astrocyte-Derived Neurotrophic Factor (MANF) on Rats with Endotoxemia 朱其俊 1, 王柏翔 2, 陳亦柔 2, 施志勤 1, 吳錦楨 1 Chu-Chi Chun1, Bo-Siang Wang2, Yi-Rou Chen2, Chih-Chin Shih1, Chin-Chen Wu1
PH18	High-fat diet exacerbates autism-relevant social abnormalities and cognitive deficits in CC2D1A conditional knockout mice 王俞喬 許桂森教授 Yu-Chiao Wang, Kuei-Sen Hsu
PH19	Involvement of aerobic glycolysis in TGF- β -induced lung epithelial-to-mesenchymal transition 彭思媛 1、黃綉文 1, 2、許銘仁 Ssu-Yuan Peng1, Shiu-Wen Huang1, 2, 3, Ming-Jen Hsu*1, 3
PH20	Kinase-Independent EGFR-FGFR Interactions In Head And Neck Cancer Cells 黃崇睿 1, 梁芯瑜 1,2, 吳建緯 1, 褚韶瑜 1, 蕭柏強 1, 張立昀 1, 施卓琪 1, 郭冠宏 1, 陳坤麟 3, 蔡丰喬 1,4* Chung-Jui Huang1, Sin-Yu Liang1,2, Jien-Wei Wu1, Chao-Yu Chu1, Po-Chiang Hsiao1, Li-Yun Chang1, Si Cheok Kei1, Guan-Hung Kuo1, Kun-Lin Chen3, and Feng-Chiao Tsai1,4*.
PH21	A new chemical probe inhibitor targeting STAT1 restricts cancer stem cell traits and angiogenesis in colorectal cancer 周佩萱 1, 羅琮凱 1, 林文峻 2, 黃襄國 1, 劉品蓉 3, 謝俊結 4, 趙明濤 5, 魏子堂 1 Pei-Hsuan Chou1, Cong-Kai Luo1, Wen-Yen Lin2, Shang-Kok Ng1, Pin-Jung Liu3, Jiun-Jie Shie4, Mingtao Zhao5, Tzu-Tang Wei1
PH22	Discovery of novel human NTCP inhibitor dehydroeburicoic acid on inhibition of hepatitis delta virus infection 范雅淇, 黃瑋 Ya-Chi Fan, Cheng Huang
PH23	Exploring the mechanism of action for a novel CFTR potentiator Elexacaftor (VX-445) Rou-Shen Lin; Tzyh-Chang Hwang; Han-I Yeh
PH24	Targeting thrombus: optimization and characterization of Coagulation Factor XIII-binding aptamers 曾郁軒, 鄭凱文, 馬蘊華 Yu-Shiuan Tzeng, Kai Wen Cheng, Yunn-Hwa Ma
PH25	Sex differences study in a rat model of chronic muscle pain 曾家盈, 蔡昕庭, 劉鈺亭 * Chia-Ying, Tseng; Hsin-Ting, Tsai; Yu-Ting, Liu*
PH26	CDK inhibitor serves as a new drug for treatment of neutrophilic psoriasiform dermatitis 蔡尚杰、陳舜華、陳柏任、黃聰龍 Sheng-Chieh Tsai, Shun-Hua Chen, Chen Po-Jen, Tsong-Long Hwang
PH27	Loganin Improves Chronic Constriction Injury-Induced Neuropathic Pain by Modulating Neuronal Autophagic Flux 張毓秦 1, 謝素玲 2, 安麗梅 1, 吳炳男 1* Yu-Chin Chang1, Su-Ling Hsieh2, Li-Mei An, Bin-Nan Wu1*
PH28	T cell-mediated responses and in vitro allergy test for patients with COVID-19 vaccines-induced delayed-type hypersensitivity 蔡苑婷, 王壯維 Wan-Ting Tsai, Chuang-Wei Wang
PH29	Heroin dependent candidate gene APBB2 is in the upstream pathway regulating CCL11 release in the TNF- α induced inflammatory process 郭湘維, 劉騰夏, 陳至暉, 劉玉麗 Hsiang-Wei Kuo, Tung-Hsia Liu, Andrew C.H. Chen, Yu-Li Liu
PH30	Axon Guiding of Mouse Embryonic Stem Cell-derived Retinal Ganglion Cells Using Netrin-1 Gradient on Functionalized-PEDOT Surface 楊佳玟, 余佳韋, 吳祐任, 尤嘯華, 邱士華 Chia-Mei Young, Jia-Wei She, You-Ren Wu, Hsiao-hua Yu, Shih-Hwa Chiou



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PH32	Possible Mechanism Underlying Increased Susceptibility of Cortical Spreading Depression in Hypertensive Rats 張抒平 2, 嚴錦城 2, 王署君 3, 4, 5, 陳世彬 1, 3, 4, 5* Shu-Ping Zhang ² , Jiin-Cherng Yen ² , Shuu-Jiun Wang ^{3, 4, 5} and Shih-Pin Chen ^{1, 3, 5*}
PH33	The Effects of Electroacupuncture (EA) to relief allergic rhinitis induced by ovalbumin (OVA) in the Mouse Model 黃立佳, 周怡棋, 阮武清軒, 陳易宏 * Li-Jia Huang, Yi-Qi Chou, Hien V.T. Nguyen, Yi-Hung Chen*
PH34	Antihistamine Facilitate Electroacupuncture Analgesia in Healthy Human Subjects: A Pilot Study 陳易宏 1*, 林昭庚 2, 杜政昊 1, 鍾欣怡 1, 羅思庭 1, 朱鈺婷 1, Iona J. MacDonald ¹ , 藍先元 3,4, 李育臣 2,5* Yi-Hung Chen ^{1*} , Jaung-Geng Lin ² , Cheng-Hao Tu ¹ , Hsin-Yi Chung ¹ , Sih-Ting Luo ¹ , Yu-Ting Chu ¹ , Iona J. MacDonald ¹ , Hsien-Yuan Lane ^{3,4} , Yu-Chen Lee ^{2,5*}
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PH42	Dissecting striatal circuitry in repetitive and compulsive behaviors induced by chronic stress 李佳駿、蕭雅心 Chia-Chun Li, Ya-Hsin Hsiao
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PH44	The Anti-Inflammatory Effects of Portulaca oleracea via Inhibiting IL-1 β -Induced MMP-9 Expression in Brain Microvascular Endothelial Cells 陳思語, 陳吟貞, 孫若璇, 謝喜龍 Ssu-Yu Chen, Yin-Chen Chen, Ruo-Xuan Sun, Hsi-Lung Hsieh
PH45	Decoding neural circuitry in chronic stress-induced cognitive deficits 陳祺昇, 蕭雅心 Chi-Sheng Chen and Ya-Hsin Hsiao



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PH49	Dunaliella salina alga protects against myocardial ischemia/reperfusion injury by attenuating TLR4 signaling 黃相碩; 張丹綺; 王羿忻; 蔡青峰 Shiang-Suo Huang1,2,3, Tan-Chi Chang4, Yi-Hsin Wang1, Chin-Feng Tsai1,5
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PH52	Multiple Regulation by Amyloid-β Peptide of NMDA-mediated Responses in Rat Rostral Ventrolateral Medulla 伊瑞福, 王蘭蕙, 賴志嘉, 林恂恂 Md Sharyful Islam, Lan-Hui Wang, Chih-Chia Lai, Hsun-Hsun Lin
PH53	Extract of Pre-germinated Brown Rice Protection Against Cardiovascular Dysfunction through Reducing Inflammation and Free Radical in STZ/NA and HFD-induced T2DM Rats 林慧麗, 沈國屏 Hui-Li Lin1, Kuo-Ping Shen2
PH54	Metformin Inhibits Methylglyoxal-Induced Cytotoxicity in Retinal Pigment Epithelial Cells and Retinopathy in Mice via AMPK-Dependent Mitochondrial Biogenesis and Upregulation of Glyoxalase 1 Ponarulselvam Sekar, 陳志明, 黃婷茵, 蕭哲志, 林琬琬 Ponarulselvam Sekar, Chi-Ming Chan, Duen-Yi Huang, George Hsiao, Wan-Wan Lin
PH55	Study for the Mechanism of Kansuine A Inhibit Apolipoprotein C3-Rich Low-Density Lipoprotein-Induced β-cell Apoptosis. 余昊翰, 潘柏毅, 徐鈺婷, 陳振聲, 陳芳玉, 沈明毅 Hao-Han Yu, Bo-Yi Pan, Yu-Ting Hsu, Chen-Sheng Chen, Fang-Yu Chen, and Min-Yi Shen
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PH59	Hydralazine Protects Renal Proximal Tubular Epithelial Cells against Hypoxia-Reperfusion Injury 方昱螢, 張婷婷* Shih-Ying Fang, Ting-Ting Chang*
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PH62	Exploring the role of Rab37 in Metabolic Diseases 吳虹儒, 陳韻雯 Hung-Ju Wu, Yun-Wen Chen
PH63	P2X7 Activation Enhances Lipid Accumulation during Adipocytes Differentiation through Suppressing the Expression of Sirtuin-3, Sirtuin-5, and Browning Genes 江建勳, 鄭景元, 連羿婷, 黃國晉, 林琬琬 Chien-Hsieh Chiang, Ching-Yuan Cheng, Yi-Ting Lien, Kuo-Chin Huang, Wan-Wan Lin
PH64	Loganin Prevents Painful Diabetic Neuropathy by Regulating Oxidative Stress-Mediated Inflammation in Diabetic Rats 鄭玉琪 1, 邱俞旻 1, 謝素玲 1, 吳炳男 1* Yu-Chi Cheng1, Yu-Min Chiu1, Su-Ling Hsieh2, Bin-Nan Wu1*
PH65	SARS-CoV-2 Pseudovirus Infectivity and Expression of Viral Entry-Related Factors ACE2 and TMPRSS2 in Human Induced Pluripotent Stem Cell-Derived Retinal Organoids 賴志仁; 周士傑; 楊逸萍; 邱士華 Henkie Isahwan Ahmad Mulyadi Lai; Shih-Jie Chou; Yi-Ping Yang; Shih-Hwa Chiou
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PH70	Mitophagy effects of melatonin against NaIO3 induce ROS stress-mediated HIF-1a/BNIP3 modulating LC3 expression in age-related macular degeneration. 陳永璿 1, 謝逸憲 1,2 Yong-Syuan Chen 1, Yi-Hsien Hsieh1,2
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PH74	Effects of Luteolin on The Platelet Inhibitory Action of Nitric Oxide 洪璟甄 1、曹正明 2、陳明華 3、許向平 4、郭嘉文 5、吳錦楨 1、施志勤 1* Ching-Chen Hung1, Cheng-Ming Tsao2, Ming-Hua Chen3, Hiong-Ping Hii4, Jia-Wen Guo, Chin-Chen Wu1, Chih-Chin Shih1*
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PH77	Traditional Chinese Medicine Reduces the Incidence of Cancer-Associated Stroke: A Nationwide Population-Based Cohort Study 黃千甄 1, 楊育慈 2, 陳易宏 3* Chien-Chen Huang1, Yu-Cih Yang2, and Yi-Hung Chen3*
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PH79	Inhibition of nucleophosmin/B23 promotes gynecological cancer cells escape from immune cell through regulation of PD-L1 林巧韻 趙安琪 賴瓊慧 Chiao-Yun Lin, Angel Chao, Chyong-Huey Lai
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PH81	Tumor microenvironment-sensitive nanoparticles enhance the intracellular target delivery of chemo- and gene therapeutics against cancer 駱雨利 曾維宣 李璟瑤 Yu-Li Lo, Wei-Hsuan Tseng, Ching-Yao Li
PH82	Tumor microenvironment-sensitive nanoparticles enhance the cytotoxicity of oxaliplatin and microRNA 曾維宣, 李璟瑤, 駱雨利 Wei-Hsuan Tseng, Ching-Yao Li, Yu-Li Lo
PH83	The different functions of Ca2+-adhesion interaction by tumor heterogeneity in ovarian clear carcinoma cells 朱沛羽, 黃韻如, 蔡丰喬 Pei-Yu Chu, Ruby Yun-Ju Huang, and Feng-Chiao Tsai
PH84	Investigating the C-terminal of KCNT1 to see its regulatory effects on K and Ca2+ homeostasis, inspired from a patient with Brugada syndrome 蔡沛儒、蔡蔓綺、潘建源、廖怡萱、林意真、莊志明、蔡丰喬 Pei-Ju Tsai1, Man-Chi Tsai2, Chien-Yuan Pan3,4, Yi-Hsuan Liao5, Yi-Jhen Lin3, Jyh-Ming Jimmy Juang6,7, Feng-Chiao Tsai1,7
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PH87	Regulation and Role of Blimp-1 in Cutaneous Keratinocytes and Squamous Cell Carcinoma 張華景, 黃婷茵, 李惠珉, 林琬琬 Hua-Ching Chang, Duen-Yi Huang, Hyemin Lee, Wan-Wan Lin
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PH94	The Therapeutic Effects of Placenta Chorion-Deived Mesenchymal Stromal Cells for Angiogenesis and Myogenesis in Peripheral Artery Disease (PAD) 高先穎, 劉鴻祺, 林泰元 Hsien-Yin Kao, Houn-Chi Liou, Thai-Yen Ling
PH95	CRISPR/Cas9-mediated Prime Editing Rescuing Nonsense Mutation in Cystic Fibrosis Patient-Specific iPSCs-derived Airway Organoids via Supramolecular Nanoparticles 周士傑 Shih-Jie Chou
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PH97	Identifying Distinct Oxygen Diffusivity through Type I Pneumocyte-Like Cell Layers using Microfluidic Device 林信宏, 董奕鍾, 曹伯年, 林泰元 Hsin-Hung Lin3, Yi-Chung Tung1, Chien-Kai Wang2, Yung-Kang Huang3, Cheng-Kai Huang3, Chien-Chung Peng1, Bishnubrata Patra1, Hung-Kuan Chen3,5, Po-Nien Tsao4,5, Thai-Yen Ling3,5
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PH102	Lophatherum gracile Brongn. is a potent herbal medicine for COVID-19 Yu-Li Chen1, Kuei-Hung Lai2, Yu-Chia Chang1, Yu Fang3, Pei-yu Chao3, and Tsong-long Hwang*1,3
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PH109	Apelin Affects the Progression of Osteoarthritis by Regulating VEGF-Dependent Angiogenesis and miR-150-5p Expression in Human Synovial Fibroblasts 王俞涵, 劉軒誌, 湯智昕 Yu-Han Wang, Shan-Chi Liu, Chih-Hsin Tang
PH110	Silymarin ameliorates heat stroke-induced multiple organ dysfunction and reduced mortality rate in rats 謝銘城, 沈信學, 李燕媚* Ming-Cheng Hsieh, Hsin-Hsueh Shen, Yen-Mei Lee*
PH111	MethylEugenol inhibits osteoclastogenesis via suppression of RANKL-induced activation of NF- κ B and p38 MAPK pathways 曾于萱, 沈信學, 李燕媚 Yu-Hsuan Tseng, Hsin-Hsueh Shen, Yen-Mei Lee
PH112	Fucoanthin Decreases Lipopolysaccharide-Induced Acute Lung Injury Through the Inhibition of RhoA Activation and the NF- κ B Pathway 關宇翔, 雷詠淳, 李建瑩 Yu-Hsiang Kuan, Yung-Chun Lei, Rosa Huang-Liu, Chien-Ying Lee
PH113	Connective Tissue Growth Factor (CTGF/CCN2) increases IL-17 production via reducing miR-655 expression in Osteoarthritis Synovial Fibroblasts 劉軒誌 1, 湯智昕 2* Shan-Chi Liu1; Chih-Hsin Tang2*
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PH116	The Anti- and Inhibitory Inflammation Ability of Paeonol on Alveolar Macrophages 巫宸昀, 葉威蘭 Chen-Yun Wu, Wei-Lan Yeh
PH117	P2X7 Activation Involves in Sodium Iodate Induced Retinal Cell Death and Retinopathy 陳志明, Ponarulselvam Sekar, 蕭哲志, 林琬琬 Chi-Ming Chan, Ponarulselvam Sekar, George Hsiao, Wan-Wan Lin
PH118	Interplay of AMPK and PARP in UVA-Induced Autophagic Cell Death in Retinal Epithelial Cell Ponarulselvam Sekar, 黃婷茵, 陳志明, 林琬琬 Ponarulselvam Sekar, Duen-Yi Huang, Chi-Ming Chan, Wan-Wan Lin
PH119	Pan-Caspase Inhibitor zVAD Induces Necroptotic and Autophagic Cell Death in TLR3/4-Stimulated Macrophages 鄭景元, 陳元森, 莊惟筑, 龔秀妮, 黃婷茵, Ponarulselvam Sekar, 林琬琬 Ching-Yuan Cheng, Yuan-Shen Chen, Wei-Chu Chuang, Hsiu-Ni Kung, Duen-Yi Huang, Ponarulselvam Sekar, and Wan-Wan Lin
PH120	Omentin-1 Promote M2 Macrophage Polarization through Increasing Interleukin-4 (IL-4) expression in Human Synovial Fibroblast. 林彥佑, 湯智昕* Yen-You Lin, Chih-Hsin Tang*



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PH122	The Mechanism and Potential Efficacy of Aza-PBHA, an Aryl Hydrocarbon Receptor Activator in Diabetic Retinopathy Ida Fitriana1,#, 吳佳樺 1,#, 許泰儒 1, 蕭哲志 2, 楊宗珉 1, 詹燕茹 1, 康熙洲 3*, 鄭幼文 1* Ida Fitriana1,#, Chia-Hua Wu1,#, Tai-Ju Hsu1, George Hsiao2, Tsung-Min Yang1, Yen-Ju Chan1, Jaw-Jou Kang3*, and Yu-Wen Cheng1*
PH123	Stelletin B Induces Apoptosis and Autophagy in Human Bladder Cancer RT112 cells 張鈞翰、陳美全 Chun-Han Chang, Mei-Chuan Chen
PH124	Lycorine induced apoptosis and cell cycle arrest in renal cell carcinoma 蘇郁淇, 陳美全 Yu-Chi Su, Mei-Chuan Chen
PH125	The Safer Antithrombotic Derived from Snake Venom Disintegrin Acts as Pure Antagonist of Platelet α IIb β 3 郭育汝 1, 鍾鏡湖 1, 莊偉哲 2*, 黃德富 1, 3* Yu-Ju Kuo1, Ching-Hu Chung1, Woei-Jer Chuang2*, and Tur-Fu Huang1,3*
PH126	Acute and Subacute Toxicity of Fluorescent Gold Nanoclusters Conjugated with α -Lipoic Acid 陳韻芳, 鍾鏡湖 Yun-Fang Chen, Ching-Hu Chung
PH127	A Potent, Orally Active MYC-Degradation Agent for SCLC Treatment Yen-Ting Chen, Chun-Ping Chang, Ya-Hui Chi, Yi-Yu Ke, Wen-Hsing Lin, Dai-Hui Jhuo, Wan-Ping Wang, Chia-Hua Tsai, Yu-Jie Su, Ming-Chun Hung, Zhong-Wei Wu, Po-Chu Kuo, Teng-Kuang Yeh, Ching-Ping Chen, Jen-Shin Song, Chuan Shih, Jang-Yang Chang, Chiung-Tong Chen
PH128	Discovery of Peptide-Drug Conjugates Targeting Luteinizing Hormone-Releasing Hormone Receptor-Positive Tumors as Anti-Cancer Therapeutics 邱泰裕, 徐嘉瑜, 劉于維, 黃冠勳, 蔡靜樺, 王敏先, 陳錦萍, 黃貞龍, 黃郁珍, 葉燈光, 鄒倫以及陳炯東 Tai-Yu Chiu, Chia-Yu Hsu, Yu-Wei Liu, Kuan-Hsun Huang, Ching-Hua Tsai, Min-Hsien Wang, Ching-Ping Chen, Chen-Lung Huang, Yu-Chen Huang, Teng-Kuang Yeh, Lun K. Tsou and Chiung-Tong Chen
PH129	The Protective Effects and Mechanisms of Fungal Derivative 3,4-Dihydroxybenzalacetone in Blue Light-induced Retinal Photoreceptor Cell Damage and Degeneration in Vivo 林凡立 1, 陳俐卉 1, 何昭德 2, 吳亮寰 1, 3, 郭悅雄 4, 鄭幼文 5, *, 蕭哲志 1, 3, * Fan-Li Lin1, Li-Huei Chen1, Jau-Der Ho2, Liang-Huan Wu1, 3, Yueh-Hsiung Kuo4, Yu-Wen Cheng5,*, George Hsiao1, 3, *
PH130	Effects of Ergosta-7,9(11),22-trien-3 β -ol on 1-methyl-4-phenyl-1, 2, 3, 6-tetrahydropyridine (MPTP)-Induced Reduction of Skeletal Muscle Mass and Motor Activity in C57BL/6 Mice 張婉萱 1,2, 方偉宇 1, 郭悅雄 3,4, 林志隆 5,6, 羅怡卿 1,2* Wan-Hsuan Chang 1,2, Wei-Yu Fang 1, Yueh-Hsiung Kuo 3,4,5, Chih-Lung Lin 6,7, Yi-Ching Lo1,2*
PH131	Bioactive alkaloid of the bark of Cinchona exerts neuroprotective effects in a transient focal ischemia/reperfusion mice model 盧冠蓉, 謝政穎 Kuan-Jung Lu, Cheng-Ying Hsieh
PH132	Chemical Constituents of Soft Coral Sinularia leptoclados and their Anti-inflammatory Activity 黃心嵐 1, 張祐嘉 2, 汪依璿 3, 黃聰龍 1,2,4,* Hsin-Lan Huang1, Yu-Chia Chang2, Yi-Hsuan Wang3, Tsong-Long Hwang 1,2,4,*
PH133	An aliphatic hydrocarbons-enriched extract of Agrimonia pilosa Ledeb. attenuates neutrophil elastase activity Yan-Chun Qiu1, Yu-Li Chen2, Tsong-Long Hwang1,2,3*
PH134	Effects of Loganin on Paclitaxel-Induced C2C12 Myotube Atrophy 方偉宇 1, 鄭琳 1,2, 吳彩榕 1,2, 羅怡卿 1,2* Wei-Yu Fang1, Cheng Lin1,2, Cai-Rong Wu1,2, Yi-Ching Lo1,2*
PH135	9,11-Secosteroids from Octocoral Sinularia leptoclados Have Anti-inflammatory Activity 張祐嘉 1, 黃聰龍 1,2,3* Yu-Chia Chang1, Tsong-Long Hwang1, 2, 3, *



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PH137	Traditional Chinese Medicine (TCM) Extracts Inhibit Metastasis in Lung Cancer Cells 吳明芝, 吳志中, 王惠君 Ming-Zhi Wu, Chin-Chung Wu, Hui-Chun Wang
PH138	Anti-angiogenic mechanisms of novel benzimidazole derivatives 莊晉惠 1、張華景 2、許銘仁 1, 3、黃綉文 * 1,3,4 Chin-Hui Chuang 1, Hua-Ching Chang 2, Ming-Jen Hsu 1, 3, Shiu-Wen Huang* 1, 3, 4
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PH140	A Novel Hydroxamate Derivative WMJ-F-09 Induces Colorectal Cancer Cell death via LKB1-p53-survivin Signaling 許銘仁, 黃綉文, 黃偉展 Ming-Jen Hsu, Shiu-Wen Huang, Weu-Jan Huang
PH141	Vincristine inhibits platelet activation via suppressing Akt and MAPK phosphorylation 呂婉榕 1,2, 康玲瑄 3, 林冠宏 4, 陳瑞杰 5, 許準榕 2,3 Wan-Jung Lu1,2, Lin-Hsuan Kang3, Kuan-Hung Lin4, Ray-Jade Chen5, Joen-Rong Sheu2,3
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PH143	An Iridoid Glycoside Loganin Blocks ATP-Sensitive Potassium Channels and Stimulates Insulin Secretion in β Cell Line RIN-m5F 吳峻誠, 謝素玲, 張毓秦, 安麗梅, 吳炳男 * Jun-Cheng Wu1, Su-Ling Hsieh2, Yu-Chin Chang1, Li-Mei An1, Bin-Nan Wu1*
PH144	Eugenosedin-A Ameliorates Obesity-Related Hyperglycemia by Modulating KATP Channels and Insulin Secretion in Pancreatic β Cells 吳峻誠 1, 林榮峙 2, 顏宇寬 1, 李建興 1, 沈國屏 3, 吳炳男 1* Jun-Cheng Wu1, Rong-Jyh Lin2, Yu-Kwan Yen1, Chien-Hsing Lee1, Kuo-Ping Shen2, Bin-Nan Wu1*
PH145	The pharmacokinetic changes of nifedipine by repeated Shengmai-San administration: inhibition of oxidative metabolism by ingredients herbal 翁芸芳、王鴻展、譚家惠、江姿儀、陳薇晴、沈建昌 Yune-Fang Ueng, Hong-Jaan Wang, Elise Chia-Hui Tan, Tzu-Yi Chiang, Wei-Ching Chen, and Chien-Chang Shen
PH146	Cannabinoids orchestrate cross-talk between cancer cells and endothelial cells in colorectal cancer 羅琮凱, 周佩萱, 黃襄國, 林文峰, 王俊皓, 魏子堂 Cong-Kai Luo, Pei-Hsuan Chou, Shang-Kok Ng, Wen-Yen Lin, Chun-Hao Wang, Tzu-Tang Wei
PH147	The Role of EGFR-TKI Resistant Cells in Modulating Tumour Microenvironment of Lung Cancer Using Lung Organoid Model 穆黛可, 娜莉倪, 王夢蓮, 邱士華 Nalini Devi Verusingam, Mong-Lien Wang, Shih-Hwa Chiou
PH148	Synergistic Anticancer Effects of Methylene Blue Coupling with N,N-Dimethyl-4-Nitrosoaniline(RNO) and Metal Ions on the Cultured Cells. 蕭水銀 Shoei-Yn Lin-Shiau
PH149	Vorinostat and Doxorubicin improved Anticancer Effect in Bladder Cancer Cells. 李嘉雯, 劉怡文 * Kah-Min Lee, Yi-Wen Liu*
PH150	NRF2 Promotes Expression and Secretion of IL-33, a Danger Signal Cytokine, upon Stress Stimulation 劉薰, 謝智雄, 王憶卿 Hsun Liu, Chih-Hsiung Hsieh, and Yi-Ching Wang



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PH153	Melatonin Inhibits MMP-13 Expression and Tumor Metastasis via MT1 Receptor, PLC-γ and c-Jun Pathways in Human Prostate Cancer 林良蔚 1、湯智昕 1,2* Liang-Wei Lin1, Chih-Hsin Tang1,2*
PH154	TGF-β Induces Blimp-1 Gene Expression in Prostate Cancer Cells via Smad-Dependent Stabilization of EGFR and EGFR Transactivation 陳思彤, 李惠珉, 黃婷茵, 林琬琬 Sih-Tong Chen, Hyemin Lee, Duen-Yi Huang, Wan-Wan Lin
PH155	Mechanism for mitochondrial SLC1A5var modulating glucose dependency of breast cancer cells 何郁潔, 李新城 Yu-Chieh Ho, Hsin-Chen Lee
PH156	The Study of iMSC Paracrine Factors Effect on Lung Cancer Cell Jit-Kai Loh, Soon-Keng Cheong, 王夢蓮, Alan Han-Kiat Ong, 邱士華教授 Jit-Kai Loh, Soon-Keng Cheong, Mong-Lien Wang, Alan Han-Kiat Ong, Shih-Hwa Chiou
PH157	Differential inhibitory mechanism of Aspirin and Sulindac on store-operated calcium channel in colorectal cancer 王培璿, 林鈺喬, 張偉嶠, 黃婉嬪 Yu-Shiuan Wang1,2, Yu-Chiao Lin3, Wei-Chiao Chang2,4, Wan-Chen Huang1*
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PH159	Apelin promotes Prostate Cancer Metastasis by downregulating TIMP2 through increasing miR-106a expression 劉毅康 1, 湯智昕 2* Yi-Kang Liu1, Chih-Hsin Tang1,2
PH160	Role of CASK in Prostate Cancer Cell Migration and Invasion 方莎, 林佳怡, 林琬琬 Chia-Yee Lin and Wan-Wan Lin
PH161	Roles of NLRX1 in Cell Growth, Survival and Migration in Prostate Cancer Cells 方莎 1, 林琬琬 2 Wan-Wan Lin
PH162	Melatonin Impedes Chondrosarcoma Cell Metastasis by Suppressing MMP-7 Expression Nguyen Bao Tran, 馮逸卿, 湯智昕 Nguyen Bao Tran, Yi-Chin Fong, Chih-Hsin Tang
PH163	WISP-3 Stimulates VEGF-C-Dependent Lymphangiogenesis in Human Chondrosarcoma Cells by Inhibiting MiR-196a-3p Synthesis 林智暘 1, 湯智昕 1, 2, 3, 4* Chih-Yang Lin1, Chih-Hsin Tang1, 2, 3, 4*
PH164	Apelin promotes osteosarcoma cell migration by upregulating PLOD2 expression via the Hippo signaling pathway and hsa_circ_0000004/miR-1303 axis Nguyen Thi Nha Trang Nguyen Thi Nha Trang1, Shan-Chi Liu2, Chih-Hsin Tang1
PH165	Bone sialoprotein Promotes Non-Small Cell Lung Cancer Metastasis to Bone by Stimulating MMP14 Production and RANKL-dependent Osteoclastogenesis Le Huynh Hoai Thuong, 湯智昕, Le Huynh Hoai Thuong, Chih-Hsin Tang

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PH167	The feasibility and pharmacological mechanism of CK1δ/ε inhibitors in clear cell renal carcinoma 林子箴 1, 陳美全 2, 謝宗翰 3, 陳俊翰 1* Yu-Chen Lin1, Mei-Chuan Chen2, Tsung-Han Hsieh3, Chun-Han Chen1*
PH168	Epigenetic upregulation of spleen tyrosine kinase expression by p53 in cancer cells is through downregulation of DNA methyltransferase 黃婷茵, 呂上德, 林琬琬 Duen-Yi Huang2, Shang-Te Lu1, Wan-Wan Lin1
PH169	Diltiazem Suppressed Triple-Negative Breast Cancer Metastasis via Reversing Epithelial-Mesenchymal Transition 陳彥鋈 1, 葉威蘭 1, 2* Yen-Chang Chen1, Wei-Lan Yeh 1, 2*



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AN02	The exosomes from umbilical cord mesenchymal stem cell enhance DNA repair signaling on rotenone-induced oxidative stress 蔡佩珊、王韻茹、沈美伶、周逸鵬、廖恩慈 Pei-Shan Cai, Yun-Ju Wang, Mei-Lin Shen, Yat-Pang Chau, En-Chih Liao
AN03	Running exercising restores the hippocampal-related memory decline and hippocampus adult neurogenesis impairment in 2-kidney, 1-clip hypertensive mice model Chang Ying-Shuang ^{1,3} , Wu Yi-Ting ² , Shih Yao-Hsiang ¹
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AN05	CHPF Regulates Glycanation of Decorin and Associates with Survival of Hepatocellular Carcinoma Patients 許維成、吳柏觀、廖玟潔、曾拓榮、劉炯輝* Wei-Cheng Hsu, Bo-Rui Wu, Wen-Chieh Liao, To-Jung Tseng, Chiung-Hui Liu*
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AN07	Bisphenol A Impairs Angiogenesis in Human Placenta through TL1A and DcR3 Pathway 黃玉瑄 ¹ , 黃慧馨 ² , 藍心婕 ^{1,2} Yu-Shiuan Huang ¹ , Hui-Hsin Huang ² , Hsin-Chieh Lan ^{1,2}
AN08	Bisphenol A (BPA) alters the epithelial-mesenchymal transition (EMT) of human trophoblast through IDO pathway 陳蓉安, 黃慧馨, 藍心婕 Jung-An Chen, Huei-Shing Huang, Hsin-Chieh Lan
AN09	The Fiber Integrity and Articular Degeneration Evaluated by Diffusion and Diffusion Tensor Imaging in Chronic Kidney Disease Patients. 蔡雅懿 ^{1,2} 、蔣詩偉 ² 、童靖 ^{1,2} 、許育瑞 ⁴ 、黃國書 ^{2,3} 、王昭穎 ^{1*} Ya-Yi Tsai ^{1,2} , Shih-Wei Chiang ² , Ching Tung ^{1,2} , Yu-Jei Hsu ⁴ , Guo-Shu Huang ^{2,3} , Chao-Ying Wang ^{1*}
AN10	Osteoblast Differentiation is promoted by Wharton's Jelly mesenchymal stem cells through Klotho regulation. 徐佳福, 朱慈暉, 林好庭, 賴怡廷, 羅友志, 江青樹, 蔡裕民, 康玉承, 徐佳福* Jia-Fwu Shyu ¹ , Tzu-Hui Chu ¹ , Yu-Ting Lin ¹ , Yi-Ting Lai ¹ , Yu-Chih Lo ² , Cing-Shu Jiang ³ , Yu-Min Tsai ⁴ , Yu-Cheng Kang ⁴ , Jia-Fwu Shyu ^{1*}
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AN12	The role of CCN1 in aortic aneurysm 莫凡毅 Fan-E Mo
AN13	Aqueous extract of Ocimum gratissimum attenuates high-fructose diet-induced nonalcoholic fatty liver disease in aged female rats 陳欽昶 ¹ , 吳韻淅 ² , 林毓舜 ³ , 劉哲育 ^{4*} , 汪貴珍 ^{3*} Chin-Chang Chen ¹ , Yun-Shi Wu ² , Yu-Shun Lin ³ , Jer-Yuh Lin ^{4*} , Guei-Jane Wang ^{3*}
AN14	Comparison of diabetes rat model induced by different period of high fat diets and different dosage of streptozotocin 謝欣妤 ¹ , 蔡佩君 ^{1,2} , 蕭鎮源 ³ , 徐佳福 ⁴ , 陳天華 ^{1,5*} Hsin-Yu Hsieh ¹ , Pei-Jiun Tsai ^{1,2} , Chen-Yuan Hsiao ³ , Jia-Fwu Shyu ⁴ , Tien-Hua Chen ^{1,5*}
AN15	After swine induced diabetes with streptozotocin the concentration of pancreas islets & insulin were decrease 朱慈暉, 林好庭, 賴怡廷, 羅友志, 蔡裕民, 康玉承, 徐佳福 Tzu-Hui Chu ¹ , Yu-Ting Lin ¹ , Yi-Ting Lai ¹ , Yu-Chih Lo ² , Yu-Min Tsai ³ , Yu-Cheng Kang ³ , Jia-Fwu Shyu ^{1*}

