TMU-Research Center of Urology and Kidney

Monthly Meeting

Times：2026/05/28(Thursday) 10:00-11:30

Google meet link： https://meet.google.com/ihn-wugo-jfv

Meeting Chairperson：Mei-Yi Wu

Participant：

【TMUH】Ming-Zhe Liu, Shao-De Ye, Zhi-Qi Gao, Jian-Zhi Wu, Zheng-Cheng Wu, Jing-Xin Zhang, De-Zhao Fang, Yi-Wen Wu, Xi-Xian Chen, Yang-Ren Jiang, Jing-Yi Chen, Yan-Zhong Lin, Yue-Zhu Shao, An-Qi Zhou, Zhi-Kuan Wu, Qi-Tai Li, Xiao-You Lin, Jian-Rong Huang, Zhen-Wen Chen, Bao-Bao Chen, Dong-Lin Cai

【WFH】Yu-Qing Wen, Ming-Zhe Li, Wei-Wen Zhang, Yong-Wei Lin, Zhi-Hao Xiao, Xuan-Hao Xu, Zong-Hao Lai, Zhuo-Xing Zhong, Zhong-Yi Zheng, Zuo-Xiao Chen, Chong-De Liu, Yun-Hong Yang, Yu-Xiang Yang, Liang-Ming Li, Ke-Xun Lin, Yue-Lin Wu, Hong-Wei Liao

【SHH】Ming-Zhe Li, Jia-Zhang Wu, Guan-Zhou Chen, Jia-Hong Liu, Yi-De Jiang, Kai-Yi Zou, Wei-Tang Gao, Shu-Wei Hu, Mei-Yi Wu, Li-Yu Hong, Cai-Mei Zheng, Jia-De Liao, Rui-Xiang Song, Min-Guang Cai, You-Wei Chen, Zhi-Hua Gao, Guan-Hong Lin, Jian-Hua Zeng, Bo-Han Qiu, Zhi-Heng Chen, Shao-Wei Dong, Yu-Cong Yin, Yu-Feng Lin

【TMU】Wei-Cheng Luo

【SKMH】Yu-Mou Su, Ju-Lin Zou, Ming-Jie Jiang, Yu-Chan Lin, Wen-Ling WeiChu-Lin Chou

Chief：Mai-Szu Wu (President, TMU)、Chih-Cheng Hsu (Professor, NHRI)、Ruei-Ming Chen、Shing-Hwa Lu、Yung-Ho Hsu

Agenda:：

I. Invited Speaker – Prof. Tzu-Ping Lin, Kaohsiung Veterans General Hospital

Topic: From MAOA to Prostate Cancer Biomarkers

II. Team Presentation

Integrated Care Team for Chronic Kidney Disease (Dr. Yi-Wen Wu)

III. Administrative Announcements

1. Members who have not yet collected their RCUK team uniforms are requested to contact the secretary as soon as possible. The cost of the uniforms will be covered by the Center.
2. The Center's official website is currently being redesigned by a contracted vendor. Members are welcome to provide notable achievements or highlights for inclusion on the new website. (Please email relevant materials to 25120@s.tmu.edu.twor share them via the RCUK group.)
3. The next regular meeting will be held on June 17, 2026 (Wednesday), 12:00–1:00 PM.
   - Guest Lecture: Prof. Szu-Chun Hung, Taipei Tzu Chi Hospital
   - Team Presentation: Functional Urology Team.(If presentation assistance is required, please provide the slides no later than one day prior to the meeting.)
4. The Center's Annual Retreat was successfully concluded. Thank you all f or your participation.(Retreat highlights:https://drive.google.com/drive/folders/1ubmI1VlzWpItkuc72pE554l-tugkfO-b?usp=drive_link)
5. We kindly ask the Chiefs of the three affiliated hospitals and three divisions to assist in inviting members who have not yet joined the LINE group to do so as soon as possible, in order to ensure timely communication of upcoming events and announcements.

   (The LINE group currently has 48 members including the secretary, while

RCUK has a total of 72 members.)

