中華民國血脂及動脈硬化學會113年會員大會
暨第二十四屆台北國際血管分子生物學研討會

The Annual Scientific Meeting of Taiwan Society of Lipids & Atherosclerosis 2024 and The 24th Taipei International Vascular Biology Symposium

乘著全球化醫療的翅膀飛翔

Flying with the Globalization of Medicine

2024/09/14(六)-15(日) 張榮發會議中心 6F

Taiwan Society of Lipids and Atherosclerosis

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Welcome Message

乘著全球化醫療的翅膀飛翔
Flying with the Globalization of Medicine

Dear Colleagues and Friends,

On behalf of the Taiwan Society of Lipids & Atherosclerosis, it is our distinct pleasure to invite you to the 2024 Annual Meeting. We are truly honored to extend this invitation to you and look forward to your participation.

This year's conference promises to be extraordinary, attracting a wider global audience than ever before. We anticipate enthusiastic participation from professionals around the world, making this event a truly remarkable one.

The Annual Meeting will be a prime opportunity to exchange the latest research in Lipids & Atherosclerosis, with a focus on key topics such as Nutrition and Diet, Big Data and AI Applications for ASCVD, Weight Management, Cardiovascular Disease Prevention, Food Safety Issues, and more. By joining us at the 2024 TSLA Annual Meeting, you will engage in discussions on the newest advancements in these fields, gaining insights into both clinical and foundational science. With 20 diverse sections, there will be ample opportunity to connect with esteemed speakers and engage with your peers.

We are eagerly anticipating an invigorating gathering and are confident that you will leave with valuable insights and knowledge.

Warm regards,

Po-Hsun Huang

Po-Hsun Huang, M.D., Ph.D.
President, Taiwan Society of Lipids & Atherosclerosis

Program Overview

September 14th
DAY 1

601	602	603
09:00-10:30 Nutrition and Diet	09:00-10:30 國衛院	09:00-10:30 心血管疾病防治網繼續教育課程
	10:30-10:45 Coffee Break	
	10:45-12:15 台灣循環研究學會	10:45-12:15 心血管疾病防治網繼續教育課程
12:15-12:30 Lunch Break		
12:10-13:10 Lunch Symposium - Sanofi	12:30-13:10 Lunch Symposium - TSH	12:30-13:10 Lunch Symposium - Viatris
13:10-14:10 3-To-Goal 分享	13:10-14:40 Big Data and AI Applications for ASCVD TSLA & 血脂衛教協會 Joint Symposium	13:10-14:40 心血管疾病防治網繼續教育課程
14:10-14:40 姜必寧獎 得獎者分享		
	14:40-14:50 Coffee Break	
	14:50-16:20 DM Symposium	14:50-16:20 TLSA-TAMIS Joint Symposium
16:20-17:50 2024 TSOC Primary Prevention Guidelines for ASCVD	16:20-17:50 2024 From Ancient Remedies to Modern Marvels: Shaping the Future of Weight Management	16:20-17:50 TSLA-KSoLA Joint Symposium
17:50-18:00 Dinner Break		
18:00-18:40 Dinner Symposium - Amgen	18:00-18:40 Dinner Symposium - AstraZeneca	18:00-18:40 Dinner Symposium - Novartis

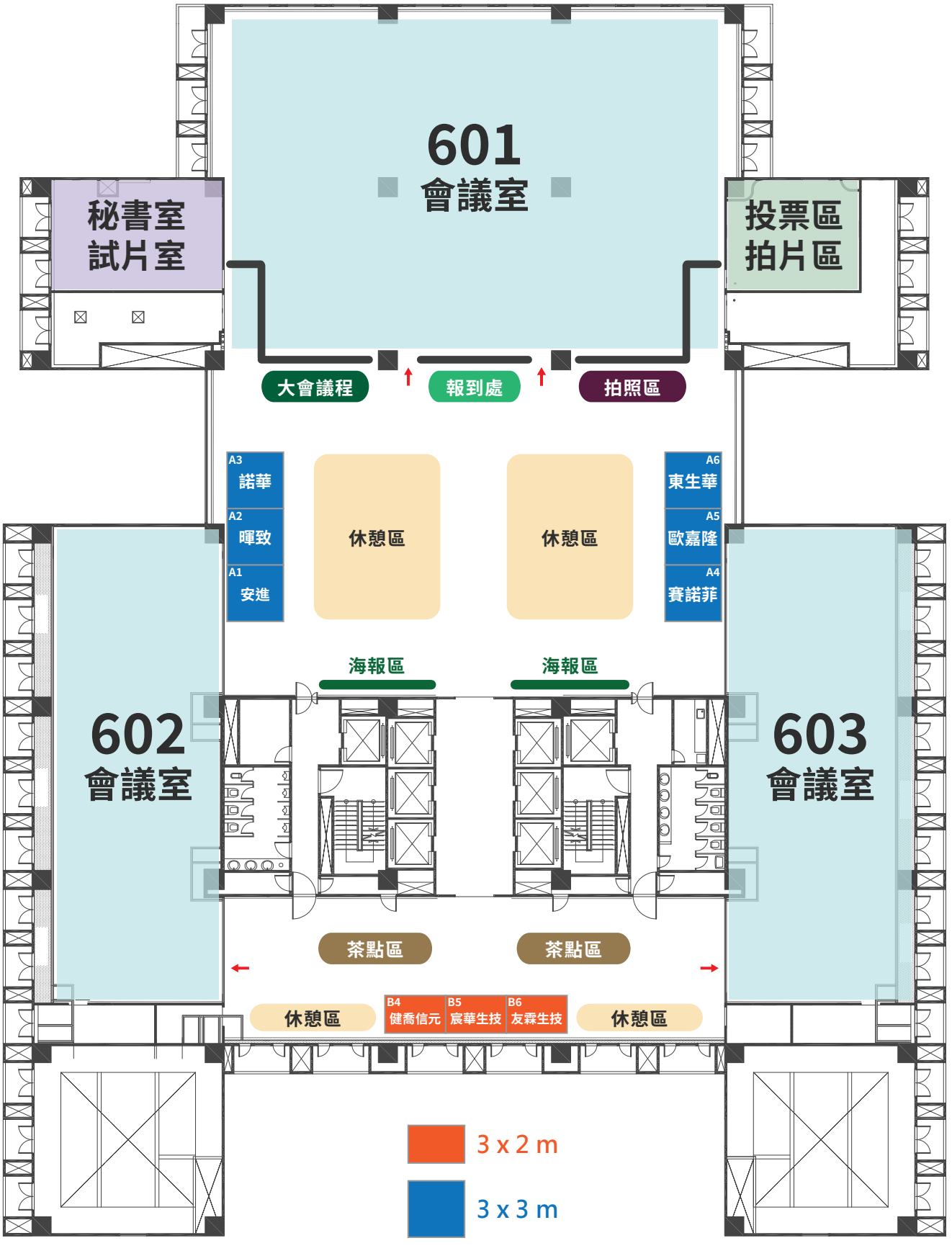
Program Overview

乘著全球化醫療的翅膀飛翔
Flying with the Globalization of Medicine

September 15th DAY 2

601	602	Poster Area
09:00-10:30 The 24th Taipei International Vascular Biology Symposium	09:00-10:30 食安問題停看聽	
10:30-10:45 Coffee Break		10:30-11:00 編號 1-3 投稿者報告
10:45-12:15 The 24th Taipei International Vascular Biology Symposium	10:45-12:15 Shaping the lipid treatment with precision	11:00-11:30 編號 4-6 投稿者報告
		11:30-12:00 編號 7-9 投稿者報告
12:15-12:30 Lunch Break		
12:30-13:10 Lunch Symposium - Organon	12:30-13:10 Lunch Symposium - Daiichi Sankyo	
13:10- 開票	13:10-14:20 會員大會 Poster Competition & Research Award	

財團法人張榮發基金會 國際會議中心 6F 平面圖



DAY 1

September 14th, 2024

PROGRAM

601

09:00-10:30

Nutrition and Diet


潘文涵
理事


章樂綺
理事


蔡一賢
理事


Carlos A. Monteiros
Professor


郭素娥
理事長

09:00-09:05	**Opening**	
	Moderator	潘文涵 理事 | 中研院 生物醫學研究所
09:05-09:30	**Ultra-Processed Foods And Human Health** **高度加工食品與人類健康**	
09:30-09:35	**Discussion**	
	Moderator	潘文涵 理事 | 中研院 生物醫學研究所
	Speaker	Prof. Carlos A. Monteiros (視訊)
09:35-10:00	**符合永續原則之台灣本十少紅肉飲食之** **營養素品質與飲食樣態：台灣飲食指南精進之省思**	
10:00-10:05	**Discussion**	
	Moderator	蔡一賢 理事 | 馬偕醫院 營養醫學中心
	Speaker	潘文涵 理事 | 中研院 生物醫學研究所
10:05-10:30	**推動永續飲食之挑戰與方向**	
	Moderator	章樂綺 理事 | 中華民國血脂及動脈硬化學會
	Speaker	郭素娥 理事長 | 中華民國營養公會全國聯合會
		蔡一賢 理事 | 馬偕醫院 營養醫學中心

Ultra-Processed Foods And Human Health
高度加工食品與人類健康

601 09:05-09:35

Prof. Carlos A. Monteiros
School of Public Health, USP

Present Position 現職

- **Emeritus Professor**
  School of Public Health, USP.
- **Researcher**
  Center for Epidemiological Studies in Health and Nutrition, USP (NUPENS/USP).
- **Editor**
  Revista de Saude Publica [Journal of Public Health]

Education 學歷

- **2-year post doctoral training**
  the Institute of Human Nutrition, Columbia University, USA.
- **Ph.D.**
  Nutrition in Public Health, University of São Paulo
- **Master Degree**
  Preventive Medicine, University of São Paulo
- **Two years residence**
  General Hospital, Medical School, University of São Paulo
- **Medical Doctor**
  University of São Paulo

The key issue here is the nature, purpose and extent of food processing. It is not processing as such. General criticism of food processing is too unspecific to be helpful. Most foods are processed in some way, and culinary preparations of fresh foods are usually made using processed ingredients. Some types of food processing contribute to healthful diets, but others do the opposite. At one extreme, are minimal processes which mostly preserve or enhance whole foods, such as drying grains, pulses and nuts, grinding grains into flour and pasta, chilling or freezing fruits and vegetables, pasteurizing milk, and fermenting milk into yogurt. At the other extreme are industrial processes that convert food commodities such as wheat, soy, corn, oils, and sugar, into chemically or physically transformed food substances, formulated with various classes of additives into generally cheap to make, long duration substitutes to minimally processed foods and freshly prepared dishes and meals. The result is brand-named sugary, fatty and/or salty food and drink products which typically contain little or no whole food, are designed to be ready-to-consume anytime, anywhere, and are highly attractive to the senses or even quasi-addictive. These products, including sweet and flavoured drinks, sweet or savoury snacks, reconstituted meat products, and shelf-stable or frozen ready meals and desserts, are identified by the Nova food classification system as ultra-processed foods. Time-series food sales data indicate the explosive growth in manufacturing and consumption of ultra-processed foods worldwide. National dietary surveys show that ultra-processed foods already make up 50% or more of total dietary energy intake in high-income countries, with even higher consumption among children and adolescents. In middle-income countries, they now represent between 15% and 30% of total energy intake but sales of ultra-processed foods are increasing fastest in these countries. Since the mid-1970s, worldwide prevalence of obesity has nearly tripled, and now over 650 million adults are obese, and 1.9 billion adults and over 370 million children and adolescents are overweight or obese11. No country has yet reversed these increases. Closely driven by the increase in obesity is a doubling of worldwide type 2 diabetes prevalence since 1980, now affecting about 420 million people. Obesity, type 2 diabetes, and related non-communicable diseases, including cardiovascular diseases and some common cancers, have become global epidemics, which is to say, pandemics. Only in the last decade, with the advent of the Nova food classification system that distinguishes ultra-processed foods from minimally processed or processed foods, has the link between changes in types of food processing and the pandemic of obesity and related diseases been revealed. Taken together, the totality of evidence generated by observational, experimental and mechanistic studies shows beyond reasonable doubt that increased consumption of ultra-processed foods is a major contributor to the pandemic of obesity and related diseases. Multiple policy interventions are required to reduce ultra-processed food production, distribution and consumption, while simultaneously making fresh or minimally processed foods more available, accessible and affordable. These policies should be aligned with relevant Sustainable Development Goals designed to eliminate hunger, improve health and protect the environment.

符合永續原則之台灣本十少紅肉飲食之營養素品質與飲食樣態：台灣飲食指南精進之省思

TO BE PRESENTED

601 09:35-10:05

潘文涵 理事
中研院 生物醫學研究所

Present Position 現職

•特聘研究員
中央研究院 生物醫學科學研究所

Education 學歷

•博士
美國康乃爾大學 營養流行病學
•碩士
美國康乃爾大學 營養生化
•學士
國立台灣大學 農業化學系

12:30-13:10

Lunch Symposium - Sanofi

洪惠風
醫師

謝宜璋
常務理事

李任光
醫師

朱俊源
醫師

12:10-12:15 Opening

Moderator : 洪惠風 醫師 | 新光醫院 心臟內科

12:15-12:35 Optimizing CAD Patients Care With Early Intensified Lipid Lowering Therapy

Moderator : 洪惠風 醫師 | 新光醫院 心臟內科
Speaker : 李任光 醫師 | 臺大醫院 心臟內科

12:35-12:55 Unclocking The LDL-C Treatment Goal With Praluent

Moderator : 謝宜璋 常務理事 | 林口長庚 心臟內科
Speaker : 朱俊源 醫師 | 高醫附醫 心血管內科

12:55-13:05 Panel Discussion

Moderator : 謝宜璋 常務理事 | 林口長庚 心臟內科

13:05-13:10 Closing Remark

Moderator : 謝宜璋 常務理事 | 林口長庚 心臟內科

Optimizing CAD Patients Care With Early Intensified Lipid Lowering Therapy

TO BE PRESENTED

601 12:15-12:35

李任光 醫師
臺大醫院 心臟內科

Present Position 現職

- **住院醫師**
  臺大醫院 檢驗醫學部
- **主治醫師**
  臺大醫院 心臟內科
- **臨床助理教授**
  臺大醫學院 內科

Education 學歷

- **博士**
  國立臺灣大學
  生醫電子與資訊學研究所
- **醫學士**
  國立臺灣大學醫學院 醫學系

Unclocking The LDL-C Treatment Goal With Praluent

TO BE PRESENTED

601 12:35-12:55

朱俊源 醫師

高雄附醫 心臟血管內科

Present Position 現職

•主治醫師暨專科指導醫師
高醫附醫 心臟血管內科
•助理教授
高雄醫學大學 醫學院
醫學系內科學科

Education 學歷

•博士班研究生
高雄醫學大學 臨床醫學研究所
•碩士
高雄醫學大學 醫學研究所
臨床醫學組
•醫學士
高雄醫學大學

Experience 經歷

•2013-2014
專責主治醫師
高醫附醫 心臟加護病房
•2011-2012
主任
行政院 衛生署 屏東醫院
內科加護病房
•2007-2012
主治醫師
行政院 衛生署 屏東醫院
心臟內科
•2005-2007
總醫師
高醫附醫 心臟血管內科

*由於篇幅限制，部分經歷未能收錄，敬請見諒。

601

13:10-14:10

3-To-Goal 分享

劉秉彥
秘書長

林肇鋒
副秘書長

13:10-13:15	**Opening**	
	Moderator	劉秉彥 秘書長
13:15-13:18	**3-To-Goal 第一名~第三名頒獎**	
	Moderator	劉秉彥 秘書長
13:18-13:20	**前三名得獎者合照**	
	Moderator	劉秉彥 秘書長
13:20-13:30	**3-To-Goal 第三名分享**	
	Moderator	劉秉彥 秘書長
	Speaker	馬偕紀念醫院團隊
13:30-13:40	**3-To-Goal 第二名分享**	
	Moderator	劉秉彥 秘書長
	Speaker	國立成功大學學院附設醫院團隊
13:40-13:50	**3-To-Goal 第一名分享**	
	Moderator	劉秉彥 秘書長
	Speaker	亞東紀念醫院團隊
13:50-14:00	**2024 ASCVD 高風險患者優化競賽計畫**	
	Moderator	劉秉彥 秘書長
	Speaker	林肇鋒 副秘書長
14:00-14:05	**3-To-Goal 第四名~第六名頒獎**	
	Moderator	林肇鋒 副秘書長
14:05-14:10	**全體合照 & Closing**	
	Moderator	林肇鋒 副秘書長

3-To-Goal
2024 ASCVD 高風險患者優化競賽

- 亞東紀念醫院
- 國立成功大學學院附設醫院
- 馬偕紀念醫院
- 高雄醫學大學附設中和紀念醫院
- 中國醫藥大學附屬醫院
- 亞洲大學附屬醫院
- 衛生福利部雙和醫院

14:10-14:40

姜必寧獎 得獎者演講

洪傳岳
名譽理事

林晉宇
醫師

14:10-14:15	**Opening**

Moderator : 洪傳岳 名譽理事 | 萬芳醫院 心臟內科

14:15-14:35	**Catheter Ablation with Morphologic Repetitiveness Mapping for Persistent Atrial Fibrillation**
14:35-14:40	**頒獎 & 合照**

Moderator : 洪傳岳 名譽理事 | 萬芳醫院 心臟內科
Speaker : 林晉宇 醫師 | 臺北榮總 心臟內科

Catheter Ablation With Morphologic Repetitiveness Mapping For Persistent Atrial Fibrillation

Importance Catheter ablation for persistent atrial fibrillation (AF) has shown limited success.