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AN17	Characterization of the Mechanism Underlying Exercise-Induced Regulations of Autonomic Nervous Activity 趙子緯 1, 郭余民 1,2* Zi-Wei Zhao1, Yu-Min Kuo1, 2*
AN18	Running exercise restores the 2K1C-induced Nrf1 downregulation 翁宗平 許棋凱 施耀翔 Weng Zong-Ping, Hsu Chi-Kai, Shih Yao-Hsiang
AN19	The Protective Role of Bitter Melon Leaf Extract against High-Fructose Diet induced Renal Dysfunction in Mice 王品竣, 林好叡, 蕭安 龔秀妮 * Pin-Jun Wang, Yu-Jui Lin, An Hsiao, Hsiu-Ni Kung*
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AN21	The Protective Effect of Abelmoschus manihot Flower Extract Through NRF2 Pathway on Blue LED Light-Induced Retinal Damage in Mice 龍思好, 洪哲穎, 陳韻如, 彭偉豪 Szu-Yu Lung, Jer-Yiing Hsiung, Yun-Ju Chen, Wei-Hao Peng
AN22	Effects of Nostoc Commune on Differentiation of Osteoclast Induced by Prostate Cancer 黃博文, 黃奕峰, 耿念慈, 陳譽齡, 劉威忠 Albert Wong, Yi-Feng Huang, Nien-Tzu Keng, Yu-Ling Chen, Wei-Chung Liu
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AN24	Effects of Dendrobium Officinale Kimura et Migo on Osteoclasts 黃奕峰, 張思慈, 劉威忠, 耿念慈 * Yi-Feng Huang, Ssu-Tzu Chang, Wei-Chung Liu, Nien-Tzu Keng*
AN25	The Sphingosine1-phosphate expression in Osteoclasts treated with calcitonin 朱慈暉, 林好庭, 賴怡廷, 羅友志, 江青樹, 蔡裕民, 康玉承, 徐佳福 * Tzu-Hui Chu1, Yu-Ting Lin1, Yi-Ting Lai1, Yu-Chih Lo2, Cing-Shu Jiang3, Yu-Min Tsai4, Yu-Cheng Kang4, Jia-Fwu Shyu1*
AN26	Investigation of the Protective Mechanism of Alpha-lipoic Acid in H1N1 Infected iPSC-derived Cardiomyocyte and H1N1 Virus-induced Myocarditis Balb/c Mouse Models 蔡孟為, 陳眉霏, 黃靖雅, 許欣國, 黃星華, 林谷峻 Meng-Wei Tsai, Mei-Fei Chen, Jing-Ya Huang, Xin-Guo Hsu, Shing-Hwa Huang, Gu-Jiun Lin
AN27	The Effect of Deoxycholic Acid in Human Gastric Cancer Cells 郭純琦 Chun-Chi Kuo
AN28	The Cytotoxic Effect of Bisphenol A in Madin-Darby Canine Renal Tubular Cells 郭純琦 Chun-Chi Kuo
AN29	Correlation between the perfusion changes of lumbar subchondral bone marrow and the cartilage degeneration by multi-parametric MRI in a rodent 5/6 nephrectomy model 童靖、劉盈君、蔣詩偉、許育瑞、黃國書、王昭穎 Ching Tung1, Ying-Chun Liu2, Shih-Wei Chiang2, Yu-Juei Hsu3, Guo-Shu Huang2,4, Chao-Ying Wang1*
AN30	Acute neurogenic inflammation enhances the expression of protein kinase C beta II in Langerhans cells after chronic constriction injury 曾 拓 榮, W U, C H I - H S I E N, C H I, Y I N G - C H E N TSENG, TO-JUNG
AN31	Effects of Cyclic Compression on Osteogenesis Using 3D Bone Scaffold Combined with Dynamic Culture System 康玉承 1, 朱慈暉 2, 林好庭 2, 賴怡廷 2, 羅友志 3, 蔡裕民 1, 徐佳福 2 Yu-Cheng Kang1, Tzu-Hui Chu2, Yu-Ting Lin2, Yi-Ting Lai2, Yu-Chih Lo3, Yu-Min Tsai1, Jia-Fwu Shyu2



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AN34	AGR2 induces sorafenib resistance via ER stress in hepatocellular carcinoma 陳以理, 陳政義 Yi-Li Chen, Cheng-Yi Chen
AN35	3D Bone Organoid Bioprinting for Study of Osteogenesis and Angiogenesis 林好庭 1, 朱慈暉 1, 賴怡廷 1, 羅友志 2, 蔡裕民 3, 康玉承 3, 徐佳福 1* Yu-Ting Lin1, Tzu-Hui Chu1, Yi-Ting Lai1, Yu-Chih Lo2, Yu-Min Tsai3, Yu-Cheng Kang3, Jia-Fwu Shyu1*
AN36	Application of 3D Printed Models in Facial Bone Reconstruction Shao-Yu Tsai, Mao-Yi Yang, Chiung-Hui Liu, Ru-Yin Tsai, Jyun-Syong Chen, Yin-Hung Chu, Shao-Ti Li, To-Jung Tseng, Hsien-Chun Tseng, Wen-Chieh Liao
AN37	Increase of calbindin in the trigeminal nucleus caudalis mediate oxaliplatin-induced trigeminal neuralgia 王亮凱 張祥樺 Liang-Kai, Wang, Shiang-hua, Chang
AN38	Chronic N-acetylcysteine treatment prevents Amphetamine-induced hyperactivity in heterozygous Disc1 mutant mice 李立仁, 段立珩, 曹志瑜, 巴斯卡, 賴淥敬, 劉智民, 胡海國 Li-Jen Lee1, 2, 3, Li-Heng Tuan1, Chih-Yu Tsao1, Rathinasamy Baskaran4, Chuan-Ching Lai5, Chih-Min Liu3, 6, Hai-Gwo Hwu2, 3, 6
AN39	Impaired Axon Regeneration Due to TGFβ1-induced Collagen I Accumulations 甘祐瑜, 王世緯, 謝松蒼 Hung-Wei Kan, Shih-Wei Wang, Sung-Tsang Hsieh
AN40	Study the Mechanisms of Melatonin Enhance Keratinocytes to Uptake Melanosomes 劉允燁, 詹敏幼, 邱詩媛, 王翰梓, 黃華盈, 林谷峻, 陳正繹 * Yun-Yeh Liu, Min-Yu Chan, Shih-Yuan Chiu, Han-Tzu Wang, Hua-Yin Huang, Gu-Jiun Lin, Zheng-Yi Chen*
AN41	The Roles of Histone Deacetylases and Their Inhibitors in the Neuron Regeneration from Adipose-derived Stem Cells 吳佳慶 Chia-Cing Wu
AN42	Comparison between the Therapeutic Effects of Differentiated and Undifferentiated Wharton's jelly Mesenchymal Stem Cells in Rats with Streptozotocin-induced Diabetes 陳天華 1,2, 蕭鎮源 3, 徐佳福 4, 蔡佩君 1,5* Tien-Hua Chen 1,2, Chen-Yuan Hsiao3, Jia-Fwu Shyu4, Pei-Jiun Tsai 1,5*
AN43	Therapeutic polyclonal antibody in treatment of extremely drug-resistant bacteria Elizabethkingia anophelis infections Xiao-Chun Chen1, Fang-Ju Chang2, Ya-Sung Yang3, Jiun-Han Chen4, Te-Li Chen5, Ming-Hsien Chiang2,5*
AN44	Antibiotic-induced outer membrane vesicles inhibit biofilm formation in nosocomial drug-resistant bacteria 徐爾彤 1、黃鈺婷 1、楊仲玄 2、黃韻玲 3、陳筱琄 4、江明憲 3 Erh-Tung Hsu1, Yu-Ting Huang1, Tsung-Hsuan Yang2, Yun-Ling Huang3, Xiao-Chun Chen4, Ming-Hsien Chiang3
AN45	Investigation of the protective effect of melatonin in influenza H1N1 virus-induced encephalitis 葉綺妍, 蔡孟為, 劉宗達, 林谷峻 * Chi-Yen Yeh, Meng-Wei Tsai, Tsung-Ta, Liu, Gu-jiun Lin*
AN46	Different Age-specific Effects on C57Bl/6 Substrains in Olfactory Associative Learning 陳泓綸, 陳建甫 Hung-Lun Chen, Chien-Fu F. Chen
AN47	Paracrine Regulation of Neutrophil Functions by iPSC-derived Alveolar Epithelial Type 2 Cells upon Coronaviral Infection 黃玄陽, 賴允賢, 簡越, 邱士華 Xuan-Yang Huang, Yun-Hsien Lai, Yueh Chien and Shih-Hwa Chiou

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AN48	Cordycepin enhances radiosensitivity to induce apoptosis and/or autophagy in mouse Leydig cell lines through ROS production 陳似姍, 李一平, 王應然, 黃步敏 Sih-Shan Chen, Yi-Ping Lee, Ying-Jan Wang, Bu-Miin Huang
AN49	The application of neural syndecans for nerve regeneration and biomaterials development 陳鈺宣、廖玟潔、劉炯輝、曾拓榮、蔡如惜、陳尹修、江宥心、顧崇耀 Yu-Hsuan Chen, Wun-Jie Liao, Chiung-Hui Liu, To-Jung Tseng, Ru-Yin Tsai, Yin-Siou Chen, Yu- Hsin Chiang, Chong-Yao Gu
AN50	To Evaluate the Anti-Fibrosis Effects of Silencing C1GALT1 in Macrophages 歐映廷, 林能裕 Ying-Ting Ou, Neng-Yu Lin
AN51	The Curative Effect about Human Umbilical Cord of Wharton's Jelly Mesenchymal Stem Cells to Treat Ischemia Heart Rats Model 蕭鎮源 1, 徐佳福 2, 朱慈暉 2, 陳韋佑 3, 蔡佩君 3,4, 陳天華 3,5 Chen-Yuan Hsiao1, Jia-Fwu Shyu2, Tzu-Hui Chu2, Wei-Yu Chen3, Pei-Jiun Tsai3,4, Tien-Hua Chen3,5
AN52	Set up the acute myocardial infarction porcine model and post-operative care 蕭鎮源 1, 徐佳福 2, 朱慈暉 2, 陳韋佑 3, 蔡佩君 3,4, 陳天華 3,5 Chen-Yuan Hsiao1, Jia-Fwu Shyu2, Tzu-Hui Chu2, Wei-Yu Chen3, Pei-Jiun Tsai3,4, Tien-Hua Chen3,5
AN53	Relationship of the Gastroduodenal Artery and the Common Bile Duct in Chinese Adults 蔡佩君 1,2, 蕭鎮源 3, 徐佳福 4, 陳天華 1,5* Pei-Jiun Tsai 1,2, Chen-Yuan Hsiao3, Jia-Fwu Shyu4, Tien-Hua Chen 1,5*
AN54	Investigated different learning styles and mental rotation ability effect on gross anatomy performance 黃韻玲 1、羅富宇 2、羅友志 3、鄭珈昆 1、王怡文 1、江明憲 1 Yun-Ling Huang1,Fu-Yu Lo2, Yu-Chih Lo3, Chia-Pi Cheng1, Yi-Wen Wang1, Ming-Hsien Chiang1
AN55	Upregulation of Primary Motocortical Innervation to Striatum under Persistent Estrogen Depletion 林相霖, 陳儷今, 曾國藩 Xiang Lin Lin, Li-Jin Chen, Guo-Fang Tseng
AN56	Alterations of Striatal Cholinergic Innervation under Persistent Estrogen Depletion 王日然, 王玲嘉, 陳儷今, 江至文, 曾國藩 Yueh-Jan Wang, Guo-Fang Tseng, Li-Jin Chen, Chin-Wen Chiang, Ling-chia Wang
AN57	Intraventricular Streptozotocin injection impaired rats' Cognitive Functions in association with Frontal Cortical and Hippocampal Synaptic Changes 陳儷今, 江至文, 曾國藩 Li-Jin Chen, Zhi-Wen Jiang, Guo-Fang Tseng*
AN58	The Silent Mentor Program of Tzu Chi University: Effects on Students'attitude towards Life and Others 賴昆城, 曾國藩 Kuen-Cherng Lai, Guo-Fang Tseng
AN59	Establishment of IGF-1 overexpressed NIH/3T3 fibroblast cell lines for the potential therapeutic applications 龔加鳳, 錢宗良 Chia-Feng Kung, Chung-Liang Chien
AN60	Evaluation of the neuroprotective effects of decellularized scaffold combined with olfactory ensheathing cell therapy in the rat animal model of traumatic brain injury 王心好 1, 孫綠涵 1, 王秀仔 1, 葉亭吟 1, 陳元皓 2, 鄭澄意 3, 馬國興 1* Xin-Yu Wang1, Lu Han Sun1, Hsiu Yu Wang1, Ting Yin Yen1, Yuan Hao Chen2, Cheng Yi Cheng3, Kuo-Hsing Ma1*
AN61	To Explore the Effect of Interleukin 26 on the Adipocyte Differentiation 黃于葳、鄭珈昆 Yu-Wei Huang、Chia-Pi Cheng
AN62	Explore the interaction between natural killer cell and breast cancer under chemotherapy 劉宸君, 龔秀妮 Chen-Chun Liu, Hsiu-Ni Kung
AN63	Autologous platelet-rich growth factor (PRGF) reduces M1 macrophages and secretion of inflammatory cytokines to promote sciatic nerve regeneration 吳佳慶 Dr. Chia-Ching (Josh) Wu



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AN64	Proteomic network of antibiotic-induced outer membrane vesicles released by extensively drug-resistant <i>Elizabethkingia anophelis</i> 江明憲、張方如、Dinesh Kumar Kesavan、陳德禮、楊雅頌、莊依萍 Ming -Hsien Chiang ¹ , Fang-Ju Chang ² , Dinesh Kumar Kesavan ³ , Te-Li Chen ⁵ , Yang-Ya Sung ⁶ , Yi-Ping Chuang ⁷
AN65	The Silent Mentor Program of Tzu Chi University: Medical Students' Views on Body Donation 曾國藩 Guo-Fang Tseng
AN66	Relationship the Cystic Artery and the Calot's Triangle in Chinese Adults 陳天華 1,2, 蕭鎮源 3, 徐佳福 4, 蔡佩君 1,5* Tien-Hua Chen 1,2, Chen-Yuan Hsiao ³ , Jia-Fwu Shyu ⁴ , Pei-Jiun Tsai 1,5*
AN67	Courses of the Axillary and Radial Nerves Differ Between Chinese and Caucasians 彭俊維, 陳天華, 蕭鎮源, 徐佳福, 蔡佩君 Chun-Wei Peng, Tien-Hua Chen, Chen-Yuan Hsiao, Jia-Fwu Shyu, Pei-Jiun Tsai
AN68	Surgical Anatomy of the Recurrent Laryngeal Nerve in Chinese Adults and its Clinical Applications 彭俊維, 陳天華, 蕭鎮源, 徐佳福, 蔡佩君 Chun-Wei Peng, Tien-Hua Chen, Chen-Yuan Hsiao, Jia-Fwu Shyu, Pei-Jiun Tsai
AN69	Open Suture Repair and Open Onlay Technique for Incisional Hernia in Elderly Patients with Multiple Comorbidities 徐兆儀 1, 陳天華 1,2, 蕭鎮源 3, 徐佳福 4, 蔡佩君 1,5* Chou-I, Hsu ¹ , Tien-Hua Chen 1,2, Chen-Yuan Hsiao ³ , Jia-Fwu Shyu ⁴ , Pei-Jiun Tsai 1,5*
AN70	Comparisons of Differentiation Potential in Human Mesenchymal Stem Cells from Wharton's Jelly, Bone Marrow, and Pancreatic Tissues 徐兆儀 1, 陳天華 1,2, 蕭鎮源 3, 徐佳福 4, 蔡佩君 1,5* Chou-I, Hsu ¹ , Tien-Hua Chen 1,2, Chen-Yuan Hsiao ³ , Jia-Fwu Shyu ⁴ , Pei-Jiun Tsai 1,5*
AN71	The Anatomical Variations of the Palmar Cutaneous Branch of the Median Nerve in Chinese Adults 李霓, 蔡佩君, 蕭振源, 徐佳福, 陳天華 Lee-Ni/Pei-Jiun Tsai /Chen-Yuan Hsiao/Jia-Fwu Shyu/Tien-Hua Chen
AN72	Variation of the Arterial Supply of Adrenal Gland in Chinese Adult 李霓 蔡佩君 蕭振源 徐佳福 陳天華 Lee-Ni Pei-Jiun Tsai Chen-Yuan Hsiao Jia-Fwu Shyu Tien-Hua Chen
AN73	Pericytes facilitate revascularization and wound healing after spinal cord injury in mice 吳敏瑜 1, 陳惠芳 1, 許鍾瑜 1,2 Min-Yu Wu ¹ , Hui-Fang Chen ^{1,2} , Jung-Yu C. Hsu ^{1,2}
AN74	Global and regional cerebral gray matter abnormality in magnetic resonance images of schizophrenia 鍾芷昀, 侯珮珊 Chih-Yun Chung, Pei-Shan Hou
AN75	TAZ mediates TGF- β -induced tenogenesis in Tendon Stem Progenitor Cells 林亭妤, 王俞捷, 王仰高 Ting-Yu Lin, Yu-Chieh Wang, Yang-Kao Wang
AN76	Carbohydrate sulfotransferase 11 regulates malignant phenotypes of glioblastoma cells via modifying chondroitin sulfate proteoglycans 林祐丞 1, 黃智絃 1, 朱殷弘 1, 陳家嬋 2, 廖玟潔 1, 劉燭輝 1* You-Cheng Lin ¹ , Chih-Hsien Huang ¹ , Yin-Hung Chu ¹ , Chia-Hua Chen ² , Wen-Chieh Liao ¹ , and Chiung-Hui Liu ^{1*}
AN77	Investigate the molecular mechanism by which CHEK2 regulates primary ciliogenesis during serum deprivation 蕭曉憶、王家義 Xiao-Yi Xiao, Chia-Yih Wang
AN78	A Modified Rat Model of Adult Chronic Hydrocephalus Chih-Ling Wang, Fei-Yu Hsu, Zhi-Wen Jianj, Guo-Fang Tseng, Li-Jin Chen*
AN79	Reversal of Bleomycin-induced Rat Pulmonary Fibrosis by a Xenograft of Human Umbilical Mesenchymal Stem Cells from Wharton's Jelly 蔡佩君 1,2,3, 、朱國安 4,5、王詩瑤 1、陳天華 1,2,6、傅毓秀 1* Pei-Jiun Tsai ^{1,2,3} , Kuo-An Chu ^{4,5} , Shih-Yao Wang ¹ , Tien-Hua Chen ^{1,2,6} , Yu-Show Fu ¹
AN80	Applied Anatomy of treatment of humeral shaft fracture and radial nerve injury 謝欣妤 1, 蔡佩君 1,2, 蕭鎮源 3, 徐佳福 4, 陳天華 1,5* Hsin-Yu Hsieh ¹ , Pei-Jiun Tsai 1,2, Chen-Yuan Hsiao ³ , Jia-Fwu Shyu ⁴ , Tien-Hua Chen 1,5*

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AN81	Comparison of multiple injections of human Wharton's Jelly mesenchymal stem cells for Type1 Diabetic Rat 張景翔 1, 陳天華 1,2, 蕭鎮源 3, 徐佳福 4, 蔡佩君 1,5,* Chin-Hsiang Chang1, Tien-Hua Chen 1,2, Chen-Yuan Hsiao3, Jia-Fwu Shyu4, Pei-Jiun Tsai 1,5,*
AN82	Anatomical Variations of the External Branch of Superior Laryngeal Nerve in Chinese Adults and its Clinical Applications 陳韋佑 1, 陳天華 1,2, 蕭鎮源 3, 徐佳福 4, 蔡佩君 1,5* Wei-Yu Chen1, Tien-Hua Chen 1,2, Chen-Yuan Hsiao3, Jia-Fwu Shyu4, Pei-Jiun Tsai 1,5*
AN83	Applied Anatomy of the Genital Branch of the Genitofemoral Nerve in Open Inguinal Herniorrhaphy 張景翔 1, 陳天華 1,2, 蕭鎮源 3, 徐佳福 4, 蔡佩君 1,5,* Chin-Hsiang Chang 1, Tien-Hua Chen 1,2, Chen-Yuan Hsiao3, Jia-Fwu Shyu4, Pei-Jiun Tsai 1,5,*
AN84	Anatomical Variants of the Superficial Temporal Artery in the Chinese Adult 陳韋佑 1, 蔡佩君 1,2, 蕭鎮源 3, 徐佳福 4, 陳天華 1,5* Wei-Yu Chen1, Pei-Jiun Tsai 1,2, Chen-Yuan Hsiao3, Jia-Fwu Shyu4, Tien-Hua Chen 1,5*
AN85	Study of Gastric Body Partition To Avoid Ulcerogenic Risk and Hypergastrinemia 邱聖豪, 蔡佩君, 蕭鎮源, 徐佳福, 陳天華 Sheng-Hao Chiu, Pei-Jiun Tsai, Chen-Yuan Hsiao, Jia-Fwu Shyu, Tien-Hua Chen
AN86	Anatomic Study Of Vaginal Width In Male-To-Female Transsexual Surgery 邱聖豪, 蔡佩君, 蕭鎮源, 徐佳福, 陳天華 Sheng-Hao Chiu, Pei-Jiun Tsai, Chen-Yuan Hsiao, Jia-Fwu Shyu, Tien-Hua Chen

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BC01	TAF2, a Subunit of General Transcription Factor II D, Controls Cell Proliferation Specifically Through Activating the Ribosomal Protein Genes 鄭宜欣, 陳威儀 I-Hsin Cheng, Wei-Yi Chen
BC02	Centrosomal Glutamylation Recruits NEDD1-??-tubulin Complex to Ensure Its Functions 洪詩容 1#, 楊雯婷 1#, 宋秋嫻 1#, 莊貽茜 1, Lohitaksh Sharma1, 張雅筑 1, 廖冠儒 2, 林俊宇 1, 林宜璇 3, 葉弘瑋 1, 鄭惠春 4, Lily 王慧菁 2, 王婉菁 3, 鄭育奇 1, 林玉俊 1,5* Shi-Rong Hong1#, Wen-Ting Yang1#, Chiou-Shian Song1#, Yi-Chien Chuang1, Lohitaksh Sharma1, Ya-Chu Chang1, Kuan-Ju Liao2, Chun-Yu Lin1, I-Hsuan Lin3, Hong-Wei Yeh1, Hui-Chun Cheng4, Lily Hui-Ching Wang2, Wong-Jing Wang3, Yu-Chi Cheng1, Yu-Chun Lin1,5*
BC03	Nuclear Deformation is Driven by AKT2-mediated Lamin A Phosphorylation during Cancer Epithelial-to-mesenchymal Transition 范嘉榕, 張崧年, 褚璟彤, 陳鴻震 Jia-Rong Fan, Sung-Nian Chang, Ching-Tung Chu, Hong-Chen Chen
BC04	Crosstalk between CST and RPA regulates RAD51 activity during replication stress 李啟恆 1, 楊翰霖 2, 張皓衍 1, 葉欣怡 1, 李子于 2, 李弘文 2, 冀宏源 1, 5 Kai-Hang Lei1, Han-Lin Yang2, Hao-Yen Chang1, Hsin-Yi Yeh1, Dinh Duc Nguyen3, Tzu-Yu Lee1, Xinxing Lyu3, Megan Chastain4, Weihang Chai3, Hung-Wen Li2*, Peter Chi1,5*
BC05	Rigidity-activated kinesin-1 promotes muscle regeneration 黃譯蔓 1, 陳胤全 2,3, 游麗如 1, 林中煒 1, 劉燕雯 1, 郭津岑 1,2 Yi-Man Huang1, Yin-Quan Chen2,3, Li-Ru You1, Jong-Wei Lin1, Yen-Wenn Liu1, Jean-Cheng Kuo1,2
BC06	Characterize the Role of Phosphorylated- Apoptotic Proteins in Cellular Senescence 王星喬, 林敬哲 Hsin-Chiao Wang, and Jing-Jer Lin
BC07	Investigation of the Mechanisms for Novel SHQ1 Mutations in the Pathogenesis of Brain Developmental Disorder 張芊惠, 黃嘉偉, 王麗君, 李旺祚, 蔡金吾 Chien-Hui Chang, Chia-Wei Huang, Lee-Chin Wong, Wang-Tso Lee, Jin-Wu Tsai



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BC08	Mechanism and Modeling of Human Disease-Associated Intronic Variants that Perturb RNA Splicing 蘇家瑩、江宏倫、陳宜廷、林信男、余承欣、洪鈺荏、王允麟、黃彥棕、林倩伶 Jia-Ying Su, Hung-Lun Chiang, Yi-Ting Chen, Hsin-Nan Lin, Chen-Hsin Albert Yu, Yu-Jen Hung, Yun-Lin Wang, Yen-Tsung Huang, Chien-Ling Lin
BC09	Neuroprotection of Flavone Compounds Quercetin and Apigenin Against A β Toxicity via Inhibition of A β Aggregation and Activation of TRKB Signaling in A β -GFP SH-SY5Y Cells 邱雅貞, 鄧仔珊, 李桂楨 Ya-Jen Chiu, Yu-Shan Teng, Guey-Jen Lee-Chen
BC10	Investigating neratinib-induced cholesterol biosynthesis as a resistance pathway for combinatorial therapy in breast cancer 劉婕妤, 黃振綜, 謝巧慧, 黃宣誠, 阮雪芬 Jie-Yu Liu, Chen-Tsung Huang, Chiao-Hui Hsieh, Hsuan-Cheng Huang, Hsueh-Fen Juan
BC11	The Effects of Chinese Herbal Medicine, Guiluer-Xianjiao, on Cartilage Induced by Mesenchymal Stem Cells 楊永泓 1, 邱仁輝 4,5, 傅淑玲 1, 王致又 1,2,3 Yong-Hong Yang1, Jen-Hwey Chiu4,5, Shu-Ling Fu1, Jir-You Wang1,2,3
BC12	A mitochondria-plasma membrane fusion machinery regulates mitochondrial ATP synthase translocation to the cell surface 林顏修淇 1, 張怡雯 1, 黃宣誠 2,*, 阮雪芬 1,3,4,* Xiu-Qi Lin-Yan1, Yi-Wen Chang1, Hsuan-Cheng Huang2,*, Hsueh-Fen Juan1,3,4,5,*
BC13	Matriptase-2/NR4A3 axis switches TGF- β action toward suppression on prostate cancer cell invasion, tumor growth and metastasis 林心滢, 柯俊榮, 駱子瑜, 吳尚儒, 藍紹璋, 林欣賢, 蕭培文, 李明學 Hsin-Ying Lin, Chun-Jung Ko, Tzu-Yu Lo, Shang-Ru Wu, Shao-Wei Lan, Hsin-Hsien Lin, Pei-Wen Hsiao, and Ming-Shyue Lee1,*
BC14	ABRACL is Regulated by miR-145-5p and has a Role in Modulating Focal Adhesions in Lung Adenocarcinoma Cells 李明倫 1, 蕭博元 1, 吳孟哲 1, 吳旻聰 1, 葉奕成 3, 周德盈 1,3,4,5, 郭津岑 1,5, 陳美瑜 1,2,5,* Min-Lun Li1, Bo-Yuan Hsiao1, Meng-Che Wu1, Ming-Chung Wu1, Yi-Chen Yeh3, Teh-Ying Chou1,3,4,5, Jean-Cheng Kuo1,5 and Mei-Yu Chen1,2,5,*
BC15	Effects of Transcription Elongation Factor Spt4 on the Genome Instability of Lengthy Tri-nucleotide Repeats 黃昭維 1, 張舜延 2, 高承福 2, 鄭子豪 1,3* Zhao-Wei Huang1, Shin-Yen Chong2, Cheng-Fu Kao2, Tzu-Hao Cheng1,3*
BC16	Adhesion-mediated nuclear deformability promotes cancer metastasis 洪振育 1, 陳胤全 2, 郭津岑 1* Chen-Yu Hung1, Yin-Quan Chen2, Jean-Cheng Kuo1*
BC17	MAPK Hog1 regulates Arl1 activation at the late-Golgi via phosphorylation of Arf-GEF Syt1 王奕勛 1, 許家維 1, 游佳融 2, 李芳仁 1, 3* Yi-Hsun Wang1, Jia-Wei Hsu1, Chia-Jung Yu2, and Fang-Jen S. Lee1, 3*
BC18	The crystal structures of APE1 binding with end-dsDNA complex reveals the mechanism of substrate selection 劉東璋, 林俊廷, 張楷成, 郭鎧璋, 蕭育源 * Tung-Chang Liu, Chung-Ting Lin, Kai-Cheng Chang, Kai-Wei Guo, Yu-Yuan Hsiao*
BC19	Plasma Gelsolin Deficiency Promotes Cancer Progression and Fosters a Fibrotic Tumor Microenvironment 何沛萱, 謝智雄, 張維倫, 王憶卿 Pei-Shiuan Ho, Chih-Hsiung Hsieh, Wei-Lun Chang, and Yi-Ching Wang
BC20	Ankyrin domain-containing protein 13A is a Mitophagy Factor for Parkin-mediated Mitophagy 郭靖, 朱瑋華, 林瑀暘, 姜為中 Jing Guo, Wei-Hua Chu, Yu-Yang Lin and Wei-Chung Chiang
BC21	Investigate the Biochemical Activities of RAD51 Paralogs in Reversed Fork Dynamics 顧家綸 1, 李啟恆 1, 江宜蓁 1, 邱鈺惠 1, 冀宏源 1* Chia-Lun Guh1, Kai-Hang Lei1, Yi-Zhen Jiang1, Yu-Hui Chiu1, Hung-Yuan Chi1*
BC22	Post Translational Modifications Regulates the Nucleocytoplasmic Distribution and Oncogenic Function of KPNA2 in Non-Small Cell Lung Cancer 馮香菩 1, 游佳融 1,2,3,4 * Hsiang-Pu Feng1, Chia-Jung Yu1,2,3,4 *

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BC23	Investigating the regulatory mechanism of mitochondrial dynamics by serpinB2/TGM2 during senescence Chia-Chen Chung, Chia-Li Liao, and Jing-Jer Lin
BC24	FAM21 is critical for TLR2/CLEC4E-mediated Dendritic cell function against Candida albicans Infection Siti Khadijah1,2, Shu-Yun Tung2, Kun-Hai Yeh2, Albert Yu2, Wen Chang2*
BC25	Molecular mechanism of novel FOXP1 variants in causing cortical malformations 林采諭, 鄭皓元, 李旺祚, 王麗君, 侯珮珊, 蔡金吾 Tsai-Yu Lin, Haw-Yuan Cheng, Wang-Tso Lee, Lee-Chin Wong, Pei-Shan Hou, Jin-Wu Tsai
BC26	The role of TET2-mediated m5C RNA demethylation in iPSCs-derived cardiomyocytes after SARS-CoV-2 infection 簡千棚, 陳燕彰, 邱士華 Chian-Shiu Chien, Yann-Jang Chen, Shih-Hwa Chiou
BC27	ICAM2 Mediate the Specificity of Leptomeningeal Carcinomatosis in Triple-Negative Breast Cancer (TNBC) 潘致愷 1, 呂佩融 1* Jhih-Kai Pan1 and Pei-Jung Lu1*
BC28	IL6/JAK2 signal promotes PD-1 phosphorylation and protein stability to drive T cell exhaustion and immunosuppressive tumor microenvironment 劉易嫻, 王憶卿 Yi-Shan Liu, Yi-Ching Wang
BC29	A specific HDAC8 inhibitor combines with temozolomide: novel promising therapeutics for targeting human colon colorectal cancer 林昕儀 1,2, 柯慧君 1,2, 邱顯肇 2, 蔡政宇 1,3, 黃奇英 4, 洪義人 1,2* Xin-Yi Lin1,2, Huey-Jiun Ko1,2, Shean-Jaw Chiou2, Cheng-Yu Tsai1,3, Chi-Ying F. Huang4, and Yi-Ren Hong1,2*
BC30	Glucose Starvation-Induced Arf-GAP Gcs1 Phosphorylation Attenuates The Effect on GTP-hydrolysis by Arl1 Small GTPase 邱婉筠 1, 吳雨潔 1, 游佳融 2, 李芳仁 1, 3 * Wan-Yun Chiu1, Yu-Chieh Wu1, Chia-Jung Yu2, and Fang-Jen S. Lee1, 3 *
BC31	Artemisia argyi promotes Tid1 expression and mitochondrial stability in Warthon's jelly derived mesenchymal stem cells against hypoxia induced cardiac hypertrophy and apoptosis in H9c2 瑪麗亞 Maria Angelina Sitorus
BC32	Inhibition of CTDSPL by Mir-100-5p enhances cell cycle-mediated chemoresistance in oxaliplatin-resistant in colorectal cancer 赫瑪 Hema Sri Devi
BC33	PCTK1 Regulates Secretory Pathway in NSCLC Cell Lines 林均澧, 翁榮煊, 邱全芊 Jun-Li Lin, Rone-Xuan Wong, Chiuan-Chian Chiou
BC34	Influences of NS2 on Influenza A Viral Production via Its Ubiquitination 黃翊雯, 陳紀元, 邱亞芳 Yi-Wen Huang, Chi-Yuan Chen, and Ya-Fang Chiu
BC35	NS protects degradation of nascent DNA at stalled forks 蔡翔勝, 冀宏源, 廖泓鈞 Siang-sheng Tsai, Hung-Yuan (Peter) Chi, Hungjiun Liaw
BC36	Virtual Screening and Testing of GSK-3 Kinase Inhibitors Using Human SH-SY5Y Neuronal Cells Expressing Tau Folding Reporter and Mouse Hippocampal Primary Neuron Culture Under Tau Cytotoxicity 林志信 1,2, 孫傑英 3, 吳逸如 2, 李冠群 1, 謝秀梅 1, 李桂楨 1* Chih-Hsin Lin1,2, Ying-Chieh Sun3, Yih-Ru Wu2, Guan-Chiun Lee1, Hsiu Mei Hsieh-Li1, Guey-Jen Lee-Chen1*
BC37	Transcriptional Activation of Keratin 14 in Metastatic Head and Neck Cancer Cell 賴俊霖 1, 陳威儀 1,2 Caucasus Jun-Lin Lai 1, Wei-Yi Chen 1,2
BC38	Study of Small Molecules That Induce Autophagic Degradation of Expanded PolyQ Protein Through Interaction with Both Mutant ATXN3 and LC3 許少凡, 李桂楨 Shao-Fan Hsu, Guey-Jen Lee-Chen



