



**MAHIDOL
UNIVERSITY**
Wisdom of the Land

Annual Report 2010



Institute of Molecular Biosciences
Mahidol University



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Preface

For the Institute of Molecular Biosciences, as well as for most other research institutes in Thailand, 2010 was not an easy year due to the reduction of national research budget, partly because of the economic crisis. Accordingly, 2010 research output of the institute as measured by the number of annual publications significantly dropped. Despite the difficulty, the institute and its researchers have continued to put their best effort to keep up with the global research community. Although there have been some signs at the national level for some increase in research budget in the near future, it is loud and clear that this will come along with more stringent rules, regulations, and demands for immediate and tangible outputs. In a time like this, we should turn the challenge into opportunity to rethink our strategy in order to survive and excel. Reorganization of research groups in the institute during the last two years was part of our strategic processes, which will drive the institute toward research excellence. On the other hand, 2010 can be viewed as a fruitful year for the institute, as a number of its members have received various awards and honors at the national level, and the institute itself was evaluated in the top tier category in the field of biotechnology by the Thailand Research Fund.

Prof. Prasert Auewarakul, M.D., Dr.med.
Director

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History

The Institute of Molecular Biosciences (MB) was established in 2009, by combining the strengths and facilities of the Institute of Science and Technology for Research and Development, and the Institute of Molecular Biology and Genetics. The mission of the new institute is to be a first-rate research center in molecular biosciences, as well as a hub for multi-disciplinary networking and collaboration. Research activities at the Institute of Molecular Biosciences cover both the basic and applied research in areas of high priority for the public health and the economy of Thailand. The research activities are extensive, conducted by 56 principle investigators, producing around 100 international publications each year. On-going research areas include thalassemia, dengue vaccine development and molecular biology of dengue virus, neuroscience and behavioral biology, conservation biology, microbial genetics, plant molecular biology, molecular biology of aquatic animals, structural biology, biopolymers, and biomedical instrument research and development.

In addition, the Institute also offers high quality postgraduate education and training in the areas of Molecular Genetics-Genetic Engineering, Neuroscience, and Biomedical Instrumentation.

Vision

A world class research institute in molecular biosciences, with locally relevant research.

Missions

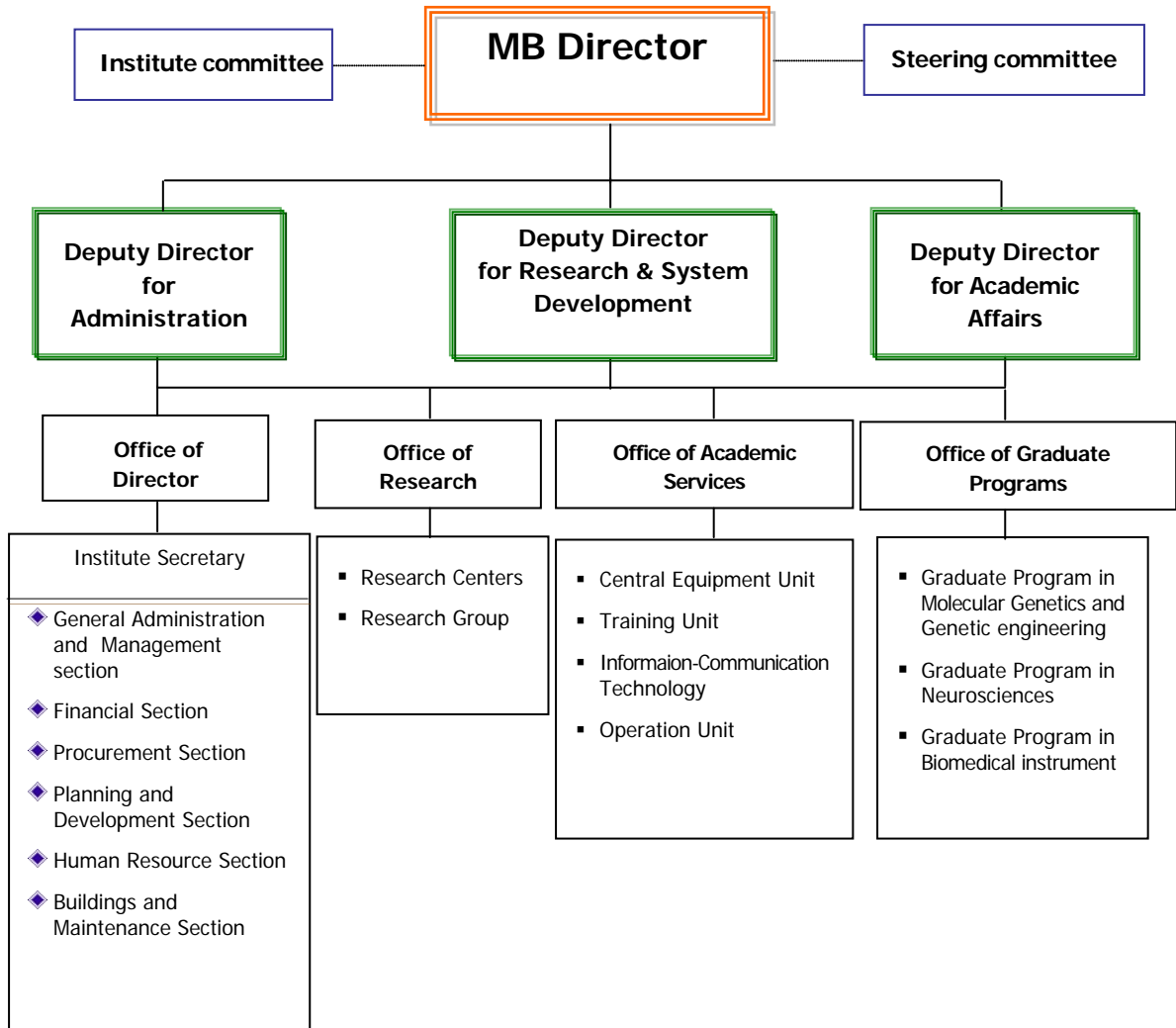
Our mission is to conduct research with realistic impact to the advancement of science, especially in the areas of high priority for the country, and to produce human resource in sciences with integrity.

Objectives

- To promote research and academic excellence in Molecular Biosciences at an international level.
- To provide high quality research training and academic services for the Thai and global community.



Organization Chart





Steering Committee

1. President of Mahidol University	Advisor
2. Professor Amaret Bhumiratana	Chairman
3. Professor Emeritus Prawase Wasi	Member
4. Professor Vicharn Panich	Member
5. Professor Emeritus Yongyuth Yuthavong	Member
6. Professor Emeritus Sakol Panyim	Member
7. Professor Emeritus Prapon Wilairat	Member
8. Professor M.R. Jisnuson Svasti	Member
9. Professor Vichai Boonsaeng	Member
10. Professor Suthat Fucharoen	Member
11. Professor Vichai Reutrakul	Member
12. Professor Boonsong Ongphiphadhanakul	Member
13. Associate Professor Prasit Palittapongarnpim	Member
14. Professor Sansanee Chaiyaraj	Member
15. Dr. Prida Malasit	Member
16. Professor Prasert Auewarakul	Secretary

International Advisory Committee

1. President of Mahidol University	Advisor
2. Professor Amaret Bhumiratana	Chairman
3. Professor Aaron Ciechanover	Member
4. Professor Harald Zur Hausen	Member
5. Professor Bert Sakman	Member
6. Professor Ram Sasisekharan	Member
7. Professor Prasert Auewarakul	Secretary



Institute Committee

- | | |
|---|-----------|
| 1. Professor Prasert Auewarakul | Chairman |
| 2. Dr. Pranee Fucharoen | Member |
| 3. Associate Professor Chartchai Krittanai | Member |
| 4. Associate Professor Varaporn Akkarapatumwong | Member |
| 5. Professor Piyarat Govitrapong | Member |
| 6. Associate Professor Apinunt Udomkit | Member |
| 7. Associate Professor Sutee Yoksan | Member |
| 8. Associate Professor Naiphinich Kotchabhakdi | Member |
| 9. Assistant Professor Witoon Tirasophon | Member |
| 10. Assistant Professor Kulnasan Saikhun | Member |
| 11. Dr. Nuananong Jirakanjanakit | Member |
| 12. Mrs. Supranee Sukkamonsantiporn | Member |
| 13. Ms. Suwanna Sansuntornthep | Secretary |