臺北醫學大學
TAIPEI MEDICAL UNIVERSITY

慢性腎病整合照護團隊

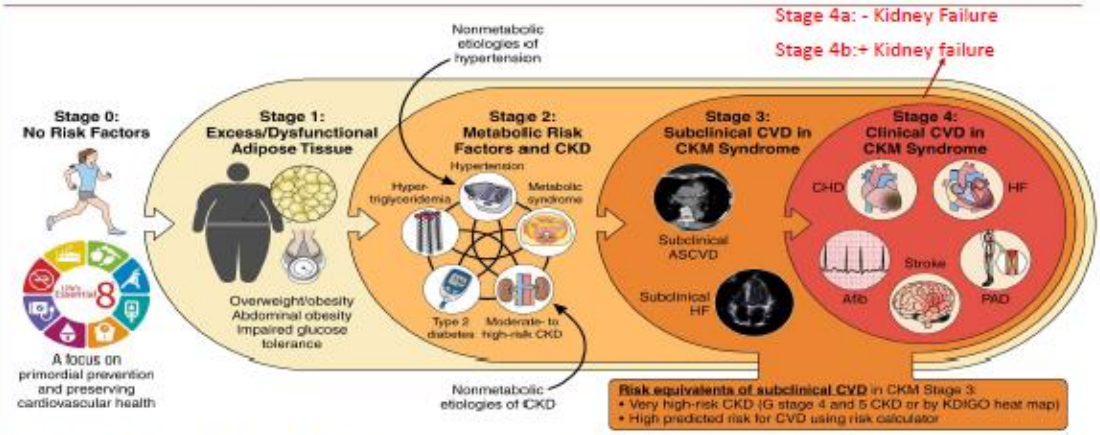
報告人：吳逸文 醫師

115年05月28日

團隊成員（23位）

吳逸文	吳麥斯	吳美儀	李明哲	蘇裕謀
陳錫賢	鄒凱亦	蔡旻光	張渭文	洪麗玉
劉明哲	許軒豪	鄭彩梅	鄭仲益	宋睿祥
江仰仁	賴宗豪	廖家德	鄒居霖	羅偉成
林彥仲	柯玉誠	宋立勤	陳怡靜	陳寶寶

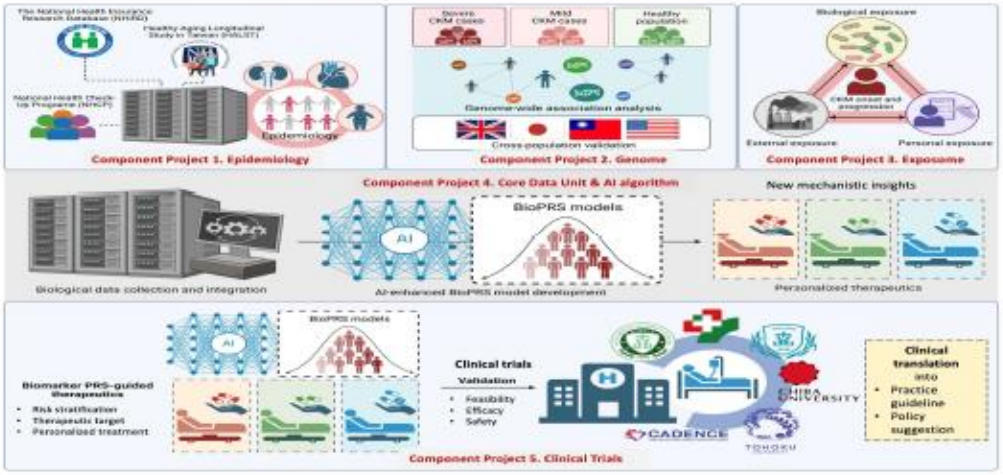
Organ-crosstalk & multidisciplinary integration



Abbreviations: Afib indicates atrial fibrillation; ASCVD, atherosclerotic cardiovascular disease; CHD, coronary heart disease; CKD, chronic kidney disease: CKM, cardiovascular-kidney-metabolic; CVD, cardiovascular disease; HF, heart failure; KDIGO, Kidney Disease Improving Global Outcomes; and PAD, peripheral artery disease.