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BC39	The protective effect of probiotics on semi-transected spinal cord injury in rats 張羽萱、蔡銘祝 Yu-Syuan Jhang, Ming-Chu Tsai
BC40	Using Neuroblastoma SH-SY5Y Cells Expressing Pro-aggregant $\Delta K280$ TauRD-DsRed Folding Reporter to Screen TRKB Agonists as Alzheimer's Disease Treatment Strategy 翁鉦達, 李桂楨 Zheng-Kui Weng, Guey-Jen Lee-Chen
BC41	Functional characterization of yeast golgin Imh1 in vesicle trafficking 蔡佩娟 1, 游佳融 2, 李芳仁 1,3* Pei-Juan Cai1, Chia-Jung Yu2, and Fang-Jen S. Lee1, 3*
BC42	Virtual Screening and Molecular Modeling to Develop Potential Small Molecule TRKB Agonists and Testing in Tau/A Folding Reporter Cells 林德嫻, 邱雅貞, 孫英傑, 李桂楨 Te-Hsien Lin, Ya-Jen Chiu, Ying-Chieh Sun, Guey-Jen Lee-Chen
BC43	Identification of Antiviral Carbon Quantum Dots Targeting the Japanese Encephalitis Virus Envelope Protein 陳瀚翔, 黃志清, 王永樑 Han-Hsiang Chen, Chih-Ching Huang, Robert Y.L. Wang
BC44	Tunneling Nanotube-mediated Intercellular Transfer Rescues Neuroblastoma Cells from Hypoxic Stress 王茜淳, 張怡雯, 張庭毓, 孫懿筠, 黃宣誠, 阮雪芬 Xi-Chun Wang, Yi-Wen Chang, Ting-Yu Chang, Yih-Yun Sun, Hsuan-Cheng Huang, Hsueh-Fen Juan,
BC45	Characterization of N-cadherin in 3D-microenvironment during cancer metastasis 蔣宛諭, 王博文, 曾炳輝, 郭津岑 Wan-Yu Chiang, Bo-Wen Wang, Ping-Hui Tseng, Jean-Cheng Kuo
BC46	Deficiency of TRIB2 Protect against from Diet-Induced Obesity Through Proteasomal Degradation Uncoupling Protein 1 (UCP1) that Increase Energy Expenditure 關立芸, 李曉苓, 謝孟倫, 黃敬詠, 廖佳玟, 莊國燦, 林國瑞, 嚴仲陽, 張以承 Li-Yun Chueh, Hsiao-Lin Lee, Meng-Lun Hsieh, Jing-Yong Huang, Karen C.W. Liao, Gwo-Tsann Chuang, Kuo-Ray Lin, Jeffrey J.Y. Yen, Yi-Cheng Chang
BC47	Structure-Based Drug Development of DUSP10 at Allosteric Sites 陳重佑, 胡宜忱, 呂平江 Chong-You Chen1, I-Chen Hu1, Ping-Chiang Lyu1,2
BC48	Urea induced structural changes of Thrsp related to the chaperone function 王信傑 Hsin-Jie, Wang
BC49	The Function of Galectin-3 in Mitochondrial Quality Control 孫維澤, 姜為中 Wei-Tse Sun, Wei-Chung Chiang
BC50	Allosteric Inhibition mechanism of PCMPs and PCMB on Lassa Fever Virus NP exonuclease 黃冠偉 1,2 陳敬文 1,2,3 華梓佑 3 褚煜瑜 1,2,3 邱采媛 1,2 劉容妤 1,2 杜春亦 1,2 許凱程 4,5,6,7 高雅婷 1,2,3,8, 朱智瑋 1,2,3,8 * 蕭育源 1,2,3,8,9 * Kuan-Wei Huang1,2 Jing-Wen Chen1,2,3, Tzu-Yu Hua3, Yu-Yu Chu1,2,3, Tsai-Yuan Chiu1,2, Jung-Yu Liu1,2, Chun-I Tu1,2, Kai-Cheng Hsu4,5,6,7, Ya-Ting Kao1,2,3,8, Jhih-Wei Chu(朱智瑋)1,2,3,8 * and Yu-Yuan Hsiao1,2,3,8,9 *
BC51	A group of plasma protein biomarkers display great sensitivity in detection of early-stage colorectal carcinoma 陳奕廷, 蔡有光 Yi-Ting Chen, Yeou-Guang Tsay
BC52	SIRT6 tagSNP rs352493 variant show differential protection effects on cardiomyocyte apoptosis upon doxorubicin treatment. 張惠宣、張永龍 Hui-Hsuan Chang, Yung-Lung Chang
BC53	The function of Fragile X-related proteins in mitochondrial quality control 李柏寬, 姜為中 Bo-Kuan Lee, Wei-Chung Chiang

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BC55	Investigation on the Molecular Interaction of TDP-43 and Amyloid- β in Alzheimer's disease 林貞彤, 陳韻如 Yeh-Tung Lin, Yun-Ru Chen
BC56	Explore the mechanism of dapagliflozin to ameliorate the damage of cardiomyocytes under high concentration of Glucose. 陳昭翰 Chen chao-hen
BC57	The role of autophagy genes in the regulation of lipid homeostasis in <i>C. elegans</i> 王鳳雍, 金翠庭, 和許翹麟 Feng-Yung Wang, Tsui-Ting Ching, and Ao-Lin Hsu
BC58	The Role of Aromatic Residues in the Substrate Binding of 4-hydroxyphenylpyruvate dioxygenase 邱紹喻 Shao-Yu Chiu
BC59	Functional Dissection of Human DCP1 in mRNA Decapping Process 蕭靜宜, 張崇德 Jing-Yi Saio, Chung-Te Chang
BC60	To investigate the influence on matriptase and prostasin in chronic diabetic foot ulcers under the treatment of ON101 楊嫻妮 1, 張舜程 2, 王正康 1* Shan-Ni Yang1, Shun-Cheng Chang2,3, and Jehng-Kang Wang 1*
BC61	Characterizing the interaction between ALG-2-interacting protein X and galectin-3 in promoting HIV-1 budding 王裕先, 黃介嶸 Yu-Shian Wang, Jie-rong Huang
BC62	Studying the inhibition mechanism of disulfiram against coronavirus main protease 關瑩, 陳威儀 Ying Kuan and Wei-Yi Chen
BC63	Roles of The Conserved Traits in Proteins' Intrinsically Disordered Regions: Using Galectin-3 As an Example 陳昱蓁, 黃介嶸 Yu-Chen Chen, Jie-rong Huang
BC64	Rational Design of 3 α -Hydroxysteroid Dehydrogenase/Carbonyl Reductase for Improving the Utilization of Nicotinamide Mononucleotide as Biomimetic Cofactor 陳彥良 1, 黃啟清 2* Yan-Liang Chen1, Chi-Ching Hwang2
BC65	Lidocaine Reduces Temozolomide Resistance and Reverses Its Drug Sensitivity in Drug-Resistant Glioblastoma Cells 林心如, 吳玉萍, 陳瑞傑 Xin-Ru Lin, Yu-Ping Wu, Jui-Chieh Chen
BC66	Characterizing the pH-Dependent Stability of 3 α -Hydroxysteroid Dehydrogenase/Carbonyl Reductase from <i>Comamonas testosteroni</i> 周運浩, 黃啟清 Yun-Hao Chou, Chi-Ching Hwang
BC67	Effect of Angiotensin II and Niclosamide on Human Lung Cancer Cells 簡郁心 1, 蔡遠明 2, 黃世明 1,* Yu-Hsin Chien1, Yuan-Ming Tsai1, Shih-Ming Huang1,*
BC68	Screening of the Extracts from Traditional Chinese Medicine with Neuroprotective and Anti-inflammatory Effects 蘇品瑄, 吳玉萍, 陳瑞傑 Ping-Hsuan Su, Yu-Ping Wu, Jui-Chieh Chen
BC69	Characterizing the Intrinsically Disordered Regions in RNA-binding Proteins by Evolutionary Analysis and Machine Learning 何玟霖, 黃介嶸 Wen-Lin Ho, and Jie-rong Huang



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BC70	Characterizing the Biophysical Properties of Intrinsically Disordered Regions of Musashi Family Proteins 邱詩惠, 黃介嶸 Shih-hui Chiu, Jie-rong Huang
BC71	The Role of Slm Proteins in TORC2 Signaling in <i>Saccharomyces cerevisiae</i> 陳葆光, 朱邵翎, 陳美瑜 * Pao-Kuang Chen, Shao-Ling Chu, Mei-Yu Chen*
BC72	Identification of the novel EHD1/4-binding motif of Phostensin 黃曾絃宇 1, 2, 沈俊傑 1, 黃光永 2, 3, 游惠君 4, 沈雅婷 1, 范芷維 1, 賴寧生 2,3, 黃憲斌 1,* Hsien-Yu Huang Tseng1,2, Jyun-Jie Shen1, Kuang-Yung Huang2, Hui-Chun Yu3, Ya-Ting Shen1, Chih-Wei Fan 1, Ning-Sheng Lai2,3 Hsien-Bin Huang1,*
BC73	Characterization of NMIIA in pancreatic cancer 邱鈺庭, 郭津岑 Yu-Ting Chiu, Jean-Cheng Kuo
BC74	Phase separation-mediated clustering controls the self-organization of non-muscle myosin IIA 曾敏, 郭津岑 Tseng Min, Jean-Cheng Kuo
BC75	Glycosylated fibronectin promotes wound healing in mice 黃唯峻, 郭津岑 Wei-Chun Huang, Jean-Cheng Kuo
BC76	Using the N-terminal domain of Galectin-3 as a model system to study the liquid-liquid phase separation mechanism Chia-I Lin, Jie-rong Huang
BC77	Cytotoxicity of Curcumin in Prostate Cancer Cells in Vitro--Potential Role of miRNA-155 in Cell Proliferation and Apoptosis 陳品豪, 黃研萍, 杜靜茹, 李品邑, 白紫綸, 邱駿紘, 蒙美津 Pin-Hao Chen, Yan-Ping Huang, Jing-Ru Du, Pin-Yi Li, Zi-Lun Bai, Chun-Hung Chiu, Mei-Chin Mong
BC78	Establishment of Cell-based Reporter Assays for Coronaviral 3C-like Proteases 周宛蓉, 陳威儀 Wan-Jung Chou, Wei-Yi Chen
BC79	Improving the Reproducibility, Accuracy, and Stability of an Electrochemical Biosensor Platform for Point-of-care Use 陳隆傑 a,b, §, 王艾瑞 a, §, 戴君珊 a,b, §, 邱元貞 a,b, 李彰威 a,c, 林晏任 d,e,f, 李宗翰 a,d, 黃敬文 a, h, i, 陳榮治 a,g,*, 陳文亮 a,* Lung-Chieh Chen a,b, §, Erick Wang a, §, Chun-San Tai a,b, §, Yuan-Chen Chiu a,b, Chang-Wei Li a,c, Yan-Ren Lin d,e,f, Tsung-Han Lee a,d, Ching-Wen Huang a, h, i, Jung-Chih Chen a,g,*, Wen Liang Chen a,*
BC80	Nutritional Control Ameliorates Diet-induced Obesity by Promoting Endurance Capacity through Skeletal Muscle Specification and Protein ADP-Ribosylation 馬丞毅, 黃翠琴, 夏詩閔, 張心儀 Cheng-Yi Ma, Tsui-Chin Huang, Shih-Min Hsia, Hsin-Yi Chang
BC81	Gene set correlation enrichment analysis for interpreting and annotating gene expression profiles 吳羽佳 1, 馬嘉良 1, 張鈞貿 1, 陳巧紋 1, 林峻宇 1,2,3,* Yujia Wu1, Chia-Liang Ma1, Jun-Mao Chang1, Ciao-Wen Chen1, Chun-Yu Lin1,2,3,*
BC82	Salt-inducible Kinase 3 (SIK3) May Acts as A Potential Biomarker in Preeclampsia 曾靖榮 1, 蔡幸芬 2, 林長霓 2, 鍾雯如 2, 許耿福 1,2* Ching-Fen Tseng1, Hsing-Fen Tsai2, Chang-Ni Lin2, Wen-Ju Chung2, Keng-Fu Hsu1,2*
BC83	The synergetic liquid-liquid phase separation between TDP-43 and Galectin-3 Jing-Rou Huang, Jie-rong Huang
BC84	Targeting afatinib-induced transcriptional responses to inform combination therapies for lung cancer 張凱傑, 黃振綜, 謝巧慧, 黃宣誠, 阮雪芬 Kai-Jie, Chang, Chen-Tsung Huang, Chiao-Hui Hsieh, Hsuan-Cheng Huang, Hsueh-Fen Juan
BC85	Functional Characterization of Small GTPase Arl4D and Its Interacting Protein Rab GTPase Activating Protein TBC1D15 at the Mitochondria 劉采蓉, 林新晉, 李芳仁 Tsai-Jung Liu, Shin-Jin Lin, Fang-Jen S. Lee

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BC86	Molecular mechanism of Gboxin for the improvement in drug resistance of human gliomas 林晉宇, 黃莉淳, 蔡佳光, 洪東源 Chin-Yu Lin, Li-Chun Huang, Jia-Kuang Tsai, Dueng-Yuan Hueng
BC87	Licochalcone A Regulates IRES Activity To Inhibit Enteroviruses Replication 莊郁婷 1, 林靜宜 1, 2 Yu-Ting Chuang1 and Jing-Yi Lin1, 2
BC88	TNF- α Regulates Transcriptional and Posttranslational Expressions of EZH2 in Human Dermal Fibroblasts 林育賢, 陳瑩容 * Yu-Hsien Lin, Ying-Jung Chen*
BC89	Identification of host protein changes in HCoV-229E-infected cells for the development of cross-genus anti-coronavirus therapies 黃振育, 蔡有光 Huang, Chen-Yu, Tsay, Yeou-Guang
BC90	Investigating The Impacts of Epstein-Barr Virus Tegument Proteins on Human Host Cells Di Ngoc Kha Vo1,#, Ha Phan Thanh Ho1,#, Ying-Yu Tao1, Si-Xian Wu1, Ming-Han Tsai1,*# These authors equally contribute to this study * Corresponding author
BC91	Lipase Immobilized PTFE Membrane in MBR System for Wastewater Treatment 陳鈺璇, 林書嫻, 林宥任, 趙敏涵, 黃素華 Yu-Hsuan Chen, Shu-Xian Lin, You-Ren Lin, Min-Han Zhao, Su-Hua Huang
BC92	Characterization of Clostridioides difficile Isolates by Ribotyping and Multilocus Sequence Typing (MLST) in Northern Taiwan. 許至昊 1, 莊子君 2, 劉淑瑛 1, 邱政洵 2* Chih-Hao Hsu 1, Tzu-Chun Chuang2, Shu-Ying Liu1, Cheng-Hsun Chiu2*
BC93	Extraction of Artemisia argyi improves cardiac function alleviating drp1 mediated mitochondrial dysfunction in H9c2 cells with doxorubicin induced cardiomyopathy through IGF-1IR signaling pathways. 黃志揚 Chih-Yang Huang
BC94	Study on the effect of statins on head and neck carcinoma cells and its mechanism 陳昱璇, 許文馨, 張耀文, 陳鴻震 Yu-Hsuan Chen1, Wen-Hsin Hsu2, Yao-Wen Chang3, Hong-Chen Chen1'2*
BC95	Development of a Novel O ₂ -releasing Nanodrug for Cancer Treatment 林宛蓁, 鄭豐裕, 張雋曦 Wang-Jhen Lin, Fong-Yu Cheng, Chun Hei Antonino Cheung
BC96	Honokiol targeting AhR/CXCR7 axis blocked epithelial-mesenchymal plasticity and metastatic dissemination in gastric cancer 王思婷, 吳昇懋, 許美鈴 Sih-Ting WANG, Sheng-Mao Wu, Meei-Ling Sheu
BC97	The differential roles of DDX3X in liver tumorigenesis 林昭翰, 童彥瑜, 詹傑翔, 游麗如 Zhao-Han Lin, Yen-Yu Tung, Chieh-Hsiang Chan, Li-Ru You
BC98	Discovering the ABCB1-modulating Effect of a Smac Mimetic, GDC-0152, in ABCB1-induced Multidrug Resistant Cancer Cells Yu-Ting Lin1, Yung-Chieh Chang2, Chun Hei Antonio Cheung1,2,*
BC99	Characterizing Self-association and Liquid-liquid Phase Separation Mechanism of Galectin-3 孫永宸 黃介嶸 Yung-Chen Sun, Jie-rong Huang
BC100	Biological Effects of Microalgal Macular Pigment on Reducing Chronic Oxidative Stress and Inflammation of Diabetic Angiopathy 林承翰、邱緯宏、黃冠超、林志生 Cheng-Han Lin, Wei-Hong Chiu, Kuan-Chao Huang, Chih-Sheng Lin



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BC102	Investigation of the relationship between Glycated Albumin and Glutamic-pyruvic transaminase Wen-Tung Hsu 1, Li-Mien Chen2, Chun-Cheng Liao1,3, Keng-Yi Wu4, Hsiao-Chi Chen1, Pei-Chin Tsai1, Shih-Jung Lin5, Chao-Hsun Hsu5 and Weng-Ling Lin5
BC103	Investigation the Levels of Uric Acid in Patients with Hepatitis 徐文通 1, 陳立民 2, 廖俊正 1,3, 許宏彰 4, 林綺意 1, 王雪君 1, 陳嘉文 5 Wen-Tung Hsu1, Li-Mien Chen2, Chun-Cheng Liao1,3, Hung-Chang Hsu4, Chi-Yi Lin1, Hsueh-Chun Wang1, and Jia -Wen Chen5
BC104	Differential Levels of Glycated Hemoglobin A1c in Patients with Viral and non-Viral Hepatitis 徐文通 1, 陳立民 2, 廖俊正 1,3, 林孟頌 4, 林詠峯 5, 游惠雯 1, 張勝皇 6 Wen-Tung Hsu 1, Li-Mien Chen2, Chun-Cheng Liao1,3, Meng-Chiung Lin4, Yung-Feng Lin 5, Hui-Wen Yu1, and Sheng-Huang Chang6
BC105	EGCG supplementation attenuate glucolipotoxicity-induced skeletal muscle wasting 李欣樺 1, 林志立 2, 鄒欣樺 2, 王威傑 3, 彭瓊瑋 4, 黃建寧 3 Hsin-Hua Li1, Chih-Li Lin2, Sing-Hua Tsou2, Edy Kornelius3, Chiung-Huei Peng4, Chien-Ning Huang3
BC106	Biosensor and Biosynthesized Salicylic Acid as Strawberry Anthracnose Disease Control Strategies 陳楷文 1, 王艾瑞 2, 陳隆傑 1, 詹舒文 2, 陳文亮 1, 2* Kai-Wen Chen1, Erick Wang2, Lung-Chieh Chen1, Yu-Wen Chan2, Wen-Liang Chen1, 2*
BC107	Protection of S-Equol Against Sodium Nitroprusside Induced Damage in Human Monocyte THP-1 cells 陳耕月 1, 謝寶萱 1, 胡祐甄 2, 黃姿菁 2, 邱溥容 2, 黃莉文 3, 鄭筱翎 4*, 張基隆 1,2,5* Geng-Yue Chen 1, Bau-Shan Hsieh 1, Yu-Chen Hu 2, Tzu-Ching Huang 2, Pu-Rong Chiu 2, Li-Wen Huang 3, Hsiao-Ling Chen 4*, Kee-Lung Chang 1,2,5*
BC108	Exogenous hydrogen peroxide attenuates drought stress by alleviating cellular oxidative damage in mung bean 黃俐璇, 張方馨, 洪淑嫻, 游志文 Li-Xuan Huang, Fang-Xin Zhang, Shu-Hsien Hung, and Chih-Wen Yu,
BC109	Hydrogen peroxide repeated treatment induces stress memory and alleviates injury of mung bean seedling upon cold 易祐萱 1, 李懿儒 1, 張方馨 1, 林孝恩 2, 游志文 1, 洪淑嫻 2 Yu-Hsuan Yi1, Yi-Ru Li1, Fang-Xin Zhang1, Hsiao-En Lin2, Chih-Wen Yu1 and Shu-Hsien Hung2,*
BC110	Identification of Three Tospoviruses using hybridization probes 關政平*, 蕭崇仁、劉雅婷 Cheng-Ping Kuan*, Chung Jen Hsiao, Ya-Ting Liu
BC111	Impute SNP Data using Generative Adversarial Network 黃聖傑, 楊永正 Sheng-Cheih Huang, Ueng-Cheng Yang
BC112	Effects of inflammatory and regulatory DCs at oral cavity and gastrointestinal tract in Th2-associated allergic animal model 林子欽、尤仁音 Tzu-Chin Lin, Chun-Yi Chen, Ren-In You
BC113	Mitogen Activated protein kinase dependent signal pathways augmenting myokines production in TNF-alpha and IFN-gamma induced inflamed skeletal muscle cells 杜詩雯, Divya Malathy Ravinath, 尤仁音 Shih-Wen Du, Divya Malathy Ravinath, Ren-In You
BC114	Decrease in Nitric oxide and metabolic alteration result in activation of tissue transglutaminase during uremic toxin induced endothelial injury 賴宗聖, 邱浚祐, 吳志仁, 林承勸. Thung S Lai, Chun Yu chiu, Chih-Jen Wu, and Cheng-Jui Lin.
BC115	Investigating the Mechanism of Social Learning and Isolation-induced Depressive-like Behaviors 廖庭緯, 姜學誠 Ting-Wei Liao, Hsueh Cheng Chiang Ph.D.



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BC116	Wild Bitter Melon Leaf Extract Ameliorates Dextran Sulfate Sodium-Induced Chronic Colitis in Mice via Intestinal Barrier Improvement and Inflammatory Cytokine Reduction 壹、 蔡帛蓉 1,*，黃安生 1，侯又禎 2
BC117	The ORF8 Protein of SARS-CoV-2 Modulates the Spike Protein and Its Implications in Viral Transmission and Revolution 周王漢，蔡若翎，洪若寧，陳一華，陳斯婷，蔡明翰 Jen-Mei Chou, Jo-Ling Tsai, Jo-Ning Hung, I-Hua Chen, Szu-Ting Chen, Ming-Han Tsai
BC118	Exploring the synergistic triple-negative breast cancer therapy by dual inhibition of HDAC and tyrosine kinase 吳景韻，林勤芸，陳昱樺，邱亦涵 Jing-Yun Wu, Cin-Yun Lin, Yu-Hua Chen, Yi-Han Chiu
BC119	Antiproliferation Activity by Essential Oil from Functional Food Turmeric in Human Leukemia 黃惠蘭，陳裕星，紀鈞齡 Huey-Lan Huang, Yuhsin Chen, and Chunling Chi
BC120	Antitumor Progression Potential of Moniliformediquinone, a Dendrobium Phenanthrenequinone, in MDA-MB-231 breast cancer cells 曾翠華，張雅晴，邵蕙珈 Tsui-Hwa Tseng, Ya-Ching Chang, Yi-Chia Shao
BC121	Cam B Suppresses Growth and Migration of Human Hepatocellular Carcinoma Cells by Regulation of miR-101 張雲菁，李承煬，鍾岱融 Yun-Ching Chang, Cheng Yang Li, Dai-Jung Chung
BC122	Development of a Novel Nanoparticle for X-ray Induced Photodynamic Therapy 李柏昊，黃鵬備，劉澤英 Bo-Hao Lee, Pi-Bei Hwang, Tse-Ying Liu *
BC123	Novel Nanomaterials in Osteosarcoma Application 王馥嘉，宋政穎，劉澤英 Fu-Jia Wang, Zheng-Ying Sung, Tse-Ying Liu
BC124	Novel Anticancer Peptides Induce Necroptosis of Gastric Cancer Cell Line AGS through Membranolytic Effects and Their Therapeutic Efficacy in Combination with Chemotherapeutic Drugs 張姍韓，鄭枋洳，江亭瑾，陳威戎 * Jin-Wei Chang, Fang-Jia Zheng, Ting-Jin Jiang, Wei-Jung Chen*
BC125	Investigation of the clinical significance, biological functional and underlying molecular mechanisms of ESM1 expression in human cervical carcinoma. 林怡安、謝逸憲 Yi-An Lin, Yi-Hsien Hsieh
BC126	From lab bench to commercial products n/a n/a
BC127	A SNARE-Like Protein Sft2 Acts as a Downstream of Golgin Imh1 to Mediate SNAREs Recycling Transport upon ER Stress 賴駿琦，陳彥廷，李芳仁 Chun-Chi Lai, Yan-Ting Chen, and Fang-Jen S. Lee
BC128	Investigation of the Interaction Mechanism Between CEP164 and TTBK2 黃筠珈 1, 周柏君 1, 王琬菁 1 * Yun-Chia Huang, Po-Chun Chou, Won-Jing Wang *
BC129	PCM1-mediated GABARAP degradation is necessary for ER stress-induced autophagy. 林怡璇、呂昕穎、高健涵、黃芊詠、王琬菁 Yi-Hsuan Lin, Xin-Ying Lu, Chien-Han Kao, Chien-Yung Huang, and Won-Jing Wang
BC130	Exploring The Role of TMEM65 in Cilia Formation and Tumorigenesis 王薪雅 1, 羅芊卉 1, 王琬菁 1* Shin-Ya Wang1, Chien-Hui Lo1, Won-Jing Wang1*



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BC131	Investigation of pericyte recruitment induced by SIRT 1 activation in different sex hormones 陳佑德 1, 林致源 2* You-de Chen1, Chih-Yuan Lin1、2*
BC132	Improvement of wound healing by capsaicin and its correlation to senescence 蘇素宜 (1)、顏毓秀 (2)、黃紀榕 (1,3) Su-Yi Su, Yu-Hsiu Yen, Chi-Jung Huang
BC133	To investigate the effects of matriptase, prostasin and their inhibitory proteins on gastric cancer progression from clinical specimens and culture cells. 鄭若涵, 王正康, 張浩銘, 李定穎, 黃天祐 Jo-Han Cheng, Jehng-Kang Wang, Hao-Ming Chang, Ting-Ying Lee, Tien-Yu Huang
BC134	Repeated hydrogen peroxide treatment could elevate the chilling tolerance and induce stress memory in mung bean seedling 張方馨 李懿儒 易祐萱 林孝恩 游志文 洪淑嫻 Fang-Xin Zhang, Yi-Ru Li, Yu-Hsuan Yi, Hsiao-En Lin, Chih-Wen Yu and Shu-Hsien Hung,
BC135	Investigate the Effects of Epinephrine-lidocaine Solution on the Cellular Biology of Regional Adipose Tissue 杜昱諠, 郭俸志, 李建興 Yu-Hsuan Tu, Feng-Chih Kuo, Chien-Hsing Lee
BC136	Antibiotics Detection through Allosteric Control of DNA-conjugated Enzyme Activity 魏睿宇 1, 廖韋晴 1* Jui-Yu Wei 1, Wei-Ching Liao 1*
BC137	Synthesis of Lipid-capped Gold Nanoparticles (LCGNP) for the Detection of Phospholipases 許芝旖, 廖韋晴 Chi-Yi Hsu, Wei-Ching Liao
BC138	The novel piperazine thiourea derivative with DNA binding affinity induces MAPK mediated mitochondrial apoptosis in colorectal cancer cells. 陳佳穎、蔡佳蓉、陳子瑋、楊子欣、陳姿妤、邱建智、許智能、簡啓民 Jia-Ying Chen、Jia-Rong Tsai、Tzu-Wei Chen、Zi-Xin Yang、Tzu-Yu Chen、Chien-Chih Chiu、Sodio C.N.Hsu、簡啓民
BC139	Determine the Bacillus subtilis and Bacillus licheniformis thermophilic lipase-induced ability to destroy Enterococcus faecalis biofilm 林秀芳, 李婕伶, 詹妤文, 黃素華 * Siou-Fang Lin, Jie-Ling Li, Yu-Wen Chan, Su-Hua Huang*
BC140	The Molecular Epidemiology of Invasive Salmonella enterica at Chang Gung Memorial Hospital, Jan to Dec 2020 賴昱涵 1, 楊欣萍 2, 邱政洵 2*, 劉淑瑛 1 Yu-Han Lai1, Hsin-Ping Yan2, Cheng-Hsun Chiu2*, Shu-Ying Liu1
BC141	Multilocus Sequence Typing (MLST) of Clinical CRAB/MDRAB Isolates from CGMH, 2018-2020 楊曉媛 1, 盧致聿 1, 梁怡華 2, 陳彥汝 2, 邱政洵 2*, 劉淑瑛 1 Hsiao-Yuan Yang1, Chih-Yu Lu1, Yi-Hua Liang2, Yan-Ru Chen2, Cheng-Hsun Chiu2*, Shu-Ying Liu1
BC142	A Novel Function of Centrosomal CEP89 in Promoting Cancer Proliferation 賴運迪 1, 羅芊卉 2, 高健涵 2, 王琬菁 2* Yun-Di Lai 1, Chien-Hui Lo 2, Chien-Han Kao 2, and Won-Jing Wang 2*
BC143	TTBK2 Promotes the Formation of SHH-type Medulloblastoma 鄭宇雯 1, 林宜璇 2,3, 蔡金吾 2,4*, 王琬菁 2,3* Yu-Wen Cheng1, I-Hsuan Lin2,3, Jin-Wu Tsai2,4*, Won-Jing Wang2,3*
BC144	Application of agricultural waste rice straw isolation of lovastatin 伊金泉, 蘇文達 Chin-Chuan Yi, Wen-Ta Su
BC145	Melamine and di-2-ethylhexylphthalate co-exposure accelerates kidney injury in mice with chronic kidney disease. 蔡宜璇, 吳秒儀, 吳明蒼, 劉家駒, 蔡宜純, 謝翠娟 I-Hsuan Tsai, Miao-Yi Wu, Ming-Tsang Wu, Chia-Chu Liu, Yi-Chun Tsai, Tusty-Jiuan Hsieh



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BC146	Investigating Molecular Mechanisms of GLP-1 RA Liraglutide Protects against Glucolipotoxicity-Induced Diabetic Retinopathy 楊聿荃 1, 李祐維 1, 林志立 2,3*, 鄒欣樺 2,3, 彭瓊琿 4, 王威傑 5, 黃建寧 2,3,5 Yu-Quan Yang 1, Yu-Wei Lee 1, Chih-Li Lin 2,3*, Sing-Hua Tsou 2,3, Chiung-Huei Peng 4, Edy Kornelius 5, Chien-Ning Huang 2,3,5
BC147	Vitamin K Protects Primary Chondrocyte of Rat against Oxidative/Nitrosative Stress 謝寶萱 1, 鄭筱翎 2, 胡祐甄 3, 黃姿菁 3, 邱溥容 3, 黃莉文 4*, 張基隆 1,3,5* Bau-Shan Hsieh 1, Hsiao-Ling Cheng 2, Yu-Chen Hu 3, Tzu-Ching Huang 3, Pu-Rong Chiu 3, Li-Wen Huang 4*, Kee-Lung Chang 1,3,5*
BC148	Synthesis of Glycyrrhetic Acid-Glycosides as the Spike Protein and Main Protease Inhibitors of SARS-CoV-2 Virus En-You Liao, Tung-Kung Wu
BC149	Synthesis of Momordicin 1-Glycosides as Potential Inhibitors of SARS-CoV-2 Main Protease (Mpro) 陳晴雲、吳東昆 Ching-Yun Chen, Tung-Kung Wu
BC150	Bioflavonoid Rutin Delays Drought-Induced leaf Senescence via Modulation of signal component generation, antioxidant activity level and senescence-associated gene expression in Sweet Potato 高思芸和陳顯榮教授 Ssu-Yun Kao and Hsien-Jung Chen.
BC151	Prediction of Blood Pressure during the Hemodialysis with Reinforcement Learning 鄭宇翔, 巫坤品 Yu-Xiang Zheng, Kun-Pin Wu
BC152	Identification of Immune-related Prognostic Genes with Colorectal Cancer Based on Weighted Gene Co-expression Network Analysis 嚴煒暄, 陳卓逸 Wei-Shiuan Huang, Cho-Yi Chen
BC153	Identification of Pathways Associated with Cancer Driver Gene through Graph Embedding 蘇威霖, 陳卓逸 Wei-Lin Su, Cho-Yi Chen
BC154	NOXA-Mediated Degradation of MCL1 and BCL2L1 Causes Apoptosis of Daunorubicin-Treated Human Acute Myeloid Leukemia Cells 邱靖婷 1, 張榮賢 1* Jing-Ting Chiou 1, Long-Sen Chang1*
BC155	Evaluation the Effect of ENERGI on Tumor and Chemotherapy-Induced C2C12 Myotube Atrophy 楊允瑄, 蕭婷分, 李淑珩, 李依蓓, 賴金美 Yun-Hsuan Yang 1,2, Ting-Fen Hsiao 2, Shu-Ping Lee 2, I-Pei Lee 2, and Jin-Mei Lai 1,2
BC156	In-situ Growth of Gold-rod in Silica Nanoparticles for Enhancing Radiotherapy in Oral Cancer 胡旂鈺, 李佳穎, 劉澤英 Chan-Yu Hu, Chia-Ying Li, Tse-Ying Liu
BC157	Novel nanocarriers combined with radioimmunotherapy for brain cancer treatment 蔡孟庭, 陳郁喬, 劉澤英 * Meng-Ting Cai, Yu-Chiao Chen, Tse-Ying Liu*



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IM01	Advanced glycation end products (AGEs) cause neutrophil extracellular traps (NETs) and dietary metabolites result in consequent vascular chronic inflammation and stiffness 陳宜君, 莊雯婷, 陳斯婷, 鄭浩民, 陳震寰 I-Chun Chen, Wen-Ting Chuang, Szu-Ting Chen, Hao-Min Cheng, Chen-Huan Chen
IM02	To investigate the immunomodulatory effects of extracellular vesicles from dengue virus-activated platelets 謝世良, 宋佩珊 Shie-Liang Hsieh; Pei-Shan Sung
IM03	TREM-2 mediates dendritic cell-induced NO to suppress Th17 activation and ameliorate chronic kidney diseases 林慶政, 張笛筠, 盧永成, 吳昀軒, 黃偉, 羅偉綺, 劉冠甫, 徐偉展, Pamela S. Ohashi, Tak W. Mak, 傅中玲, 陳惠珍, 唐德成, 陳念榮 Ching-Cheng Lin, Ti-Yung Chang, Yong-Chen Lu, Yun-Syuan Wu, Wei Huang, Wei-Chi Lo, Guan-Fu Liu, Wei-Chan Hsu, Pamela S. Ohashi, Tak W. Mak, Jong-Ling Fuh, Hui-Chen Chen, Der-Cherng Tarng*, and Nien-Jung Chen*
IM04	OSR1 and SPAK cooperatively promote Th17 differentiation and progression of experimental autoimmune encephalomyelitis 藍喬馨, 簡明偉, 蘇怡安, 楊松昇, 林石化, 陳錫洲, 司徒惠康 Chiao-Hsin Lan, Ming-Wei Chien, Yi-An Su, Sung-Sen Yang, Shih-Hua Lin, Shyi-Jou Chen, Huey-Kang Sytwu
IM05	The Regulation of T Cell Receptor Proximal Signaling by WW Domain-Containing Oxidoreductase 李清榮, 許翰誠, 徐麗君 Jing-Rou Lee, Han-Cheng Hsu, Li-Jin Hsu
IM06	TI-LCC, a Novel Herbal Compound, Alleviates Acute Graft versus Host Disease 姜雅文 1, 簡于傑 1, 林麗純 2, 周秀慧 1* Ya-Wen Chiang1, Yu-Chieh Chieh 1, Lie-Chwen Lin 2, Shiu-Huey Chou 1*
IM07	IL-10 enhances CD8+T cells effective functions in Hepatocellular Carcinoma 邱奕璋, 王禹文, 莊雅惠 Yi-Wei Chiu, Yu-Wen Wang, and Ya-Hui Chuang
IM08	Immune Response to SARS-CoV-2 Vaccination in Kidney Transplant Recipients 賴玟君, 李雅芬, 陳建嘉 Mei-Jun Lai, Ya-Fan Lee, Chien-Chia Chen
IM09	IL-37 Increases Inflammation in Con A Induced Hepatitis by Increasing NK Cells 林佳儀, 莊雅惠 Chia-I Lin, Ya-Hui Chuang
IM10	Study of the IL-2-Induced Liver Immune Responses and on Hepatocellular Carcinoma 王妙容, 林佳儀, 莊雅惠 Miaow-Rong Wang, Chia-I Lin, Ya-Hui Chuang
IM11	To Investigate the Role of SLC40A1 in Thymic Macrophage for the Maintenance of Thymic Homeostasis 范琇涵, 周庭安, 葛一樊, 徐嘉琳 Hsiu-Han Fan1, Tyng-An Zhou1, Ivan Dzhalgalov1, and Chia-Lin Hsu1
IM12	Establishment of a Mechanical Stress Based Psoriatic Arthritis Mouse Model Presenting with Enthesitis: a Preliminary Study 莊雯婷 1, 曹彥博 1,2, 柯宏儒 1, 陳怡君 3, 陳斯婷 1* Wen-Ting Chuang1, Yen-Po Tsao1,2, Hung-Ju Ko1, Yi-Chun Chen3, Szu-Ting Chen1*
IM13	To Investigate the Role of ENT3 in Tumor-Associated Macrophages in the Tumor Microenvironment Using the Lewis Lung Carcinoma Model 黃昱嘉, 李健榕, 陳念榮, 徐嘉琳 Yu-Chia Huang, Chien-Jung Li, Nien-Jung Chen, Chia-Lin Hsu
IM14	Establishment of Multiplex IHC Staining Panel and Immune Subpopulation Quantification System for Cancer Prognosis 彭冠儒 1, 胡隨藝 1, 葉致宏 1, 尤韋傑 1, 莊俊庭 1, 葉嘉意 1, 游舒涵 1* Guan-Ru Peng1, SuiYun Hu1, Chih-Hung Ye1, Wei-Chieh Yu1, Patrick Chong Chun Theng1, Yap Kah Yi1, Shu-Han Yu1*