Objective To determine whether AF drivers could be accurately identified by periodicity and similarity (PRISM) mapping ablation results for persistent AF when added to pulmonary vein isolation (PVI).

Design, Setting, and Participants This prospective randomized clinical trial was performed between June 1, 2019, and December 31, 2020, and included patients with persistent AF enrolled in 3 centers across Asia. Data were analyzed on October 1, 2022.

Intervention Patients were assigned to the PRISM-guided approach (group 1) or the conventional approach (group 2) at a 1:1 ratio.

Main Outcomes and Measures The primary outcome was freedom from AF or other atrial arrhythmia for longer than 30 seconds at 6 and 12 months.

Results A total of 170 patients (mean [SD] age, 62.0 [12.3] years; 136 men [80.0%]) were enrolled (85 patients in group 1 and 85 patients in group 2). More group 1 patients achieved freedom from AF at 12 months compared with group 2 patients (60 [70.6%] vs 40 [47.1%]). Multivariate analysis indicated that the PRISM-guided approach was associated with freedom from the recurrence of atrial arrhythmia (hazard ratio, 0.53 [95% CI, 0.33-0.85]).

Conclusions and Relevance The waveform similarity and recurrence pattern derived from high-density mapping might provide an improved guiding approach for ablation of persistent AF. Compared with the conventional procedure, this novel specific substrate ablation strategy reduced the frequency of recurrent AF and increased the likelihood of maintenance of sinus rhythm.

601 14:15-14:35

林晉宇 醫師
臺北榮總 心臟內科

Present Position 現職

- **Attending Physician**
  Division of Cardiology, Internal Medicine Department, Taipei Veterans General Hospital, Yuan-Shan Branch
- **Attending Physician**
  Department of Cardiology, Taipei Veterans General Hospital.
- **Lecturer**
  National Yang-Ming Chiao Tung University
- **Assistant Professor**
  National Yang-Ming Chiao Tung University
- **Associated Professor**
  National Yang-Ming Chiao Tung University

Education 學歷

- **Ph.D.**
  Institute of clinical medicine, Yang-Ming Medical University, Taipei, Taiwan.
- **M.D.**
  Medical Department of National Taiwan University, Taipei, Taiwan.

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16:20-17:50

2024 TSOC Primary Prevention Guidelines for ASCVD


徐國基
理事


趙庭興
醫師


林宗憲
理事


呂信邦
醫師


林柏霖
醫師


張瑋婷
醫師

16:20-16:25	**Opening**	
	Moderator	徐國基 理事 |新光醫院 心臟內科
16:25-16:45	**How To Integrate Traditional Risk Factors And Noninvasive Study (Such As CAC) For Risk Assessment? Comparison Of TSOC Guidelines With Other International Guideline**	
	Moderator	徐國基 理事 | 新光醫院 心臟內科
	Speaker	呂信邦 醫師 | 臺北榮總 心臟內科
16:45-17:05	**How To Choose Statins Or Cholesterol-Lowering Alternatives (Such As Fish Oil Supplement) For Primary Prevention? Comparison Of TSOC Guidelines With Other International Guidelines**	
	Moderator	趙庭興 醫師 | 中山附醫 副院長
	Speaker	林柏霖 醫師 | 新竹馬偕 心臟內科
17:05-17:25	**Primary Prevention Of ASCVD In Women Comparison Of TSOC Guidelines With Other International Guidelines**	
	Moderator	徐國基 理事 | 新光醫院 心臟內科
	Speaker	張瑋婷 醫師 | 臺北榮總 心臟內科
17:25-17:45	**Discussion**	
	Moderator	林宗憲 理事 | 高雄附醫 副院長
17:45-17:50	**Closing**	
	Moderator	林宗憲 理事 | 高雄附醫 副院長
17:50-18:00	**Dinner Break**	

How To Integrate Traditional Risk Factors And Noninvasive Study (Such As CAC) For Risk Assessment? Comparison Of TSOC Guidelines With Other International Guideline

Risk assessment for cardiovascular disease (CVD) plays a crucial role in clinical practice, guiding preventive strategies and treatment decisions. Traditional risk factors such as age, gender, hypertension, dyslipidemia, and smoking have long been utilized for this purpose. However, their predictive accuracy can be limited, prompting the exploration of additional tools such as coronary artery calcium (CAC) scoring. In addition to traditional risk factors, primary prevention guidelines now suggest using CAC score further reclassify risk categories.

ESC guidelines recommend the use of CAC scoring primarily in individuals with intermediate CVD risk (10-20% 10-year risk) as assessed by traditional risk factors. The scoring helps refine risk stratification, particularly in individuals where treatment decisions based on traditional risk factors alone may be uncertain. ESC guidelines emphasize the importance of CAC score as an adjunct to risk assessment rather than a standalone tool. AHA guidelines similarly endorse the use of CAC scoring in intermediate-risk individuals (7.5-20% 10-year risk), particularly when the decision to initiate statin therapy is uncertain based on traditional risk factors alone. CAC score is considered an effective method to reclassify risk, identifying those who may benefit from more aggressive risk reduction strategies. The TSOC incorporates CAC scoring into their risk assessment algorithms for primary prevention but with some differences in approach compared to ESC and AHA. They emphasize the utility of CAC scoring in individuals with both intermediate and high-risk profiles, extending its use to a broader range of risk categories.

In summary, while ESC, AHA, and TSOC guidelines converge on the utility of CAC scoring in primary prevention of CVD, they exhibit variations in criteria for risk stratification, treatment implications, and clinical application. These differences reflect regional variations in healthcare practices and emphasize the evolving nature of CVD risk assessment strategies worldwide.

601 16:25-16:45

呂信邦 醫師
臺北榮總 心臟內科

Present Position 現職

•醫師
台北榮總健康管理中心
•主治醫師
台北榮總 心臟內科
•教授
國立陽明交通大學醫學系

Education 學歷

•醫學士
國防大學國防醫學院
•醫學博士
國立陽明大學

Experience 經歷

•2023-迄今　副主任
台北榮總健康管理中心
•2018-迄今　執行秘書
台北榮總人體試驗委員會
第一委員會
•2015-2021　科主任
台北榮總健康管理中心
健康管理科
•2007-迄今　兼任主治醫師
台北榮民總醫院心臟內科
•2007-迄今　主治醫師
台北榮民總醫院健康管理中心
•2005-2007　主任
台北榮總宜蘭分院
員山院區加護中心
•2003-2005　研究醫師
台北榮民總醫院心臟內科

*由於篇幅限制，部分經歷未能收錄，敬請見諒。

How To Choose Statins Or Cholesterol-Lowering Alternatives (Such As Fish Oil Supplement) For Primary Prevention? Comparison Of TSOC Guidelines With Other International Guidelines

Choosing between statins and cholesterol-lowering alternatives, such as fish oil supplements, for primary prevention of cardiovascular disease involves a careful evaluation of several factors，including patient risk assessment(the ASCVD Risk Calculator or other risk assessment models, cholesterol Levels, guideline recommendation(such as ACC/AHA, ESC, and TSOC), side Effects and lifestyle with non-pharmacological measures. The decision to use statins or cholesterol-lowering alternatives for primary prevention should be based on a comprehensive evaluation of the patient's cardiovascular risk, particularly as adjuncts to lifestyle changes or when statins are not well-tolerated.

601 16:45-17:05

林柏霖 醫師
新竹馬偕 心臟內科

Present Position 現職

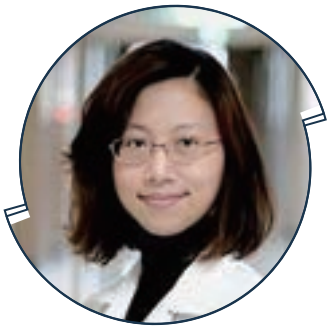
•主治醫師
新竹馬偕 心臟內科

Education 學歷

•醫學士
中山醫學大學醫學系
•碩士
中原大學生物醫學工程研究所
•博士
國立陽明交通大學生物科技研究所

Primary Prevention Of ASCVD In Women Comparison Of TSOC Guidelines With Other International Guidelines

601 17:05-17:25



張瑋婷 醫師
奇美醫院 心臟內科

Cardiovascular disease (CVD) stands as the leading cause of death for both men and women, with a particularly significant impact on women, especially within the aging population. For women, the risk factors associated with pregnancy-related conditions warrant special attention. Women who have experienced preeclampsia, pregnancy-induced hypertension, gestational diabetes mellitus (DM), or polycystic ovary syndrome should undergo periodic screenings for hypertension and diabetes. These screenings can help in the early identification and management of potential cardiovascular issues, mitigating long-term health risks. Similarly, those with a history of adverse pregnancy outcomes or pregnancy-associated conditions should be considered for regular cardiovascular risk assessments. A history of premature menopause, defined as menopause occurring before the age of 40, significantly increases the risk of atherosclerotic cardiovascular disease (ASCVD) later in life. Recognizing this risk factor is crucial for implementing early and ongoing monitoring and preventive strategies. Additionally, for women who suffer from migraine with aura, it is advisable to avoid combined hormonal contraceptives due to their potential to exacerbate cardiovascular risks. In this talk, I will address cardiovascular health requires a nuanced approach that considers gender-specific risk factors and conditions. Also, I will discuss the section of “Primary prevention of ASCVD in woman in TSOC guidelines compared with other international guidelines. By recognizing and addressing these unique factors, healthcare providers can better manage and reduce the burden of CVD in both men and women, ultimately improving long-term health outcomes.

Present Position 現職

- **Attending physician**
  Department of Cardiology, Chi-Mei Medical Center, Tainan, Taiwan.
- **Associate Professor**
  Department of Biotechnology, Southern Taiwan University of Science and Technology, Taiwan.
- **Associate Professor**
  Department of Clinical Medicine, National Sun Yat-sen University, Taiwan.

Education 學歷

- **Doctor of Medicine**
  Department of Medicine, National Cheng Kung University, Tainan, Taiwan.
- **Research Fellow**
  Brigham and Women's Hospital, Harvard University, MA, USA.
- **Ph.D.**
  Graduate Institute of Clinical Medicine, National Cheng Kung University, Taiwan.
- **Visiting Scholar with certificate**
  Precisional Medicine in St. Edmund Hall, Oxford. (OXCEP)

601

18:00-18:40

Dinner Symposium - Amgen

劉秉彥
秘書長

林柏霖
醫師

18:00-18:05	**Opening**	
	Moderator	： 劉秉彥 秘書長 | 成大醫院 心臟內科
18:05-18:25	**From Clinical Trials To Multi-Country Real-World Evidence: The Magic Wings Of Lipid Lowering Treatment-PCSK9i**	
18:25-18:35	**Panel Discussion**	
	Moderator Speaker	： 劉秉彥 秘書長 | 成大醫院 心臟內科 ： 林柏霖 醫師 | 新竹馬偕 心臟內科
18:35-18:40	**Closing**	
	Moderator	： 劉秉彥 秘書長 | 成大醫院 心臟內科

From Clinical Trials To Multi-Country Real-World Evidence: The Magic Wings Of Lipid Lowering Treatment-PCSK9i

601 18:05-18:35

在這次演講中，我們將專注於PCSK9抑制劑（PCSK9i）在ACS患者中的應用，特別是在急性期的使用對患者預後的影響。ACS是一種嚴重的心血管狀況，通常由冠狀動脈斑塊破裂引發，導致心肌缺血或心肌梗塞。降低膽固醇水平是改善ACS患者預後的關鍵策略之一。

PCSK9i屬於強效型降血脂藥物，臨床試驗顯示，PCSK9i對於降低LDL-C具有迅速且卓越效果，並且能顯著減少心血管事件的風險。對於ACS患者，這種藥物在急性期的使用尤其引起關注，因為在這一階段，快速和有效的膽固醇控制對於改善長期預後至關重要。多國的實際證據也顯示了PCSK9i對於患者的積極影響。這些效果使得PCSK9i在降血脂的治療中顯示出巨大的潛力，不僅是在急性期階段，其對疾病的即時控制和長期管理都提供了新的希望。

總結來說，從臨床試驗到多國實際證據的轉化，不僅證明了PCSK9i在降低LDL-C水平方面的有效性，PCSK9i在ACS患者中的應用，特別是在急性期，展示了其對於心血管疾病的預防和治療具有重要意義，也為這類藥物在全球範圍內的應用提供了堅實的證據基礎為患者帶來更好的長期健康結果。

林柏霖 醫師
新竹馬偕 心臟內科

Present Position 現職

- **主治醫師**
  新竹馬偕 心臟內科

Education 學歷

- **醫學士**
  中山醫學大學醫學系
- **碩士**
  中原大學生物醫學工程研究所
- **博士**
  國立陽明交通大學生物科技研究所

602

09:00-10:30

國衛院


許惠恒
常務理事


喻秋華
研究員


蔡世峯
博士/特聘研究員


鍾仁華
博士/研究員


江運金
博士/副研究員

09:00-09:05	**Opening**	
	Moderator	許惠恒 常務理事 | 國衛院 副院長
09:05-09:25	**Taiwan Whole Genome Consortium (TWGC): A New Era Of Genomic Medicine**	
	Moderator	許惠恒 常務理事 | 國衛院 副院長
	Speaker	蔡世峯 博士/特聘研究員 | 國衛院分子與基因研究所
09:25-09:45	**Prediction Model Of Cardiometabolic And Lipids Traits.**	
	Moderator	許惠恒 常務理事 | 國衛院 副院長
	Speaker	鍾仁華 博士/研究員 | 國衛院群體健康研究所
09:45-10:05	**Zebrafish Core Facility In NHRI-From Basic Research And Applied Toxicology To Translational Medicine.**	
	Moderator	喻秋華 研究員 | 國衛院 所長
	Speaker	江運金 博士/副研究員 | 國衛院分子與基因研究所
10:05-10:25	**Discussion**	
	Moderator	喻秋華 研究員 | 國衛院 所長
10:25-10:30	**Closing**	
	Moderator	喻秋華 研究員 | 國衛院 所長
10:30-10:45	**Coffee Break**	

Taiwan Whole Genome Consortium (TWGC): A New Era Of Genomic Medicine

TO BE PRESENTED

602 09:05-09:25

蔡世峯博士/特聘研究員
國衛院分子與基因研究所

Present Position 現職

- **Distinguished Investigator**
  Institute of Molecular and Genomic Medicine, National Health Research Institutes, Taiwan.
- **Professor**
  Institute of Genetics, National Yang-Ming University, Taiwan.

