# WELCOME MESSAGE

Dear Colleague,

It is our pleasure to invite you again to Taipei to participate in The Annual Scientific Meeting of Taiwan Society of Lipids and Atherosclerosis 2016, in conjunction with the 16th Taipei International Vascular Biology Symposium to be held on September 10th and 11th, 2016. Atherothrombotic disease is highly prevalent and a major cause for morbidity and mortality worldwide, including Taiwan. The Meeting is the annual platform for major hot topics regarding management of atherothrombotic diseases, such as novel anticoagulants, PCSK9 antibody, antihypertensive agents, glycemic control, vaccine, molecular therapy or nanotechnology in cardiovascular medicine, etc., targeting the different professional groups that join us every year from all over Taiwan. This year we have a rich program. In addition to presenting these new data in keynote lectures by world renowned authorities, we will also anticipate a lively dialogue with practical insights into the management of patients with atherothrombotic disease. Hopefully, The Meeting will improve our ability to understand, prevent, diagnose and treat it.

Sadly, Prof. Philip Yu-An Ding, the former president of our society (2000-2003), as well as the former president of Asian-Pacific Society of Atherosclerosis and Vascular Diseases (2011-2015), passed away late last year. In memory of his contribution to fighting atherothrombotic diseases, both societies will have a joint memorial session.

Finally, we would like to express our gratitude to the contribution of the faculty colleagues and the support from the Taiwan Millennium Health Foundation and the industry. We are equally thankful to all the local participants. We hope that you will enjoy your stay in Taipei and return home with a fruitful knowledge on what is going on in lipids, hypertension, diabetes mellitus, and atherothrombosis to face new challenges in your daily practice

Yours sincerely,

Ang-I Zych

Hung-I Yeh, MD, PhD President, Taiwan Society of Lipids and Atherosclerosis

### **Taiwan Society of Lipids and Atherosclerosis**

Tel / (02)-2585-5529 Fax / (02)-2585-5629 E-Mail / tsla92002933@gmail.com Address / 104 台北市中山北路二段 170 號 8 樓 802 室 Website / www.tas.org.tw

#### **Honorary President**

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### Consultant

### 顧問

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## The Annual Scientific Meeting of Taiwan Society of Lipids & Atherosclerosis 2016 and

# The 16<sup>th</sup> Taipei International Vascular Biology Symposium

Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/10 (Sat.) 13:30~18:30 Room 801

Plenary Session I				
Time	Торіс	Speaker	Moderator	
13:30-13:35	Opening Remarks		Prof. Hung-I Yeh 葉宏一 理事長	
13:35-13:55	Limitations of current LDL-C lowering treatment and the role of PCSK9-targeting therapy and others	Dr. Ting-Hsing Chao 趙庭興 副秘書長	Prof. Ping-Yen Liu 劉秉彦 常務理事	
13:55-14:15	Experimental evidence of PCSK9 on atherosclerosis	Prof. Tsung-Hsien Lin 林宗憲 醫師	Prof. Yi-Heng Li 李貽恆 秘書長	
14:15-14:35	Clinical evidence of PCSK9 on atherosclerosis	Prof. Min-Ji Charng 常敏之 常務理事	Prof. Wen-Jang Wong 翁文章 常務理事	
14:35-14:55	Do we have better one? potential limitations of PCSK9 inhibitor therapy in clinical practice	Prof. Chau-Chung Wu 吴造中 名譽理事	Prof. Jaw-Wen Chen	
14:55-15:05	Panel Discussion & Closing Remarks			
15:05-15:15	Coffee Break			

# Joint Symposium of APSAVD & TSLA

Special Session in Memory of Prof. Philip Yu–An Ding				
Time	Торіс	Speaker	Moderator	
15:15-15:20	Opening Remarks		Prof. Hung-I Yeh 葉宏一 理事長	
15:20-15:40	Prof. Philip Yu-An Ding's Memorial Lecture New Lipid Lowering Therapy	Prof. Rody Sy	Prof. Brian Tomlinson	
15:40-15:45	Discussion			
15:45-16:15	Nanoparticle-mediated drug simultaneous targeting to mitochondria and inflammatory monocytes opens innovative therapeutic strategies in acute myocardial infarction and ischemia-reperfusion injury	Prof. Kensuke Egashira	Prof. Shing-Jong Lin 林幸榮 名譽理事	
16:15-16:20	Discussion	·		
16:20-16:50	Are new DPP4-inhibitors CV outcome trials changing the fundamentals of diabetes management?	Prof. Chung-Sheng Lin 林中生 教授	Prof. Chuang-Ye Hong 洲旗兵 夕翱珊車	
16:50-16:55	Discussion	•		
The An	nual Scientific Meeting of Taiwan Society of L Plenary Session II	ipids & Atherosc	lerosis 2016	
16:55-17:15	Clinical Importance for TG lowering in T2DM patients, and the evaluation of the TG lowering agents, fibrate, niacin & omega-3	Dr. Shih-Hsien Sung 宋思賢 醫師	Dr. Yen-Wen Wu 吳彦雯 理事	
17:15-17:35	Emerging evidence of combination lipid lowering therapy : impact on clinical treatment recommendations	Prof. Ping-Yen Liu 劉秉彦 常務理事	Prof. Min-Ji Charng 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一	
17:35-17:45	Panel Discussion & Closing Remarks	;		
	Dinner Symposium			
Time	Торіс	Speaker	Moderator	
17:45-17:50	Opening Remarks		Prof. Hung-I Yeh 葉宏一 理事長	
17:50-18:20	Pitavastatin and incidence of DM	Prof. Masato Odawara	Prof. Brian Tomlinson	
18:20-18:30	Panel Discussion		Prof. Wayne H-H Sheu	
18:30-18:40	Closing Remarks		許惠恒 常務監事	



The Annual Scientific Meeting of Taiwan Society of Lipids & Atherosclerosis 2016 and

The 16<sup>th</sup> Taipei International Vascular Biology Symposium

## Joint Symposium of Taiwan Society of Lipids and Atherosclerosis & Taiwan Millennium Healthy Foundation

# Dietary Guidelines & Cardiometabolic Disease

Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/10(Sat.) 14:30~17:45 Room 803

Plenary Session III				
Time	Торіс	Speaker	Moderator	
14:30-14:35	Opening Remarks		Prof. Keh-Sung TsaiProf. Hung-I Yeh蔡克嵩 董事長葉宏一 理事長	
14:35-15:35	Dietary recommendations for healthy aging and cardiometabolic diseases	Prof. Ming-Shi Shiao 蕭明熙 教授	Prof. Keh-Sung Tsai 蔡克嵩 董事長	
15:35-15:45	Coffe	e Break		
Plenary Session IV				
Time	Торіс	Speaker	Moderator	
15:45-16:15	2015-2020 US dietary guidelines and its impact on cardiomatabolic diseases: consensus and controversies	Dr. Shao-Chun Lu 呂紹俊 副教授	Prof. Chau-Chung Wu 吳造中 名譽理事	
16:15-16:45	Review 2011 Taiwan dietary guidelines and its impact on cardiomatabolic diseases: is revision needed?	Prof. Wen-Harn Pan 潘文涵 理事	Prof. Ming-Shi Shiao 蕭明熙 教授	
16:45-17:15	The prevalence of cardiometabolic diseases in Asia: do major countries' dietary guidelines offer sufficient recommendations?	Prof. Nain-Feng Chu 祝年豐 理事	Prof. Hung-I Yeh 葉宏一 理事長	
17:15-17:45	Panel Discussion & Closing Rema	Prof. Keh-Sung Tsai 蔡克嵩 董事長		

# Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/11(Sun.) 09:00-13:45 Room 801

The 16 <sup>th</sup> Taipei International Vascular Biology Symposium Plenary Session				
Time	Торіс	Speaker	Moderator	
09:00-09:05	Opening Remarks		Prof. Hung-I Yeh 葉宏一 理事長	
09:05-09:45	Role of vascular stem cells in arteriosclerosis	riosclerosis Prof. Qingbo Xu Prof. Danny Ling W		
09:45-09:50	Discussion			
09:50-10:30	New era in the treatment of cardiovascular disease using vaccine	Prof. Ryuichi Morishita	Prof. Chau-Chung Wu	
10:30-10:35	Discussion		決逗中 名誉埋事	
10:35-10:45	Coffee Break			
10:45-11:25	True colors of good and bad cholesterols	Prof. Chu-Huang Cheng 陳珠璜 教授	Dr. Kuo-Yang Wang	
11:25-11:30	Discussion	土幽陽 監爭		



## The Annual Scientific Meeting of Taiwan Society of Lipids & Atherosclerosis 2016 and

# The 16<sup>th</sup> Taipei International Vascular Biology Symposium

11:30-12:15	The Assembly Member Meeting of Taiwan Society of Lipids and Atherosclerosis				
12:15-12:35	2016 TSLA clinical guidelines of lipid manageme high risks for ASCVD	Prof. Yi-Heng Li 李貽恆 秘書長			
Research Award					
12:35-12:45	TSLA Outstanding Research Award	TBD	TBD		
Lunch Symposium					
Time	Торіс	Speaker	Moderator		
12:45-12:50	Opening Remarks				
12:50-13:15	The experience and benefit of Azilsartan in post-SPRINT era	Prof. Ryuichi Morishita	Prof. Chung-Sheng Li		
12:15-13:40	CV outcomes of alogliptin in type 2 DM patients with recent ACS	Prof. Ryuichi Morishita	林中生 教授		
13:40-13:45	Panel Discussion & Closing Remarks				

# Joint Symposium of Taiwan Society of Lipids and Atherosclerosis & Taiwan Association of Lipid Educators

Pharmacological Advanced in Cardiometabolic Disease				
Time	Торіс	Speaker	Moderator	
14:00-14:10	Opening Remarks	Prof. Wen-Jone Chen		
14:10-14:50	New approaches to managing CV risk in patients with Type 2 diabetes	Dr. Chun-Hung Su 蘇峻弘 醫師	陳文鍾 理事長	
14:50-15:00	Discussion	Prof Chau-Chung Wu		
15:00~15:30	NOAC 3.0: real-world experience of pradaxa	Dr. Yenn-Jiang Lin 林彦璋 醫師	- FIOL Chau-Chung Wu 吴造中 名譽理事	
15:30~15:50	The Specific Reversal Agent of NOAC Prof. Yi-Heng Li 李胎恆 秘書長 Prof. Hu		Prof Hung-I Veh	
15:50-16: 05	Panel Discussion	· · · · · · · · · · · · · · · · · · ·		
16:05~16:10	Closing Remarks			

# Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/11(Sun.) 09:00-13:45 Room 802

DM Symposium					
Time	Торіс	Speaker	Moderator		
09:00-09:05	Opening Remarks	Prof Wayne H-H Sheu			
09:05-09:35	What Did LEADER Trial tell us in managing CVD in diabetes patients	Prof. Yu-Yao Huang 黃禹堯 教授	ー 計惠恒 常務監事		
09:35-10:05	Update information regarding the mechanism and basic molecular perspective of statin and blood glucose	Prof. Masato Odawara			
10:05-10:35	Rethinking best strategy in diabetes care models	Dr. Ching-Ling Lin 林慶齡 醫師	Dr. Ching-Fai Kwok 郭清輝 顧問		
10:35-10:50	Panel Discussion & Closing Remarks				
10:50-11:00	Coffee Break				



### The Annual Scientific Meeting of Taiwan Society of Lipids & Atherosclerosis 2016 and The 16<sup>th</sup> Taipei International Vascular Biology Symposium

Nutrition and Diet Symposium				
Time	Торіс	Speaker	Moderator	
11:00-11:05	Opening Remarks			
11:05~11:35	Eggs, to eat or not to eat?	Dr. Pey-Rong Chen 陳珮蓉 主任		
11:35~12:05	2:05Triglycerides reduction: need more changes in comprehensive lifestyles?Ms. I-Hsien Tsai 蔡一賢 理事		Prof. Wen-Harn Pan 潘文涵 理事	
12:05~12:35	Vegetarian diet: consistent benefit for lipid levels?	Ms. Tina H. T. Chiu 邱雪婷 營養師		
12:35-12:45	Panel Discussion & Closing Remar			
	Lunch Symposium			
Time	Торіс	Speaker	Moderator	
12:45-12:50	Opening Remarks			
12:50-13:15	Dichotop Outcome Triple: past present and fiture	Prof. Chern-En Chiang	Prof. Yi-Heng Li	
13:15-13:40	Diabetes Outcome mais, past, present and future	江晨恩 教授	李貽恆 秘書長	
13:40-13: 50	Panel Discussion & Closing Remarks			

# 台北市心血管疾病防治網繼續教育課程

Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/11(Sun.) 08:10-16:30 Room 803

Management of Cardiovascular Diseases and Risk Factors – 2016 Update					
Time	Торіс	Speaker			
08:20~08:30	Opening Remarks	葉宏一 理事長			
08:30~09:20	What should I do in 2016 for my patients with hypertension	吳懿哲 副秘書長			
09:20~10:10	What should I do in 2016 for my patients with dyslipidemia	李眙恆 秘書長			
10:10~10:20	Break	All			
10:20~11:10	What should I do in 2016 for my patients with diabetes	王治元 醫師			
11:10~12:00	What should I do in 2016 for my patients with acute coronary syndrome	黃金洲 副秘書長			
12:00~13:00	Lunch	All			
13:00~13:50	What should I do in 2016 for my patients with stable coronary artery disease	趙庭興 副秘書長			
13:50~14:40	What should I do in 2016 for my patients with stroke	鄭建興 教授			
14:40~14:50	Break	All			
14:50~15:40	What should I do in 2016 for my patients with atrial fibrillation	王俊傑主任			
15:40~16:30	What should I do in 2016 for life style modification to my patients	林宗憲 醫師			
16:30~	Closing Remarks				

# **Plenary Session I**

# Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/10 (Sat.) 13:30~15:05 Room 801