Number of Staff and Personnel

Staff	Civil Servant	University Employee	Total
Academic & Research			
• Professor	1	2	3
• Associate Professor	5	5	10
• Assistant Professor	6	9	15
• Lecturer	3	15	18
• Researcher	-	10	10
Supporting Staff			
• Research support	21	17	38
• Administration / Services	35	36	71
Total	71	94	165



Administration



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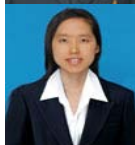
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Yupin Seepan	
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Pensri Hongthong	



Annual Budget and Funding

Sources	Baht
1.Thai Government	
Institute Budget	69,792,184.28
Institute Revenue	11,233,000.00
Total (1)	81,025,184.28
2. Research Grant	
University Budget	7,050,000.00
University Revenue	600,000.00
Institute Revenue	420,000.00
Thai Government	27,567,650.00
Total (2)	35,637,650.00
Grand Total (1+2)	116,662,834.28



AREAS OF RESEARCH EXCELLENCE

The Institute of Molecular Biosciences is highly recognized for its research excellence. The Institute was ranked first in research output among Thailand higher education institutions in Science and Technology in the most recent evaluation in 2009 by the Thailand Research Fund. The main areas of research at the Institute of Molecular Biosciences are:

Thalassemia Research

The research covers studies varying in depth and scope from clinical to molecular levels, which includes research in genome-wide search for genetic modifiers determining heterogeneity of disease severity, novel treatments by gene therapy and oral iron chelation, and searching for drugs that can stimulate hemoglobin F synthesis in order to improve patients' quality of life. Various researchers have joined together to establish a network with researchers of other institutes at both the local and international levels. The Asian Thalassemia Network was established to foster collaboration with neighboring countries towards the prevention and control of thalassemia in the region.

Vaccine Development

Vaccine development is one of the priorities of the Institute of Molecular Biosciences. For over 20 years, research and development of vaccines for Dengue and Japanese encephalitis virus have been the two main activities carried out at the Center for Vaccine Development. The Center is recognized as a Reference Laboratory on Dengue Diagnostics by World Health Organization and it is used as a laboratory base for flavivirus vaccine evaluation by many partners worldwide.

The Institute is working towards a safe and effective live-attenuated vaccine against dengue hemorrhagic fever. A tetravalent live-attenuated vaccine candidate with excellent preclinical profile has been developed and is being prepared for phase 1 clinical trial. In addition, new and improved Japanese encephalitis live and inactivated vaccines are being developed with promising outcomes.

Neuroscience and Behavioral Biology

Research in Neuroscience and Behavioral Biology employs the "Multi-omic" approaches to the understanding of the organization and function of the brain and the nervous system, i.e. from genes to proteins, to neurons and glia cells, to local neural circuits, to neural pathways - systems and behavior in both health and diseases. An international and local collaborative research network in this area is attempting to develop specific neural stem cell lines for the treatment of neuro-degenerative and neuro-developmental disorders, e.g. CVA-stroke, spinal cord injuries, Parkinson's and Alzheimer's diseases, cerebral palsy and Autistic Spectrum Disorders. Other on-going longitudinal research projects include various studies on the treatment of substance



and drug abuses, the molecular biology of the pineal gland and beneficial effects of the hormone melatonin, the molecular mechanisms of neuronal signaling, early gene expression and the programmed cell death in neuro-degenerative diseases, the comparative neurobiology of the cerebellum and the control of movements, the neurobiology of sleep and sleep disorders, effects of stress on the neural control of cardiac functions, neural mechanisms of learning–memory and brain-based learning; and neuro-imaging and neuro-informatics.

Stem Cell Biology and Reproductive Sciences

The research focuses on the establishment of embryonic and adult stem cells in both human and animal models. Stem cells are loaded into scaffolds for tissue engineering and differentiation to various specific cells for the treatment of human diseases. Research activities also focus on assisted reproductive biotechnologies (ART) including *in vitro* fertilization and embryo transfer (IVF-ET), sperm and embryo sexing, gametes and embryo cryopreservation and nuclear transfer. ARTs are used to increase the weight of economically valuable animals such as cattle and also for the conservation of endangered species, such as elephant, Eld's deer and serow.

Biomedical Instrument Research and Development

This center plays a distinct role in research and development of medical equipments such as Infant Incubator, Radiant Warmer, Phototherapy, TENS, Hydrocollator, Paraffin Bath, and ECG Simulator. These equipments have been distributed to both the public and the private hospitals. Moreover, the center can also design other medical instruments per order as well. Thus, the graduate curriculum and short training courses are conducted whose focus are on the medical equipment operation, management, design and construction, repair and maintenance.

Polymer Technology

The research focuses on pressurized-tennis ball with improved air retention, utilization of rubber waste derived from tennis ball production process as a filler for natural rubber, mechanical properties of natural rubber vulcanizates filled with carbon black and non-reinforcing fillers or semi-reinforcing fillers and effective analysis of blooming on rubber surface

Molecular Biology and Genetics

Research in Molecular Biology and Genetics can be classified into five main research areas:

Molecular Biology of Cyanobacteria: This research focuses on both basic and applied aspects of cyanobacteria (blue green algae). The goals for basic research are to elucidate the structure-function relationships of cyanobacterial regulatory sequences, in order to improve heterologous gene expression in cyanobacteria. The goals for applied research include the use of recombinant cyanobacteria as biocatalysts for biodegradation of organophosphate pesticides and as hosts for producing biofuel.



Molecular Biology of Plants: The main research involves the genetic mapping and molecular isolation of economically important traits in cassava (*Manihot esculenta* Crantz) using molecular markers and associated techniques. This work will lead to a better understanding of the genetic basis of biological diversity and be useful for plant breeding programs for cassava.

Molecular Biology of Aquatic Animals: This research focuses on the reproduction biology of the shrimp and the prevention of viral diseases in shrimp. Recently, the RNA interference (RNAi) technology has been explored and successfully demonstrated to control or knock down specific genes in shrimp. The development of this effective technology is now being extensively examined for potential application in shrimp farming.

Medical Molecular Biology: Research activities in this area focus mainly on a number of diseases that have significant impact on global health, including dengue hemorrhagic fever. Research is aimed at investigating the methods by which the dengue virus enters into cells, how the virus is propagated within the cells, and the cellular consequences of viral infection. Other research areas include distal renal tubular acidosis, a kidney disease which is a public health problem in the northeastern population of Thailand, and structure/function studies of major allergens of house mite (HDM) that cause allergic reactions in the Thai population.

Structural Biology: Research in structural biology emphasizes the structure and function relationship of mosquito-larvicidal proteins from *Bacillus thuringiensis* and *Bacillus sphaericus*. Using several approaches, we want to obtain a better understanding of the insecticidal function, their synergistic interaction and also to facilitate the improvements of toxin activity. In addition, the structural biology and functional characterization of two enzymes, glutathione S-transferases (GST) and NS3-NS2B protease, associated with the dengue virus, are also being examined. While GST plays a central role in the detoxification linked to pesticide resistance in mosquitoes, the dengue protease is a target for drug and viral inhibitor designs.

Research Output

Summary of the research output for the year 2010

International Publication	International Presentation	National Presentation	No. of PI*	Paper/PI
74	62	81	56	1.32

* PI = Principal Investigator



List of International Publications in 2010

No.	Authors	Title	Journal	Volume/ Issue/ Year/Pages	Impact Factor 2009
1	Thamwiriyasati N, Powthongchin B, Kittiworakarn J, Katzenmeier G, Angsuthanasombat C.	Esterase activity of <i>Bordetella pertussis</i> CyaC-acyltransferase against synthetic substrates: implications for catalytic mechanism <i>in</i> <i>vivo</i>	FEMS Microbiology Letters	Volume 304, Issue 2, Mar 2010, Pages 183-190.	2.199
2	Fugthong A, Boonyapakron K, Sornlek W, Tanapongpipat S, Eurwilaichitr L, Pootanakit K.	Biochemical characterization and <i>in</i> <i>vitro</i> digestibility assay of <i>Eupenicillium</i> <i>parvum</i> (BCC17694) phytase expressed in <i>Pichia pastoris</i>	Protein Expression and Purification	Volume 70, Issue 1, Mar 2010, Pages 60-67.	1.563
3	Suwanjang W, Phansuwan-Pujito P, Govitrapong P, Chetsawang B.	The protective effect of melatonin on methamphetamine- induced calpain- dependent death pathway in human neuroblastoma SH- SY5Y cultured cells	Journal of Pineal Research	Volume 48, Issue 2, Mar 2010, Pages 94-101.	5.209
4	Afadlal S, Polaboon N, Surakul P, Govitrapong P, Jutapakdeegul N.	Prenatal stress alters presynaptic marker proteins in the hippocampus of rat pups	Neuroscience Letters	Volume 470, Issue 1, 5 Feb 2010, Pages 24-27.	1.925
5	Singkhamanan K, Promdonkoy B, Chaisri U, Boonserm P.	Identification of amino acids required for receptor binding and toxicity of the <i>Bacillus</i> <i>sphaericus</i> binary toxin	FEMS Microbiology Letters	Volume 303, Issue 1, 1 Feb 2010, Pages 84-91.	2.199
6	Jutapakdeegul N, Afadal S, Polaboon N, Phansuwan-Pujito P, Govitrapong P.	Repeated restraint stress and corticosterone injections during late pregnancy alter GAP- 43 expression in the hippocampus and prefrontal cortex of rat pups	International Journal of Developmental Neuroscience	Volume 28, Issue 1, Feb 2010, Pages 83-90.	2.025