Ndumele, C.E. et al. Circulation, 2023.

心腎代謝症候群的精準健康照護：從基因-環境-數據整合到健康政策建議（總主持人：吳麥斯校長）



Manpower and Team Structure (Site Points of Contact)

- Team Structure

Team / Function	Points of Contact (POC) & Notes
Clinical Team (Patient recruitment)	• TMUH POC: 吳逸文主任 • WFH POC: 鄭仲益主任 • SHH POC: 邱淳志主任/柯樺琳副主任
Core Lab (Biospecimen / Biorepository)	Core lab POC: 楊凱傑助理
Technology (Platform / Security / Access)	Tech POC: 林永豐博士
Bioinformatics / Data Analytics	• SP2 POC: 陳衍儒博士 • SP3 POC: 汪世潔助理 • SP4 POC: 林永豐博士

IRB 三院主持人名單

協同主持人		
附醫	雙和	萬芳
施俊明	李明哲	劉俊仁
吳逸文	吳美儀	鄭仲益
高治圻	邱淳志	
徐千彝	廖家德	
高偉育	洪麗玉	
	陳佑璋	

Core lab: Recruitment of study Cohort

Prospective cohort	已收案	WGS（定序完成）	Exposome
醫科展	370	369	359
附醫洗腎室	107	98	107
附醫門診	19	0	19
Retrospective cohort			
TMU Biobank	500	500	0
Total	996	955	485

醫科展報名人數： 453人
實際到院檢測病患： 370人
附醫 12/9 65 雙和 12/16 58
12/10 61 12/17 61
12/11 68 12/18 56

Update to 2026/5/25

Baseline characteristic of CKM cohort

Item	醫科展 (N=369) (Mean ± SD, Range, N) or (Subject (%), N)	洗腎室 (N=98) (Mean ± SD, Range, N) or (Subject (%), N)	BioBank (N=92) (Mean ± SD, Range, N) or (Subject (%), N)	p-value
男性 (Male)	119 (33.3%)	44 (44.9%)	67 (72.8%)	
BMI	23.73±3.93,(15.55~42.53),N=363	NA	NA	
腰圍 (Waist Circumference) (cm)	81.47±11.03,(32.00~127.00),N=363	NA	NA	
血壓-收縮壓 (SBP) (mmHg)	124.59±18.10,(80.00~194.00),N=363	NA	NA	
血壓-舒張壓 (DBP) (mmHg)	79.01±12.44,(47.00~140.00),N=363	NA	NA	
肥胖 (Obesity) (BMI ≥ 27 kg/m2)	59 人 (16.25%), N=363	NA	NA	
高血壓 (Hypertension) (SBP ≥ 140 or DBP ≥ 90)	95 人 (26.17%), N=363	NA	NA	
飯前血糖 (Glucose AC)	93.07±14.70,(68.0~187.0),N=363	124.31±47.82,(73.0~301.0),N=88	NA	3.44×10^{-10}
總膽固醇 (CHOL)	195.56±39.32,(98.0~350.0),N=363	159.24±39.60,(89.0~246.0),N=87	NA	6.79×10^{-12}
三酸甘油酯 (TG)	91.19±64.15,(24.0~598.0),N=363	110.49±78.88,(29.0~448.0),N=87	NA	0.0291
高密度脂蛋白 (HDL)	60.74±16.94,(28.0~129.0),N=363	53.59±18.94,(16.0~94.0),N=79	NA	0.0017
低密度脂蛋白 (LDL)	119.94±34.33,(32.0~242.0),N=363	88.43±31.85,(20.0~165.0),N=81	NA	2.68×10^{-12}
尿素氮 (BUN)	14.00±4.19,(6.0~34.0),N=363	36.27±29.34,(9.0~109.0),N=86	NA	4.70×10^{-15}
肌酸酐 (Creatinine)	0.77±0.18,(0.45~1.79),N=363	7.40±4.98,(0.40~15.8),N=89	NA	5.42×10^{-16}
腎絲球過濾率 (eGFR)	100.41±18.35,(42.3~159.0),N=363	21.42±37.20,(3.0~152.0),N=74	NA	1.27×10^{-19}
尿酸 (Uric Acid)	5.16±1.21,(2.4~9.4),N=363	5.74±1.69,(2.3~10.4),N=87	NA	0.0063
尿蛋白 (Urine Protein)	10.05±6.50,(1.0~69.1),N=181	186.32±210.76,(5.6~411.1),N=4	NA	0.3955
微量白蛋白 (Microalbumin)	32.14±131.73,(3.1~1985.0),N=269	996.17±1256.77,(3.9~3998.9),N=10	NA	8.78×10^{-4}
尿液蛋白/肌酸酐比 (UACR)	20.58±80.67,(1.6~1203.0),N=269	1048.20±1464.96,(4.7~3649.8),N=8	NA	6.17×10^{-6}
尿液蛋白/肌酸酐比 (UPCR)	68.55±37.84,(34.3~429.2),N=179	2665.53±4422.15,(51.4~7771.3),N=3	NA	0.1232
尿肌酸酐 (Urine Creatinine)	151.09±78.97,(11.1~537.0),N=361	82.93±66.41,(12.5~271.6),N=13	NA	5.17×10^{-6}