Time	Торіс	Speaker	Moderator
13:30-13:35	Opening Remarks		Prof. Hung-I Yeh 葉宏一 理事長
13:35-13:55	Limitations of current LDL-C lowering treatment and the role of PCSK9-targeting therapy and others	Dr. Ting-Hsing Chao 趙庭興 副秘書長	Prof. Ping-Yen Li 劉秉彦 常務理事
13:55-14:15	Experimental evidence of PCSK9 on atherosclerosis	Prof. Tsung-Hsien Lin 林宗憲 醫師	Prof. Wei-Hsian Yi 殷偉賢 名譽理事
14:15-14:35	Clinical evidence of PCSK9 on atherosclerosis	Prof. Min-Ji Charng 常敏之 常務理事	Prof. Wen-Jang Wong 翁文章 常務理事
14:35-14:55	Do we have better one? potential limitations of PCSK9 inhibitor therapy in clinical practice	Prof. Chau-Chung Wu 吳造中 名譽理事	Prof. Jaw-Wen Chen 陣際文 夕譽理事
14:55-15:05	Panel Discussion & Closing Remarks		

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## **CURRICULUM VITAE**

**姓名:**趙庭興 (Ting-Hsing Chao) **生日:**民國五十五年十一月二十八日

#### 學歷:

台北醫學大學醫學士;民國八十年六月畢

#### 現職:

國立成功大學醫學院內科部定副教授兼附設醫院心血管內科主治醫師 國立成功大學醫學院附設醫院醫務秘書 台灣介入性心臟血管醫學會第五屆及第六屆理事 台灣介入性心臟血管醫學會第六屆教育委員會副召集人 中華民國血脂及動脈硬化學會副祕書長 國立成功大學醫學院附設醫院監督治理團隊委員

#### 經歷:

國立成功大學醫學院附設醫院品質中心副主任 國立成功大學醫學院附設醫院斗六分院副院長兼品管中心主任 國立成功大學醫學院附設醫院斗六分院醫務秘書兼內科部主任 中華民國心臟學會第二十二屆副祕書長 第二十二屆雲林縣醫師公會理事 國立成功大學醫學院內科學科部定助理教授及講師 國立成功大學醫學院附設醫院心導管室主任及心臟科病房主任 國立成功大學醫學院醫五內科見習導師

#### 榮譽及受獎:

七十九年度林口長庚紀念醫院年度最佳實習醫師 八十三年度國立成功大學醫學院附設醫院內科最佳教學住院醫師 第三十、三十一屆及第三十八屆中華民國心臟醫學會年會最佳海報獎 九十三年度國立成功大學醫學中心內科部主治醫師最佳研究獎 九十五及九十六年度國立成功大學醫學中心內科部主治醫師教學獎 美國心臟學院會士 (FACC)、歐洲心臟學會會士 (FESC) 及亞太心臟學院會士 (FAPSC) 九十七、九十九及一百年度國立成功大學醫學中心醫療科技研究計劃成果海報獎 2010、2015 台灣心臟學會 (TSOC) 高血壓治療指引編撰委員 2011 年馬奎斯世界名人錄及亞洲名人錄登錄列名 2013 年美國心臟學院 (ACC) 年會最佳海報論文獎 2016 年中華民國血脂及動脈硬化學會 (TSLA) 血脂治療指引編撰委員

#### 專長:

心導管介入治療;高血壓;動脈硬化基因學;血管新生;幹細胞研究

中華民國血脂及動脈硬化學會

## Limitations of current LDL-C lowering treatment and the role of PCSK9-targeting therapy and others

Ting-Hsing Chao ( 趙庭興 ), MD, FACC, FESC, FAPSC

Associate Professor of Internal Medicine National Cheng Kung University College of Medicine and Hospital

Despite receiving current standard-of-care therapy, most patients, especially in familial hypercholesterolemia with sky-high baseline cholesterol level, still did not achieve recommended low-density lipoprotein cholesterol (LDL-C) level. Clinical outcome data suggest that patients may benefit from further LDL-C reductions to reduce coronary heart disease risk; however, the highest recommended dose of the most potent statin reduces LDL-C level only by 60% due to "Rule of Six" and other lipid treatment strategies beyond statins result in modest additional LDL-C level reduction. The major side effects of statin therapy usual occurs with high dose treatment. Moreover, the threshold for the "even lower even better" dogma of lipid management is still not known. Finally, in patients with intolerance to statin treatment, an alternative lipid treatment only provides small to moderate reduction in LDL-C level. Therefore, a potent lipid-lowering treatment to resolve the above limitations of the contemporary lipid treatment is mandatory. Proprotein convertase subtilisin/kexin type 9 (PCSK9), a newly recognized protein, plays a key role in cholesterol homeostasis by enhancing degradation of hepatic low-density lipoprotein receptor. The development of therapeutic approaches that inhibit PCSK9 function has therefore attracted considerable attention from clinicians and the pharmaceutical industry for the management of hypercholesterolemia and its associated cardiovascular disease risk. PCSK9 inhibitors are a new class of drugs that have been shown to further decrease LDL-C by 50-70% when administered as a monotherapy or on a background therapy with statins. In addition to PCSK9-targeting therapy, there are other potentially effective LDL-C treatment, including ApoB mRNA anti-sense drugs and microsomal triglyceride transfer protein inhibitors. The aforementioned issues will be discussed in today's presentation.



# **CURRICULUM VITAE**

姓名:林宗憲 (Tsung-Hsien Lin)

# Experimental evidence of PCSK9 on atherosclerosis

Tsung-Hsien Lin (林宗憲)

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The Annual Scientific Meeting of Taiwan Society of Lipids & Atherosclerosis 2016 and The 16<sup>th</sup> Taipei International Vascular Biology Symposium

## **CURRICULUM VITAE**

姓名:常敏之 (Min-Ji Charng)

#### 學歷:

- 1983/6月 國立台灣大學醫學系醫學士 (M.D.)
- 1997/7月 美國 Baylor College of Medicine 心臟學博士 (Ph.D.)

#### 經歷:

- 2006 現任 台北榮總心臟內科主治醫師
- 2011 現任 國立陽明大學內科部定教授

#### 榮譽:

- 1995 美國心臟學會青年醫師獎
- 1997 美國貝勒醫學院內科最佳論文獎
- 1999 國軍退除役官兵輔導委員會年度研究發展報告 「轉殖 TGF 接受器基因對小白鼠心臟之影響」特優獎
- 2000 台北榮民總醫院教學優良醫師獎
- 2008 中華民國血脂及動脈硬化學會最佳論文獎
- 2008 台北榮民總醫院教學優良醫師獎

#### 專科學會:

- 1989-目前 中華民國內科醫學會專科醫師
- 1987-目前 中華民國心臟學會專科醫師
- 1995-目前 中華民國心臟學會專科指導醫師
- 2008-目前 中華民國心臟學會介入專科醫師
- 2012-目前 台灣介入性心臟血管醫學會專科醫師
- 2011-目前 台灣重症醫學專科醫師(重症聯合甄選委員會)
- 2013-目前 重症醫學專科臨床訓練指導醫師(重症聯合甄選會)
- 2016 目前 中華民國心臟學會理事及國際事務暨兩岸交流委員會主任委員
- 2003-目前 中華民國血脂及動脈硬化學會常務理事
- 2016 目前 台灣介入性心臟血管醫學會常務理事及財務委員會主任委員



## Clinical Evidence of PCSK9 on atherosclerosis

#### Min-Ji Charng, MD, PhD

Professor of Medicine Taipei Veterans General Hospital and National Yang-Ming University

Despite the availability and use of the conventional pharmacotherapy, some patients still cannot achieve the LDL-C targets recommended, underscoring the need for novel treatment options that decrease atherogenic cholesterol levels beyond those currently achieved. PCSK9 is a key regulator of LDLR function. PCSK9 binds and targets LDLR for degradation in lysosomes and prevents normal recycling of LDLR back to the cell surface, thereby increasing LDL-C plasma concentrations. Inhibition of PCSK9, by preventing PCSK9-mediated LDLR degradation and permitting LDLR to recycle back to the liver cell surface, can get rid of LDL-C from circulation.

Two inhibitor of PCSK9, both monoclonal antibodies, are now available for treatment of patients with FH. Both evolocumab, approved for treatment of both HeFH and HoFH, and alirocumab, for HeFH only, were approved in 2015 by the United States FDA for the treatment of patients with FH in combination with other lipid-lowering therapies.

The phase III randomized, double-blind, placebo-controlled trial included 49 patients with HoFH on stable lipid-lowering therapy. Patients were randomized in a 2:1 ratio to receive evolocumab 420 mg or placebo every 4 weeks. The mean decrease in LDL-C was 23.1% for those receiving evolocumab compared with a 7.9% increase for the placebo group. Interestingly, one patient with LDLR-negative mutations in both alleles and one with autosomal recessive hypercholesterolemia did not respond to evolocumab. There were no adverse event-related treatment discontinuations.

PCSK9 has experienced a rapid evolution from genetic discovery, to drug target, human testing, and now to large clinical outcomes trials. It has provided new biologic insights and a potent natural pharmacologic mechanism to further lower LDL-C. With 50–70% further reduction in LDL-C, PCSK9 inhibitors appear to be a promising pharmacologic intervention for patients with difficult-to-treat hypercholesterolaemia.

# **CURRICULUM VITAE**

Name: Chau-Chung Wu, M.D., Ph.D.

#### **Education:**

- 1978-1985 M.D., College of Medicine, National Taiwan University, Taipei, Taiwan
- 1991.1995 Ph.D. (Clinical Medicine), College of Medicine, National Taiwan University, Taipei, Taiwan
- 1995-1996 Visiting Research Associate in Biomedical Engineering, Johns Hopkins University, Baltimore, USA

#### **Professional Specialty:**

Cardiology, Vascular and cellular biology, Dyslipidemia, Cardiovascular image, Biomagnetism, Nanotechnology

#### **Hospital Appointments:**

- 1984.1985 Intern (Medicine), National Taiwan University Hospital, Taipei, Taiwan
- 1987-1992 Resident (Internal Medicine), National Taiwan University Hospital, Taipei, Taiwan
- 1990-1992 Research Fellow in Cardiology, National Taiwan University Hospital, Taipei, Taiwan
- 1992- Staff Cardiologist, National Taiwan University Hospital, Taipei, Taiwan
- 1994-1995 Director, Coronary Care Unit, National Taiwan University Hospital, Taipei, Taiwan
- 1997-2001 Director, Echocardiographic Lab. National Taiwan University Hospital, Taipei, Taiwan
- 2001-2003 Director, Cardiovascular Functional Lab. National Taiwan University Hospital-Kong-Kuan, Taipei, Taiwan
- 2002-2005 Vice-Chairman, Department of General Medicine, National Taiwan University Hospital-Kong-Kuan, Taipei, Taiwan
- 2005-2007 Chairman, Department of Internal Medicine, E-Da Hospital/I-Shou University, Kaohsiung, Taiwan
- 2007-2009 Director, Intensive Care Unit, National Taiwan University Hospital-Kong-Kuan, Taipei, Taiwan

#### Academic Appointments:

- 1990-1992 Research Fellow in Cardiology, National Taiwan University Hospital, Taipei, Taiwan
- 1993-1997 Lecturer in Department of Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan
- 1995-1996 Visiting Research Associate in Biomedical Engineering, Johns Hopkins University, Baltimore, USA
- 1998-2003 Assistant Professor in Department of Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan Assistant Professor in Primary Care Medicine, National Taiwan University College of Medicine, Taipei, Taiwan
- 2003-2009 Associate Professor in Department of Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan Associate Professor in Primary Care Medicine, National Taiwan University College of
- 2009- Professor in Department of Internal Medicine, National Taiwan University Hospital,
- 2009- Professor in Department of Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan 2000 2014 Brofessor in Brimery Care Medicine, National Taiwan University College of Medicine
- 2009-2014 Professor in Primary Care Medicine, National Taiwan University College of Medicine, Taipei, Taiwan
- 2014- Professor in Department of Medical Education & Bioethics, and Graduate Institute of Medical Education & Bioethics, National Taiwan University College of Medicine, Taipei, Taiwan



# Do we have better one? --- potential limitations of PCSK9 inhibitor therapy in clinical practice

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The Annual Scientific Meeting of Taiwan Society of Lipids & Atherosclerosis 2016 and The 16<sup>th</sup> Taipei International Vascular Biology Symposium






## Joint Symposium of APSAVD & TSLA

# Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/10 (Sat.) 15:15~16:55 Room 801

Time	Торіс	Speaker	Moderator
15:15-15:20	Opening Remarks		Prof. Hung-I Yeh 葉宏一 理事長
15:20-15:40	Prof. Philip Yu-An Ding's Memorial Lecture New Lipid Lowering Therapy	Prof. Rody Sy	Prof. Brian Tomlinson
15:40-15:45	Discussion		
15:45-16:15	Nanoparticle-mediated drug simultaneous targeting to mitochondria and inflammatory monocytes opens innovative therapeutic strategies in acute myocardial infarction and ischemia-reperfusion injury	Prof. Kensuke Egashira	Prof. Shing-Jong Lin 林幸榮 名譽理事
16:15-16:20	Discussion		
16:20-16:50	Are new DPP4-inhibitors CV outcome trials changing the fundamentals of diabetes management?	Prof. Chung-Sheng Lin 林中生 教授	Prof. Chuang-Ye Hong 洪傳岳 名譽理事
16:50-16:55	Discussion		

# **CURRICULUM VITAE**

Name: Prof. Rody Sy

#### Medical Background:

1974	Doctor of Medicine, University of the Philippines
1974-1975	General Internship, UP-PGH Medical Center
July-Dec 1975	Rural Community Service – Sariaya, Quezon Province
1976-79	Residency in Internal Medicine, UP-PGH Medical Center
1979-82	Fellowship in Cardiology, Georgetown University Hospital
1983	Fellow and Diplomate, Philippine College of Physicians
1983	Fellow and Diplomate, Philippine College of Cardiology
1993	Fellow, American College of Cardiology
1995	Fellow, Philippine Society of Cardiac Catheterization and Intervention
2008	Fellow, Asean College of Cardiology

