

## RATTAPONG SUNGNOON



### Personal information

Last name	Sungnoon
First name	Rattapong
Title	Assistant Professor
Nationality	Thai
Date of birth	20 Mar 1976
Place of birth	Chiang Mai
Gender	Male
Marital status	Married

### Contact information

Address	Department of Physiology, Faculty of Medicine, Chiang Mai University
City	Chiang Mai, Thailand
Office number	Phone: 66-53-945-362
E-mail address	<a href="mailto:rattapong.s@cmu.ac.th">rattapong.s@cmu.ac.th</a> <a href="mailto:sungnoon@gmail.com">sungnoon@gmail.com</a>

### Educational history

Degree received	Doctor of Medicine, M.D., Honor
Area of study	General medicine
Duration of study	May 1994 - Feb 2000
Name of university	Chiang Mai University
Acquired from	Thailand
Date received	Feb 2000
Degree received	Doctor of Philosophy (Ph.D.) in Medical Engineering
Area of study	Medical engineering
Duration of study	March 2010 - Aug 2014
Name of university	Thammasat University
Acquired from	Thailand
Date received	Aug 2014

## **Funding**

Funding                    The National Science and Technology Development Agency (NSTDA)  
Duration                    2010 – 2013

## **Academic history**

March 2004                    The First International Neurologic and Cardiac Electrophysiology  
Symposium (NCES), Chiang Mai, Thailand

2 February 2005            Invited lecture: Electrocardiogram and Cardiac Arrhythmia,  
Faculty of Veterinary Medicine, Chiang Mai University, Chiang Mai,  
Thailand

19 November 2005        Invited lecture: Respiratory Physiology for Cosmetic Sciences,  
Mae Fah Luang University, Chiang Rai, Thailand

3-5 May 2006                Presentation at the 35<sup>th</sup> Annual Scientific Meeting of the Thai  
Physiological Society. Chiang Mai, Thailand.

24-26 March 2006        Presentation at the 70<sup>th</sup> Annual Scientific Meeting of the Japanese  
Circulation Society. Nagoya, Japan.

22 July 2006                Invited lecture: Cardiovascular Physiology for Applied Alternative  
Medicines, Mae Fah Luang University, Chiang Rai, Thailand

12 November 2006        Invited lecture: Cardiovascular Physiology for Cosmetic Sciences,  
Mae Fah Luang University, Chiang Rai, Thailand

7-18 July 2008 International Course on Laboratory Animal Science, Department of Animals,  
Science & Society, Faculty of Veterinary Medicine, Utrecht University,  
Utrecht, the Netherlands

2-4 May 2012                Poster session presented at the 41st Annual scientific meeting of the  
Physiology Society of Thailand, Bangkok, Thailand.

5-7 December 2012        Presentation at the 5th Biomedical Engineering International Conference  
(BMEiCON), Ubonratchathani, Thailand & Champasak, Laos.

- 18 December 2012 Presentation at the 1st Conference on Graduate Student Network of Thailand, Pathumthani, Thailand.
- 12-13 February 2014 Presentation at the 6th Academic week, Faculty of Engineering, Thammasat University, Thailand, Pathumthani, Thailand.

### **Academic position**

- 2004-2007 Physiological Curriculum Committee for second-year Medical Student, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
- 2004-2007 Comprehensive Examination Committee for Pre-clinic Medical Student, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
- 2004-2007 Physiological Curriculum Committee for second-year Paramedical Student, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
- 2005-2007 Graduation Ceremony Committee, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
- 2005-2007 Medical Student Scholarship Committee, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
- 2005-2007 Medical Student Dormitory Committee, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
- 2005-2007 Cardiovascular System Curriculum Committee for second-year Medical Student, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
- 2005-2007 Educational Quality Accreditation Committee, Department of Physiology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
- 2005-2007 Research Committee, Department of Physiology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
- 2006-2007 Health Promotion in Medical Student Committee, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

### **Abstracts**

1. **Sungnoon R**, Muengtaweepongsa S, Suwanprasert K. Novel biosignal parameters relate to the brain-heart axis concept in ischemic stroke patients with atrial fibrillation: a preliminary study. Poster session presented at: 41st Annual scientific meeting of the Physiology Society of Thailand; 2012 May 2-4; Bangkok, Thailand.
2. Chattipakorn N, Shinlapawittayatorn K, **Sungnoon R**, Chattipakorn S. Combined phosphodiesterase-5 inhibitor-nitric oxide donor attenuates defibrillation efficacy. *Europace*. 2007;9:178.
3. **Sungnoon R**, Shinlapawittayatorn K, Chattipakorn S, Incharoen T, Chattipakorn N. Garlic improves defibrillation efficacy in swine. *Circulation Journal*. 2006;70:392.
4. Chattipakorn N, Shinlapawittayatorn K, **Sungnoon R**, Chattipakorn S. Effects of fish oil on shock-induced arrhythmia and defibrillation efficacy. *Circulation Journal*. 2006;70:415.
5. Shinlapawittayatorn K, **Sungnoon R**, Chattipakorn S, Chattipakorn N. Sildenafil citrate markedly decreases defibrillation efficacy in a dose-dependent manner. *Circulation Journal*. 2006;70:344.
6. Shinlapawittayatorn K, **Sungnoon R**, Chattipakorn S, Suriyasataporn W, Chattipakorn N. Sildenafil citrate markedly increases defibrillation threshold in swine. *J Am Coll Cardiol*. 2005;45:110A.

