

CURRICULUM VITAE

Name: (M.R.) Jisnuson SVASTI
Born: 25 September 1947; Bangkok, Thailand.
Marital Status: Married (8/8/68) to (M.R.) Phromchatra
Daughters: Sasibha (17/4/75), Chandrabha (20/5/78)



Positions:

- Head, Laboratory of Biochemistry, Chulabhorn Research Institute, 54 Kamphaeng Phet 6, Talat Bang Khen, Laksi., Bangkok 10210, Thailand, 1990-present
- Emeritus Professor of Biochemistry, Mahidol University, Rama VI Road, Bangkok 10400, Thailand, 2012-present

Contact Details:

Telephone:

Chulabhorn Research Institute: (+66-2)-5538561 (office), (+66-2)-5538560 (Biochem Lab)

Mahidol University; (+66-2)-2015845, secretary: (+66-2)-2015840

Mobile: (+66-81)-8212135; *Fax:* (+66-2)-259-6634 (home)

E-mail: jisnuson.sva@mahidol.ac.th; jisnuson@cri.or.th, jisnuson@gmail.com

Website: http://www.sc.mahidol.ac.th/scbc/Svasti_J.htm

Education: Educated in England (1954-1972)

- Cheam School, Headley, Nr. Newbury, Berkshire, 1957-1960
- Rugby School, Rugby, Warwickshire, 1960-1965
- Trinity College, Cambridge University, 1965-1972

Degrees:

- B.A.(Hons) Natural Sciences (Biochemistry), University of Cambridge, U.K., 1968
- M.A., Natural Sciences, University of Cambridge, U.K. 1972
- Ph.D., MRC Laboratory of Molecular Biology, University of Cambridge, U.K. *Thesis title:* Sequence Studies on Mouse Immunoglobulins *Supervisor:* Dr. Cesar Milstein, F.R.S. (Nobel laureate), 1972
- D.Sc. (*Honoris causa*), Biochemistry, Mahidol University, Thailand, 2013
- D.Sc. (*Honoris causa*), Biochemistry, Suranaree University of Technology, Thailand, 2015

Previous Experience:

- Lecturer (1972-1975), Assistant Professor (1975-1978), Associate Professor (1979-1982), Department of Biochemistry, Faculty of Science, Mahidol University, Bangkok, Thailand.
- Senior Research Associate, Department of Human Biological Chemistry and Genetics, University of Texas Medical Branch, Galveston, Texas 77550, U.S.A., 1976-1977
- Professor of Biochemistry, Mahidol University, Bangkok, Thailand, 1982-2012
- Chairman, Department of Biochemistry, Faculty of Science, Mahidol University, 1980-84
- Associate Dean, Faculty of Science, Mahidol University, 1996-1997
- Vice-President for International Relations, Mahidol University, 1997-1999
- Head, Center for Excellence in Protein Structure and Function, Faculty of Science, Mahidol University, Bangkok, Thailand, 2001-2012
- Dean, Faculty of Graduate Studies, Mahidol University, Bangkok, Thailand, 2005-2007
- Chair, International Relations Policy Committee, Mahidol University, 2007-2010, 2015-17
- Faculty Member, Applied Biological Sciences Program, Chulabhorn Graduate Institute, 2015-

Research Activities

General interests: Protein structure and function, enzymology.

Past experience: Plasma proteins; Proteins unique to the male reproductive system; Abnormal hemoglobins.

Present interests: Inborn errors of metabolism; Protein changes in cancer; anti-cancer agents from natural products; Glycosidase enzymes and glycosides.

Professional Societies

- Member, Science Society of Thailand, 1972-present
- Member, Biochemical Society, U.K., 1981-present
- Member, Physics Society, Thailand, 1986-present
- Member, Chemical Society, Thailand, 1991-present
- Member, Thai Biotechnology Society, 1992-present
- Member, Japanese Society for Bioscience, Biotechnology & Agrochemistry, 1995-2005
- Member, Protein Society, U.S.A., 1997-present
- Member, Society for Glycobiology, U.S.A., 2001-present

International Activities

- Coordinating Committee, Asian Network of Biological Science 1979-1981
- Treasurer, Federation of Asian & Oceanian Biochemists, 1980-1986

- President-Elect, Federation of Asian and Oceanian Biochemists, 1989-1990
- President, Federation of Asian and Oceanian Biochemists (FAOB), 1990-1992
- Past President, Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB), 1993-1994
- Chairman, Organising Committee, Eleventh FAOBMB Symposium on *Biopolymers and Bioproducts: structure, function and applications*, Bangkok, 15-18 November 1994
- Member, Committee on Symposia, International Union of Biochemistry and Molecular Biology (IUBMB), 1996-2002
- Thai Delegate to International Union of Biochemistry and Molecular Biology 1996-2009
- Governing Council, Asia-Pacific International Molecular Biology Network (A-IMBN) 1998-present
- Membership Advisory Committee, Biochemistry and Biophysics (2001-2005), Structural, Cell and Molecular Biology (2010-2015), The World Academy of Sciences (TWAS)
- Editorial Board, *Molecules and Cells*, Korean Society of Molecular and Cellular Biology, 2003-present
- Health Committee, EAGLES (European Action on Global Life Sciences), 2003-2009
- Council Member, Asian and Oceanic Human Proteome Organization, 2004-2016
- Treasurer, Federation of Asian Scientific Academies & Societies (FASAS), 2008-2012
- Management Board, Science Council of Asia (SCA), 2008-2011
- Steering Committee, Asia Pacific Protein Association (APPA), 2010-2017
- Member, Evaluation Committee, TWAS Biology Prize, 2011-2015
- Chairman, Organizing Committee, 7th Asian Oceania Human Proteome Organization / 9th Protein Society of Thailand Conference, Bangkok, 6-8 August 2014
- Chairman, Organising Committee, 9th Asian Science Camp, Thailand, 2-8 August, 2015
- International Committee, Asian Science Camp, 2015-present
- International Advisory Committee, Synchrotron Light Research Institute, Thailand, 2016-
- President, Asia Pacific Protein Association (APPA), 2017-2018

Local Activities

- Editorial Board (1974-84, 1992-93) and Executive Committee (1994-1998), Journal of the Science Society of Thailand
- Editor-in-Chief, Journal of the Science Society of Thailand (1985-1987), and Editor-in-Chief, *ScienceAsia*, Journal of the Science Society of Thailand (2001-2008)
- Member, Executive Committee (1985-87, 2000-12) and Advisor (2012-present), Science Society of Thailand under the Patronage of His Majesty the King
- Chairman (1986-1987) and Advisor (1988-present), Biochemical Section, Science Society of Thailand

- Committee Member, National Research Council of Thailand (Agriculture & Biology Section), 1991-1998
- Board of Directors, Chumbot-Pantip Foundation, 1982-1991
- Chairman (2017-present) and Board of Directors (since 1984), Prajadhipok-Rambhai Barni Foundation
- Deputy Chairman (2012-present) and Board of Directors (since 1985), Memorial Foundation for H.M. King Rama VII-Queen Rambhai Barni,
- Deputy Chair (2013-present) and Board of Trustees (since 1990), Cambridge-Thai Foundation
- Committee Member, National Research Council of Thailand (Chemical and Pharmaceutical Sciences Section), 2002-2016
- Honorary Jury, UNESCO-L'Oreal Women in Science Program, Thailand, 2002-present
- President and Founder, Protein Society of Thailand, 2004-present
- University Council, Huachiew Chalermprakiet University, Bangkok, 2004-2015
- University Council, Mahidol University, Bangkok, 2005-2007
- President, Science Society of Thailand under the Patronage of H.M. the King, 2008-2011
- Board of Directors, National Science Museum, Thailand, 2008-2011
- Committee, The Promotion of Academic Olympiads and Development of Science Education Foundation (POSN) under the Patronage of H.R.H. Princess Galyani Vadhana Krom Luang Naradhiwas Rajanagarindra, 2008-present
- Board of Directors, Synchrotron Light Research Institute, Thailand, 2008-2013
- Chairman and Founder, Marsi Foundation, 2009-present
- University Council, Christian University, Thailand, 2009-2016
- Committee Member, Council for the Science and Technology Profession, 2009-2012
- Committee Member, Mom Chao Vudhividhu Foundation, 2011-present
- Chairman, Education Committee, Thai Toray Science Foundation, 2012-present
- University Council, Siam University, 2014-present
- Council Member, Chulaborn Graduate Institute, 2015-2016
- Expert Committee in Medicine and Public Health, National Research Council of Thailand (2017-present)

Fellowships

- Coutts-Trotter Research Studentship, Trinity College, Cambridge, 1968-1971
- Travel Fellowship, First International Symposium on Immunology, Gausdal, Norway, 1972
- Travel Fellowship, Third International Conference on Isozymes, New Haven, U.S.A., 1974
- IUB Travel Fellowship, 10th International Congress of Biochemistry, Hamburg, Germany, 1976

Local Awards, Honours and Decorations

- Mahidol University Prize for Excellence in Research: “Chromatin Structure and Nucleic Basic Proteins in Mammalian Male Germ Cells” (with Nongnuj Tanphaichitr and Prasert Sobhon), 1982
- Founding Member, Thailand Academy of Science and Technology (TAST), 1997
- Outstanding Researcher Award, Ministry of University Affairs, 1998
- Senior Research Fellow, Thailand Research Fund, 2001-2007
- Outstanding Scientist of Thailand Award, Foundation for the Promotion of Science and Technology under the Patronage of His Majesty the King, 2002
- Outstanding Researcher, Chemical Sciences and Pharmacy section, National Research Council of Thailand, 2003
- Outstanding Lecturer, Faculty Club, Faculty of Science, Mahidol University, 2003
- Exemplary Lecturer, Faculty Club, Mahidol University, 2004
- Outstanding Lecturer Award, Council of the University Faculty Senates of Thailand, 2005
- Sood Sangvichien Lecture and Gold Medal Award, 2009
- Mahidol University International Publications Award, 2010
- Serene Piboonniyom Lecture, 2016

International Honours

- Honorary Member, Federation of Asian and Oceanian Biochemists and Molecular Biologists, Inc. (FAOBMB), 1994
- Honorary Member, Philippine Society of Biochemistry and Molecular Biology, 1995
- Elected Fellow, The World Academy of Sciences (TWAS), 1996
- Member, Asia-Pacific International Molecular Biology Network 1998
- A-IMBN Distinguished Lecture at the 14th Asia-Pacific International Molecular Biology Network Conference 2012

Royal Decorations

- Knight Grand Cross of the Most Noble Order of the Crown of Thailand, 1987
- Knight Grand Cross of the Most Exalted Order of the White Elephant, 1990
- Knight Grand Cordon (special class), Most Noble Order of the Crown of Thailand, 1993
- Knight Grand Cordon (special class) the Most Exalted Order of the White Elephant, 1998
- Dushdi Mala Medal, 2005

Summary of Publications

<http://orcid.org/0000-0002-2217-4517>; 201 Articles (185 research & 16 education/academic articles) listed in Scopus and ISI-WOS; 2,617 citations citations, with H-index = 29)

13 Other Academic Articles in International Journals; 33 Articles in Proceedings of International Conferences; 13 Articles in Thai or Thai Journals; 5 Textbook & Book Chapter, Manual (co-authored)