#### **Current Positions:**

2016	Chairman / President, UP Medical Alumni Foundation, Inc.
2016	Member-at-large, Executive Committee, International Atherosclerosis Society
Oct. 2012-now	Ex-officio member, Sagip Buhay Medical Foundation
2012-now	Head, Resource Generation Office, UP College of Medicine
2013-now	Member, International Atherosclerosis Society – Asia Pacific Federation

#### **Past Positions:**

2002-06	President, Asian Pacific Society of Atherosclerosis and Vascular Diseases
1995-2002	President, Philippine Lipid Society
1991-92	President, Philippine Heart Association
1995-98	Medical Director, Cardinal Santos Medical Center
1995-98	Chairman, Department of Medicine, Cardinal Santos Medical Center
1994-99	Chief, Section of Cardiology, Department of Medicine, UP-PGH
1999-2000	Chairman, Specialty Board of Cardiology (Adult), Philippine College of Cardiology
1993-2007	Trustee, Philippine Society of Hypertension
2003-2011	Chairman, Pusong Pinoy Foundation
2005-2012	Head, Cardiovascular Institute, Cardinal Santos Medical Center
2004-2012	Chairman, Sagip Buhay Medical Foundation
2012-2015	Professor and Chairman, Department of Medicine, UP College of Medicine

#### **Recent Honors and Awards:**

1996	Distinguished Fellow Award, Philippine College of Physicians	
1998	Distinguished Service Award, Philippine Heart Association	
1999	Distinguished Teacher Award, Philippine Heart Association	
1999	Awardee, Most Distinguished Research in Cardiology, Philippine Heart Association	
2006	Loyalty Award, Philippine Heart Association	
2009	Philippine Medical Association - Unilab Dr. Jose P. Rizal Memorial Award for	
	Outstanding Clinical Practice	
2009-2010	Listed in Marquis' Who's Who in Medicine and Healthcare 7 <sup>th</sup> Edition	
March 2010	CSMC - Cardinal Sin Teacher-Healer Award, Cardinal Santos Medical Center	
May 2010	Distinguished Fellow Award, Philippine Heart Association	
May 2011	Philippine College of Physicians Exemplar Award in Clinical Research	
May 2012	Philippine Heart Association Golden Heart Award	
2015	UP College of Medicine Dr. Gloria T. Aragon Award for Most Illustrious Faculty	

# New lipid lowering therapy

Rody Sy

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# **CURRICULUM VITAE**

Name: Kensuke Egashira, MD. PhD., FAHA, FESC, FJCS

#### **Personal Information:**

Position and Address:	Professor, the director in the Department of Cardiovascular Research,
	Development, and Translational Medicine, Kyushu University Faculty of
	Medicine
	3-1-1 Maidashi Higashi-ku, Fukuoka 812-8582 JAPAN
	Phone: +81-92-642-6918 /FAX: +81-92-642-6720
	E-mail: egashira@cardiol.med.kyushu-u.ac.jp
Date of Birth:	February 6, 1957
Place of Birth:	Kumamoto, Japan

#### Education:

1981 M.D. at Kyushu University School of Medicine

1988 Ph.D. at Kyushu University School of Medicine

#### License and Certification:

1981 Diplomat National Board of Medical Examination, Japan

#### Academic Appointment:

- 1981- Resident in Internal Medicine and Cardiology Kyushu University Hospital
- 1983- Research Fellow in Department of Cardiovascular Medicine, Kyushu University Faculty of Medicine, Fukuoka, Japan
- 1985- Instructor in Cardiology, Kyushu University Hospital
- 1988- Research Fellow in Cardiovascular Medicine, Beth Israel Hospital, Harvard Medical School, Boston, USA
- 1990- Instructor
- 1992- Assistant Professor
- 1995- Lecturer
- 2005- Associate Professor, Department of Cardiovascular Medicine, Kyushu University, Faculty of Medicine
- 2011- Professor, Department of Cardiovascular Research, Development, and Translational Medicine, Kyushu University Faculty of Medicine

#### Awards:

- 1986 Young Investigator Award, Japanese Circulation Society
- 1988 Medical and Pharmaceutical Research Award, the Mochida Memorial Foundation
- 1989 Research Fellowship Award, Japan Society of Clinical Pharmacology
- 1993 Academic Career Prize, Japanese Atherosclerosis Society
- 1995 The CPIS Prize Japanese Circulation Society Japan
- 1995 Academic Career Prize, Japan Vascular Disease Research Foundation
- 2001 Sato Prize, Japanese Heart Foundation and Japanese Circulation Society
- 2001 Hypertension Research Novartis Award, Japan Hypertension Society
- 2003 Journal of Gene Medicine award, Japanese Society of Gene Therapy
- 2005 The Award of the President of Fukuoka Medical Association
- 2006 Prizes for Science and Technology (Research Category) of the Ministry of Education, Culture, Sports, Science and Technology, Japan
- 2010 Research & development award from Gervernment of ShangHai, China
- 2008-2016 Achievement Award from president of Kyushu University

#### **Professional Societies:**

Japanese Circulation Society: Councilor and Fellow

Japan Atherosclerosis Society, Councilor and Fellow and Trustee

Japanese Society of Vascular Biology and Medicine: Councilor and Trustee

- American Heart Association, Fellow of Basic Cardiovascular Sciences and ATVB
- European Society of Cardiology, Fellow

## Nanoparticle-mediated drug simultaneous targeting to mitochondria and inflammatory monocytes opens innovative therapeutic strategies in acute myocardial infarction and ischemia-reperfusion injury

#### Kensuke Egashira, M.D., Ph.D.

Department of Cardiovascular Research, Development, and Translational Medicine, Graduate School of Medical Sciences, Kyushu University,

Ischemic heart/brain diseases are the leading cause of morbidity and mortality worldwide. Mitochondrial injury and inflammation play temporally and spatially different roles in myocardial ischemia-reperfusion (IR) injury, which demand novel strategy to target these 2 mediators specifically and simultaneously. To this end, we have engineered poly (lactic-co-glycolic acid) nanoparticle containing cyclosporine A (CsA-NP) or pitavastatin (Pit-NP), and reported that the former inhibits the opening of mitochondrial permeability transition pore (mPTP) and the latter reduces monocyte-mediated inflammation in IR hearts.

We produced mice lacking both cyclophilin D (CypD, a key molecule for mPTP opening) and CCR2 (a receptor for monocyte chemoattractant protein-1), and found that the double KO mice displayed dramatic reduction in myocardial IR injury model (Fig. A). Fluorescence reflectance image (FRI) revealed that CypD deficiency reduced Annexin-positive infarct area in the center of ischemic area, compared with WT mice at 10 min after reperfusion (Fig. B). Although infarct areas were equivalent between WT and CCR2 KO mice at 10 min after reperfusion, CCR2 deficiency inhibited the expansion of the infarct area during 24 hours. Flow cytometric analysis and fluorescence molecular tomography showed that inflammation was markedly inhibited in CCR2 KO and double KO mice, but not in CypD KO mice at 24 hours after reperfusion (Fig. C). In CypD KO mice, Pit-NP reduced recruitment of Ly6C<sup>high</sup> inflammatory monocytes and infarct size, whereas CsA-NP reduced infarct size in CCR2 KO mice. Simultaneous treatment with CsA-NP and Pit-NP at the time of reperfusion reduced infarct size in comparent.

reduced infarct size by an additive manner (Fig. D).

To translate our experimental findings in the animal model to clinically applicable approaches, we completed the Investigational New Drug application to the Japanese regulatory agency (PMDA) and two phase I clinical studies of intravenous administration of pitavastatin-NP. We are now planning to perform phase II clinical studies to investigate pitavastatin-NP for a new drug in patients with acute myocardial infarction and other ischemic organ diseases.

In summary, nanoparticle-mediated simultaneous targeting to mitochondria (CsA-NP) and inflammatory monocytes (pitavastatin-NP) can be developed as an innovative therapeutic strategy for ischemic heart/brain diseases and IR injury in other organs in future.



September 10-11, 2016

中華民國血脂及動脈硬化學會

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## **CURRICULUM VITAE**

姓名:林中生 教授

#### 現職:

中山醫學大學醫學院 教授 中山醫學大學附設醫院內科主治醫師 中山醫學大學附設醫院一般內科主任

#### 學歷:

 民國 55-60 年
 私立中山醫學專科學校醫科

 民國 72-74 年
 私立中山醫學院醫學系(補修學分)醫學士

 民國 78 年
 日本東京醫科大學醫學博士

#### 證書:

美國 ECFMG 民國 61 年 中華民國內科專科醫師 中華民國心臟專科醫師 中華民國急救加護專科醫師

#### 訓練:

民國 65-66 年	國立台灣大學附設醫院心臟內科
民國 69 年	日本國立京都大學附屬醫院研修員第三內科(心臟科)
民國 70-71 年	美國紐約州立大學附設醫院心臟內科研究員

#### 臨床經歷:

民國	61-65 年	私立中山	醫學	院附彰	设醫院內	科住院	<b>宅醫師</b>
民國	65年-迄今	中山醫學	大學	附設醫	醫院內科	主治醫	昏師
民國	98年-迄今	中山醫學	大學	附設醫	醫院一般	内科主	三任
民國	7379 年,83-8	8年	私立	中山醫	醫學院附	設醫院	宅内科主任
民國	78-83 年	台中市立	復健	醫院院	完長		
民國	85-87 年	私立中山	醫學	院附副	设醫院副	院長	
民國	94-96 年	中山醫學	大學	附設醫	醫院醫療	副院長	r C

#### 學術經歷:

民國 69-72 年	私立中山醫學院 講師
民國 72-77 年	私立中山醫學院 副教授
民國 77 年 - 迄今	中山醫學大學醫學院 教授
民國 77-78 年	私立中山醫學院 醫學系系主任
民國 83-84 年	私立中山醫學院 教務長
民國 84-87 年	私立中山醫學院 醫學研究所所長
民國 87-90 年	私立中山醫學院 校長
民國 90-93 年	中山醫學大學 校長
民國 93-94 年	中山醫學大學 醫學院院長

## Are new DPP4-inhibitors CV outcome trials changing the fundamentals of diabetes management?

Chung-Sheng Lin (林中生)



The Annual Scientific Meeting of Taiwan Society of Lipids & Atherosclerosis 2016 and The 16<sup>th</sup> Taipei International Vascular Biology Symposium



# **Plenary Session II**

# Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/10 (Sat.) 16:55~17:45 Room 801

Time	Торіс	Speaker	Moderator
16:55-17:15	Clinical Importance for TG lowering in T2DM patients, and the evaluation of the TG lowering agents, fibrate, niacin & omega-3	Dr. Shih-Hsien Sung 宋思賢 醫師	Dr. Yen-Wen Wu 吳彦雯 理事
17:15-17:35	Emerging evidence of combination lipid lowering therapy : impact on clinical treatment recommendations	Dr. Ping-Yen Liu 劉秉彦 常務理事	Prof. Min-Ji Charng 常敏之 常務理事
17:35-17:45	Panel Discussion & Closing Re	emarks	



# **CURRICULUM VITAE**

姓名:宋思賢 (Shih-Hsien Sung)

## Clinical Importance for TG lowering in T2DM patients, and the evaluation of the TG lowering agents, fibrate, niacin & omega-3

Shih-Hsien Sung ( 宋思賢 )

The Annual Scientific Meeting of Taiwan Society of Lipids & Atherosclerosis 2016 and The 16<sup>th</sup> Taipei International Vascular Biology Symposium

## **CURRICULUM VITAE**

姓名:劉秉彦 (Ping-Yen Liu)

#### 基本資料:

出生日期:1969年02月25日 聯絡地址:704台南市北區勝利路138號成大醫院心臟血管內科 聯絡電話:(公)06-2353535-4602 (宅)06-2092125 傳真號碼:06-2753834 E-mail:larry@mail.ncku.edu.tw

#### 學歷:

1987/09-1994/06	私立高雄醫學大學醫學院醫學系學士
2001/09-2005/12	國立成功大學醫學院臨床醫學研究所博士
2006/04-2008/03	美國麻州哈佛大學醫學院 Brigham & Women's Hospital 血管藥物研究實
	驗室 (P.I.: James K. Liao) 博士後研究

#### 現職:

2016/08 - 迄今	國立成功大學附設醫院心臟血管內科主任
2000/08 - 迄今	國立成功大學附設醫院心臟血管內科主治醫師
2015/08 - 迄今	國立成功大學附設醫院臨床醫學研究所暨內科學科教授

#### 經歷:

1994/09-1994/12	林口長庚醫院內科住院醫師
1995/01-1995/08	省立新竹醫院內科住院醫師
1995/09-1998/07	國立成功大學附設醫院內科住院醫師
1998/08-2000/07	國立成功大學附設醫院心臟內科總醫師
2001/08-2004/07	國立成功大學附設醫院內科講師
2004/08-2010/07	國立成功大學附設醫院內科助理教授
2010/08-2015/07	國立成功大學附設醫院內科學科暨臨床醫學研究所副教授
2012/08-2015/07	

#### 專長:

心臟血管疾病,高血壓,內科學,基因與藥物

# Emerging evidence of combination lipid lowering therapy: impact on clinical treatment recommendations

### Ping-Yen Liu (劉秉彦)

Over the decades, numerous statin landmark trials have demonstrated a linear correlation between LDL-C level and cardiovascular event rate. The Cholesterol Treatment Trialists' (CTT) Collaboration has further established the clear relationship between LDL-C reduction and relative risk reduction (RRR) in major vascular events. However, it has still been debated whether lowering LDL-C per se, regardless of the agents used, can contribute to cardiovascular benefit. Ezetimibe, a non-statin agent interfering cholesterol absorption by inhibiting Niemann-Pick C1-like 1 (NPC1L1) protein in the intestinal brush border, had been shown to reduce LDL-C level with milder side effects than statins. However, whether it reduces cardiovascular events was uncertain. In 2014, a landmark study, IMPROVE-IT trial, investigating ezetimibe added to statin therapy to lower LDL-C to the level of 53 mg/dL. It shows that ezetimibe reduces cardiovascular events with consistent relative risk reduction with statins per unit LDL-C reduction. Also, it provides the most advanced evidence that lowering LDL-C from 70 mg/dL to 53 md/dL further reduces major vascular event rate by 7.2%, with no increase in adverse events. Further subgroup analysis also indicated that patients with prior diabetes mellitus demonstrated significantly greater absolute and relative risk reduction, mainly driven by myocardial infarction and ischemic stroke. (This is similar to the results of total study patient group) In addition, patients with diabetes mellitus also showed greater reduction in LDL-C and hsCRP with ezetimibe use. Furthermore, the safety and efficacy of long term achieved very low LDL-C was evaluated. In this analysis, the ITT population was categorized into quartiles of LDL-C (<30, 30-50, 50-70 and >70mg/dL), and 9 safety endpoints including hemorrhagic stroke, cognitive function, non-CV death, study discontinuation due to AEs were analyzed. For all the safety endpoint analyzed, the safety profile is consistent across the LDL-C quartile groups, demonstrating the long term safety of very low LDL-C. The safety regarding new-onset diabetes was also investigated in another analysis specifically for patients without diabetes at randomization. The results showed no increase in new onset diabetes in patients allocated to simvastatin/ezetimibe treatment. Overall, ezetimibe showed excellent safety profile with robust LDL-C reduction and consistent CV benefit with statins.