ACMG v3.3 Genomic Screening in Our Cohort

- **Prevalence of ACMG SF v3.3 Positive Variants Across Cohorts**

		ACMG SF v3.3 positive	
	Cases	Case (N)	Case (%)
醫科展	369	34	9.21%
洗腎室	98	11	11.22%
TMU BioBank	92	5	5.43%
Total	559	50	8.77%

- **Summary of ACMG SF v3.3 Variants by Category**

Category	Variant Count	Percentage
Inborn Errors of Metabolism	**17**	**33.3%**
Cardiovascular Disease Predisposition	**15**	**29.4%**
Cancer Predisposition	**10**	**19.6%**
Other Disease Phenotypes	**10**	**19.6%**
Total	**51**	**100%**

Exposomics

Heavy metals

#一般市面進行，費用通常較高；本研究檢測結果主供暴露評估與研究分析使用，並非臨床診斷依據。

敬 請 指 導

外科醫師的下一步：從 MAOA 到攝護腺癌 Biomarker

A Surgeon-Scientist's Translational Journey

高雄榮總外科部 泌尿外科 林子平醫師

Deputy Director, Department of Surgery, Kaohsiung Veterans General Hospital,
Associate professor, Department of Urology, College of Medicine and Shu-Tien Urological Research Center, National Yang Ming Chiao Tung University,
Adjunct Professor, College of Life Sciences, National Chung Hsing University

Two Journeys, One Mission

Our Mission: closing the translation Gap

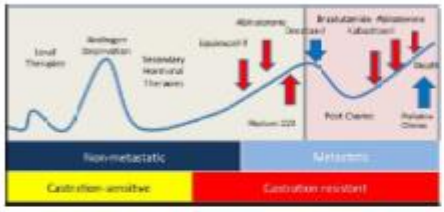
The Journey of a Surgeon-Scientist

Bridging Discovery and Clinical Practice
Festschrift Symposium Honoring Prof. Jean C. Shih

Exploring the role of MAOA in prostate cancer and its potential clinical applications

Jack TP Lin MD, PhD

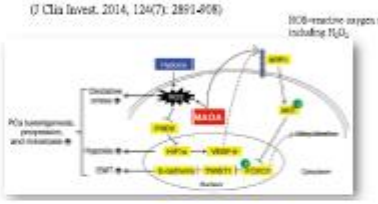
Castration Resistant Prostate cancer is lethal form of PCa