Selected Publications

A. Research Articles in International Journals

1. Svasti, J. and Milstein, C. (1970) Variability of Interchain Binding of Immunoglobulins: interchain bridges of mouse IgG1. *Nature (Lond.)* **228**, 933-935.
2. Svasti, J. and Milstein, C. (1972) The Disulphide Bridges of a Mouse Immunoglobulin G1 Protein. *Biochem. J.* **126**, 837-850.
3. Svasti, J. and Milstein, C. (1972) The Complete Amino Acid Sequence of a Mouse Kappa Light Chain. *Biochem. J.* **128**, 427-444.
4. Svasti, J. and Milstein, C. (1972) The Parallel Nature of the Interchain Disulphide Bonds of Immunoglobulins: studies on a mouse IgG1 myeloma protein. *Europ. J. Biochem.* **31**, 405-422.
5. Adetugbo, K., Poskus, E., Svasti, J., and Milstein, C. (1975) Mouse Immunoglobulin Subclasses: cyanogen bromide fragments and partial sequence of a gamma 1 chain. *Europ. J. Biochem.* **56**, 503-519.
6. Svasti, M.R. J. and Viriyachai, S. (1975) The Purification of Lactate Dehydrogenase Isozymes LDH-A4, LDH-B4 and LDH-C4 from Human Tissues. *J. Sci. Soc. Thailand* **1**, 57-71.
7. Pongsawasdi, P. and Svasti, J. (1976) The Heterogeneity of the Protamines from Human Spermatozoa. *Biochim. Biophys. Acta* **434**, 462- 473.
8. Svasti, M.R. J., Prawatmuang, P., Vajanamarhutue, C., Kadjaphai, A., Wangthammang, S. and Talupphet, N. (1976) The Presence of Two IgG Subclasses in Waterbuffalo Immunoglobulins. *J. Sci. Soc. Thailand* **2**, 56-66.
9. Svasti, J. (1977) An Addition at the C-terminus of Water-Buffalo Immunoglobulin Lambda Chains. *Biochem. J.* **161**, 185-187.
10. Svasti, J. and Bowman, B.H. (1978) Human Group-Specific Component: changes in electrophoretic mobility resulting from vitamin D-binding and from neuraminidase digestion. *J. Biol. Chem.* **252**, 4188-4194.
11. Svasti, J. and Talupphet, N. (1979) Improvement in the Resolution of Human Sperm Protamines by Use of Iodoacetamide as Labelling Agent. *Biochim. Biophys. Acta* **577**, 221-225.
12. Svasti, J., Kurosky, A., Bennett, A. and Bowman, B.H. (1979) Molecular Basis for the Three Major Forms of Human Serum Vitamin D Binding Protein (Group-Specific Component). *Biochemistry* **18**, 1161- 1167.

13. Toowicharanont P. and Svasti, J. (1980) A Logical Approach to the Isolation of Lactate Dehydrogenase Isozyme X from Human Testes: a general rationale for the isolation of homotetrameric LDH isozymes. *Experientia* **36**, 37-38.
14. Surarit, R. and Svasti, J. (1980) Effect of Ligand Binding on the Conformation of Human Plasma Vitamin D Binding Protein (Group-Specific Component). *Biochem. J.* **191**, 404-410.
15. Surinrat, P., Svasti, J. and Surarit, R. (1981) Improved Purification and Fluorescence Changes upon Activation of Human Seminal Plasma Acidic Protease. *Biochim. Biophys. Acta* **659**, 38-47.
16. Anguravirutt, S. and Svasti, J. (1981) A New Procedure for the Purification of Rat Testis-Specific Histone TH2B Involving Affinity Related Chromatography. *Arch. Biochem. Biophys.* **210**, 412-416.
17. Wattanaseree, J. and Svasti, J. (1983) Human Testis-Specific Histone TH2B: Fractionation and Peptide Mapping. *Arch. Biochem. Biophys.* **225**, 892-897.
18. Wattanaseree, J., Svasti, J., Bubpaniroj, P. and Mitranond, V. (1984) Effect of Vitamin A Deficiency on the Testis-Specific Basic Proteins of the Rat. *J. Biochem. (Tokyo)* **95**, 179-186.
19. Reid, W.A., Vongsorasak, L., Svasti, J., Valler, M.J. and Kay, J. (1984) Identification of the Acid Proteinase in Human Seminal Fluid as a Gastricsin Originating in the Prostate. *Cell Tiss. Res.* **236**, 597- 600.
20. Yongvanich, T. and Svasti, J. (1984) Structural Differences between Somatic H2B and Testis-Specific TH2B Histones of the Rat. *Experientia* **40**, 845-846.
21. Tanphaichitr, J., Svasti, J. and Sobhon, P. (1984) Molecular Mechanism of the Antifertility Effects of Gossypol: a review. *J. Sci. Soc. Thailand* **10**, 197-206.
22. Reid, W.A., Liddle, C.N., Svasti, J. and Kay, J. (1985) Gastricsin in the Benign and Malignant Prostate. *J. Clin. Pathol.* **38**, 639-643.
23. Vongsorasak, L. and Svasti, J. (1985) Inhibition of Liquefaction and Protein Degradation of Human Semen by Gossypol. *Int. J. Androl.* **8**, 472-486.
24. Vongsorasak, L. and Svasti, J. (1986) Gossypol Prevents Activation of Purified Proenzyme of Human Seminal Plasma Acidic Proteinase. *Biochim. Biophys. Acta.* **883**, 271-276.
25. Boontrakulpoontawee, P., Svasti, J., Fucharoen, S. and Winichagoon, P. (1987) Identification of Hb Lepore-Washington-Boston in Association with HbE in a Thai Female. *Hemoglobin* **11**, 309- 316.
26. Yongsuwan, S., Svasti, J. and Fucharoen, S. (1987) Decreased Heat Stability Found in Hemoglobin Queens. *Hemoglobin* **11**, 567-570.
27. Svasti, J., Surarit, R., Srisomsap, C., Pravatmuang, P., Wasi, P., Fucharoen, S., Blouquit, Y., Galacteros, F., and Rosa, J. (1993) Identification of Hb Anantharaj [α 11(A9)Lys→Glu] as Hb J- Wenchang-Wuming [α 11(A9)Lys→Gln]. *Hemoglobin* **17**, 453-455.
28. Siriboon, W., Srisomsap, C., Winichagoon, P. Fucharoen, S., and Svasti, J. (1993) Identification of Hb C [β 6(A3)Glu→Lys] in a Thai Male. *Hemoglobin* **17**, 419-426.

29. Svasti, J., Boontrakulpoontawee, P., Yongsuwan, S., Sarikaputi, M., Siriboon, W., Srisomsap, C., Fucharoen, S., Winichagoon, P., Pravatmuang, P., and Surarit, R. (1994) Structural Analysis of Proteins in Thailand: Identification of abnormal hemoglobins. *Pure & Appl. Chem.* **66**, 105-110.
30. Suginta W. and Svasti, M.R.J. (1995) Purification and Properties of β -Galactosidase from *Hibiscus sabdariffa* L. var. *altissima*. *J. Sci. Soc. Thailand.* **21**, 183-186.
31. Sermsuvityawong, K., Svasti, M.R.J., Sawangareetrakul, P., Kisamanonta, P. and Chulavatnatol, M. (1995) Aggregation of Cassava Linamarase. *J. Sci. Soc. Thailand.* **21**, 283-292.
32. Surarit, R., Svasti, M.R.J., Srisomsap, C., Suginta, W., Khunyoshyeng, S., Nilwarangkoon, S., Harnsakul, P., and Benjavongkulchai, E. (1995) Screening of Glycohydrolase Enzymes in Thai Plant Seeds for Potential Use in Oligosaccharide Synthesis. *J. Sci. Soc. Thailand.* **21**, 293-303.
33. Srisomsap, C., Svasti, J., Surarit, R., Champattanachai, V., Boonpuan, K., Sawangareetrakul, P., Subhasitanont, P. and Chokchaichamnankit, D. (1996) Isolation and Characterization of an Enzyme with β -D-Glucosidase/ β -D-Fucosidase Activities from *Dalbergia cochinchinensis* Pierre. *J. Biochem.* **119**, 585-590.
34. Benjavongkulchai, E., Surarit, R., Bucke, C. and Svasti, J. (1996) Synthesis of Oligosaccharides by Dextranucrase from a Local Strain of *Streptococcus mutans*. *J. Sci. Soc. Thailand* **22**, 105-110.
35. Surarit, R., Matsui, H., Chiba, S., Svasti, J. and Srisomsap, C. (1996) Chemical Modification of β -Glucosidase/ β -Fucosidase from *Dalbergia cochinchinensis* Pierre by Conduritol B Epoxide. *Biosci. Biotech. Biochem.* **60**, 1265-1268.
36. Surarit, R., Matsui, H., Chiba, S., Svasti, J. and Srisomsap, C. (1997) Evidence for the Presence of a Single Active Site in β -D-Fucosidase/ β -D-Glucosidase from *Dalbergia cochinchinensis* Seeds. *Biosci. Biotech. Biochem.* **61**, 93-95.
37. Wongwithoonyaporn, P., Bucke, C., and Svasti, J. (1998) Separation and Specificity Study of α -Mannosidases from *Vigna umbellata*. *Biosci. Biotech. Biochem.* **62**, 613-621.
38. Itchayanan, D., Svasti, J., Srisomsap, C., Winichagoon, P., and Fucharoen, S. (1999) Hb G-Coushatta [β 22(B4)Glu \rightarrow Ala] in Thailand. *Hemoglobin* **23**, 69-72.
39. Svasti, J., Srisomsap, C., Techasakul, S. and Surarit, R. (1999) Dalcochinin-8'-O- β -D-Glucoside and its β -Glucosidase Enzyme from *Dalbergia cochinchinensis*. *Phytochem.* **50**, 739-743.
40. Itchayanan, D., Svasti, J., Srisomsap, C., Winichagoon, P., and Fucharoen, S. (1999) Identification of Hb J Buda [α 61(E10)Lys \rightarrow Asn] in a Thai Female. *Hemoglobin* **23**, 183-186.
41. Srisomsap, C., Subhasitanont, C., Techasakul, S., Surarit, R., and Svasti, J. (1999) Synthesis of Homo and Hetero-Oligosaccharides by Thai Rosewood β -Glucosidase. *Biotechnol. Letts.* **21**, 947-951.
42. Svasti, J., Srisomsap, C., Itchayan, D., Limwuttiwong, A., Siriboon, W., Winichagoon, P. and Fucharoen, S. (1999) Recent Studies on the Abnormal Hemoglobins Found in Thailand. *J. Chem. Soc. Pak.* **21**, 281-288.