Currently, all other non-statin combination lipid lowering therapies (ex. Niacin, fibrate) have not shown CV benefit when it's combined with statin. Ezetimibe is the only non-statin agent to demonstrate the CV benefit when combined with statin. The results have been widely addressed in different major lipid treatment guideline, such as 2016 ADA guideline, 2016 ESC prevention guideline and 2016 ACC consensus. Ezetimibe is suggested as the first non-statin option for lipid lowering in these guidelines. Furthermore, the lipid treatment goal concept has been widely addressed in different international guideline. The IMPROVE-IT study not only reinforced the LDL hypothesis but also demonstrate the CV benefit of ezetimibe as non-statin therapy. It also gradually shapes the lipid treatment concept.



The Annual Scientific Meeting of Taiwan Society of Lipids & Atherosclerosis 2016 and The 16<sup>th</sup> Taipei International Vascular Biology Symposium





# Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/10 (Sat.) 17:45~17:50 Room 801

Time	Торіс	Speaker	Moderator
17:45-17:50	Opening Remarks		Prof. Hung-I Yeh 葉宏一 理事長
17:50-18:20	Pitavastatin and incidence of DM	Prof. Masato Odawara	Prof. Brian Tomlinson
18:20-18:30	Panel Discussion		Prof. Wayne H-H Sheu
18:30-18:40	Closing Remarks		許惠恒 常務監事

# **CURRICULUM VITAE**

#### Name: Professor Masato Odawara

Tokyo Medical University

Director and Professor of The Department of Diabetes, Endocrinology, Metabolism, and Rheumatology

#### **Profile:**

1980	Graduated School of Medicine and Faculty of Medicine, University of Tokyo
1990	Research Assistant, University of Tokyo Hospital
1992	Lecturer of Institute of Clinical Medicine, University of Tsukuba
1996	Clinical Lecturer of Medicine, Oxford University
2000	Director of the Department of Internal Medicine, Division of Endocrinology and
	Metabolism, Toranomon Hospital, Federation of National Public Service Personnel
	Mutual Aid Associations
2004	Director and Professor of the Third Department of Internal Medicine, Tokyo
	Medical University
2004	Guest Professor, Tokyo University of Pharmacy and Life Sciences
2009.9-2012.8	Executive Vice President of Tokyo Medical University Hospital

#### **Other Posts:**

Doctor of Philosophy (Medical Science) (qualified by The University of Tokyo) Adjunct instructor of Kobe University School of Medicine Adjunct instructor of Institute of Clinical Medicine The University of Tsukuba Adjunct instructor of Yokohama City University School of Medicine Adjunct instructor of Kagoshima University Faculty of Medicine Board director of The Japan Diabetes Foundation Board director of The Japan Society of Diabetic Complications Board director of The Japan Society of Adult Diseases Councilor of The Japan Society of Adult Diseases Councilor of The Japanese Society of Internal Medicine Councilor of The Japan Diabetes Society Councilor of The Japan Endocrine Society Councilor of Japanese Society of Molecular Medicine Councilor of Japan Society of Metabolism & Clinical Nutrition Certifying physician of Japan Society of Internal Medicine Advising doctor of Japanese Society of Internal Medicine Certified Dialectologist of Japan Diabetes Society Advising doctor of Japan Diabetes Society



# Pitavastatin and incidence of DM

### Masato Odawara



The Annual Scientific Meeting of Taiwan Society of Lipids & Atherosclerosis 2016 and The 16<sup>th</sup> Taipei International Vascular Biology Symposium





# Joint Symposium of Taiwan Society of Lipids and Atherosclerosis & Taiwan Millennium Healthy Foundation

# **Dietary Guidelines & Cardiometabolic Disease**

# Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/10 (Sat.) 14:30~15:35 Room 803

Time	Торіс	Speaker	Moderator
14:30-14:35	Opening Remarks		Prof. Keh-Sung Tsai 蔡克嵩 董事長 Prof. Hung-I Yeh 葉宏一 理事長
14:35-15:35	Dietary recommendations for healthy aging and cardiometabolic diseases	Prof. Ming-Shi Shiao 蕭明熙 教授	Prof. Chau-Chung Wu 吳造中 名譽理事

# **CURRICULUM VITAE**

#### 姓名:蕭明熙 (Ming-Shi Shiao, Ph.D.)

Department of Biomedical Sciences, College of Medicine and Metabolomics Core Laboratory, Healthy Aging Research Center (HARC), Chang Gung University, Kweishan, Taoyuan, Taiwan 333 E-mail: msshiao@mail.cgu.edu.tw

#### **Professional Appointment:**

2012/11- 長庚大學生物醫學系特聘教授2006/2- 長庚大學 醫學院 生物醫學系教授

#### Education:

1968/9-1972/6	理學士 (BS) 國立台灣大學理學院化學系
1974/9-1978/12	Ph.D. in Bio-organic Chemistry, Brown University, Providence, RI, USA

#### Working Experience:

1985/8-2006/2	台北榮民總醫院 教學研究部研究員
1990-1991	默克公司 (Merck Research Laboratories, Merck Co., Rahway, NJ, USA) 動脈粥
	狀硬化系與生化調節系訪問學者
1988-1990	國立台灣大學 理學院 生化科學研究所兼任教授
1993-2006	國立陽明大學 生化研究所兼任教授
1983/11-1984/11	NIH Fogarty Fellow (USA) and Visiting Scientist at Columbia University
1980-1983	國防醫學院 生化所兼任副教授
1980/8-1985/7	中央研究院 植物所副研究員
1978/12-1980/8	威斯康辛大學麥迪生校區醫學院生理化學所麥迪生市榮民醫院博士後研
	究

#### Major Research Area:

代謝症候群、糖尿病與動脈粥狀硬化之分子醫學 Alzheimer's disease 之分子醫學與新藥開發 代謝體學 (Metabolomics) 運用於健康老化研究
## Dietary recommendations for healthy aging and cardiometabolic diseases

#### Ming-Shi Shiao

The dietary recommendations for the elderly should base on scientific knowledge to provide suggestions for choosing a healthy diet in a healthy life style to prevent the diet-related degenerative diseases that profoundly affect the health of aged population. Among major degenerative diseases, namely cardiovascular disease (CVD), type 2 diabetes mellitus (T2DM), cancer, and dementia, many risk factors are common and interactive to each other in triggering disease pathogenesis. Obesity, insulin resistance, metabolic syndrome are common risk factors in the pre-diabetic state. T2DM is a very complicated cardiometabolic disorder. Strong evidence based on clinical studies has indicated that diabetes-accelerated CVD and may aggravate diabetic nephropathy (DN) and dementia. Accumulating evidence based on epidemiological, animal and clinical studies, also suggest that healthy diet and physical activity, as part of a healthy life style, can prevent or slow down the progression of degenerative diseases, particularly cardiometabolic diseases. The dietary guidelines regularly announced by many countries address these issues and provide recommendations to the general public. For example, the new 2015-2020 Dietary Guidelines for Americans claim that their recommendations are for a general population, not particularly for the elderly (>65 yr and above).

This presentation will review the current scientific evidence, particularly the findings based on studies of healthy aging and cardiometabolic diseases. Since many studies have strongly indicated that free of diabetes, functional energy metabolism, and good gut microbiota are associated with healthy aging. Several dietary suggestions for the elderly, particularly in protein uptake and sarcopenia, to achieve healthy aging will be discussed.

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中華民國血脂及動脈硬化學會



## Joint Symposium of Taiwan Society of Lipids and Atherosclerosis & Taiwan Millennium Healthy Foundation

## **Dietary Guidelines & Cardiometabolic Disease**

# Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/10 (Sat.) 15:45~17:45 Room 803

Time	Торіс	Speaker	Moderator
15:45-16:15	2015-2020 US dietary guidelines and its impact on cardiomatabolic diseases: consensus and controversies	Dr. Shao-Chun Lu 呂紹俊 副教授	Prof. Keh-Sung Tsai 蔡克嵩 董事長
16:15-16:45	Review 2011 Taiwan dietary guidelines and its impact on cardiomatabolic diseases: is revision needed?	Prof. Wen-Harn Pan 潘文涵 理事	Prof. Ming-Shi Shiao 蕭明熙 教授
16:45-17:15	The prevalence of cardiometabolic diseases in Asia: do major countries' dietary guidelines offer sufficient recommendations?	Prof. Nain-Feng Chu 祝年豐 理事	Prof. Hung-I Yeh 葉宏一 理事長
17:15-17:45	Panel Discussion & Closing Remarks		Prof. Keh-Sung Tsai 蔡克嵩 董事長

## **CURRICULUM VITAE**

**姓名:**呂紹俊 (Shao-Chun Lu) 台大醫學院生化暨分子生物學科副教授

#### 學歷:

PhD, Nutritional Biochemistry, Cornell University

#### 現任:

台灣營養學會雜誌總編輯

曾任:

台灣動脈硬化暨血管病醫學會理事 台灣基因體暨遺傳學會秘書長

# 2015-2020 US dietary guidelines and its impact on cardiometabolic diseases: consensus and controversies

#### Shao-Chun Lu( 吕 绍 俊 )

過去半個世紀來必需營養素缺乏已明顯減少,大部分的傳染性疾病也都可以克服,但是 慢性疾病卻明顯增加。約有一半的美國成年人是過重或是肥胖,這些人也都有一個或一個 以上的慢性疾病(包括心血管疾病、高血壓、第二型糖尿病等)。而這些慢性疾病大多與不 當的飲食與缺少活動有關,因此是可以預防的。越來越多證據顯示健康的飲食型態(healthy eating patterns)及規律運動(regular physical activity)可以幫助民眾在各生命期維持健康的身體, 減少慢性疾病的風險,2015-2020 US dietary guidelines 是根據這些證據提出建議。

健康的飲食型態要限制飽和與反式脂肪、添加糖 (added sugar) 及鈉的攝取。每天飽和脂 肪的攝取要少於10%熱量攝取,添加糖的攝取也要少於10%熱量攝取,鈉的攝取應少於2.3 公克 (5.8 公克鹽),若飲酒也要適量。飲食與規律運動要能達到熱量平衡,維持適當體重。 有過重或肥胖的問題的人大多有最少一項 cardiometabolic risk factor (如高血壓、高血脂、高 血糖等)。在 2010 年的統計顯示, 35% 的 20 歲以上美國成年人,患有心血管疾病。在 2009-2012年間,20歲以上成年人中有約一億人血膽固醇≥200 mg/dL,約3千1百萬血膽固醇 ≥ 240 mg/dL; 8 to 17 歲的青少年也有 8% 的人血膽固醇 ≥ 200 mg/dL。顯示高膽固醇血症仍 是一個嚴重的問題。在 2015-2020 US dietary guidelines 仍舊建議以不飽和脂肪 ( 尤其是多不飽 和脂肪酸)取代飽和脂肪,可以降低血漿總膽固醇及LDL-C,減少心血管疾病(CVD events) 的風險及相關的死亡。而以碳水化合物取代飽和脂肪雖然可以降低血漿總膽固醇及 LDL-C, 但會提高三酸甘油酯及降低 HDL-C,而且不會減少心血管疾病的風險。另外,反式脂肪會 提高 LDL-C 而增加心血管疾病的風險,應該避免攝食。最引起討論的一個議題是,2015-2020 US dietary guidelines 不再列入每天 300 毫克膽固醇的限制。這並不表示膽固醇不再需要 關注,而是因為目前並沒有足夠的證據來訂定膽固醇的攝取界限。在一般的膽固醇攝取範圍 內,並沒有發現會影響血漿總膽固醇濃度。但 2015-2020 US dietary guidelines 仍舊建議盡量少 攝取富含膽固醇的食物,因為富含膽固醇的食物通常也含較多的飽和脂肪酸。近年來的研究 發現膽固醇的攝取是引起非酒精性脂肪肝及脂肪肝炎的重要因子,但是在指南中沒有討論這 問題。我將在報告中討論膽固醇與非酒精性脂肪肝及脂肪肝炎的關係,並對此提出建議。

## **CURRICULUM VITAE**

中文姓名	潘文涵	英文姓名	WEN-HARN PAN
國 籍	中華民國	性別	□男 ■女

主要學歷

學校名稱	國別	主修學門系所	學位	起訖年月(西元年/月)
康乃爾大學	美國	營養科學科/營養流行病學	博士	自 1980/01 至 1983/05
康乃爾大學	美國	營養科學科/營養生化	碩士	自 1977/09 至 1979/12
國立台灣大學	中華民國	農業化學系	學士	自 1972/09 至 1976/06

#### 現職、經歷和專長

服務機構	服務部門/系所	職稱	起訖年月(西元年/月)
現職:			
中央研究院	生物醫學科學研究所	研究員	自 1994/08至今
國家衛生研究院	群體健康科學研究所醫療保 健研究組	合聘研究員	自 2013/09至今
ム灘ナ母	公共衛生學院流行病學研究 所	合聘教授	自1995/02至今
口得八字	生命科學院微生物與生化學 研究所	合聘教授	自2003/08至今
經歷:			
國家衛生研究院	群體健康科學研究所營養醫 學研究群	研究員兼群主任	自2010/08至2013/08
(借調)	群體健康科學研究所醫療保 健研究組	研究員兼組主任	自2010/12至2013/08
中央研究院	調查研究中心	主任	自1995至1996
台灣大學	公共衛生學院流行病學研究 所	副教授	自 1988/09至1995/02
中央研究院	生物醫學科學研究所	副研究員	自 1987/02至1994/07
西北大學	社區健康與預防學系	博士後研究員	自 1983/05至1987/01
專長:			
1.遺傳流行病學 2.4	營養流行病學 3.心臟血管流行為	<b>病學</b>	

## Review 2011 Taiwan dietary guidelines and its impact on cardiomatabolic diseases: is revision needed?

#### Wen-Harn Pan

2011 Taiwan dietary guideline consists of 12 items of advices to general public. It touches upon (1)balancing 6 food groups according to Taiwan Food Guides, (2) adhering to individualized caloric requirement, (3-4) active living and sufficient physical activities, (5-7) importance of whole foods, diversity, and nutrient density, (8) avoiding large portion size, (9) limiting energy-dense/ nutrient-poor (fried and simple sugar-enriched) foods, (10) breast feeding for at least 6 months, (11) drinking alcohol in moderation, (12) attending to food hygiene and safety.