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IM15	The Role of Equilibrative Nucleoside Transporter 3 in Balancing T cell Nucleotide Pool 黃深彥, 魏晉文, 李佳瑩, 鄭學樂, 葛一樊, 徐嘉琳 Shen-Yan Huang, Chin-Wen Wei, Chia-Ying Lee, Share-Ler Tey, Ivan Dzhagalov, Chia-Lin Hsu
IM16	Single-cell Meta-Analysis of Distinct Signatures in Bacterial Sepsis 莊千萱 1, 宋曉妮 1, 王瀟瑤 1, 柯泰名 1,2,3,4* Chien-Hsuan Chuang, Hsiao-Ni Sung1, Jing-Rong Wang1, Tai-Ming Ko1,2,3,4*
IM17	Enhanced beta1,6 GlcNAc-branched N-glycans promotes IL-21R signaling on CD8 T cells to exacerbate autoimmune diabetes 簡明偉、董佳鈴、司徒惠康 Ming-Wei Chien、Jia-Ling Dong、Heuy-Kang Sytwu
IM18	Multi-omic profilings reveal DNA damage repair pathway and 3D chromosome organization as the regulatory checkpoint for T cell exhaustion 楊明翰, 林迪拓, 呂雅婷, 陳世濟, 張家銘 Ming Han Yang, Bugi Ratno Budiarto, Ya Ting Lu, Shih Yu Chen, Jia Ming Chang
IM19	Noscapine Attenuates Auto-immune Disease by Reducing the Polarization of Th17 Cells 楊立瑄, 蔡忠穎, 葛依青, 林銜德, 楊皇煜 Yang Li-Shiuan, Tsai Chung-Ying, Ko Yi-Ching, Lin Hsien-Te, Yang Huang-Yu
IM20	Investigation of CLEC5A-mediated Induction of $\gamma\delta$ T17 in Promoting Host Defense During <i>Listeria monocytogenes</i> Infection 陳家華, 趙之偉, 陳斯婷 Chia-Hua Chen, Chih-Wei Chao, Szu-Ting Chen
IM21	Exploring the Immune Contexture within Tumor Microenvironment in Non-Small Cell Lung Cancer (NSCLC) by Multiplex Immunohistochemistry and Multispectral Quantitative Imaging 胡隨藝 1*, 彭冠儒 1*, 葉致宏 1, 尤韋傑 1, 林瑋晨 1, 葉嘉意 1, 莊俊庭 1, 游舒涵 1* SuiYun Hu1#, Guan-Ru Peng1#, Chih-Hung Ye1, Wei-Chieh Yu1, Wei-Chen Lin1, Yap Kah Yi 1, Patrick Chong Chun Theng1, Shu-Han Yu1*
IM22	NLRP12 Deficiency Mice Present Severer Lupus Nephritis in a Pristane-Induced Lupus Like Model 曹彥博, 莊雯婷, 曾方禹, 陳斯婷 Yen-Po Tsao, Wen-Ting Chuang, Fang-Yu Tseng, Szu-Ting Chen
IM23	NLRP12 negatively regulates inflammatory cell deaths, and noncanonical inflammasome to restrict GSDMD-dependent NETosis via type 1 IFN signaling Babamale Olarewaju Abdulkareem (巴巴馬) and Szu-Ting Chen (陳斯婷) Szu-Ting Chen
IM24	The Modulatory Role of c-Maf in T Regulatory 17 Cells during Experimental Autoimmune Encephalomyelitis 許育愷 1*, 董佳鈴 2, 簡明偉 1,3, 司徒惠康 1,2,3 Yu-Kai Shu1*, Jia-Ling Dong2 Ming-Wei Chien1,3, Huey-Kang Sytwu1,2,3
IM25	Characteristics of anti-PLA2R antibodies from patients with idiopathic membranous nephropathy 吳采慧, 塗昆樺, 林弓葳, 施瀚博, 丁鶴婷, 顧正崙 Tsai-Yi Wu, Kun-Hua Tu, Kung-Wei Lin, Han-Po Shi1, He-Ting Ting, Cheng-Lung Ku
IM26	Heparan sulfate is essential for thymus growth but not maintenance 徐璿博、葛一樊 Hsuan-Po Hsu, Ivan Dzhagalov
IM27	Role of MicroRNA-17-92 in Modulating Rejection Response in a Mouse Skin Transplantation Model 張軒嘉 郭彥志 葛依青 蔡忠穎 楊皇煜 Hsuan-Chia Chang1, Yen-chih Kuo1, Yi-Ching Ko1, Chung-Ying Tsai1, Hung-Yu Yang1*
IM28	C-Kit Signaling Modulated Type 3 Innate Lymphoid Cells Function in a Mouse Neutrophilic Asthma Model 邵正玄, 紀柏羽, 張雅貞 Jheng-Syuan Shao, Po-Yu Chi, Ya-Jen Chang



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IM29	Cross-regulation of Host Defense Against Crohn's Adherent-invasive Escherichia coli by IL-22 and IL-18 at The Frontline Epithelial Barrier 江宏宇 1, 呂學翰 1, 蘇塔克 1, 陳郁文 1,2, 施念忻 1, 翁意婷 1, 徐志文 1* Hung-Yu Chiang1, Hsueh-Han Lu1, Janaki N Sudhakar1, Yu-Wen Chen1,2, Nien-Shin Shih1, Yi-Ting Weng1, and Jr-Wen Shui1*
IM30	The Cross-compensation of c-Maf for Blimp-1 Disruption in an IL-27/IL-10 Axis Rescues T Cell-derived IL-10 Expression to Rebalance Intestinal Homeostasis 傅馨慧 1,2, 許詔淵 2, 簡明偉 1,2, 劉鈺文 1,2, 司徒惠康 1,2* Shin-Huei Fu1,2, Chao-Yuan Hsu2, Ming-Wei Chien1,2, Yu-Wen Liu1,2, Huey-Kang Sytwu1,2*
IM31	Fibrinogen-like protein 1 as an anti-inflammatory agent for rheumatoid arthritis therapy 張慕申, 蔡允榛, 方恬芳, 林文瑋 Mu-Shen Chang, Yun-Chen Tsai, Tien-Fang Fang, Wen-Wei Lin
IM32	A "ménage à trois" in the gut: a cellular network processing luminal fungi and modulate mucus homeostasis in small intestine 陳瑋璘, 蔡雨寰 Wei-Lin Chen, Yu-Huan Tsai
IM33	Development of LC-MS/MS Method to Determine Endogenous Human IgG Profiles and Serum Concentration of Type 1 AIP Therapeutic Drug 周佳儀, 張毓廷, 章明珠, 蔡伊琳 Chia Yi Chou, Yu-Ting Chang, Ming-Chu Chang, I-Lin Tsai
IM34	Investigating IgG4 glycosylation profiles for biosignature discovery in IgG4-related disease by using UHPLC-MS/MS 蘇和萱 1, 張毓廷 2, 章明珠 2, 蔡伊琳 3* Ho-Hsuan Su1, Yu Ting Chang2, Ming Chu Chang2, I-Lin Tsai3*
IM35	R848, the TLR7 agonist, impaired barrier function of retinal pigment epithelium 羅聖旻 1、洪薇馨 1、黃奕修 1, 2、劉昭麟 3、沈家瑞 1, 2* Sheng-Min Lo1, Wei-Hsin Hong1, Yih-Shiou Hwang1, 2, Chao-Lin Liu3, Chia-Rui Shen1,2* (*Correspondence)
IM36	Development single-cell ROS regulome profiles of CD8+ T cell 王蕙荃 Yi-Chuan, Wang
IM37	HECT E3 Ligase Inhibitor Heclin Alleviates TLRs-mediated Inflammation and Murine Endotoxic Shock 楊季軒 (1,2), 陳嘉玲 (3*), 林秋烽 (1,2*) Chi-Hsuan Yang(1,2), Chia-Ling Chen(3*), Chiou-Feng Lin(1,2*)
IM38	Development of Lipid-encapsulated TXNDC5-siRNA Drug for Treating Liver Fibrosis of Schistosomiasis and the Action Mechanism Research 陳盈州, 鄭柏青 Ying-Chou Chen, Po-Ching Cheng
IM39	Characterization of Pathogenesis and Inflammatory Responses to Experimental Parechovirus Encephalitis 冉明偉 1, 2, 蘇鴻麟 3, 張聰賢 4, *, 蔡坤哲 1,5, *, Ming-Wei Jan 1, 2, Hong-Lin Su 3, Tsung-Hsien Chang 4, *, Kuen-Jer Tsai 1,5, *
IM40	Study on the influence of SARS-CoV-2 antibodies on thrombosis formation 謝坤翰, 葉才明 * Kun-Han Hsieh, Trai-Ming Yeh*
IM41	CLEC5A is critical in Pseudomonas aeruginosa-induced acute lung injury Pei-Shan Sung, Yu-Chun Peng, Shao-Ping Yang, Cheng-Hsun Chiu, Shie-Liang Hsieh
IM42	Organ Repair and Fibrosis: Establishment of HDAC Inhibitor Drug Screening Platform in Mitigating TGF-β Induced Lung Fibrosis 尤韋傑, 葉致宏, 莊俊庭, 葉嘉意, 彭冠儒, 胡隨藝, 游舒涵 Wei-Chieh Yu *, Chih-Hung Ye*, Patrick Chung, Kah Yi Yep, Guan-Ru Peng, SuiYun Hu, Shu-Han Yu
IM43	Anti-cancer effects of induced pluripotent stem cell (iPSC)-based vaccine in colorectal cancer 黃襄國 1, 李丞鈞 2, 林志萱 3, 魏子堂 1* Shang-Kok,Ng 1, Cheng-Fan, Lee 2, Jr-Shiuan, Lin3, and Tzu-Tang, Wei1*



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IM44	Mannose receptor C type 2 promotes migration and invasion via an SCD-1-related modulatory axis to affect EMT progression of gastric cancer 盧品君 1, 邱馨瑩 2, 王俊偉 3, 吳登強 4, 林明宏 5,* Pin-Chun Lu1, Hsin-Ying Clair Chiou2, Jiunn-Wei Wang3, Deng-Chyang Wu4, Ming-Hong Lin5,*
IM45	Monoclonal Antibodies against Nucleocapsid Protein of SARS-CoV-2 Variants for Detection of COVID-19 呂瑞旻 1, †, 柯釋涵 1, †, 陳宛余 2, 張育綾 1, 林秀亭 2, 吳漢忠 1,2* Ruei-Min Lu 1,†, Shih-Han Ko 1,†, Wan-Yu Chen 2, Yu-Ling Chang 1, Hsiu-Ting Lin 2 and Han-Chung Wu 1,2,*
IM46	MRC2 Promotes Cancer-Associated Fibroblasts to Secret Soluble Factors thereby Affecting Gastric Cancer Cell Mobility and Critically Revealing Worse Impacts on the Overall Survival Rate of Patients 王俊偉 1, 盧品君 2, 邱冠蓉 3, 邱馨瑩 4, 林明宏 5,* Jiunn-Wei Wang1, Pin-Chun Lu2, Kuan-Jung Chiu3, Hsin-Ying Clair Chiou4, Ming-Hong Lin5,*
IM47	Development of highly cytolytic human NK using gelated-feeder-cell-expansion system 王奕夫、徐崇堯、胡哲民、陳世清 Yi-Fu Wang, Chung-Yao Hsu, Che-Ming Hu, Shih-Yu Chen
IM48	MRC2 Deficiency Ameliorates Nonalcoholic Fatty Liver Disease Progression through Regulating Infiltration and Differentiation of Kupffer Cells in the Liver of HFD-fed Mice 郭慧茹 1, 邱馨瑩 2, 林明宏 3,* Hui-Ru, Kuo1, Hsin-Ying Clair Chiou2, Ming-Hong Lin3,*
IM49	Antibody cocktail effective against variants of SARS-CoV-2 梁剛豪, 姜伯穎, 柯釋涵, 呂瑞旻, 吳漢忠* Kang-Hao Liang, Pao-Yin Chiang, Shih-Han Ko, Ruei-Min Lu, Han-Chung Wu*
IM50	Cytomegalovirus Late Protein UL94 Antibody and Galectin-9 Modulates T cell and Macrophage Polarization to Promote Systemic Sclerosis 萬磊, 許好安 Lei Wan, Yu-An Hsu
IM51	Aberrant Photoreceptor Outer Segment Renewal Promotes TGF-β Mediated Complement Activation to Enhance the Development of Myopia 萬磊, 周詠嵐, 許好安 Lei Wan, Chou Yung-Lan, Yu-An Hsu
IM52	The role of SUMO-specific protease 2 in the Th17 cells 楊璨滋, 江明峰, 施修明, 林國儀 Tsan-Tzu Yang, Ming-Feng Chiang, Hsiu-Ming Shih, and Kuo-I Lin
IM53	Pathogenic autoantibodies to IFN-γ act through the impedance of receptor assembly and Fc-mediated response 施瀚博 1 丁靜雅 1 林嘉豪 1 陳泓愷 2 張子文 3 齊治宇 4 顧正崙 1 Han-Po Shih1, Jing-Ya Ding1, Chia-Hao Lin1, Hung-Kai Chen2, Tse-Wen Chang3, Chih-Yu Chi4, Cheng-Lung Ku1
IM54	UVB-induced Treg Cells Exert Antigen-specific Suppression through LAG-3 盧俊豪 1, 溫庭睿 1, 蔡呈芳 2, 翁浩睿 2,3,4, 梁碧惠 5,6, 劉扶東 1, 李永凌 1 Chun-Hao Lu1, Ting-Jui Wen 1, Tsen-Fang Tsai2, Hao-Jui Weng2,3,4, Pi-Hui Liang5,6, Fu-Tong Liu1, Yungling Leo Lee1
IM55	Generation of SARS-CoV-2 Neutralizing Human Antibodies from Single B cells Platform 江曉玲 1, 梁剛豪 1, 呂瑞旻 1, 姜伯穎 1, 林秀亭 2, 吳漢忠 1,2 Hsiao-Ling Chiang 1, Kang-Hao Liang1, Ruei-Min Lu1, Pao-Yin Chiang1, Hsiu-Ting Lin2, and Han-Chung Wu1,2*
IM56	The role of ARHGEF1 in lipid droplet formation 鐘浩毓, 江皓森 Hao-Yu Chung, Hao-Sen Chiang
IM57	To Investigate the Effects of Sleep Restriction on Immune Profiling 程泓儒, 宋柏儀 Hong-Ru Chang, Bo-Yi Sung



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IM58	Exploring the mechanisms of influenza A virus non-structural protein 1 (NS1)-mediated innate immune evasion 陳銘發 1, 馬聖凱 1, 凌斌 1,* Ming-Fa Chen1, Sheng-Kai Ma1, Pin Ling1,*
IM59	Heparin is required for mast cells granule formation and survival 葛一樊 IVAN L. DZHAGALOV
IM60	Polyfunctional endogenous EBV-specific T cell response in nasopharyngeal carcinoma 邱彥霖, 廖立人, 周三芳, 陳一攸 Yenling Chiu, Lijen Liao, Sangfang Chou, Iyu Chen
IM61	Staphylococcus aureus-caused Keratinocytes Necroptosis Increases Dermal IL-33 Release in Atopic Dermatitis 鍾佳謙, 駱佳慧, 張雅貞 Ethan Jachen Chung1,2, Chia-Hui Luo1, Ya-Jen Chang1*
IM62	Investigation of the effect of Inflammatory bowel diseases-associated leucine-rich repeat kinase 2 (LRRK2) on immune responses in neutrophil 林以荷, 江皓森 Lin, Yi He, Chiang, Hao Sen
IM63	Investigating the impact of Leucine-rich repeat kinase 2 (LRRK2) on neutrophil mitochondrial functions and neutrophil extracellular trap (NET) 馬思露, 江皓森 Ma, Si Lu, Chiang, Hao Sen
IM64	The Myeloid Landscape of the Thymus 鄭惠琬, 葛一樊 Hui-Kuei Cheng, Ivan Dzhagalov
IM65	The Role of Serine Synthesis Pathway and One Carbon Metabolism in Humoral Response 林岳賢, 劉柏均, 呂春敏 Yueh-Hsien Lin, Po-Chun Liu, Chuen-Miin Leu
IM66	Alpha-lipoic acid inhibits spontaneous diabetes and autoimmune recurrence in non-obese diabetic mice by enhancing differentiation of regulatory T cells 林谷峻 Gu-Jiun Lin
IM67	Impaired T cell functionality in End-stage Renal Disease is not reversed by immune checkpoint blockade 徐愷翔, 賴方筠, 賈景山, 邱彥霖 Kai-Hsiang Shu, Fang-Yun Lay, Jean-San Chia, Yen-Ling Chiu
IM68	WLS/wntless is essential in controlling dendritic cell homeostasis via a WNT signaling-independent mechanism 王麗婷, 林明宏, 黃嘯谷, 許世賢 Li-Ting Wang, Ming-Hong Lin, Shau-Ku Huang, Shih-Hsien Hsu*
IM69	IBD Gene RNF186 Regulates Intestinal Homeostasis by Targeting Paneth Cells 陳郁文, 江宏宇, 徐志文 Yu-Wen Chen, Hung-Yu Chiang, Jr-Wen Shui
IM70	Blimp-1 moulds the epigenetic architecture of IL-21-mediated autoimmune diseases through an autoregulatory circuit 劉鈺文, 傅馨慧, 簡明偉, 許詔淵, 林明宏, 董佳鈴, 陸芮嫻, 李怡靜, 陳柏仰, 王智弘, 司徒惠康 Yu-Wen Liu1, Shin-Huei Fu2,3, Ming-Wei Chien2,3, Chao-Yuan Hsu3,4, Ming-Hong Lin5, Jia-Ling Dong2, Rita Jui-Hsien Lu6, 7, Yi-Jing Li6, Pao-Yang Chen6, Chih-Hung Wang8, Huey-Kang Sytwu1,2,3
IM71	A combo method to evaluate the adjuvant therapy of rituximab in patients with anti-IFN-γ autoantibodies 丁靜雅, 齊治宇, 施瀚博, 丁鶴婷, 羅郁方, 羅佳祺, 塗昆樺, 葉竣甫, 黃文琦, 陳柏齡, 林國璽, 顧正崙 Jing-Ya Ding, Chih-Yu Chi, Han-Po Shih, He-Ting Ting, Yu-Fang Lo, Chia-Chi Lo, Chen-Yen Kuo, Kun-Hua Tu, Chun-Fu Yeh, Wen-Chi Huang, Po-Lin Chen, Kuo-His Lin, and Cheng-Lung Ku



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IM72	Galectin-12 Regulates the Skin Immune Response Through the Sebaceous Glands 林峰任 1,2, 黃芸熙 1,2, 曹經漢 2,3, 謝瑋珍 2, 羅婉心 4,5, Christos C Zouboulis 6, 劉扶東 1,2,7 Feng-Jen Lin1,2, Yun-Hsi Huang1,2, Ching-Han Tsao2,3, Wei-Chen Hsieh2, Yuan-Hsin Lo4,5, Christos C Zouboulis6, and Fu-Tong Liu1,2,7
IM73	Adenosine Receptor A2BR Regulates B Cell Proliferation, Inflammation and Germinal Center Response 陳明玉 1, 蔡佩汝 1, 蘇郁文 1* Ming-Yu Chen1, Pei-Ju Tsai1 and Yu-Wen Su1*
IM74	Identification of immune cell compositions and genes in epithelial ovarian tumor microenvironment for diagnosis evaluation using integrated bioinformatics methods from public transcriptomic data 翁子軒、孫昭玲 Tzu-Hsuan Wong, Jau-Ling Suen
IM75	Study the Signal Transduction Pathways of Mef2c in FL-Regulated Development of Plasmacytoid Dendritic Cell 張展瑜, 李建國 * Chan-Yu Chang and Chien-Kuo Lee*
IM76	The Combination of Insulin and Pioglitazone Promotes NLRP3 Inflammasome Activation and Gout Development through Metabolic Reprogramming 黃琦甯, 林信仲, 陳立強 Chi-Ning Huang, Hsin-Chung Lin, Lih-Chyang Chen
IM77	The role of a novel E3 ubiquitin ligase in the regulation of TLR3-driven immune responses 林祐聖 1, 張詠淇 1, 江蕙萱 1, 賴亭諭 1, 呂志豪 2, 劉奕玲 2, 莊宗顯 2, 徐立中 1* You-Sheng Lin1, Yung-Chi Chang1, Huei-Syuan Jiang1, Ting-Yu Lai1, Chih-Hao Lu2, Yi-Ling Liu2, Tsung-Hsien Chuang2, Li-Chung Hsu1*
IM78	Lysosomal N-glycosylation Regulates Host Defense and Gut Microbiota 蘇塔克, 呂學翰, 孫慶姝, 陳郁文, 江宏宇, 黃明經, 徐志文 Janaki N Sudhakar, Hsueh-Han Lu, Ching-Shu Suen, Yu-Wen Chen, Hung-Yu Chiang, Ming-Jing Hwang, and Jr-Wen Shui
IM79	CASK Integrates PKR and HCK signals to facilitate Interferon alpha mRNP nuclear export in GM-macrophage during H5N1 infection 黃菁盈, 于耀安, 謝世良 Jing-Ying Huang, Yao-An Yu, Shie-Liang Hsieh
IM80	The risk of malignancy in psoriasis patients receiving systemic medications: A population-based nested case-control study in Taiwan 潘子云 1, 周佑儒 2,3, 吳俊穎 1,4,5, 吳貞宜 2,6,7*, 張雲亭 2,7 Tzu-Yun Pan, BS1, Yu-Ju Chou, MD2,3, Chun-Ying Wu, MD, PhD1,4,5, Chen-Yi Wu, MD, PhD2,6,7*, Yun-Ting Chang, MD, PhD2,7
IM81	Galectin-4 modulates gut microbiota composition and suppresses tumor formation in a colitis-associated colon cancer mouse model 陳宏霖, 胡柏元, 劉扶東 Hung-Lin Chen, Po-Yuan Hu and Fu-Tong Liu
IM82	The study on the brain inflammation and the regulation of immune cells in the Angiostrongylus cantonensis-infected permissive and non-permissive hosts 王滋洋 1,4, 張剛瑋 2,3 鄭柏青 4 Wang Hung-Yang1,4, Kang-Wei Chang2,3, Po-Ching Cheng4
IM83	Hepatitis C virus core protein-intestine-specific homeobox axis promotes chronic liver disease progression 許世賢, 王森稔, 王麗婷 Shih-Hsien Hsu 1,2*, Shen-Nien Wang 1,3,4, and Li-Ting Wang5
IM84	Anti-IFN- ω Autoantibodies Underlie Severe Pediatric Human Adenovirus Infection 康辰瑄, 羅佳祺, 郭貞嫻, 顧正崙 Chen-Xuan Kang, Chia-Chi Lo, Chen-Yen Kuo, Cheng-Lung Ku



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IM85	Apigenin Inhibits the Viral RNA Patterns-induced Mesenchymal Transition and Pulmonary Fibrotic Changes 邱馨瑩 1,2, 曾國評 3, 李聖怡 4, 郭慧茹 4, 林明宏 4* Hsin-Ying Clair Chiou1,2, Guo-Ping-Tseng3, Sheng-I Lee4, Hui-Ru Kuo4, Ming-Hong Lin4*
IM86	The Impact of Ketogenic Diet-triggered Changes in Microbiota or Glycosylation on T cell Pathogenicity and Autoimmune Diabetes Development in NOD Mice 陳文凱 1,2, 傅馨慧 2,3, 簡明偉 2,3, 司徒惠康 2,3* Ung-Kai Ting1,2, Shin-Huei Fu2,3, Ming-Wei Chien2,3, Huey-Kang Sytwu2,3*
IM87	Bacterial Chains by Galectin-4 Restricts bacterial Motility and Promotes Inflammasome Activation in the Intestinal Epithelial Cells 李奇珊 1, 駱子翰 1, 屠庭瑞 1, 關帝硯 2, 陳培菱 2, 劉扶東 1* Chi-Shan Li1, Tzu-Han Lo1, Ting-Jui Tu1, Di-Yen Chueh2, Peilin Chen2, Fu-Tong Liu1*
IM88	An insightful exploration of CD8+ T cells pathogenicity by CD5 expression and its impact on autoimmune diabetes 業禮慈, 司徒惠康 Yeh, Li-Tzu, Sytwu, Huey-Kang



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MI01	Using GATE Monte Carlo Simulation Software to Study the Effect of the Nano-particle X-ray Attenuation for Cone-beam X-ray Luminescence Computed Tomography (CB-XLCT) Subsystem. 王御弘 1,2, 金仕淳 1, 陳志成 1,* , 曾雪峰 3, 劉澤英 4 Yu-Hong Wang 1,2 , David, Shih-Chun Jin1, Jyh-Cheng Chen1,* , Snow H. Tseng3, Tse-Ying Liu4
MI02	Supplement of MANF promote survival of grafted allogeneic dopaminergic neurons in the striatum of PD rat model. 楊承勳 1, 孫綠涵 1, 王秀好 1, 趙韻婷 1, 鄭澄意 2, 邱創新 2, 周大凱 2, 曾冠穎 3, 馬國興 1 Cheng-Syun Yang1, Lu-han Sun1, Sho-Yu Wang1, Yun-Ting Jhao1, Cheng-Yi Cheng2, Chuang-Hsin Chiu2, Ta-Kai Chou2, Kuan-Yin Tseng3, Kuo-Hsing Ma1
MI03	Establishing enhanced IR-responsive probes for predicting radiotherapy outcomes 陳少芃、莊惠燕 Shao-Peng Chen, Hui-Yen Chuang
MI04	Using PET imaging to investigate the neuroprotection effects of bezafibrate in a rat model of sporadic Alzheimer's disease 林立凡, 趙韻婷, 邱創新, 周大凱, 薛晴彥, 鄭澄意, 馬國興 Li-Fan Lin, Yun-Ting Jhao, Chuang-Hsin Chiu, Ta-Kai Chou, Chyng-Yann Shiue, Cheng-Yi Cheng, Kuo-Hsing Ma
MI05	MAGNETIC, BIOCOMPATIBLE FECO3 NANOPARTICLES FOR T2-WEIGHTED MAGNETIC RESONANCE IMAGING OF IN VIVO LUNG TUMORS 唐谷德, 余俊杰, 李真來, 廖敏喬, 蘇家豪 Suresh Thangudu, Chun-Chieh Yu, Chin-Lai Lee, Min-Chiao Liao, Chia-Hao Su
MI06	Gold Nanoparticle-loaded Macrophages for Magnified Tumor-specific Delivery and Radiosensitization 曹慈敏, 莊惠燕 Stella Tzuming Tsao, Hui-Yen Chuang
MI07	The Long-Term Effects of Dextromethorphan on MDMA-Mediated Serotonergic Deficiency and Volumetric Changes in Primates Based on 4-[18F]-ADAM PET/MRI Skye Hsin-Hsien Yeh (葉信顯)1, Yu-Yeh Kuo (郭諭燁)2a, Wen-Sheng Huang (黃文盛)3a, Chuang-Hsin Chiu (邱創新)4, Tsung-Hsun Yu (游宗勳)1, Leo Garcia Flores II6, Chi-Jung Tsai (蔡季蓉)3,4b, Kuo-Hsing Ma (馬國興)5*
MI08	Exploring the radiosensitization effect of β -caryophyllene on glioblastoma radiotherapy 詹惠雯, 莊惠燕 Hui-Wen Chan, Hui-Yen Chuang
MI09	Preclinical evaluation of a newly developed PROTAC molecule on human prostate cancer bearing mice 1 翁茂琦, 1 鄭凱鴻, 2 林于菁, 2 洪秋蓮, 1 張雅珍, 1 何宗禮, 1 林旻萱, 1 林昀生, 1 徐維荃, 1 王世民, 1 樊修秀 1Mao-Chi Weng, 1Kai-Hung Cheng, 2Yu-Chin Lin, 2Chiu-Lien Hung, 1Ya-Jane Chang, 1Chung-Li Ho, 1Min-Xuan Lin, 1Yun-Sheng Lin, 1Wei-Chuan Hsu, 1Shih-Min Wang, 1Shiou-Shiow Farn
MI10	Aldolase A induces Phospholipase D reprogram to resist alkylating agents and radiation in lung cancer cells 蔡惠宇, 張芷瑄, 張御展 Huei-Yu Cai, Zhi-Xuan Chang, Yu-Chan Chang
MI11	V-ATPase Family Reflects Radiosensitivity and Neutralizes Tumor-Infiltrating Lymphocytes of Glioblastoma Cells 林柏玄、張芷瑄、張御展 Bo-Syuan Lin, Zhi-Xuan Zhang, Yu-Chan Chang
MI12	Development of Radioiodinated CXCR4 Radiopharmaceuticals and Application Yun-Tang Lu, Hui-Ting Chen, Chuan-Lin Chen
MI13	Radiolabeling of ^{111}In -FAPI-04 for SPECT imaging 張瑋岷, 陳傳霖 Wei-Min Zhang, Chuan-Lin Chen
MI14	Improved Plasma Stability and CCKBR-specific Tumor Targeting of Minigastrin Analog PP-F11N as Radionuclide Theranostic Agent 陳俊堂*、張明誠、江秉芳、郭育仁、彭正良、唐一中 Chun-Tang Chen*, Ming-Cheng Chang, Ping-Fang Chiang, Yu-Jen Kuo, Cheng-Liang Peng, I-Chung Tang
MI15	INVESTIGATION OF THE MOLECULAR DIFFERENCE IN BRAIN AND LIVER METASTASIS OF TRIPLE NEGATIVE BREAST CANCER MODEL 羅品荷, 曾觀, 李易展 Pin-Ho Lo, Guan-Zeng, Yi-Jang Lee



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MI 台灣分子生物影像學會

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MI16	Evaluation of serotonin transporter/receptor radiopharmaceuticals in brain imaging of awake/anesthetized animals by PET image WS Huang, KW Chang
MI17	Evaluation of 18F-FEPPA PET Imaging as an Anti-Hepatic Fibrosis Agent Screening Platform 謝昕樺 1, 王義明 2,3, 鞠佩恩 4, 洪文翔 1, 許銘華 5, 林明佳 6,* , 吳駿一 1,* Hsin-Hua Hsieh1, Yi-Ming Wang 2,3, Pei-An Chu4, Wen-Hsiang Hung1, Ming-Hua Hsu5, Ming-Chia Lin6,* , Chun-Yi Wu1,*
MI18	The differences in 18F-FDG brain uptake between diabetic male and female rats 謝昕樺 1, 彭馨蕾 2, 林明佳 3,* , 吳駿一 1,* Hsin-Hua Hsieh1, Shin-Lei Peng2, Ming-Chia Lin3,* , Chun-Yi Wu1,*
MI19	Evaluation of Human Biodosimetry 廖澤蓉 1, 歐陽芳鈺 1, 張穎熏 1, 林佳慧 1, 陳冠因 1, 張剛瑋 2, 張志賢 1, Ruth C. Wilkins3, 林婉琪 1 Tse-Zung Liao1, Fang-Yu Ou Yang1, Ying-Hsun Chang1, Chia-Hui Lin1, Kuan-Yin Chen1, Kang-Wei Chang2, Chih-Hsien Chang1, Ruth C. Wilkins3, Wan-Chi Lin1
MI20	Radiomic Analysis of F-18 FDG PET/CT Images of Esophageal Cancer for Disease Staging 黃玉晴 1, 龔瑞英 2, 黃靖文 3, 林宜靜 2, 陳志成 1*, 蔡世傳 2* Yu-Ching Huang1, Jui-Yin Kung2, Jing-Wen Huang3, Yi-Ching Lin2, Jyh-Cheng Chen1*, Shih-Chuan Tsai2* * corresponding author
MI21	A Dual-motif CAIX ligand labeled with Lutetium-177 for Colorectal Carcinoma Therapy 官孝勳 *1, 廖澤蓉 1, 林昆諒 1, 夏建忠 1, 樊修秀 1 Siao-Syun Guan1*, Tse-Zung Liao1, Kun-Liang Lin1, Chien-Chung Hsia1, Shiou-Shiow Farn1
MI22	Cryo-EM reveals the structure of Enterovirus 71 in complex with its receptor 莊穎華, 莊子圻, 張敬昆, 周彥宏, 吳尚蓉 Ying-Hua Chuang, Tzu-Chi Chuang, Ching-Kun Chang, Yen-Hung Chow, Shang-Rung Wu
MI23	Whether the high pressure syringe used for radiological examination will cause peripheral micro vascular damage 曾文昌, 陳偉琪, 林康平 Wen-Chang Tseng, Wei-Chi Chen, Kang-Ping Lin
MI24	INVESTIGATION OF CANCER INITIATING CELLS PROPERTY IN REMNANT LIVING CELLS OF HUMAN HEAD AND NECK SQUAMOUS CELL CARCINOMA AND THEIR RADIOTHERAPEUTIC RESPONSES 余學彥, 曾觀, 李易展 Hsueh-Yen Yu, Guan-Zeng, Yi-Jang Lee
MI25	Overexpressed Cofilin-1 Interferes DNA Replication Origins by Decreasing H2A.Z Expression 康嘉芸, 葉書彤, 李易展 Chia-Yun Kang, Shu-Wen Yeh, Yi-Jang Lee
MI26	Inhibition of fatty acid synthase regulates cancer progression and radiosensitivity in breast cancer 陳靜誼, 莊惠燕 Ching-I Chen, Hui-Yen Chuang
MI27	Overexpression of the Cofilin-1 Gene in Transgenic Mice by the Inducible Cre/loxP Recombinase System 林佑娟 1, 林秉澤 1, 康嘉芸 1, 楊慕華 2, 李易展 1, * Yu-Chuan Lin1, Bing-Ze Lin1, Chia-Yun Kang1, Muh-Hwa Yang2, Yi-Jang Lee1, *
MI28	DUAL-BIOMARKERS ENCODING TUMOR-ACTIVATABLE MINICIRCLES WITH SCAFFOLD/MATRIX ATTACHMENT REGION MOTIF FOR ULTRASENSITIVE AND SUSTAINED CANCER DETECTION 莊惠燕, Sharon S. Hori, Amin Aalipour, Sanjiv S. Gambhir Hui-Yen Chuang1*, Sharon S. Hori2, Amin Aalipour2, Sanjiv S. Gambhir2*
MI29	A Continuous Homecare Monitoring System with Real-Time Alert 蕭承恩, 沈德成, 呂紹弘, 蔡正倫 Chen-En Xiao, Te-Chen Shen, Shao-Hung Lu, Cheng-Lun Tsai
MI30	A Spatial-Difference Oxygen Saturation Sensor 呂紹弘, 余書旻, 傅鐵城, 蔡正倫 Shao-Hung Lu, Shu-Min Yu, Tieh-Cheng Fu, Cheng-Lun Tsai
MI31	Pressure Ulcer with AI Health Care 莊恩, 呂紹弘, 林康平, 蔡正倫, 林汶志, 林汶正 En Chuang, Shao-Hung, Lu, Kang-Ping Lin, Cheng-Lun Tsai, Wen-Chih Lin, Wen-Chen Lin

