

## Curriculum Vitae

**Chanisa Thonusin, MD, PhD, FRCPT**



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### EDUCATION

- 1998-2001 The Prince Royal's College, Chiang Mai, Thailand
- 2001-2007 Doctor of Medicine (First-class honors and Academic Gold Medal Award),  
Faculty of Medicine, Chiang Mai, Thailand
- 2007-2008 Intern, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
- 2008-2011 Certificate program in Clinical Sciences in Medicine, Chiang Mai University,  
Chiang Mai, Thailand
- 2008-2011 Resident of Internal Medicine, Faculty of Medicine, Chiang Mai University,  
Chiang Mai, Thailand
- 2011-2012 Research fellow at Division of Endocrinology and Metabolism, Department of  
Internal Medicine, Faculty of Medicine, Chiang Mai University, Chiang Mai,  
Thailand
- 2012-2014 Ph.D. pre-candidate of Molecular and Integrative Physiology, University of  
Michigan Medical School, Ann Arbor, Michigan, USA

- 2014-2017 Ph.D. candidate of Molecular and Integrative Physiology, University of Michigan Medical School, Ann Arbor, Michigan, USA
- 2015-2017 Certificate program in Advanced Metabolic Endocrinology, Metabolic Medical Institute, Boca Raton, Florida, USA
- 2017-2018 Postdoctoral fellow at Division of Metabolism, Endocrinology and Diabetes, Department of Internal Medicine, University of Michigan Medical School, Ann Arbor, Michigan, USA

## HONORS AND AWARDS

- 1999 Academic Award for outstanding student, The Prince Royal's College, Chiang Mai, Thailand
- 2000 Academic Award for outstanding student, The Prince Royal's College, Chiang Mai, Thailand
- 2001 Academic Award for outstanding student, The Prince Royal's College, Chiang Mai, Thailand
- 2001 Best Student Award in Academic Performance, The Prince Royal's College, Chiang Mai, Thailand
- 2001 Student Award in Service Performance, The Prince Royal's College, Chiang Mai, Thailand
- 2002 Academic Medal Award for outstanding first year medical student, Chiang Mai University, Chiang Mai, Thailand
- 2003 Best Student Award in Academic Performance for second year medical student, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
- 2003 Academic Medal Award for outstanding second year medical student, Chiang Mai University, Chiang Mai, Thailand
- 2004 Academic Medal Award for outstanding third year medical student, Chiang Mai University, Chiang Mai, Thailand
- 2005 Award for the best medical student in Radiology, Chiang Mai University, Chiang Mai, Thailand
- 2005 Academic Medal Award for outstanding fourth year medical student, Chiang Mai University, Chiang Mai, Thailand
- 2006 Academic Medal Award for outstanding fifth year medical student, Chiang Mai University, Chiang Mai, Thailand
- 2007 Academic Medal Award for outstanding sixth year medical student, Chiang Mai University, Chiang Mai, Thailand
- 2007 First-class honors and Academic Gold Medal Award of Doctor of Medicine, Chiang Mai University, Chiang Mai, Thailand.
- 2011 Distinguished Research Award ("The Prevalence of weight maintenance and factors that prevent weight regain after successful weight loss"), Department of Internal Medicine, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
- 2019 Registration Reimbursement Award ("Effects of PCSK9 inhibitor and atorvastatin on mitochondria of red muscle fibers in obesity" at 9th Federation of the Asian and Oceanian Physiological Societies Congress, Kobe, Japan

**PROFESSIONAL APPOINTMENT**

2012-2018	Lecturer, Department of Internal Medicine, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2018-present	Lecturer, Department of Physiology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

**PROFESSIONAL LICENSES**

2007-present	M.D. (Thailand)
2011-present	Thai Board of Internal Medicine

**ORGANIZATION AND PARTICIPATION**

2007-present	Thai Medical Council
2011-present	Royal College of Physicians of Thailand

**PRESENTATIONS AT NATIONAL MEETINGS**

April 2011	Poster presentation "The Prevalence of Weight Maintenance and Factors that Prevent Weight Regain After Successful Weight Loss" at 27th annual meeting of the Royal College of Physicians of Thailand, Pattaya, Thailand
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**PRESENTATIONS AT INTERNATIONAL MEETINGS**

June 2016	Poster presentation "Effects of Intrinsic Oxidative Capacity (VO <sub>2</sub> max) and Weight Loss on Age-Related Changes in Plasma Metabolite Levels" at 76 <sup>th</sup> Scientific Sessions of American Diabetic Association, New Orleans, Louisiana
October 2016	Poster presentation "Effects of Intrinsic Oxidative Capacity (VO <sub>2</sub> max) and Weight Loss on Skeletal Muscle and Plasma Metabolite Levels" at A. Alfred Taubman Medical Research Institute 9 <sup>th</sup> Annual Symposium, Ann Arbor, Michigan
June 2017	Poster presentation "Effect of Intrinsic Oxidative Capacity (VO <sub>2</sub> max) on Mitochondrial DNA and Metabolite Levels in Human Skeletal Muscle" at 77 <sup>th</sup> Scientific Sessions of American Diabetic Association, San Diego, California

- November 2017 Oral presentation “Evidence that High Oxidative Capacity is Associated with Slow Metabolic Aging in Humans” at Brehm Tower Summer Diabetes Symposium, Ann Arbor, Michigan
- March 2019 Poster presentation “Effects of PCSK9 inhibitor and atorvastatin on mitochondria of red muscle fibers in obesity” at 9<sup>th</sup> Federation of the Asian and Oceanian Physiological Societies Congress, Kobe, Japan
- June 2019 Poster presentation “Comparative Effects of PCSK9 Inhibitor and High-Dose Atorvastatin on Mitochondria of Red Muscle Fibers in Obese Female Rats” at 79<sup>th</sup> Scientific Sessions of American Diabetic Association, San Francisco, California