Taiwan Food Guide was designed for people to consume a nutritious and balanced diet, taking into consideration the food choices made by Taiwanese. We have carefully articulated the distribution of 6 food groups not only to satisfy the requirements of all vitamins and minerals (vitamin A, B1, B2, niacin, B6, B12, C, E, Ca, P, Mg, Fe, Zn) listed in Dietary Reference Intake (DRI), but also to control contemporary health problems such as obesity, cardio-metabolic diseases, and cancer. For the latter, we have tried to ensure adequate level of fat, protein, and carbohydrate, dietary fiber, and ideal quality of fats and oils in terms of P/M/S ratio and cholesterol saturation index, based on scientific evidence from epidemiology and feeding studies of cardiovascular disease and other NCDs. We provided recommended numbers of servings for each of the six food groups for multiple caloric levels, cince energy requirements vary from person to person.

In recent year, prevalence rates of severe obesity, central obesity, and diabetes increase steadily in Taiwan. It is important to provide clear dietary message to the public pertaining to lowering metabolic risk. The Taiwan Dietary Guideline committee is revising the guideline, particularly on wording related to "limiting added sugar or free sugar" and on "encouraging milk consumption".

## **CURRICULUM VITAE**

**姓名:**祝年豐 (Nain-Feng Chu)

#### 現任:

高雄榮民總醫院教學研究部主任

#### 學歷:

美國哈佛大學公共衛生學博士 美國哈佛大學流行病學碩士 美國哈佛大學公共衛生學碩士 國防醫學院碩士 國防醫學院醫學士

#### 經歷:

衛生福利部臺東醫院院長 雙和醫院社區醫學部主任 臺中縣衛生局局長 國防醫學院公共衛生學系教授 苗栗縣衛生局公共衛生顧問 行政院衛生署國健局台北區職業衛生保健中心主持人 美國哈佛大學公共衛生學院營養學系博士後研究員 衛生署食品衛生處審查委員 衛生署食品藥物管理局 (TFDA) 審查委員

#### 已獲得之專科醫師資格:

內科專科醫師 職業醫學科專科醫師 心臟內科專科醫師 心臟血管內科專科訓練指導醫師 重症醫學專科醫師 老年醫學專科醫師

#### 專長:

流行病學、社區醫學、公共衛生學、心臟醫學、肥胖醫學、生物統計學



## The Prevalence of Cardiometabolic Diseases in Asia: Do Major Countries' Dietary Guidelines Offer Sufficient Recommendations?

#### Nain-Feng Chu

Dept. of Medical Education and Research, Kaohsiung Veterans General Hospital, Kaohsiung, Taiwan School of Public Health, NDMC, Taipei, Taiwan

Non-communicable diseases are expected the major causes of death in developed and developing countries in 2020. Cardiovascular diseases (CVDs) including coronary heart disease and stroke are the most important leading causes of death in the world. In 2000, the mortality rates of CVDs are varying from countries to countries in Asia, from less than 20% in Thailand and Philippines, 20-30% in Hong Kong, Korea and Japan, and exceed 30% in Singapore. Furthermore, the prevalence of type2 diabetes has increase rapidly in Asian population in recently decades. The morbidity and mortality of the cardiometabolic diseases and their complications are relatively common in these countries.

Not only adults but also children, the cardiometabolic diseases such as hypertension, dyslipidemia and metabolic syndrome are increased significantly in Asian children. Many studies have demonstrated that the prevalence of the cardiometabolic diseases is relatively high among overweight and/or obese children when compared with normal weight children in Asia.

The most important contributing factors to develop the cardiometabolic diseases are life-style related risk factors, such as obesity, physical inactivity, dietary factors and cigarette smoking. According to the Korean National Health System Prospective Cohort Study, serum cholesterol levels are positively associated with the development of myocardial infarction and ischemic stroke. In the Asia Pacific Cohort Studies Collaboration Study, each 1 mmol/L higher of total cholesterol level is associated with 1.35 times increased risk of coronary death. These results have shown that hypercholesterolemia is generally a risk factor for cardiometabolic diseases in Asian population.

In this section, we will present the prevalence of cardiometabolic diseases in the Asia countries and also examine the effects of each national dietary recommendation that may be associated with the development of the cardiometabolic diseases in these countries.

Keywords: Cardiometabolic Disease, Dietary guideline, Asian population








# Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/11 (Sun.) 09:00~11:30 Room 801

Time	Торіс	Speaker	Moderator
09:00-09:05	Opening Remarks		Prof. Hung-I Yeh 葉宏一 理事長
09:05-09:45	Role of vascular stem cells in arteriosclerosis	Prof. Qingbo Xu	Prof. Danny Ling Wang
09:45-09:50	Discussion		王 寧 理事
09:50-10:30	New era in the treatment of cardiovascular disease using vaccine	Prof. Ryuichi Morishita	Prof. Chau-Chung Wu 归浩山 夕翱珊車
10:30-10:35	Discussion		天迎中 石宮庄争
10:35-10:45	Coffee Break		
10:45-11:25	True colors of good and bad cholesterols	Prof. Chu-Huang Cheng 陳珠璜 教授	Dr. Kuo-Yang Wang 工國唱 監車
11:25-11:30	Discussion	·	

## CURRICULUM VITAE

#### Name: Qingbo Xu, MBBS, MD, PhD

Address: Cardiovascular Division

King's BHF Centre, Kings College London, 125 Coldharbour Lane, London SE5 9NU, UKTel. +44-207 848 5322Fax +44-207 848 5296E-mail: qingbo.xu@kcl.ac.uk

#### **Education:**

1978-1983	M.B., Qingdao Medical College, Qingdao, China
1983-1988	Ph.D. Peking Union Medical College, Beijing, China
1988-1992	M.D., University of Innsbruck Medical School, Austria

#### **Chronology of Employment:**

1992-1993	Postdoctoral Fellow, Institute for General and Experimental Pathology, University of
	Innsbruck, Medical School, Innsbruck, Austria
1994-1995	<u>Forgarty Fellow</u> , NIA, NIH, USA
1996-1999	Assistant Professor, Institute for Biomedical Aging Research, Austrian Academy of
	Sciences, and Institute for Experimental Pathology, University of Innsbruck, Medical
	School, Innsbruck, Austria
1999-2000	Associate Professor, Institute for Biomedical Aging Research (Tenured), Austrian
	Academy of Sciences, and Institute for Experimental Pathology, University of
	Innsbruck Medical School, Innsbruck, Austria
2000-2005	Professor, John Parker Chair of Vascular Biology, Department of Cardiac and Vascular
	Sciences (Tenured), St George's, University of London, London, UK
2006-	BHF Professor, John Parker Chair of Cardiovascular Sciences, Cardiovascular Division
	(Tenured), King's College London, University of London, UK

#### Awards:

- 1988 Postdoctoral Fellowship Award, Boeringer Ingelhem Fund
- 1990 Hoechst Prize, University of Graz
- 1993 Walter Doberauer Award, Austrian Society of Gerontology and Geriatrics
- 1993 Kardinal-Innitzer-Forderungs-Prize; Austrian Cardinal
- 1993 Forgarty Fellowship Award, NIH, USA
- 1994 Stroke-Prize, Austrian Society of Neurology
- 1994 Dr. Johannes-Tuba Prize, Physician Association of Tirol
- 1995 Rokitansky-Prize, Austrian Society of Pathology
- 1996 Sandoz-Prize for Medicine, Sandoz (Novartis) Co.
- 1997 Hans-und Blanca-Moser Award, University of Vienna
- 2000 Cardiology-Prize, Austrian Society of Cardiology
- 2007 Chang-Jiang Scholarship (Fellowship) of Chinese Ministry of Education
- 2013 Taishan Scholarship of Shangdong, China

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## Role of Vascular Stem Cells in Arteriosclerosis

#### Qingbo Xu

Recent studies showed that Sca-1<sup>+</sup> stem/progenitor cells are presented within the vessel walls, and their effect on the pathogenesis of arteriosclerosis is largely unknown. In the present presentation, the contribution of vascular stem cells to vascular repair and the formation of atherosclerotic plaque will be emphasized. To elucidate the mechanisms of vascular progenitor participation of neointima formation, Sca-1<sup>+</sup> progenitor cells were cultivated from adventitia of aortas form GFP-transgenic mice. The cell migration assays carried out with a Boyden chamber indicated significantly increase in a co-culture with SMCs and SMC-derived conditioned medium, in which elevated chemokines CCL2 and CXCL1 were detected. This increased migration was mimicked by stimulation with recombinant CCL2, CXCL1. A mini-array assay implicated the presence of a panel of cytokine receptors on Sca-1<sup>+</sup> cells, among which CCL2 receptor CCR2 and CXCL1 receptor CXCR2 was upregulated following treatment with the conditioned medium. Knockdown of either receptor in Sca-1<sup>+</sup> progenitors significantly inhibited the cell migration. GTPase cdc42 was activated by CCL2, CXCL1 stimulation, while inhibition of cdc42 significantly led to decreased migration. When Sca-1<sup>+</sup> progenitor cells were applied to the adventitia side of wire-injured femoral artery in mice, a large proportion of GFP+ cells were observed in neointimal lesions, resulting in a marked increase in neointima lesions 1 week post-operation. Subsequently, we demonstrated that these migrated cells were mostly differentiated into SMCs. Atherosclerosis, a chronic condition that can be converted into an acute clinical event caused by plaque rupture and thrombosis, has been the primary cause of mortality. Dickkopf 3 (DKK3), a 36-kD secreted glycoprotein, has a role in cell differentiation, but little is known about its involvement in vascular disease. In the present study, we utilized a model of atherosclerosis in conjunction with DKK3<sup>-/-</sup>ApoE<sup>-/-</sup> mice to assess the effects of DKK3-mediated stem cell differentiation on plaque stability. We found that the absence of DKK3 lead to vulnerable unstable atherosclerotic plaques due to reduced smooth muscle cell (SMC) number and matrix protein deposition as well as increased haemorrhage and macrophage infiltration. Further in vitro studies revealed that DKK3 can induce differentiation of Sca-1<sup>+</sup> vascular stem cells and fibroblasts into SMCs via activation of the TGF/ATF6 and Wnt signalling pathways, respectively. Finally, we assessed the therapeutic potential of DKK3 in mouse and rabbit models and found that DKK3 increases atherosclerotic plaque stability via increasing SMCs and reducing vascular inflammation. Collectively, we provide the first evidence that DKK3 is a potent SMC differentiation factor/cytokine, which can be an effective therapeutic agent towards reducing acute haemorrhagic conditions through promoting atherosclerotic plaque stability.

## **CURRICULUM VITAE**

Name: Morishita Ryuichi

#### **Personal Information:**

Degree: MD, PhD Birthday: 5/12/1962 Birthplace: Japan Citizenship: Japanese

#### Carrier:

4/81-3/87	MD (3/87)	Osaka University Medical School, Osaka, Japan
		Medicine
4/8/-3/91	PhD (3/91)	Osaka University Medical School, Osaka, Japan
		Medicine
4/91-8/91	Postdoctoral Fellow	Osaka University Medical School
		Department of Geriatric Medicine (T. Ogihara)
8/91-4/94	Postdoctoral Fellow	Stanford University School of Medicine,
		Division of Cardiovascular Medicine
		(Victor J. Dzau)
5/94-96/9	Senior Research Associate	Osaka University Medical School
		Department of Geriatric Medicine (T. Ogihara)
5/94-96/8	Visiting Instructor	Stanford University School of Medicine,
		Division of Cardiovascular Medicine
		(Victor J. Dzau)
4/95-96/9	Research Fellow of the Japa	n Society for the Promotion of Science
10/96-10/98	Assistant Professor	Department of Geriatric Medicine (T. Ogihara)
		Osaka University Medical School
5/94-present	Chief	Section of Gene Therapy
		Department of Geriatric Medicine (T. Ogihara)
		Osaka University Medical School
10/98-03/2004	Associate Professor	Department of Geriatric Medicine (T. Ogihara)
		Osaka University Medical School
10/98-03/2004	Associate Professor	Division of Gene Therapy Science (Y. Kaneda)
		Osaka University Medical School
10/98-03/2004	Chief	Section of Cardiovascular Medicine
		Division of Gene Therapy Science (Y. Kaneda)
		Osaka University Medical School
01/2000-present	Visiting Professor	The University of Hong Kong
03/2003-present	Professor	Department of Clinical Gene Therapy
-		Osaka University Medical School
		(Donated by Dai-ichi Pharmaceutical)

## New era in the treatment of cardiovascular disease using vaccine

#### Ryuichi Morishita

Professor, Department of Clinical Gene Therapy, Osaka University

Recent progress on vaccination has extended its scope from infectious diseases to common disease such as hypertension. In the initial study, we selected Angiotensin II (AngII) as a target antigen, because it is low serum level. Plasmid vector encoding Hepatitis B core (HBc)-Ang II fusion protein was injected to spontaneously hypertensive rats (SHR) by needle less injection system. As a result, anti-Ang II antibody was successfully produced in vaccine group and sustained at least up to 6 months. Consistently, systolic BP was lower in vaccine group after the immunization, and BP reduction was continued at least up to 6 months. Interestingly, vaccine against Ang II attenuated the worsening cardiac function after myocardial infarction and brain ischemia after stroke. Future development of DNA vaccine to hypertension might provide new therapeutic option to treat hypertensive population. In this lecture, I will introduce recent progress in vaccine to treat cardiovascular disease.