GOOD HEALTH & WELL-BEING



MI 台灣分子生物影像學會

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MI32	Voice Classification for Qi Vacuity Pattern using Long Short Term Memory 許雅淳, 吳秉諭, 黃伯瑜, 林康平 Ya-Chun Hsu, Ping-Yu Wu, Po-Yu Huang, Kang-Ping Lin
MI33	Tongue Diagnosis with Deep Learning to Recognize Unhealthy Tongue 張騰彬, 吳秉諭, 呂紹弘, 林汶正, 林康平 Teng-Bin Chang, Ping-Yu Wu, Shao-Hung Lu, Wen-Chen Lin, Kang-Ping Lin
MI34	Investigating Oxidative Stress-Mediated Antitumor Effects Caused by the Combination of Metformin and Curcumin on Colorectal Cancer 葛浚麟, 莊惠燕 Chun-Lin Ko, Hui-Yen Chuang
MI35	Predicting Nomogram for Endoscopic Resection of Subepithelial Tumors of the Upper Gastrointestinal Tract 顏旭亨, 吳秉諭, 林康平 Hsu-Heng Yen ^{1,2} , Ping-Yu Wu ² , Kang-Ping Lin ²
MI36	Evaluation of anti-tumor efficacy of Cerenkov Radiation Induced Photodynamic therapy with ¹⁸ F-FDG 陳怡安 ^{1, 2} , 李佳哲 ¹ , 林學良 ^{1, 3, 5} , 呂承傑 ⁴ , 邱顯智 ² , 張智偉 ⁵ , 楊邦弘 ^{1, 5} , 柯建志 ^{6, 7} , 張明誠 ⁸ , 劉仁賢 ^{1, 5, 9, *} Yi-An Chen ^{1, 2} , Jhih-Shian Lee ¹ , Syue-Liang Lin ^{1, 3, 5} , Cheng-Hsiu Lu ⁴ , Sain-Jhih Chiu ² , Chi-Wei Chang ⁵ , Bang-Hung Yang ^{1, 5} , Chien-Chih Ke ^{6, 7} , Ming-Cheng Chang ⁸ and Ren-Shyan Liu ^{1, 5, 9, *}



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編號	論文題目
CB01	Sequencing Analysis of Whole Human Mitochondrial Genome by One-Step PCR with Next Generation Sequencing 黃司權, 許為綺, 蕭育民, 賴明龍 Szu-Chuan Huang, Wei-Chi Syu, Yu-Ming Shiao, Min-Long Lai
CB02	The Importance of Normal Pool Plasma for PT/APTT Mixed Test Interpretation 冉孟芹 1, 賴南彰 1, 林佳霓 1,2* Meng-Chin Jan1, Nan-Chang Lai1, Chia-Ni Lin1,2*
CB03	Evaluation of Sample Stability for Indocyanine green clearance rate 吳驊霖, 林志遠, 王碧娥, 林佳霓 Hua-Lin Wu, Chih-Yuan Lin, Pi-O Wang, Chia-Ni Lin
CB04	Quantitative copy number of survival motor neuron genes and survey the prediction of severity of spinal muscular atrophy in Taiwanese population 廖麗榮 1,* , 王志剛 2, 張家瑜 1, 郭岱穎 1, 邱延慧 1, 賴明龍 1 Li-Zhu Liao1,* , Chih-Kang Wang2, Chia-Yu Chang1, Tai-Ying Kuo1, Yen-Hui Chiu 1, Min-Long Lai
CB05	Therapeutic Drug Monitoring of Clozapine and Norclozapine Using An UPLC-MS/MS Method 黃韻芬 1, 李晉邦 2, 黃雅卿 3,4, 林佳霓 1,4* Yun-Fen Huang1, Chin-Pang Lee2, Ya-Ching Huang3,4, Chia-Ni Lin1,4*
CB06	Analysis of Catecholamines in Urine by UPLC-MS/MS 郭環吟 1, 黃韻芬 1, 黃雅卿 2,3, 林佳霓 1,3 Huan-Yin Kuo1, Yun-Fen Huang1, Ya-Ching Huang2,3, Chia-Ni Lin1,3
CB07	Establishment of Next-Generation Sequencing assay for BRCA1 and BRCA2 gene in the Clinical Laboratory 詹靖瑄, 許為綺, 邱延慧, 蕭育民, 賴明龍 Ching-Hsuan Chan, Wei-Chi Syu, Yen-Hui Chiu, Yu-Ming Shiao, Min-Long Lai
CB08	Rapid Detection and Quantification of CMV DNA in Urine Using Abbott m2000 RealTime System 邱延慧, 黃士容, 高竹鋒, 張家瑜, 賴明龍 Yen-Hui Chiu, Shih-Rong Huang, Chu-Feng Kao, Chia-Yu Chang, Min-Long Lai
CB09	Integrative NGS Analysis Platform For Clinical Medical Laboratory 許為綺, 林品村, 蕭育民, 賴明龍 Wei-Chi Syu M.S., Pin-Tsun Lin B.S., Yu-Ming Shiao Ph.D., Ming-Long Lai Ph.D.
CB10	Using fully integrated and automated molecular diagnostics analyzer, Abbott Alinity m, to optimize the workflow of the molecular diagnosis in the laboratory 陳之葉, 黃士容, 賴明龍 Chih-Yeh Chen, Shih-Rong Huang, Ming-Long Lai
CB11	Establishing an Early Growth Response 1 (EGR1) Reporter System to Trace Breast Cancer Cell Fate under Intratumoral Metabolic Stress 阮錫儒 1, 郭靜穎 1,2* Mei-Ju Juan1, Ching-Ying Kuo1,2*
CB12	Molecular Mechanisms of Contactin 4-mediated Tumor Suppressor Functions in Colorectal Cancer. 李昕庭, 林宜芊, 陳柏霖, 李景行, 江紹瑜, 饒梓明, 蔡明宏, 楊雅倩 Hsin-Ting Lee, I-Chien Lin, Po-Lin, Chen, Jing-Xing Lee, Shao-Yu Chiang, Tzu-Ming Jao, Ming-Hong Tsai and Ya-Chien Yang
CB13	The Feasibility Evaluation Research of Liver Targeting Nucleic Acid Drugs in Diagnosis and Treatment of Liver Diseases 楊浚泓 1, 詹振勳 1, 林昆諒 1, 于鴻文 1, 王美惠 1* Chun-Hung Yang1, Chen-Hsin Chan1, Kun-Liang Lin1, Hung-Man Yu1, Mei-Hui Wang1*
CB14	Targeting sulfur-containing amino acid metabolism to overcome trastuzumab resistance in human epidermal growth factor receptor 2-positive breast cancer 黃鈺雯, 郭靜穎 Yu-Wen Huang1, Ching-Ying Kuo1,2

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編號	論文題目
CB15	Peiminine Regulates the PINK1 / Parkin Pathway to Improve the Pathology of 6-Hydroxydopamine and SNCA in Parkinson's Disease Model of Caenorhabditis elegans and SH-SY5Y Cell Line 徐佑靈 1,2, 林佳霓 2,3, 傅如輝 1,4,5* Yu-Ling Hsu1,2, Chia-Ni Lin2,3,Ru-Huei Fu1,4,5*
CB16	Use of Ga-68 Dolacga use in liver PET image at glycine N-methyltransferase knockout mice 詹振勳, 王美惠, 田育彰 Chen Hsin,Chan ,Mei-Hui,Wang ,Yu-Chang,Tyan
CB17	Study of endonuclease V repair pathway by using MALDI-TOF mass spectrometry analysis 陳立馨, 張惠嵐, 蘇剛毅, 林亮音, 方偉宏 Chen Li-Hsin, Hui-Lan Chang, Kang-Yi Su, Liang-In Lin,Woei-horng Fang
CB18	Development of a Bioinformatics Pipeline for KIR Genotyping using Next-generation Sequencing Data 許書睿, 陳沛隆, 陳泓仁, 吳韶涵, 劉萬騏, 蔡明宏, 沈似紋 *, 楊雅倩 * Shu-Jui Hsu, Pei-Lung Chen, Hung-Jen Chen, Shau-Han Wu, Wan-Chi Liu, Ming-Hong Tsai, Ssu-Wen Shen* and Ya-Chien Yang*
CB19	Decreasing HLJ1 Expression Enhances Adipose Tissue Thermogenesis and Adipocytes Differentiation under Cold Stress 徐煒倫, 王璟盈, 林裘恩, 蘇剛毅 Wei-Lun Hsu, Keng-leng Wong, Chiu-Eu Lin, Kang-Yi Su
CB20	Adipocytes Promote Radioresistance through SERPINE1/PAI-1-Mediated Aggressiveness of Triple-Negative Breast Cancer 蘇詠涵, 陳苓諭, 郭靜穎 Yong-Han Su,Ling-Yu Jenny Chen,Ching-Ying Kuo
CB21	LCRMP-1 deficiency leads to accumulation of residual bodies in spermiation by impacting actin polymerization. 張容瑄, 周佳樺, 陳炫任, 潘思樺, 俞松良, 楊泮池, 蘇剛毅 Jung-Hsuan Chang, Chia-Hua Chou, Xuan-Ren Chen, Szu-Hua Pan, Sung-Liang Yu, Pan-Chyr Yang and Kang-Yi Su



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編號	論文題目
CM01	Investigation of The Ferroptosis-Induced Pyroptosis In Head and Neck Cancer 陳姿妤 1, 鍾志宏 3, 楊慕華 1,2,3* Chih-Yu Chen 1, Chih-Hung Chung 3 and Muh-Hwa Yang 1,2,3
CM02	Depilatory laser miniaturizes hair by inducing bystander dermal papilla cell necrosis through thermal diffusion 王維宏, 邱顯鎰, 黃裕文, 官振祥, 吳岳峰, 曾忠仁, 王修含, 林頌然 Wei-Hung Wang, Hsien-Yi Chiu, Yu-Wen Huang, Chen-Hsiang Kuan, Yueh-Feng Wu, Chung-Jen Tseng, Shiou-Han Wang, Sung-Jan Lin
CM03	Long noncoding RNA BCRP3 stimulates VPS34 and autophagy activities to promote protein homeostasis and cell survival 顏睿良, 樂玖霖, 廖峻傑, 劉力衡, 陳飛濤, 陳忻怡, 陳瑞華 Ruei-Liang Yan1, 2, Chiu-Lin Luan1, 3, Chun-Chieh Liao1, 2, Li-Heng Liu1, 2, Fei-Yun Chen1, Hsin-Yi Chen4, 5, and Ruey-Hwa Chen1, 2, 3
CM04	The propagation of α -Synuclein aggregates in the central nervous system and other organs 陳詠勳, 陳彥儒, 鄭子霖, 王致恬 Yong-Hsun Chen, Yen-Ju Chen, Tzu-Lin Cheng, and Chih-Tien Wang
CM05	Oncogenic ISX-TWIST1 Complex-Induces Inflammasome Activity Mediating Chronic Liver Disease. 黃鈺淇、蔡志鵬、許世賢 Yu-Ci Huang, Jhih-Peng Tsai, Shih-Hsien Hsu
CM06	Investigation of the roles and mechanisms of human TIAM2S in spatial memory impairment during aging 廖翊均, 孫孝芳, 朱俊憲 Yi-Chun Liao, H. Sunny Sun, Chun-Hsien Chu
CM07	Glutamate transmission regulates the gene expression in the developing rat retina 陳芃安, 王致恬 Peng-An Chen, Chih-Tien Wang
CM08	RanBP2 Promotes Activation of the ATR Signaling Pathway and DNA Repair in Response to Genotoxic Stress 王沁, 涂芷瑄, 劉玖吟, 崔立好, 吳青錫 * Chin Wang, Jyy-Shiuan Tu, Mei-Yin Liu, Li-Yu Tsui, and Ching-Shyi Wu*
CM09	Actin Filaments Act as a Size-dependent Diffusion Barrier Around Centrosomes 鄭璇 1, 高毓霖 1, 羅悉塔 1, 楊雯婷 1, 莊貽茜 1, 陳葦 2, 黃仕涵 1, 林泓叡 2, 黃耀榮 1, 高竟琳 1, 楊立威 2, Rachel Bearon3, 鄭惠春 2, 夏國強 4, 林玉俊 1,5* Hsuan Cheng1, Yu-Lin Kao1, Lohitaksh Sharma1, Wen-Ting Yang1, Yi-Chien Chuang1, Ting Chen2, Shih-Han Huang1, Hong-Rui Lin2, Yao-Shen Huang1, Chi-Ling Kao1, Lee-Wei Yang2, Rachel Bearon3, Hui-Chun Cheng2, Kuo-Chiang Hsia4, Yu-Chun Lin1,5*
CM10	LIF Regulates Macrophage Immune Response in Oral Squamous Cell Carcinoma 隋昀華, 劉子彤, 李柏儒, 劉淑貞 Yun-Hua Sui, Tzu-Tung Liu, Po-Ju Lee, and Shu-Chen Liu
CM11	Mutant p53 Attenuates Oxidative Phosphorylation and Facilitates Cancer Stemness through Downregulating miR-200c-PCK2 Axis in Basal-Like Breast Cancer 趙啟宏 1#, 王辰樞 1#, 王慶弘 1, 陳亭玟 1, 許淮宥 1, 黃浩瑋 1, 李家偉 2, 麥如村 1 Chi-Hong Chao1#, Chen-Yun Wang1#, Cing-Hong Wang1, Ting-Wen Chen1, Huai-Yu Hsu1, Hao-Wei Huang1, Chia-Wei Li2, and Ru-Tsun Mai1
CM12	TRIB3-E2F1 Interaction Participates In the Maintenance Of Oral Cancer Stem Cells Through Regulating SOX2 Expression 黃俞皓, 黃彥閔, 李學德, 張文璋 Yu-Hao Huang, Yen-Min Huang, Hsueh-Te Lee, Wen-Wei Chang
CM13	Establishment and Evaluation of a non-invasive PGT-A Protocol for Clinical Application 黃伊婷 1, 湯硯安 1,2, 潘咸安 3, 孫孝芳 1,2* I-Ning Huang 1, Yen-An Tang1,2, Hsien-An Pan3, H. Sunny Sun1,2*
CM14	Inhibition of angiogenesis and peritoneal dissemination by Honokiol is Mediated by the YY1 Downstream Target Genes PEDF and VEGFR1 in Gastric Cancer 張愛, 吳昇懋, 許美鈴 * Ai-Chang, Sheng-Mao Wu, Meei-Ling Sheu*



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CM15	Exogenous Mitochondrial Transplantation Attenuates the Malignancy of Gastric Cancer Cells 鄭必伶 1,2, 魏恩雅 3, 黃斌 1,2,3,4* Bi-Ling Cheng ^{1,2} , Enya Wei ³ , Bin Huang ^{1,2,3*}
CM16	A specific protein p38 expression in mammalian spermatozoa 溫筑茜, 羅加真, 劉銘 * Zhu-Qian Wen, Jia-Chen Lo, Min Liu*
CM17	Anti-tumor Effect And Mechanism of Taiwan Natural Plant Aqueous Crude Extracts on Lung And Breast Cancer In Vitro and In Vivo 蕭安晴, 吳其霖, 林凱凡, 陳怡如, 劉銘 * An-Ching Hsiao, Chi-Lin Wu, Kai-Fan Lin, Yi-Ru Chen, Min Liu*
CM18	PAICS Ubiquitination Triggers Phase Separation of de novo Purine Synthesis Pathway Enzymes into Purinosome to Promote Tumor Growth and Survival 王苡瑄, 陳飛濤, 林淑好, 陳瑞華 Yi-Hsuan Wang ¹ , Fei-Yun Chen ¹ , Shu-Yu Lin ¹ , Ruey-Hwa Chen ^{12*}
CM19	The LncRNA Smyca Coordinates TGF- β and Myc Pathways to Promote Tumor Malignancies 詹書柔 1,2, 陳忻怡 3,4, 劉欣欣 1,2, 簡茹茵 1,2, 魏安琪 1,2, 周玉山 5, 陳瑞華 1,2* Shu-Jou Chan ^{1,2} , Hsin-Yi Chen ^{3,4} , Hsin-Hsin Liu ^{1,2} , Ru-In Jian ^{1,2} , An-Chi Wei ^{1,2} , Yuh-Shan Jou ⁵ , and Ruey-Hwa Chen ^{1,2*}
CM20	Exosome-Derived LINC00960 and LINC02470 Promote the Epithelial-Mesenchymal Transition and Aggressiveness of Bladder Cancer Cells 黃晟碩 1 2, 何嘉益 1 2, 蔣正華 3, 于承平 1 2 4, 于大雄 2 5 Cheng-Shuo Huang 1 2, Jar-Yi Ho 1 2, Jung-Hwa Chiang 3, Cheng-Ping Yu 1 2 4, Dah-Shyong Yu 2 5
CM21	Coupling of R-loop resolution and cell cycle checkpoint in genome stability by the interplay between DHX9 and ATR 劉玟吟 1, 林耿如 1, 楊秉澤 1, 朱雪萍 2, 吳青錫 1 * Mei-Yin Liu ¹ , Keng-Ru Lin ¹ , Bing-Ze Yang ¹ , Hsueh-Ping Chu ² , and Ching-Shyi Wu ^{1 *}
CM22	Exosomes Derived from Human Umbilical Cord Mesenchymal Stem Cells Facilitate Nerve Regeneration and Functional Recovery in Rats with Spinal Cord Injury 楊道翔, 彭葛蒂, 朱翠玉, 陳弘照, 鄭仁坤 Tao-Hsiang Yang, Raju Poongodi, Tsuei-Yu Chu, Hong-Zhao Chen, Jen-Kun Cheng
CM23	AMHR2-expressing cells in ovarian surface epithelium exhibit stem/progenitor-like characteristics during ovulatory repair and carcinogenesis 涂瑋玲 余奕儒 劉祐寧 張尹綺 陳俊銘 Wei-Ling Tu, Yi-Ru Yi, Yu-Ning Liu, Yin-Chi Chang, and Chun-Ming Chen
CM24	An Investigation into the Role of the Long non-coding RNA LINC00514 in Hypoxia-mediated Tumor Progression 許嘉凌 1, 彭佩華 2, 顏允霖 3, 林莉婕 1,4, 吳孟芷 5, 張佳瑋 6, 許凱文 1,7* Jia-Ling Syu ¹ , Pei-Hua Peng ² , Tui-Lin Yen ³ , Li-Jie Lin ^{1,4} , Meng-Chih Wu ⁵ , Chia-Wei Chang ^{6*} , Kai-Wen Hsu ^{1,7*}
CM25	Study the potential of PS23 probiotics and the alteration in gene expression and microbiota in Alzheimer's disease mouse model 施瑞昕, 蔡英傑, 謝秀梅 Jui-Hsin Shih, Ying-Chieh Tsai, Hsiu-Mei Hsieh
CM26	The Effects of SNAP-25 Phosphorylation in RGCs on Regulating Retinal Waves and Retina-Brain Circuits 文馨瑩, 王致恬 Hsin-Ying Wen, Chih-Tien Wang
CM27	Regulatory Mechanisms of Hepatoma-Derived Growth Factor in Septic Inflammatory Responses 李珮琦 1, 方誠傑 2, 戴明泓 1,2* Pei-Chi Li ¹ , Cheng-Chieh Fang ² , Ming-Hong Tai ^{1,2*}
CM28	Rab37 mediates trafficking and membrane presentation of PD-1 in T cells to foster an immunosuppressive microenvironment in lung cancer 郭懿瑩 1,2, 吳思亭 1, 張志鵬 2,3, 王憶卿 1,2* I-Ying Kuo ^{1,2} , Shih-Ting Wu ¹ , Chih-Peng Chang ^{2,3} and Yi-Ching Wang ^{1,2*}



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CM29	Cellular and subcellular roles of CEP170 in cortical development 廖昱晴, 趙年欣, 張玉玄, 蔡孟翰, 王琬菁, 蔡金吾 Yu-Ching Liao, Nian-Hsin Chiao, Yu-Syuan Chang, Meng-Han Tsai, Won-Jing Wang, Jin-Wu Tsai
CM30	The Role of a Novel DEAD-Box RNA Helicase Protein in Mouse Hematopoiesis 簡翊庭, 徐立中 I-Ting Chien, Li-Chung Hsu
CM31	The Gut-microbiome-dependent Mechanism Regulating Adipose Functions Through a Novel Bacterial Metabolite 蔡慈珮 1, 陳沛蓁 1, 翁沂秀 1, 康庭瑋 1, 廖苡竹 2, 高承源 3, 阮振維 1* Tzu-Pei Tsai1, Pei-Chen Chen1, Yi-Hsiu Weng1, Ting-Wei Kang1, Yi-Chu Liao2, Cheng-Yuan Kao3, Jhen-Wei Ruan1*
CM32	SQSTM1 Involves in Nanoparticulophagy Pathway of Human Cells. 賴彥合 1, 趙瑞益 1,2* Yen-Her Lai1, Jui-I Chao1,2*
CM33	Monitoring Osteogenic Differentiation of Human Mesenchymal Stem Cells on Crosslinked Polypeptide Multilayer-coated Electrodes 張禾郁, 陳雪麗, 洪瑜涵, 羅俊民 Ho-Yu Chang, Shirley Ting, Yu-Han Hung, Chun-Min Lo
CM34	The Interaction Between TRIB3 and ELF4 Contributes to The Maintenance of Cancer Stem Cells in Endometrial Cancer 王文玲 1, 張文瑋 1,2 Wen-Ling, Wang; Wen-Wei, Chang
CM35	Weakened Skin Barrier Function Through Decreased AhR/OVOL1/FLG Axis By Staphylococcus aureus-secreted alpha-toxin 蔡彥郁、張榮賢、陳瑩容 * Yen-Yu Tsai, Long-Sen Chang, Ying-Jung Chen*
CM36	DCBLD1 Deregulation and Its Action Mechanism in Esophageal Cancer 黃立淳, 吳梨華 * Li-Chun Huang and Li-Wha Wu*
CM37	The effect of dietary restriction and intermittent fasting on transposable element and memory modulation 許溥昇 1, 郭澤筠 1,2, 謝欣庭 1, 陳靜宜 3, 王培育 4, 林劭品 1,5,6,7 Pu-Sheng Hsu1, Tse-Yun Kuo1,2, Hsin-Ting Hsieh1, Ching-Yi Chen3, Pei-Yu Wang4, Shau-Ping Lin 1,5,6,7
CM38	Linking memory function to spatiotemporal distribution of amyloid plaque, tauopathy and transposable element in brain of pathological App knock-in mouse 松島由佳, 許溥昇, 郭澤筠, 謝欣庭, 王培育, 林劭品 Yuka Matsushima1, Pu-Sheng Hsu1, Tse-Yun Kuo1,2, Hsin-Ting Hsieh1, Pei-Yu Wang4, Shau-Ping Lin 1,4,5,6
CM39	Magnolol Induces Apoptosis and Inhibits Invasion Ability via Suppression of STAT3 Signaling In Glioblastoma Multiforme Cells 李欣融, 許斐婷 Sin-Rong, Lee, Fei-Ting, Hsu
CM40	Exopolysaccharide from Lactobacillus fermentum and its anti-adipogenic effects through AMPK pathway in 3T3-L1 adipocytes 葉景生 *, 黃沛霖, 黃詩云, 王雅筑 Ching-Sheng Yeh*, Pei-Lin Huang, Shih-Yun Huang, Ya-Chu Wang
CM41	Fusion to Vip3A optimize the oral activity of insecticidal ω -Hexatoxin-Hv1a peptide by intestinal perforation its delivery to hemolymph. 陳俊翰 1, 陳楷文 2, 陳隆傑 2, 李照宇 2, 王艾瑞 1, 歐陽鈞兒 2, 陳文亮 1,2*. Jun-Han, Chen1, Kai-Wen, Chen2, Lung-Chiah, Chen2, Chao-Yu, Lee2, Erick-Wang1, Ou Yang, Jyun-Er2, Wen-Laing, Chen1,2*.
CM42	LIF stimulates YAP1 activation through PAR1 to promote NPC migration 蔡承翰, 劉淑貞 Cheng-Han Cai, Shu-Chen Liu

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CM43	KEPI Plays a Negative Role in the Repression that Accompanies Translational Inhibition Guided by the uORF Element of Human chop Transcript during Stress Response 李鴻杰, 謝其呈, 蔡懷楨 Hung-Chieh Lee, Chi-Cheng Hsieh, Huai-Jen Tsai
CM44	Paraspeckle component 1(PSPC1) plays a role in maintenance of tight junction integrity in MDCK cell line 湯銘哲 Ming-Jer Tang
CM45	The global DNA methylation affect the oral cancer metastasis 李千雅 1, 謝儀蘋 2, 陳孟延 1, 黃則達 1, 洪澤民 3, 陳玉玲 1* Chien-Ya Li1, Yi-Ping Hsieh2, Meng-Yen Chen1, Tze-Ta Huang1, Tse-Ming Hong3, Yuh-Ling Chen1*
CM46	Application of CRISPR/Cas9 Gene Editing in Aspergillus terreus to manipulate the yield of lovastatin 周克叡, 張芳榮, 蔡欣原 Ke-Rui Chou, Fang-Rong Chang, Hsin-Yuan Tsai
CM47	The Effects of N-Glycosylation on the Functions of Immune Checkpoint CD112 詹凱丞, 盧慧瑛, 許榮茂 Kai-Cheng Chan, Hui-Ying Lu, Jung-Mao Hsu
CM48	Molecular Characterization of A Secondary Metabolite from Neosartorya fischeri on Human Keratinocytes 劉坤湘, 王滢涵 Kun-Hsiang Liu, Ying-Han Wang
CM49	Cancer Biomarker CAP2 Affects ROS and Mitochondrial Dynamics in U-2 OS Cells 梁秉中, 張壯榮 Ping-Chung Liang and Chuang-Rung Chang
CM50	The Morphology and Genes Expression of Male and Female Zebrafish Chromatophores after Cultured with α -Estradiol or Testosterone and Electrical Stimulation 黃子芸 1, 杜丞偉 1, 葉威良 1, 孟競傑 1, 劉伯瑜 2*, 黃尉東 1* Tzu-Yun Huang1, Cheng-Wei Du1, Wei-Liang Yeh1, Jing-Jie Meng1, Po-Yu Liu2*, Wei-Tung Huang1*
CM51	A New Isoform of DNA Methyltransferase 3-Like as a Potential Germ Granule Protein Member during Male Meiosis 張人允, 姚立喬, 葉俞函, 蔡億蒼, 林有志, Akihiko Sakashita, 胡夢雯, 林延翰, 龔品韻, 胡岳江, 行川賢, 林劭品 Jen-Yun Chang, Lih-Chiao Yau, Yu-Han Yeh, Yi-Tzang Tsai, Yu-Chih Lin, Akihiko Sakashita, Mengwen Hu, Yan-Han Lin, Pin-Jui Kung, Yueh-Chiang Hu, Satoshi Namekawa and Shau-Ping Lin
CM52	Anticancer Effects of 4-hydroxy-2-methoxy-6-tridecylphenyl acetate in Pancreatic Cancer 莊清鈺, 魏伶容, 莊子瑩, 蔡婉琪 Yu-Fang Chuang, Ling-Rung Wei, Tzu-Ying Chuang, Wan-Chi Tsai
CM53	The Role of Calcium/Calmodulin-Dependent Serine Protein Kinase (CASK) on Microglial Activation in Cellular Model of Alzheimer's Disease 卓晏廷, 林鈺益, 鄭菡若 Yen-Ting Cho, Yu-Yi Lin, Han-Juo Cheng
CM54	The Underlying Mechanism of the In Vitro Anti-proliferative and In Vivo Anti-angiogenic Activities of LCC604 in Pancreatic Cancer. 陳沛璇, 梁瑞庭, 蔡婉琪 Pei-Syuan Chen, Rui-Ting Liang, Wan-Chi Tsai
CM55	The Bioactivity and Genes Expression of Male and Female Zebrafish Chromatophores were Affected by Electrical Stimulation 杜丞偉, 葉威良, 洪紫淳, 黃子芸, 魏詠欣, 王蕙婷, 黃尉東 * Cheng-Wei Du, Wei-Liang Yeh, Tzu-Chun Hung, Tzu-Yun Huang, Yong-Sin Wei, Yi-Ting Wang, Wei-Tung Huang*
CM56	A Bulwark Made of Sponge - The Inhibition of Epithelial-Mesenchymal Transition and Anti-Metastasis Potential of Natural Product from Marine Sponge 陳芃諭, 郭品岑, 蔡婉琪 * Peng-Yu Chen, Pin-Cen Guo, Wan-Chi Tsai*



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CM57	Combination Synergistic Effects of Cisplatin and Selenocystine Induce DNA Damage in Human Hepatocellular Carcinoma Ulfah Hasanah, 楊昇樺, 蔡嘉睿, 陳師慶 Ulfah Hasanah, Sheng-Hua Yang, Chia-Jui Tsai, Ssu-Ching Chen
CM58	Role of gadd45aa in the vascular development of zebrafish 吳長益 副教授 Chang-Yi Wu
CM59	Antiestrogen effects of Ginkgetin in ER-positive Breast Cancer 康文瑜, 賴方縈, 陳怡曉, 陳懿芬 Wen-YU Kang, Fang-Ying Lai, I-Hsiao Chen, I-Fen Chen
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CM61	Carcinoma-associated Fibroblasts Conferred Radiation Resistance via Interleukin-33/ST2 and SDF-1/ CXCR4 Pathway to Promote Head and Neck Cancer Progression 陳奕伶, 林佑俊, 聶鑫, 黃文彥, 陳素鳳 Yi-Ling Chen, Yu-Chun Lin, Shin Nieh, Wen-Yen Huang, Su-Feng Chen
CM62	Investigation of the vulnerability of a MTAP-deficient breast cancer cell line MCF-7 to nucleolar stress 劉玉環, 石育禎, 林書瑋, 李娟 Yu-Huan Liou, Yu-Zhen Shih, Shu-Wei Lin, Chuan Li
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CM69	Downregulate The AKT Activation-mediated Radiation-sensitive 52 Expression To Enhance Nitroglycerin-induced Cytotoxicity In Human Non-small Cell Lung Squamous Cell Carcinoma H520 Cells 林芸薇 Yun-Wei Lin
CM70	The Deregulation of PIK3C2B, a Class II PI3K Family Member, Uncoupled Cell Migration from Invasion in Oral Cancer 蔡京容, 吳梨華 * Ching-Jung Tsai and Li-Wha Wu*
CM71	Peripheral Proopiomelanocortin Overexpression Induces Diabetes Insipidus Symptoms in Mice 謝佳惠 1, 戴明泓 1,* Chia-Hui Hsieh1, Ming-Hong Tai1,*

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CM75	Gap junctions are required for maintenance of normal insulin secretion of insulin-producing cells in the Drosophila brain 沈秉賢, 洪詩淳, 池羽淇, 傅在峰 Bing-Xian Shen, Shih-Chun Hong, Yu-Chi Chih, Tsai-Feng Fu
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CM81	An electrochemical biosensor-based platform for comprehensive COVID-19 management Lung-Chieh Chen, Yu-Guo Wang, Chang-Wei Li, Yu-Ting Wang, Wen-Liang Chen
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CM85	Single-cell Resolution Analysis of the Immune Response in Palindromic Rheumatism 宋曉妮, 陳信華, 王靜瑢, 趙文震, 黃柔諭, 廖虹婷, 柯泰名 Hsiao-Ni Sung, Hsin-Hua Chen, Jing-Rong Wang, Wen-Cheng Chao, Jou-Yu Huang, Hung-Ting Liao, Tai-Ming Ko
CM86	Inference of Single-cell Networks Using Mutual Information with Cell Transcriptomic Correlation 郝庭毅 1, 王韋傑 1, 林峻宇 1, 2,* Ting-Yi Hao1, Wei-Jie Wang1, Chun-Yu Lin1, 2,*
CM87	The role of Pspc1 and paraspeckle components in zebrafish early development 謝亦涵 / 傅子芳教授 / 湯銘哲教授 Yi-Han Hsieh/Tzu-Fun Fu/Ming-Jer Tang



