

Sukhgij Ysothonsreekul, Ph.D.

Dean, Faculty of Medical Science, Naresuan University, Phitsanulok, THAILAND 65000

Career Profile:

With my lifetime background in academia (as researcher/teacher, and administrative officer), I developed my passion and determination to make changes in educational system in Thailand. Having stepped out of the academic realm to take on an administrative role in a private sector at PTT Global Chemical, Ltd. for about 4 years, I am convinced of the importance and urgency of revolutionized academic programs in Thai universities. As the world turns into more and more hi-tech and competitive business, I believe that our educational concept has to evolve to support the modernized society of today. To build human capital of the country, I am certain that my leadership and entrepreneurial skills can help transform students and staff at Naresuan University to be ready for challenges we are facing in current higher education system.

Professional Experience:

PTTGC (2014-2016): as the Vice President for Corporate Innovation

- Drive biotechnology/frontier research (esp. in bio-based research, catalyst, oil fingerprinting)
- Member to drive 'Bioeconomy' platform, esp. in biotechnology
- Member to initiate the 'shift mindsets and culture' program in PTTGC
- Completed the 'Comprehensive Leadership Program for Executives' by GE, PacRim, Sasin

Naresuan University (2011-2014): as the Vice President for Research and International Affairs

- Put NU on the map to be recognized by international organizations (e.g. AUAP, SEMEO, ASAIHL, ASEAN/AUS embassy), and domestic institutions
- Organized several high impact international conferences/lectures by Nobel Laureates, Ambassadors, world-renowned scientists, etc.

Naresuan University (2005-2010): as the Vice Dean for Research and Graduate Studies

- Drive medical science graduate programs towards International recognition
- Internationalize several study programs in post-graduate level
- Built research connection/networks in medical science nationally and internationally

USA (1995-2004): as Junior Research Faculty/Postdoc/Graduate Researcher

- Research in biochemistry of neurodegenerative diseases (i.e. Alzheimer's, Parkinson, etc.)
- Reversed brain drain candidate of the NSTDA to Naresuan University

My Strengths:

- Excellent academic and research backgrounds
- Strong connection with industries (esp. PTT, SCG, Mitrphol, KTIS, etc...) and public institutions
- Understand background and limitation of staff/students in academic setting
- New visions and practices for university in modernized society
- Current, Dynamic, Energetic and Accountable beings

My Goals for Naresuan University:

- Academic Excellence: Re-design and modernized all academic programs to link to industries
- Research Excellence: Create strong links between NU research programs and industries
- Operational Excellence: MILK (Mean-Lean-Keen-Intelligence) operation model
- People Excellence: Faculty mobility programs with industries, well-rounded staff/students
- Cultural Excellence: Re-establish culture and sense of belongings to NU staff/students

CURRICULUM VITAE

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Education:

1984 B.Sc. (Biology), Mahidol University
1987 M.Sc. (Biochemistry), Mahidol University
1993 Ph.D. (Biochemistry) Kansas State University
1993 Postdoctoral Researcher (Molecular Genetics) Harvard Medical School
1996 Postdoctoral Researcher (Neurobiochemistry) University of California, San Diego

Academic Experience:

1984-1985 Research Assistant, Center of Molecular Genetics and Genetic Engineering, Institute for Research and Development in Science and Technology, Mahidol University, Bangkok, Thailand
1986-1987 Research Scientist, Center of Molecular Genetics and Genetic Engineering, Institute for Research and Development in Science and Technology, Mahidol University, Bangkok, Thailand
1987-1988 Research Scientist, Department of Biochemistry, Faculty of Science, Mahidol University, Bangkok, Thailand
1993-1996 Postdoctoral Scientist, Harvard Medical School and Dana-Farber Cancer Institute, Boston, Massachusetts, USA
1996-1998 Postgraduate Research Biochemist, University of California, San Diego, USA
1999-2003 Assistant Project Scientist, University of California, San Diego, USA
2004-2005 Associate Project Scientist, University of California, San Diego, USA
2006-2014 Associate Professor, Faculty of Medical Science, Naresuan University, Phitsanulok
2008-present Adjunct Professor, Graduate School of Biomedical Sciences, University of North Texas Health Science Center, Fort Worth, Texas, USA
2011-present Invited Professor, University of Franche-Comte, Besancon, France

Administrative Experience:

2006-2009 Associate Dean for Research and Graduate Studies, Faculty of Medical Science, Naresuan University, Phitsanulok, Thailand
2006-2009 Director of Center for Forensic Sciences, Faculty of Medical Science, Naresuan University, Phitsanulok, Thailand
2007-2011 Director, Graduate programs in Medical Science, Faculty of Medical Science, Naresuan University, Phitsanulok
2008-2011 Member of the joint committee on Collaborative Research and Academic Programs between Naresuan University and Department of Medical Science, Ministry of Public Health
2008-present Member of the Forensic Science Research Board, Central Institute of Forensic Sciences, Ministry of Justice, Thailand
2008-present Genetic Specialist to Forensic Genetic Laboratory, Royal Police Department, Thailand
2010-2012 Vice President for Research and External Relations, Naresuan University, Phitsanulok, Thailand
2010-2012 Chairman of Naresuan University Research Development Board
2010-2012 President of Toastmaster Club of Naresuan University
2010-2013 Chairman of Naresuan University International Development Board
2010-2013 Member of Naresuan University Human Resource Management Board

2010-2013	Member of Naresuan University International College Board
2012-2013	Vice President for International Affairs, Naresuan University, Phitsanulok, Thailand
2012-2013	Advisor to Naresuan University Research Development Board
2012-2013	Advisor to Logistic and Supply Chain Curriculum Development, Naresuan University for the Office of Higher Education Commission
2012-present	Member of the Biochemistry and Molecular Biology Scientific Board, Thailand
2014-present	Member of the GMO Regulatory Laws Drafting Committee, The Federation of Thai Industries
2014-2015	Vice President for Scientific Research, Science and Innovation, PTT Global Chemical
2015-2016	Vice President for Corporate Innovation, Science and Innovation, PTT Global Chemical
2015-2016	Member of the Scientific Advisory Board, Petroleum and Petrochemical College, Chulalongkorn University
2015-present	Member of the Biochemistry and Molecular Biology Scientific Board, The Science Society of Thailand under the Patronage of His Majesty the King
2017-present	Director, Innovation Hubs for Thailand 4.0 at Naresuan University

Research Experience:

1984-1985	"The use of finger-printing patterns of restriction endonucleases for identification of sibling species of a malarial vector, the <i>Anopheles dirus</i> complex"
1986-1987	Master Thesis entitled "Species specific DNA probe for identification of species D of the <i>Anopheles dirus</i> complex"
1987-1988	"Developing non-radioactive detection method for comfortable use in the identification of species D of the <i>Anopheles dirus</i> complex in field samples"
1988-1993	Ph.D. dissertation entitled "Site-directed mutagenesis of cereal inhibitors of α -amylases"
1993-1996	"Construction of cDNA and genomic DNA libraries for cloning of a novel collagen type IV gene in <i>Drosophila</i> "
1996-2000	"Biochemistry of peptide hormone production via specific proteolytic processes" and "Peptides in neurodegenerative diseases"
2000-2003	"Protease, protease activator and its inhibitors localized in chromaffin granules"
2003-2010	"Proteolytic processing of chromogranin A and its variants: An implication towards hypertension research"
2006-2012	"Alpha-amylases from insects, <i>Sitophilus spp.</i> and <i>Tenebrio spp.</i> "
2007-2012	"Molecular cloning and expression of α -amylase inhibitors from rice"
2008-2010	"Proteomic and Genomic analyses in breast cancer for possible prognosis, treatment and prevention"

Teaching Experience:

1987-1988	Teaching Assistant in the Genetic Engineering Techniques session in "Instrumental Analysis", Department of Biochemistry, Faculty of Science, Mahidol University
1987	Laboratory Instructor in the "Workshop on DNA Cloning", Kasetsart University
1987	Laboratory Instructor in the laboratory section of BOSTID Research Program-"Mosquito Vector Research: 3rd Co-ordination Meeting", Department of Biochemistry, Faculty of Science, Mahidol University
1987	Laboratory Instructor in the "Workshop in DNA Probe for Diagnosis and Vector- Parasitic Detection", Department of Biochemistry, Faculty of Science, Mahidol University
1988	Laboratory Instructor in the "Workshop on Plasmid DNA and Its Isolation", Faculty of Agro-industry, Kasetsart University
1989-1992	Teaching Assistant in the Molecular Biology session of the "Biochemistry Laboratory II" course, Department of Biochemistry, Kansas State University, Kansas
1998-2000	Supervisor, Independent Research, University of California, San Diego
2000-2002	Supervisor, the Summer Undergraduate Research Fellowship (SURF) program, University of California, San Diego
2001	Laboratory Instructor in the "Workshop on Protein Expression and Analysis", Faculty of Medicine, Naresuan University

2003	Laboratory Instructor in the "Workshop on Proteomics: 2-D Gel Analysis", Faculty of Medical Sciences, Naresuan University
2003-2004	Supervisor, Research Training Program in Biological Sciences, University of California, San Diego
2004	Supervisor of a visiting undergraduate student from Thailand under the Scientific Career Development Program by the Ministry of University Affairs
2005-present	Lecturer in Biochemistry and Medical Science Programs, Faculty of Medical Science, Naresuan University