## **CURRICULUM VITAE**

Name: Chen, Chu-Huang

#### **Position:**

Director, Vascular and Medicinal Research

#### **Education/Training:**

1978	Kaohsiung Medical College, Kaohsiung, Taiwan	M.D.	Medicine
1978-1981	Chang-Gung Memorial Hospital, Taipei, Taiwan	Resident	Pathology
1986	Texas Tech University, Lubbock, Texas	Ph.D.	Physiology
1986-1989	Maryland General Hospital & Univ. of Maryland	Resident	Internal Medicine
1989-1992	Baylor College of Medicine, Houston, Texas	Fellow	Cardiology

#### **Professional Experience:**

1992-1994	Instructor of Medicine, Baylor College of Medicine, Houston, Texas
1994-2004	Assistant Professor of Medicine, Baylor College of Medicine, Houston, Texas
2004-2015	Associate Professor of Medicine, Baylor College of Medicine, Houston, Texas
2006-2015	Clinical Director, Behavioral Medicine Research Center, Department of Medicine,
	Baylor College of Medicine, Houston, Texas
2009-present	Professor and Director, Vascular and Medicinal Research, Houston, Texas Heart
	Institute, Houston, Texas
2010-2015	Visiting Professor and Director of L5 Research Center, China Medical University,
	Taichung, Taiwan
2012-present	Visiting Professor and Director of Center for Lipid Biosciences, Kaohsiung Medical
	University, Kaohsiung, Taiwan
2013-present	Chairman, Research Advisory Committee, New York Heart Research Foundation,
	New York
2014-present	Chair Professor of Medicine and Director, Center for Lipid Biosciences (CLB),
	Kaohsiung Medical University (KMU) Hospital, KMU, Kaohsiung, Taiwan
2015-present	Adjunct Professor, Institute of Medical Science and Technology, National Sun Yat-
	sen University, Kaohsiung, Taiwan
2015-present	Director, Lipid Science and Aging Research Center (LSARC), Kaohsiung Medical
	University, Kaohsiung, Taiwan
2016-present	Director, Cologne-Kaohsiung Alliance (CKA) at Kaohsiung Medical University,
	Kaohsiung, Taiwan

#### Honors as a Mentor:

- 2006 Postdoctoral Fellow, Jeffrey P. Walterscheid, PhD, AHA Fellowship
- 2007 Postdoctoral Fellow, Daming Tang, MD PhD, NIH Training Grant

#### Memberships in Professional Societies:

American Diabetes Association AHA, Atherosclerosis Council International Atherosclerosis Society American Association for the Advancement of Science The Angiogenesis Society

中華民國血脂及動脈硬化學會

## True colors of good and bad cholesterols

#### Chu-Huang (Mendel) Chen, MD, PhD

Director, Vascular and Medicinal Research, Texas Heart Institute, USA Chair Professor of Medicine, Kaohsiung Medical University, Taiwan

An oversimplified and somewhat misleading dogma labels high-density lipoprotein (HDL) as the "good cholesterol" and low-density lipoprotein (LDL) "bad cholesterol". In a number of large-scale clinical trials, effective elevation of plasma HDL by a variety of cholesteryl ester transfer protein (CETP) inhibitors did not reduce the risk of acute coronary syndrome recurrence and may increase mortality and morbidity. By using anion-exchange chromatography, we have divided human plasma HDL into 5 increasingly negatively charged subfractions, H1-H5. In patients with coronary syndrome, chronic kidney disease, or Alzheimer's disease, there is a significant increase of H5, which exhibits significantly reduced capacity of reverse cholesterol transport. Proteomic analysis reveals that H5 has a decreased content of apolipoprotein (apo)AI, which is primarily responsible for cholesterol removal from the vascular wall. In addition, the apoAI in H5 is also marked by excessive posttranslational modifications, including oxidation and glycation, which further dampen the biological effects of H5. Thus, H5 is a dysfunctional HDL subfraction and the percentage of H5 in total HDL may more accurately determines the beneficial role of HDL than does the plasma concentration of HDL cholesterol. Human plasma LDL can also be resolved into L1-L5 by the same chromatographic procedure, with L5 being the most electronegative. Nearly undetectable in normal healthy subjects, L5 is significantly increased in patients with hypercholesterolemia, diabetes mellitus, metabolic syndrome, systemic lupus erythematosus, acute myocardial infarction, or acute ischemic stroke. From evidence based on in vitro, in vivo, and human studies, we have demonstrated L5's pro-senescent, inflammatory, atherosclerotic, and thrombotic properties, which are not seen in L1-L4. The human genome has a narrow margin of inter-individual variation; yet, human phenotypes are vastly different between races and among individuals within the same race. Epigenetic modulation of the human genome is believed to play an important role in creating these phenotypic variations. Of the possible mechanisms, post-translational glycosylation of proteins may contribute significantly to the establishment of individualized "epigenetic memory" of the genome. The majority of all proteins are glycosylated, and glycans have numerous important structural, functional, and regulatory roles in various physiological and pathological processes. The glycoplipids have a mainly communicative role, often acting as markers for cellular recognition and may provide stability for the cell and help cells join to other cells to form tissues. Pathologically, however, excessive glycolipids, such as gangliosides, may enhance sphingomyelinase (SMase) activity of the cell membrane to overproduce ceramide, which in turn induces the senescence of cells, including vascular endothelial cells (ECs) and myoblasts. Chemical analysis has revealed that L5 carries excessive apolipoproteins (apoE, A1, CII, CIII, (a), ]) in addition to apoB100, which is the only protein in the least electronegative LDL, L1. Further analysis has shown consistent glycosylation on certain residues of both apoE and apoB100 in L5 particles. The associated conformational changes result in hindrance of L5 docking to the normal LDL receptor, forcing an increased residence time of the L5 particles in circulation. The apoB100 molecule in L5 also possesses a prominent SMase-like activity. Consequently, L5 is not only a ceramide-rich lipoprotein but can also induce excessive ceramide production in ECs through SMase-like activity. Thus, L5 is both a glycan receiver and glycan donor/catalyzer. Glycan-lipid interactions are likely to have important biological and clinical implications. Extensive investigations are warranted to delineate the underlying mechanisms to advance our understanding of lipid-associated diseases and to disclose new targets for treatment.

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## Lunch Symposium

# Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/11 (Sun.) 12:45~13:45 Room 801

Time	Торіс	Speaker	Moderator
12:45-12:50	Opening Remarks		
12:50-13:15	The experience and benefit of Azilsartan in post-SPRINT era	Prof. Ryuichi Morishita	Prof. Chung-Sheng Li
12:15-13:40	CV outcomes of alogliptin in type 2 DM patients with recent ACS	Prof. Ryuichi Morishita	林中生 教授
13:40-13:45	13:45 Panel Discussion & Closing Remarks		

## **CURRICULUM VITAE**

Name: Morishita Ryuichi

#### **Personal Information:**

Degree: MD, PhD Birthday: 5/12/1962 Birthplace: Japan Citizenship: Japanese

#### Carrier:

4/81-3/87	MD (3/87)	Osaka University Medical School, Osaka, Japan Medicine
4/87-3/91	PhD (3/91)	Osaka University Medical School, Osaka, Japan
		Medicine
4/91-8/91	Postdoctoral Fellow	Osaka University Medical School
		Department of Geriatric Medicine (T. Ogihara)
8/91-4/94	Postdoctoral Fellow	Stanford University School of Medicine,
		Division of Cardiovascular Medicine
		(Victor J. Dzau)
5/94-96/9	Senior Research Associate	Osaka University Medical School
		Department of Geriatric Medicine (T. Ogihara)
5/94-96/8	Visiting Instructor	Stanford University School of Medicine,
		Division of Cardiovascular Medicine
		(Victor J. Dzau)
4/95-96/9	Research Fellow of the Japa	n Society for the Promotion of Science
10/96-10/98	Assistant Professor	Department of Geriatric Medicine (T. Ogihara)
		Osaka University Medical School
5/94-present	Chief	Section of Gene Therapy
		Department of Geriatric Medicine (T. Ogihara)
		Osaka University Medical School
10/98-03/2004	Associate Professor	Department of Geriatric Medicine (T. Ogihara)
		Osaka University Medical School
10/98-03/2004	Associate Professor	Division of Gene Therapy Science (Y. Kaneda)
		Osaka University Medical School
10/98-03/2004	Chief	Section of Cardiovascular Medicine
		Division of Gene Therapy Science (Y. Kaneda)
		Osaka University Medical School
01/2000-present	Visiting Professor	The University of Hong Kong
03/2003-present	Professor	Department of Clinical Gene Therapy
		Osaka University Medical School
		(Donated by Dai-ichi Pharmaceutical)

# The experience and benefit of Azilsartan in post-SPRINT Era

#### Ryuichi Morishita

Professor, Department of Clinical Gene Therapy, Osaka University

中華民國血脂及動脈硬化學會

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## **CURRICULUM VITAE**

Name: Morishita Ryuichi

#### **Personal Information:**

Degree: MD, PhD Birthday: 5/12/1962 Birthplace: Japan Citizenship: Japanese

#### Carrier:

4/81-3/87	MD (3/87)	Osaka University Medical School, Osaka, Japan Medicine
4/87-3/91	PhD (3/91)	Osaka University Medical School, Osaka, Japan
		Medicine
4/91-8/91	Postdoctoral Fellow	Osaka University Medical School
		Department of Geriatric Medicine (T. Ogihara)
8/91-4/94	Postdoctoral Fellow	Stanford University School of Medicine,
		Division of Cardiovascular Medicine
		(Victor J. Dzau)
5/94-96/9	Senior Research Associate	Osaka University Medical School
		Department of Geriatric Medicine (T. Ogihara)
5/94-96/8	Visiting Instructor	Stanford University School of Medicine,
		Division of Cardiovascular Medicine
		(Victor J. Dzau)
4/95-96/9	Research Fellow of the Japa	n Society for the Promotion of Science
10/96-10/98	Assistant Professor	Department of Geriatric Medicine (T. Ogihara)
		Osaka University Medical School
5/94-present	Chief	Section of Gene Therapy
		Department of Geriatric Medicine (T. Ogihara)
		Osaka University Medical School
10/98-03/2004	Associate Professor	Department of Geriatric Medicine (T. Ogihara)
		Osaka University Medical School
10/98-03/2004	Associate Professor	Division of Gene Therapy Science (Y. Kaneda)
		Osaka University Medical School
10/98-03/2004	Chief	Section of Cardiovascular Medicine
		Division of Gene Therapy Science (Y. Kaneda)
		Osaka University Medical School
01/2000-present	Visiting Professor	The University of Hong Kong
03/2003-present	Professor	Department of Clinical Gene Therapy
		Osaka University Medical School
		(Donated by Dai-ichi Pharmaceutical)

## CV outcomes of alogliptin in type 2 DM patients with recent ACS

#### Ryuichi Morishita

Professor, Department of Clinical Gene Therapy, Osaka University

中華民國血脂及動脈硬化學會

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## Joint Symposium of Taiwan Society of Lipids and Atherosclerosis & Taiwan Association of Lipid Educators

# Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/11 (Sun.) 14:00~16:10 Room 801

Time	Торіс	Speaker	Moderator
14:00-14:10	Opening Remarks	Draf Man Jana Chan	
14:10-14:50	New approaches to managing CV risk in patients with Type 2 diabetes	Prof. Kwo-Chang Ueng 翁國昌 理事	Prof. wen-Jone Chen 陳文鍾 理事長
14:50-15:00	Discussion	<u>.</u>	Drof Chau Chung Wa
15:00~15:30	NOAC 3.0: real-world experience of pradaxa	Dr. Yenn-Jiang Lin 林彦璋 醫師	- Prof. Chau-Chung Wu 吴造中 名譽理事
15:30~15:50	The Specific Reversal Agent of NOAC	Prof. Yi-Heng Li 李貽恆 秘書長	Prof. Huna-l Yeh
15:50-16: 05	5 Panel Discussion 葉		葉宏一 理事長
16:05~16:10	Closing Remarks		

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The Annual Scientific Meeting of Taiwan Society of Lipids & Atherosclerosis 2016 and The 16<sup>th</sup> Taipei International Vascular Biology Symposium

### **CURRICULUM VITAE**

**姓名:**翁國昌 (Kwo-Chang Ueng ,MD, PhD)

現職:
中山醫學大學附設醫院心臟內科主治醫師(86/011-)
中山醫學大學附設醫院醫學研究部副院長(103/08/01-)
中山醫學大學附設醫院臨床研究中心主任(103/08/01-)
中華民國第25屆心臟學會監事(105/06/01-107/05/31)
中華民國第25屆心臟學會學術委員會主任委員(105/06/01-107/05/31)
中華民國心律醫學會第三屆常務理事(104/03/10-106/03/09)
中華民國心律醫學會第三屆學術委員會主任委員(104/03/20-106/03/19)
中華民國心律醫學會第三屆臨床試驗與治療準則委員會委員(104/03/20-106/03/19)
中華民國血脂及動脈硬化學會第八屆理事(104/10/15-107/10/14)
台灣高血壓學會第五屆學術委員會副主任委員(103/02/01-105/11/15)
社團法人臺中市醫師公會第24屆會員代表(103/01-106/01)
臺中市防癌協會第13屆會員代表(103/01-106/01)