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CM93	Molecular Mechanism of a Novel BAIAP2 Mutation in the Pathogenesis of Lissencephaly. 林莞茜、蔡孟翰、蔡金吾 Wan-Cian Lin, Meng-Han Tsai, Jin-Wu Tsai
CM94	Establishment of in vitro CNS Demyelination Model to Study Oligodendroglial Synucleinopathy and for Functional Analysis of MSA Patient Associated microRNAs 呂佳蓁 1, 蔡億蒼 1, 郭明哲 2, 林延翰 1, 黃靖雯 8,9, 王得丞 2, 落谷孝広 5,6, 潘建興 8, 吳瑞美 2*, 吳佳慶 7 *, 林劭品 1,3,4* Chia-Chen Elva Lu1, Yi-Tzang Tsai1, Ming-Che Kuo2, Yan-Han Lin1, Jing-Wen Huang 8,9, Teh-Cheng Wang2, Takahiro Ochiya5,6, Frederick Kin Hing Phoa8, Ruey-Meei Wu2*, Chia-Ching Wu7 *, Shau-Ping Lin1,3,4*
CM95	Evaluation of Antitumor and Apoptotic Effects of Natural Turmeric Phytochemical Derivative on Colorectal Cancer Cells 江若華 1, 楊家欣 2* Jo-Hua Chiang1, Jai-Sing Yang2*
CM96	Nitroglycerin induce cytotoxicity via Radiation-sensitive 52 down-regulation through inactivation ERK1/2 pathway in human non-small cell lung adenocarcinoma H1975 cells 謝柔敏 Ron-Min Hsieh
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CM100	Polystyrene Microplastics on Spermatogenesis and Microbita in Male Rats Model 黃宜玉、曾貴澤、龔瑞林、黃登福 YI-YUH HWANG, QUEI-TSE TSEN, ZWE-LING KONG, DENG-FWU HWANG
CM101	Urolithin B attenuates IL-1 beta-induced catabolic effects through inhibiting NF-κB signaling in articular chondrocytes and osteoarthritis in rats 吳豐程 1,2, 劉峰誠 3, 王誌謙 4, 彭奕仁 2,5* Feng-Cheng Wu1,2, Feng-Cheng Liu3, Chih-Chien Wang4, Yi-Jen Peng2,5*



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CM106	Antibacterial effect of LongAn flower Extracts in Staphylococcus aureus 洪含章 1、江明憲 2、劉啟宏 3、陳俊翰 4* Han-Chang Hung1、Ming-Hsien Chiang2、Ci-Hong Liou3、Jiun-Han Chen4*
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CM110	Growth-Dependent Scaling of the MinD Concentration Gradient Underlying the Oscillation Cycles in Escherichia coli 帕均雅 1, 洪承郁 2, 杜憶萍 2, 史有伶 1, 3, 4 Claudia Parada1, Cheng-Yu Hung2, I-Ping Tu2, Yu-Ling Shih1, 3, 4
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CM112	A Baicalein Derivative Ameliorates AMPA/NMDA-induced Depolarization in Primary Cortical Neurons 陳婷妤、林炎壽 Ting-Yu Chen, Yenshou Lin
CM113	A herbal extract derivate alleviates Aβ oligomers-induced abnormal depolarization in primary neurons. 陳品蓉、林炎壽 Pin-Jung Chen, Yenshou Lin
CM114	The inhibitory effect of benzodiazepinedione derivatives on breast tumorigenesis 吳承芳 1, 李冠漢 2,3, 何文岳 4, 田孝威 1,3* Cheng-Fang Wu1, Kuan-Han Lee2,3, Wen-Yueh Ho4, Shiaw-Wei Tyan1,3*
CM115	Effect of Ursolic Acid on Cisplatin-treated Gastric Cancer Cells 徐雪瑩 Hsu Hsue-Yin
CM116	Momordica charantia Extracts Induces Apoptosis and Autophagy in Triple Negative Breast Cancer Cells. 張哲睿, 陳維翰, 徐雪瑩 Zhe-Rui Chang, Wei-Han Chen, Hsue-Yin Hsu.
CM117	The Novel Compounds Derived from Momordica charantia Enhance Vulnerability of Resistant Gastric Cancer Cells to Cisplatin by Downregulating HO-1 and Induces P53/Caspase 3-Dependent Apoptosis. 徐雪瑩 Hsue-Yin Hsu



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CM119	Anthraquinones Inhibited The Proliferation and Migration of Androgen-Independent Prostate Cancer Cells by Targeting The Mitochondria-Dependent Apoptosis. 曾天群, 徐雪瑩 Zeng Tian-Qun, Hsu Hsue-Yin
CM120	Compound from Inula japonica Inhibited Growth and Metastasis of Human Breast Cancer Cell MDA-MB-231 陳律臻, 張伊捷, 高羽宣, 蕭裕承, 鄭竣亦, 高佑靈 * Lu-Chen Chen, Yi-Chieh Chang, Yu-Hsuan Kao, Yu-Cheng Hsiao, Shi-Yie Cheng, Yu-Lin Kao*
CM121	Involvement of Autophagy in Momordica charantia-Induced Cell Death via SIRT1/PI3K/Akt Pathway in Breast Cancer Cells 徐雪瑩 Hsue-Yin Hsu
CM122	Ellagic Acid Resensitizes Gemcitabine-Resistant Bladder Cancer Cells by Inhibiting Epithelial-Mesenchymal Transition and Gemcitabine Transporters 吳穎羲 1, 2,†、何嘉益 1,2,†、于承平 1,2,3、卓君蓉 1、吳嘉倫 1,2、黃晟碩 1,2、高鴻偉 1,2,*、于大雄 2,4,* Ying-Si Wu 1, 2,†, Jar-Yi Ho 1,2,†, Cheng-Ping Yu 1,2,3, Chun-Jung Cho 1, Chia-Lun Wu 1,2, Cheng-Shuo Huang 1,2, Hong-Wei Gao 1,2,* and Dah-Shyong Yu 2,4,*
CM123	Investigate Immune Regulation and GSK3 α /GSK3 β -catenin Inactivation of Tyrosine Kinase Inhibitor Combined with PD-L1 Inhibitor in Glioblastoma. 董岱澄, 許斐婷 Dai-Cheng Dong, Fei-Ting Hsu
CM124	Regulation of MIF and Epithelial-Mesenchymal Transition by Callicarpa water extracts 陳瑩翎 1, 王怡綦 2, 陳健祺 3, 周士傑 2, 徐慧雯 2 Ying-Ling Chen 1, Yi-Fen Wang 2, Jian-Chyi Chen 3, Shi-jie Zhou 2, Huey-Wen Shyu 2*
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CM127	NAMPT Inhibitor and P73 Activator Have Synergic Effects to Repress P53 R175H Mutated HNSCC Cells Proliferation 白芝瑜, 徐怡強, 連景峯, 余思潔, 吳尉辰, 陳佳其, 蔡璧合 Zhi Yu Bai, Yi-Chiang Hsu, Ching-Feng Lien, Si Jie Yu, Wei-Chen Wu, Chia-Chi Chen, Bi-He Cai
CM128	Amentoflavone induced apoptosis and promote G1 phase cell cycle arrest through regulating p53 gene in HT29 human colorectal cancer. 古湘儒, 許斐婷 Hsiang-Ju Ku, Fei-Ting Hsu
CM129	Suppression of STAT3 reduces cancer stem-like tumorspheres-mediated radioresistance and tumor migration in hepatocellular carcinoma cells 程俊嘉, 謝宗霖, 何愛生 Chun-Chia Cheng, Zong-Lin Sie, Ai-Sheng Ho
CM130	Synergistic cytotoxic effect of cotreatment with pemetrexed and nitroglycerin on lung adenocarcinoma H1975 cells 江辰珊 Chen-Shan Chiang
CM131	Nasopharyngeal Carcinoma-Derived EBV Products-Containing Exosomes Regulate Macrophage Polarization and Immune Responses 劉子彤, 隨昀華, 李伯儒, 劉淑貞*, 黃貞翰* Tzu-Tung Liu, Yun-Hua Sui, Po-Ju Lee, Shu-Chen Liu*, Chen-Han Huang*



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CM136	The Metastatic Ability of RAD51-Gene Knockdown ES-2 Human Ovarian Cancer Cells Investigated by Xenotransplantation into Zebrafish Larvae 賴彥霖 1, 楊明泓 1, 程媵雅 1, 蘇俊志 1, 劉伯瑜 2*, 黃尉東 1* Yan-Lin Lai1, Ming-Hung Yang1, Ying-Ya Cheng1, Chun-Chih Su1, Po-Yu Liu2*, Wei-Tung Huang1*
CM137	The Effect of BRCA1 Gene Knockdown on the Metastatic Ability of ES-2 Human Ovarian Cancer Cells in Zebrafish Larvae 蔡雨潔 1, 王耀群 1, 楊明泓 1, 王星惠 1, 陳明 2*, 黃尉東 1* Yu-Chieh Tsai1, Yao-Chun Wang1, Ming-Hung Yang1, Hsing-Hui Wang1, Ming Chen2*, Wei-Tung Huang1*
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CM139	BARD1 Gene Knockdown Affected the Metastatic Ability of Human Ovarian Cancer Cells (ES-2 and SKOV-3) in Zebrafish Larvae 楊明泓 1, 黃子芸 1, 蔡雨潔 1, 吳芷攸 1, 莊弘 2*, 黃尉東 1* Ming-Hung Yang1, Tzu-Yun Huang1, Yu-Chieh Tsai1, Zhi-You Wu1, Hung Chuang2*, Wei-Tung Huang1*
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CM144	Targeting Colony Stimulating Factor 2 Receptor to Prevent the Growth and Metastasis of Osteosarcoma after Radiotherapy 楊雅慧, 方士明, 賴巨虎, 劉欣怡 Yang, Ya-Hui, Fang, Shih-Ming, Lai, Chu-Hu, Liu, Shin-Yi
CM145	Quercetin Inhibits Breast Cancer Cell Proliferation and Migration Through Regulating PIN1-Mediated Signaling Pathway 陳吟佩, 陳威仁 Yin-Pei Chen, Wei-Jen Chen



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CM 中華民國細胞及分子生物學學會

編號	論文題目
CM146	Investigate the mechanism and treatment efficacy of regorafenib combined with anti-PD-L1 on bladder cancer 白凱任 Kai-Jen, Pai
CM147	Development of Fully Humanized DLK1 Antibody for Diagnosis and Therapy of Ovarian Cancer 吳孟洵 1, 戴明泓 2* Meng-Hsun, Wu1, Ming-Hong, Tai2*
CM148	Integrative single-cell analysis of chromatin accessibility and DNA mutations in identifying therapeutic targets of epithelial carcinoma 林芳平 1, 徐中平 2, 蕭自宏 3, 柯泰名 1, 4, 5, 6 Fang-Ping Lin1, Chung-Ping Hsu2, Tzu-Hung Hsiao3, Tai-Ming Ko1, 4, 5, 6
CM149	Targeting Androgen Receptor And The Variants By An Orally Bioavailable Proteolysis Targeting Chimeras Compound In Castration Resistant Prostate Cancer 洪秋蓮, 劉皓瑄, 葉訓豪, 傅志偉, 張美如, 胡璦麟, 郭宗鏗, 林于菁, 黃崇雄, 徐鴻智, 王齡玉 Chiu-Lien Hung (1), Hao-Hsuan Liu (1), Hsun-Hao Yeh (2), Chih-Wei Fu (1), Mei-Ru Jhang (1), Tsan-Lin Hu (1), Zong-Keng Kuo (1), Yu-Chin Lin (1), Chrong-Shiong Hwang (1), Hung-Chi Hsu (3), Ling-Yu Wang (2,3)
CM150	Zebrafish as an Excellent Model for Titinopathy 林芷仔 1, 羅梅真 2, 郭雲鼎 2, 劉逸軒 1,3,* Chih-Yu Lin1, Mei-Chen Lo2, Yung-Ting Kuo2, I-Hsuan Liu1,3,*
CM151	The Role of Hepatoma-Derived Growth Factor in Skin Fibrosis 曹圓妮, 方誠傑, 戴明泓 Yuan-Ni Tsau, Cheng-Chieh Fang, Ming-Hong Tai

GOOD HEALTH & WELL-BEING



TX 台灣毒物學學會

編號	論文題目
TX01	The Role of miR-450a in Diabetic Nephropathy 張淑媚, 吳鎮天, 廖伯霖 Shu-Mei Chang, Cheng-Tien Wu, Po-Lin Liao*
TX02	THZ1, a covalent CDK7 inhibitor, enhances gemcitabine-induced cytotoxicity via suppression of Bcl-2 in urothelial carcinoma 郭冠麟, 林維洲, 劉興華, 許富順, 郭昱, 廖世明, 楊劭莘, 王作賀, 徐睿麒, 黃國皓 Kuan-Lin Kuo, Wei-Chou Lin, Shing-Hwa Liu, Fu-Shun Hsu, Yu Kuo, Shih-Ming Liao, Shao-Ping Yang, Zuo-He Wang, Chen-Hsun Hsu, Kuo-How Huang
TX03	Comparing the Eye and Skin Irritation with 15 Pesticide Formulations and Assessing the Waiving of Toxicological Requirement 陳筱青, 吳偉嘉, 蔡建任 Hsiao-Ching Chen, Wei-Jia Wu, Wei-Ren Tsai
TX04	Combination of Gefitinib and 3-Hydroxyflavone Exerts Synergistic Anti-Cancer Activity on Non-Small Cell Lung Cancer via blockade of the TGF- β pathways 黃家英, 黃志揚, 楊良友 Indra Putra Taufani, Chih-Yang Huang, Liang-Yo Yang
TX05	Mulberry leaf water extract and nCGA inhibit neurodegenerative diseases via promoting adult hippocampal neurogenesis and decreasing neuron apoptosis in scopolamine-induced mice. 鄭亦翎, 林長楸, 楊孟元, 許立松, 王朝鐘 Yi-Ling Cheng, Chang-Mao Lin, Mon-Yuan Yang, Li-Sung Hsu, Chau-Jong Wang
TX06	Abraxane Induced Apoptosis And Mitotic Catastrophe Of Human Colorectal Cancer Organoids 李若筠 1, 雷琬婁 2, 趙瑞益 1 Jo-Yun Lee 1, Wan-Lou Lei 2, Jui-I Chao 1
TX07	Impact of Sodium-glucose Cotransporter-2 inhibitors on sarcopenia or frailty : From bench to clinic . 徐嘉玲, 姜至剛, 趙家德 Chia-Ling Hsu, Chih-Kang Chiang, Chia-Ter Chao
TX08	Fipronil Disturbs the Antigen-Specific Immune Responses via Down-Regulation of GABAergic Genes Expression in Ovalbumin-immunized Model 郭瑞芳, 童俊維, 王家琪 Jui-Fang Kuo, Chun-Wei Tung, Chia-Chi Wang
TX09	Nelumbo nucifera leaf extract improves neurodegeneration by promoting adult hippocampus neurogenesis and reducing apoptosis in scopolamine-induced mice 林長楸, 鄭亦翎, 楊孟元, 許立松, 王朝鐘 Chang-Mao Lin, Yi-Ling Cheng, Mon-Yuan Yang, Li-Sung Hsu, Chau-Jong Wang
TX10	Galangin regulates Mitochondrial dynamics to Attenuate UVB-induced human dermal fibroblasts (HDFs) damage 程詩涵, 謝錦源, 黃志揚, 郭薇雯 Shih-Han Cheng, Dennis Jine-Yuan Hsieh, Chih-Yang Huang, Wei-Wan Kuo
TX11	Neochlorogenic acid (nCGA) improves diabetic nephropathy by inhibiting NF- κ B in high fat diet-fed db/db mice 蔡詠哲, 楊孟元, 王朝鐘 Yung-Che Tsai, Mon-Yuan Yang, Chau-Jong Wang
TX12	Establish of stable expression IGF-IIR α cardiomyoblast H9c2 cells with LPS-induced impairment. 楊良友, 黃志揚 Liang-Yo Yang ⁵ , Chih Yang Huang ^{1,2,3,4}
TX13	Investigation of molecular mechanisms of ERO1A via EMT pathway in pancreatic cancer cells metasis 范雅媿, 梁有志 Ya-Ti Fan, Yu-Chih Liang
TX14	miR-342-5p suppress direct and indirect mechanisms of CFL1 phosphorylation to enhances chemosensitivity in Hepatocellular carcinoma 劉哲育, 黃志揚 Jer-Yuh Liu and Chih-Yang Huang
TX15	Application of Alternative Methods to Assess the Genotoxic Potential of Nanoparticles in Food Products 潘娟利, 陳容甄 Rosita Pranata, Rong-Jane Chen



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TX 台灣毒物學學會

編號	論文題目
TX16	Synthesis and photocytotoxicity of 9-O-lipophilic and 12-N/heterocyclic substituted berberine derivatives as potential anticancer agents 李孟輯、蘇敬茹、吳進益 * Meng-Ji Li, Jing-Ru Su, Jin-Yi Wu*
TX17	SQSTM1 is a crucial autophagy receptor for Abraxane-induced apoptosis and mitotic catastrophe in human colorectal cancer 林子婷 1, 曾子硯 1, 莊雁鈞 1, 趙瑞益 1,2* Tzu-Ting Lin1, Tzu-Yen Tseng1, Yan-Jun Zhuang1, Jui-I Chao1,2*
TX18	Fucoidan-Based Nanomedicine for Overcoming Cisplatin Resistance by Decreasing EMT and Inducing Autophagic Cell Death Enhances Radiosensitivity in Triple-Negative Breast Cancer 陳家怡, 葉雅玲, 王應然 Chia-Yi Chen, Ya-Ling Yeh, Ying-Jan Wang
TX19	A Population Physiologically based Pharmacokinetic Modeling to Assess the Mixture Risk of Dietary Exposure to Bisphenols: A Pilot Study 陳品璇, 林怡君 Pin-Hsuan Chen, Yi-Jun Lin
TX20	Studies on Genetic Identification of <i>Epinephelus fuscoguttatus</i> × <i>Epinephelus lanceolatus</i> 陳柏瑋 1, 何佩蓓 2, 陳泰源 2, 黃登福 2 * Po-Wei Chen1, Pei-Chien Ho2, Deng-Fwu Hwang2 *
TX21	Validation of Drug-related QT Prolonged Risk Assessment Tool 1,2 紀兆寧, 3 廖伯霖, 1 康熙洲 1,2Chao-Ning Chi, 3 Po-Lin Liao, 1Jaw-Jou Kang
TX22	Evaluation of Aloin-CPT-11 synergism-regulated miRNA, targeting IGF1R in colorectal cancer. 郭薇雯 Wei-Wen Kuo
TX23	Sirt-1 Activation to Inhibit p53 mediates the Protective effects of Galangin on Skin Aging 邱彥敦, 黃襄川, 黃志揚, 郭薇雯 Yen-Tun Chiu, Shang-Chuan Ng, Chih-Yang Huang, Wei-Wan Kuo
TX24	Preventive effect of LIPUS on renal cell senescence. 張若芯、劉興華 * Jo-Hsin Chang, Shing-Hwa Liu*
TX25	Surfactin reduces particulate matter-induced VCAM-1-dependent monocyte adhesion in human gingival fibroblasts by increasing Nrf2-dependent HO-1 expression 李宜達 I-Ta Lee
TX26	Study of Potential Endocrine Disruption and Reproductive Toxicity of Food Nanoparticles Using Alternative Testing 呂綦晴 Chin-Ching Lu
TX27	Long-term Exposure of Chlorothalonil and Photodegradation Product Induced Skin Aging Through Inflammasome-autophagic Pathway and the Preventive Effect of Pterostilbene 吳宣儀, 王應然 Hsuan-I Wu, Ying-Jan Wang
TX28	Exploring the Predictability of Mode of Action Combined with Tiered Alternative Tests in Fish Acute Toxicity 李子寧, 王應然 Tzu-Ning Li, Ying-Jan Wang
TX29	Comparison of Cigarette Smoke and Heated Tobacco Products on Lung Toxicity 丁子倢, 鄒瀚興, 王湘翠 Tzu-Hsin Ting, Han-Hsing Tsou, Hsiang-Tsai Wang
TX30	HDAC/HSP90 inhibitor G570 attenuated neovascularization in mice by decreasing VEGF production. 許泰儒 1#, Kunal Nepali1#, 蔡季濠 1,2, Zuha Imtiyaz1, Ida Fitriana1, 李青濤 3, 康熙洲 4, 蕭哲志 5, 劉宜旻 1, 劉景平 1*, 鄭幼文 1* Tai-Ju Hsu1#, Kunal Nepali1#, Chi-Hao Tsai1,2, Zuha Imtiyaz1, Ida Fitriana1, Ching-Hao Li3, Jaw-Jou Kang4, George Hsiao5, Yi-Min Liou1, Jing-Ping Liou1* and Yu-Wen Cheng1*



編號	論文題目
TX31	Anti-apoptotic effect of lotus seedpod extracts on cisplatin-induced nephrotoxicity 曾巧云 1, #, 林慧萱 2, #, 張好宣 1, 翁玉青 1, *, 陳璟賢 1, * Chiao-Yun Tseng1, #, Hui-Hsuan Lin2, #, Yu-Hsuan Chang1, Yueching Wong1, *, Jing-Hsien Chen1, *
TX32	Investigation of Endocrine Disruption and Reproductive toxicity Induced by Food Contaminants 3-MCPD and glycidol. 黃盈瑄, 陳容甄 Ying-Xuan Huang, Rong-Jane Chen
TX33	Suppression of Renal Dysfunction and Lipid Peroxidation in Paraquat-Poisoned Mice by Immunosuppressive Therapy 張峻為 1, 蔡蕙如 2,3, 顏宗海 2,3*, 顏秀娟 1,2* Chun-Wei Chang1, Huei-Ru Tsai2,3, Tzung-Hai Yen2,3*, Hsiu-Chuan Yen1,2*
TX34	Melatonin Induced C/EBPA Expression Suppresses Epithelial-Mesenchymal Transition and Migration by Targeting Zeb1 in Gastric Cancer 張愷峻 1, 吳昇懋 2, 許美鈴 2* Kai-Jiun Chang 1, Sheng-Mao Wu2, Meei-Ling Sheu2*
TX35	Studies on Genetic Identification and Ciguatera Toxicity of Gempylidae and Scombridae. 謝卓廷 1, 陳柏瑋 2, 陳泰源 1, 黃登福 1 * Cho-Ting Hsieh1, Po-Wei Chen2, Tai-Yen Chen1, Deng-Fwu Hwang1 *
TX36	Development of Aptamer-based Immunoblot for Detecting Symmetrical dimethylarginine 林家君, 余豐益 Jia-Jyun Lin, Feng-Yih Yu
TX37	Avatar-like Body Imaging of Dermal Exposure to Melamine in Factory Workers Analyzed by Ambient Mass Spectrometry 吳佳芳, 許育銘, 黃明宗, 謝建台, 潘致弘, 吳明蒼 Chia-Fang Wu1,2, Yu-Ming Hsu1, Min-Zong Huang3, Jentaie Shiea3, Chih-Hung Pan4, Ming-Tsang Wu1,5-8*
TX38	The role of CNPY2 in renal proximal tubule epithelial cell Yu-Chen Chiu, Chih-Kang Chiang
TX39	Benzophenone-3 reduces aortic vasocontractile response to alpha-1 adrenergic receptor agonist through nitric oxide-independent pathway 顏嘉宏 1, 李建德 1, 廖遠東 2, 謝季吟 3, 莊嘉好 1, 張詠涵 1, 鄭司婕 4 Chia-Hung Yen1, Jian-De Li1, Ean-Tun Liaw2, Chi-Ying Hsieh3, Chia-Yu Chuang1, Yong-Han Chang1, Ssu-Chieh Cheng4
TX40	Investigation of the Abasic Sites Induced by Methyl Methanesulfonate and Hydrogen Peroxide in Calf Thymus DNA (CT-DNA) and Human Bronchial Epithelial Cell Lines (BEAS-2B) 宋智翔, 丁誠達, 徐麒, 林伯雄 Zhi-Xiang Song, Dat Thanh Dinh, Xu Qi, Po-Hsiung Lin
TX41	Urinary Metabolites Of Phthalate In Taiwanese Pregnant Women And Their Correlations With Hemoglobin Adducts Of Estrogen Quinones And Physical Health Indicators Of Newborns 楊建澤, 高嘉好, 許聖言, 劉家瑋, 張碩恩, 陳達人, 王淑麗, 林伯雄 Chien-Tse Yang, Jia-Yu Gao, Sheng-Yen Hsu, Chia-Wei Liu, Shuo-En Chang, Dar-Ren Chen, Shu-Li Wang, Po-Hsiung Lin
TX42	Profiling of the Abasic Sites in Leucocytes Derived from Healthy Controls and Breast Cancer Patients Before and After Treatment 蔡裕君, 韋程皓, 林伯雄 Gilang Putra Bahari, Cheng-Hao Wei, Po-Hsiung Lin
TX43	The protective effect of Gan-Lu-Yin on acidified ethanol-induced gastric ulcer in rats 吳智偉 Chih-Wei Wu
TX44	Determination of Codeine, and Its Metabolites of Morphine and Morphine-3-glucuronide in Various Biological Fluids by UHPLC-MS/MS for Pharmacokinetic and Tissue Distribution Studies 陳榮鴻 1, 蔡東湖 1,2 Jung-Hung Chen1, Tung-Hu Tsai1,2



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編號	論文題目
TX45	Roles of XBP1-regulated Lipid Homeostasis in AKI-to-CKD transition 江采蓁; 姜至剛 Chiang, Tsai-Chen; Chiang, Chih-Kang
TX46	Plants-induced Phototoxicity Mediated by Mitochondrial-Targeting Pathway. 簡文琪, 蘇葳, 呂佳陵, 鄭沛清, 江秀梅 Wen-Chi Chien, Wei Su, Jia-Ling Lyu, Pei-Ching Cheng, Hsiu-Mei Chiang
TX47	Exploring potential therapy for antibody-mediated rejection: Differential effects of calcineurin inhibitors on plasma cell survival 蔡靜儀, 姜至剛 Ching-Yi Tsai, Chih-Kang Chiang
TX48	Studies on Species Identification by Using PCR-RFLP Technique, Level of Vitamin A and Ciguatoxin Toxicity in Liver of Red Grouper 陳籽伍, 陳柏瑋, 陳泰源, 黃登福 Tzu-Wu Chen, Po-Wei Chen, Tai-Yen Chen, Deng-Fwu Hwang
TX49	Studies on Level of Ciguatoxin and Vitamin A in Liver of common Sphyraenidae Fish in Taiwan 陳逸泓, 陳柏瑋, 陳泰源, 黃登福 Yi-Hong Chen, Po-Wei Chen, Tai-Yen Chen, Deng-Fwu Hwang
TX50	Studies on Ciguatoxin Toxicity and Vitamin A Level in Liver of Common Lutjanidae and Lethrinidae in Taiwan 林佩宜, 陳柏瑋, 陳泰源, 黃登福 Pei-Yi Lin, Po-Wei Chen, Tai-Yen Chen, Deng-Fwu Hwang
TX54	Evaluation of Endocrine Disrupting Activity with 48 Pesticides Based on Science-Based Concept 呂水淵 1*、廖靖淳 1、陳敏貞 1、陳婉心 1、謝玉貞 1、蔡建任 1 Shui-Yuan Lu1*, Jing-Chun Liao1, Min-Chen Chen1, Wan-Hsin Chen1, Yu-Chen Hsieh1, Wei-Ren Tsai1
TX55	Establishment of an Ex Vivo Alternative Model for Prenatal Developmental Toxicity in Rats 呂水淵 1*、廖靖淳 1、陳敏貞 1、陳婉心 1、蔡建任 1 Shui-Yuan Lu1*, Jing-Chun Liao1, Min-Chen Chen1, Wan-Hsin Chen1, Wei-Ren Tsai1
TX56	Advance of Adverse Outcome Pathway (AOP) to Estimate the Effect of Metabolites of Pesticides in Plants on Human Reproductive and Developmental Toxicity and Endocrine Disruption 呂水淵 1*、廖靖淳 1、陳敏貞 1、陳婉心 1、邱秀英 1、蔡建任 1 Shui-Yuan Lu1*, Jing-Chun Liao1, Min-Chen Chen1, Wan-Hsin Chen1, Hsiu-Ying Chiu1, Wei-Ren Tsai1
TX57	Investigation of the feasibility of using reconstructed human epidermis test (RhE) In vitro method for skin irritation assessment of pesticide formulation registration 廖俊麟 1*, 羅彥鈞 1, 李懿庭 1, 呂水淵 1 Chun-Lin Liao1*, Yen-Chun Lo1, Yi-Ting Li1, Shui-Yuan Lu1
TX58	Arcoline Inhibits STING-IRF3 Axis and Interferon-Beta Production 林常申, 陳思媛, 黃筠蓓, 黃昭菱 Chang-Shen Lin, Si-Yun Chen, Yuncian Huang, Jau-Ling Huang
TX59	Implementation of OECD-Validated Test methods for Skin Irritation/Corrosion Assessment and An Informational Website for Promoting the Alternatives to Animal Testing in Taiwan 鄭獻仁, 徐如欣, 翁甄憶, 蔡明憲, 林嬪嬪 Hsien-Jen Cheng, Ju-Hsin Hsu, Chen-Yi Weng, Min-Hsien Tsai, and Pinpin Lin.
TX60	Quick Clinical Monitoring of Oral Anti-Coagulant Drugs in Human Urine using Green Microextraction Technique Coupled with LC-MS/MS 潘姿羽 1, 蔡維中 2,3, 譚俊祥 4-6, 陳靜梅 7, Vinoth Kumar Ponnusamy 1, 8-10*, 吳佳芳 1,12*, 吳明蒼 1, 5, 6, 8, 11* Tzu-Yu Pan 1, Wei-Chung Tsai 2,3, Chun-Hsiang Tan 4-6, Ching-Mei Cheng 7, Vinoth Kumar Ponnusamy1,8-10*, Chia-Fang Wu 1, 12*, Ming-Tsang Wu 1,5,6,8,11*
TX61	Proximal tubule XBP1 deficiency aggravates lipid accumulation in ischemia/reperfusion-induced AKI-CKD transition 黃大恭, 姜至剛 Da-Gong Huang, Chih-Kang Chiang
TX62	TGF-β1-induced Mitochondria Dysfunction implicated in the Development of Sarcopenia 吳宜庭, 姜至剛 Yi-Ting Wu, Chih-Kang Chiang

GOOD HEALTH & WELL-BEING



TX 台灣毒物學學會

編號	論文題目
TX63	Functional role of miR-532-3P in myogenesis 莊皓淳, 姜至剛 Hao-Chun Chuang, Chih Kang Chiang
TX64	Potential Anti-cancer Therapy in Non-small Cell Lung Cancer with Traditional Chinese Medicine Corex mori and cisplatin Chin-Hung Lin, Chia-Yi Tseng, Jhih-Syuan Wang, Ming-Wei Chao
TX65	OSGIN1, a downstream target of UPRs effector Splicing XBP1 protects PA-induced lipotoxicity through maintaining autophagy and eNOS expression 許崇善, 肖采琴, 姜至剛 Chong-Sun Khoi, Cai-Qin Xiao, Chih-Kang Chiang
TX66	DPSC derived exosomes attenuates ischemia reperfusion induced AKI 陳佳煌, 姜至剛 Jia Huang, Chen
TX67	The role of DDX17-regulated Epithelial-mesenchymal transition in renal fibrosis 林穎成, 姜至剛 Ying-Cheng Lin, Chih-Kang Chiang



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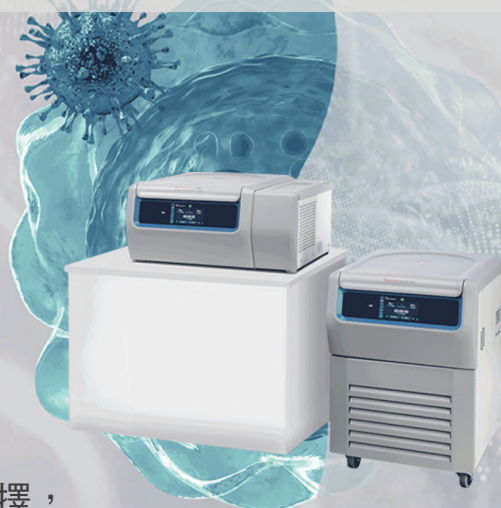
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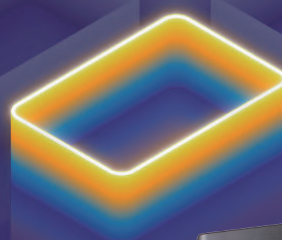


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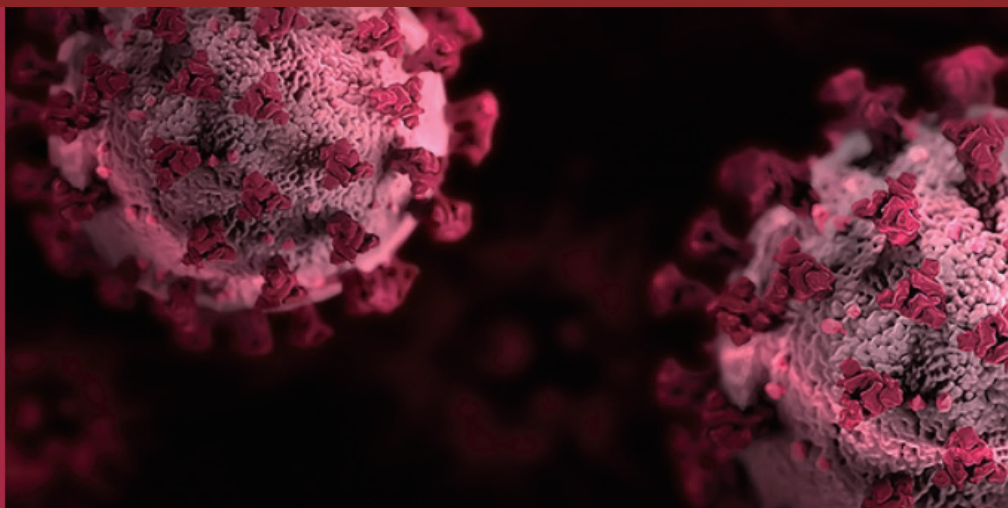
Robert.chen@genscript.com

0911-840306

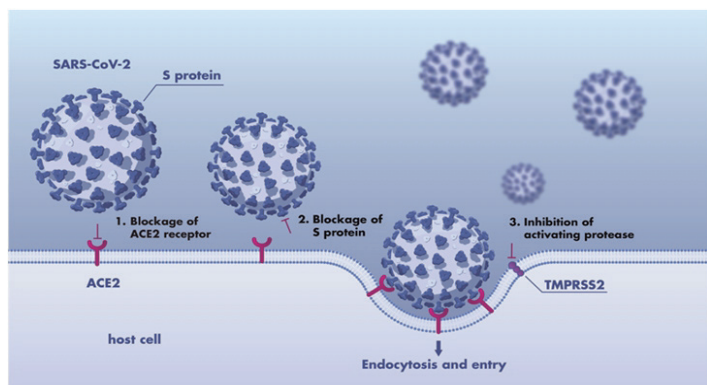


SARS-CoV-2 Drug Discovery Services

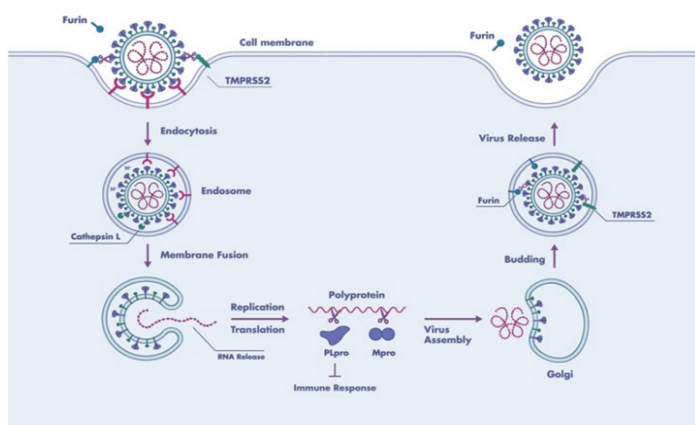
COVID-19-related Assays



SARS-CoV-2 Spike – ACE2 Binding Assay Service



SARS-CoV-2 Protease Assay Services



新藥 / 天然物研發好夥伴 專業代工多種藥物篩選 實驗測試

Target-specific Assays

Kinase Assays +
Epigenetic Assays +
PARP Assays
Phosphatase Assays
Protease Assays
KRAS-related Assays
Apoptosis Pathway Assays
Metabolic Pathway Assays +
Phosphodiesterase Assays (PDE)
Cytochrome P450 Assays
Ubiquitin-Proteasome Pathway Assays
Ion Channel Assays
GPCR Assays
Nuclear Receptor Assays
Additional Targets +
Protein Production and Assay Development