43. Yodsowan, B., Svasti, J., Srisomsap, C., Winichagoon, P., and Fucharoen, S. (2000) Hb Siam [α 15(A13)Gly→Arg] is a GGT→CGT Mutation in the α 1-Gene. *Hemoglobin* **24**, 71-74.
44. Lirdprapamongkol, K. and Svasti, J. (2000) Alkyl Glucoside Synthesis using Thai Rosewood β -Glucosidase. *Biotechnology Letters*. **22**, 1889-1994
45. Cairns, J.R.K., Champattanachai, V., Srisomsap, C., Wittman-Liebold, B., Thiede, B., and Svasti, J. (2000) Sequence and recombinant expression of Thai Rosewood β -glucosidase/ β -fucosidase, a glycosylated family 1 glycosyl hydrolase. *J. Biochem.* **128**, 999 –1008.
46. Imai, K., Tientadakul, P., Opartkiattikul, N., Luenee, P., Winichagoon, P., Svasti, J. and Fucharoen, S. (2001) Detection of Haemoglobin Variants and Inference of Their Functional Properties by Complete Oxygen Dissociation Curve Measurements. *Brit. J. Haematol.* **112**, 483-7.
47. Svasti, S., Yodsowan, B., Sriphanich, R., Winichagoon, P., Boonkhan, P., Suwanban, T., Sawangareetrakul, P., Srisomsap, C., Ketudat-Cairns, J.R., Svasti, J. and Fucharoen, S. (2001) Association of Hb Hope [β 136(H14)Gly→Asp] and Hb H Disease. *Hemoglobin* **25**, 429-435.
48. Svasti, J., Srisomsap, C., Wasant, P., Pangkanon, S., Tiensuwan, M., Boonpuan, K., Sawangareetrakul, P. and Liammongkolkul, S. (2001) Normal Plasma Free Amino Acid Levels in Thai Children. *J. Med. Assoc. Thailand.* **84**, 1558-1568.
49. Arthan, D., Svasti, J., Kittakoop, P., Pittayakhachonwut, D., Tanticharoen, M., and Thebtaranonth, Y. (2002) Antiviral isoflavonoid sulfate and steroidal glycosides from the fruits of *Solanum torvum*. *Phytochemistry* **59**, 459-463.
50. Turbpaiboon, C., Svasti, S., Sawangareetrakul, P., Winichagoon, P., Srisomsap, C., Siritanaratkul, N., Wilairat, P., and Svasti, J. (2002) Hb Siam [α 1-15(A13)Gly(GGT)→Arg(CGT)] is a typical alpha hemoglobinopathy without alpha thalassaemic effect. *Hemoglobin* **26**, 77-81.
51. Sawangareetrakul, P., Svasti, S., Yodsowan, B., Winichagoon, P., Srisomsap, C., Svasti, J., and Fucharoen, S. (2002) Double Heterozygosity for Hb Pyrgos[β 83(EF7)Gly→Asp] and Hb E [β 26(B8)Glu→Lys] Found in Association with α -Thalassaemia. *Hemoglobin* **26**, 191-196.
52. Srisomsap, C., Subhasitanont, P., Otto, A., Mueller, E.-C., Punyarit, P. Wittmann-Liebold, B. and Svasti, J. (2002) Detection of Cathepsin B Up-Regulation in Neoplastic Thyroid Tissues by Proteomic Analysis. *Proteomics* **2**, 706-712.
53. Ngiwsara, L., Srisomsap, C., Winichagoon, P., Fucharoen, S. and Svasti, J. (2003) Hb Kodaira II [β 146(HC3)His→Gln] Detected In Thailand. *Hemoglobin* **27**, 37-39.
54. Lirdprapamongkol, K., Mahidol, C., Thongnest, S., Prawat, H., Ruchirawat, S., Srisomsap, C., Surarit, R., Punyarit, P., and Svasti, J. (2003) Anti-metastatic Effects of Aqueous Extract of *Helixanthera parasitica*. *J. Ethnopharmacol.* **86**, 253-256.
55. Svasti, J., Phongsak, T., Sarnthima, R. (2003) Transglucosylation of Tertiary Alcohols using Cassava β -Glucosidase. *Biochem. Biophys. Res. Commun.* **305**, 470-475.
56. Champattanachai, V., Cairns, J.R.K., Shotelersuk, V., Keeratichamroen, S., Sawangareetrakul, P., Srisomsap, C., Kaewpaluek, V. and Svasti, J. (2003) Novel

- mutations in a Thai patient with methylmalonic acidemia. *Molec. Genet. Metab.* **79**, 300-302.
57. Opassiri, R., Cairns, J.R.K., Akiyama, T., Wara-Aswapati, O., Svasti, J. and Esen, E. (2003) Characterization of a rice β -glucosidase highly expressed in flower and germinating shoot. *Plant Science* **165**, 627-638.
 58. Srisomsap, C., Sawangareetrakul, P., Subhasitanont, P., Panichakul, T., Keeratichamroen, S., Lirdprapamongkol, K., Chokchaichamnankit, D., Sirisinha, S. and Svasti, J. (2004) Proteomic Analysis of Cholangiocarcinoma Cell Line. *Proteomics* **4**, 1135-1144.
 59. Ngiwsara, L., Srisomsap, C., Winichagoon, P., Fucharoen, S. and Svasti, J. (2004) Two Cases of Compound Heterozygosity for Hemoglobin Hekinan [$\alpha(27)$; Glu-Asp] and α -Thalassemia in Thailand. *Hemoglobin* **28**, 145-150.
 60. Opassiri, R., Hua, Y., Wara-Aswapati, O., Akiyama, T., Svasti, J., Esen, A. and Ketudat Cairns, J.R. (2004) β -Glucosidase, exo- β -glucanase and pyridoxine transglucosylase activities of rice BGlu1. *Biochem. J.* **379**, 125-131.
 61. Chaiyen, P., Sucharitakul, J., Svasti, J., Entsch, B., Massey, V. and Ballou, D.P. (2004) Use of 8-Substituted-FAD Analogs to Investigate the Hydroxylation Mechanism of the Flavoprotein 2-Methyl-3-hydroxypyridine-5-carboxylic Acid Oxygenase. *Biochemistry* **43**, 3933-3943.
 62. Suginta, W., Songsiriritthigul, C., Prinz, H., Estibeiro, P., Duncan, R.R., Svasti, J. and Fothergill-Gilmore, L.A. (2004) An endochitinase A from *Vibrio carchariae*: cloning, expression, mass and sequence analyses, and chitin hydrolysis. *Arch. Biochem. Biophys.* **424**, 171-180.
 63. Kubota, M., Tsuji, M., Nishimoto, M., Wongchawalit, J., Okuyama, M., Mori, H., Matsui, M., Surarit, R., Svasti, J., Kimura, A. and Chiba, A. (2004) Localization of α -Glucosidases in Organs of European Honeybees, *Apis mellifera* L., and the Origin of α -Glucosidase in Honey. *Biosci. Biotechnol. Biochem.* **68**, 2346-2352.
 64. Ngiwsara, L., Srisomsap, C., Winichagoon, P., Fucharoen, S., Sae-Ngow, B., and Svasti, J. (2005) Hb Kurosaki [$\alpha7(A5)$ Lys-Glu (Aag-Gag)]: an $\alpha2$ -Globin Gene Mutation Found In Thailand. *Hemoglobin* **29**(2):155-9.
 65. Lirdprapamongkol, K., Sakurai, H., Kawasaki, N., Choo, M.-K., Saitoh, Y., Aozuka, Y., Singhirunnusorn, P., Ruchirawat, S., Svasti, J. and Saiki, I. (2005) Vanillin Suppresses *In vitro* Invasion and *In vivo* Metastasis of Mouse Breast Cancer Cells. *Eur. J. Pharm. Sci.* **25**, 57-65.
 66. Wasant, P., Vatanavichien, N., Srisomsap, C., Sawangareetrakul, P., Liammongkolkul, S. and Svasti, J. (2005) Retrospective Study of Patients with Suspected Inborn Errors of Metabolism at Siriraj Hospital, Bangkok, Thailand (1997-2001) *J. Med. Assoc. Thai* **88**, 746-753.
 67. Suginta, W., Vongsuwan, A., Songsiriritthigul, C., Svasti, J., and Prinz, H. (2005) Enzymatic Properties of Chitinase A from *Vibrio carchariae* and the Active Site Mutants as Revealed by HPLC-Mass Spectrometry. *FEBS Journal* **272**, 3376-3386.

68. Buranaprapuk, A., Chaivisuthangkura, P., Svasti, J., and Kumar, C. V. (2005) Efficient Photocleavage of Lysozyme by a New Chiral Probe. *Letts. Org. Chem.* **2**(6), 554-558.
69. Wasant, P., Viprakasit, V., Srisomsap, C., Liammongkolkul, S., Ratanarak, P., Sathienkijakanchai, and Svasti, J. (2005) Argininosuccinate Synthetase Deficiency: Mutation Analysis in 3 Thai patients. *Southeast Asian J. Trop. Med. Pub. Health* **36**(3), 757-61.
70. Chuankhayan, P., Hua, Y., Svasti, J., Sakdarat, S., Sullivan, P.A. and Cairns, J.R.K. (2005) Purification of an Isoflavonoid 7-O- β -apiosyl-glucoside β -glycosidase and its substrates from *Dalbergia nigrescens* Kurz. *Phytochemistry*. **66**(16), 1880-1889.
71. Hommalai, G., Chaiyen, P., and Svasti, J. (2005) Studies on the Transglucosylation Reactions of Cassava and Thai Rosewood β -Glucosidases using 2-Deoxy-2-fluoroglycosyl Enzyme Intermediates. *Arch. Biochem. Biophys.* **442** (1), 11-20.
72. Cairns, J.R.K., Keeratichamroen, S., Sukcharoen, S., Champattanachai, V., Ngiwsara, L., Lirdprapamongkol, K., Liammongkolkul, S., Srisomsap, C., Surarit, R., Wasant, P., and Svasti, J. (2005) The Molecular Basis Of Mucopolysaccharidosis Type I In Two Thai Patients. *Southeast Asian J. Trop. Med. Pub. Health* **36** (5): 1308-12.
73. Svasti, J., Srisomsap, C., Subhasitanont, P., Keeratichamroen, S., Chokchaichamnankit, D., Ngiwsara, L., Chimnoi, N., Pisutjaroenpong, S., Techasakul, S., and Chen, S.T. (2005) Proteomic Profiling of Cholangiocarcinoma Cell Line Treated with Pomiferin from *Derris malaccensis*. *Proteomics* **5**, 4504-9.
74. Mahakhan, P., Chobvijuk, C., Ngmjarearnwong, M., Trakulnalernsai, S., Bucke, C., Svasti, J., Kanlayakrit, W. and Chitradon, L. (2005) Molecular Hydrogen Production by a Thermotolerant *Rubrivivax Gelatinosus* Using Raw Cassava Starch as an Electron Donor. *ScienceAsia* **31** (4), 415-24.
75. Arthan, D., Kittakoop, P., Esen, A., and Svasti, J. (2006) Furostanol Glycoside 26-O- β -Glucosidase from the Leaves of *Solanum torvum*. *Phytochemistry*, **67** (1), 27-33.
76. Jintaridth, P., Srisomsap, C., Vichittumaros, K. Kalpravidh, R.W., Winichagoon, P. Fucharoen, S., Svasti, M.R.J. and Kasinrerak, W. (2006) Chicken Egg Yolk Antibodies Specific for the Gamma (γ) Chain of Human Hemoglobin for Diagnosis of Thalassemia. *Int. J. Hematol.* **83**, 408-414.
77. Thammasirirak, S., Ponkham, P., Preecharram, S., Khanchanuan, R., Phonyothee, P., Daduang, S., Srisomsap, C., Araki, T. and Svasti, J. (2006) Purification, characterization and comparison of reptile lysozymes. *Comp. Biochem. Physiol. Part C.* **143**, 209-217.
78. Toonkool, P. Metheenukul, P., Sujiwattanarat, P., Paiboon, P., Tongtubtim, N., Ketudat-Cairns, M., Ketudat-Cairns, J. and Svasti, J. (2006) Expression and purification of dalcochinase, a β -glucosidase from *Dalbergia cochinchinensis* Pierre, in yeast and bacterial hosts. *Protein Exp. Purif.* **48**, 195-204.
79. Chuenchor, W., Pengthaisong, S., Yuvaniyama, J., Opassiri, R., Svasti, J. and Cairns, J.R.K. (2006) Purification, crystallization and preliminary X-ray analysis of rice BGlu1 β -glucosidase with and without an inhibitor, 2-Deoxy-2-fluoro- β -D-glucoside. *Acta Crystallog. F.* **62**, 798-801.