Awards:

1989	Graduate Research Award, The Rockefeller Foundation, Department of Biochemistry, Kansas State University
1993	Graduate Research Award, Department of Biochemistry, Kansas State University
2000-2002	Junior Faculty Award, Department of Medicine, University of California, San Diego
2006-2007	International conference organizing fellowship, the Commission for Higher Education, Ministry of Education, Thailand
2006-2009	Ph.D. development scholarship, the Commission for Higher Education, Ministry of Education, Thailand
2007	International scholar exchange program award, the Commission for Higher Education, Ministry of Education, Thailand
2008	DUO-Thailand scholar exchange award, the Commission for Higher Education, Ministry of Education, Thailand
2008	Administrative Shadowing program award, the Commission for Higher Education, Ministry of Education, Thailand
2008-2009	Thai postdoctoral development program award, the Commission for Higher Education, Ministry of Education, Thailand
2008-2010	PMI award with University of Kent at Canterbury
2009	Naresuan University Faculty Award of Excellence

Grants:

2000-2002	Co-Investigator- Processing of chromogranin A by fibrinolytic system, The National Institute of Health, USA
2002-2004	Co-Investigator- Novel catecholamine release inhibitory peptide, The National Institute of Health, USA
2006-2007	Principle Investigator- Proteomic application in yeast speciation analysis, Faculty of Medical Science, Naresuan University
2007-2009	Principle Investigator- Role of cathepsin L in proteolytic processing of human chromogranin A, Thailand Research Fund
2007-2009	Director, Program project- Thailand single nucleotide polymorphism (SNP) database for possible diagnosis, National Research Council of Thailand
2007-2008	Principle Investigator- Proteolytic processing of human chromogranin A and its variants, National Research Council of Thailand
2008-2009	Principle Investigator- Developing of recombinant human chromogranin A as an anti-coagulation agent, National Research Council of Thailand
2009-2011	Director, Program project- Proteomic and genomic analyses in breast cancer for possible prognosis, treatment, and prevention, National Research Council of Thailand
2009-2011	Principle Investigator- Proteomic analyses of saliva for oral cancer diagnosis, National Research Council of Thailand (pending)
2009-2011	Principle Investigator- Purification and characterization of α -amylases from rice weevil and beetle, National Research Council of Thailand
2010-2012	Co-Investigator, Program project- The comparative investigation of the effects of brahmi and ginkgo, National Research Council of Thailand

2010-2012 Co-Investigator- Synthesis of facial composites for improved suspect identification in Thai population, EU-Thailand fund

(Selected) list of publications:

Book Chapters:

- Panyim, S., Yasothornsrikul, S. and Baimai, V. (1988). Species specific DNA sequence from the *Anopheles dirus* complex: a potential for efficient identification of isomorphic species. In: *Biosystematics of Haematophagous Insects*. Service, M.W.(ed.), Oxford University Press, pp. 193-202.
- Hook, V.Y.H. and Yasothornsrikul, S. (1998). Carboxypeptidase and aminopeptidase proteases in pro-neuropeptide processing. In: *Proteolytic and cellular mechanisms in prohormone and neuropeptide precursor processing*. Hook, V.Y.H. (ed.), Landes Bioscience Publishers, Georgetown, Texas, pp. 121-139.
- Hook, V.Y.H., Yasothornsrikul, S., and Hwang, S-R. (2002). Novel chromaffin granule serpins, Endopin 1 and Endopin 2: Endogenous protease inhibitors with distinct target protease specificities. In: *Annals of the New York Academy of Sciences*. O'Connor, D.T. and Eiden, L.E. (eds.), The Chromaffin Cell Transmitter Biosynthesis, Storage, Release, Actions, and Informatics, pp. 426-444.
- Jiang, Q., Yasothornsrikul, S., Taupenot, L., Miles, L.A., and Parmer, R.J. (2002). The local chromaffin cell plasminogen/ plasmin system and the regulation of catecholamine secretion. In: *Annals of the New York Academy of Sciences*. O'Connor, D.T. and Eiden, L.E. (eds.), The Chromaffin Cell Transmitter Biosynthesis, Storage, Release, Actions, and Informatics, pp. 445-449.
- Hook, V., Lee, J., and Yasothornsrikul, S. (2004). Proteomic studies of the chromaffin granule demonstrates novel proteolytic processing mechanisms for chromogranin A and proenkephalin by secretory vesicle cathepsin L. In: *Cell Biology of the Chromaffin Cell*. Borges, R. and Gandia, L. (eds.), pp. 155-160.