#### 學歷:

高雄醫學大學醫學系畢業 中山醫學大學臨床醫學研究所醫學博士

#### 經歷:

臺北榮民總醫院內科住院醫師(78-79年) 高雄榮民總醫院內科住院醫師,心臟科,內科部總醫師(80年至83年) 高雄榮民總醫院心臟科主治醫師 (83 年至 85 年 ) 中山醫學大學附設醫院心導管室主任 (87/08 至 91/07) 中山醫學大學附設醫院心臟加護病房主任 (88/08 至 91/07) 中山醫學大學附設醫院心臟內科主任 (91/08 至 99/07) 中山醫學大學附設醫院內科部副主任 (93/08 至 94/07) 中山醫學大學附設醫院內科部主任 (94/08 至 95/07) 中山醫學大學附設醫院醫學教育部副總院長 (100/08 至 103/07) 中山醫學大學醫學系主任 (99/08 至 101/07) 中山醫學大學醫學院院長 (100/08 至 103/07) 美國心律學會 (Heart Rhythm Society) 會員 台灣介入性心臟血管醫學會 (TSCI) 第二屆理事 中華民國內科醫學會第七屆副秘書長 台灣介入性心臟血管第二屆醫學學術委員會主任委員 台灣心律不整學術會 (Taiwan Arrhythmia Working Group) 秘書長 中華民國心臟學會第22屆心衰竭委員會委員(99/07/01-101/05/31) 中華民國心臟學會第22屆高血壓委員會委員 (99/07/01-101/05/31) 中華民國第23屆心臟學會理事(101/07/01-103/05/31) 中華民國心臟學會第23屆高血壓委員會副主任委員(101/07/01-103/05/31) 中華民國心臟學會第23屆介入性心臟學委員會委員(101/07/01-103/05/31) 中華民國心臟學會第23屆臨床試驗小組委員(101/10/01-103/05/31) 第 24 屆理事 (2014/05/01-2016/05/31) 第24 屆高血壓委員會委員 (2014/06/01-2016/05/31) 中華民國心律醫學會第一屆理事 (100/02/20-102/02/19) 中華民國心律醫學會第一屆財務委員會委員 (100/02/20-102/02/19) 中華民國心律醫學會第一屆學術委員會委員 (100/02/20-102/02/19) 中華民國心律醫學會第一屆醫療政策與媒體公關委員會委員 (100/02/20-102/02/19) 中華民國心律醫學會第一屆臨床試驗與治療準則委員會委員 (100/02/20-102/02/19) 中華民國血脂及動脈硬化學會第七屆常務理事 (101/10/15-104/10/14) 彰化基督教醫院教學顧問 (103/07/01-104/06/30)



中華民國血脂及動脈硬化學會

## New approaches to managing CV risk in patients with Type 2 diabetes

### Kwo-Chang Ueng ( 翁 國 昌 )

Cardiovascular disease risk factor control as primary prevention in patients with type 2 diabetes mellitus has changed substantially in the past few years. The purpose of this scientific statement is to review the current literature and key clinical trials pertaining to blood pressure and blood glucose control, cholesterol management, aspirin therapy, and lifestyle modification. We present a synthesis of the recent literature, new guidelines, and clinical targets, including screening for kidney and subclinical cardiovascular disease for the contemporary management of patients with type 2 diabetes mellitus.

Compared with subjects without diabetes, people with diabetes have more than 2 fold risk of heart disease and stroke. Co-morbidities, such as hypertension, dyslipidaemia, central obesity and microalbuminura are commonly seen on patients with T2DM and could further increase cardiovascular risk. Glycaemic control has been always considered as the major focus to reduce CV risk factors, along with other programs including smoking cessation and adoption of healthy lifestyle, blood pressure control, lipid management by taking statin medications and, sometimes, antiplatelet therapy.

According to major historic T2DM CV outcomes trials (e.g. UKPDS..., etc.) focusing on intensive versus conventional glycaemic control, it has been observed that lower HbA1c levels are associated with reduced micro- and macrovascular risk. However, due to the increased risk for MI and CV-related death seen on rosiglitazone, all new diabetes drugs are mandated by US FDA to demonstrate CV safety with meta-analysis and a CV outcome trial. Several CV outcome trials have been disclosed lately including the DPP-4 inhibitors saxagliptin (i.e. SAVOR-TIMI53), alogliptin (i.e. EXAMINE) and sitagliptin (i.e. TECOS) as well as GLP-1 receptor agonists lixisenatide (i.e. ELIXA). All of above trails have already illustrated with the neutral effect for the CV events. Notably, the increased risk of hospitalization for heart failure has been surprisingly found on saxagliptin in its CV outcome trial.

Sodium glucose cotransporter 2 (SGLT2) inhibitors are a new class of antidiabetes agents that reduce hyperglycemia in patients with T2DM by reducing renal glucose reabsorption and thus increasing urinary glucose excretion (UGE). Currently, six ongoing cardiovascular outcome studies assessing individual SGLT2 inhibitor compounds have been conducted and ongoing. Drugs within the class of SGLT2 inhibitors have shown various clinical, mechanistic and theoretical effects on cardiovascular pathways. Based on the placebo-controlled phase III trials in T2DM patients taking empagliflozin (one of the SGLT2 inhibitors), improved hemoglobin A1c (HbA1c) has been noted in monotherapy or add-on therapy with a low risk of hypoglycemia, reduced body weight and BP, without increases in heart rate. Moreover, SGLT2 inhibitors have also been reported to reduce other CV risk markers such as visceral fat mass.

One of the CV outcome trials of SGLT2 inhibitors, EMPA-REG OUTCOME trial, will be disclosed at the European Association for the study of Diabetes. With the disclosure of the data, we can understand CV safety result or potential cardioprotective effects of empagliflozin as well as the impact on microvascular outcomes. Also, The Leader study which testing the role of liraglutide in T2DM patients also show positive result in CV events. It provide more valued evidence in manage the CV disease in T2DM patients.

This lecture will provide the evidence on the completed major CV outcome trials and focus on newly disclosed CV outcome trials discussion. Risk and benefits of anti-diabetes agents on CV disease will be discussed during the meeting.

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### **CURRICULUM VITAE**

**姓名**:林彦璋 (Yenn-Jiang Lin, M.D., Ph.D.) 通訊處:臺北市石牌路二段 201 號思源樓二樓心臟內科 E-mail: yjlin3@vghtpe.gov.tw

#### 學位:

陽明大學臨床醫學研究所博士 臺北醫學大學醫學士

#### 現職:

國立陽明大學醫學院醫學系內科學科副教授 臺北榮民總醫院內科部心臟科主治醫師

#### 教職:

國立陽明大學內科學科副教授

#### 經歷:

臺北榮民總醫院內科住院醫師 臺北榮民總醫院內科部總醫師 署立宜蘭醫院心臟內科主治醫師

專長學科:

成人心臟內科、電氣生理 Electrophysiology、電燒術 Catheter Ablation

#### 專科證書:

中華民國內科專科醫師 中華民國心臟專科醫師

#### 專科學會:

中華民國內科醫學會 中華民國心臟學會

#### 學術獎勵:

2006,2007 臺北榮民總醫院傑出研究獎
 2006 國立陽明大學研究所傑出研究獎
 2007 中華民國心臟學會青年醫師研究獎
 2008 亞太心律不整學會青年醫師研究獎

中華民國血脂及動脈硬化學會

NOAC 3.0: real-world experience of pradaxa

#### Yenn-Jiang Lin(林彥璋)

Four direct oral anticoagulants have been approved for use in many countries. These drugs are valuable alternatives to vitamin K antagonists, such as warfarin, for many patients requiring anticoagulation to prevent stroke due to nonvalvular atrial fibrillation and to treat and prevent venous thromboembolism.

Direct oral anticoagulants have several pharmacologic advantages over vitamin K antagonists, including a wider therapeutic window, a rapid onset of action, and shorter half-lives that range between 7 hours and 14 hours in healthy persons. Direct oral anticoagulants are administered at fixed doses to adults without laboratory monitoring, which is more convenient than warfarin with its requirement for monitoring of the international normalized ratio and periodic dose adjustments. Despite the better bleeding profile of direct oral anticoagulants, as compared with warfarin, some physicians and patients have been unwilling to consider these drugs in the absence of an established way to reverse their anticoagulant activity. With the growing use of direct oral anticoagulants, it would be advantageous to have reversal agents that can rapidly and completely neutralize the anticoagulant activity of the drug and restore normal hemostasis. Idarucizumab, a monoclonal antibody fragment, is the first specific reversal agent binds factor IIa inhibitor dabigatran with an affinity that is 350 times as high as that observed with thrombin. The development of reversal agent is an important advance and will reduce the barriers for physicians to prescribe direct oral anticoagulants.

## CURRICULUM VITAE

Name: Yi - Heng Li (李貽恆)

#### **Personal Information:**

Current Address: Division of Cardiology, Department of Internal Medicine, National Cheng Kung University Hospital, 138 Sheng Li Road, Tainan 70428, Taiwan.

Telephone:	886-6-2353535 ext 2392
Fax:	886-6-2753834
E-mail:	t025215@ms17.hinet.net

#### **Current Position:**

Professor, Division of Cardiology, Department of Internal Medicine, College of Medicine, National Cheng Kung University.

#### **Education:**

1981-1988	M.D. Kaohsiung Medical College, Kaohsiung, Taiwan
1996-2000	Ph.D. Graduate Institute of Basic Medical Science, College of Medicine, National
	Cheng Kung University, Tainan, Taiwan
2002-2003	Visiting postdoctoral fellow, Section of Cardiovascular Sciences and Debakey Heart
	Center, Baylor College of Medicine, Houston, Texas, USA

#### **Clinical Training:**

	•
1987-1988	Internship, National Taiwan University Hospital
1988-1990	Military Service
1990-1993	Resident in Internal Medicine, Department of Internal Medicine, National Taiwan
	University Hospital
1993-1994	Chief Resident, Department of Internal Medicine, National Taiwan University Hospital
1993-1995	Fellow, Division of Cardiology, Department of Internal Medicine, National Taiwan
	University Hospital

#### **Professional Appointment:**

1995-1996	Attending Physician, Division of Cardiology, Department of Internal Medic		
	National Cheng Kung University Hospital		
1996-2000	Lecturer, Department of Internal Medicine, College of Medicine, National Cheng		
	Kung University		
2000-2008	Associate Professor, Department of Internal Medicine, College of Medicine,		
	National Cheng Kung University		
2008-up to now	Professor, Department of Internal Medicine, College of Medicine, National		
	Cheng Kung University		

#### **Board Certification:**

- 1988 Registered Physician-Taiwan
- 1994 Board of Internal Medicine-Taiwan
- 1996 Board of Cardiology-Taiwan
- 1996 Board of Critical Care Medicine-Taiwan



Yi-Heng Li (李貽恆)





## **DM Symposium**

# Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/11 (Sun.) 09:00~10:50 Room 802

Time	Торіс	Speaker	Moderator
09:00-09:05	Opening Remarks	Drof Mayne H H Chau	
09:05-09:35	What Did LEADER Trial tell us in managing CVD in diabetes patients	Prof. Yu-Yao Huang 黃禹堯 教授	Prof. Wayne H-H Sheu 許惠恒 常務監事
09:35-10:05	Update information regarding the mechanism and basic molecular perspective of statin and blood glucose	Prof. Masato Odawara	- Dr. Ching-Fai Kwok 郭清輝 顧問
10:05-10:35	Rethinking best strategy in diabetes care models	Dr. Ching-Ling Lin 林慶齡 醫師	
10:35-10:50	10:35-10:50   Panel Discussion & Closing Remarks		



## CURRICULUM VITAE

姓名:黄禹堯 (Yu-Yao Huang)

# What Did LEADER Trial tell us in managing CVD in diabetes patients

黄禹堯

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## **CURRICULUM VITAE**

#### Name: Professor Masato Odawara

Tokyo Medical University

Director and Professor of The Department of Diabetes, Endocrinology, Metabolism, and Rheumatology

#### **Profile:**

1980	Graduated School of Medicine and Faculty of Medicine, University of Tokyo
1990	Research Assistant, University of Tokyo Hospital
1992	Lecturer of Institute of Clinical Medicine, University of Tsukuba
1996	Clinical Lecturer of Medicine, Oxford University
2000	Director of the Department of Internal Medicine, Division of Endocrinology and
	Metabolism, Toranomon Hospital, Federation of National Public Service Personnel
	Mutual Aid Associations
2004	Director and Professor of the Third Department of Internal Medicine, Tokyo
	Medical University
2004	Guest Professor, Tokyo University of Pharmacy and Life Sciences
2009.9-2012.8	Executive Vice President of Tokyo Medical University Hospital

#### **Other Posts:**

Doctor of Philosophy (Medical Science) (qualified by The University of Tokyo) Adjunct instructor of Kobe University School of Medicine Adjunct instructor of Institute of Clinical Medicine The University of Tsukuba Adjunct instructor of Yokohama City University School of Medicine Adjunct instructor of Kagoshima University Faculty of Medicine Board director of The Japan Diabetes Foundation Board director of The Japan Society of Diabetic Complications Board director of The Japan Society of Adult Diseases Councilor of The Japan Society of Adult Diseases Councilor of The Japanese Society of Internal Medicine Councilor of The Japan Diabetes Society Councilor of The Japan Endocrine Society Councilor of Japanese Society of Molecular Medicine Councilor of Japan Society of Metabolism & Clinical Nutrition Certifying physician of Japan Society of Internal Medicine Advising doctor of Japanese Society of Internal Medicine Certified Dialectologist of Japan Diabetes Society Advising doctor of Japan Diabetes Society
# Update information regarding the mechanism or basic molecular perspective of statin and blood glucose

### Professor Masato Odawara

The Department of Diabetes, Endocrinology, Metabolism and Rheumatology, Tokyo Medical University

Although the evidences from a variety of large-scale clinical trials indicate that statins reduce the cardiovascular events, with JUPITER trial as a trigger, some of the meta-analyses showed that statins increase the new-onset diabetes. However, the data was analyzed retrospectively, and the effect of statins on the incidence of diabetes has not been clearly defined. Under those circumstances, statins are now prescribed with the understanding that a slightly increased risk of diabetes is outweighed by cardiovascular benefits of the statin treatment.