80. Boonclarm, D., Sornwatana, T., Arthan, D., Kongsaree, P. and Svasti, J. (2006) A β -glucosidase catalyzing specific hydrolysis of an iridoid β -glucoside from *Plumeria obtusa* flowers. *Arch. Biochim. Biophys. Sinica* **38**, 563-570.
81. Wattanasirichaigoon, D., Svasti, J., Cairns, J.R.K., Tangnararatchakit, K., Visudtibhan, A., Keeratichamroen, S., Ngiwsara, L., Khowsathit, P., Onkoksoong, T., Lekskul, A., Mongkolsiri, D., Jariengprasert, C., Thawil, C., and Ruencharoen, S. (2006) Clinical and molecular characterization of an extended family with Fabry disease. *J. Med. Assoc. Thailand* **89** (9): 1528-1535.
82. Wongchawalit, J., Yamamoto, T., Nakai, H., Kim, Y.M., Sato, N., Nishimoto, M., Okuyama, M., Mori, H., Saji, O., Chanchao, C., Wongsiri, S., Surarit, R., Svasti, J., Chiba, S., and Kimura, A. (2006) Purification and Characterization of alpha-Glucosidase I from Japanese Honeybee (*Apis cerana japonica*) and Molecular Cloning of Its cDNA. *Biosci. Biotechnol. Biochem.* **70**, 2889-2898.
83. Subhasitanont, P., Srisomsap, C., Punyarit, P., and Svasti, J. (2006) Proteomic Studies of Galectin-3 Expression in Human Thyroid Diseases by Immunodetection. *Cancer Genomics and Proteomics* **3**, 389-394.
84. Sangvanich, P., Kaeothip, S., Srisomsap, C., Thiptara, P., Petsom, A., Boonmee, A., Svasti, J. (2007) Hemagglutinating activity of Curcuma plants. *Fitoterapia* **78**, 29-31.
85. Srisomsap, C., Subhasitanont, P., Sawangareetrakul, P., Chokchaichamnankit, D., Ngiwsara, L., Chiablaem, K., and Svasti, J. (2007) Comparison of Membrane-Associated Proteins in Human Cholangiocarcinoma and Hepatocellular Carcinoma Cell lines. *Proteomics: Clinical Applications* **1**, 89-106.
86. Chuankhayan, P., Rimlumduan, T., Svasti, J. and Cairns, J.R.K. (2007) Hydrolysis of Soybean Isoflavonoid Glycosides by *Dalbergia* β -Glucosidases. *J. Agr. Food Chem.* **55**, 2407-2412.
87. Keeratichamroen, S., Cairns, J.R.K., Sawangareetrakul, P., Liammongkolkul, S., Champattanachai, V., Srisomsap, C., Kamolsilp, M., Wasant, P., and Svasti, J. (2007) Novel mutations found in two genes of Thai patients with isolated methylmalonic acidemia. *Biochem. Genet.* **45**, 421-430.
88. Thammasirirak, S., Preecharam, S., Ponkham, P., Daduang, S., Araki, T., and Svasti, J. (2007) New variant of quail egg white lysozyme identified by peptide mapping. *Comp. Biochem. Physiol. B.* **147**, 214-314.
89. Suginta, W., Kobdej, A., Opassiri, R., Svasti, J., and Songsiriritthigul, C. (2007) Roles of the active-site aromatic residues on substrate hydrolysis of *Vibrio carchariae* chitinase A. *Biochim. Biophys. Acta.* **1770**, 1151-1160.
90. Hommalai, G., Withers, S.G., Chuenchor, W., Cairns, J.R.K and Svasti, J. (2007) Enzymatic synthesis of cello-oligosaccharides by rice BGlu1 β -glucosidase glycosynthase mutants. *Glycobiology* **17**, 744-753.
91. Sucharitakul, J., Phongsak, T., Entsch, B., Svasti, J., Chaiyen, P., and Ballou, D.P. (2007) Kinetics of a Two-Component p-Hydroxyphenylacetate Hydroxylase Explain How Reduced Flavin Is Transferred from the Reductase to the Oxygenase. *Biochemistry* **46**, 8611-8623.
92. Suwannarat, P., Keeratichamroen, S., Wattanasirichaigoon, D., Ngiwsara, L., Ketudat Cairns, J. R., Svasti, J., Visudtibhan, A., and Pangkanon, S. (2007)

- Molecular characterization of type 3 (neuronopathic) Gaucher disease in Thai patients. *Blood Cells, Molecules & Diseases*. 39(3):348-52.
93. Nishimoto M., Mori, H., Moteki, T., Takamura, Y., Iwai, G., Miyaguchi, Y., Okuyama, M., Wongchawalit, J., Surarit, R., Svasti, J., Kimura, A., Chiba, S. (2007) Molecular Cloning of cDNAs and Genes for Three alpha-Glucosidases from European Honeybees, *Apis mellifera* L., and Heterologous Production of Recombinant Enzymes in *Pichia pastoris*. *Biosci. Biotechnol. Biochem.* **71**, 1703-1716.
 94. Suadee, C., Nijvipakul, S., Svasti, J., Entsch, B., Ballou, D.P., and Chaiyen, P. (2007) Luciferase from *Vibrio campbellii* is more thermostable and binds reduced FMN better than its homologues. *J. Biochem.(Tokyo)* 142(4):539-52.
 95. Chuankhayan, P., Rimlumduan, T., Tantanuch, W., Mothong, N., Kongsaree, P.T., Methenukul, P., Svasti, J., Jensen, O.N. and Cairns, J.R.K. (2007) Functional and Structural Differences Between Isoflavonoid β -Glycosidase from *Dalbergia* sp. *Arch. Biochem. Biophys.* **468**(2):205-216.
 96. Sawangaretrakul, P., Srisomsap, C., Chokchaichamnankit, D. and Svasti, J. (2008) Galectin-3 Expression in Human Papillary Thyroid Carcinoma. *Cancer Genomics and Proteomics* **5**: 117-122.
 97. Lirdprapamongkol, K., Kramb, J.-P., Chokchaichamnankit, D., Srisomsap, C., Surarit, R., Sila-asna, M., Bunyaratvej, A., Dannhardt, G. and Svasti, J. (2008) Juice of *Eclipta prostrata* Inhibits Cell Migration *in vitro* and Exhibits Anti-angiogenic Activity *in vivo*. *In Vivo.* **22**, 363-368.
 98. Chuenchor, W., Pengthaisong, S., Robinson, R.C., Yuvaniyama, J., Oonant, W., Bevan, D.R., Esen, A., Chen, C.-J., Opassiri, R., Svasti, J. and Ketudat Cairns, J.R. (2008) Structural Insights into Rice BGlul β -Glucosidase Oligosaccharide Hydrolysis and Transglycosylation. *J. Mol. Biol.* **377**, 1200-1215.
 99. Arthan, D., Sithiprom, S., Thima, K., Limmatvatirat, C., Chavalitsheewinkoon-Petmitr, P., and Svasti, J. (2008) Inhibitory effects of Thai plants beta-glycosides on *Trichomonas vaginalis*. *Parasitol Res.* **103** (2):443-8.
 100. Keeratichamroen, S. Ketudat Cairns, J.R., Wattanasirichaigoon, D., Wasant, P., Ngiwsara, L., Suwannarat, P., Pangkanon, S., Tanpaiboon, P., Rujirawat, T. and Svasti, J. (2008) molecular analysis of the iduronate-2-sulfatase gene in Thai Patients with Hunter syndrome. *J. Inher. Metab. Dis.* Online. DOI 10.1007/s10545-008-0876-z
 101. Buranaprapuk, A., Malaikaew, Y., Svasti, J., Kumar, C.V. (2008) Chiral protein scissors activated by light: recognition and protein photocleavage by a new pyrenyl probe. *J Phys Chem B.* **112**(30):9258-65.
 102. Kitdamrongsont, K., Pothavorn, P., Swangpol, S., Wongniam, S., Atawongsa, K., Svasti, J. and Somana, J. (2008) Anthocyanin Components of Wild Bananas in Thailand. *J. Agric. Food Chem.* **56** (22), 10853-10857• DOI: 10.1021/jf8018529.
 103. Thaipratum, R., Melis, A., Svasti, J. and Yokthongwattana, K. (2009) Analysis of Non-photochemical Energy Dissipating Processes in *Dunaliella salina* (Green Algae) Wild Type and *zeal*, a Mutant Constitutively Accumulating Zeaxanthin. *J. Plant Res.* **122**:465-476. DOI 10.1007/s10265-009-0229-5.1
 104. Lirdprapamongkol, K., Kramb, J.-P., Suthiphongchai, T., Surarit, R., Srisomsap, C., Dannhardt, G., and Svasti, J. (2009) Vanillin Suppresses Metastatic Potential of

- Human Cancer Cells Through PI3K Inhibition, And Decreases Angiogenesis *In Vivo*. *J. Agric. Food Chem.* **57** (8), 3055-3063• DOI: 10.1021/jf803366f.
105. Chokchaichamnankit, D., Subhasitanont, P., Paricharttanakul, N. M., Sangvanich, P., Svasti, J. and Srisomsap C. (2009) Proteomic Alterations During Dormant Period of *Curcuma longa* Rhizomes. *J. Proteomics & Bioinformatics* **02**:380-87.
 106. Arunchaipong, K., Sattayasai, N., Sattayasai, J., and Svasti, J. (2009) A Biotin-Coupled Bifunctional Enzyme, Exhibiting Both Glutamine Synthetase Activity and Glutamate Decarboxylase Activity. *Current Eye Res* **34**(10):809-18.
 107. Sarnthima, R., Khammuang, S., Svasti, J. (2009) Extracellular Ligninolytic Enzymes by *Lentinus polychrous* Lev. under Solid-State Fermentation of Potential Agro-industrial Wastes and Their Effectiveness in Decolorizing Indigo Carmine. *Biotechnol. Bioprocess Eng.* **14**: 513-522. DOI 10.1007/s12257-008-0262-6.
 108. Rubporn, A., Srisomsap, C., Subhasitanont, P., Chokchaichamnankit, D., Chiablaem, K., Svasti, J., and Sangvanich, P. (2009) Comparative Proteomic Analysis of Lung Cancer Cell Line and Lung Fibroblast Cell Line. *Cancer Genomics & Proteomics* **6**(4):229-37.
 109. Yokthongwattana, K., Sriariyanun, M., Ekaratcharoenchai, P. and Svasti, J. (2010) Characterization of fatty acids and proteins associated with the xanthophyll-enriched membrane fraction isolated from the thylakoid membranes of irradiance-stressed *Dunaliella salina*. *J. Appl. Phycol.* **22** (2), pp. 147-155.
 110. Ponkham, P., Daduang, S., Kitimasak, W., Krittanai, C., Chokchaichamnankit, D., Srisomsap, C., Svasti, J., Kawamura, S., Araki, T. and Thammasirirak, S. (2010) Complete amino acid sequence of three reptile lysozymes. *Comp Biochem. Physiol.* **151**(1):75-83.
 111. Srisomsap, C., Sawangareetrakul, P., Subhasitanont, P., Chokchaichamnankit, D., Chiablaem, K., Bhudhisawasdi, V., Wongkham, S., and Svasti, J. (2010) Proteomic Studies of Cholangiocarcinoma and Hepatocellular Carcinoma Cell Secretomes. *J. Biomed. Biotechnol.* doi:10.1155/2010/437143.
 112. Preecharram, S., Jearanaiprepame, P., Daduang, S., Temsiripong, Y., Somdee, T., Fukamiz, T., Svasti, J., Araki, T. and Thammasirirak, S. (2010) Isolation and characterisation of crocosin, an antibacterial compound from crocodile (*Crocodylus siamensis*) plasma. *Animal Sci J.* 2010; 81(3):393-401.
 113. Wattanasiriwech, S., Wattanasiriwech, D. and Svasti, J. (2010) Production of amorphous silica nanoparticles from rice straw with microbial hydrolysis pretreatment. *Journal of Non-Crystalline Solids* **356**, 1228-1232.
 114. Lirdprapamongkol, K., Sakurai, H., Suzuki, S., Koizumi, K., Prangsaengtong, O., Viriyaroj, A., Ruchirawat, S., Svasti, J. and Saiki, I. (2010) Vanillin Enhances TRAIL-Induced Apoptosis in Cancer Cells through Inhibition of NF-kappaB Activation. *In Vivo.* **24**: 501-506.
 115. Soisuwan, S. Warisnoicharoen, W., Lirdprapamongkol, K. and Svasti, J. (2010) Eco-Friendly Synthesis of Fucoidan-Stabilized Gold Nanoparticles. *Amer. J. Appl. Sci* **7**: 1038-1042.
 116. Peng L., Kapp, E.A., Fenyö, D., Kwon, M.S., Jiang, P., Wu, S., Jiang, Y., Aguilar, M.I., Ahmed, N., Baker, M.S., Cai, Z., Chen, Y.J., Van Chi, P., Chung, M.C., He, F.,