No.	Authors	Title	Journal	Volume/ Issue/ Year/Pages	Impact Factor 2009
7	Pulmanusahakul R, Khakpoor A, Smith D.R.	The development of flavivirus vaccines	African Journal of Biotechnology	Volume 9, Issue 4, 25 Jan 2010, Pages 409-415.	0.565
8	Bienvenu F., Jirawatnotai S, Elias J.E., MeyerC.A., Mizeracka K, Marson A, Frampton G.M., Cole MF, Odom DT, Odajima J, Geng Y, Zagozdzon A , Jecrois M, Young RA, Liu XS, Cepko CL, Gygi SP , Sicinski P.	Transcriptional role of cyclin D1 in development revealed by a genetic- proteomic screen	Nature	Volume 463, Issue 7279, 21 Jan 2010, Pages 374- 378.	34.480
9	Sopalum K, Thammasiri K, Ishikawa K.	Micropropagation of the Thai orchid Grammatophyllum speciosum blume	Plant Cell, Tissue and Organ Culture	Volume 101, Issue 2, Mar 2010, Pages 143-150.	1.271
10	Govitrapong P, Boontem P, Kooncumchoo P, Pinweha S, Namyen J, Sanvarinda Y, Vatanatunyakum S.	Increased blood oxidative stress in amphetamine users	Addiction Biology	Volume 15, Issue 1, Jan 2010, Pages 100-102.	4.728
11	Ittiprasert W, Miller A, Myers J, Nene V, El-Sayed N.M, Knight M.	Identification of immediate response genes dominantly expressed in juvenile resistant and susceptible Biomphalaria glabrata snails upon exposure to Schistosoma mansoni	Molecular and Biochemical Parasitology	Volume 169, Issue 1, Jan 2010, Pages 27-39.	2.939
12	Thongtan T, Cheepsunthorn P, Chaiworakul V, Rattananungsan C, Wikan N, Smith D.R.	Highly permissive infection of microglial cells by Japanese encephalitis virus: a possible role as a viral reservoir	Microbes and Infection	Volume 12, Issue 1, Jan 2010, Pages 37-45.	2.757
13	Toskulkao T, Pornchai R, Akkarapatumwong V, Vatanatunyakum S, Govitrapong P.	Alteration of lymphocyte opioid receptors in methadone maintenance subjects	Neurochemistry International	Volume 56, Issue 2, Jan 2010, Pages 285-290.	3.541



No.	Authors	Title	Journal	Volume/ Issue/ Year/Pages	Impact Factor 2009
14	Kalpravidh R.W, Sritanaratkul N, Insain P, Charoensakdi R, Panichkul N, Hatairaktham S, Srichairatanakool S, Phisalaphong C, Rachmilewitz E, Fucharoen S.	Improvement in oxidative stress and antioxidant parameters in β -thalassemia/Hb E patients treated with curcuminoids	Clinical Biochemistry	Volume 43, Issue 4-5, Mar 2010, Pages 424-429.	2.019
15	Tangnararatchakit K, Chuansumrit A, Chaiyaratana W, Lertwongrath S, Gajaseeni N, Udomchaisakul R, O-Prasertsawat P, Yoksan S.	Excessive menstrual bleeding in adolescents with dengue infection	Infectious Disease Journal	Volume 29, Issue 1, Jan 2010, Pages 92-93.	2.854
16	Tanyaratsrisakul S, Malainual N, Jirapongsananuruk O, Smith W.A, Thomas W.R, Piboonpocanun S,	Structural and IgE binding analyses of recombinant Der p 2 expressed from the hosts <i>Escherichia coli</i> and <i>pichia pastoris</i>	International Archives of Allergy and Immunology	Volume 151, Issue 3, Feb 2010, Pages 190-198.	2.542
17	Ponkham P, Daduang S, Kitimasak W, Krittana C, Chokchaichamnankit D, Srisomsap C, Svasti J, Kawamura S, Araki T, Thammasirirak S.	Complete amino acid sequence of three reptile lysozymes	Comparative Biochemistry and Physiology C-Toxicology & Pharmacology	Volume 151, Issue 1, Jan 2010, Pages 75-83.	2.582
18	Morrison D, Legg T.J, Billings W, Forrat R, Yoksan S, Lang J.	A novel tetravalent dengue vaccine is well tolerated and immunogenic against all 4 serotypes in <i>Flavivirus</i> -naive adults	Journal of Infectious Diseases	Volume 201, Issue 3, 1 Feb 2010, Pages 370-377.	5.865
19	Chokephaibulkit K, Pliapat N, Yoksan S, Phongsamart W, Lappa K, Chearskul P, Chearskul S, Wittawatmongkol O, Vanprapar N.	A comparative study of the serological response to Japanese encephalitis vaccine in HIV-infected and uninfected Thai children	Vaccine	Volume 28, Issue 20, 30 Apr 2010, Pages 3563-3566.	3.616



No.	Authors	Title	Journal	Volume/ Issue/ Year/Pages	Impact Factor 2009
20	Changbunjong T, Jirapatharasate C, Buddhirongawatr R, Chewajon K, Charoenyongyoo P, Suwanapakdee S, Waengsothorn S, Triwitayakorn K., Chaichoun K, Ratanakorn P.	Ectoparasitic fauna of birds, and volant and non-volant small mammals captured at srinakarin dam, kanchanaburi, Thailand	The Southeast Asian Journal of Tropical Medicine and Public Health	Volume 41(3), May 2010, Pages 526- 535.	
21	Amnuayporn Sri S, Tarachiwin L, Sakdapipanich J.T.	Character of long- chain branching in highly purified natural rubber	Journal of Applied Polymer Science	Volume 115, Issue 6, 15 Mar 2010, Pages 3645- 3650.	1.203
22	Kunkeaw S, Tangphatsornruang S, Smith DR, Triwitayakorn K.	Genetic linkage map of cassava (<i>Manihot esculenta</i> Crantz) based on AFLP and SSR markers	Plant Breeding	Volume 129, Issue 1, Feb 2010, Pages 112-115.	1.026
23	Boonyos P, Soonsanga S, Boonserm P, Promdonkoy B.	Role of cysteine at positions 67, 161 and 241 of a <i>Bacillus sphaericus</i> binary toxin BinB	BMB Reports	Volume 43, Issue 1, 31 Jan 2010, Pages 23-28.	2.276
24	Chanthateyanonth R, Ruchirawat S, Srisitthiratkul C.	Preparation of new water-soluble chitosan containing hyperbranched- vinylsulfonic acid sodium salt and their antimicrobial activities and chelation with metals	Journal of Applied Polymer Science	Volume 116, Issue 4, 15 May 2010, Pages 2074- 2082.	1.203
25	Nuinoon M, Makarasara W, Mushiroda T, Setianingsih I, Wahidiyat PA, Sripichai O, Kumasaka N, Takahashi A, Svasti S, Munkongdee T, Mahasirimongkol S, Peerapittayamongkol C, Viprakasit V, Kamatani N, Winichagoon P, Kubo M, Nakamura Y, Fucharoen S.	A genome-wide association identified the common genetic variants influence disease severity in beta(0)- thalassemia/hemoglob in E	Human Genetics	Volume 127, Issue 3, Mar 2010, Pages 303-314.	4.523



