

1. Name and Last name

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2. Identification no. 3 8698 00003689

3. Academic position Lecturer

4. Working Address Nutraceutical and Functional Food R&D Center, Agro-Industry
Faculty, Prince of Songkla University, Hat Yai, 90112

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5. Education

- Ph.D (Biochemistry) Prince of Songkla University Thailand 2004
- B.Ed (Organic chemistry) Srinakharinwirot University (Songkla) Thailand 1996

6. Professional Training

- Postdoctoral Fellow: Wayne State University School of Medicine 2007-2011
Research Area: Structural Biology
Major projects: Structures and functions of histone methyltransferases SmyD family

7. Technical expertise

- Biochemistry and Molecular Biology: Gene cloning, protein expression and purification including techniques: PCR, Site-directed mutagenesis, FPLC, GST pull down, western blot, electrophoresis, chromatography, and other biochemical/ biophysical methods
- Bioinformatics: Blast, multiple sequence alignment, phylogenetic analysis, sequence profile search.
- System Administration: Windows

8. Positions & Employment

- Research Lecturer, Nutraceutical and Functional Food R&D Center, Faculty of Agro-Industry, Prince of Songkla University, Hat-Yai, Songkla, Thailand, 2012-Present
- Research Associate, Department of Biochemistry and Molecular Biology, School of Medicine, Wayne State University, Detroit, MI, USA, 2007-2012
- Scientists, Synchrotron application division, Synchrotron Light Research Institute, Nakhonratchasima, Thailand, 2006-2007
- Lecturer, Thaksin University, Department of Chemistry, Songkla, Thailand, 2004-2006

9. Main field of scientific interests

- Nutrigenomics and nutrition on epigenetics.
- Protein and peptide expression, purification and applications in nutraceuticals and functional foods.

10. Publications

- **Sirinupong** Nualpun and Yang Zhe. Epigenetics in Cystic Fibrosis: Epigenetic Targeting of a Genetic. *Current Drug Targets*, 16, 1-12 (2015)
- Nicholas Spellmon , Joshua Holcomb, Laura Trescott, Nualpun **Sirinupong**, Zhe Yang . Structure and Function of SET and MYND Domain-Containing Proteins. *International Journal of Molecular Sciences* ISSN 1422-0067. 16, 1406-1428; doi:10.3390/ijms16011406 (2015)
- Margaret Rice, Yuanyuan Jiang, Joshua Holcomb, Laura R Trescott, Nicholas Spellmon, Nualpun **Sirinupong**, Zhe Yang. SMYD2 Structure and Function: A Multispecificity Protein Lysine Methyltransferase. *Journal of Cytology & Molecular Biology*, Vol.10; 1(2): 7 (2014)
- **Sirinupong** Nualpun, Yang Zhe. Bioactive Food Components as Dietary Intervention for Cystic Fibrosis. *Curr Drug Targets*. Nov 22. (2014)
- Jiang, Y., Wang, S., Holcomb, J., Trescott, L., Guan, X., Hou, Y., Brunzelle, J., **Sirinupong**, N., Li, C., Yang, Z. Crystallographic analysis of NHERF1-PLC β 3 interaction provide structural basis for CXCR2 signaling in pancreatic cancer. *Biochemical and Biophysical Research Communication*. *Biochem Biophys Res Commun*, Vol.446(2):638-43 (2014)
- Holcomb, J., Jiang, Y., Lu, G., Trescott, L., Brunzelle, J., **Sirinupong**, N., Li, C., Naren, AP., Yang, Z., Structural Insights into PDZ-mediated Interaction of NHERF2 and LPA2, a Cellular Event Implicated in CFTR Channel Regulation. *PlosOne*, *Biochemical and Biophysical Research Communications*, Vol.446(1): 399-403 (2014)
- Jiang, Y., Lu, G., Trescott, L., Hou, Y., Guan, X., Wang, S., Stamenkovich, A., Brunzelle, J., **Sirinupong**, N., Spaller, M., Li, C., Yang, Z., New Conformational State of NHERF1-CXCR2 Signaling Complex Captured by Crystal Lattice Trapping. *PLoS One* 8(12): e81904 (2013)
- Lu, G., Wu, Y., Jiang, Y. Wang, S., Hou, Y., Guan, X., Brunzelle, J., **Sirinupong**, N., Sheng, S., Li, C., Yang, Z. Structural Insights into Neutrophilic Migration Revealed by the Crystal Structure of the Chemokine Receptor CXCR2 in Complex with the First PDZ Domain of NHERF1. *PLoS One* 8(10): e76219 (2013)
- Charoenphun, N., Cheirsilp, B., **Sirinupong**, N. & Youravong, W. Calcium-binding peptides derived from tilapia (*oreochromis niloticus*) protein hydrolysate. *Eur Food Res Technol*, doi:DOI 10.1007/s00217-012-1860-2 (2012).
- Suwanmanee, P., **Sirinupong**, N. and Suvachittanont, W. Regulation of 3-hydroxy-3-methylglutaryl-CoA synthase and 3-hydroxy-3-methylglutaryl-CoA reductase and rubber biosynthesis of *Hevea brasiliensis* (B.H.K.) Mull. Arg. *Isoprenoid Synthesis in Plants and Microorganisms*. pp 315-327 Published by Springer Verlagm (2011)