Cell-based Assays

Kinase-related Cell-based Assays +
Additional Target-specific Assays +
ProLiFiler - Cell Panel Screening
Cell Proliferation and Viability Assays
Invasion Assay
Migration Assay
Soft Agar Assay
3D Tumor Spheroid Assay
Cell Line Generation
Angiogenesis Assay
Assay Platforms

ADME & Safety

In Vivo PK/PD
Maximum-Tolerated Dose
Cardiac Safety Assessment

In Vivo Pharmacology

Xenograft Models
Immuno-Oncology Models +
In Vivo Hollow Fiber Model
In Vivo Kinase Activity Models

Biophysical Assays

Surface Plasmon Resonance (SPR)
Isothermal Titration Calorimetry (ITC)
Microscale Thermophoresis (MST)
Thermal Shift Assay (TSA)

COVID-19 related Assays

SARS-CoV-2 S Protein and ACE2 Binding Assay
SARS-CoV-2-related Protease Assays



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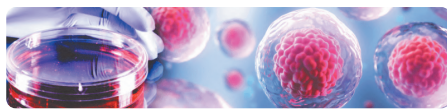
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求真務實, 科研工作的好夥伴



免疫實驗試劑

- 高品質抗體（一抗、二抗）
- 胜肽與重組蛋白
- ELISA, ELISPOT, Flow Kit
- 小分子化合物
- 細胞螢光染劑與分析試劑



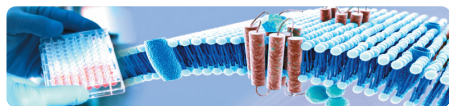
細胞實驗工具

- 初代細胞、細胞株
- 細胞轉染試劑
- 細胞培養基及胎牛血清
- 活細胞影像觀察玻片



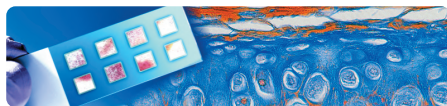
蛋白質體研究工具

- 蛋白質結晶試劑與耗材
- 各式層析膠體與預注管柱
- 蛋白質電泳試劑
- ECL 冷光試劑與轉漬膜



藥物研發試劑

- 藥物功能篩選平台
- 生化與細胞檢測試劑
- 放射性產品
- BioBank 生物樣本庫
- FDA 藥庫、天然物藥庫



客製化服務

- 委託試驗：IHC, ELISA, NGS, Microarray
- 抗體／蛋白／胜肽合成
- DNA／RNA／Oligo 合成
- 化合物合成與標定



儀器設備

- 第三代長讀取基因定序系統
- 多功能微量盤檢測儀
- 活細胞影像暨流體培養系統
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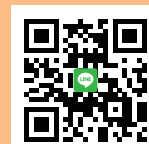
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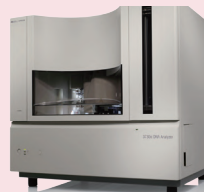
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高
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影像結構

Imaging and Structural Analysis

Biological **Crystallography**, Laser Scanning **Confocal**,
Tunable **Multiphoton**, **High-Throughput** Screening,
Super-Resolution, **Functional** Imaging, **Cryo-EM**



同步輻射蛋白質結晶學核心設施
(國輻簡玉成副研究員)

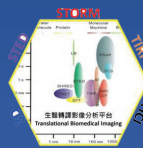
BioNSRRC



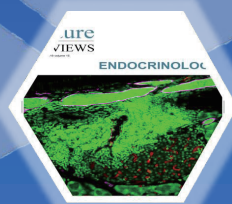
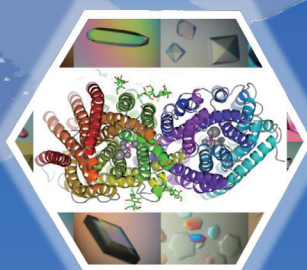
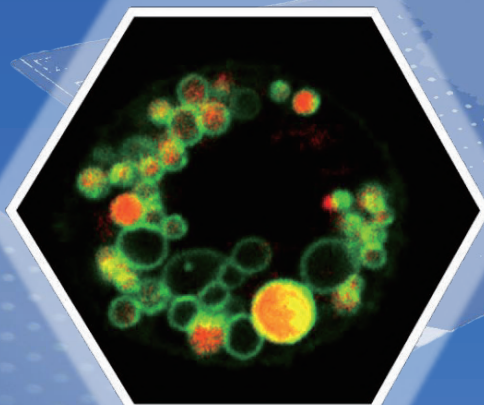
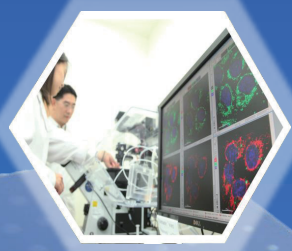
生醫光學影像核心平台
(成大邱文泰教授)



生醫轉譯影像分析平台
(沈家寧副主任)



國際巨分子與奈米醫學創新研發實驗室
(成大吳尚蓉副教授)





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動物模式 **Animal Models**

Transgenic Mice, CRISPR, Mouse Clinic, PDX, Disease Models, Phenotyping, Drug Testing, Zebrafish



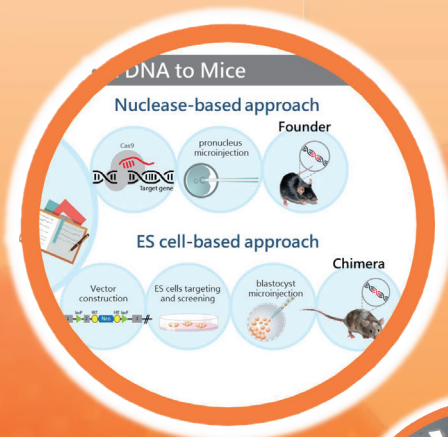
台灣小鼠診所與動物設施聯盟
--國家綜合小鼠表現型暨藥物測試中心
(中研院陳志成研究員)



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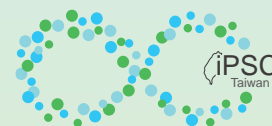
National Core Facility for Biopharmaceuticals

生物資源 Bioresources

Biobank, **Hepatocellular carcinoma**, **Lung Cancer**, **iPSC** bank, **Flies**, **C. elegans**, **Yeasts**, Strains, Vectors, Antibodies, Libraries, **Natural** Product libraries, **High-throughput** screening



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和台灣肺癌組織樣品資源資源中心
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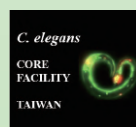
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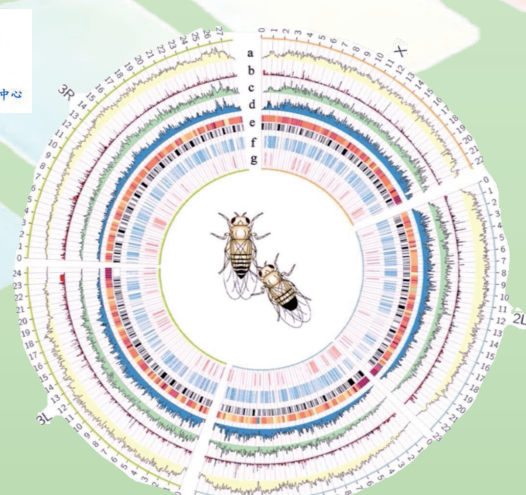
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P3實驗室 BSL-3 laboratories

P3 Laboratory, Plaque Assay, Yield Reduction Assay, Cytokine Profiling, Pathogen Detection and Monitoring, High-Protection Laboratory Personnel Training



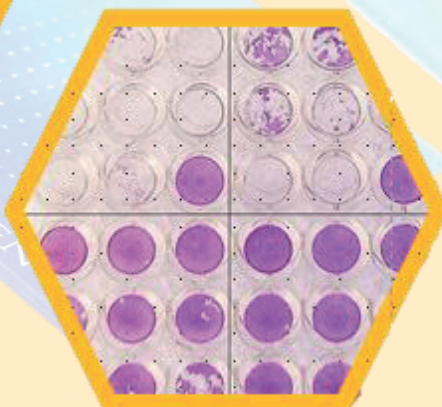
BSL-3實驗室核心設施
(成大 柯文謙 教授)



P3實驗室: 新興傳染病研究核心設施平台
(國防 高治華 研究員)



BSL-3研究及檢驗實驗室
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生物資訊 Bioinformatics

Customized Bioinformatics, Big Data, **AI**,
MiRTarBase, Cloud **Storage & Computing**, Image
Service Architecture

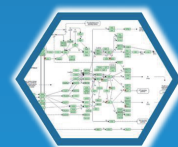
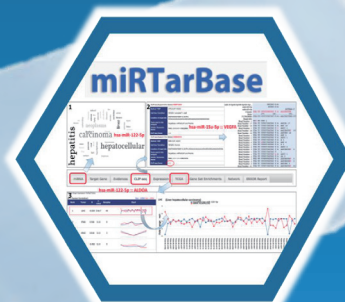


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生技醫藥生物資訊核心設施
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基因平台 **Gene Platforms**

NGS, **Microarray**, **Ultra-Low Input**, **SNP**, **STRP**,
Single Cell, **cfDNA**, **Bioinformatics**, **GWASs**, **RNAi**,
miRNA, **AAV**, **CRISPR**, **Gene Manipulation**



RNA技術平台與基因操控核心設施
(中研院林淑端特聘研究員)



基因體學臨床及產業應用發展中心
(陽明交通大學楊慕華教授)

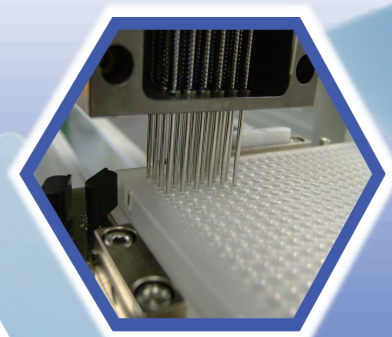
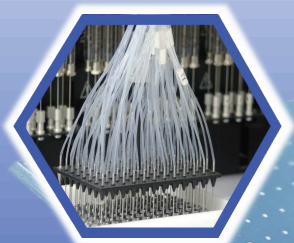


國家基因體醫學研究中心
(中研院鄔哲源研究員)



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基因平台

Gene Platforms



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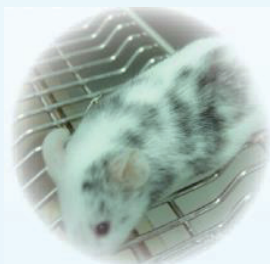
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(中研院鄔哲源研究員)



藥物基因體實驗室
(台大俞松良教授)

動物模式

Animal Models



基因轉殖鼠核心設施
(台大林淑華教授/游益興助理研究員)



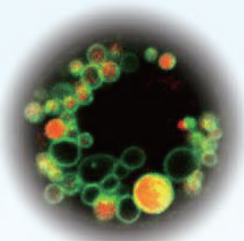
台灣斑馬魚技術與資源中心
(國衛院江連金副研究員)



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(中研院陳志成研究員)

影像結構

Imaging and Structural Analysis



同步輻射蛋白質結晶學核心設施
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生物資訊

Bioinformatics

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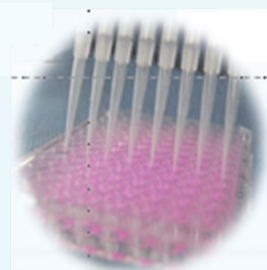
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生技醫藥生物資訊核心設施
(國衛院熊昭特聘研究員)

生物資源

Bioresources



人類疾病誘導型多潛能幹細胞服務聯盟
(中研院謝清河研究員)



**台灣地區肝細胞癌研究網及資料庫之建立
和台灣肺癌組織樣品資源資源中心**
(長庚廖運範院士)



天然物藥庫暨高通量篩選核心平台
(高醫顏嘉宏副教授)



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台灣線蟲核心設施
(台大吳益群特聘教授)



台灣酵母菌生物資源中心
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BSL-3實驗室

BSL-3 Laboratories



P3實驗室: 新興傳染病研究核心設施平台
(國防高治華研究員)

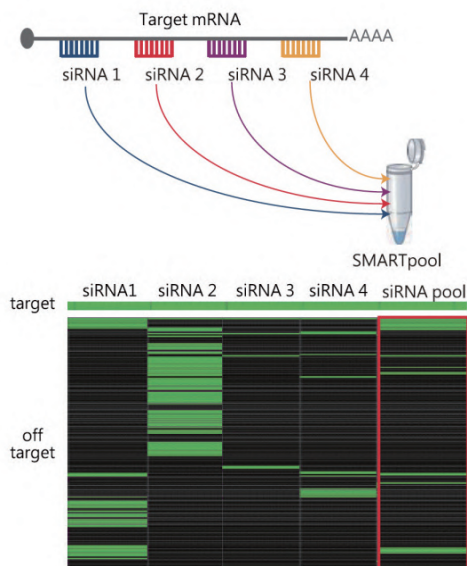


BSL-3研究及檢驗實驗室
(台大張淑媛教授)

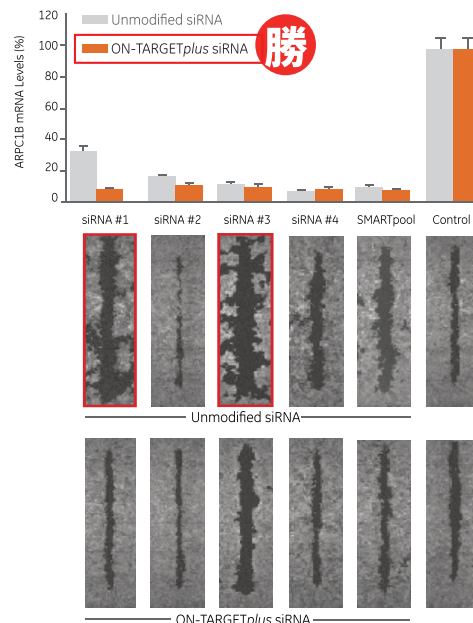


BSL-3實驗室核心設施
(成大柯文謙教授)

- siRNA雙股經 **OTP化學修飾**，有效降低 Off-targets >90% (美國專利認證: US7595387)
- 經獨家SMARTselection™ algorithm挑選 **Top 4 score siRNA sequence**
- 品質保證 **>75% Knock down** at mRNA level
- 論文引用超過 42,800 篇，validated data 業界最多；Human / Mouse / Rat 所有基因皆涵蓋

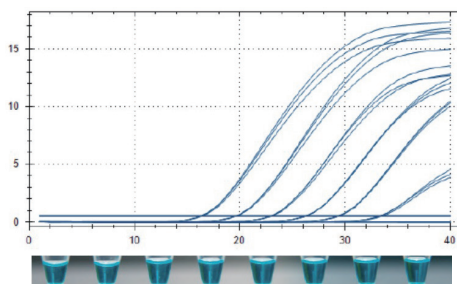


SMARTpool：不用挑siRNA序列，Off-targets低



OTP雙股化學修飾：與未修飾的 siRNA 相比，
Off-targets 降低90%以上，降低 False Positive 產生

優越的偵測靈敏度
試劑加入清晰可見



ORA™ SEE 藍色染劑

ORA™ 即時定量PCR反應試劑

料號	產品名稱	包裝
QPD0101	ORA™ qPCR Green ROX L Mix, 2X	200 r of 20 µl
QPD0105		1000 r of 20 µl
QPD0501	ORA™ SEE qPCR Green ROX L Mix, 2X	200 r of 20 µl
QPD0505		1000 r of 20 µl
QPD0201	ORA™ qPCR Green ROX H Mix, 2X	200 r of 20 µl
QPD0205		1000 r of 20 µl
QPD0401	ORA™ SEE qPCR Green ROX L Mix, 2X	200 r of 20 µl
QPD0405		1000 r of 20 µl

- 預混 ROX 的 SYBR Green 染劑型 qPCR 試劑
- 適用於 gDNA, cDNA, viral DNA, low copy number 相關實驗
- 擴增反應迅速 Annealing/Extension 只需20-30秒!!
- 另附 PCR 等級用水，實驗結果更乾淨!!
- ORA™ SEE 系列內含惰性藍色染劑，清晰辨別!!



安捷倫科技 (Agilent Technologies) 起源於電腦、電子量測界鉅子 - 惠普科技 (Hewlett-Packard, HP)，1999 年 11 月惠普宣布將“惠普醫療器械部門”(Medical Products and Instrument Group of HP) 拆分獨立出來成為安捷倫科技，聚焦於量測、化學分析、醫療保健和半導體等產品。

安捷倫經歷拆分重組，更聚焦於生物科技分析領域，並被標準普爾公司 (S&P) 分類納入為醫療保健公司。旗下診斷及基因部門 (Diagnostics and Genomics Group, DGG)，產品線涵蓋癌症、生殖醫學、基因編輯、抗體與核酸等診斷治療解決方案，皆是推動精準醫療進展的有力工具。從儀器、試劑、耗材各分領域單點來看，儘管有不同廠商，但是安捷倫與眾不同，提供的是整體解決方案、是一個生態圈或平台。

安捷倫公司的信念『Trusted Answers』，不論是在整體解決方案、儀器或試劑都貫穿其中，依循值得被信賴、精準的脈絡開發。安捷倫持續提供各種先進設備、原料、平台，協助進行各式精準醫療創新及研發，無論是醫學中心或第三方檢驗公司，助推臺灣精準醫療風潮，促進臺灣精準醫療發展。

Agilent has **market leadership position in key analytical and diagnostic technologies**



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Gas and Liquid Chromatography
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Atomic and Molecular Spectroscopy
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Laboratory Management Software
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Lab Enterprise Services



DIAGNOSTICS & GENOMICS

Genomics Solutions
Cancer Diagnostics
Therapeutic Oligonucleotides

威健簡介

威健股份有限公司創立於 2003 年 12 月，為台灣南港生醫園區頂尖生技聚落的一員，創辦人為陳富鈐先生，主要經理人為陳富鈐先生與林怡杏博士。威健股份有限公司的願景是以「基礎研究結果轉化臨床應用」(From Basic Research to Clinical Use) 為營運核心，以穩定的基因體相關研究技術為平台，致力於將科學研究的結果應用於臨床檢驗。

除了致力研究開發各項高通量之業務發展以外，威健也持續不斷與各頂尖科學研究單位進行產學合作研究，期望朝向多元化業務發展並建立更多核心技術與產品，鞏固公司長久經營，創造股東、員工、客戶如同五行之相生相扶、良性循環的共好環境，讓客戶滿意、同仁得意、股東稱意。





拓展 NGS 合作，支援應用創新

Sam Raha

Senior Vice President, Agilent
President, Diagnostics and Genomics Group

Sam Raha 為安捷倫診斷和基因組學部門 (Diagnostics and Genomics Group, DGG) 總裁，負責部門整體戰略與商業績效。此前 Sam 曾經擔任過 illumina 的全球市場行銷副總，更早之前他曾經擔任 Life Technologies 基因體業務部門的副總裁兼總經理，負責 TaqMan™ 系列與新一代 qPCR 儀器和解決方案。Sam 於 UC Berkeley 獲得分子與細胞生物學學位，並在 Santa Clara University 取得 MBA。

安捷倫診斷與基因組學事業部 (Diagnostics and Genomics Group, DGG) 是生命科學與疾病診斷的市場領導者之一，致力於不斷創新基因體學、病理診斷、抗體技術、基因編輯和合成生物學等各種尖端科技，推動人類疾病和動植物學等生命科學領域的突破與發現，積極拓展在腫瘤、生殖健康與遺傳、血液學疾病、傳染性疾病等的臨牀診斷應用。

拓展合作、支持創新

對於生物製藥研發和生產為主的企業來說，同時拓展開發和商業化伴隨診斷仍具有巨大的挑戰性。安捷倫的 CDx 國際業務團隊，在過往發展的 20 年

中，建立了強大的技術和合作開發能力，並具備獲得臨牀審批以及市場化的豐富經驗。

燃石醫學與安捷倫早在 2016 年，確定基於安捷倫 SureSelect 產品開發的長期策略合作；2019 年，雙方進一步拓展合作開發，推出 NGS 全自動文庫製備系統 Magnis BR。雙方的合作成果加強了燃石醫學在腫瘤定序的創新和領導地位。2021 年，安捷倫 DGG 將開展更廣泛的合作，進一步開發符合市場需求的定製產品，滿足用戶在癌症、遺傳病和傳染病領域的產品需求。安捷倫也在 2021 年上半年投入新工廠生產 NGS 使用的 SureSelect 產品，以此來進一步提高公司的生產能力。

促進新興應用領域的建立

全球新興的應用領域，包括核酸和蛋白質片段分析、疫苗開發、基因編輯、生物庫樣本質量控制和農業生物科學。Sam Raha 提到，為了幫助建立和驗證這些應用，安捷倫將與科研機構和業界專家一起開展一項創新技術應用示範的新計劃，旨在從轉化醫學、藥物和疫苗開發以及作物育種和性狀改良方面促進本土創新。「希望通過與業界專家合作開發新的應用，並期待著將創新成果分享到世界其他地區。」



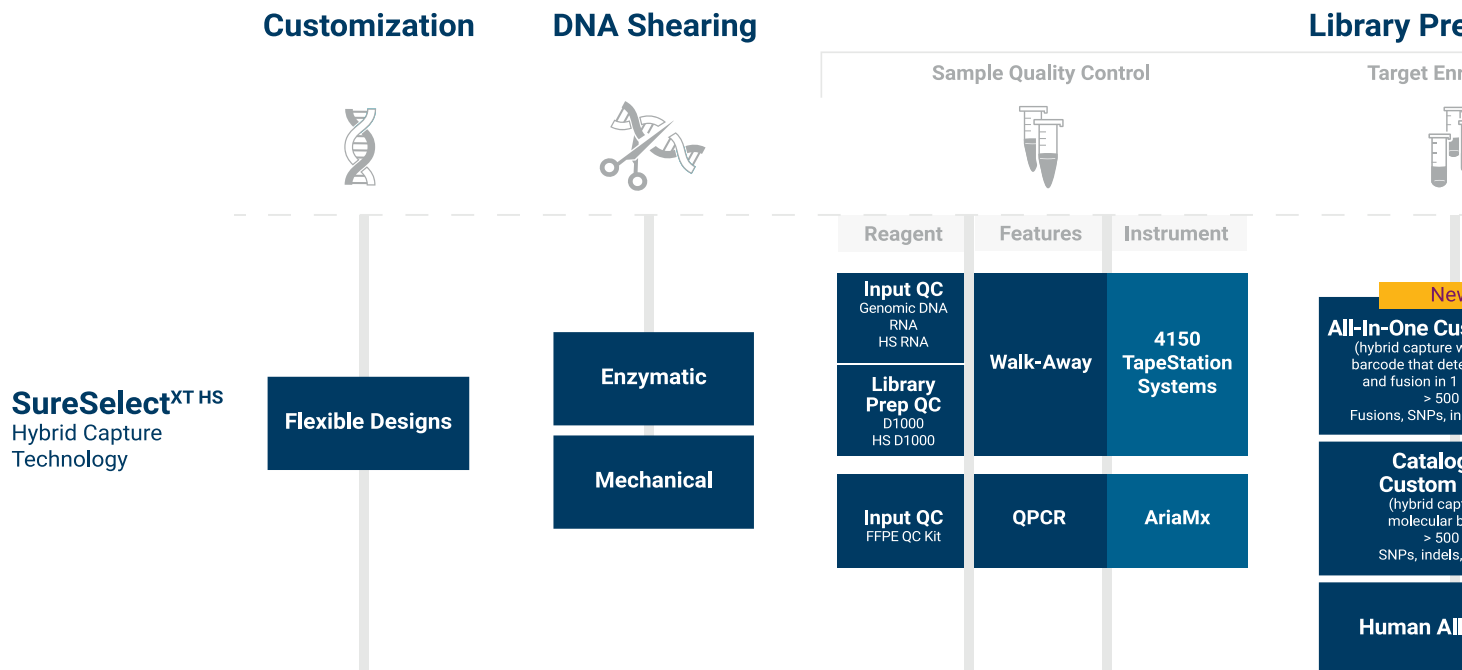
和提高服務效率。我們相信，隨著 2021 - 2025 年實施的 DGG 數位化舉措，用戶在整個決策過程中將獲得更有效和友好的互動。」

Sam Raha 宣告：「安捷倫 DGG 將繼續深化服務承諾，為客戶帶來更豐富的解決方案和更具價值的用戶體驗。」

加速數位化策略的實現

安捷倫是在總部集團層面、全球範圍內，建立和推進數位化策略的企業之一。Sam Raha 強調：「數位化也不再僅僅是安捷倫的一個熱門詞彙。DGG 將進一步投資數位化系統建設，以改善用戶體驗

2022 End-to-end NGS Solution



SureSelect DNA/RNA Assay

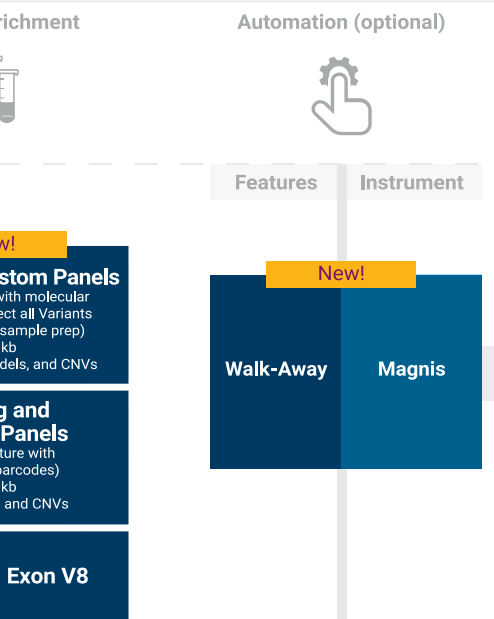
Most Proven, Trusted Choice in
Target Enrichment



Tapestation

Complete Success Begins with
Sample QC

Preparation



Sequencing

Alissa Clinical Bioinformatics

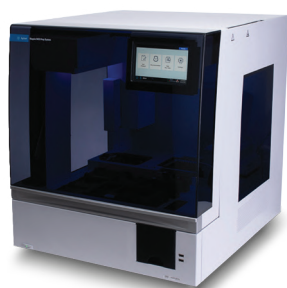
Data Analysis

Data Interpretation & Reporting

Alissa Align & Call

Alissa Interpret

Alissa Reporter

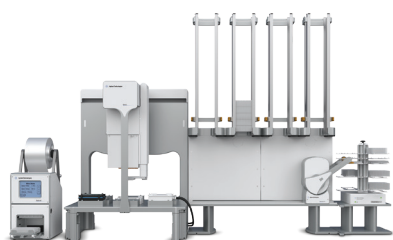


Magnis (CE-IVD, RUO)

Rapid 、 Fully Automatic Lib Prep
for Precision Medicine

Alissa

Alissa Interpret is a USA Class I
Exempt Medical Device, Europe
CE IVD, Canada and Australia
Class I IVD Device



Bravo

NGS Lib Prep for Population
Genomics

新一代外顯子定序標竿

Exome as a Solution

SureSelect V8

遺傳癌症、轉譯醫學



Routine exome
(Exome v8)



Translational research
(v8 UTR Plus)



Clinical research sequencing
(v8 Clinical Plus)

Meets All of Targeted Sequencing Needs

安捷倫 SureSelect 全外顯子 (WES)、癌症偵測、客製設計等方案，使您高靈敏檢測 SNV、SV 和 CNV 變化，及 insertion / deletion / fusion 現象，SureSelect 是您遺傳、癌症、研究的最佳平台。

Routine Exome Sequencing

SureSelect Human All Exon V8

35 Mb | 42 Mb

- Protein coding regions from Refseq, CCDS, and GENCODE
- TERT promoter region

**Exome
V8**

Core Exome

NCV

Non-coding
Clinical
Variants

Clinical Exome Sequencing

SureSelect Human All Exon V8+NCV

38 Mb | 49 Mb*

- Pathogenic (P) & likely pathogenic (LP) variants in ClinVar
- Disease-causing mutations (DM) in HGMD
- Pathogenic variants in ACMG 73/74 genes

UTR

Untranslated
Regions

Translational Research

SureSelect Human All Exon V8+UTR

78 Mb | 85 Mb*

- ~62,500 UTR targets from GENCODE v33

Tumor MAP

DNA Assay: 519 Genes
RNA Assay: 80 Genes
(2022 Q2-3)

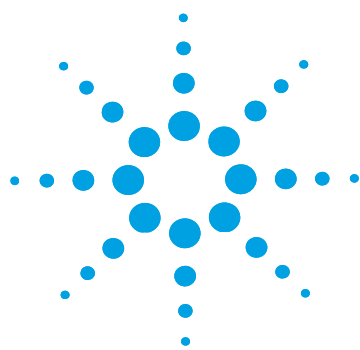
Pan-cancer DNA and RNA Profiling

SureSelect Tumor Map Assay (RUO)

DNA 2.15 Mb | RNA 740 Kb

- DNA panel detects somatic SNPs, CNVs, InDels, translocations, and assessment of TMB and MSI
- RNA panel detects RNA fusions and EGFR/MET exon skipping

*final design size in SureDesign



Agilent Technologies Clinical Research Exome V2

第二代臨床外顯子套組

全面的基因與疾病 Exome 內容

Clinical Research Exome V2 (CREV2) 採用 SureSelect Human All Exon V6 作為其核心設計，並提高在疾病相關區域的覆蓋率，進而能更全面性覆蓋於目標資料庫。總資料庫覆蓋率超出10%，使疾病解析更為多元全面。

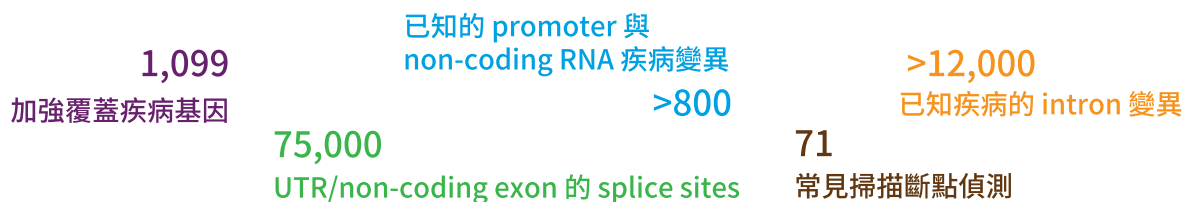
	CRE V2	Competitor
Database*	Percent of database covered	
CCDS	99.77%	97.99%
GENCODE-v17	99.69%	97.44%
UCSC Known Genes	99.60%	94.79%
RefSeq	99.63%	97.52%
Vega	99.66%	96.97%
HGMD coding regions	99.86%	98.31%
OMIM coding regions	99.76%	97.95%
ClinVar	97.63%	93.71%
COSMIC	99.76%	99.02%

*Data pulled May 2016

表1.CRE V2 在各資料庫中的覆蓋比例。

檢測傳統 Exome 沒有的疾病位點

65.7 Mb CRE V2 的設計能更深入地探討以前不能透過 WES (whole exome sequence) 到達的基因組區域，除可分析全 exon 外，更加强很多疾病目標的分析，一次定序獲得最豐富的訊息。



SureSelect Clinical Research Exome V2 (CRE V2) 是與 **Emory University** 和 **Children's Hospital of Philadelphia** 合作開發，特別加強疾病區段設計，是臨床研究外顯子的最新版本。以 Human All Exon V6 為基礎並額外加入疾病相關內容，更廣泛地涵蓋疾病相關的目標，剖析疾病更完整，使其成為現今市場上最全面的臨床外顯子解決方案。



優化的 ClinVar 設計

困難外顯子片段依舊達到良好的覆蓋率，與傳統產品相比，更能檢測到致病性 ClinVar 變異，獲得更完整的資訊！

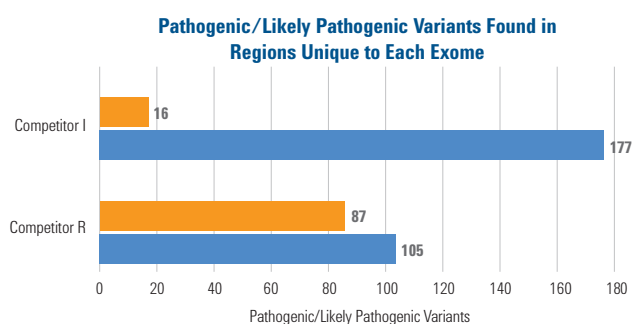


Table A

Competitor ■ CRE V2

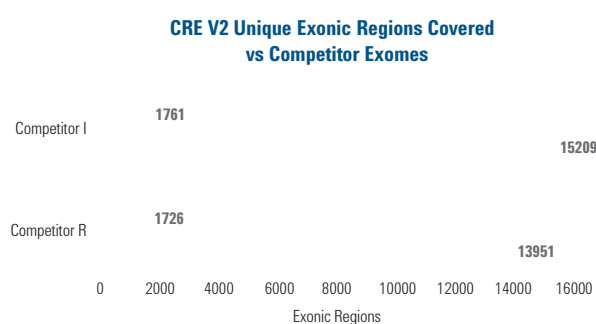


Table B

■ Competitor ■ CRE V2

圖3. CRE V2 與競爭對手外顯子之比較。表A 顯示在 CRE V2 中的獨特區域相比其他競爭者發現更多 Pathogenic/Likely Pathogenic 變異。表B顯示 CRE V2 設計涵蓋比競爭者更多獨特的外顯子區域。

高度覆蓋疾病相關目標

CRE V2 強大的性能是增強在疾病相關基因的覆蓋率，在 ACMG、HGMD、OMIM、ClinVar 等 database 中，有超過 90% 覆蓋率達到 20X 覆蓋深度，讓變異識別更加可信。