No.	Authors	Title	Journal	Volume/ Issue/ Year/Pages	Impact Factor 2009
26	Wongtrakul J, Pongjaroenkit S, Leelapat P, Nachaiwieng W, Prapanthadara LA, Ketterman A.J.	Expression and characterization of three new glutathione transferases, an epsilon (AcGSTE2-2), omega (AcGSTO1-1), and theta (AeGSTT1-1) from anopheles cracens (Diptera: Culicidae), a major malaria vector	Journal of Medical Entomology	Volume 47(2), Mar 2010, Pages 162-171.	1.921
27	Lithanatudom P, Leecharoenkiat A, Wannatung T, Svasti S, Winichagoon P, Fucharoen S, and Smith D.R.	A mechanism of ineffective erythropoiesis in beta-Thalassemia/HbE disease	Haematologica	Volume 95, Issue 5, May 2010, Pages 716-723.	6.416
28	Kulkeaw, K, Ishitani, T. Kanemaru, T. Fucharoen, S. Sugiyama, D.	Cold exposure down-regulates zebrafish hematopoiesis	Biochemical and Biophysical Research Communications	Volume 394, Issue 4, 16 Apr 2010, Pages 859-864.	2.548
29	Attasart P, Kaewkhaw R, Chimwai C, Kongphom U, Namramoon O, Panyim S.	Inhibition of <i>Penaeus monodon</i> densovirus replication in shrimp by double-stranded RNA	Archives of Virology	Volume 155, Issue 6, Jun, 2010, Pages 825-832.	1.909
30	Cheeveewattanagul N, Jirasripongpun K, Jirakanjanakit N, Wattanakaroon, W.	Carrier design for astaxanthin delivery	Advanced Materials Research	Volume 93-94, Jan 2010, Pages 202-205.	8.379
31	Chokchaisiri R, Chaneiam N, Svasti S, Fucharoen S, Vodolas J, Suksamran A.	Labdane diterpenes from the aerial parts of <i>Curcuma comosa</i> enhance fetal hemoglobin production in an erythroid cell line	Journal of Natural Products	Volume 73, Issue 4, Apr 2010, Pages 724-728.	3.159
32	Munkongdee T, Vattanaviboon P, Thummarati P, Sewamart P, Winichagoon P, Fucharoen S, Svasti S.	Rapid diagnosis of alpha-thalassemia by melting curve analysis.	Journal of Molecular Diagnostics	Volume 12, Issue 3, May 2010, Pages 354-358.	3.413



No.	Authors	Title	Journal	Volume/ Issue/ Year/Pages	Impact Factor 2009
33	Rojruthai P, Sakdapipanich JT, Takahashi S, Hyegin L, Noike M, Koyama T, Tanaka Y.	<i>In vitro</i> synthesis of high molecular weight rubber by <i>Hevea</i> small rubber particles	Journal of Bioscience and Bioengineering	Volume 109, Issue 2, Feb 2010, Pages 107-114.	1.749
34	Nawamawat K. Sakdapipanich JT. Ho C.C.	Effect of deproteinized methods on the proteins and properties of natural rubber latex during storage	Macromolecular Symposia	Volume 288, Issue 1, Feb 2010, Pages 95-103.	0.913
35	Chuansumrit A. Puripokai C. Butthep P. Wongtiraporn W. Sasanakul W. Tangnararatchakit K. Chunhakan S. and Yoksan S.	Laboratory predictors of dengue shock syndrome during the febrile stage	The Southeast Asian Journal of Tropical Medicine and Public Health	Volume 41, Issue 2, Mar 2010, Pages 326-332.	
36	Roekring S, Smith DR.	Induction of apoptosis in dengue virus infected <i>Aedes aegypti</i> mosquitoes	Journal of Invertebrate Pathology	Volume 104, Issue 3, July 2010, Pages 239-241.	1.807
37	Piboonpocanun S, Boonchoo S, Pariyaprasert W, Visitsunthorn N, Jirapongsananuruk O.	Determination of storage conditions for shrimp extracts: analysis of specific IgE-allergen profiles	Asian Pacific Journal of Allergy and Immunology	Volume 28, Issue 1, Mar 2010, Pages 47-52.	0.562
38	Thamwiriyasati N, Sakdee S, Chuankhayon P, Katzenmeier G, Chen CJ, Angsuthanasombat C.	Crystallization and preliminary X-ray crystallographic analysis of a full- length active form of the Cry4Ba toxin from <i>Bacillus thuringiensis</i>	Acta Crystallographic a Section F- Structural Biology and Crystallization Communications	Volume 66, Part 6, Jun 2010, Pages 721-724.	0.551
39	Parks J , Gyeltshen T, Prachyawarakorn V, Mahidol C, Ruchirawat S, Kittakoop P.	Glutarimide alkaloids and a terpenoid benzoquinone from <i>Cordia globifera</i>	Journal of Natural Products	Volume 73, Issue 5, Mar 2010, Pages 992-994.	3.159
40	Wongsantichon J, Robinson RC, Ketterman AJ	Structural contributions of delta class glutathione transferase active-site residues to catalysis	Biochemical Journal	Volume 428, Part 1, 15 May 2010, Pages 25-32.	5.155



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41	Boonkusol D, Dinnyes A, Faisaikarm T, Sangsuwan P, Pratipnatalang N, Sa- Ardrit M, Saikhun K, Svasti S, Vadolas J, Winichagoon P, Fucharoen S, Kitiyanant Y,	Effect of human beta- globin bacterial artificial chromosome transgenesis on embryo cryopreservation in mouse models	Reproduction Fertility and Development	Volume 22, Issue 5, 2010, Pages 788- 795.	2.379
42	Tocharus J, Khonthun C, Chongthammakun S, Govitrapong P,	Melatonin attenuates methamphetamine- induced overexpression of pro- inflammatory cytokines in microglial cell lines	Journal of Pineal Research	Volume 48, Issue 4, May 2010, Pages 347-352.	5.209
43	Lertkiatmongkol P, Pethuan S, Jirakanjanakit N, Rongnoparut P.	Transcription analysis of differentially expressed genes in insecticide-resistant <i>Aedes aegypti</i> mosquitoes after deltamethrin exposure	Journal of Vector Ecology	Volume 35, Issue 1, Jun 2010, Pages 197-203.	1.153
44	Saewong T, Ounjaijean S, Mundee Y, Pattanapanyasat K, Fucharoen S, Porter J.B, Srichairatanakool S.	Effects of green tea on iron accumulation and oxidative stress in livers of iron- challenged thalassemic mice	Medicinal Chemistry	Volume 6, Number 2, Mar 2010, Pages 57-64	1.037
45	Krityakiarana W, Espinosa-Jeffrey A, Ghiani CA, Zhao PM, Topaldjikian N, Gomez-Pinilla F, Yamaguchi M, Kotchabhakdi N, de Vellis J.	Voluntary exercise increases oligodendrogenesis in spinal cord	International Journal of Neuroscience	Volume 120, Issue 4, Apr 2010, Pages 280-290.	0.855
46	Jangiam W, Loprasert S, Smith DR, Tungpradabkul S.	<i>Burkholderia</i> <i>pseudomallei</i> RpoS regulates OxyR and the <i>katG-dpsA</i> operon under conditions of oxidative stress	Microbiology and Immunology	Volume 54, Issue 7, Jul 2010, Pages 389-397.	1.562
47	Poothong J, Sopha P, Kaufman R.J, Tirasophon W.	Domain compatibility in Ire1 kinase is critical for the unfolded protein response	FEBS Letters	Volume 584, Issue 14, 16 July 2010, Pages 3203- 3208.	3.541



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48	Svasti S, Masaki S, Penglong T, Abe Y, Winichagoon P, Fucharoen S, Umemura T.	Expression of microRNA-451 in normal and thalassemic erythropoiesis	Annals of Hematology	Volume 89, Issue 10, Oct 2010, Pages 953-958.	2.919
49	Thammachat S, Pungtanom N, Kidsanguan S, Pathaichindachote W, Promdonkoy B, Krittanai C.	Amino acid substitution on b1 and aF of Cyt2Aa2 affects molecular interaction of protoxin	BMB Reports	Volume 43, No. 6, Jun 2010, Pages 427-431.	2.276
50	Nirachanon A, Smith D.R.	A case study of factors influencing employment satisfaction in a Thai life sciences research institute	Scientific Research and Essays	Volume 5(13), 4 July 2010, Pages 1697-1701	0.324
51	Kuadkitkan A, Wikan N, Fongsaran C, Smith DR.	Identification and characterization of prohibitin as a receptor protein mediating DENV-2 entry into insect cells	Virology	Volume 406, Issue 1, 10 Oct 2010, Pages 149-161	3.042
52	Ongvarrasopone C, Chomchay E, Panyim S.	Antiviral effect of PmRab7 knock-down on inhibition of Laem-Singh virus replication in black tiger shrimp	Antiviral Research	Volume 88, Issue 1, Oct 2010, Pages 116-118	3.612
53	Perrine SP, Castaneda SA, Chui DH, Faller DV, Berenson RJ, Siritanarutku N, Fucharoen S.	Fetal globin gene inducers: novel agents and new potential	Annals of The New York Academy of Sciences	Volume 1202, August 2010, Pages 158-164	2.670
54	Puthanakit T, Aurbibul L, Yoksan S, Sirisanthana T, Sirisanthana V.	A 3-year follow-up of antibody response in HIV-infected children with immune recovery vaccinated with inactivated Japanese encephalitis vaccine	Vaccine	Volume 28, Issue 36, 16 August 2010, Pages 5900-5902	3.616