- Len, A.C., Liao, P.C., Nakamura, K., Ngai, S.M., Paik, Y.K., Pan, T.L., Poon, T.C., Hosseini Salekdeh, G., Simpson, R.J., Sirdeshmukh, R., Srisomsap, C., Svasti, J., Tyan, Y.C., Dreyer, F.S., McLauchlan, D., Rawson, P. and Jordan, T.W. (2010) The Asia Oceania Human Proteome Organisation Membrane Proteomics Initiative: Preparation and characterization of the carbonate-washed membrane standard. *Proteomics*. **10** (22), 4142-4148.
117. Sojikul, P., Kongsawadworakul, P., Viboonjun, U., Thaiprasit, J., Intawong, B., Narangajavana, J. and Svasti, M.R.J. (2010) AFLP-based transcript profiling for cassava genome-wide expression analysis in the onset of storage root formation. *Physiologia plantarum* **140** (2), 189-298.
118. Kongsaree, P.T., Ratananikoma, K., Choengpanyaa, K., Tongtubtima, N., Sujiwattanasat, P., Porncharoenpota, C., Onpium, A., and Svasti, J. (2010) Substrate specificity in hydrolysis and transglucosylation by family 1 β -glucosidases from cassava and Thai rosewood. *J. Molec. Catal. B*. **67** (3-4), 257-265.
119. Pruksakorn, D., Lirdpramongkol, K., Chokchaichamnankit, D., Subhasitanont, P., Chiablaem, K., Svasti, J., and Srisomsap, C. (2010) Metabolic alteration of HepG2 in scaffold-based 3D culture: proteomic approach. *Proteomics*. **10** (21), 3896-3904.
120. Pothavorn, P., Kitdamrongsont, K., Swangpol, S., Wongniam, S., Atawongsa, K., Svasti, J., Somana, J. (2010) Sap phytochemical compositions of some bananas in Thailand. *J. Agric. Food Chem.* **58** (15), 8782-8787.
121. Banjerdpongchai, R., Kongtawelert, P., Khantamat, O., Srisomsap, C., Chokchaichamnankit, D., Subhasitanont, P. and Svasti, J. (2010) Mitochondrial and endoplasmic reticulum stress pathways cooperate in zearalenone-induced apoptosis of human leukemic cells. *J. Hematol. & Oncol.* **3**:50 doi:10.1186/1756-8722-3-50.
122. Chuenchor, W., Pengthaisong, S., Robinson, R.C., Yuvaniyama, J., Svasti, J. and Ketudat Cairns, J.R. (2011) The structural basis of oligosaccharide binding by rice BGlu1 beta-glucosidase. *J. Struct. Biol.* **173**, 169-179.
123. Pata, S., Yaraksa, N., Daduang, S., Tamsiripong, Y., Svasti, J., Araki, T., Thammasirirak, S. (2011) Characterization of the novel antibacterial peptide Leucrocine from crocodile (*Crocodylus siamensis*) white blood cell extracts. *Devel. & Comp. Immunol.* **35**, 545-553.
124. Suwannateep, N., Banlunara, W., Wanichwecharungruang, S.P., Chiablaem, K., Lirdpramongkol, K., Svasti, J. (2011) Mucoadhesive curcumin nanospheres: Biological activity, adhesion to stomach mucosa and release of curcumin into the circulation. *J. Controlled Release*. **151**, 176-182.
125. Winayanuwattikun, P., Kaewpiboon, C., Piriyananon, K., Chulalaksananukul, W., Yongvanich, T. and Svasti, J. (2011) Immobilized lipase from potential lipolytic microbes for catalyzing biodiesel production using palm oil as feedstock. *African J. Biotechnol.* **10**(9), 1666-1673.
126. Malaikaew, P., Svasti, J., Kumar, C.V. and Buranaprapuk, A. (2011) Photocleavage of Avidin by a New Pyrenyl Probe. *J. Photochem. Photobiol B*. **103**, 251-255.
127. Kanintronkul, Y., Worayuthakarn, R., Thasana, N., Winayanuwattikun, P., Pattanapanyasat, K., Surarit, R. Ruchirawat, S. and Svasti, J. (2011) Overcoming

- Multidrug Resistance in Human Lung Cancer with Novel Benzo[a]quinolizin-4-ones. *Anticancer Research* **31**(3), 921-927.
128. Sriiam, S., Leecharoenkiat, A., Litanatudom, P., Wannatung, T., Svasti, S., Fucharoen, S., Svasti, J., Chokchaichamnankit, D., Srisomsap, C., Smith, D.R. (2011) Proteomic analysis of Hemoglobin H-Constant Spring (Hb H-CS) erythroblasts. *Blood Cells, Molecules, and Diseases*. **48**, 77–85.
 129. Pengthaisong, S., Withers, S.G., Kuaprasert, B., Svasti, J., and Cairns, J.R.K. (2012) The role of the oligosaccharide binding cleft of rice BGLu1 in hydrolysis of cellooligosaccharides and in their synthesis by rice BGLu1 glycosynthase. *Protein Science* **21**, 362-372.
 130. Cairns, J.R.K., Pengthaisong, P., Luang, S., Sansenya, S., Tankrathok, A. and Svasti, J. (2012) Protein-carbohydrate Interactions Leading to Hydrolysis and Transglycosylation in Plant Glycoside Hydrolase Family 1 Enzymes. *J. Applied Glycoscience* **59**, 51-62.
 131. Weeraphan, C., Srisomsap, C., Chokchaichamnankit, D., Subhasitanont, P., Hatairaktham, S., Charoensakdi, R., Panichkul, N., Siritanaratkul, N., Fucharoen, S., Svasti, J., and Kalpravith, R. (2012) Role of Curcuminoids in Ameliorating Oxidative Modification in β -thalassemia/Hb E Plasma Proteome. *J. Nutr. Biochem.* <http://dx.doi.org/10.1016/j.jnutbio.2012.02.008>
 132. Lirdprapamongkol, K., Chiablaem, K., Sila-Asna, M., Surarit, R., Bunyaratvej, A., and Svasti, J. (2012) Exploring stemness gene expression and vasculogenic mimicry capacity in well- and poorly differentiated hepatocellular carcinoma cell lines. *Biochem. Biophys. Res. Commun.* **422**(3):429-35.
 133. Weeraphan, C., Diskul Na Ayudthaya, P., Chiablaem¹, K., Khongmanee, A., Chokchaichamnankit, D., Subhasitanont, P., Svasti, J. and Srisomsap, C. (2012) Effective enrichment of cholangiocarcinoma secretomes using the hollow fiber bioreactor culture system. *Talanta*. <http://dx.doi.org/10.1016/j.talanta.2012.05.054>.
 134. Charoenwattanasatien, R., Cairns, J.R.K., Keeratichamroen, S., Sawangareetrakul, P., Tanpaiboon, P. Wattanasirichaigoon, D., Pangkanoon, S., Svasti, J., and Champattanachai, V. (2012) Decreasing activities and altered protein processing of human iduronate-2-sulfatase mutations demonstrated by expression in COS7 cells. *Biochem. Genet.* **50**: 990-997.
 135. Phongsak, T., Sucharitakul, J., Svasti, J., Ballou, D.P. and Chaiyen, P. (2012) The C-terminal domain of 4-Hydroxyphenylacetate 3-Hydroxylase from *Acinetobacter Baumannii* is an auto-inhibitory domain. *J. Biol. Chem.* **287**: 26213-26222.
 136. Amornwachirabodee, K., Chiablaem, K., Wacharasindhu, S., Lirdprapamongkol, K., Svasti, J., Vchirawongkwin, V., and Wanichwecharungruang, S.P. (2012) Paclitaxel delivery using carrier made from curcumin derivative: Synergism between carrier and the loaded drug for effective cancer treatment. *J. Pharm. Sci.* DOI: 10.1002/jps.23263
 137. Sakulterdkiat, T., Srisomsap, C., Udomsangpetch, R., Svasti, J. and Lirdprapamongkol, K. (2012) Curcumin Resistance Induced by Hypoxia in HepG2 Cells is Mediated by Multidrug Resistance-Associated Proteins. *Anticancer Research* **12**: 5337-5342.

138. Kaewpiboon, C., Lirdprapamongkol, K., Srisomsap, C., Winayanuwattikun, P., Yongvanich, T., Puwapisirisan, P., *Svasti, J.* and Assavalapsakul, W. (2012) Studies of the in vitro cytotoxic, antioxidant, lipase inhibitory and antimicrobial activities of selected Thai medicinal plants. (2012) *BMC Complementary and Alternative Medicine*. **12**:217. doi:10.1186/1472-6882-12-217.
139. Vatanavicharn, N., Champattanachai, V., Liammongkolkul, S., Sawangareetraku, P., Keeratichamroen, S., Cairns, J.R.K., Srisomsap, C., Sathienkijkanchai, A., Shotelersuk, V., Kamolsilp, M., Wattanasirichaigoon, D., *Svasti, J.*, and Wasant, P. (2012) Clinical and molecular findings in Thai patients with isolated methylmalonic academia. *Molec. Genet. Metab.* **106**: 424-429.
140. Rodbumrer, P., Arthan, D., Uyen, U., Yuvaniyama, J., *Svasti, J.*, and Wongsangchantra, P. (2012) Functional expression of a *Bombyx mori* cocoonase: potential application for silk degumming. *Acta Biochim. Biophys. Sinica* **44**: 974-983.
141. Weeraphan, C., Srisomsap, C., Chokchaichamnankit, D., Subhasitanont, P., Hatairaktham, S., Charoensakdi, R., Panichkul, N., Siritanaratkul, N., Fucharoen, S., *Svasti, J.*, and Kalpravidh, R. (2013) Role of Curcuminoids in Ameliorating Oxidative Modification in β -thalassemia/Hb E Plasma Proteome *J. Nutr. Biochem.* . **24** (3): 578–585.
142. Champattanachai, V., Netsirisawan, P., Chaiyawat, P., Phueaouan, T., Charoenwattanasatien, R., Chokchaichamnankit, D., Punyarit, P., Srisomsap, C. and *Svasti, J.* (2013) Proteomic analysis and abrogated expression of O-GlcNAcylated proteins associated with primary breast cancer. *Proteomics*. DOI: 10.1002/pmic.201200126.
143. Lirdprapamongkol, K Sakurai, H., Abdelhamed, S., Yokoyama, S., Athikomkulchai, S., Viriyaroj, A., Awale, S., Ruchirawat, S., *Svasti, J.*, and Saiki, I. Chrysin overcomes TRAIL resistance of cancer cells through Mcl-1 downregulation by inhibiting STAT3 phosphorylation. *Internat. J. Oncol.* **43**: 329- Doi:10.3892/ijo.2013.1926
144. Khammuang, S., Yuwa-amornpitak, T., *Svasti, J.*, Sarnthima, R. (2013) Copper induction of laccases by *Lentinus polychrous* under liquid-state fermentation. *Biocatalysis and Agric. Biotechnol.* DOI: 10.1016/j.bcab.2013.05.004
145. Chanthammachat, P., Promwikorn, W., Pruegsanusak, K., Roytrakul, S., Srisomsap, C., Chokchaichamnankit, D., *Svasti, J.*, Boonyaphiphat, P., Singkhamanan, K., and Thongsuksai, P., (2013) Comparative proteomic analysis of oral squamous cell carcinoma and adjacent non-tumour tissue from Thailand. *Archives Oral Biology* **58** (11): 1677–1685.
146. Lirdprapamongkol, K., Sakurai, H., Abdelhamed, S. Yokoyama, S., Maruyama, T., Athikomkulchai, S., Viriyaroj, A., Awale, S., Yagita, H., Ruchirawat, S., *Svasti, J.* and Saiki, I. (2013) A flavonoid chrysin suppresses hypoxic survival and metastatic growth of mouse breast cancer cells. *Oncology Reports* **30** (5): 2357-2364. DOI: 10.3892/or.2013.2667.
147. Khongmanee, A., Lirdprapamongkol, A., Tit-oon, P., Chokchaichamnankit, D., *Svasti, J.* and Srisomsap, C. (2013) Proteomic analysis reveals important role of 14–3–3 σ in anoikis resistance of cholangiocarcinoma cells. *Proteomics* **13**: 3157–3166. DOI: 10.1002/pmic.201300219.