Original Research Articles:

- Yasothornsrikul, S., and Hook, V.Y.H. (2000). Detection of proteolytic activity by fluorescent zymogram 'in-gel' assays. *Biotechniques*, 28(6), pp. 1166-1169.
- Taylor, C.V., Taupenot, L., Mahata, S.K., Mahata, M., Wu, H., Yasothornsrikul, S., Toneff, T., Caporale, C., Jiang, Q., Parmer, R., Hook, V.H., and O'Connor, D.T. (2000). Formation of the catecholamine release-inhibitory peptide catestatin from chromogranin A: Determination of proteolytic cleavage sites in hormone storage granules. *Journal of Biological Chemistry*, 275(30), pp. 22905-22915.
- Hook, V.Y.H., Burton, Douglas, Yasothornsrikul, S., Hastings, R.H., and Deftos, L.J. (2001). Proteolysis of proPTHrP(1-141) by 'Prohormone Thiol Protease' (PTP) at multibasic residues generates PTHrP-related peptides: Implications for PTHrP peptide production in lung cancer cells. *Biochemical and Biophysical Research Communications*, 285(4), pp. 932-938.
- Hook, V.Y.H., Toneff, T., Aaron, W., Yasothornsrikul, S., Bunday, R., Reisine, T. (2002). β -Amyloid peptide in regulated secretory vesicles of chromaffin cells: Evidence for multiple cysteine proteolytic activities in distinct pathways for β -secretase activity in chromaffin vesicles. *Journal of Neurochemistry*, 81 (2), pp. 237-256.
- Lee, J.C., Taylor, C.V., Gaucher, S.P., Toneff, T., Taupenot, L., Yasothornsrikul, S., Mahata, S.K., Sei, C., Parmer, R.J., Neveu, J.M., Lane, W.S., Gibson, B.W., O'Connor, D.T., and Hook, V.Y.H. (2003). Primary sequence characterization of catestatin intermediates and peptides defines proteolytic cleavage sites utilized for converting chromogranin A into active catestatin secreted from neuroendocrine chromaffin cells. *Biochemistry*, 42, pp. 6938-6946.
- Yasothornsrikul, S., Greenbaum, D., Medzihradszky, K.F., Toneff, T., Bunday, R., Miller, R., Schilling, B., Petermann, I., Dehnert, J., Logvinova, A., Goldsmith, P., Neveu, J., Lane, W., Gibson, B., Reinheckel, T., Peters, C., Bogoy, M., and Hook, V. (2003). Cathepsin L in secretory vesicles functions as a prohormone-processing enzyme for production of the enkephalin peptide neurotransmitter. *Proceedings of the National Academy of Sciences of the United States of America*, 100(16), pp. 9590-9595.
- Hook, V., Yasothornsrikul, S., Greenbaum, D., Medzihradszky, K.F., Troutner, K., Toneff, T., Bunday, R., Logvinova, A., Reinheckel, T., Peters, C., Bogoy, M. (2004). Cathepsin L and Arg/Lys aminopeptidase: a distinct prohormone processing pathway for the biosynthesis of peptide neurotransmitters and hormones. *Biological Chemistry*, 385(6), pp. 473-480.

Kewal, K., Sidhu, M.C., Dutta, J., Bansal, P., Yasothornsrikul, S., Vintiner, J., Kiong, M.T., Solomon, C., Ramseyer, C., Iseki, S. (2008). Is decline in stature related to physical activity?-The Case of farmers in Punjab State of North India. *Bioscience Hypotheses*, E-Pub.

Ngoenkam, J., Faikrua, A., Yasothornsrikul, S., Viyoch, J. (2010). Potential of an injectable chitosan/starch/ β -glycerol phosphate hydrogel for sustaining normal chondrocyte function. *International Journal of Pharmaceutics*, 391(1-2), pp. 115-24.

Wongtrakoongate, P., Roytrakul, S., Yasothornsrikul, S., Tungpradabkul, S. (2011). A proteome reference map of causative agent of melioidosis *Burkholderia pseudomallei*. *Journal of Biomedicine and Biotechnology*. E-Pub.

Ternchoocheep, K., Inkaninan, K., and Yasothornsrikul, S. (2012). Attenuation ability of *Bacopa monieri* on NGF-deprived PC12 in normal serum and apoptotic-induced medium. *Chiangmai Med.*

Kraszewski, S., Drabik, D., Langner, M., Ramseyer, C., Kembubpha, S., Yasothornsrikul, S. (2015). A molecular dynamics study of catestatin docked on nicotinic acetylcholine receptors to identify amino acids potentially involved in the binding of chromogranin A fragments. *Physical Chemistry Chemical Physics*, 17(26), pp. 17454-60.