No.	Authors	Title	Journal	Volume/ Issue/ Year/Pages	Impact Factor 2009
55	Haginoya K, Thangavel V, Pandian, G.N, Tomimoto, K., Shitomi, Y, Azuma, M, Angsuthanasombat C, Hori, H.	Investigation of physicochemical condition to stabilize phosphatidylcholine liposome enclosing fluorescent calcein and its exploitation for analysis of pore formation with Cry1A toxins of <i>Bacillus thuringiensis</i>	Applied Entomology and Zoology	Volume 45, Issue 3, 2010, Pages 477- 488.	0.616 (Stang Library)
56	Kunkeaw S, Worapong J, Smith D.R. and Triwitayakorn K.	An in vitro detached leaf assay for pre- screening resistance to anthracnose disease in cassava (<i>Manihot esculenta Crantz</i>)	Australasian Plant Pathology	Volume 39, 2010, Pages 547-550.	0.943
57	Yap Y-K. and Smith D.R.	Strategies for the plant based expression of dengue subunit vaccines.	Biotechnology and Applied Biochemistry	Volume 57 Issue 2 Oct 2010, Page47- 53.	1.239 (Stang library)
58	Boonkulsol D, Saikhun K, Ratanaphumma P.	Effects of extender and storage time on motility and ultrastructure of cooled-preserved boar spermatozoa	Kasetsart Journal-Natural Science	Volume 44, Issue 4, July 2010, Pages 582-589	
59	Pandian G.N, Ishikawa T, Vaijayanthi T, Hossain D.M, Yamamoto S, Nishiumi T, Angsuthanasombat C , Haginoya K , Mitsui T , Hori H.	Formation of Macromolecule Complex with <i>Bacillus thuringiensis</i> Cry1A Toxins and Chlorophyllide Binding 252-kDa Lipocalin-Like Protein Locating on <i>Bombyx mori</i> Midgut Membrane	Journal of Membrane Biology	Volume 237, Numbers 2-3, Oct 2010, Pages 125-136	2.189 (2009)
60	Srikuea R, Pholpramool C, Kitiyant Y, Yimlamai T.	Satellite cell activity in muscle regeneration after contusion in rats	Clinical and Experimental Pharmacology and Physiology	Volume 37, Issue 11, Nov 2010, Pages 1078-1086	1.936
61	Sivilaikul S, Jitprom A , Kularb A , Kornkaewrut K, Suthanmaphinuth P, Mahasawangkul S, Saikhun K, Wajjwalku W, Thongtipsiridech S.	Relationship between seminal and serum calcium concentration with semen quality in the Asian elephant (<i>Elephas maximus</i>)	Thai Journal of Veterinary Medicine	Volume 40, Issue 3, 2010, Pages 251-255	0.118



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62	Sawasdee N, Junking M, Ngaojanlar P, Sukomon N, Ungsupravate D, Limjindaporn T, Akkarapatumwong V, Noisakran S, Yenchitsomanus P-T.	Human kidney anion exchanger 1 interacts with adaptor-related protein complex 1 μ 1A (AP-1 μ 1A)	Biochemical and Biophysical Research Communications	Volume 401, Issue 1, 8 October 2010, Pages 85-91	2.548
63	Sotthibundhu A, Phansuwan-Pujito P, Govitrapong P.	Melatonin increases proliferation of cultured neural stem cells obtained from adult mouse subventricular zone	Journal of Pineal Research	Volume 49, Issue 3, October 2010, Pages 291-300	5.209
64	Chomcheon P, Wiyakrutta S, Aree T, Sriubolmas N, Ngamrojanavanich N, Mahidol C, Ruchirawat S, Kittakoop P.	Curvularides A-E: Antifungal hybrid peptide-polyketides from the endophytic fungus <i>Curvularia geniculata</i>	Chemistry - A European Journal	Volume 16, Issue 36, 24 September 2010, Pages 11178-11185	5.382
65	Sopalun K, Thammasiri K, Ishikawa K.	Vitrification-based cryopreservation of <i>Grammatophyllum speciosum</i> protocorms	Cryo Letters	Volume 31, Issue 4, July 2010, Pages 347-357	1.074 (Stang library)
66	Wittayarat M, Thongphakdee A, Saikhun K, Chatdarong K, Otoi T, Techakumphu M.	Cell cycle analysis of cultured skin fibroblasts from the Asian golden cat (<i>Pardofelis temminckii</i>), marbled cat (<i>Pardofelis marmorata</i>), leopard (<i>Panthera pardus</i>) and Siamese cat (<i>Felis Catus</i>)	Thai Journal of Veterinary Medicine	Volume 40, Issue 1, March 2010, Page 139	0.118
67	Duangmano S, Dakeng S, Jiratchariyakul W, Suksamrarn A, Smith DR, Patmasiriwat P.	Antiproliferative effects of cucurbitacin B in breast cancer cells: down-regulation of the c-Myc/hTERT/telomerase pathway and obstruction of the cell cycle	International Journal of Molecular Sciences	Volume 11 Issue 12, December 2010, Pages 5323-5338	1.387
68	Suwanprathes P, Won C, Komoltri C, Nana A, Kotchabhakdi N, Guilleminault C.	Epidemiology of sleep-related complaints associated with sleep-disordered breathing in Bangkok, Thailand	Sleep Medicine	Volume 11 Issue 10, December 2010, Pages 1025-1030	3.699



No.	Authors	Title	Journal	Volume/ Issue/ Year/Pages	Impact Factor 2009
69	Pichanun D, Munkongdee T, Klamchuen S, Butthep P, Winichagoon P, Fucharoen S, Svasti S.	Molecular screening of the Hbs constant spring (codon 142, TAA>CAA, alpha2) and pakse (codon 142, TAA>TAT, alpha2) mutations in Thailand	Hemoglobin	Volume 34 Issue 6, 2010, Pages 582- 586.	1.274 (Stang library)
70	Saechan V, Nopparatana C, Fucharoen S.	Molecular basis and hematological features of hemoglobin variants in Southern Thailand	International Journal of Hematology	Volume 92 Issue 3, October 2010, Pages 445- 450.	1.168
71	Lu Y, Xiao P, Shao Y, Zhang G, Thanyasiriwat T, Bao J.	Development of new markers to genotype the functional SNPs of <i>SSIIa</i> , a gene responsible for gelatinization temperature of rice starch	Journal of Cereal Science	Volume 52, Issue 3, November 2010, Pages 438-443	2.490 (Stang library)
72	Antia BS, Pansanit A , Ekpa OD, Ekpe UJ, Mahidol C, Kittakoop P,	alpha-Glucosidase inhibitory, aromatase inhibitory, and antiplasmodial activities of a biflavonoid gb1 from <i>Garcinia kola</i> stem bark	Planta Medica	Volume 76, Issue 3, Feb 2010, Pages 276-277.	2.037
73	Jearawiriyapaisarn N, Moulton HM, Sazani P, Kole R, Willis MS.	Long-term improvement in <i>mdx</i> cardiomyopathy after therapy with peptide- conjugated morpholino oligomers	Cardiovascular Research	Volume 85, Issue 3, 1 Feb 2010, Pages 444-453.	5.801
74	Kunkeaw S, Tan S, Coaker G.	Molecular and evolutionary analyses of <i>Pseudomonas</i> <i>syringae</i> pv. <i>tomato</i> race 1	Molecular Plant- Microbe Interactions	Volume 23, Issue 4, Apr 2010, Pages 415-424.	4.407