- Jiang, Y., **Sirinupong, N.**, Brunzelle, J., Doko, E. and Yang, Z. Crystal structures of histone and p53 methyltransferase SmyD2 reveal a conformational flexibility of the autoinhibitory C-terminal domain. *PLoS One* 6(6): e21640 (2011)
- **Sirinupong, N.**, Brunzelle, J., Doko, E. and Yang, Z. Structural insights into the autoinhibition and posttranslational activation of histone methyltransferase SmyD3. *J Mol Biol* 406: 149-159 (2011).
- **Sirinupong, N.**, Brunzelle, J., Ye, J., Pirezada, A., Nico, L. and Yang, Z. Crystal structure of cardiac-specific histone methyltransferase SmyD1 reveals unusual active site architecture. *J Biol Chem* 285: 40635-40644 (2010).
- Pattanasiriwisawa, W., **Sirinupong, N.**, Suwanmanee, P., Daengkanit, C. and Siritapetawee, J. An attempt to analyze the bark disease in *Hevea brasiliensis* using X-ray absorption near-edge spectroscopy. *J. of Synchrotron Rad* 16: 622-627 (2009)
- **Sirinupong, N.**, Suwanmanee, P., Doolittle, R.F. and Suvachittanont, W. Molecular cloning of a new cDNA and expression of 3-hydroxy-3-methylglutaryl CoA synthase gene from *Hevea brasiliensis*. *Planta* 221:502-512 (2005)
- Suwanmanee, P., **Sirinupong, N.** and Suvachittanont, W. Regulation of the expression of 3-hydroxy 3-methylglutaryl CoA synthase gene in *Hevea brasiliensis* B.H.K) Mull. Arg. *Plant Science* 166: 531-537 (2003)

11. Presentations

- Nualpun Sirinupong, Joseph Brunzelle, Ernada Doko, Zhe Yang. Structural insights into the regulation of histone methyltransferase SmyD3: hinge motion control of posttranslational activation. **ASBMB annual meeting**, Washington DC, USA, 2011
- Nualpun Sirinupong, Joseph Brunzelle, Jun Ye, Ali Pirezada, Lindsey Nico, and Zhe Yang. Cardiac Specific Histone Methyltransferase SmyD1 with Unusual Active Site Architecture. **American Crystallographic Association annual meeting**, Chicago, MI, USA, 2010.
- Nualpun Sirinupong, Joseph Brunzelle, Jun Ye and Zhe Yang. Histone Methyltransferase SmyD1 with Unusual Active Site Architecture. **Ohio Valley Crystallography Symposium**, Toledo, MI, USA, 2010.
- Nualpun Sirinupong, Plueng Suwanmanee, and Wallie Suvachittanont. Expression of 3-hydroxy 3-methylglutaryl CoA synthase and reductase gene in *Hevea brasiliensis* (B.H.K.) Mull. Arg. **ASBMB meeting**, Birmingham, England, 2001