Education 學歷

- **Ph.D.**
  Division of Human Genetics, Mt. Sinai School of Medicine, City University of New York, USA.
- **M.D.**
  Taipei Medical College, Taiwan

Experience 經歷

- **2000-2010**
  Investigator
  Division of Molecular and Genomic Medicine, National Health Research Institutes, Taiwan.
- **2000-2007**
  Director
  Division of Molecular and Genomic Medicine, National Health Research Institutes, Taiwan.

*Due to space constraints, some experiences could not be included. Apologies for any inconvenience.

Prediction Model Of Cardiometabolic And Lipids Traits.

602 09:25-09:45

Background: Type 2 diabetes (T2D) and hypertension are common comorbidities and, along with hyperlipidemia, serve as risk factors for cardiovascular diseases. The increasing availability of summary statistics from large-scale genome-wide association studies (GWAS) offers an unprecedented opportunity to understand complex genetic structures associated with cardiometabolic traits related to these three diseases. Polygenic Risk Scores (PRSs) have emerged as a promising tool for predicting disease risks. This study aimed to evaluate the predictive value of PRSs on cardiometabolic traits related to the three diseases and the incidence of the diseases in Taiwan Biobank samples.

Methods: Using publicly available, large-scale GWAS summary statistics, we constructed PRSs for T2D, hypertension, body mass index (BMI), and 9 quantitative traits typically used to define the three diseases (i.e., fasting glucose, HbA1c, systolic and diastolic blood pressure, pulse pressure, total cholesterol, triglycerides, low-density lipoprotein cholesterol, and high-density lipoprotein cholesterol). The 12 PRSs were then jointly tested for associations with the 9 quantitative traits at baseline. A composite PRS (cPRS) for each of the 9 traits was constructed by aggregating the significant PRSs of its genetically correlated traits. The associations of each 9 trait at baseline as well as the change of trait values during a 3 to 6-year follow-up period with its cPRS were evaluated. The predictive performances of cPRSs in predicting future incidences of T2D, hypertension, and hyperlipidemia were assessed by comparing models incorporating cPRSs with models using only clinical features.

Results: We identified significant associations not only between a trait and its own PRS, but also between that same trait and the PRSs of traits that are related to it. Remarkably, PRS of BMI demonstrated negative associations with most traits when BMI was used as a covariate. The cPRSs had significant associations with baseline and changes of trait values in 4-6 years and explained a higher proportion of variance for all traits than individual PRSs. Furthermore, models incorporating disease-related cPRSs, along with age, sex, and BMI achieved area under the curves (AUC) values of 76.04%, 77.79%, and 69.32% for predicting future T2D, hypertension, and hyperlipidemia in 4 to 6 years, respectively.

Conclusions: This study revealed the complex genetic correlation structures of quantitative traits associated with the three diseases and underscores the potential of PRSs to improve future prediction models for T2D, hypertension, and hyperlipidemia.

鍾仁華 博士/研究員
國衛院群體健康研究所

Present Position 現職

- **Investigator**
  Institute of Population Health Sciences, National Health Research Institutes

Education 學歷

- **Ph.D.**
  Bioinformatics, Minor in Statistics, North Carolina State University, NC.
- **M.S.**
  Computer Science, University of California at Davis, CA.
- **B.S.**
  Computer Science, National Chiao-Tung University, Taiwan.

Experience 經歷

- **Associate Investigator**
  Institute of Population Health Sciences, National Health Research Institutes
- **Assistant Professor**
  University of Miami Miller School of Medicine

Zebrafish Core Facility In NHRI-From Basic Research And Applied Toxicology To Translational Medicine.

602 09:45-10:05

江運金博士/副研究員
國衛院分子與基因研究所

Model organisms allow many biomedical researchers to conduct animal experiments to understand the complex mechanisms of physiology and pathology. In order to save money and time in experiments using mammals such as mice and rats, zebrafish (Danio rerio) has become a new and complementary model organism. Zebrafish are easy to raise and have many offspring. Its early embryos are transparent and easy to observe, which are very different from mice and rats. It also develops quickly and reaches sexual maturity in three months, making it easy to reproduce and low-cost. Chemical, physical and biological methods can be used to induce mutants, and molecular biological methods can also be used to change the expression of specific genes and produce transgenic fish. Zebrafish and humans are both vertebrates. The genetic maps are extremely similar. 70% of human genes have at least one obvious orthologous gene in zebrafish, and up to 80% of human disease genes have at least one obvious orthologous gene in zebrafish.

NSTC has supported the Taiwan Zebrafish core facility (TZCF, NHRI and AS branches) since 2010. The number of researchers and laboratories using zebrafish has grown significantly, and the quality and quantity of papers produced are also significantly improved. However, the zebrafish model is not limited to biological research. Recently, zebrafish have been increasingly used for environmental monitoring, toxicity testing, drug screening and disease models. To promote zebrafish research and develop zebrafish-related core technologies, it is necessary to establish a platform to provide consultation and services. Since 2015, we have established a platform with NSTC support. From 2019, we apply for a grant under the name of "Taiwan zebrafish technology and resource center" and continue to serve to academia and industry. Based in the NHRI and AS branches, the services combine the resource-sharing and education training with the translational services and industrial connectivity to build a complete service platform.

Zebrafish have been used to explore the mechanism of drug action. For example, some cardiovascular, anti-angiogenic and anti-cancer drugs have been found to produce similar physiological and morphological responses in zebrafish embryos and mammalian systems. In addition, when zebrafish embryos are treated with some small-molecule chemicals, obvious changes in organs and development can also be observed, and the changes in organs caused by some chemicals are similar to the mutations produced by specific gene defects. Therefore, zebrafish can be used to engage in various drug research, such as screening of chemical drug libraries, prediction of drug toxicity and malformations, pharmacology and toxicogenomics, etc. At the same time, zebrafish can be used as a bridge between cell culture and expensive mouse in vivo testing systems for testing new drugs for human treatment.

Environmental protection are one of the issues that people are most concerned about. Zebrafish embryos have been used in OECD TG-236 (Fish Embryos Acute Toxicity Test) to test the water quality. In recent years, the impact of environmental hormone pollution on human health has been a big issue. OECD TG-250 uses embryos from a special fluorescent transgenic zebrafish TG line (cyp19a1b: GFP) to detect endocrine disruption (hormone disruption).

Nevertheless, zebrafish have also been used in biomedical and translational studies. We will use published and our own studies to exemplify the use of zebrafish in finding the drug to cure a rare lymphatic anomaly and the establishment of a disease model for Grange syndeome.

Present Position 現職

•**Associate Investigator**
Institute of Molecular and Genomic Medicine, National Health Research Institutes, Miaoli, Taiwan

Education 學歷

•**Dr. rer. nat.**
Biology, Eberhard-Karls Universität (Tübingen University), Tübingen, Germany.
•**M.Sc.**
Biochemistry, National Taiwan University, Taipei, Taiwan.
•**B.Sc.**
Agricultural Chemistry, National Taiwan University, Taipei, Taiwan.

Experience 經歷

•**2020/10- 2021/12**
Deputy Director/Associate Investigator
Institute of Molecular and Genomic Medicine, National Health Research Institutes, Miaoli, Taiwan.

*Due to space constraints, some experiences could not be included.
Apologies for any inconvenience.

602

10:45-12:15

台灣循環研究學會


劉秉彥
秘書長


楊鎧鍵
監事


裘正健
特聘研究員


劉嚴文
醫師


柯泰名
秘書長

10:45-10:50	**Opening**	
	Moderator	劉秉彥 秘書長 | 成大醫院 心臟內科
10:50-11:10	**Vascular Mechanobiology And Tissue Engineering**	
	Moderator	劉秉彥 秘書長 | 成大醫院 心臟內科
	Speaker	裘正健 特聘研究員 | 國衛院細胞及系統醫學研究所
11:10-11:30	**心臟再生研究之動物模式**	
	Moderator	劉秉彥 秘書長 | 成大醫院 心臟內科
	Speaker	劉嚴文 醫師 | 成大醫院 心臟內科
11:30-11:50	**Advanced Multi-Modal Single-Cell Analysis Of Peripheral Immune Perturbations In Vascular Diseases And Regenerative Medicine**	
	Moderator	楊鎧鍵 監事 | 臺大醫院 心臟內科
	Speaker	柯泰名 秘書長 | 國立陽明交通大學
11:50-12:10	**Discussion**	
	Moderator	楊鎧鍵 監事 | 臺大醫院 心臟內科
12:10-12:15	**Closing**	
	Moderator	楊鎧鍵 監事 | 臺大醫院 心臟內科
12:15-12:30	**Lunch Break**	

Vascular Mechanobiology And Tissue Engineering

602 10:50-11:10

裘正健 特聘研究員
國衛院細胞及系統醫學研究所

Atherosclerosis preferentially develops in arterial branches and curvatures where vascular endothelium is exposed to disturbed flow. This study aims at elucidating the effects of disturbed flow on the regulation of vascular endothelial phosphoproteins and their contribution to and therapeutic application in atherogenesis. This study used a combination of porcine models, large-scale phosphoproteomics, transgenic mice, and clinical specimens to discover novel site-specific phosphorylation alterations induced by disturbed flow in endothelial cells (ECs). Through large-scale phosphoproteomics analysis of native endothelium from disturbed (athero-susceptible) vs. pulsatile flow (athero-resistant) regions of porcine aortas, we have identified a novel atherosclerosis-related phosphoprotein vinculin (VCL) whose phosphorylation at serine 721 (VCLS721p) is induced by disturbed flow. This VCLS721p is mediated by G-protein-coupled receptor kinase 2 (GRK2)S29p and induces an inactive form of VCL with a closed conformation, leading to VE-cadherin/catenin complex disruption to enhance endothelial permeability and atherosclerosis. Generation of novel transgenic mice bearing endothelial-specific overexpression of S721-non-phosphorylatable VCL mutant in apolipoprotein E-deficient (ApoE-/-) mice confirms the critical role of VCLS721p in promoting atherosclerosis. Administration of a GRK2 inhibitor to ApoE-/- mice inhibits plaque formation via inhibiting endothelial VCLS721p. Investigations on clinical specimens from patients with coronary artery disease (CAD) demonstrate that endothelial VCLS721p is a critical clinicopathological biomarker for atherosclerosis progression, and that the serum VCLS721p level is a promising biomarker for CAD diagnosis. Our findings suggest that endothelial VCLS721p is a valuable hemodynamic-based target for clinical assessment and treatment of vascular disorders resulting from atherosclerosis.

Present Position 現職

- **Director of the Board**
  Point Robotics MedTech Inc., Taipei
- **Joint-Appointment Professor**
  Institute of Biomedical Engineering, National Tsing Hua University, Taiwan.
- **Distinguished Investigator**
  Institute of Cellular and System Medicine, National Health Research Institutes, Taiwan.

Education 學歷

- **Ph.D.**
  Institute of Aeronautics and Astronautics, National Cheng Kung University, Taiwan.
- **B.S.**
  Department of Mechanical Engineering, Chung Yuan Christian University, Taiwan.

Experience 經歷

- **Dean and Chair Professor of Vascular Molecular Bioengineering**
  College of Medical Science and Technology, Taipei Medical University, Taipei, Taiwan.

*Due to space constraints, some experiences could not be included. Apologies for any inconvenience.

心臟再生研究之動物模式

602 11:10-11:30

劉嚴文 醫師
成大醫院 心臟內科

Present Position 現職

•教授
國立成功大學醫學院 藥理所
•副主任
國立成功大學醫學院附設醫院
臨床試驗中心
•主任
國立成功大學醫學院附設醫院
細胞治療中心
•合聘教授
國立成功大學醫學院 心臟內科
教授 / 臨床醫學研究所
•主治醫師
國立成功大學醫學院附設醫院
心臟內科教授 / 臨床醫學研究所

Education 學歷

•Post-doctoral fellow
Center for Cardiovascular Biology and Institute for Stem Cell and Regenerative Medicine, UW Medicine, University of Washington, Seattle, WA, U.S.A.
•博士
國立成功大學 臨床醫學研究所
•醫學士
國立成功大學

Cardiovascular diseases are the leading cause of death worldwide, among which, ischemic heart disease is the most prevalent. Myocardial Infarction (MI) occurs due to a blockage in the coronary artery resulting in ischemia and necrosis of cardiomyocytes in the left ventricular heart muscle. Current guideline-directed therapies, including coronary revascularization in time and optimal medical treatments, are beneficial but could not regenerate the injured myocardium. It is because the adult mammalian hearts possess limited regenerative ability so that the dead cardiomyocytes could not be regenerated but would be replaced with fibrous scar tissue, causing a decrease in myocardial contractility and thus affecting the functional capacity of the myocardium. In recent years, with the advent of human pluripotent stem cells (hPSCs), cell therapies derived from hPSCs for the treatment of MI emerge as a potential for cardiac regeneration. Although hPSCs and their derived differentiated cells are promising candidates, their translatability for clinical applications has been hindered due to poor preclinical reproducibility. Various preclinical animal models for MI, ranging from mice to non-human primates, have been adopted in cardiovascular research to mimic MI in humans. Importantly, the strategy to model MI in animals must resemble the pathophysiological conditions of myocardial infarction as in humans, to enable comprehensive testing of the therapeutic efficacy and safety of hPSC-derived cell therapy before embarking on human trials. We have to acknowledge that rigorous experiments using large mammals are increasingly important to simulate clinical reality and increase translatability into clinical practice. Today, I will review the diverse array of vertebrates that have been studied for their cardiac regenerative potential and summarize current knowledge about the commonly used methodologies in developing the myocardial infarction model, the choice of animal species, the immunosuppressive strategies in allowing xenotransplantation and the source of cells, number as well as delivery methods.

Advanced Multi-Modal Single-Cell Analysis Of Peripheral Immune Perturbations In Vascular Diseases And Regenerative Medicine

602 11:30-11:50

The interrogation of circulating immune cells plays a pivotal role in the diagnosis, prognosis, and elucidation of mechanisms involved in vascular diseases and associated immune perturbations. The comprehensive molecular characterization of these diverse immune cells circulating in the bloodstream has traditionally been a daunting challenge. Our research aims to fill this gap through sophisticated multi-modal single-cell analysis, designed to dissect the intricate molecular interplay within peripheral immune perturbations specific to vascular disorders. By harnessing the power of genomics, bioinformatics, and deep cardiovascular expertise, we have pioneered innovative single-cell data analysis methodologies. These methodologies accurately identify and characterize the functional attributes and dynamic transitions of key immune cell subsets. During this presentation, we will unveil our cutting-edge developments in cellular immuno-pharmaco-genomics, illustrating how our multi-dimensional approach is instrumental in formulating personalized therapeutic strategies for vascular conditions. Attend this session to discover how the precision of single-cell analysis is revolutionizing our understanding and treatment of cardiovascular diseases, paving the way for novel regenerative medical applications.

柯泰名 秘書長
國立陽明交通大學

Present Position 現職

- **Secretary-General**
  Taiwan Circulation Research Society (TCRS)
- **Associate Professor**
  Department of Biological Science and Technology
- **Joint Associate Professor**
  Institute of Bioinformatics and Systems Biology,
  National Yang Ming Chiao Tung University, Hsinchu, Taiwan.
- **Joint Appointment**
  Assistant Research Fellow
  Institute of Biomedical Sciences,
  Academia Sinica, Taiwan.

Education 學歷

- **Ph.D.**
  College of Medicine, National Taiwan University, Taiwan.
- **M.S.**
  College of Medicine, National Cheng Kung University, Taiwan.
- **B.S.**
  Department of Animal Science, National Taiwan University, Taiwan.