List of National Publications in 2010

No.	Authors	Title	Journal	Volume/Issue/ Year/Pages
1	ศกุนตลา คำถาวร, ศุเมธิ ธีรังกูล, สมบัติ ธีระวันต์, จิตติมา มโนนัย, กุณสรศักดิ์ สายขุน , สุทธิ ยกส้าน	การออกแบบและสร้างเครื่องประเมินความแข็งแรงกล้ามเนื้อเชิงกราน	วารสารสมาคม อุปกรณ์การแพทย์ ไทย	ปีที่ 9 ฉบับที่ 24 ISSN 1685-6244 พฤษภาคม - สิงหาคม 2553
2	ขงยุทธ ขจรปริदानนท์	เลเซอร์ในงานวิสัญญีวิทยา	วารสารสมาคม อุปกรณ์การแพทย์ ไทย	ปีที่ 9 ฉบับที่ 24 ISSN 1685-6244 พฤษภาคม - สิงหาคม 2553
3	พิเชฐ พงศาภักดี	ช่วงความถี่คลื่นไฟฟ้ากล้ามเนื้อหัวใจและการเฉลี่ยสัญญาณ ECG Frequency Bandwidth and Signal Averaging	วารสารสมาคม อุปกรณ์การแพทย์ ไทย	ปีที่ 9 ฉบับที่ 24 ISSN 1685-6244 พฤษภาคม - สิงหาคม 2553
4	วัชระ สร้อยคำ	ห้องปฏิบัติการบนซีดี (Lab on a CD)	วารสารสมาคม อุปกรณ์การแพทย์ ไทย	ปีที่ 9 ฉบับที่ 24 ISSN 1685-6244 พฤษภาคม - สิงหาคม 2553



International Conference Presentations in 2010

No.	Authors	Title
Sixth Intercongress Symposium of the Asia and Oceania Society for Comparative Endocrinology (AQSCE), 19-22 Jan. 2010, Massey University, Palmerston North, New Zealand		
1	Changsangfa, C. Thong-ngam, P. Kittiyant, N. Sangsuwan, P. Saikhun, K. Boonkusol, D. and Kitityanant, Y.	Developmental rates of vitrified in-vitro matured bovine oocytes following buffalo somatic cell nuclear transfer
Advanced Polymeric Materials and Technology Symposium (APMT 2010), 24-27 Jan. 2010, The Shilla Jeju, JEJU, Korea		
2	Sakdapipanich, J.T.	Some property-changes during storage of natural rubber:-effect of protein removal from natural rubber latex
3	Rojruthai, P. Sakdapipanich, J. Takahashi, S. Noike, M. Koyama, T.	Mechanisms of <i>in vitro</i> rubber synthesis by <i>Hevea</i> small rubber particles
4	Amnuaypornsr, S. Sakdapipanich, J.	Highly purified natural rubber by saponification of latex : analysis of green and cure properties
Biophysical Society 54 th Annual Meeting, 20-24 Feb. 2010, San Francisco, California, USA.		
5	Thamwiriyaasati, N. Powthongchin, B. Kittiworakarn, J. Katzenmeier, G. Angsuthanasombat, C.	Hydrolysis of synthetic substrates <i>in vitro</i> by purified CyaC-acyltransferase cloned from <i>Bordetella pertussis</i> : Implications for catalytic mechanism
Innovative therapies for red cell and iron related disorders, 16-18 Apr. 2010, Cascais, Portugal		
6	Jearawiriyapaisarn, N. Moulton, HM. Suwanmanee, T. Svasti, S. Winichagoon, P. Fucharoen, S. and Kole, R.	Switching to correct splicing by peptide-conjugated morpholino restores α -Globin Expression in Thalassemic mouse
Emerging Infectious Diseases and Neglected Diseases 2010 (EID2010), 3-4 May 2010, Amari Hotel, Pattaya, Choburi, Thailand		
7	Jaimipuk, T. Pulmanasahakul, R.	Construction of dengue virus plasmid standards for real-time PCR
1 st National Conference on Biotechnology and Microbiology, 2010, 4-7 Jul. 2010, Bara Gali, UoP, Pakistan		
8	Salaemae, W. Junaid, M. Angsuthanasombat, C. Katzenmeier, G.	Structure-guided mutagenesis of active site residues in the dengue virus two-component protease NS2B-NS3
The 3 rd Biomedical Engineering International Conference, 27-28 Aug. 2010, Kyoto, Japan		
9	Kajornpredanon, Y. Daochai, S. Apaiwong, C. Rattakajornsak, R.	Graphical MU defibrillator analyzer : qualitative test by ICU nurses
10	Konggateyai, P. Daochai, S. Kajornpredanon, Y.	Computer-assisted instruction (CAI) of occupational therapy for people with spinal cord injury



No.	Authors	Title
The 7 th National Symposium on Marine Shrimp, 27-28 Aug. 2010, Kyoto, Japan		
11	Sroykham, W. Thanungkul, S. Daochai, S.	Virtual instrument for non-invasive blood pressure measurement
16 th Asian Agricultural Symposium and 1 st International Symposium on Agricultural Technology, 25-27 Aug. 2010, King Mongkut's Institute of Technology Ladkrabang, Thailand		
12	Boonchanawiwat, A. Sraphet, S. Boonserg, O. and Triwitayakorn, K.	Identification of QTL controlling amylose content in cassava (<i>Manihot esculenta</i> Crantz)
The International Society for Southeast Asian Agricultural Sciences (ISSAAS 2009), 11-15 Jan. 2010, Nongnuch Garden, Cholburi, Thailand		
13	Kanjanawattanawong, S. Kongsawadworakul, P. Viboonjun, U. Tangphatsornruang, S. Teerawatanasuk, K. Chrestin, H. Tragoonrung, S. Triwitayakorn, K.	Polymorphic simple sequence repeat markers from expressed sequence tags of rubber tree (<i>Hevea brasiliensis</i> Muell. Arg.)
The 2 nd international Agriculture Students Symposium, 12-20 Jul. 2010, Dewan Pertanian Faculty of Agriculture Universiti Putra, Malaysia.		
14	Boonchanawiwat, A.	Food production in Thailand
15	Chatkulkawin, P. Kirdmanee, C. Mosaleeyanon, K. and Triwittayakorn, K.	Development of molecular markers for identification of hybrid oil palm (<i>Elaeis guineensis</i> Jacq.)
The 10 th Biennial Meeting of the Asia-Pacific Society of Neurochemistry (APSN) 2010, 18-20 Oct. 2010, Phuket, Thailand		
16	Wongchitrat, P. Mukda, S. Phansuwan-Pujito, P. Govitrapong, P.	Effects of amphetamine on circadian genes expression in the rat brain
17	Mukda, S. Wongchitrat, P. Mahasaksawat, N. Govitrapong, P.	Drug addiction affecting the circadian expression of dopaminergic system in the rat brain
18	Pramong, R. Wongchitrat, P. Govitrapong, P. Phansuwan-Pujito, P.	Expressions of period1 and brain-derived neurotrophic factor in the hippocampus of postnatal rat
19	Leeboonngam, T. Pramong, R. Wongchitrat, P. Govitrapong, P. Phansuwan-Pujito, P.	Development of melatonin receptor expression in hippocampus of postnatal rats
20	Sotthibundhu, A. Phansuwan-Pujito, P. Govitrapong, P.	Stimulatory effect of melatonin on neuronal precursor cells proliferation and differentiation
21	Suwanjang, W. Phansuwan-Pujito, P. Govitrapong, P. Chetsawang, B.	Calpastatin rescues activation of calpain pathway in methamphetamine-induced cell death in SH-SY5Y
22	Kitiyanant, N. Svendsen, C.N. Kitiyanant, Y. Thangnipon, W.	Trophic factors rescue cholinergic functions from amyloid-b-induced neurotoxicity in cultured septal neurons
23	Songthaveesin, C.	The neural stem cells of the retina in bovine
24	Songthaveesin, C. Kotchabphakdi, N.	Scratching subcultures of bovine neural stem cells