148. Phueaouan, T., Chaiyawat, P., Netsirisawan, P., Chokchaichamnankit, D., Punyarit, P., Srisomsap, C., Svasti, J., and Champattanachai, V. (2013) Aberrant O-GlcNAc-modified Proteins Expressed In Primary Colorectal Cancer. *Oncology Reports* **30**: 2929-2936.
149. Chiablaem, K., Lirdprapamongkol, K., Keeratichamroen, S., Surarit, R., and Svasti, J. (2014) Curcumin Suppresses Vasculogenic Mimicry Capacity of Hepatocellular Carcinoma Cells through STAT3 and PI3K/AKT Inhibition. *Anticancer Res* **34** (4): 1857-1864.
150. Raungrut, P., Wongkotsila, A., Lirdprapamongkol, K., Svasti, J., Geater, S.J., Phukaoloun, M., Suwiwat, S. and Thongsuksai, P. (2014) Prognostic Significance of 14-3-3 γ Overexpression in Advanced Non-Small Cell Lung Cancer. *Asian Pac J Cancer Prev*, **15** (8): 3513-3518.
151. Thongpoo, P., Srisomsap, C., Chokchaichamnankit, D., Kitpreechavanichcd, V., Svasti, J. and Kongsaree, P.T. (2014) Purification and characterization of three β -glycosidases exhibiting high glucose tolerance from *Aspergillus niger* ASKU28. *Biosci. Biotechnol. Biochem.* **78** (7):1167-1176.\
152. Tit-oon, P., Chokchaichamnankit, D., Khongmanee, A., Sawangareetrakul, P., Svasti, J. and Srisomsap., C. (2014) Comparative secretome analysis of cholangiocarcinoma cell line in three-dimensional culture *Int. J. Oncol.* **45**: 2108-2116.
153. Chaiyawat, P., Netsirisawan, P., Svasti, J. and Champattanachai, V. (2014) Aberrant O-GlcNAcylated proteins: New perspectives in breast and colorectal cancer. *Frontiers in Endocrinol.* **5**: 193. doi: 10.3389/fendo.2014.00193.
154. Suthangkornkul, R., Sirichaiyakul, P., Sungvornyothin, S., Thepouyporn, A., Svasti, J., and Arthan, D. (2015) Functional Expression and Molecular Characterization of *Culex quinquefasciatus* Salivary α -glucosidase (Mali). *Protein Exp. Purif.* **110**: 145-150.
155. Chutipongtanate, S., Changtong, C., Weeraphan, C., Hongeng, S., Srisomsap, C. and Svasti, J. (2015) Syringe-push membrane absorption as a simple rapid method of urine. *Clinical Proteomics* **12**:15.
156. Netsirisawan, P., Chokchaichamnankit, D., Srisomsap, C., Svasti, J. and Champattanachai, V. (2015) Proteomic analysis reveals extracellular proteins abnormally modified by O-GlcNAcylation from breast cancer cell secretion. *Cancer Genomics and Proteomics.* **12**:201-209.
157. Chaiyawat, P., Chokchaichamnankit, D., Lirdprapamongkol, K., Srisomsap, C., Svasti, J., and Champattanachai, V. (2015) Alteration of O-GlcNAcylation affects serine phosphorylation and regulates gene expression and activity of pyruvate kinase M2 in colorectal cancer cells. *Oncology Reports* **34**: 1933-942.
158. Sawangareetrakul, P., Cairns, J.R.K., Vatanavicharn, N., Liammongkolkul, S., Wasant,, P., Svasti, J. and Champattanachai, V. (2015) Biochemical and Mutational Analysis of Novel Mutations Found in Thai Patients with Isolated Methylmalonic Acidemia: Classification of Defective Subgroups by Methylmalonyl-CoA Mutase Protein Levels from Patient Leukocytes. *Biochem. Genet.* DOI: 10.1007/s10528-015-9694-9

159. Lirdprapamongkol, K., Atjanasuppat, K., Jantaree, P., and Svasti, J. (2015) Non-adherent culture induces paclitaxel resistance in H460 lung cancer cells via ERK-mediated up-regulation of β IVa-tubulin. *Biochem. Biophys. Res. Commun.* **466**: 493-498.
160. Buahorm, S., Puthong, S., Palaga, T., Lirdprapamongkol, K., Phuwapraisirisan, K., Svasti, J. and Chanchao, C. (2015) Cardanol isolated from Thai *Apis mellifera* propolis induces cell cycle arrest and apoptosis of BT-474 breast cancer cells via p21 upregulation. *DARU Journal of Pharmaceutical Sciences* **23**:55. DOI: 10.1186/s40199-015-0138-1.
161. Pramual, S., Assavanig, A., Bergkvist, M., Batt, C.A., Sunintaboon, P., Lirdprapamongkol, K., Svasti, J. and Niamsiri, N. (2016) Development and characterization of bio-derived polyhydroxyalkanoate nanoparticles as a delivery system for hydrophobic photodynamic therapy agents. *J. Materials Sci.: Materials in Medicine.* **27**:40
162. Paricharttanakul, N.M., Saharat, K., Chokchaichamnankit, D., Punyarit, P., Srisomsap, C. and Svasti, J. (2016) Unveiling a novel biomarker panel for diagnosis and classification of well-differentiated thyroid carcinoma. *Oncology Reports* **35**: 2286-2296.
163. Rukkijakana, T., Ngiwsara, L., Lirdprapamongkol, K., Svasti, J., Phetraka, N. and Chuawong, P. (2016) Synthetic 2,3-Diarylindole Induces Cell Death via Apoptosis and Autophagy in A549 Lung Cancer Cells. *Bioorganic & Medicinal Chemistry Letters* **26**:2119-2123 DOI: 10.1016/j.bmcl.2016.03.079.
164. Suthangkornkul, R., Sriworanant, P., Nakai, H., Okayama, M., Svasti, J., Kimura, A., Senapin, S., and Arthan, D. (2016) A *Solanum torvum* GH3 β -glucosidase expressed in *Pichia pastoris* catalyzes the hydrolysis of furostanol glycoside. *Phytochemistry.* **127**: 4-11.
165. Buncherd, H., Roseboom, W., Chokchaichamnankit, D., Sawangareetrakul, P., Phongdara, A., Srisomsap, C., de Jong, L., and Svasti, J. (2016) β -Elimination coupled with strong cation-exchange chromatography for phosphopeptide analysis. *Rapid Commun. Mass Spectrom.*, **30**: 1695–1704. doi: 10.1002/rcm.7606.
166. Seemork, J., Sansureerungsikul, T., Sathornsantikun, K., Sinthusake, T., Shigyou, K., Tree-udom, T., Jiangchareon, B., Chiablaem, K., Lirdprapamongkol, K., Svasti, J., Hamada, T., Wanichwecharungruang, S. (2016) Penetration of oxidized carbon nanospheres through lipid bilayer membrane: Comparison to graphene oxide and oxidized carbon nanotubes, and effects of pH and membrane composition. *ACS Applied Materials & Interfaces.* **8** (36): 23549–23557
167. Chaipayat, P., Weeraphan, C., Netsirisawan, P., Chokchaichamnankit, D., Srisomsap, C., Svasti, J., and Champattanachai, V. (2016) Elevated O-GlcNAcylation of Extracellular Vesicle Proteins Derived From Metastatic Colorectal Cancer Cells. *Cancer Genomics & Proteomics.* **13** (5), pp. 387-398.
168. Jinawath, N., Bunbanjerdasuk, S., Chayanupatkul, M., Ngamphaiboon, N., Asavapanumas, N., Svasti, J. and Charoensawan, V. (2016) Bridging the Gap between Clinicians and Systems Biologists: from Network Biology to Translational Biomedical Research. *J. Translational Med.* **14** (1), 324.

169. Chutipongtanate, S., Chatchen and Svasti, J. (2017) Plasma Prefractionation Methods for Proteomic Analysis and Perspectives in Clinical Applications. *Proteomics: Clinical Applications*. DOI: 10.1002/prca.201600135.
170. Ruangjaroon, T. Chokchaichamnankit, D., Srisomsap, C., Svasti, J. and Paricharttanakul, N.M. (2017) Involvement of vimentin in neurite outgrowth damage induced by fipronil in SH-SY5Y cells. *Biochem. Biophys. Res. Commun.* <http://dx.doi.org/10.1016/j.bbrc.2017.03.081>
171. Jantaree, P., Lirdprapamongkol, K., Kaewsri, W., Thongsornkleeb, C., Choowongkamon, K, Atjanasuppat, K., Ruchirawat, S., and Svasti, J. (2017) Homodimers of vanillin and apocynin decrease metastatic potential of human cancer cells by inhibiting the FAK/PI3K/Akt signaling pathway. *J. Agric. Food Chem.* **65** (11): 2299–2306.
172. Ngiwsara, L., Rojnueangnit, K., Wattanasirichaigoon, D., Timaroon, T., Sawangareetrakul, P., Champattanachai, V., Ketudat-Cairns, J.R. and Svasti, J. (2017) Molecular analysis of the novel *IDS* allele in a Thai family with mucopolysaccharidosis type II: The c.928C>T (p.Gln310*) transcript is sensitive to nonsense-mediated mRNA decay. *J. Exp. Therap. Med.* **13**: 2989-2996.
173. Subhasitanont, P., Chokchaichamnankit, D., Chiablaem, K., Keeratichamroen, S., Ngiwsara, L., Paricharttanakul, N.M., Lirdprapamongkol, K., Weeraphan, C., Svasti, J. and Srisomsap, C. (2017) Apigenin inhibits growth and induces apoptosis in human cholangiocarcinoma cells. *Oncol. Lett.* DOI: 10.3892/ol.2017.6705.
174. Kustiawan, P.M, Lirdprapamongkol, K., Palaga, T., Puthong, S., Phuwapraisirisan, P., Svasti, J. and Chanchao, C. (2017) Molecular mechanism of cardol, isolated from *Trigona incisa* stingless bee propolis, induced apoptosis in the SW620 human colorectal cancer cell line. *BMC Pharmacology and Toxicology* **18** (1), 32.
175. Verathamjamras, C., Weeraphan, C., Chokchaichamnankit, D., Watcharatanyatip, K., Subhasitanont, P., Diskul-Na-Ayudthaya, P., Ming Kwan, K., Luevisadpai, P., Chutipongtanate, S., Champattanachai, V., Svasti, J. and Srisomsap, C. (2017) Secretomic profiling of cells from hollow fiber bioreactor reveals PSMA3 as a potential cholangiocarcinoma biomarker. *Int. J. Oncology.* **51** (1), 269-280
176. Pramual, S., Lirdprapamongkol, K., Svasti, J., Bergkvist, M., Jouan-Hureaux, V., Arnoux, P., Frochet, C., Barberi-Heyob, M., Niamsiri, N. (2017) Polymer-lipid-PEG hybrid nanoparticles as photosensitizer carrier for photodynamic therapy. *J. Photochem. & Photobiol., B.* **173**:12-22.
177. Wongkanya, R., Chuysinuan, P., Pengsuk, C., Techasakul, S., Lirdprapamongkol, K., Svasti, J. and Nooeaid, P. (2017) Electrospinning of alginate/soy protein isolated nanofibers and their release characteristics for biomedical applications. *Journal of Science: Advanced Materials and Devices.* **2** (3); 309-316. <https://doi.org/10.1016/j.jsamd.2017.05.010>
178. Chaiyawat, P., Klangjorhor, J., Settakorn, J., Champattanachai, V., Phanphaisarn, A., Teeyakasem, P., Svasti, J. and Pruksakorn, D. (2017) Activation Status of Receptor Tyrosine Kinases as an Early Predictive Marker of Response to Chemotherapy in Osteosarcoma. *Translational Oncology.* <https://doi.org/10.1016/j.tranon.2017.08.005>