### **INVITED LECTURES AT NATIONAL MEETINGS**

- October 2019 MED CMU 60<sup>th</sup> Anniversary Meeting “Now and Future in Health Care”, Chiang Mai, Thailand

### **ACADEMIC ACTIVITIES**

#### **Graduate Student's Dissertation Committees**

1. Busarin Arunsak, Member of the Master Degree Committee  
Topic: “The Comparative Effects of Proprotein Convertase Subtilisin/kexin Type 9 (PCSK9) Inhibitor and Atorvastatin on Brain Function and Cognitive Function in Obese-Insulin Resistant Female Rats”
2. Kewarin Jinawong, Member of the Master Degree Committee  
Topic: “The Effects of Necroptosis Inhibitor on Cognitive Function and Neuropathology in Obese-Insulin Resistant Rats Induced by High-Fat Diet Consumption”

#### **Special Academic Appointments**

- 2018-Present Graduate School Faculty, Chiang Mai University, Chiang Mai, Thailand

### **RESEARCH GRANT SUPPORT**

- January 2019 - January 2021 The Faculty of Medicine Endowment Fund for Research, Faculty of Medicine, Chiang Mai University (PI)  
Title “The comparative effects of proprotein convertase subtilisin/kexin type 9 (PCSK9) inhibitor and high dose atorvastatin on the mitochondria of oxidative muscle fibers in obese female rats with and without estrogen deprivation”
- March 2019 - February 2021 Thailand Science Research and Innovation (PI)

Title “ Effects of cardiorespiratory fitness on body weight and cardiometabolic features in obese versus non-obese rats, and on maintenance of body weight and cardiometabolic benefits after termination of caloric restriction- and exercise training-induced successful weight loss in obese rats”

## RESEARCH FIELDS OF INTEREST

1. Obesity and insulin resistance
2. Metabolomics

## PEER REVIEWED ARTICLES

1. **Thonusin C**, Apaijai N, Jaiwongkam T, Kerdphoo S, Arunsak B, Amput P, Palee S, Prachayasakul W, Chattipakorn N, Chattipakorn SC. The comparative effects of high dose atorvastatin and proprotein convertase subtilisin/kexin type 9 inhibitor on the mitochondria of oxidative muscle fibers in obese-insulin resistant female rats. *Toxicol Appl Pharmacol*. 2019 Aug 29;382:114741. (Impact factor 3.585 Q1)
2. **Thonusin C**, IglayReger HB, Soni T, Rothberg AE, Burant CF, Evans CR. Evaluation of Intensity Drift Correction Strategies Using MetaboDrift, a Normalization Tool for Multi-Batch Metabolomics Data. *J Chromatogr A*. 2017 Nov 10;1523:265-274. (Impact factor 3.716 Q1)
3. Overmyer KA, **Thonusin C**, Qi NR, Burant CF, Evans CR. Impact of Anesthesia and Euthanasia on Metabolomics of Mammalian Tissues: Studies in a C57BL/6J Mouse Model. *PLoS One*. 2015 Feb 6;10(2):e0117232. (Impact factor 4.411 Q1)
4. **Thonusin C**, Buranapin S. The Prevalence of Weight Maintenance and Factors that Prevent Weight Regain After Successful Weight Loss. *Thai Journal of Parenteral and Enteral Nutrition*, Vol.22 No.3

## PEER REVIEWED ABSTRACTS

1. **Thonusin C**, Arunsak B, Amput P, Palee S, Prachayasakul W, Chattipakorn N, Chattipakorn SC. “Comparative Effects of PCSK9 Inhibitor and High-Dose Atorvastatin on Mitochondria of Red Muscle Fibers in Obese Female Rats” at 79<sup>th</sup> Scientific Sessions of American Diabetic Association, San Francisco, California

2. **Thonusin C**, Arunsak B, Amput P, Palee S, Pratchayasakul W, Chattipakorn N, Chattipakorn SC. "Effects of PCSK9 inhibitor and atorvastatin on mitochondria of red muscle fibers in obesity" at 9<sup>th</sup> Federation of the Asian and Oceanian Physiological Societies Congress, Kobe, Japan
3. IglayReger HB, **Thonusin C**, Evans CR, Parker CA, LaBarre JL, Miller NM, Rothberg AE, Burant CF. "Effects of statins on VO<sub>2</sub>peak and plasma metabolomics profiles in obese individuals. at The American Society for Metabolic & Bariatric Surgery (ASMBS) meeting 2018, Nashville, Tennessee
4. **Thonusin C**, IglayReger HB, Treutelaar MK, Rothberg AE, Evans CR, Burant CF. "Effect of Intrinsic Oxidative Capacity (VO<sub>2</sub>max) on Mitochondrial DNA and Metabolite Levels in Human Skeletal Muscle" at 77<sup>th</sup> Scientific Sessions of American Diabetic Association, San Diego, California
5. **Thonusin C**, IglayReger HB, Rothberg AE, Evans CR, Burant CF. "Effects of Intrinsic Oxidative Capacity (VO<sub>2</sub>max) and Weight Loss on Age-Related Changes in Plasma Metabolite Levels" at 76<sup>th</sup> Scientific Sessions of American Diabetic Association, New