No.	Authors	Title
The 10 th Biennial Meeting of the Asia-Pacific Society of Neurochemistry (APSN) 2010, 18-20 Oct. 2010, Phuket, Thailand		
25	Krityakiarana, W. Espinosa-Jefrey, A. Zhao, P.M. Gomez-Pinilla, F. Kotchabhakdi, N. Yamaguchi, M. de Vellis, J.	TS1 as early neuroprotective treatment after spinal cord injury in mice
26	Mahanam, T. Sangdee, A. Govitrapong, P. and Tongjaroenbuangam, W.	Melatonin improves learning and memory performances impaired by dexamethasone-induced stress mice
27	Chatchaisak, D. Srikiatkachorn, A. Govitrapong, P. Chetsawang, B.	Calcitonin gene-related peptide induces transient receptor potential vanilloid-1 expression in rat trigeminal ganglion
28	Mahanam, T. Sangdee, A. Govitrapong, P. and Tongjaroenbuangam, W.	Melatonin improves learning and memory performances impaired by dexamethasone-induced stress mice
29	Tongjaroenbuangam, W. Govitrapong, P.	Expression of nmda receptor in paraventricular nucleus after okra (<i>Abelmoschus esculentus</i> linn.), quercetin and rutin treated in dex-induced stress mice
30	Nopparat, C. Porter, J.E. Ebadi, M. Govitrapong, P.	The mechanism for the neuroprotective effect of melatonin against methamphetamine-induced autophagy
31	Chetsawang, B. Parameyong, A. Suwanjang, W. Govitrapong, P.	Methamphetamine induces toxicity and alteration in mitochondrial fission protein levels in neuroblastoma SH-SY-Y cultured cells
32	Singhakumar, R. Sotthibundhu, A. Govitrapong, P.	Melatonin augments phospho-erk levels and reverses the amphetamine-induced reduction of phospho-erk levels in postnatal rat hippocampus
33	Sae-ung, K. Govitrapong, P. Ueda, K. Phansuwan-Pujito, P.	Melatonin decreases alpha-synuclein in mesolimbic pathway of amphetamine-treated postnatal rats
34	Vimolratana, O. Mukda, S. Wongchitrat, P. Govitrapong, P.	D-amphetamine induced changes in vesicular monoamine transporter-2 and alpha-synuclein in neonatal rat brain
35	Mahasaksawat, N. Mukda, S. Wongchitrat, P. Govitrapong, P.	Amphetamine-induced change in circadian rhythms of dopaminergic system in rat striatum
36	Permpoonputtana, K. Govitrapong, P.	Involvement of mitogen-activated protein kinase in methamphetamine-induced neuroinflammation of human neuroblastoma SH-SY5Y cells
37	Shukla, M. Mukda, S. Sotthibundhu, A. Wongchitrat, P. Govitrapong, P.	Melatonin prevents methamphetamine-induced reduction of VMAT2 protein and mRNA level in SK-N-SH cell line
38	Boontem, P. Govitrapong, P.	Effects of amphetamine on dopaminergic neurotransmission in neonatal rat striatum



No.	Authors	Title
The 3 rd International Conference on Thalassemia in China & The 2 nd Asia Pacific Iron Academy Conference, 3-6 Nov. 2010, Nanning, Guangxi, P.R.China		
39	Umemura, T. Svasti, S. Tanaka, Y. Abe, Y. Fucharoen, S.	Roles of microRNAs for normal erythropoiesis and thalassemia
40	Winichagoon, P. Nuinoon, M. Munkongdee, T. Svasti, S. Fucharoen, S.	Genotype-phenotype interaction
41	Svasti, S. Jearawiriyapaisarn, N. Winichagoon, P. Kole, R. Fucharoen, S.	Antisense therapy for b-thalassemia
42	Fucharoen, S. and Asian Network for Thalassemia Control Group	Asian Network for Thalassemia Control
43	Svasti, S. Tubsuwan, A. Munkongdee, T. Winichagoon, P. Fucharoen, S.	Beta E-globin pre-mRNA splicing may serve as a disease severity modifier in beta-thalassemia/HbE patients
44	Sukati, S. Svasti, S. Stifanese, R. Averna, M. Panutdaporn, N. Penglong, T. Melloni, E. Fucharoen, S. Katzenmeier, G.	Calpain-calpastatin proteolytic system in erythroid precursors as modifier of disease severity in b-thalassemias
45	Keawvichit, R. Kowawisatsut, L. Chaichompoo, P. Khuhapinant, A. Fucharoen, S. Pattanapanyasat, K.	Platelet activation and platelet-leukocyte interaction in thalassemia patients
46	Singpant, P. Srinuan, K. Vattanaviboon, P. Winichagoon, P. Fucharoen, S. Svasti, S.	Restoration of correct beta E-globin pre-mRNA splicing by antisense oligonucleotide in erythroid precursor cells of human beta E-globin transgenic mice
47	Suksutti, N. Vattanaviboon, Svasti, S. Winichagoon, P.	Effect of a-globin specific siRNA on a-globin gene expression in b-thalassemic disease
48	Chaneiam, N. Changtam, C. Chitchumroonchokchai, C. Failla M, Winichagoon, P. Suksanrarn, A. Fucharoen, S. Svasti, S.	Induction of g-globin gene expression by curcumin and its metabolite
49	Pangjit, K. Banjerdpongchai, R. Phisalaphong, C. Fucharoen, S. Srichairatanakool, S.	Efficacy of 3-hydroxypyrid-4-one derivative in treatment of cultured hepatocytes with iron overload
50	Ounjaijean, S. Fucharoen, S. Westermarck, T. Atroshi, F. Srichairatanakool, S.	Green tea attenuates erythrocyte oxidative stress in b-thalassemic mice with iron overload
51	Sanyear, C. Nithipongvanich, R. Svasti, S. Butthep, P. Fucharoen, S.	Iron overload induces liver injuries in beta-thalassemic mice
Joint International Tropical Medicine Meeting 2010 (JITMM2010) and International Malaria Colloquium (IMC2010), 1-3 Dec. 2010, Centara Grand & Bangkok Convention Centre at CentralWorld Bangkok, Thailand		
52	Auewarakul, P.	The biosafety & biosecurity network of Thailand (BSNT)
53	Boonma, S. Attasart, P. Pothikasikorn, J. Tanwilai, D. Sunintaboon, P. Nookpakdee, W. Wilairat, P. Panyim, S.	Silencing of the topoisomerase gene of <i>P.falciparum</i> by 120 and 400 BP double stranded Rna inhibited parasite growth <i>in vitro</i>



No.	Authors	Title
Joint International Tropical Medicine Meeting 2010 (JITMM2010) and International Malaria Colloquium (IMC2010), 1-3 Dec. 2010, Centara Grand & Bangkok Convention Centre at CentralWorld Bangkok, Thailand		
54	Klomporn, P. Panyasrivanit, M. Wikan, N. Smith, DR.	The mechanism of induction of apoptosis in dengue virus infected monocytic cells
55	Junaid, M. Salaemae, W. Angsuthanasombat, C. Katzenmeier, G.	Identification of key residues for selective binding and catalysis of the dengue virus NS2B-NS3 protease
56	Wikan, N, Sakoonwatanyoo, P. Smith, DR.	Induction of apoptosis in chikungunya virus-infected mammalian cells but not insect cells
57	Sukati, S. Svasti, S. Stifanese, R. Averna, M. Panutdaporn, N. Penglong, T. Melloni, E. Fucharoen, S. Katzenmeier, G.	Effect of calcium-dependent proteolytic system-calpain/calpastatin-on the severity of beta-thalassemia/Hb E disease
58	Leetachewa, S. Moonsom, S. Chaisri, U. Wang, P. Angsutanasombat, C.	Revealing a novel toxin-action mechanism : binding and permeability studies of <i>Bacillus thuringiensis</i> cry4Ba in <i>Aedes aegypti</i> mosquito larvae
15 th Biological Sciences Graduate Congress "Bridging Ideas, Building Talents, 15-17 Dec. 2010, University of Malaya Kuala Lumpur, Malaysia		
59	Panyasrivanit, M. Khakpoor, A. Wikan, N. and Smith, DR.	The Interaction between autophagy and dengue virus
The 12 th Asain-Pacific Congress of Clinical Biochemistry, 3-7 Oct. 2010, Coex, Seoul, Korea		
60	Fucharoen, S. Winichagoon, P. Svasti, S.	Genetics of thalassemia and related syndromes
18th Biennial ISDN Meeting, 6-9 Jun. 2010, Estoril Convention Centre, Portugal		
61	Nuanchan Jutapakdeegul, Pornprom Surakul, Rapeepun Vanichviriyakit, Wattana Weerachatanukul	Repeated carbenoxolone injection during late pregnancy decreased SPAR but increased Snk expression in the hippocampus of rat pups
62	Pornprom Surakul, Rapeepun Vanichviriyakit, Wattana Weerachatanukul, Nuanchan Jutapakdeegul	Repeated maternal restraint stress down-regulated NMDA receptor subunits and scaffolding proteins in the hippocampus of postnatal rat