B. *Science Education Articles, Editorials, and Other Articles at International Level*

1. Svasti, J. and Panijpan, B. (1977) SDS-Polyacrylamide Gel Electrophoresis: a simple explanation of why it works. *J. Chem. Ed.* **54**, 560-562.
2. Svasti, J. (1979) What is the Function of LDH Isozymes: doubts concerning validity of aerobic- anaerobic theory. *Trends in Biochem. Sci.* **4**, N133-134.
3. Svasti, J. (1980) Automated Amino Acid Analysis Comes of Age: but textbooks errors persist. *Trends in Biochem. Sci.* **5**, January, VIII- IX.
4. Svasti, J. (1980) A Simple Laboratory Experiment in Biochemistry: The activation and inactivation of sulphhydryl and aspartate proteases. *Biochem. Ed.* **8**, 11-15.
5. Svasti, M.R. J. (1981) Tenth Anniversary of the Federation of Asian and Oceanian Biochemists (FAOB). *J. Sci. Soc. Thailand* **7**, 133-135.
6. Svasti, M.R. J. (1985) A Call for Papers. *J. Sci. Soc. Thailand* **11**, 1-3.
7. Svasti, M.R. J. (1985) Integrity and Judgement in Science. *J. Sci. Soc. Thailand* **11**, 141-145.
8. Svasti, M.R. J. (1986) Scientific Cooperation through Societies, Federations and Unions: some experiences from the biochemical community in Thailand. *J. Sci. Soc. Thailand* **12**, 119-125.
9. Svasti, M.R. J. (1987) Academic Positions and Careers in Science at Thai Universities. *J. Sci. Soc. Thailand* **13**, 63-69.
10. Svasti, M.R. J. (1987) A Theory of Circum-motion. *J. Sci. Soc. Thailand* **13**, 185-188.
11. Svasti, J. (1989) Activation and Inactivation of Sulphydryl and Aspartate Proteases. In *Practical Biochemistry for Colleges* (Wood, E.J., ed.), Pergammon Press, Oxford, pp. 9-11.
12. Svasti, J. and Surarit, R. (1991) Biochemical Education in Thailand: Past, Present and Future. *Biochem. Educ.* **19**, 129-135.
13. Svasti, J. and Surarit, R. (1992) A Survey of Introductory Biochemistry Courses at Thai Universities. *Biochem. Educ.* **20**, 204-209
14. Svasti, J. (1992) Federation of Asian and Oceanian Biochemists: where now after twenty years. *Trends in Biochem. Sci.* **17**, 53- 55.
15. Surarit, R., Benjavongkulchai, E. and Svasti, J. (1994) A Laboratory Experiment Illustrating Tooth Decay. *Biochem. Educ.* **22**, 45-47.
16. Svasti, M.R.J. (2001) *ScienceAsia* and Its Role in Enhancing a Research Culture in Thailand. *ScienceAsia* **27**, 73-74.
17. Svasti, J. (2001) Bioscience and Its Impact on Developing Countries: a Thai Perspective. *EMBO Rep.* **2**, 648-650.
18. Svasti, M.R.J. (2005) Thirty Years of *ScienceAsia*, *Journal of the Science Society of Thailand*. *ScienceAsia* **31**, 1-3.
19. Svasti, J. (2005) My Experience as an IUB Travel Fellow. *IUBMB Life* **57**, 255.
20. Svasti, J. and Sawyer, W.H. (2006) FAOBMB Inc.: a Brief History. *IUBMB Life* **58**, 280 – 282.

21. Svasti, M.R. J. and Asavisanu, R. (2006) Update on Thai Publications in ISI Databases (1999-2005). *ScienceAsia* **32**, 101-106.
22. Svasti, M.R. J. and Asavisanu, R. (2006) Don't Forget the Name of Your University and How It Is Spelt: another look at ISI databases. *ScienceAsia* **32**, 207-213.
23. Svasti, M.R. J. (2006) Teaching and Research: opposite faces of the same coin? *ScienceAsia* **32**, 333-335.
24. Svasti, M.R. J. and Asavisanu, R. (2007) Aspects of Quality in Academic Journals: A Consideration of the Journals Published in Thailand. *ScienceAsia* **33**, 137-143.
25. Svasti, M.R. J. (2007) Graduate Training, Research and Excellence: a view from Mahidol University. *ScienceAsia* **33**, 253-256.
26. Svasti, M.R. J. (2007) Networking and Research Collaboration: Some Personal Experiences. *ScienceAsia* **33 Supplement 1**, 19-25.
27. Svasti, J. (2009) How I Became a Biochemist: what biochemistry has done for me. *IUBMB Life*. **61**(4): 476-478.
28. Ketudat Cairns, J.R.K., Champattanachai, V., Srisomsap, C., Paricharttanakul, N.M., Verathamjamras, C., Lirdprapamongkol, K. and Svasti, J. (2017) Conference report: the 5th Asia Pacific Protein Association Conference joint meeting with the 12th International Symposium of the Protein Society of Thailand. *Biophys. Rev.* <https://doi.org/10.1007/s12551-017-0318-y>

C. *Proceedings of International Conferences*

1. Milstein, C. and Svasti, J. (1971) Expansion and Contraction in the Evolution of the Immunoglobulin Gene Pools. *Progress in Immunology*, vol.1 (B. Amos, ed.), pp. 33-45, Academic Press, New York and London.
2. Svasti, J. and Viriyachai, S. (1975) The Properties of Purified LDH-C4 from Human Testis. *Isozymes*, vol. 2, *Physiological Function* (Markert, C.L., ed.), pp. 113-127, Academic Press, N.Y. & London.
3. Svasti, J., Kurosky, A., Bennett, A., Surarit, R. and Bowman, B.H. (1979) Structure and Properties of Human Plasma Vitamin D Transport Protein (Group-Specific Component). *Vitamin D: Basic Research and its Clinical Applications* (Norman, A.W. et al., eds.), pp. 149-152, Walter de Gruyter and Co., Berlin.
4. Surarit, R. and Svasti, J. (1982) Human Vitamin D Binding Protein: conformation and structure. *Vitamin D, Chemical, Biochemical and Clinical Endocrinology of Calcium Metabolism* (A.W. Norman et al, eds), pp. 1187-1190, Walter de Gruyter and Co., Berlin & New York.
5. Svasti, J., Anguravirutt, S. and Toowicharanont, P. (1984) The Application of Affinity Chromatography in the Isolation of Proteins and Enzymes Specific for Male Germ Cells. *Proceedings, Third Symposium of the Federation of Asian and Oceanian Biochemists, Bali, Indonesia* (Moeljohardo, D.S., ed.), pp.32-38.
6. Tanphaichitr, N., Siwarungson, N., Chalermisrachai, P. and Svasti, J. (1984) Nuclease Digestion of Rat Testis Nuclei with TH1 and TH2B. *Proceedings, Third Symposium of the Federation of Asian and Oceanian Biochemists, Bali, Indonesia* (Moeljohardjo, D.S., ed.), pp. 59-68.

7. Svasti, J. (1986) Analysis of Amino Acid Sequence. In *Application of Genetic Engineering on Tropical Disease Pathogens with Special Reference to Plasmodia: a laboratory manual of selected techniques* (S. Panyim, P. Wilairat and Y. Yuthavong, eds.), UNDP/World Bank/ WHO TDR, pp. 247-259.
8. Manavanich, C., Anguravirutt, S. and Svasti, J. (1986) Effect of Gossypol on Lactate Dehydrogenase Isozymes of the Rat. In *Contemporary Themes in Biochemistry* (Kon, O.L. et al., ed.), ICSU Short Reports Vol. 6, Cambridge University Press, p. 304-305.
9. Boontrakulpoontawee, P., Yongsuwan, S., Svasti, J., Winichagoon, P. and Fucharoen, S. (1986) Characterisation of Hemoglobin Variants in Thailand. In *Contemporary Themes in Biochemistry* (Kon, O.L. et al., ed.), ICSU Short Reports Vol. 6, Cambridge University Press, pp. 606- 607.
10. Boontrakulpoontawee, P., Svasti, J., Fucharoen, S. and Winichagoon, P. (1988) Double Heterozygosity for HbE and a Lepore-type Hemoglobin in a Thai Woman. *Thalassemia: Pathophysiology and Management Part A* (Fucharoen, S., Rowley, P.T. and Paul, N.W., eds.), Alan R. Liss, Inc., New York, pp. 269-274.
11. Svasti, J. (1989) Activation and Inactivation of Sulphydryl and Aspartate Proteases. In *Practical Biochemistry for Colleges* (Wood, E.J., ed.), Pergamon Press, Oxford, pp. 9-11.
12. Surarit, R. Svasti, M.R. J., Srisomsap, C., Suginta, W., Khunyoshyeng, S., Nilwarangkoon, S., Harnsakul, P. and Benjavongkulchai, E. (1995) Possible Use of Glycosidase Enzymes from Thai Plant Seeds for Oligosaccharide Synthesis. *Biopolymers and Bioproducts: structure, function and applications* (Svasti, J. et al., eds.), Samakkhisan Public Co. Ltd., Bangkok., pp. 251-255.
13. Suginta, W., and Svasti, J. (1995) β -Galactosidase from Thai Jute: purification and characterization. In *Biopolymers and Bioproducts: structure, function and applications* (Svasti, J. et al., eds.), Samakkhisan Public Co. Ltd., Bangkok, pp. 256-260.
14. Khunyoshyeng, S., Srisomsap, C., Champattana-chai, V., Boonpuan, K., Sawangareetrakul, P., Surarit, R. and Svasti, M.R.J. (1995) Purification and Properties of β -D-Glucosidase/ β -D-Fucosidase from *Dalbergia cochinchinensis* Pierre. In *Biopolymers and Bioproducts: structure, function and applications* (Svasti, J. et al., eds.), Samakkhisan Public Co. Ltd., Bangkok, pp. 246-250.
15. Srisomsap, C., Khunyosheyeng, S., Surarit, R. and Svasti, M.R.J. (1995) Studies of Oligosaccharide Synthesis by Enzymes from *Dalbergia cochinchinensis* Pierre. In *Biopolymers and Bioproducts: structure, function and applications* (Svasti, J. et al., eds.), Samakkhisan Public Co. Ltd., Bangkok, 241-245.
16. Benjavongkulchai, E., Surarit, R., Bucke, C., and Svasti, M.R. J. (1995) Glucosyl Acceptors of Dextranucrase from *Streptococcus mutans*. In *Biopolymers and Bioproducts: structure, function and applications* (Svasti, J. et al., eds.), Samakkhisan Public Co. Ltd., Bangkok, 230-234.
17. Siriboon, W., Svasti, M.R.J., Srisomsap, C., Winichagoon, P. and Fucharoen, S. (1995) Discovery of a New Hemoglobin C Mutation in Thailand. In *Biopolymers and Bioproducts: structure, function and applications* (Svasti, J. et al., eds.), Samakkhisan Public Co. Ltd., Bangkok, pp. 159-163.