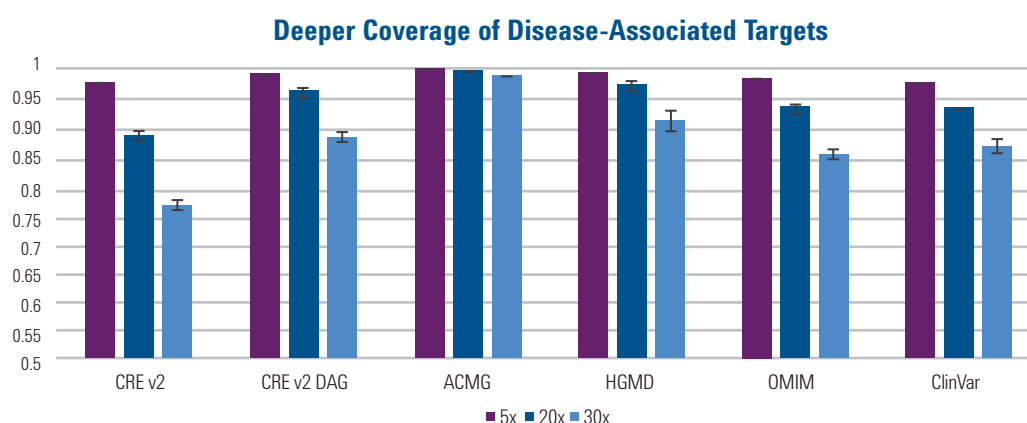
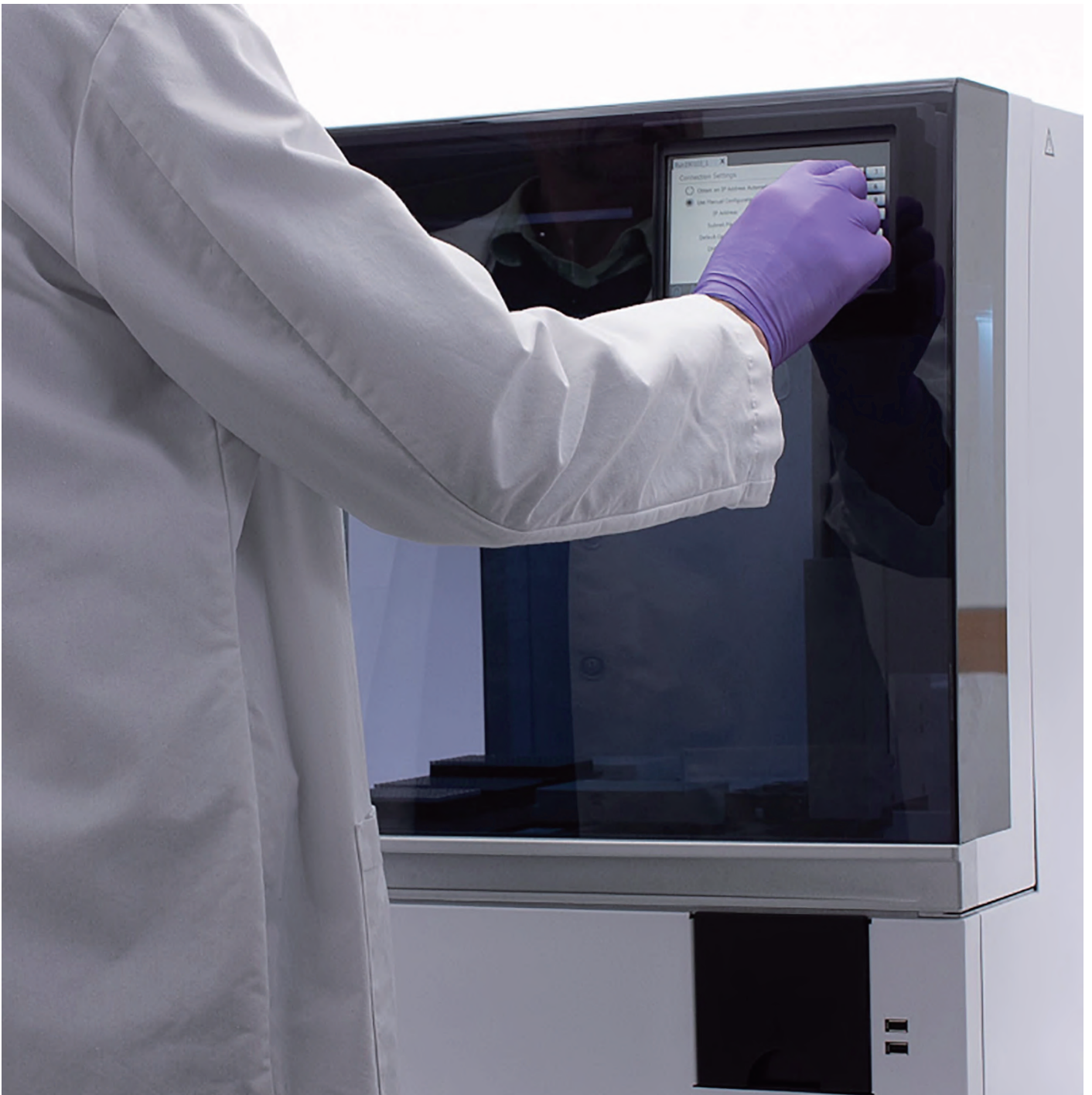


圖4.分析 CRE V2 在不同資料庫的覆蓋情形，所有覆蓋率以 6.5Gb 定序量 (2x100bp) 計算。
(備註: CRE V2 DAG 由 Emory University 和 CHOP 定義的 disease-associated genes)

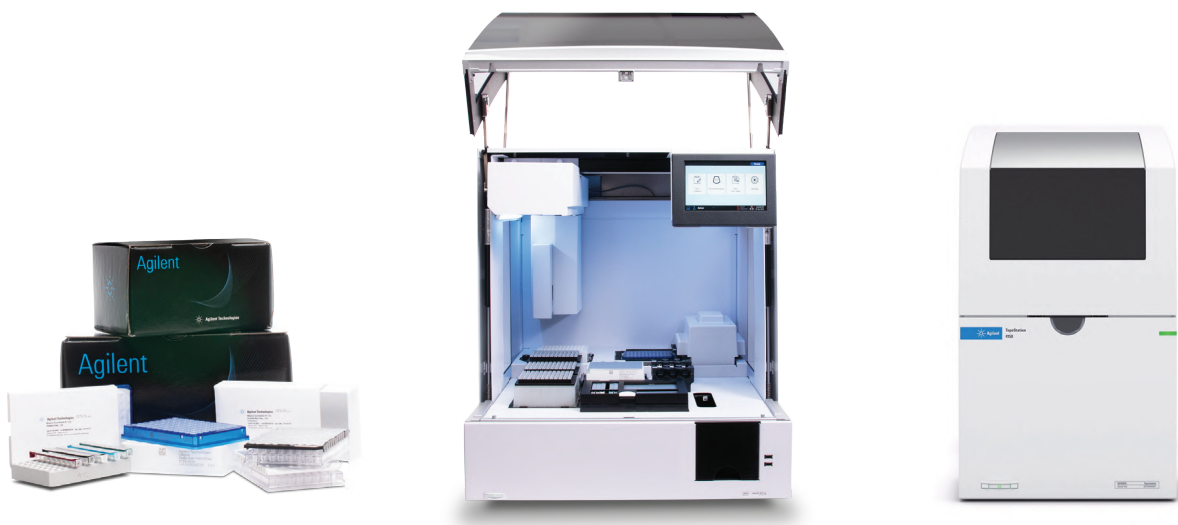
Magnis 次世代定序文庫製備系統

CE-IVD / RUO 全自動 exome 系統



Exome 文庫製備進入自動化共儀時代

- 內建 PCR 功能，輕鬆按鍵，5 分鐘結束 NGS Lib Prep 人力時間
- 適用 FFPE、Liquid Biopsy、Blood、Tissue 樣品來源
- DNA、RNA、cell free DNA
- 遺傳 Panel、癌症 Panel、全外顯子 WES、客製 Panel 皆能適用



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TapeStation Systems

精準醫學品質控管系統

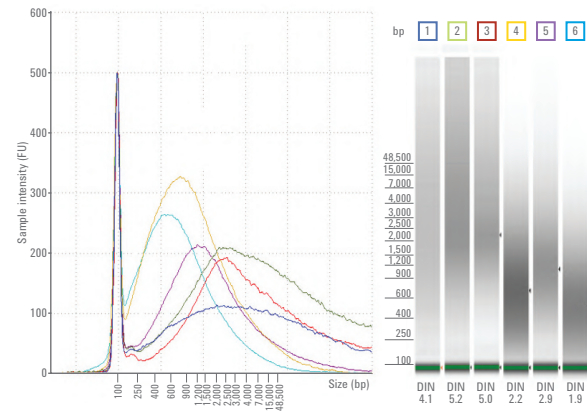


日本病理學會推薦

- **DIN > 2.3** – FFPE DNA 定序建議最低品質
- **DV₂₀₀ > 30%** – FFPE RNA 定序建議最低品質
- **%cfDNA** – ctDNA 含量測定
- **RINe** – RNA 完整度分析

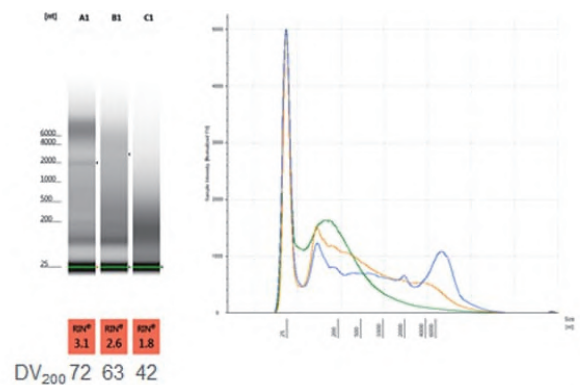
Analysis of FFPE DNA

DIN quality value for FFPE samples



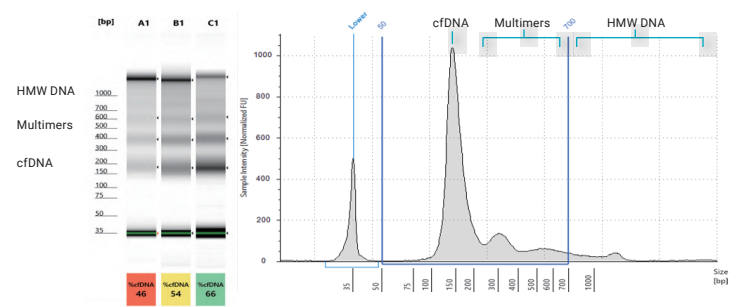
Analysis of FFPE RNA

DV₂₀₀ evaluation with RNA ScreenTape assays

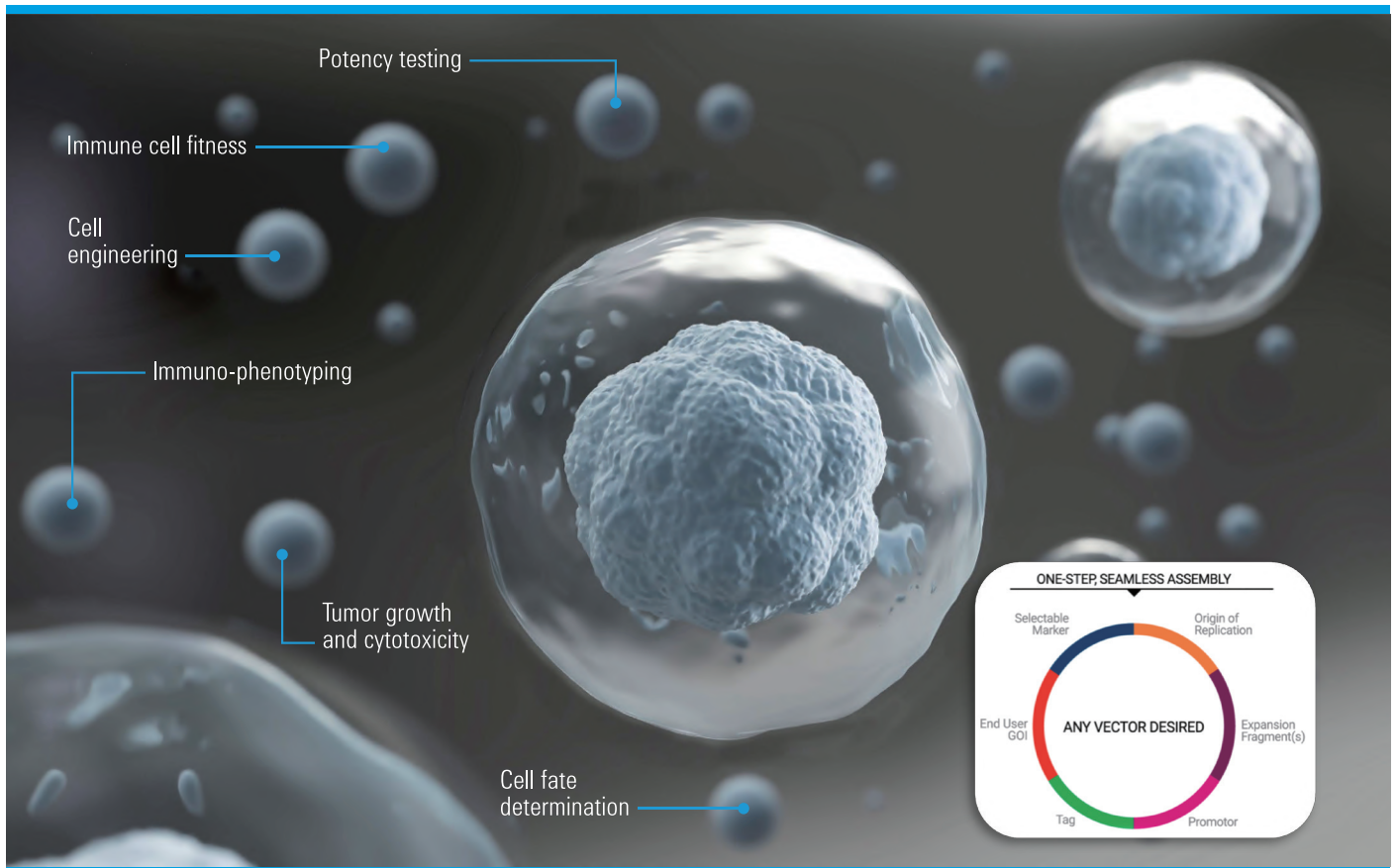


Analysis of Cell-free DNA

%cfDNA quality metric for the TapeStation systems

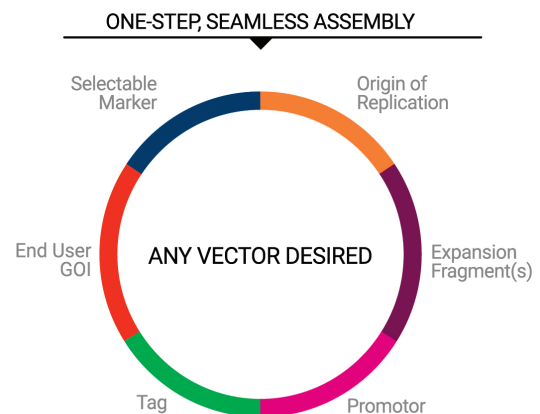
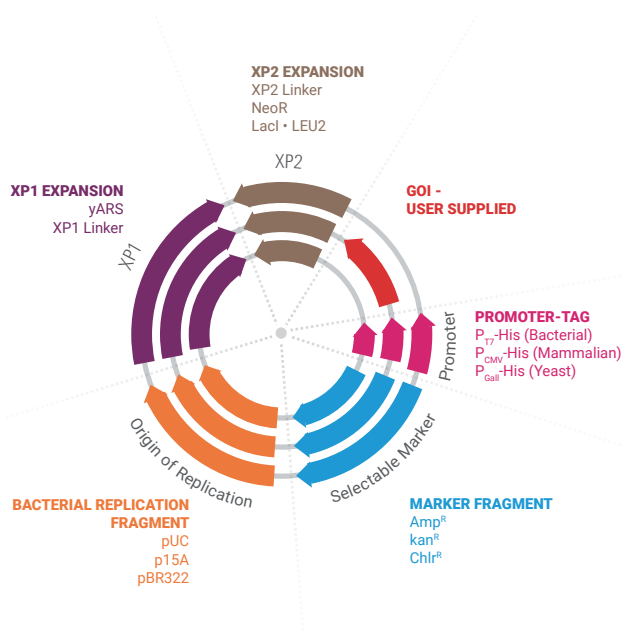


合成生物學、新世代應用



SureVector Next-Gen Cloning Kits

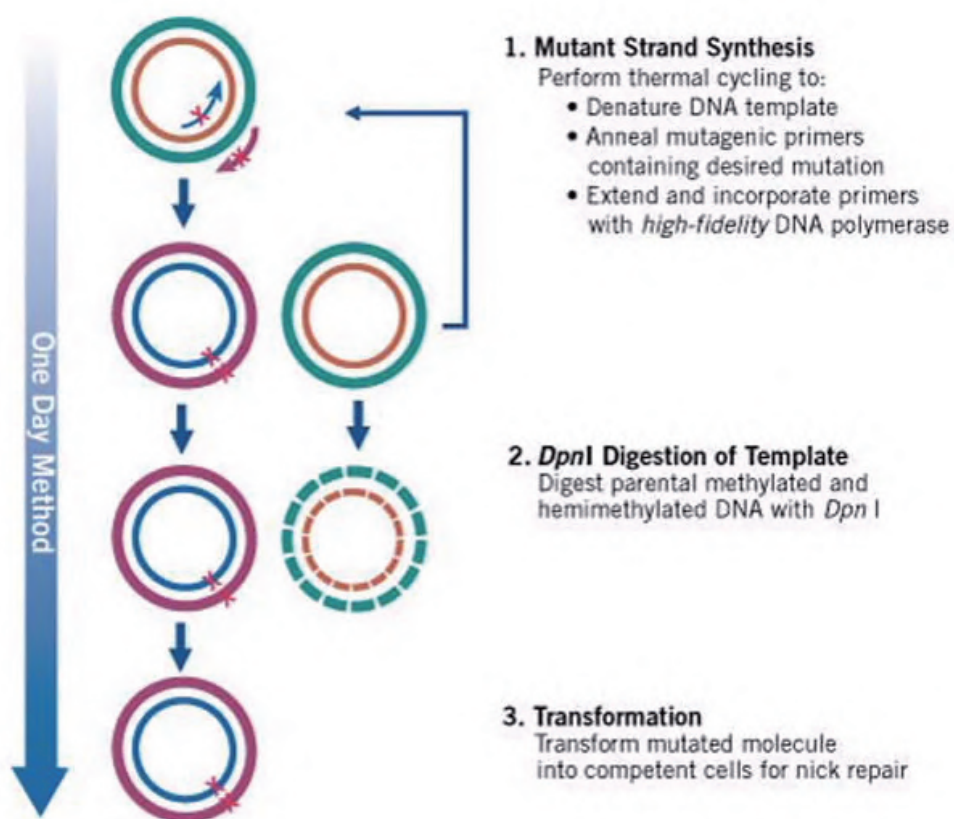
組裝出您需要的 Vector



Mutagenesis Products

QuikChange Mutagenesis

快速、簡單、經典可靠



加強突變準確度與轉殖效率
適用範圍廣 (4-14 kb 、 GC-rich)



Empower the Synthetic Biology Revolution

基因編輯技術進步助長蛋白質結構功能研究，更延伸至生物藥的設計研發，並可以各種形式（抗體、疫苗、細胞治療）應用在未來的治療策略中。

市場領先品牌 — Agilent QuikChange Mutagenesis Kit 受許多文獻支持，獨有的基因工程技術，提供您最簡單、快速、高效的突變實驗套組。



安捷倫 DGG : 精準醫療及核酸檢測 多面向解決方案

SOURCE MATERIAL:
Glycans

SOURCE MATERIAL:
Secreted Protein

SOURCE MATERIAL:
RNA

DETECTION TECH:
NGS, qPCR, Array

SOURCE MATERIAL:
Circulating Tumor Cells

DETECTION TECH:
NGS, Array

SOURCE MATERIAL:
Circulating Tumor DNA

DETECTION TECH:
NGS, qPCR

安捷倫 Genomics 台灣代理

客服信箱 service@welgene.com.tw

連絡電話 0809-072-666

威健官網 www.welgene.com.tw

SOURCE MATERIAL:
Exosomes

DETECTION TECH:
NGS, qPCR

SOURCE MATERIAL:
Genomic DNA

DETECTION TECH:
NGS

WELGENE 威健股份有限公司
WELGENE BIOTECH CO., LTD.

SOURCE MATERIAL:
Cellular Protein

DETECTION TECHNOLOGY:
IHC, LC-MS

SOURCE MATERIAL:
DNA

DETECTION TECHNOLOGY:
HPLC, IHC

DETECTION TECHNOLOGY:
LC-MS

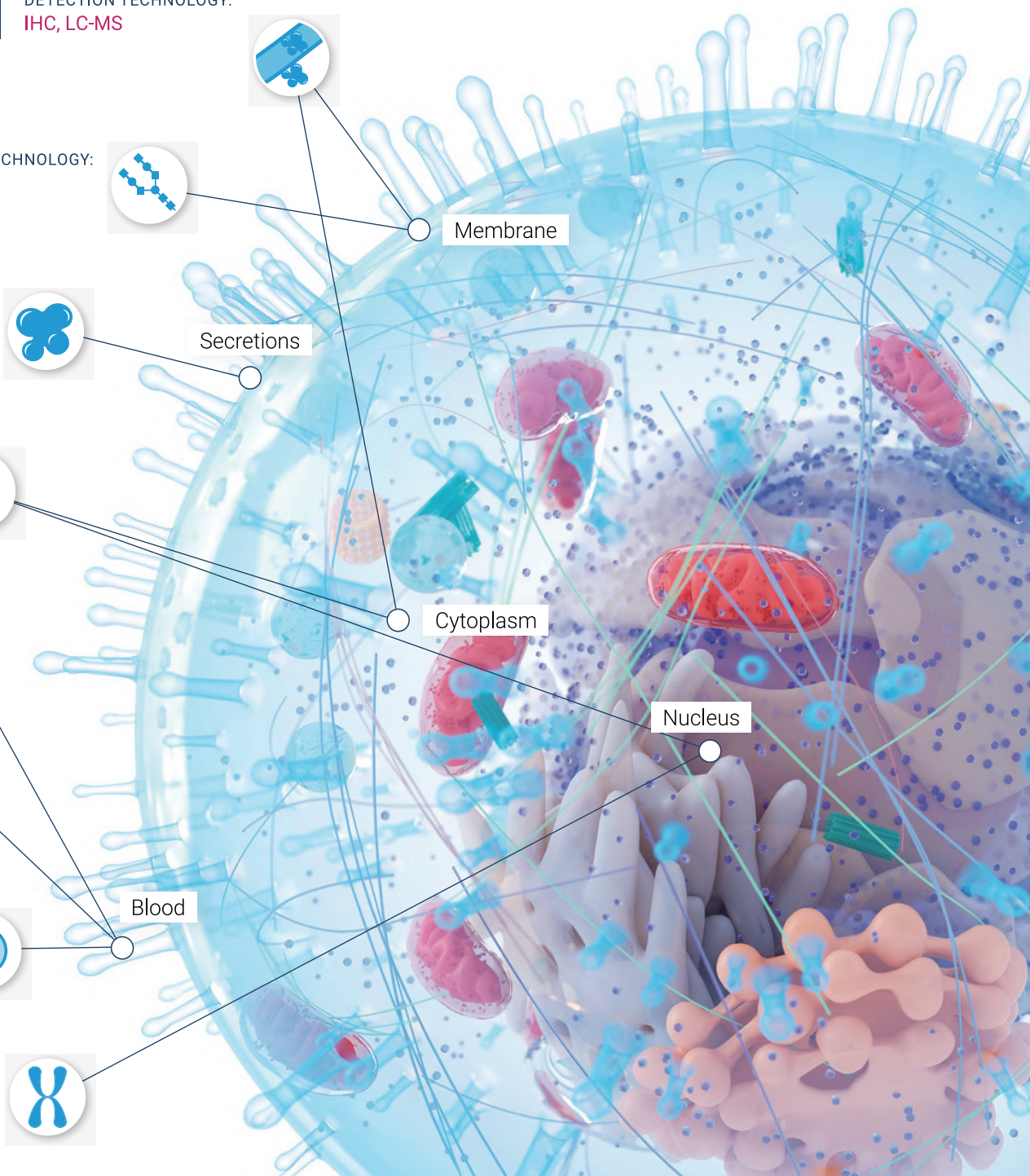
DETECTION TECHNOLOGY:
Array, RNA-ISH

DETECTION TECHNOLOGY:

DETECTION TECHNOLOGY:

DETECTION TECHNOLOGY:
PCR, LC-MS

DETECTION TECHNOLOGY:
PCR, qPCR, Array, FISH





公司成立以來致力於提供台灣生技產業更多元的專業服務。隨著台灣生技醫藥產業的轉型與成長，我們不僅供應實驗室基礎設備、耗材和生產設備等，隨著技術專業與知識經驗的累積，更擴大到確效服務、整廠設計規劃等全方位的整合方案，服務客戶包括學研機構、政府單位、生技製藥廠商以及醫療院所等。

我們宗旨是具備顧客至上的服務態度以及滿足客戶的需求，目標引進世界領先的技術與產品，期望跟客戶一起進步成長，共同讓台灣的生技製藥產業磐石於此，耀眼全球。



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滿足對實驗動物科學 學習的渴望



NAR Labs 國家實驗研究院
國家實驗動物中心
National Laboratory Animal Center

強化實驗動物從業人員基礎知識、標準化
專職人員操作技術、建置實驗動物獸醫師
交流管道並提升臨床經驗、提供符合規範的
訓練場域、落實 3R 精神。

2022年度 培訓課程



暑期實習 07/01 - 08/31

體驗並參與國家實驗室的研究工作，
提供實驗動物科學實務的學習機會。



課程報名



課程許願



腸道微生物研究與隔離操作技術交流論壇 04/08

透過專家學者分享隔離操作箱技術應用在不同生醫領域的發現與成果，
進而交流隔離操作技術於探討腸道微生物角色的多元應用。



實驗動物獸醫師交流工作坊 04/29、06/10、09/30、12/02

透過各種主題帶大家從不同視野，了解實驗動物獸醫師在職涯上的
各種工作樣貌與現況，並藉由在職經驗分享，傳承實驗動物獸醫經驗。



實驗小鼠操作技術課程 / 實作

線上講座 - 07/15

實作課程 - 07/22、07/29、08/05、08/19

為落實操作技術的精緻化，藉由講授課程及實作練習確保技術操作的正確性，
進而獲得穩定的實驗結果，兼顧動物福祉及科學目的。



實驗小鼠操作技術考試 09/03、09/17、09/24、10/01

為確實在技術操作過程中將福祉概念融入，提供相關從業人員技術能力證明，
透過實驗小鼠七項常用的操作技術考試，檢視並優化個人技術現況。



實驗動物病理獸醫師在職人才培訓

- 啮齒類實驗動物模式病理分析
- 動物毒物病理學

透過兩門培訓課程，為實驗動物病理獸醫師實務經驗加值，
透過實際案例剖析與交流，提升專業素養及技能，進而幫助動物試驗及
照護的優化。



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見藐小微物，必細察其紋理~

【兒時記趣】 沈復

SMCxPRO™ Platform Benefits

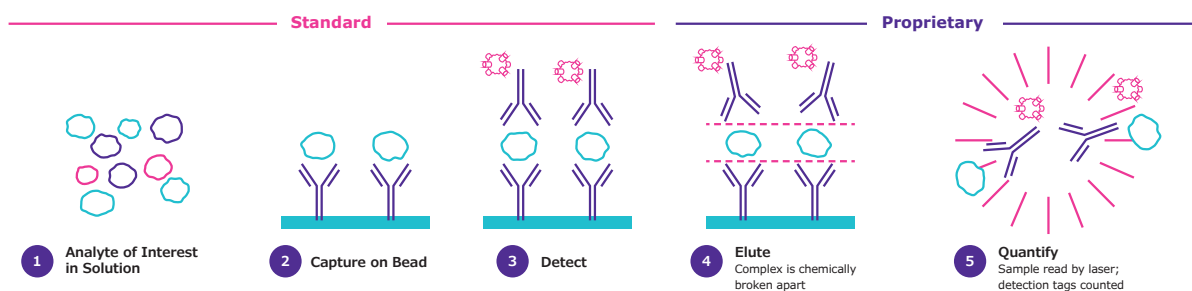


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次世代3D病理影像技術革新 突破癌症檢測瓶頸

諾倫科技由一群生物、光學與軟體等新銳科學家與工程師
所組成的專業生物影像技術公司，擁有領先全球的3D全組織病理掃描影像技術
其頂尖的 **3D Pathology Platform** 技術平台提供一站式的全組織病理影像服務
可改善傳統病理切片技術因單一切面所產生的資訊斷層以及視覺死角
為病理檢測提供更全面精準的資訊報告

► 服務特色



客製化全組織3D影像



組織完整不切片



30天*精準分析服務

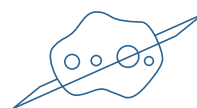
► 解決關鍵痛點



1. 特徵訊息不連續
即使是極相鄰的切片，也會因為物理耗損、人為操作誤差等眾多因素產生訊息不連續



2. 切片物理耗損
切片與貼片過程都會因破片、皺摺等因素造成耗損



3. 切片角度偏差
包埋時僅能以巨觀調整角度，微觀角度無法控制，需要染色上機後才知道目標沒切完整

► 技術優勢

專利免疫染色技術

擁有一系列驗證抗體名單
適用於各種軟組織
可同時標記多重蛋白

綜觀全貌 一覽無遺

透過完善的組織製備澄清固定程序
與螢光抗體標記*目標蛋白，成色後
進而 3D 成像清楚觀測錯綜複雜的
血管、神經與細胞等結構

技術應用廣泛

腫瘤、腦、心臟、肺、肝、脾、胰、腸、
卵巢、脊髓、背根神經節、睪丸、
耳蝸等皆可提供 3D 病理影像服務

*以實際狀態為主



Hepatoprotective effect of *Antrodia cinnamomea* Mycelium in Patients with Non-Alcoholic Steatohepatitis: A Randomized, Double-Blind, Placebo-Controlled Trial (N = 28)

	Placebo group (n = 13)		ACM group (n = 15)	
	Baseline	6 months	Baseline	6 months
Stage 0–1 (mild)	2	3	2	7
Stage 2 (Moderate)	5	4	5	7
Stage 3 (Advanced)	6	6	8	1*
Total number of subjects	13	13	15	15

There was a significant difference between baseline and after 6 months supplementation of ACM (* $p < 0.04$).

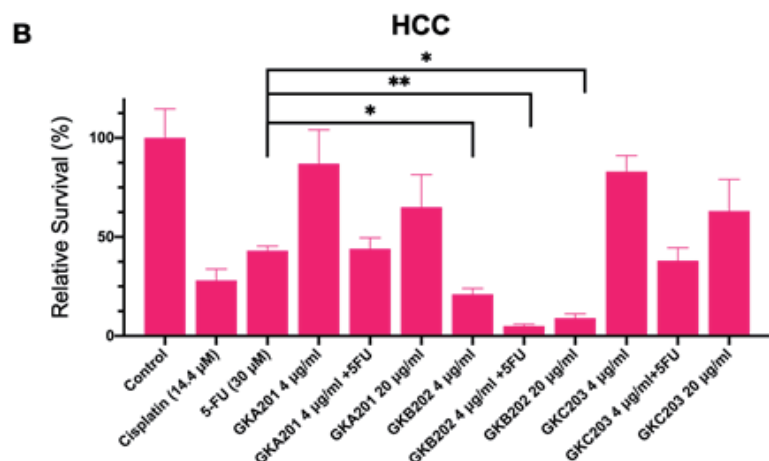
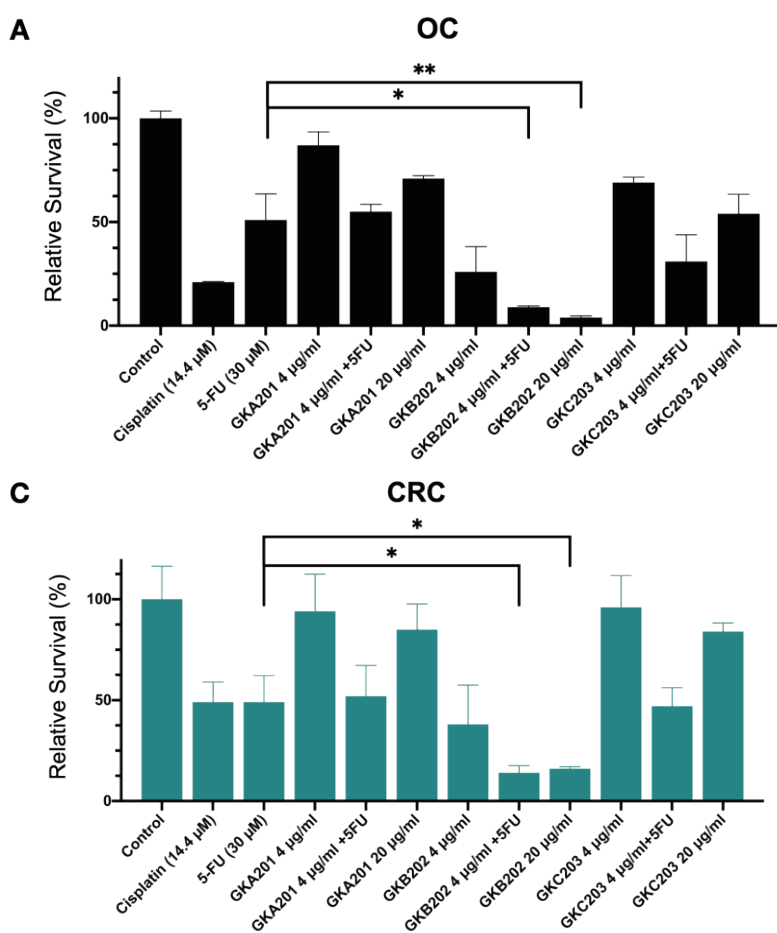
	Placebo group (n = 13)			ACM group (n = 15)		
	Baseline	6 months	p value	0 month	6 months	p value
FibroTest ^a	0.30 ± 0.16	0.31 ± 0.20		0.33 ± 0.19	0.29 ± 0.17	
SteatoTest ^b	0.69 ± 0.16	0.63 ± 0.16		0.66 ± 0.20	0.49 ± 0.19	<0.029
ActiTest ^c	0.50 ± 0.22	0.35 ± 0.21	<0.02	0.46 ± 0.21	0.30 ± 0.16	<0.029

^aFibrosis score. ^bFatty degeneration severity score. ^cLiver inflammation score.

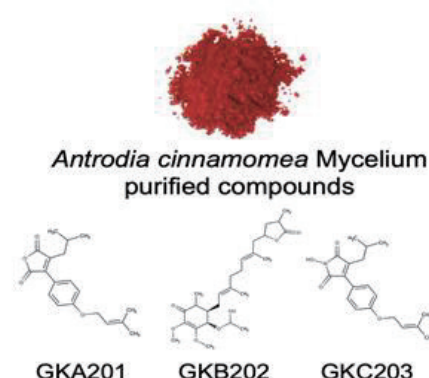
Table 1. Hepatic Steatosis Grade before and after ACM Supplementation in NASH Patients.

Table 2. FibroMax Indicators between the Placebo Control and Supplementation of ACM after 6 Months in NASH Patient.

Patient-Derived Tumor Chemosensitization of GKB201,202 and 203 An *Antrodia Cinnamomea* Mycelium-Derived Bioactive Compound (N = 8)



A.oral cancer (OC) , B.hepatocellular carcinoma (HCC) C.colorectal cancer (CRC) patients.





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