12:30-13:10

Lunch Symposium - TSH

詹貴川
醫師

蘇峻弘
醫師

12:30-12:55 New Trends In Lipid Management: The Application Of Fixed-Dose Combination Drugs

Moderator : 詹貴川 醫師 | 中山附醫院長
Speaker : 蘇峻弘 醫師 | 中山附醫 心臟內科

12:55-13:10 Panel Discussion

Moderator : 詹貴川 醫師 | 中山附醫院長
Speaker : 蘇峻弘 醫師 | 中山附醫 心臟內科

New Trends In Lipid Management: The Application Of Fixed-Dose Combination Drugs

602 12:30-13:10

In recent years, there has been a significant clinical shift towards the use of combination therapies for lipid management, particularly the pairing of statins with ezetimibe. This approach has been driven by the need to achieve stricter LDL-C targets, especially in high-risk cardiovascular patients. Clinical evidence has shown that the combination of a statin with ezetimibe is more effective at lowering LDL-C levels compared to statin monotherapy, offering an enhanced chance of reaching lipid goals with a lower risk of adverse effects.

The combination therapy has proven to be particularly beneficial for patients who require a reduction in LDL-C by more than 50% or for those who do not respond adequately to high-intensity statin monotherapy. By leveraging the complementary mechanisms of action of statins and ezetimibe, healthcare providers can achieve significant reductions in LDL-C levels, leading to improved cardiovascular outcomes.

This trend towards combination therapy is increasingly being incorporated into clinical practice, offering a more personalized and effective approach to lipid management. The upcoming symposium at the TSLA will focus on how these therapeutic strategies can be implemented in Taiwan to optimize patient outcomes. Special attention will be given to the practical application of these therapies, particularly in using fixed-dose combinations like Cretrol (ezetimibe + rosuvastatin) to enhance treatment efficacy and patient adherence.

蘇峻弘 醫師
中山附醫 心臟內科

Present Position 現職

•主治醫師
中山醫學大學附設醫院心臟內科
•主任
中山醫學大學附設醫院心導管室
•專任教授暨副系主任
中山醫學大學醫學系

Education 學歷

•醫學博士
中山醫學大學 臨床醫學研究所
•醫學碩士
中山醫學大學 臨床醫學研究所
•醫學士
中山醫學大學

Experience 經歷

•2021/02-迄今
專任教授
中山醫學大學醫學系
•2020/08-迄今
副系主任
中山醫學大學醫學系
•2018/08-2019/07
學科主任
中山醫學大學醫學系內科

*由於篇幅限制，部分經歷未能收錄，敬請見諒。

602

13:10-14:40

Big Data and AI Applications for ASCVD
TSLA & 血脂衛教協會 Joint Symposium


吳造中
理事長


黃柏勳
理事長


黃彥達
醫師


柯紀綸
醫師

13:10-13:15	**Opening**	
	Moderator	吳造中 理事長 | 臺大醫院 心臟內科
13:15-13:35	**Application Of "Passion" In One Specialty — Choose A Loved Specialty And Love It Forever!**	
	Moderator	吳造中 理事長 | 臺大醫院 心臟內科
	Speaker	梁懷文 醫師 | 義大醫院 心臟內科
13:35-13:55	**Big Data And AI-Assisted Program For Risk Stratification And Health-Care Referral System Of ASCVD And HF**	
	Moderator	黃柏勳 理事長 | 臺北榮總 心臟內科
	Speaker	吳造中 名譽理事 | 臺大醫院 心臟內科
13:55-14:15	**Applications Of Artificial Intelligence In Myocardial Perfusion Imaging.**	
	Moderator	黃柏勳 理事長 | 臺北榮總 心臟內科
	Speaker	柯紀綸 醫師 | 臺大醫院 核子醫學部
14:15-14:35	**Discussion**	
	Moderator	黃柏勳 理事長 | 臺北榮總 心臟內科
14:35-14:40	**Closing**	
	Moderator	黃柏勳 理事長 | 臺北榮總 心臟內科
14:40-14:50	**Coffee Break**	

Application Of "Passion" In One Specialty — Choose A Loved Specialty And Love It Forever!

TO BE PRESENTED

602 13:15-13:35

梁懷文 醫師
義大醫院 心臟內科

Present Position 現職

•主治醫師
成大醫院外科部SICU
•臨床副教授
成大醫學院外科學科

Education 學歷

•博士
慈濟大學藥理暨毒理學研究所
•醫學士
臺灣大學醫學系

Experience 經歷

•2000/08-2021/01
兼任副教授
花蓮慈濟醫院MICU/SICU/實驗外科主治醫師，慈濟大學藥理學科

Big Data And AI-Assisted Program For Risk Stratification And Health-Care Referral System Of ASCVD And HF

TO BE PRESENTED

602 13:35-13:55

吳造中 名譽理事
臺大醫院 心臟內科

Present Position 現職

- **主治醫師**
  臺大醫院 心臟內科
- **教授**
  國立臺灣大學 醫學院醫學系
- **共同召集人**
  臺大醫院 共同教育培訓中心
  教學評鑒組

Education 學歷

- **博士**
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  臨床醫學研究所
- **醫學士**
  國立臺灣大學 醫學系

Applications Of Artificial Intelligence In Myocardial Perfusion Imaging.

602 13:55-14:15

Artificial intelligence (AI), particularly deep neural networks, has become increasingly implementable in recent years, revolutionizing various fields of medicine. In nuclear cardiology, AI technology has shown promising applications in myocardial perfusion imaging (MPI), offering potential improvements in diagnosis, interpretation, and patient care. This talk will explore the recent advances in applying AI to MPI, focusing on its impact across multiple aspects of the imaging process and analysis.

The presentation will delve into how AI is being utilized for quality assurance of interpretation, radiation dose reduction, detection of perfusion abnormalities, identification of ischemia, and risk stratification of patients. Notably, several studies have demonstrated that neural networks can outperform conventional statistics-based scoring methods in analyzing MPI data. This improved performance has significant implications for enhancing diagnostic accuracy and patient outcomes.

By reviewing these recent developments, we aim to provide attendees with a comprehensive understanding of AI's current and potential future roles in MPI. The talk will emphasize both the exciting opportunities and important considerations for integrating AI into clinical practice, equipping participants with valuable insights into this rapidly evolving field of nuclear cardiology.

柯紀綸 醫師
臺大醫院 核子醫學部

Present Position 現職

•主治醫師
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Experience 經歷

•2014-2016
主治醫師
台大雲林分院核子醫學部
•2010-2014
住院醫師
台大醫院核子醫學部

602

14:50-16:20

DM Symposium


許惠恒
常務理事


陳榮福
理事


沈峰志
醫師


郭俸志
醫師


林時逸
醫師

14:50-14:55	**Opening**	
	Moderator	許惠恒 常務理事 | 國衛院 副院長
14:55-15:15	**Diabetes With Dyslipidemia: An Update Of New Therapeutics**	
	Moderator	陳榮福 理事 | 高雄長庚 新陳代謝科
	Speaker	沈峰志 醫師 | 高雄長庚 新陳代謝科
15:15-15:35	**Nutrition As Medication In Diabetes And Obesity**	
	Moderator	陳榮福 理事 | 高雄長庚 新陳代謝科
	Speaker	郭俸志 醫師 | 三軍總醫院 新陳代謝科
15:35-15:55	**Precision Diabetes Educations: What Have We Learned?**	
	Moderator	陳榮福 理事 | 高雄長庚 新陳代謝科
	Speaker	林時逸 醫師 | 台中榮總 新陳代謝科
15:55-16:15	**Discussion**	
	Moderator	陳榮福 理事 | 高雄長庚 新陳代謝科
16:15-16:20	**Closing**	
	Moderator	陳榮福 理事 | 高雄長庚 新陳代謝科

Diabetes With Dyslipidemia: An Update Of New Therapeutics

602 14:55-15:15

Dyslipidemia among individuals living with type 2 diabetes (T2D) remains inadequately managed on a global scale, with only about a quarter of patients achieving the desired target for low-density lipoprotein cholesterol (LDL-C) levels. Several factors contribute to this situation, including physician inertia among both diabetologists and cardiologists, nonadherence to therapy, and suboptimal utilization and dosing of lipid-lowering medications due to inappropriate cardiovascular (CV) risk assessment.

The new statement from DAROC (Taiwan) and the TADE on optimizing lipid control in Taiwanese diabetic patients addresses the management of dyslipidemia in individuals living with diabetes mellitus (DM) in Taiwan, focusing on evidence-based recommendations. It highlights the gap between guideline recommendations and real-world clinical practices, as well as the impact of policy changes on statin prescription rates. Here, we summarize the latest evidence on lipid management in patients with DM and present a consensus on the LDL-C treatment goals. In conclusion, this comprehensive statement provides evidence-based recommendations for managing dyslipidemia in people living with DM in Taiwan and underscores the importance of individualized care, considering various factors, and introducing emerging therapies to improve cardiovascular outcomes.

沈峰志 醫師
高雄長庚 新陳代謝科

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•主治醫師
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Education 學歷

•1994/09-2001/06
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Experience 經歷

•2006-2008
訓練員
高雄長庚醫院新陳代謝科
•2003-2006
住院醫師
高雄長庚醫院內科部

Nutrition As Medication In Diabetes And Obesity

602 15:15-15:35

Obesity and diabetes are both global pandemic disorders that contribute to increased risks for cardiovascular diseases. Calorie restriction, with or without time-restricted eating or intermittent fasting, has been proven as a fundamental principle for mitigating the progression of obesity and diabetes. However, relatively few studies focus on the influence of different macronutrient compositions on health and lifespan. In this talk, I will first introduce the physiological regulation of energy balance, then describe the roles of the gastrointestinal tract in maintaining energy and glucose homeostasis, partly through nutrient sensing and subsequent signaling to the brain and other tissues. I will briefly review some intriguing investigations that identify how lipids, carbohydrates, and proteins initiate gut peptide release from the enteroendocrine cells through small intestinal sensing pathways, and how these peptides regulate food intake, glucose tolerance, and hepatic glucose production. Lastly, a recent clinical trial applying periodic use of a fasting-mimicking diet (a plant-based, low-calorie, and low-protein 5-day dietary intervention) has shown it can change hepatic and blood markers, reduce biological age, and ameliorate associated disease risks. Overall, this evidence indicates that nutrition can indeed serve as medication, having physiological and pathological impacts, as well as therapeutic potential in obesity and diabetes.

郭俸志 醫師
三軍總醫院 新陳代謝科

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•Attending physician
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Education 學歷

•1999-2006
M.D.
National Defense Medical Center, Taipei, Taiwan.
•2014-2018
Ph.D.
Medical Sciences, University of Oxford, UK.

Experience 經歷

•2020-2024
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Precision Diabetes Educations: What Have We Learned?

602 15:35-15:55

林時逸 醫師
台中榮總 新陳代謝科

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台中榮民總醫院高齡醫學中心

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國立陽明大學臨床醫學研究所
•醫學士
國立陽明醫學院醫學系

糖尿病患者會增加血管併發症風險，例如糖尿病患者會增加心血管疾病，腎臟疾病、神經病變、視網膜病變與下肢部分或完全截肢機會。糖尿病精準醫療是指考慮到個體間差異，經由整合大量臨床資料，優化糖尿病診斷、預測、預防或治療的方法。與現有醫學的主要區別是精準醫療使用複雜的數據來描述個人的健康狀況、易感性、預後和可能的治療反應。隨著醫學進步與更多更多的生物和生理數據累積，將更加提升糖尿病與其併發症更精確診斷分類、風險預測、治療和預後等目的。

目前基於各研究實證，糖尿病醫療會使用降糖藥物控制HbA1c與和statin藥物、高血壓藥物降低各血管併發症風險。此外也會針對特定併發症使用如ACE 抑製劑/AngiotensinII 受體阻斷劑(ARBs) 和 SGLT2 抑製劑用於治療控制糖尿病慢性腎臟疾病，Fibrate類藥物用於糖病視網膜病變等。除藥物治療外，也會透過糖尿病衛教改善飲食與運動等日常生活行為，增進自我照護能力，提升用藥規則性，並定時進行如血糖與血壓自我間監測等。但值得注意的是，糖尿病衛教目前雖有許多教材，但是如何將不同衛教內容精準運到到合適的病人身上，目前研究是較少的。例如我們是否能根據更精確糖尿病分型或併發發症症風險預測等，進行精準糖尿病飲食、運動與生活方式等衛教。此外進行糖尿病人衛教時或教材內容製作時，也需注意所謂的精準醫療照護(Precision Health Care; (PHC)，它的概念主要涉及依據病人基本特質、個人生活模式偏好與所需優先次序，設定不同我管理模式，達成照護目標。例如依據實證訂定目標、病人生活偏好和優先次序，透過跨團隊合作，制定量身訂作的飲食與運動教育方法，讓病人能自我管理，並運用可行監測模式，達成個人化血糖控制目標。隨著現有精準診斷、藥物治療，併發症風險與預後預測等之進步，也能同時發展量身定制糖尿病衛教教育計劃與策略，進而達到降低糖尿病併發症，提升生活品質的目標。

臺灣現有糖尿病併發症風險檢測工具中，如國家衛生研究院與高雄醫學大學附設醫院與政大理學院團隊完成開發「糖尿病慢性併發症風險評估模型」，它包含：糖尿病腎病變風險、粥狀動脈硬化心臟病風險、鬱血性心臟病風險、缺血性腦中風風險、糖尿病視網膜病變風險與四肢截肢風險，共六大類，提供病人個別化重要糖尿病併發症發生風險的預測功能。為此中華民國糖尿病衛教學會訂定糖尿病精準衛教計畫，運用此併發症風險預測工具，依據運算出併發症風險高低，針對最高風險糖尿病併發症，進行個人化糖尿病衛教，除進行併發症風險衛教外，研究也進行飲食習慣與用藥與生活模式等生活型態調查，據此找出最適合病人的衛教內容與進行模式，藉以增進糖尿病照護品質。

602

16:20-17:50

2024 From Ancient Remedies to Modern Marvels: Shaping the Future of Weight Management


褚柏顯
醫師


王朝永
副秘書長


鄭建興
監事


吳家棟
醫師


張皓翔
醫師


林蔚然
醫師

16:20-16:25	**Opening**	
	Moderator	褚柏顯 醫師 | 林口長庚 心臟內科
16:25-16:45	**Obesity, Sugar, And Heart Health**	
	Moderator	褚柏顯 醫師 | 林口長庚 心臟內科
	Speaker	吳家棟 醫師 | 林口長庚 心臟內科
16:45-17:05	**Beyond GLP-1: Exploring The Future Of Weight Management With GLP-1, SGLT2, GIP Agonists, And Novel Combination Therapies**	
	Moderator	王朝永 副秘書長 | 林口長庚 心臟內科
	Speaker	張皓翔 醫師 | 臺大醫院 家庭醫學科 |
17:05-17:25	**Endoscopic Options For Weight Loss**	
	Moderator	鄭建興 監事 | 臺大醫院 神經內科
	Speaker	林蔚然 醫師 | 林口長庚 胃腸科
17:25-17:45	**Discussion**	
	Moderator	鄭建興 監事 | 臺大醫院 神經內科
17:45-17:50	**Closing**	
	Moderator	鄭建興 監事 | 臺大醫院 神經內科
17:50-18:00	**Dinner Break**	

Obesity, Sugar, And Heart Health

602 16:25-16:45

隨著全球肥胖率持續攀升，糖分攝取與心臟健康之間的關聯已成為當前醫學研究的重要課題。本演講將探討肥胖如何通過代謝途徑影響心血管系統，特別是糖分過量攝取對心臟健康的負面影響。肥胖患者通常伴隨著胰島素抵抗、高血糖以及脂質異常，這些因素均顯著增加心血管疾病的風險。演講中將深入解析糖分在代謝紊亂中的角色，並探討飲食控制及生活方式改變對於預防心臟病的重要性。此外，本次演講還將介紹最新的臨床研究成果，包括如何透過早期介入和多學科合作來降低心血管事件的發生率。透過這些探討，我們希望加深對於肥胖與糖分對心臟健康影響的理解，並為臨床醫師提供具體的治療建議，以改善患者的心臟健康狀況。

吳家棟 醫師
林口長庚 心臟內科

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- **Director**
  Cardiology Intensive Care Unit, Chang Gung Memorial Hospital, Linkou
- **Vice President**
  Medical Education Committee, Internal medicine, Chang Gung Memorial Hospital, Linkou
- **Attending Physician**
  Cardiology, Chang Gung Memorial Hospital, Linkou

Education 學歷

- **M.D.**
  Chang-Gung University, Department of medicine, Taoyuan, Taiwan.