18. Svasti, J., Srisomsap, C., Siriboon, W., Fucharoen, S., Winichagoon, P., Pravatmuang, P. and Surarit, R. (1993) The Structure of Abnormal Hemoglobins in Thailand. *Recent Advances in Molecular and Biochemical Research on Proteins* (Wei, Y.-H., Chen, C.-S. and Su, J.-C., eds), World Scientific Press, Singapore, pp. 197-200.
19. Svasti, J. and Surarit, R. (1994) Biochemical Education and Curricula in Thailand. *Chemistry in Transition: Proceedings, 12th International Conference on Chemical Education*, pp. 84-88, Bangkok, Thailand.
20. Svasti, J., Srisomsap, C., Surarit, R., Benjavongkulchai, E., Suginta, W., Khunyoshyeng, S., Champattanachai, V., Nilwarangkoon, S. and Rungvirayudx, S. (1996) Potential Applications of Plant Glycohydrolases for Oligosaccharide Synthesis. In *Protein Structure-Function Relationship* (Zaidi, Z.H. and Smith, D.L., eds.), Plenum Press, pp. 249-257.
21. Svasti, M.R. J., Srisomsap, C., Surarit, R. and Benjavongkulchai, E. (1996) Oligosaccharide Synthesis by Reversal of Plant Glycosidases from Thailand. In *Proceedings, Second Thai-French Symposium on Plant Molecular Biology*, Bordeaux, France, 6-10 October 1996, pp. 160-171.
22. Svasti, M.R. J., Srisomsap, C., Surarit, R., Champattanachai, V., Boonpuan, K., Sawangareetrakul, P., Subhasitanont, P. and Chokchaichamnankit, D. (1997) Purification and Properties of Thai Rosewood β -Glucosidase/ β -Fucosidase. In *Proceedings, Conference on Biotechnology Research and Applications for Sustainable Development* (Mongkolsuk, S., Loprasert, S. and Srifah, P., eds.), Bangkok, Thailand, pp. 1-7.
23. Wongwithoonyaporn, P., Perry, D., Surarit, R., Bucke, C. and Svasti, M.R. J. (1997) Oligosaccharide Synthesis by α -D-Mannosidases from Thai Beans. In *Proceedings, Conference on Biotechnology Research and Applications for Sustainable Development* (Mongkolsuk, S., Loprasert, S. and Srifah, P., eds.), Bangkok, Thailand, pp. 9-15.
24. Svasti, M.R.J., Srisomsap, C., Surarit, R., Techasakul, S. and Ketudat-Cairns, J. (1998) Characterization of a Novel Rotenoid- β -Glucosidase Enzyme and its Natural Substrate from Thai Rosewood. *Proceedings, International Conference on Biodiversity and Bioresources Conservation and Utilization*. [http:// www.iupac.org/symposium/proceedings/phuket97/svasti.html](http://www.iupac.org/symposium/proceedings/phuket97/svasti.html)
25. Svasti, J., Srisomsap, C., Winichagoon, P. and Fucharoen, F. (1999) Detection and Structural Analysis of Abnormal Hemoglobins Found in Thailand. *Southeast Asian J. Trop. Med. Pub. Health* **Vol 30, Suppl. 2**, 88-93.
26. Wasant, P., Svasti, J., Srisomsap, C., Liammongkol, S., Naylor, E., and Matsumoto, I. (1999) Inherited Metabolic Disorder in Thailand – Siriraj Experience. *Southeast Asian J. Trop. Med. Pub. Health* **Vol 30, Suppl. 2**, 124-137.
27. Surarit, R., Srisomsap, C., Wasant, P., Svasti, J., Suthatvoravut, S., Chokchaichamnankit, D. and Liammongkolkul, S. (1999) Plasma Amino Acid Analyses in Two Cases of Maple Syrup Urine Disease. *Southeast Asian J. Trop. Med. Pub. Health* **Vol 30, Suppl. 2**, 138-139.
28. Srisomsap, C., Wasant, P., Svasti, M.R. J., Chokchaichamnankit, D. and Liammongkolkul, S. (1999) Plasma Amino Acid and Urine Organic Acid Analyses

- of Methylmalonic Acidemia In A Thai Infant. *Southeast Asian J. Trop. Med. Pub. Health* **Vol 30, Suppl. 2**, 140-142.
29. Wasant, P., Svasti, J., Srisomsap, C., Liammongkolkul, S., and Ratanarak, P., (2002) Inherited Metabolic Disorders in Thailand. *J. Med. Assoc. Thailand* **85, Suppl 2**, S700-9.
 30. Wasant, P., Srisomsap, C., Liammongkolkul, S. and Svasti, J. (2002) Urea cycle disorders in Thai infants: a report of 5 cases. *J. Med. Assoc. Thailand* **85, Suppl 2**, S720-31.
 31. Pangkanon, S., Ratisawadi, V., Charoensiriwatana, W., Techasena, W., Boonpuan, K., Srisomsap, C., Svasti, J. (2003) Phenylketonuria detected by the neonatal screening program in Thailand. *Southeast Asian J Trop Med Public Health*, **34, Suppl 3**, 179-81.
 32. Chaiyen, P., Suadee, C., Thotsaporn, K. & Svasti, M.R. J. (2002) Studies of the Two-Component *p*-Hydroxyphenylacetate Hydroxylase from *Acinetobacter baumannii*, in *Flavins & Flavoproteins*, (Eds: Chapman, S., Perham, R., and Scrutton, N.), Rudolf Weber, Berlin, 975-980.
 33. Svasti, J., Ketudat-Cairns, J., Srisomsap, C., Surarit, R., Techasakul, S., and Toonkool, P. (2004) Structure and Properties of Beta-Glucosidases From Thai Plants. From *Proceedings of the 7th International Symposium on "Protein Structure - Function Relationship"*, A. Abbasi and S.A. Ali (eds), Karachi, Pakistan, 20-24th January, 2003, pp. 221-240.

D. Articles in Thai or in Thai Journals

1. Svasti, M.R. J. (1985) Principles of Biochemical Separation. In *Proceedings, Workshop on "The Separation of Biochemical Compounds"*, pp. 1-17, Srinakarintrvirot University, Bangkok. In Thai.
2. Svasti, M.R. J. (1985) Strategies in the Separation of Biochemical Compounds. In *Proceedings, Workshop on "The Separation of Biochemical Compounds"*, pp.113-126, Srinakarintrvirot University, Bangkok. In Thai.
3. Svasti, M.R. J. and Boontrakulpoontawee, P. (1985) Abnormal Hemoglobins. *Science Magazine*, **39**, 491-501. In Thai.
4. Svasti, M.R. J. (1986) Enzymes Used in the Cutting and Joining of DNA. *Proceedings, Workshop on "Basic Techniques in Genetic Engineering"*, pp. 65-80, Khon Khaen University. In Thai.
5. Svasti, M.R. J. (1987) The Properties of Enzymes. In *Proceedings, Workshop on "Enzymes and Their Applications"*, pp. 1-28, Mahidol University, Bangkok. In Thai.
6. Svasti, M.R. J. (1988) The Properties and Mechanism of Action of Enzymes. *Science Magazine* **41**, 333-340. In Thai.
7. Svasti, M.R. J. (1989) Improved Quality of Life for the Mentally Retarded. *J. Pediat. Soc. Thailand* **28**, 993-998.

8. Svasti, M.R. J. (1990) The Teaching of Biochemistry in Thailand. In *Proceedings, Workshop on "More Efficient Teaching of Biochemistry"*, pp. 1-16, Sukhothai Thammatiraj University, Bangkok
9. Svasti, J. and Surarit, R. (1992) Survey of the Content of Biochemistry Courses Presently Being Taught at Tertiary Level. In *Proceedings, Workshop on "Strategies for Developing Curriculum and Teaching in Biochemistry"*, pp. 36-58, Srinakarintrwirot University Prasarnmitr, Bangkok. In Thai.
10. Surarit, R. and Svasti, J. (1994) Enzymes in Daily Life. *Sukhothai Thammatiraj Open University Journal*. **7**, 38-44. In Thai.
11. Svasti, M.R.J. (1996) To Be or Not To Be: That is the Question. *Mahidol Univ. J.* **3**, 151-152.
12. Svasti, M.R. J. (1998) International Relations at Mahidol University. *Mahidol Univ. J.* **5**, 77-83.
13. Svasti, M.R. J. (2005) Science is Fun: Enjoy It. *Chiangmai J. Science* **32**, 77-79.

D. Textbook & Book Chapter and Guidebook

1. Svasti, M.R. J. (1978) in *Laboratory Experiments and Basic Concepts in Biochemistry* (Rungruangsak, K. and Svasti, M.R. J., eds.), Amarin Press, Bangkok. In Thai.
 - Chapter 1: Composition and Functions of Cells (pp. 1-17)
 - Chapter 6: Amino Acids and Proteins (pp. 172-223)
 - Chapter 7: Enzymes (pp. 224-269)
2. Svasti, M.R. J. (1987) in *Biochemistry, 2530*, Third Revised Edition (Chulavatnatol, M., ed.), Sor Sor Ltd., Bangkok. In Thai.
 - Chapter 6: Amino Acids and Proteins (pp. 107-145)
 - Chapter 7: Enzymes and Biochemical Reactions (pp. 147-174)
 - Chapter 8: Assembly of Biomolecules (pp. 175-188)
3. Svasti, M.R. J. (1999) in *Biochemistry, 2542*, Fourth Revised Edition (Chulavatnatol, M., and Komaratat, P., eds.), ISBN 974-86639-8-1, Jirrus Printing Ltd, Bangkok.
 - Chapter 6: Amino Acids and Proteins (pp. 89-123)
 - Chapter 7: Enzymes and Biochemical Reactions (pp. 125-150)
 - Chapter 8: Assembly of Biomolecules (pp. 151-161)
4. Svasti, M.R.J., Suwanchinda, B. and Phruthonkul, S. (eds.) (1999) Guidebook for Speech Writing. ISBN 974-663-059-8.
5. Lirdprapamongkol, K., Svasti, J., Sakurai, H. and Saiki, I. (2008) Anticancer Effects of Vanillin. In *Beer in Health and Disease Prevention* (Preedy, V., ed.), chapter 24, pp. 260-270. Published on-line at <http://beerinhealthanddisease.com>, retrieved 18 November 2008