## Publications

1. Muengtaweepongsa S, **Sungnoon R**, Ngarmukos T. Increased sample entropy and high heart rate variability fluctuation in persistent atrial fibrillation as compared with paroxysmal atrial fibrillation: a matched case-control study. *Journal of Cardiovascular Disease Research*. (in press)
2. **Sungnoon R**, Suwanprasert K, Muengtaweepongsa S. Reply to correspondence by Alcaez R and Rieta JJ. *Neurol Asia*. 2014;19:337-338.
3. **Sungnoon R**, Suwanprasert K, Muengtaweepongsa S. Atrial electrophysiological property analysis by sample entropy and atrial fibrillatory rate with cardiac autonomic derangements in acute ischemic stroke with atrial fibrillation. *Neurol Asia*. 2014;19:11-18.
4. **Sungnoon R**, Muengtaweepongsa S, Kitipawong P, Ngarmukos T, Suwanprasert K. Increased sample entropy in atrial fibrillation relates to cardiac autonomic dysfunction determined by heart rate variability: a preliminary study. Proceedings of the 5th

- Biomedical Engineering International Conference (BMEiCON); 2012 Dec 5-7; Ubonratchathani, Thailand & Champasak, Laos. IEEE Xplore. 2012 Dec. doi: 10.1109/BMEiCon.2012.6465461.  
Available from: <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=6465461>
5. Den Ruijter HM, Franssen R, Verkerk AO, van Wijk DF, Vaessen SF, Holleboom AG, Levels JH, Opthof T, **Sungnoon R**, Stroes ES, Kuivenhoven JA, Coronel R. Reconstituted high-density lipoprotein shortens cardiac repolarization. *J Am Coll Cardiol*. 2011;58:40-44.
  6. Kanlop N, Shinlapawittayatorn K, **Sungnoon R**, Weerateerangkul P, Chattipakorn S, Chattipakorn N. Cilostazol attenuates ventricular arrhythmia induction and improves defibrillation efficacy in swine of garlic on the induction of ventricular fibrillation. *Can J Physiol Pharmacol*. 2010;88:422-428.
  7. Kanlop N, Shinlapawittayatorn K, **Sungnoon R**, Chattipakorn S, Lailerd N, Chattipakorn N. Sildenafil citrate on the inducibility of ventricular fibrillation and upper limit of vulnerability in swine. *Med Sci Monit*. 2008;14:BR205-209.
  8. **Sungnoon R**, Kanlop N, Chattipakorn S, Chattipakorn N. Effects of garlic on the induction of ventricular fibrillation. *Nutrition*. 2008;24:711-716
  9. **Sungnoon R**, Shinlapawittayatorn K, Chattipakorn S, Incharoen T, Chattipakorn N. Effects of garlic on defibrillation efficacy in swine. *Int J Cardiol*. 2008;126:143-144.
  10. Chattipakorn N, Shinlapawittayatorn K, **Sungnoon R**, Chattipakorn S. Fish oil does not improve defibrillation efficacy. *Int J Cardiol*. 2007;122:85-86.
  11. Shinlapawittayatorn K, Chattipakorn S, **Sungnoon R**, Chattipakorn N. Effects of combined sildenafil-nitric oxide donor on defibrillation efficacy. *J Med Assoc Thai* 2007;90:2143-2149.
  12. Chattipakorn N, Shinlapawittayatorn K, **Sungnoon R**, Chattipakorn SC. Effects of n-3 polyunsaturated fatty acid on upper limit of vulnerability shocks. *Int J Cardiol*. 2006;107:299-302.
  13. Shinlapawittayatorn K, **Sungnoon R**, Chattipakorn S, Chattipakorn N. Effects of sildenafil citrate on defibrillation efficacy. *J Cardiovasc Electrophysiol*. 2006;17:292-295.

14. **Sungnoon R**, Chattipakorn N. Anti-arrhythmic effects of herbal medicine. *Indian Heart Journal*. 2005;57:109-113.

### Research projects

- Oct 2018-present Endowment Fund, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand "Acute effect of Ganoderma lucidum on blood pressure in rats" (Principal Investigator/PI)
- Feb 2016-2018 Endowment Fund, National Science and Technology Development Agency, Thailand. "Correlations between sample entropy as well as atrial fibrillatory rate and CHA<sub>2</sub>DS<sub>2</sub>-VASc score in patients with atrial fibrillation" (Principal Investigator/PI)
- May 2006-Sep 2007 Endowment Fund, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand. "Effects of Garlic Powder on the Induction of Ventricular Fibrillation in Swine." (Principal Investigator/PI)
- Nov 2004-Oct 2006 Endowment Fund, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand. "Effects of Garlic Powder on Defibrillation Efficacy in Swine." (Principal Investigator/PI)
- Nov 2004-Oct 2006 Endowment Fund, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand. "Effects of Sildenafil Citrate and Nitroglycerine Combination on Defibrillation Efficacy in Swine." (Co-PI)
- Sep 2004-Feb 2006 Endowment Fund, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand. "Effects of Sildenafil Citrate on Defibrillation Efficacy in Swine." (Co-PI)

### Employment history

- 2000-2001 Rotating Intern, Chiang Mai University Hospital, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
- 2001-2004 Residency training in General Surgery, Department of Surgery, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
- 2004-Present Instructor, Department of Physiology,

Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

2007-2009

Researcher, Heart Failure Research Center, Department of Experimental Cardiology, Academic Medical Center, University of Amsterdam, the Netherlands

**Fields of interest**

1. Cardiovascular physiology and cardiac electrophysiology
2. Herbs and anti-arrhythmic effects
3. Calcium handling of cardiac myocytes and arrhythmogenesis
4. Biomedical engineering: ECG signal processing