Beyond GLP-1: Exploring The Future Of Weight Management With GLP-1, SGLT2, GIP Agonists, And Novel Combination Therapies

602 16:45-17:05

肥胖是一個重要的公共衛生問題，依台灣「國民營養健康狀況變遷調查」資料顯示，成人過重及肥胖盛行率1993-1996年33.2%、2005-2008年43.3%、2013-2016年44.5%，逐步增加，糖尿病、高血壓、動脈硬化性心臟病、癌症等也隨之增加，對國人健康影響甚鉅。以體重管理為核心的慢性病管理策略逐漸成為健康照護的主流，基於實證對於體重過重重（即BMI ≥ 30kg/m2或BMI ≥ 27kg/m2並有合併症），建議進行飲食控制同時結合行為治療介入（6個月內進行≥14次面對面諮詢），培養規律運動與良好睡眠，提供以病人為中心的治療建議。相較於過去，以生活型態介入為主的減重治療，過去10年相當的減重藥物問世，使的肥胖醫學與臨床治療獲得相當的進步，經過生活型態介入依然無法維持適當體重的民眾，可以評估使用減重輔助藥物。目前羅氏鮮、康纖芙、善纖達是目前台灣核准的減重輔助藥物能達到減重約5~10%不等的效果，此外，長效GLP1致效劑semaglutide與雙重GLP1與GIP致效劑tirzepatide也獲得美國FDA核准使用於肥胖輔助治療，其減重效果顯著15~20%極具有臨床運用性，更令人驚豔的是過去減重藥物所伴隨的心血管疾病風險，在此類藥物不僅沒有出現，甚至具有保護效果。

張皓翔 醫師
臺大醫院 家庭醫學科

Present Position 現職

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- **Chief**
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- **Professor & Associate Director**
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- **Associate Director**
  Liver Research Center, Linkou Chang Gung Memorial Hospital
- **Chief**
  Healthcare Center, Taoyuan Chang Gung Memorial Hospital
- **Professor**
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Education 學歷

- **2007-2010**
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  Blizard Institute of Cell and Molecular Science, Queen Mary University of London, United Kingdom.
- **1993-2000**
  Degree of Doctor of Medicine
  China Medical University, Faculty of Medicine, Taiwan.

Endoscopic Options For Weight Loss

602 17:05-17:25

Endoscopic options for weight loss includes a variety of endoscopic technique. These techniques can be divided into two main categories: restrictive procedures, which include gastric balloon insertion (GBI) and endoscopic sleeve gastroplasty (ESG), and malabsorptive procedures, such as the endoscopic duodenal-jejunal bypass sleeve. This discussion will specifically emphasize the gastric approach.

GBI is a safe and minimally invasive weight loss procedure that involves inserting an inflatable balloon into the stomach. This balloon sensation creates a feeling of fullness, thereby reducing food intake. Among its benefits are a quicker recovery period, fewer complications, and the possibility of being reversible. ESG is another cutting-edge, minimally invasive option for managing obesity. This procedure utilizes sutures and specialized instruments to decrease the stomach's size, mimicking the effects achieved through surgical sleeve gastrectomy, but without any incisions. Compared to bariatric surgeries, the advantages of ESG include reduced recovery time and lower rates of complications. Both GBI and ESG are effective alternatives for individuals with a body mass index (BMI) over 30 who are looking for non-surgical weight loss solutions. When these procedures are paired with lifestyle changes and medication, they can help individuals achieve sustainable long-term weight management.

林蔚然 醫師
林口長庚 胃腸科

Present Position 現職

- **Professor & Associate Director**
  Department of Gastroenterology & Hepatology
- **Chief**
  Division of Gastroenterology
- **Professor & Associate Director**
  Department of Gastroenterology & Hepatology
- **Associate Director**
  Liver Research Center, Linkou Chang Gung Memorial Hospital
- **Chief**
  Healthcare Center, Taoyuan Chang Gung Memorial Hospital
- **Professor**
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Education 學歷

- **2007-2010**
  Doctor of Philosophy
  Blizard Institute of Cell and Molecular Science, Queen Mary University of London, United Kingdom.
- **1993-2000**
  Degree of Doctor of Medicine
  China Medical University, Faculty of Medicine, Taiwan.

18:00-18:40

Dinner Symposium - AstraZeneca

黃柏勳
理事長

王朝永
副秘書長

18:00-18:05	**Opening**	
	Moderator	： 黃柏勳 理事長 | 臺北榮總 心臟內科
18:05-18:25	**Lipid Management, Taiwan And The World Policy, Guideline & Role Of Statin And Other LLT**	
	Moderator	： 黃柏勳 理事長 | 臺北榮總 心臟內科
	Speaker	： 王朝永 副秘書長 | 林口長庚 心臟內科
18:25-18:35	**Panel Discussion**	
	Moderator	： 黃柏勳 理事長 | 臺北榮總 心臟內科
18:35-18:40	**Closing**	
	Moderator	： 黃柏勳 理事長 | 臺北榮總 心臟內科

Lipid Management, Taiwan And The World Policy, Guideline & Role Of Statin And Other LLT

602 18:05-18:35

隨著血脂治療不斷地進步，各式各樣的血脂控制手段如雨後春筍般出現，世界的血脂治療目標趨勢也不斷持續修改。在台灣，2017發表，2022 年增修的 ”台灣血脂控制次級預防指引” 以及2022年發表的”台灣血脂初級預防指引”，都在在提出血脂控制越低越好的趨勢。

本次演講我們將著重於:

1. 比較各國與台灣的血脂治療狀況
2. 各種血脂控制的治療介紹以及不同血脂治療所帶來的好處
3. 考量現況，有效的血脂控制策略中，強效 statin 所扮演的關鍵角色。

透過此場演講，希望能讓聽眾了解如何更適切地替您的患者設定治療策略，高強度Statin的優勢以及如何提高患者的遵醫囑性，最大化利用高強度Statin以達到”The lower, the better”的目標。

王朝永 副秘書長
林口長庚 心臟內科

Present Position 現職

- **主治醫師**
  林口長庚醫院 心臟內科
- **教授**
  長庚大學 醫學系
- **合聘研究員**
  國家衛生研究員
- **兼任教授**
  國立清華大學

Education 學歷

- **醫學士**
  長庚大學 醫學系
- **研究員**
  哈佛大學 醫學院

603

09:00-12:15

心血管疾病防治網繼續教育課程


謝敏雄
醫師


蘇正煌
醫師


林維文
監事


曹承榮
醫師


林姝含
醫師


鄭浩民
醫師


林肇鋒
醫師

09:00-09:10	**Opening**

Moderator : 謝敏雄 醫師 | 萬芳醫院 心臟內科

09:10-09:40	**What Is The Recommended Healthy Lifestyle For My Cardiovascular Disease Patients**
09:40-09:50	**Discussion**

Moderator : 謝敏雄 醫師 | 萬芳醫院 心臟內科
Speaker : 曹承榮 醫師 | 衛福部豐原醫院 副院長

09:50-10:20	**New Recommended Dyslipidemia Management In 2024**
10:20-10:30	**Discussion**

Moderator : 謝敏雄 教授 | 萬芳醫院 心臟內科
Speaker : 林姝含 醫師 | 新光醫院 心臟內科

10:30-10:45	**Coffee Break**
10:45-11:15	**New Development Of Hypertension Treatment In 2024**
11:15-11:25	**Discussion**

Moderator : 蘇正煌 醫師 | 台北馬偕 心臟內科
Speaker : 鄭浩民 醫師 | 台北榮總 心臟內科

11:25-11:55	**New Development Of Acute Coronary Syndrome Treatment In 2024**
11:55-12:15	**Discussion & Closing**

Moderator : 林維文 監事 | 台中榮總 心臟內科
Speaker : 林肇鋒 醫師 | 台北馬偕 心臟內科

12:15-12:30	**Lunch Break**

What Is The Recommended Healthy Lifestyle For My Cardiovascular Disease Patients

603 09:10-09:50

Cardiovascular disease (CVD) is a major health concern worldwide, but adopting a healthy lifestyle can significantly reduce the risk and improve outcomes for patients. A heart-healthy diet is fundamental. Patients should follow a balanced diet rich in fruits, vegetables, whole grains, and lean proteins, particularly the Mediterranean diet. It's important to limit intake of unhealthy fats and sodium while increasing fiber intake. Alcohol consumption should be moderate, with up to one drink per day for women and two for men.

Regular physical activity is crucial for managing CVD. Patients should aim for at least 150 minutes of moderate-intensity aerobic exercise or 75 minutes of vigorous-intensity exercise per week. Additionally, muscle-strengthening activities should be included on two or more days per week. Flexibility and balance exercises, such as yoga and tai chi, are also beneficial as they help reduce stress and improve physical stability.

Maintaining a healthy weight is essential. Patients should strive for a body mass index (BMI) between 18.5 and 24.9 and a waist circumference below 40 inches for men and 35 inches for women to avoid abdominal obesity, which is particularly harmful.

Smoking cessation is another critical aspect of managing CVD. Patients who smoke should be encouraged and supported to quit, and they should also avoid exposure to secondhand smoke. Smoking significantly increases the risk of cardiovascular events, and quitting can drastically improve heart health.

Finally, stress management, good sleep hygiene, and regular health screenings are vital. Techniques such as mindfulness and meditation can help manage stress, while maintaining a consistent sleep schedule and a comfortable sleep environment promotes better rest. Regular screenings for blood pressure, cholesterol levels, and blood sugar are important for early detection and management of CVD risk factors. By following these comprehensive lifestyle recommendations, patients can significantly enhance their cardiovascular health and overall quality of life.

曹承榮 醫師
衛福部豐原醫院 副院長

Present Position 現職

•副院長
衛福部豐原醫院
•理事
大台中醫師公會
•學術委員會委員
台灣心肌梗塞學會
•學術委員會委員
台灣臺灣介入性心臟血管醫學會
•助理教授
中台科大，兼任

Education 學歷

•2017/06
EMHA
東海大學高階醫務管理碩士
•1995/06
M.D.
高雄醫學大學醫學系畢業

Experience 經歷

•2016-2021
醫務秘書
衛福部豐原醫院
•2014-2016
副秘書長
中華民國心臟學會
•2014-2016
學術委員會委員
中華民國心臟學會
肺動脈高壓小組

*由於篇幅限制，部分經歷未能收錄，敬請見諒。

New Recommended Dyslipidemia Management In 2024

603 09:50-10:30

The early and sustained reduction of lipid levels is a critical strategy for mitigating cardiovascular disease (CVD) risk. By maintaining lower cholesterol levels from a young age, the cumulative burden of cholesterol on the arteries is minimized, which is instrumental in preventing the onset and progression of atherosclerosis. While the management of low-density lipoprotein (LDL) cholesterol is a well-established approach in reducing CVD risk, it alone may not be sufficient. Residual cardiovascular risks often persist due to other lipid-related factors, specifically elevated levels of lipoprotein(a) [Lp(a)] and triglycerides (TG). Consequently, a comprehensive cardiovascular risk management strategy must also address these components. For patients at very high risk, early intervention with medications such as ezetimibe and proprotein convertase subtilisin/kexin type 9 inhibitors (PCSK9i) may provide significant benefits. Ezetimibe works by reducing the absorption of cholesterol in the intestines, while PCSK9 inhibitors increase the liver's ability to remove LDL cholesterol from the blood. These treatments can effectively lower LDL levels beyond what is achievable with statins alone, offering enhanced protection against cardiovascular events. Notably, ongoing trials are investigating the benefits of initiating PCSK9i therapy in-hospital for patients admitted with acute myocardial infarction (AMI), potentially improving immediate and long-term outcomes. Additionally, newer therapeutic agents like bempedoic acid and inclisiran are emerging as valuable tools in lipid management. Targeting Lp(a) and TG, alongside LDL cholesterol, provides a more holistic approach to reducing cardiovascular events and enhancing overall heart health. This multifaceted strategy emphasizes the importance of broad-spectrum lipid management, incorporating lifestyle modifications, dietary changes, and, when necessary, pharmacological interventions. By addressing the full spectrum of lipid-related risk factors, healthcare providers can better tailor prevention and treatment strategies to individual patient needs, ultimately improving cardiovascular health and reducing the burden of CVD on individuals and healthcare systems.

林姝含 醫師
新光醫院 心臟內科

Present Position 現職

- **主治醫師**
新光吳火獅紀念醫院心臟內科
- **部定講師**
教育部部定講師
- **學術教育委員會委員**
台灣周邊血管學會(TSPI)
- **編輯暨研究委員會副主委**
台灣周邊血管學會
- **國際委員會委員**
台灣心肌梗塞學會(TAMIS)
- **青年委員會委員**
臺灣介入性心臟血管醫學會(TSCI)
- **青年醫師工作小組副主委**
中華民國心臟學會(TSOC)
- **學術委員會委員**
中華民國心臟學會(TSOC)

Education 學歷

- **2008-2015**
醫學士
國立陽明交通大學醫學系

Experience 經歷

- **2022-2023**
兼任講師
台大醫學院內科
- **2021-2023**
主治醫師
新竹台大分院心臟內科

*由於篇幅限制，部分經歷未能收錄，敬請見諒。

New Development Of Hypertension Treatment In 2024

603 10:45-11:25

鄭浩民 醫師
台北榮總 心臟內科

此次演講題為「高血壓管理的最新進展」，涵蓋了基於風險評估的高血壓管理策略，老年高血壓和抗藥性高血壓的管理。演講強調了現代高血壓管理的新工具，包括透過家庭血壓監測進行的自我管理以及未來血壓監測的新技術。

根據多項研究如STEP、SPRINT和HOPE-3試驗，這些試驗表明將血壓控制在130/80　mmHg以下對心血管健康具有顯著益處。對於糖尿病或慢性腎病患者，建議在血壓達到130/80 mmHg時開始藥物治療。此外，討論了抗藥性高血壓的定義及其診斷和管理方法，強調排除假性抗藥性高血壓的重要性。

此次演講將會探討不同年齡層的高血壓治療目標，特別是老年患者，引用SPRINT試驗中對老年患者的亞組分析結果，表明強化治療能顯著降低心血管事件的發生率。最後，介紹了未來的研究方向，包括利用人工智慧和雲端技術進行個人化健康管理，以及無袖帶血壓監測技術的發展。

Biography 簡歷

鄭浩民醫師畢業於國立陽明交通大學醫學院醫學系，畢業時獲得優異成績書卷獎的肯定，後來至澳洲阿德萊德大學進修，獲得醫學博士學位。鄭醫師有超過18年心臟科專業經驗的心臟病專科醫師，擅長心血管血流動力學及介入性心手術。

教學方面，作為國立陽明交通大學的教授，他多次獲得陽明交通大學臨床教學卓越獎，並且獲得國立陽明交通大學琉璃獎座的肯定。他現任台北榮民總醫院教師發展中心主任，曾任台北榮民總醫院實證醫學中心主任，並開設實證醫學的訓練課程，連續七年獲得優良課程的肯定。

學術方面，他的研究重點在心血管血流動力學、高血壓和實證醫學，已在同儕評審期刊上發表了300多篇文章，並在美國、日本和台灣取得了多項專利。同時，他是Systematic Reviews、BMC Cardiovascular Disorders、JBI evidence synthesis和Frontiers in Cardiovascular Medicine的編輯，並參與了許多國際SCI期刊的編輯和同儕評審工作。為了實現更好的患者照護目標，他開發了與心血管血流動力學相關的創新技術，並努力促進從研究到產業的技術轉移。此外，他是JBI Evidence Synthesis編輯、BMC Cardiovascular Disorders的副主編、Blood Pressure Monitoring的副主編、Systematic Reviews的副主編、、American Journal of Hypertension、Journal of clinical Hypertension、Hypertension Research的編輯委員會成員。

臨床服務方面，過去在擔任實證醫學中心主任的任內，曾獲得醫策會的卓越中心及生策會國家醫療品質獎的標章肯定。除了提供以實證為基礎的臨床照護以外，鄭醫師是中華民國心臟學會的高血壓委員會的副主委(連任超過四屆)、台灣高血壓學會的常務理事及教育委員會主委、台灣原發性醛固酮症學會的常務理事。為了推廣高血壓防治，鄭醫師長期協助國健署的高血壓防治，主持多項國健署的計畫，並與藥師公會聯合會合作，共同推廣台灣高血壓的血壓篩檢、血壓控制、以及居家血壓管理模式的推廣。鄭醫師並且擔任世界高血壓學會 (international society of hypertneison) 亞太區之諮詢委員 (ISH APAC Regional Advisory Group)，對於台灣及全球的高血壓防治與學術發展貢獻心力。此外，因應台北榮民總醫院智慧醫療的發展，鄭醫師也參與智慧醫療委員會的工作，曾任醫學教育組的組長，目前則擔任智委會的執行秘書。參與全院的智慧病歷及結構化病歷的發展，同時也擔任北榮電腦化推動委員會結構化病歷推動小組組長。

New Development Of Acute Coronary Syndrome Treatment In 2024

603 11:25-12:15

Acute coronary syndromes (ACS) encompass a spectrum of conditions that include patients presenting with recent changes in clinical symptoms or signs, with or without changes on 12-lead electrocardiogram (ECG) and with or without acute elevations in cardiac troponin (cTn) concentrations. Patients presenting with suspected ACS may eventually receive a diagnosis of acute myocardial infarction (AMI) or unstable angina (UA). The diagnosis of myocardial infarction (MI) is associated with cTn release and is made based on the fourth universal definition of MI. ACS are associated with a broad range of clinical presentations, from patients who are symptom free at presentation to patients with ongoing chest discomfort/symptoms and patients with cardiac arrest, electrical/haemodynamic instability, or cardiogenic shock (CS). Here we report the current general concept of ACS according to ESC and Taiwan guidelines.