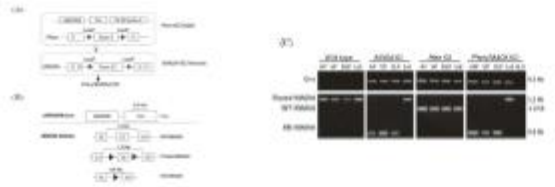
Refractory PCa: Monoamine oxidase A (MAOA)

- An enzyme that catalyzes the oxidation of monoamines
- bound to the outer membrane of mitochondria in most cell types in the body
- It mediates prostate tumorigenesis and cancer metastasis

(J Clin Invest. 2014; 124(7): 2891-908)

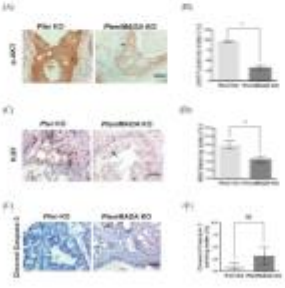


Double knockout mouse model（PTEN + MAOA）

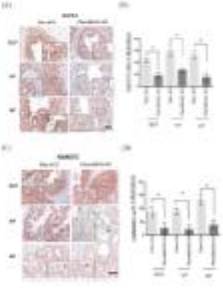


MAOA deletion attenuates cancer progression

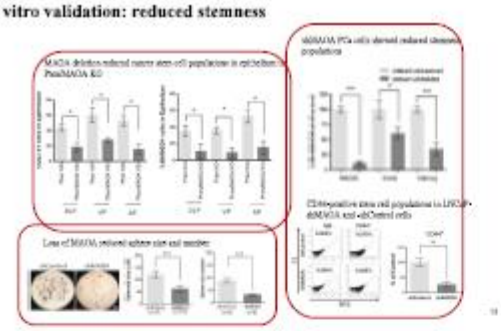
MAOA deletion → proliferation ↓, apoptosis ↑



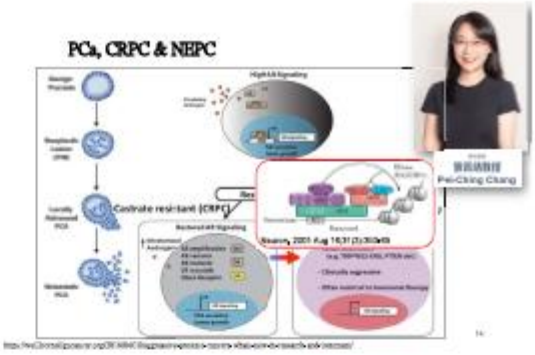
MAOA deletion reduces cancer stem cell population



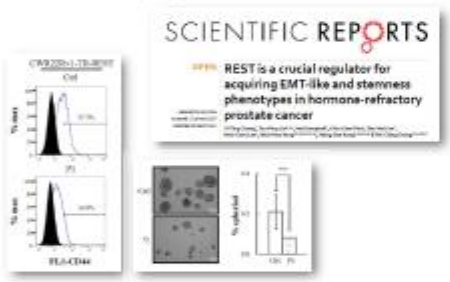
In vitro validation: reduced stemness



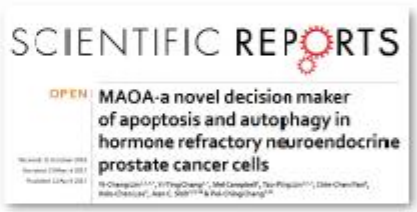
PCa, CRPC & NEPC



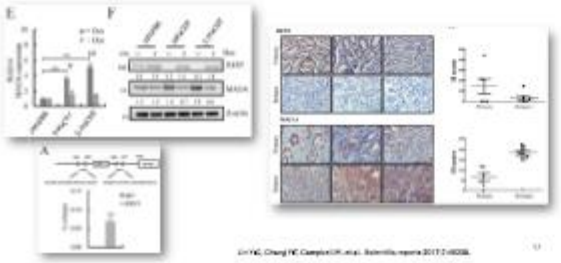
REST → MAOA → progression



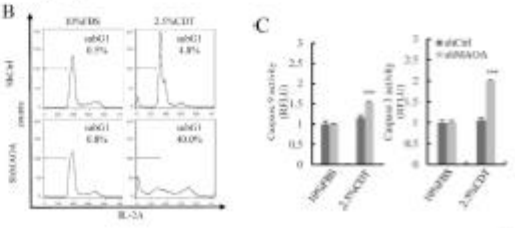
How cancer survives under stress:
The Role of MAOA in NEPC