As for the impact of the statin to the glucose metabolism, several fundamental studies showed effect of different statins on human pancreas islet  $\beta$  cells or skeletal muscle cells. In each of the statin, the outcome of GLUT-4 expression and glucose uptake in human skeletal muscle cells were observed differently. Furthermore, the recent genetic analysis and randomized trials assessed the relationship between single nucleotide polymorphisms in the HMG-CoA reductase and the risk of diabetes. The article suggests that the mechanism of the risk of diabetes under the statin treatment may be associated with HMG-CoA reductase inhibition itself. However, the risk could be different between statins.

An in vitro study suggested pitavastatin is less likely to affect glucose metabolism than other statins and some other evidences also support the fact. A prospective clinical trial, J-PREDICT, explained that pitavastatin treatment with lifestyle modification was more associated with a lower incidence of diabetes than lifestyle modification alone in Japanese patients with IGT. Besides, the recent metaanalysis in Europe concluded that there is no significant effect of pitavastatin on glucose metabolism or diabetes development compared with placebo or other statins. As a consequence of those two reports, European package insert was revised and added the sentence stating that no signal of a diabetes risk was confirmed in pitavastatin. 68 ----

## **CURRICULUM VITAE**

姓名:林慶齡

### 現職:

國泰綜合醫院 內科部副部長 國泰綜合醫院 內分泌新陳代謝科主任 國泰綜合醫院 放射免疫荷爾蒙實驗室主任 國泰綜合醫院 營養醫療委員會委員 台北醫學大學臨床講師 輔仁大學醫學系臨床副教授

### 學經歷:

1987	中國醫藥學院,中醫學系醫學士畢業
1991	完成國泰綜合醫院內科駐院醫師及總醫師訓練
1990	取得中華民國內科專科醫師資格
1992	國泰綜合醫院內分泌新陳代謝專科醫師訓練
1992	取得中華民國內分泌新陳代謝專科醫師資格
1994-1995	至美國明尼蘇達州Mayo Clinic荷爾蒙實驗室研究員進修
2001	取得中華民國糖尿病衛教學會合格衛教師資格
2007-2010	國泰醫綜合院 健康管理中心主任

### 獎項:

- 1987 國泰綜合醫院最佳實習醫師優良病歷寫作獎
- 1993 獲中華民國醫用超音波學會優秀論文獎
- 2005 獲內科學誌優秀論文獎
- 2006 獲選國泰綜合醫院模範員工

### 專科會員:

中華民國內科醫學會會員 中華民國內分泌學會會員 中華民國新陳代謝學會會員 中華民國骨質疏鬆症學會會員 中華民國糖尿病衛教學會會員 台灣靜脈暨腸道營養醫學會會員 中華民國醫用超音波學會會員

## **Rethinking best strategy in diabetes care models**

林慶齡

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# Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/11 (Sun.) 11:00~12:45 Room 802

Time	Торіс	Speaker	Moderator		
11:00-11:05	Opening Remarks				
11:05~11:35	Eggs, to eat or not to eat?	Dr. Pei-Jung Chen 陳珮蓉 主任	Prof. Wen-Harn Pan 潘文涵 理事		
11:35~12:05	Triglycerides reduction: need more changes in comprehensive lifestyles?	Ms. I-Hsien Tsai 蔡一賢 理事			
12:05~12:35	Vegetarian diet: consistent benefit for lipid levels?	Ms. Tina H. T. Chiu 邱雪婷 營養師	Prof. Leh-Chii Chwang 音樂綺 理事		
12:35-12:45	Panel Discussion & Closing Remarks				

# **CURRICULUM VITAE**

Name: Pey-Rong Chen, R.D., Ph.D.

Assistant Professor

Head, Dept. of Dietetics and Nutrition, Taipei City Hospital

### Education:

2001-2005	Ph.D., Nutrition and Food Science, Fu-Jen Catholic University
1988-1991	M.S., Nutrition and Food Science, Fu-Jen Catholic University
1982-1986	B.S., Nutrition and Health Science, Taipei Medical College

### **Professional Experience:**

2006-present	Assistant Professor, Nutrition and Health Science, College of Public Health and	
	Nutition, Taipei Medical University	
1991-2016	Dietitian, Dept. of Dietetics, National Taiwan University Hospital	
1997-present	Certified Diabetes Educator (CDE), Taiwanese Association of Diabetes Educator	
2009-2013	Chief Editor, Taiwan Journal of Dietetics	
1991-2006	Lecturer, Nutrition and Health Science, College of Public Health and Nutition Taipei	
	Medical College	

### **Professional Organization:**

2016-present Director, Taipei Dietitians Association

### Eggs, to eat or not to eat?

### Peyrong Chen, RD, PhD

Head, Dept. of Dietetics and Nutrition, Taipei City Hospital

It has been discussed and debated for a long time whether eggs should be restricted for blood cholesterol control. This concern is really because of the high cholesterol content in eggs. According to evidence-based reports, dietary cholesterol restriction for blood cholesterol still show low level of evidence. Reduce saturated fat to 5-6% of daily total calorie and adapt a healthy dietary pattern recommended by the American Heart Association are beneficial for LDL-C lowering (AHA / ACC 2013 guideline). Healthy dietary pattern as the Mediterranean type or DASH diet that emphasize choose plant-based foods, vegetables, fruits, whole grains, moderate nuts and less high-fat red meat are suggested. There is no clear guidance for restriction of dietary cholesterol, due to lack of sufficient evidence-based results and dose- response relationship between dietary intake and serum cholesterol levels. Nevertheless, it is still needed to consider individual differences, certain individuals might be hyper-responder of dietary cholesterol, and the majority of adult Taiwanese consume cholesterol more than 400 milligrams/day. Therefore, we suggest that the high-risk groups of cardiovascular disease, such as hypercholesterolemia and diabetes, should not eat unlimited and follow the previous recommendation from the National Cholesterol Education Program and the American Heart Association to eat a healthy diet including daily cholesterol control.

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### **CURRICULUM VITAE**

姓名:蔡一賢 (I-Hsien Tsai)

### 現職:

馬偕紀念醫院營養醫學中心營養課營養師 / 課長

### 學歷:

台北醫學大學保健營養系碩士

### 經歷:

82/06-93/06 馬偕紀念醫院台北院區營養課營養師、組長、副課長、課長
93/07-101/07 馬偕紀念醫院淡水院區營養課課長
101/08-迄今 馬偕紀念醫院營養醫學中心營養課課長
102-迄今 中華民國營養師公會全國聯合會第七屆及第八屆常務理事
104-迄今 台灣營養學會理事

### 符合資格:

講師證書(講字第105243號) 教學醫院專任營養師20年且為臨床教師

# Triglycerides reduction: need more changes in comprehensive lifestyles?

### I-Hsien Tsai (蔡一賢)

依據 AHA 2011 年指引 (Circulation 2011;123:2292-2333),按血三酸甘油酯異常程度,體重 過重者須減輕體重 5-10%、飲食中總碳水化合物控制在總熱量 45-60%、蔗糖 5-10%、果糖 50-100 公克 / 天、總脂肪 25-35%、EPA/DHA 0.5-2 公克以上 / 天。飲酒應適量且血三酸甘油 酯控制差者應忌酒,其他遵循健康飲食原則。重度高三酸甘油酯血症 (>500 mg/dL)者:除飲 食脂肪須限制每日小於 25-40 公克外,此時不建議減重應待其他治療使禁食血中三酸甘油酯 降低後再考慮。

台灣人宴會飲食豐盛,加上敬酒文化,對於高三酸甘油酯血症者宜格外提醒注意節制。 輕至中度高三酸甘油酯血症 (150-500 mg/dL)者:男性每日不超過二個酒精當量;女性每日 不超過一個酒精當量。重度高三酸甘油酯血症 (>500 mg/dL)者:嚴格禁酒。

台灣飲料店普遍,高三酸甘油酯血症應避免加糖飲料。另外,血糖過高者需積極調整飲食以改善血糖以及次發性高三酸甘油酯血症。代謝性症候群宜及早被診斷,儘早介入飲食生活調整,以預防心血管疾病之發生(Circulation 2006;114;82-96; originally published online Jun 19, 2006)。

以下為本課程提供之重點介紹:

- 1. 了解高三酸甘油酯血症的原因與可能導致的風險。
- 2. 了解對於不同程度的高三酸甘油酯血症的飲食治療。
- 3. 了解膳食補充劑對高三酸甘油酯血症的效益。
- 4. 了解生活型態改變對高三酸甘油酯血症病人的益處。

# **CURRICULUM VITAE**

Name: Tina H. T. Chiu (邱雪婷) E-mail: tina925@gmail.com

### Affiliations:

Dietitian, Tzu Chi Medical Foundation, Taiwan Adjunct Lecturer, College of Medicine, Tzu Chi University, Taiwan Secretary General, Taiwan Vegetarian Nutrition Society, Taiwan

### **Education/Professional Licensure:**

PhD candidate, Graduate Institute of Epidemiology and Preventive Medicine, National Taiwan University (current) MPH, School of Public Health, Loma Linda University, USA (2008) BSc (Dietetics), University of British Columbia, Canada (2001) Registered dietitian in both Taiwan and USA

### **Research Interests/Publication:**

Area of expertise / Research interests: Vegetarian nutrition Nutritional epidemiology Health impact of vegetarian diets Role of plant foods in environmental sustainability and biodiversity



# Vegetarian diet: consistent benefit for lipid levels? Tina H. T. Chiu (邱雪婷)

Vegetarian diets have consistently been shown to lower cholesterol levels in randomized controlled trials, most likely due to lower saturated fat, higher soluble fiber and other plant functional components. The portfolio diet, a complete plant based diet with cholesterol lowering food items have been shown to be more effective than step 2 diet, and comparable to first generation statin plus step 2 diet. The impact of vegetarian diet on triglyceride is inconsistent. Vegetarians aiming to lower triglyceride may benefit from substituting plant protein for refined carbohydrates. Vegetarian diets may additionally benefit cardiovascular health through lowering blood pressures, inflammation, and limiting production of trimethylamine N-oxide through altering of gut microbiota. A healthy plant based diet should include whole grains, soy and beans, fruits and vegetables, and nuts and seeds, while limiting intake of refined sugar, saturated fat, and trans fat. This talk will update the current understanding on effect of vegetarian diet on lipid and cardiovascular health, and introduce practical tips on how to manage lipid abnormality using vegetarian diets.





# Lunch Symposium

# Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/11 (Sun.) 12:45~13:50 Room 802

Time	Торіс	Speaker	Moderator
12:45-12:50	Opening Remarks		
12:50-13:15	Diabetes Outcome Trials: past, present and	Prof. Chern-En Chiang	Prof. Yi-Heng Li
13:15-13:40	future	江晨恩 教授	李貽恆 秘書長
13:40-13: 50	3:40-13: 50     Panel Discussion & Closing Remarks		

### **CURRICULUM VITAE**

姓名:江晨恩 (Chern-En Chiang)

#### 學經歷:

國立陽明大學醫學系醫學士 國立陽明大學臨床醫學研究所醫學博士 美國范得堡醫學院臨床藥理博士後研究

#### 現職:

台北榮總新藥臨床試驗中心主任 台北榮總心臟科主治醫師 國立陽明大學醫學院內科教授 中華民國心臟學會常務理事 中華民國心臟學會研究委員會主任委員 中華民國心臟學會/台灣高血壓學會 2015 高血壓治療指引主席 台灣心律學會常務理事暨臨床指引委員會主任委員 中華民國心臟學會/台灣心律學會 2016 心房顫動治療指引主席 台灣心臟基金會董事 亞太心律學會(APHRS)治療指引主席(since 2016) 美國心臟學院會員(FACC) 歐洲心臟學會會員(FESC)

### 專長:

臨床試驗,臨床藥理學 心臟學 心電生理學 臨床及基礎心律不整

### 著作:

國際醫學期刊 219 篇

## **Diabetes Outcome Trials: past, present and future**

江晨恩

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## 台北市心血管疾病防治網繼續教育課程

### Chang Yong-Fa Foundation International Convention Center (8<sup>th</sup> Floor) 2016/9/11 (Sun.) 08:20-16:30 Room 803

Time	Торіс	Speaker
08:20~08:30	Opening Remarks	葉宏一 理事長
08:30~09:20	What should I do in 2016 for my patients with hypertension	吳懿哲 副秘書長
09:20~10:10	What should I do in 2016 for my patients with dyslipidemia	李貽恆 秘書長
10:10~10:20	Break	All
10:20~11:10	What should I do in 2016 for my patients with diabetes	王治元 醫師
11:10~12:00	What should I do in 2016 for my patients with acute coronary syndrome	黃金洲 副秘書長
12:00~13:00	Lunch	All
13:00~13:50	What should I do in 2016 for my patients with stable coronary artery disease	趙庭興 副秘書長
13:50~14:40	What should I do in 2016 for my patients with stroke	鄭建興 教授
14:40~14:50	Break	All
14:50~15:40	What should I do in 2016 for my patients with atrial fibrillation	王俊傑主任
15:40~16:30	What should I do in 2016 for life style modification to my patients	林宗憲 醫師
16:30~	Closing Remarks	



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