林肇鋒 醫師
台北馬偕 心臟內科

Present Position 現職

- **副系主任**
  馬偕醫學院醫學系
- **部定副教授**
  馬偕醫學院醫學系
- **資深主治醫師**
  馬偕紀念醫院心血管中心/心臟內科
- **住院醫師教學負責人**
  馬偕紀念醫院內科部
- **副秘書長**
  中華民國血脂及動脈硬化學會
- **副秘書長**
  中華民國心臟學會
- **副秘書長**
  中華民國血脂及動脈硬化學會
- **預防醫學委員會委員**
  中華民國心臟學會
- **教育暨學術委員會主委**
  台灣老人急重症醫學會
- **執行編輯**
  台灣老人急重症醫學會官方雜誌 (International Journal of Gerontology)

Education 學歷

- **博士**
  台北醫學大學
  癌症生物學與藥物研發
- **學士**
  國立陽明大學醫學系

12:30-13:10

Lunch Symposium - Viatris

黃柏勳
理事長

劉秉彥
秘書長

12:30-13:10 **Simple Way To Manage Hypertension And Dyslipidemia, Who Can Do It?**

Moderator : 黃柏勳 理事長 | 臺北榮總 心臟內科
Speaker : 劉秉彥 秘書長 | 成大醫院 心臟內科

Simple Way To Manage Hypertension And Dyslipidemia, Who Can Do It?

603 12:30-13:10

The burden of cardiovascular disease (CVD) is increasing worldwide. The increase in the burden is a major concern in Taiwan. Especially hypertension is the top risk factor of stroke and CVD in Taiwan. 2022 THS/TSOC Hypertension Guideline will update by universal target as home blood pressure management (HBP). The new BP target will implement in 2022 will help hypertension patient control high blood pressure with self awareness.

Among the vast population of hypertensive subjects, between 10 and 15% do not achieve an adequate blood pressure (BP) control despite the use of at least three antihypertensive agents. This group, designated as having resistant hypertension (RH), represents one of the most important clinical challenges in hypertension evaluation and management. The new strategy and BP target will be the universal in global.

On the other hand, the causal link of LDL-C and ASCVD was further proved in many clinical trials showing that intensive reduction of LDL-C is an effective therapy to attenuate the progression of coronary atherosclerosis and improve CV outcomes. Recent study demonstrated that, in individuals without established coronary atherosclerosis, early initiation of statin therapy to decrease LDL-C could obtain a similar CV risk as those with untreated low LDL-C levels. It is clear that maintaining an adequate LDL-C level earlier in life is an effective intervention for prevention of ASCVD. However, the control rate of LDL-C is disappointing in Taiwan.

Is there a simple treatment method that can treat high blood pressure and high blood lipids at the same time?

劉秉彥 秘書長
成大醫院 心臟內科

Present Position 現職

•部主任
成大醫院 心臟內科
•教授
國立成功大學 臨床醫學研究所
•主治醫師
成大醫院 心臟血管內科

Education 學歷

•博士
國立成功大學 臨床醫學研究所
•醫學士
高雄醫學大學 醫學系

603

13:10-14:40

心血管疾病防治網繼續教育課程


黃金洲
副秘書長


張獻元
醫師


陳柏升
理事


趙子凡
醫師


吳承學
醫師


張瑋婷
醫師

13:10-13:30	New Development Of Stroke Prevention For Atrial Fibrillation In 2024
13:30-13:40	Discussion

Moderator : 黃金洲 副秘書長 | 台北榮總 心臟內科
Speaker : 趙子凡 醫師 | 台北榮總 心臟內科

13:40-14:00	New Development Of Peripheral Artery Disease Treatment In 2024
14:00-14:10	Discussion

Moderator : 張獻元 醫師 | 成大醫院 心臟內科
Speaker : 吳承學 醫師 | 台北榮總 心臟內科

14:10-14:30	New Development Of Diabetes Treatment In 2024

Moderator : 陳柏升 理事 | 成大醫院 心臟內科
Speaker : 張瑋婷 醫師 | 奇美醫院 心臟內科

14:30-14:40	Discussion & Closing

Moderator : 陳柏升 理事 | 成大醫院 心臟內科

14:40-14:50	Coffee Break

New Development Of Stroke Prevention For Atrial Fibrillation In 2024

TO BE PRESENTED

603 13:10-13:40

趙子凡 醫師
臺北榮總 心臟內科

Present Position 現職

- **主治醫師**
臺北榮民總醫院 心臟內科
- **副教授**
國立陽明交通大學 內科學系

Education 學歷

- **博士**
國立陽明交通大學 醫學研究所
- **醫學士**
國立陽明交通大學 醫學系

乘著全球化醫療的翅膀飛翔
Flying with the Globalization of Medicine

New Development Of Peripheral Artery Disease Treatment In 2024

TO BE PRESENTED

603 13:40-14:10

吳承學 醫師

臺北榮總 心臟內科

Present Position 現職

- **主任**
  臺北榮總 重症醫學部加護內科
- **主治醫師**
  臺北榮總 內科部 心臟內科
- **助理教授**
  國立陽明交通大學 內科學科

603

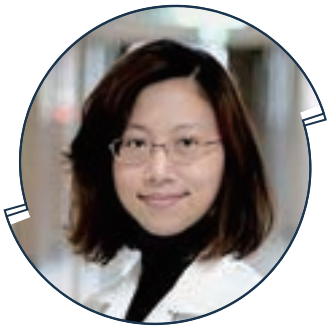
Education 學歷

- **醫學士**
  國立陽明交通大學

New Development Of Diabetes Treatment In 2024

603 14:10-14:40

In 2024, several significant advancements in diabetes treatment have emerged including artificial pancreas, targeting inceptor and updated American Diabetes Association (ADA) standards of care, etc. Among them, the novel applications of Glucagon-like peptide-1 receptor agonists (GLP-1RAs) are expanding well beyond their initial use in diabetes and obesity management. Research indicates promising benefits in treating conditions such as infertility and sleep apnea, along with potential applications in neuroprotection, cardiovascular health, and liver diseases. While preliminary studies are encouraging, extensive clinical trials are needed to confirm these benefits and elucidate the mechanisms involved. As the understanding of GLP-1RAs evolves, these agents may play a pivotal role in treating a broader range of medical conditions, offering new hope to many patients. The ADA has updated its guidelines, emphasizing the use of GLP-1 receptor agonists like semaglutide and dual GIP and GLP-1 receptor agonists like tirzepatide for weight management in patients with diabetes and obesity. Also, researchers are exploring drugs that block inceptor, a protein involved in insulin sensitivity. Studies on obese mice have shown that removing inceptor improves glucose regulation without weight loss, suggesting potential for enhancing beta cell function in humans. This approach aims to improve insulin sensitivity and beta cell health, especially in type 2 diabetes. In this talk, I will discuss the new development of diabetes treatment in 2024.



張瑋婷 醫師
奇美醫院 心臟內科

Present Position 現職

- **Attending physician**
  Department of Cardiology, Chi-Mei Medical Center, Tainan, Taiwan.
- **Associate Professor**
  Department of Biotechnology, Southern Taiwan University of Science and Technology, Taiwan.
- **Associate Professor**
  Department of Clinical Medicine, National Sun Yat-sen University, Taiwan.

Education 學歷

- **Doctor of Medicine**
  Department of Medicine, National Cheng Kung University, Tainan, Taiwan.
- **Research Fellow**
  Brigham and Women's Hospital, Harvard University, MA, USA.
- **Ph.D.**
  Graduate Institute of Clinical Medicine, National Cheng Kung University, Taiwan.
- **Visiting Scholar with certificate**
  Precisional Medicine in St. Edmund Hall, Oxford. (OXCEP)

603

14:50-16:20

TLSA-TAMIS Joint Symposium


謝宜璋
常務理事


黃群耀
理事長


陳柏升
理事


王宇澄
監事

14:50-15:00 Opening

Moderator : 謝宜璋 常務理事 | 林口長庚 心臟內科

15:00-15:30 Lipid Profile Of Patients With Acute Coronary Syndrome

15:30-15:40 Discussion

Moderator : 謝宜璋 常務理事 | 林口長庚 心臟內科
Speaker : 陳柏升 理事 | 成大醫院 心臟內科

15:40-16:10 The Prevalence And Profile Of Metabolic Syndrome, Complicated With Acute Coronary Syndrome

Moderator : 黃群耀 理事長 | 北醫附醫 心臟內科
Speaker : 王宇澄 監事 | 亞洲附醫 心臟內科

16:10-16:20 Discussion & Closing

Moderator : 黃群耀 理事長 | 北醫附醫 心臟內科

Lipid Profile Of Patients With Acute Coronary Syndrome

TO BE PRESENTED

603 15:00-15:40

陳柏升 理事
成大醫院 心臟內科

Present Position 現職

•臨床助理教授兼主治醫師
成大醫學院
•主治醫師
成大醫院 內科部
內科重症加護功能分科

Education 學歷

•博士
國立成功大學 臨床醫學研究所
•醫學士
國立成功大學醫學系

The Prevalence And Profile Of Metabolic Syndrome, Complicated With Acute Coronary Syndrome

TO BE PRESENTED

603 15:40-16:10

王宇澄 監事
亞洲附醫 心臟內科

Present Position 現職

- **專任副教授**
  亞洲大學 醫學檢驗暨生物技術學系
- **主任**
  亞大附屬醫院 內科
- **兼任主治醫師**
  中國醫附醫 心臟血管系
- **主任**
  亞大附屬醫院 心臟科

Education 學歷

- **博士**
  中國醫藥大學 臨床醫學研究所
- **醫學士**
  國立陽明交通大學 醫學系

603

16:20-17:50

TSLA-KSoLA Joint Symposium


黃柏勳
理事長


王宇澄
監事


劉秉彥
秘書長


柯毓麟
醫師


黃逸群
醫師


Nam Hoon Kim
Doctor

16:20-16:25	**Opening**	
	Moderator	黃柏勳 理事長 | 臺北榮總 心臟內科
16:25-16:45	**Genetic-Based Targets For Hyperlipidemia: From Loss-Of-Function Mutations, Mendelian Randomization To Clinical Trials.**	
	Moderator	王宇澄 監事 | 亞洲附醫 心臟內科
	Speaker	柯毓麟 醫師 | 臺北慈濟醫院 心臟內科
16:45-17:05	**The Microbiome's Role In Lipid Metabolism And Atherosclerosis**	
	Moderator	黃柏勳 理事長 | 臺北榮總 心臟內科
	Speaker	黃逸群 醫師 | 林口長庚 心臟內科
17:05-17:25	**Harnessing Inflammatory Pathways For Novel Hyperlipidemia Interventions**	
	Moderator	劉秉彥 秘書長 | 成大醫院 心臟內科
	Speaker	Dr. Nam Hoon Kim | University, Republic of Korea
17:25-17:45	**Discussion**	
	Moderator	劉秉彥 秘書長 | 成大醫院 心臟內科
17:45-17:50	**Closing**	
	Moderator	劉秉彥 秘書長 | 成大醫院 心臟內科
17:50-18:00	**Dinner Break**	

Genetic-Based Targets For Hyperlipidemia: From Loss-Of-Function Mutations, Mendelian Randomization To Clinical Trials.

603 16:25-16:45

柯毓麟 醫師
臺北慈濟醫院 心臟內科

Targeted drugs supported by human genetic evidence are expected to enter phase II/III clinical trials or be approved for marketing more quickly, speeding up the drug development process. Currently, genetic data and technologies such as genome-wide association studies (GWAS), whole-exome sequencing (WES), and whole-genome sequencing (WGS) have identified and validated many potential molecular targets associated with diseases. This speech describes the structure, molecular biology, and drug development of human genetics-based validated beneficial loss-of-function (LOF) mutation targets (target mutations that reduce disease incidence) for lipid lowering therapy over the past decade. The feasibility of LOF mutation targets (PCSK9, ANGPTL3, Lp(a), APOC3, CETP) as targets for drug discovery is mainly emphasized, and their research prospects and challenges are discussed.

Present Position 現職

•主任
臺北慈濟醫院研究部
•主治醫師
臺北慈濟醫院心臟內科
•教授
花蓮慈濟大學醫學系

Education 學歷

•1988/09-1992/06
博士
臺灣大學臨床醫學研究所
•1975/09-1982/06
學士
臺灣大學醫學系

Experience 經歷

•2013/09-2017/06
主任
臺北慈濟醫院心血管醫學中心
•2005/04-2013/09
主任
臺北慈濟醫院內科部
•2005/04-2012/07
主任
臺北慈濟醫院心臟內科
•2005/04-2007/04
副教授
花蓮慈濟大學醫學系
•1998/05-2001/07
主任
林口長庚醫院心內一科

*由於篇幅限制，部分經歷未能收錄，敬請見諒。

The Microbiome's Role In Lipid Metabolism And Atherosclerosis

603 16:45-17:05

The average healthy human gut is home to more than 500 different microbial species, according to research. According to previous studies, the number of genes within the gut microbiome is greater than the number of genes in the human genome. Major environmental exposures have a great impact on the microbiome, including diet, antibiotics, and drug treatments. As we learn more about how the gut microbiome affects human health, our understanding of health and disease continues to deepen. This includes understanding how the composition and function of microorganisms affect the host, resulting in diseases and metabolic disorders, including hypertension, heart failure, coronary artery disease, peripheral artery disease, diabetes, and dyslipidemia.