MAOA is induced by ADT and suppressed by REST



Knockdown of MAOA induces p53-dependent cell apoptosis in NE differentiated LNCaP cells



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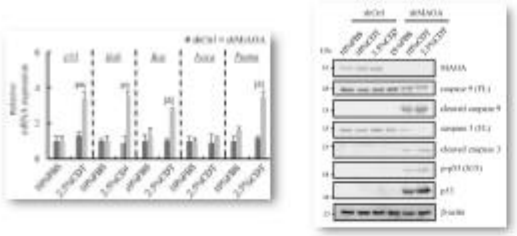
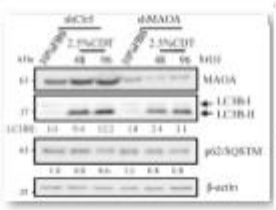
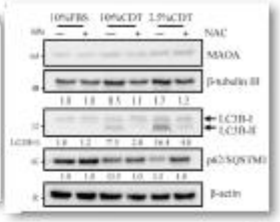
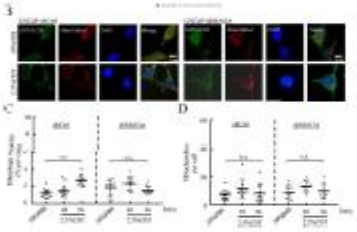


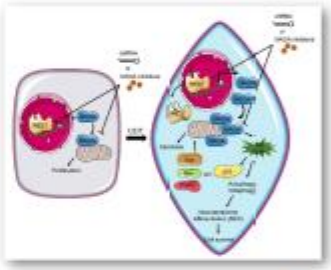
ROS produced by up-regulated MAOA plays an essential role for androgen deprivation-induced autophagy activation, NED and anti-apoptosis.



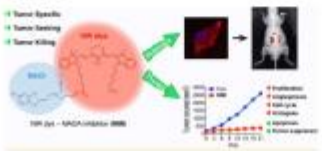


Effect of MAOA on the loss of mitochondrial membrane potential and mitophagy activation of androgen deprivation-induced NE differentiated LNCaP cells

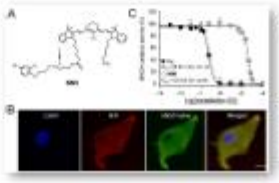


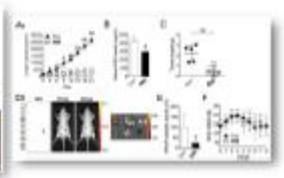


MAOA as a actionable target in prostate cancer



NIR-clorgyline conjugate localized in the prostate cancer mitochondria and inhibits tumor growth in vivo





Professional Identity Formation and the Clinician–Scientist

Similarities

- Scientific method drives the clinical approach to disease pathogenesis, diagnosis, and treatment
- Rigorous descriptive and analytic techniques

Differences

- Clinician: Strong adherence to standards of practice and respect for expert opinion/certainty in diagnosis and management
- Scientists: embraces uncertainty/valued for lack of conformity

A surgical investigator is a bridge tender, channelling knowledge from biological science to the patient's bedside and back again. He traces his origin from both ends of the bridge. He is thus a bastard and is called this by everybody. Those at one end of the bridge say he is not a very good scientist, and those at the other say that he does not spend enough time in the operating room. If only he is willing to live with this, he can continue to do his job effectively

Francis D. Moore MD

- Since the 1970s biomedical research became a discipline in its own right
- The knowledge gained from basic research is assumed to be an end

Busy extract revenue from their practice, reduce the time to communicate with basic scientists or to participate in research