From published studies at home and abroad, some scholars have pointed out that the intestinal microbiota serves as an intermediary between diet (environmental factors) and traditional cardiovascular risk factors. Metabolites produced by gut microbes play an important role in the pathogenesis of cardiovascular disease and in interventional drug or other treatments. Recent studies have provided more experimental evidence to confirm the association between microbiota and cardiovascular disease through specific gut microbiota-dependent pathways, microbiota transplantation studies, and downstream metabolites. Although the application of microbiota in clinical treatment is not yet mature, considering its significant impact on human diseases, the current research on the mechanisms between microbiota, lipid metabolism, and atherosclerosis is believed to offer a certain degree of inspiration for the treatment and research of clinical cardiovascular diseases in the future.

黃逸群 醫師
林口長庚 心臟內科

Present Position 現職

•Attending Physician
Division of Cardiology,
Department of Internal Medicine,
Chang Gung Memorial Hospital, Linkou Branch,
Taoyuan, Taiwan.

Education 學歷

•M.D.
China Medical University,
Taichung, Taiwan.

Harnessing Inflammatory Pathways For Novel Hyperlipidemia Interventions

603 17:05-17:25

Dr. Nam Hoon Kim
Korea University

Hyperlipidemia, a significant risk factor for cardiovascular diseases, has traditionally been managed through lifestyle modifications and lipid-lowering medications. However, recent advancements in understanding the inflammatory pathways involved in lipid metabolism present new opportunities for therapeutic interventions. Chronic inflammation, driven by factors such as obesity and metabolic syndrome, plays a crucial role in the pathogenesis of hyperlipidemia. Targeting inflammatory cytokines, such as interleukin-1β and tumor necrosis factor-alpha, has shown promise in modulating lipid levels and reducing cardiovascular risk. Additionally, novel agents like monoclonal antibodies and small molecule inhibitors are being explored for their potential to attenuate inflammation and improve lipid profiles. This lecture reviews emerging research on the intersection of inflammation and hyperlipidemia, highlighting innovative approaches that harness inflammatory pathways to develop new treatments. These interventions may provide more effective management of hyperlipidemia, particularly in patients who are refractory to conventional therapies, thereby reducing the global burden of cardiovascular diseases.

Present Position 現職

•**Professor**
Division of Endocrinology and Metabolism, Department of Internal Medicine, Korea University Anam Hospital, Korea University College of Medicine.

Education 學歷

•**Ph.D.**
Korea University Anam Hospital
•**M.D.**
Korea University Anam Hospital

Experience 經歷

•**2018-2023**
Associate Professor
Korea University Anam Hospital
•**2016-2018**
Assistant Professor
Korea University Anam Hospital

603

18:00-18:40

Dinner Symposium - Novartis

謝宜璋
常務理事

Karam Kostner
Doctor

18:00-18:05	**Opening**

Moderator : 謝宜璋 常務理事 | 林口長庚 心臟內科

18:05-18:25	**Soaring Into The Lipid Management Renaissance** **翱翔邁進血脂照護的復興時代**
18:25-18:35	**Panel Discussion**

Moderator : 謝宜璋 常務理事 | 林口長庚 心臟內科
Speaker : Dr. Karam Kostner | Mater Hospital Brisbane, Australia

18:35-18:40	**Closing**

Moderator : 謝宜璋 常務理事 | 林口長庚 心臟內科

Soaring Into The Lipid Management Renaissance
翱翔邁進血脂照護的復興時代

603 18:05-18:35

Symposium Outline

1. The future of lipodology in ASCVD prevention (i.e. PCSK9, LPA, APOC3, ANGPTL3)
2. Nucleic acid technology for various targets of the lipid profile (i.e. siRNA and ASO)
3. Clinical scenario to infer the utility of RNA-based therapeutics such as inclisiran (in his Australia practice)

Dr. Karam Kostner
Mater Hospital Brisbane

Present Position 現職

- **Associate Professor**
  University of Queensland, Australia.
- **Director**
  Cardiology, Mater Public/Private Hospitals, Brisbane, Australia.
- **Director**
  Cholesterol Care Australia, a specialist cholesterol clinic and clinical research facility
- **Journal Editor**
  - Atherosclerosis
  - The Journal of Clinical and Preventive Cardiology
  - European Journal Clinical Investigation

DAY2

September 15th, 2024

PROGRAM

09:00-10:30

The 24th Taipei International Vascular Biology Symposium


黃柏勳
理事長


林幸榮
名譽理事


殷偉賢
名譽理事


李貽恒
名譽理事


楊鎧鍵
監事


方匀
教授


Ryuichi Morishita
Professor


葉勇信
醫師

09:00-09:05	**Opening**
	Moderator : 黃柏勳 理事長 | 臺北榮總 心臟內科
09:05-09:35	**Targeting Endothelial Mechanosensitive ER Protein TXNDC5 To Treat Vascular Diseases**
09:35-09:45	**Discussion**
	Moderator : 黃柏勳 理事長 | 臺北榮總 心臟內科 Speaker : 楊鎧鍵 監事 | 臺大醫院 心臟內科
09:45-10:15	**Genetics-Informed Vascular Pathophysiology And Precision Nanomedicine**
10:15-10:25	**Discussion**
	Moderator : 林幸榮 名譽理事 | 臺北榮總 心臟內科 Speaker : 方匀 教授 | 芝加哥大學
10:25-10:30	**Closing**
	Moderator : 林幸榮 名譽理事 | 臺北榮總 心臟內科
10:30-10:45	**Coffee Break**

10:45-12:15

The 24th Taipei International Vascular Biology Symposium


黃柏勳
理事長


林幸榮
名譽理事


殷偉賢
名譽理事


李貽恒
名譽理事


楊鎧鍵
監事


方勻
教授


Ryuichi Morishita
Professor


葉勇信
醫師

10:45-11:15	**Challenge To Medical Innovation From Academia**
11:15-11:25	**Discussion**

Moderator : 殷偉賢 名譽理事 | 振興醫院 心臟內科
Speaker : Prof. Ryuichi Morishita |
Department of Clinical Gene Therapy, Osaka University Graduate School of Medicine

11:25-11:55	**Endothelial-Mesenchymal Transition In Atrial Fibrillation And Dysfunction Of Arteriovenous Fistulas**
11:55-12:05	**Discussion**

Moderator : 李貽恒 名譽理事 | 成大醫院 心臟內科
Speaker : 葉勇信 醫師 | 林口長庚 心臟內科

12:05-12:15	**Closing**

Moderator : 李貽恒 名譽理事 | 成大醫院 心臟內科

12:15-12:30	**Lunch Break**

Targeting Endothelial Mechanosensitive ER Protein TXNDC5 To Treat Vascular Diseases

TO BE PRESENTED

601 09:05-09:45

楊鎧鍵 監事
臺大醫院 心臟內科

Present Position 現職

- **Professor**
Graduate Institute and Department of Pharmacology, National Taiwan University
- **Attending Physician**
Division of Cardiology, Department of Internal Medicine, National Taiwan University Hospital
- **Joint Associate Research Fellow**
Institute of Biomedical Sciences, Academia Sinica, Taipei, Taiwan.

Education 學歷

- **Ph.D.**
Molecular Genetics and Genomics, Division of Biology and Biomedical Sciences, Washington University, St Louis, MO.
- **M.Sc.**
Medical Sciences, National Taiwan University, Taipei, Taiwan.
- **M.D.**
National Taiwan University, Taipei, Taiwan.

Genetics-Informed Vascular Pathophysiology And Precision Nanomedicine

601 09:45-10:25

We have recently devised a cohort of new precision nanomedicine platforms to target novel dys-regulated endothelial mechano-sensing mechanisms, a strategy effectively treating vascular complications in vivo. Specifically, our recent results elucidated previously unrecognized endothelial mechano-sensitive pathways in endothelial activation, with emphasis upon miRNA (Zhou et al, PNAS 2021), transcription factors (Huang et al, AJRCCM 2016), cellular metabolism (Wu et al, Elife 2017; Wu et al, Nature Metabolism 2021;), human genetic variants (Wu et al, Circ Res 2015; Krause et al, PNAS 2018; Li et al, J Cell Biol.), protein stability (Yeh et al, Science Advances, 2022) and mRNA chemical modification/epi-transcriptome (unpublished). Polymer or liposome-based nanoparticles were engineered to deliver therapeutic nucleotides such as mRNA, miRNA inhibitor, or CRISPR/Cas9 constructs specifically to inflamed endothelial cells to intervene aforementioned mechano-sensitive pathways. For instance, VCAM1-targeting liposome nanoparticles effectively delivered functional mRNAs to restore endothelial genes key to vascular quiescence, which significantly reduced arterial stenosis and atherosclerosis in mice. VCAM1-targeting polymer nanoparticles effectively delivered CRISPR/Cas9 to specifically delete endothelial genes instrumental to vessel activation, which markedly decreased arterial stenosis and atherosclerosis in mice. Similar approaches were very effective to promote endothelial health and lessen acute respiratory distress syndrome (ARDS) in mice induced by influenza or SARS-CoV-2 viruses.

方匀 教授
芝加哥大學

Present Position 現職

- **Professor with tenure**
  Biological Sciences Division and The College, University of Chicago

Education 學歷

- **American Heart Association Postdoctoral Fellow**
  Institute for Medicine and Engineering, School of Medicine, University of Pennsylvania
- **Ph.D.**
  Bioengineering, University of Pennsylvania, Philadelphia, PA, U.S.A.
- **M.S.**
  Biotechnology, University of Pennsylvania, Philadelphia, PA, U.S.A.
- **B.A.**
  Microbiology & Plant Pathology, National Taiwan University, Taipei, Taiwan.

Experience 經歷

- **Associate Professor with tenure**
  Biological Sciences Division and The College, University of Chicago

*Due to space constraints, some experiences could not be included. Apologies for any inconvenience.

Challenge To Medical Innovation From Academia

601 10:45-11:25

Our group has tried to develop medical innovation based Academia research. One of our trials is to develop plasmid DNA-based gene therapy. To promote angiogenesis in patients with critical limb ischemia (CLI) caused by peripheral artery disease, we focused on hepatocyte growth factor (HGF) as pro-angiogenic factors. After the success of phase III clinical trial, HGF gene therapy drug, Collategene, was conditionally approved by PMDA in Japan. In 2024, Phase II study in USA using Collategene was reported to be successful. In addition, we recently focused on the therapeutic vaccination which has extended its scope from infectious diseases to chronic diseases based on plasmid DNA technology. Angiotensin (Ang) II vaccine for hypertension successfully attenuated the high blood pressure in animal models (PLoS One 2013, Sci Rep 2017, Stroke 2017). Increasing the effectiveness of drug adherence interventions may have a great impact on the health of the population, because approximately 50% may not take medications. This poor adherence to medication leads to increased morbidity and death. Phase I/II clinical trial demonstrated good safety profile and the production of antibody against Ang II. In next step, we will start phase IIb study to test the anti-hypertensive efficacy.

We also developed early detection of dementia using AI-based eye-tracking technology. Responding to the rapid rise in the number of dementia cases is becoming increasingly urgent. A great deal of medical evidence indicates that early diagnosis and timely intervention lead to beneficial outcomes. A diagnostic method for the easy and accurate detection of mild symptoms of dementia is necessary to provide early intervention. Thus, we have developed a novel cognitive assessment method that uses eye-tracking technology. The method involves tracking and recording the subject's gaze as they watch a series of task movies of about three minutes' duration and using the eye-tracking data to quantify the subject's cognitive function. The results correlate well with scores obtained using a conventional cognitive test (MMSE). This easy-to-administer cognitive assessment application for smart devices provides effective screening for early symptoms of dementia. This eye-tracking device to detect dementia was approved as SaMD (software as medical device) in 2023 at Japan. Moreover, we have developed new SaMD to evaluate sarcopenia. In this lecture, I will focus medical innovation based on Academia-driven technology

Prof. Ryuichi Morishita

Department of Clinical Gene Therapy, Osaka University Graduate School of Medicine

Present Position 現職

- **Professor**
  Department of Clinical Gene Therapy, Osaka University Medical School (Donated by Dai-ichi Pharmaceutical)
- **Visiting Professor**
  The University of Hong Kong
- **Cheif**
  Section of Gene Therapy, Department of Geriatric Medicine (T. Ogihara)

Education 學歷

- **Ph.D.**
  Medicine, Osaka University Medical School, Osaka, Japan.
- **M.D.**
  Medicine, Osaka University Medical School, Osaka, Japan.

Experience 經歷

- **Chief**
  Section of Cardiovascular Medicine, Division of Gene Therapy Science (Y. Kaneda), Osaka University Medical School
- **Associate Professor**
  Division of Gene Therapy Science (Y. Kaneda), Osaka University Medical School

*Due to space constraints, some experiences could not be included. Apologies for any inconvenience.

Endothelial-Mesenchymal Transition In Atrial Fibrillation And Dysfunction Of Arteriovenous Fistulas

601 11:25-12:05

Atrial fibrillation (AF) and dysfunction of arteriovenous fistulas (AVFs) for hemodialysis are two major cardiovascular problems. Recent research has uncovered common pathways driving fibrosis and stenosis in both conditions - namely, endothelial-mesenchymal transition (EndMT).

In AF patients, elevated TGF-β induces miR-181b which decreases semaphorin 3A (Sema3A), increasing EndMT. This EndMT causes atrial fibrosis, contributing to AF development. Administration of a miR-181b antagomir or recombinant Sema3A in mice with TGF-β overexpression increased Sema3A, reduced EndMT markers, decreased atrial fibrosis, and lowered AF vulnerability. Thus, TGF-β triggers EndMT via miR-181b downregulation of Sema3A, promoting atrial fibrosis and AF. Boosting Sema3A or inhibiting miR-181b could potentially treat AF.

In hemodialysis patients, AVF dysfunction from neointimal hyperplasia and venous stenosis limits vascular access for life-sustaining dialysis. Rapid cell proliferation and elastin degradation drive this stenosis. Inflammation after AVF thrombosis exacerbates restenosis after treatment. Disturbed blood flow at the AVF juxta-anastomotic region induces EndMT through the osteopontin/CD44 pathway. This EndMT again leads to neointimal hyperplasia and venous stenosis. Targeting this pathway may prevent AVF dysfunction.

Therefore, in both AF and AVF dysfunction, EndMT results in tissue fibrosis and vascular stenosis. Therapeutics targeting the EndMT signaling axis - whether by increasing Sema3A or inhibiting miR-181b for AF, or blocking osteopontin/CD44 in AVFs - may alleviate these cardiovascular conditions. Further research should explore these potential EndMT-targeting treatment strategies. Conclusively, the common involvement of EndMT identifies it as a key process induced by fibrillating atria and hemodynamic disturbance that leads to detrimental cardiac and vascular fibrosis/stenosis in AF and AVF dysfunction.

葉勇信 醫師
林口長庚 心臟內科

Present Position 現職

- **副部長**
  林口長庚醫院內科部
- **主治醫師**
  林口長庚醫院心臟內科
- **教授**
  長庚大學醫學系
- **理事**
  中華民國心律醫學會
- **主委**
  中華民國心律醫學會
  經導管不整脈燒灼術委員會

Education 學歷

- **醫學士**
  國立陽明大學醫學系

12:30-13:10

Lunch Symposium - Organon

吳彥雯
常務理事

宋思賢
醫師

12:30-12:55	Optimizing Lipid Control: International Perspectives on Fixed-Dose Combination Therapies
12:55-13:10	Panel Discussion

Moderator : 吳彥雯 常務理事 | 亞東醫院 心臟內科
Speaker : 宋思賢 醫師 | 臺北榮總 心臟內科

Optimizing Lipid Control: International Perspectives on Fixed-Dose Combination Therapies

TO BE PRESENTED

601 12:30-13:10

宋思賢 醫師
臺北榮總 心臟內科

Present Position 現職

- **Professor**
Institute of Emergency and Critical Care Medicine, National Yang Ming Chiao Tung University
- **Director**
General Clinical Research Center, Department of Medical Research, Taipei Veterans General Hospital, Taiwan.
- **Attending Physician**
Division of Cardiology, Taipei Veterans General Hospital, Taiwan.

Education 學歷

- **Postgraduate Research Training**
Department of Public Health, National Yang-Ming University, Taipei, Taiwan.
- **Doctor of Medicine**
National Yang-Ming University, Taipei, Taiwan.

602

09:00-10:30

食安問題停看聽


洪傳岳
名譽理事


江福田
常務理事


王治元
醫師


王寧
理事


陳秀玲
所長


翁子評
醫師


蘇昱彰
醫師

09:00-09:05	**Opening**	
	Moderator	洪傳岳 名譽理事 | 萬芳醫院 心臟內科
09:05-09:25	**食品安全角度看邦克列酸事件**	
	Moderator	洪傳岳 名譽理事 | 萬芳醫院 心臟內科
	Speaker	陳秀玲 所長 | 成功大學食品安全衛生暨風險管理研究所
09:25-09:45	**唐菖蒲柏克氏菌感染**	
	Moderator	江福田 常務監事 | 輔大醫院 副院長
	Speaker	翁子評 醫師 | 成大醫院 感染管制中心
09:45-10:05	**直擊邦克列酸中毒**	
	Moderator	王治元 醫師 | 臺大醫院 新陳代謝科
	Speaker	蘇昱彰 醫師 | 馬偕醫院 急診部毒物科
10:05-10:25	**Discussion**	
	Moderator	王寧 理事 | 中華民國血脂及動脈硬化學會
10:25-10:30	**Closing**	
	Moderator	王寧 理事 | 中華民國血脂及動脈硬化學會
10:30-10:45	**Coffee Break**	

食品安全角度看邦克列酸事件

602 09:05-09:25

今年初，粒線體毒素邦克列酸(Bongkrek acid, BA)引起之食品中毒事件受到國人高度重視，最終因此次中毒事件造成6死亡與24人輕重症住院治療。然儘管此次事件為因BA污染於國內引起食品中毒第一案，國際間卻已有多起案例，並探討其中可能造成食品中毒事件原因，如食品原料、食品保存條件或食品加工條件等。因此，期藉由此次BA食品中毒時序資訊、政府公告指引及國際發表研究，討論並提供相對應預防措施。

陳秀玲 所長

成功大學食品安全衛生暨
風險管理研究所

Present Position 現職

- **教授兼所長**
  國立成功大學
  食品安全衛生暨風險管理研究所
- **副主任**
  國立成功大學
  環境微量毒物研究中心
- **常務理事**
  社團法人台灣室內環境品質學會

Education 學歷

- **博士**
  國立成功大學/基礎醫學研究所
- **碩士**
  國立成功大學/環境醫學研究所
- **學士**
  高雄醫學大學/公共衛生學系

Experience 經歷

- **理事長**
  社團法人台灣室內環境品質學會
- **教授**
  弘光科技大學
  環境與安全衛生工程系
- **主任**
  弘光科技大學
  研發處貴重儀器中心

唐菖蒲柏克氏菌感染

602 09:25-09:45

教科書到現實世界，從唐菖蒲伯克菌到邦克列酸，由感染醫學角度出發，近百年發現史，我們學到了什麼？

翁子評 醫師
成大醫院 感染管制中心

Present Position 現職

•專責醫師
成大醫院感染管制中心
•合聘主治醫師
成大醫院內科部

Education 學歷

•學士
高雄醫學大學

Experience 經歷

•2020-2022
研究員
成大醫院感染科
•2020-2022
總醫師
成大醫院內科部
•2017-2020
住院醫師
成大醫院內科部

直擊邦克列酸中毒

602 09:45-10:05

事件的真相, 台灣第一次發生

如何找線索

毒性症候群(Toxidrome)

邦克列酸毒理學

全球暖化

邦克列酸引起的症候與致死率

食物中毒

蘇昱彰 醫師

馬偕醫院 急診部毒物科

Present Position 現職

- **主任**
  馬偕紀念醫院急診醫學部
  急診毒物科
- **資深主治醫師**
  馬偕紀念醫院急診醫學部
- **兼任助理教授**
  馬偕醫學院醫學系
- **第七屆理事**
  老人急重症醫學會

Education 學歷

- **醫學士**
  中國醫藥學院

Experience 經歷

- **第10, 12, 14, 15屆委員**
  急診醫學會毒藥物暨化災委員會
- **指導員**
  急診醫學會AILS
- **兼任部定助理教授**
  台北醫學大學
- **兼任部定講師**
  馬偕醫護管理專校
- **住院醫師、總醫師、主治醫師**
  馬偕紀念醫院急診醫學部
- **住院醫師**
  新光吳火獅紀念醫院內科
- **醫官**
  花防部砲營

602

10:45-12:15

Shaping the lipid treatment with precision


吳彥雯
常務理事


葉志凡
副秘書長


常敏之
理事


徐千彝
醫師


Maciej Banach
Professor

10:45-10:50	**Opening**	
	Moderator	吳彥雯 常務理事 | 亞東醫院 心臟內科
10:50-11:20	**Approach For Management Of Statin Intolerant Patients**	
	Moderator	吳彥雯 常務理事 | 亞東醫院 心臟內科
	Speaker	徐千彝 醫師 | 北醫附設醫院 心臟內科
11:20-11:50	**Topline Results Of Bempedoic Acid Clinical Trials Focusing On CLEAR Outcomes Study And ILEP Recommendations**	
	Moderator	葉志凡 副秘書長 | 臺大醫院 心臟內科
	Speaker	Professor Maciej Banach (視訊)
11:50-12:10	**Discussion**	
	Moderator	常敏之 理事 | 新光醫院 心臟醫學中心研發長
12:10-12:15	**Closing**	
	Moderator	常敏之 理事 | 新光醫院 心臟醫學中心研發長
12:15-12:30	**Lunch Break**	

Approach For Management Of Statin Intolerant Patients

602 10:50-11:20

Statins are important in lowering LDL cholesterol and reducing cardiovascular risk. However, some patients experience intolerance, primarily presenting as muscle-related symptoms known as Statin-Associated Muscle Symptoms (SAMS). These symptoms often lead to discontinuation of statin therapy, increasing cardiovascular risk. The National Lipid Association (NLA) has provided a definition of statin intolerance, distinguishing between complete intolerance (inability to tolerate any statin dose) and partial intolerance (inability to tolerate the required dose to achieve LDL-C targets).

Management of statin intolerance necessitates a patient-centered approach. This begins with thorough patient history and clinical assessment to confirm intolerance and exclude other causes of muscle symptoms. Initially, switching to a different statin, reducing the dose, or adopting an alternate dosing regimen can be effective. For example, using a hydrophilic statin like rosuvastatin or pravastatin instead of a lipophilic one may reduce muscle symptoms.

When patients cannot tolerate any statin or fail to achieve LDL-C targets despite maximum tolerated doses, non-statin lipid-lowering therapies become essential. Ezetimibe, which inhibits intestinal cholesterol absorption, can reduce LDL-C levels by 15-22% and is often well-tolerated. PCSK9 inhibitors, such as alirocumab and evolocumab, offer significant LDL-C reduction by preventing the degradation of LDL receptors, and are particularly beneficial for high-risk patients. Inclisiran, a small interfering RNA, also reduces LDL-C by inhibiting PCSK9 synthesis.

Bempedoic acid is another option, inhibiting ATP-citrate lyase involved in cholesterol synthesis, thereby lowering LDL-C with a reduced risk of muscle side effects. Nutraceuticals, including plant sterols and red yeast rice, can be considered for patients at low cardiovascular risk or as adjuncts to other therapies.

Regular follow-up is important to monitor lipid levels, assess symptom improvement, and adjust treatment as needed. Educating patients about the importance of maintaining therapy and the actual risk of side effects can improve adherence. A personalized approach, combining statins with non-statin therapies and lifestyle modifications, can optimize cardiovascular outcomes for statin-intolerant patients.

徐千彝 醫師
北醫附醫 心臟內科

Present Position 現職

- **專任主治醫師**
  臺北醫學大學附設醫院心臟內科
- **副主任**
  臺北醫學大學附設醫院研究部
- **主任**
  臺北醫學大學附設醫院
  心臟內科心臟衰竭組
- **專任副教授**
  臺北醫學大學
- **教部定副教授**

Education 學歷

- **博士**
  國立陽明大學臨床醫學研究所
- **醫學士**
  國立陽明大學

Experience 經歷

- **住院醫師、住院總醫師、內科部主治醫師**
  台北榮民總醫院內科部
- **主治醫師**
  台北榮民總醫院玉里分院
  心臟內科
- **特約醫師**
  台北榮民總醫院心臟內科
- **兼任講師**
  國立陽明大學內科學系
- **短期進修醫師**
  美國加州大學聖地牙哥分校
  (UCSD)

*由於篇幅限制，部分經歷未能收錄，敬請見諒。

Topline Results Of Bempedoic Acid Clinical Trials Focusing On CLEAR Outcomes Study And ILEP Recommendations

602 11:20-11:50

Cardiovascular diseases (CVDs) are the leading cause of mortality and morbidity worldwide accounting for even 21 million deaths annually. Recognizing the importance of dyslipidemia treatment in the CVD prevention has become a part of standard clinical practice. However, looking at the epidemiological data, only about 25-30% of patients are on the LDL-C goals, and only less than 20% for those at very high CVD risk. Therefore, large efforts to lower LDL-C with conventional therapies and combinations of lipid-lowering therapy (LLT) may not be successful in a high proportion of patients, however even the approach of the upfront combination LLT with statins and ezetimibe might be of great importance. Bempedoic acid (BA) is the first in-class ATP citrate lyase (ACL) inhibitor, which targets biosynthesis of the cholesterol in the liver. Using the same metabolic pathway as statins and having synergistic (at least addictive) effects to ezetimibe, it might be very effective in improving LLT and in the consequence enabling more patients to be on LDL-C goal. Considering the results of phase 3 studies, as well as CLEAR Outcomes study with its subanalyses BA has proven beneficial for further reduction of LDL-C (for at least 20-25%) for targeted groups of patients. It is not only efficient but also well-tolerated, and allow for high personalization of therapy, not only in those with pure hypercholesterolemia, but also in patients with metabolic disorders (it does not increase the risk of new onset diabetes), in inflammation-related residual CVD risk (through reduction of hsCRP by over 20%), in those with statin intolerance (it is a prodrug in the muscles) and in primary prevention patients (what CLEAR Outcomes analyses confirmed).

Prof. Maciej Banach

The Johns Hopkins University School of Medicine

Present Position 現職

- **Visiting Senior Research Fellow**
  the Liverpool Centre for Cardiovascular Science (LCCS)
- **Adjunct Professor**
  The Johns Hopkins University School of Medicine
- **Chief Medical Office**
  Dairy Biotechnologies, Puławy, Polska
- **Chief Medical Officer**
  Nomi Biotech Corporation
- **Secretary**
  European Atherosclerosis Society

Education 學歷

- **Ph.D.**
  Uniwersytet Medyczny w Łodzi, Department of Cardiac Surgery, 1st Chair of Cardiology and Cardiac Surgery, Medical University of Lodz, Poland.
- **M.D.**
  Uniwersytet Medyczny w Łodzi, Medicine

12:30-13:10

Lunch Symposium - Daiichi Sankyo

李貽恒
名譽理事

黃金洲
副秘書長

12:30-12:55	**Beyond Statins: Novel Lipid-Lowering Agents For Reducing Risk Of Atherosclerotic Cardiovascular Disease**	
	Moderator	李貽恒 名譽理事 | 成大醫院 心臟內科
	Speaker	黃金洲 副秘書長 | 臺北榮總 心臟內科
12:55-13:10	**Panel Discussion & Closing Remarks**	
	Moderator	李貽恒 名譽理事 | 成大醫院 心臟內科
	Speaker	黃金洲 副秘書長 | 臺北榮總 心臟內科

Beyond Statins: Novel Lipid-Lowering Agents For Reducing Risk Of Atherosclerotic Cardiovascular Disease

602 12:30-13:10

Although Taiwan has updated guidelines for lipid management in atherosclerotic cardiovascular disease (ASCVD), many patients still do not receive treatment recommended by the guidelines. One reason is statin intolerance. Bempedoic acid, an ATP citrate lyase inhibitor, reduces low-density lipoprotein (LDL) cholesterol levels and is associated with a low incidence of muscle-related adverse events. It has demonstrated significant LDL-C lowering ability as monotherapy and especially in combination with ezetimibe. Recently, CLEAR Outcome trials further demonstrated that treatment with bempedoic acid was associated with a lower risk of major adverse cardiovascular events (death from cardiovascular causes, nonfatal myocardial infarction, nonfatal stroke, or coronary revascularization) among statin-intolerant patients. It will improve lipid management of ASCVD in Taiwan.

黃金洲 副秘書長
臺北榮總 心臟內科

Present Position 現職

•專任教授
國立陽明交通大學內科學科
•合聘教授
國立陽明交通大學藥理學科
•主治醫師
臺北榮民總醫院內科部心臟內科
•副秘書長
中華民國心臟學會
•副秘書長
中華民國血脂及動脈硬化學會
•理事
台灣血脂衛教協會
•副秘書長
財團法人心臟醫學研究發展基金會

Education 學歷

•博士
國立陽明大學藥理研究所
•醫學士
國立陽明大學醫學系

Experience 經歷

•住院醫師
臺北榮民總醫院內科部
•總醫師
臺北榮民總醫院內科部心臟內科
•研究員
德國柏林心臟醫學中心
(German Heart Institute Berlin)

13:40-14:20

Poster Competition & Research Award

黃柏勳
理事長

楊鎧鍵
教授

13:40-13:55	**Post-translational Regulation of eNOS and ECM proteins by TXNDC5 in Vascular and Fibrogenic Diseases**	
	Moderator	黃柏勳 理事長 | 台北榮總 心臟內科
	Speaker	楊鎧鍵 教授 | 臺大醫院 心臟內科
13:55-14:10	**頒發海報論文獎 佳作~第一名**	
	Moderator	黃柏勳 理事長 | 台北榮總 心臟內科
14:10-14:20	**合照**	

Post-translational Regulation of eNOS and ECM proteins by TXNDC5 in Vascular and Fibrogenic Diseases

TO BE PRESENTED

602 13:40-13:55

楊鎧鍵 教授
臺大醫院 心臟內科

Present Position 現職

•主治醫師
高雄長庚醫院新陳代謝科

Education 學歷

•1994/09-2001/06
醫學士
中國醫藥學院醫學系

Experience 經歷

•2006-2008
訓練員
高雄長庚醫院新陳代謝科
•2003-2006
住院醫師
高雄長庚醫院內科部

Poster Presentation

謝姝紋 | 馬偕醫院

Targeting ventricular-arterial mechanistic pathogenesis of Asian-specific ALDH enzyme deficiency in diabetic cardiomyopathy

鄭朝允 | 成大醫院

The association between the response of lipid-lowering agents and monogenic variants of familial hypercholesterolemia in Taiwan

邱威喬 | 輔仁附醫

Small-molecule compounds Y16 and Rhosin can inhibit the calcium sensitization pathway of vascular smooth muscle cells in spontaneously hypertensive rats and thereby reduce blood pressure.

林彥伯 | 台中榮總

The First Case of Inclisiran Therapy in Taiwan

林先和 | 臺灣大學

Mortality Burden Associated with Modifiable Risk Factors of Atherosclerotic Cardiovascular Disease in Taiwan

田婷怡 | 淡水馬偕

Pannexin 1 is a diagnostic marker and therapeutic target for dysfunctional endothelial progenitor cells in diabetic patients

柯文欽 | 國泰醫院

Targeted Smooth Muscle Cell Apoptosis by SCH79797:
A New Frontier in Restenosis after Angioplasty

李欣柔 | 陽明交大

Febuxostat improves neovasculogenesis in chronic kidney disease

李俊偉 | 淡水馬偕

Effect of smoking cessation treatment service contest on the motivation of physicians to help high cardiovascular risk smokers quitting smoking

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The Annual Scientific Meeting of Taiwan Society of Lipids & Atherosclerosis 2024 and
The 24th Taipei International Vascular Biology Symposium