National Conference Presentations in 2010

No.	Authors	Title
The 3 rd Silpakorn University Research Conference, 28-29 January 2010, Silpakorn University Nakhon Pathom		
1	Cheeveewattanakul, N. Jirasripongpun, K. Wattanakaroon, W. and Jirakanjanakit	In vitro model for testing of cytotoxicity and oxidative stress reduction by Astaxanthin
2	Tansin, K. Jirakanjanakit, N. Wattanakaroon, W. and Jirasripongpun, K.	Medium and culture condition for highly carotenoid production from <i>Phaffia rhodozyma</i>
The Veterinary Medicine Conference, 28-29 January 2010, Faculty of Veterinary Medicine, Chiangmai University, Chiangmai		
3	Yoksan S.	Viral Vaccine Production from human to animal
The 11 th National Graduate research Conference, 12 February 2010, Graduate School Khon Kaen University, Khon Kaen		
4	Wongchum, N. Chimnarok, S. Piboonpocanun, S.	Structure and function analysis of house dust mite group 10 allergen (der p 10)
The 11 th National Graduate research Conference, 12 February 2010, Graduate School Khon Kaen University, Khon Kaen		
5	Choksupmanee, O. Katzenmeier, G. Chimnarok, C.	Overexpression of the intact membrane integral dengue viral protease complex, NS2B-NS3
RGJ-Ph.D. Congress XI, 1-3 April 2010, Jomtien Palm Beach Resort Pattaya, Chonburi		
6	Jungtrakoon, P. Plengvidhya, N. Chimnarok, S. Chongjaroen, N. Leejinda, K. Tangjittipokin, W. Banchuin, N. and Yenchitsomanus, P.	Genetic and biochemical analyses of adiponectin variants identified in Thais with type 2 diabetes (T2D)
7	Lithanatudom, P. Leecharoenkiat, A. Wannatung, T. Svasti, S. Fucharoen, S. and Smith, D.R.	A mechanism of ineffective erythropoiesis in β -thalassemia/Hb E disease
8	Chunhakan, S. Butthep, P. Yoksan, S. Tangnararatchakit, K. and Chuansumrit, A.	Early diagnosis of dengue virus infection by detection of dengue viral antigen in peripheral blood mononuclear cells (PBMCS)
9	Thammachat, S. Pathaichindachote, W. Kidsanguan, S. Krittanai, c. Promdonkoy, B.	Mutagenesis study on amino acids at N- and C-terminal fragments of cyt2Aa2 toxin
10	Saisawang, C. Temviriyankul, P. Lerksuthirat, T. Wongsantichon, J. and Ketterman, A.J.	Characterization of glutathione transferases from <i>Drosophila melanogaster</i>
11	Tretipskul, C. Promthep, K. Saikhun, K. Tummaruk, P. and Techakumphu, M.	Boar semen qualities after percoll-gradient separation and cryopreservation
12	Pratoomthai, B. Sakaew, W. Udomkit, A. Wongprasert, K. Withyachumnarnkul, B.	Levels of molt-inhibiting and crustacean hyperglycemic hormones in <i>Penaeus monodon</i> infected with laemsingh virus



No.	Authors	Title
The 8 th Science and Technology Conference: Science and Technology for Community Development, 19 March 2010, Thammasat University, Pathum Thani		
13	Suksutti, N. Vattanaviboon, P. Svasti, S. Winichagoon, P.	The study of human erythroid progenitor cells development by Muta's and Fibach's methods
The 39 th Conference of physiology Society of Thailand: Translational Research: from animal to man, 5-8 May 2010, Amari Orchid Resort and Tower, Pattaya, Chonburi		
14	Nithipongvanitch, R. Srinoun, K. Kengkoom, K. Svasti, S. Fucharoen, S. and Winichagoon, P.	Enhanced erythroid precursor cell autophagy contribute to ineffective erythropoiesis in β -thalassemia
The Fifth Annual Symposium Protein Society of Thailand, 23-25 June 2010, Chulabhorn Research Institute, Bangkok		
15	Wongchum, N. Chimnaronk, S. Smith, WA. Thomas, WR. Piboonpocanun, S.	Structure and function analysis of house dust mite arginine kinase (Group 20 allergen)
16	Nuinoon, M. Svasti, S. Munkongdee, T. Sanmun, D. Boonchoy, C. Klamchuen, S. Winichagoon, P. Fucharoen, S.	Molecular characterization and detection of highly unstable β -Chain variant in Thai patients with hemoglobin showa-yakushiji/hemoglobin E disease
17	Leecharonkiat, A. Lithanatudom, P. Wannatung, T. Svasti, S. Fucharoen, S. Chokchaichamnankit, D. Srisomsap, C. Smith, DR.	Proteomic analysis of proteins mediating erythroid cell maturation and differentially expressed in β -thalassemia/ HBE precursor cells
18	Fongsaran, C. Kuadkitkan, A. Roytrakul, S. Smith, DR.	Analysis of specificity of prohibitin as an insect cell expressed dengue virus receptor
19	Keadsanti, S. Surit, T. Roytrakul, S. Smith, DR.	Proteomics analysis of dengue infected cell
20	Taengchaivaphum, S. Havanapan, PO. Pungtanom, N. Sanguanrat, P. Kidsanguan, S. Mankalanan, S. Roytrakul, S. Sritunyalucksana, K. Krittanai, C.	Molecular interaction and changes of phosphoproteome in <i>Penaeus monodon</i> hemocytes upon early infection of the yellow head virus
21	Mangkalanan, S. Pungtanom, N. Roytrakul, S. Sritunyalucksana, K. Krittanai, C.	Characterization of the hemocytic proteins in mud crab (<i>Scylla olivacea</i>)
22	Wintachai, P. Smith, DR. Pulmanusahakul, R. Roytrakul, S. Ubol, S. Wikan, N.	Identification of chikungunya virus binding protein on mammalian cells
23	Sirankapracha, P. Munkongdee, T. Sripichai, O. Fucharoen, S. Winichagoon, P.	The body-iron index in clinical variety of α -thalassemia/hemoglobin E disease
24	Havanapan, PO. Taengchaiyaphum, S. Bourchookarn, A. Pungtanom, N. Kidsanguan, S. Mankalanan, S. Krittanai, C.	Comparative study of post-translational regulation of <i>Penaeus monodon</i> hyaline hemocyte upon yellow head virus infection
25	Kunthic, T. Promdonkoy, B. Boonserm, P.	Functional role of aromatic residues at the selected positions in BinA protein from <i>Bacillus sphaericus</i>
26	Maharath, A. Fucharoen, S. Tanyong, D.	Interleukin-1 β , tumor necrosis factor- α and interferon- γ induced apoptosis in acute leukemia



No.	Authors	Title
The 7th National Symposium on Marine Shrimp, 7-8 September 2010, Twin Lotus Hotel, Nakhon Si Thammarat		
27	Attasart, P. Kaewkhaw, R. Chimwai, C. Kongphom, U. Namramoon, O. Panyim, S.	RNAi for inhibition of <i>Penaeus monodon</i> densovirus (PmDENV) replication in shrimp
28	Treerattrakool, S. Panyim, S. Udomkit, A.	A new strategy to stimulate ovarian maturation in female <i>Penaeus monodon</i> broodstock
Commission on Higher Education Congress III University Staff Development Consortium, 9-11 September 2010, Royal Cliff Grand Hotel and Spa, Chonburi		
29	Mangkalanan, S. Pungtanom, N. Roytrakul, S. Sritunyalucksana, K. Sanguanrut, P. Krittanai, C.	Proteomic study of mud crab (<i>Scylla olivacea</i>) hemocyte during white spot syndrome virus infection
30	Leecharoenkiat, A. Lathanatudom, P. Wannatung, T. Svasti, S. Fucharoen, S. Srisomsap, C. Chokchaichamnankit, C. and Smith DR.	Differential protein expression in erythroblast : identification of new players involved in erythroid maturation and pathogenesis of β -thalassemia/HbE disease
31	Srisucharitpanit, K. and Boonserm, P.	Structural analysis of the mosquito-larvicidal binary toxin from <i>Bacillus sphaericus</i>
32	Dechklar, M. Pootanakit, K. and Angsuthanasombat, C.	Expression and characterization of a GPI-linked alkaline phosphatase from <i>Aedes aegypti</i> midgut larvae in Sf9 cells
33	Chaneiam, N. Changtam, C. Chitchumroonchokchai, C. Failla, M. Winichagoon, P. Suksanrarn, A. Fucharoen, S. and Svasti, S.	Curcumin: Bioavailability and induction of gamma globin expression
34	Juntapremjit, S. and Angsuthanasombat, C.	Role of glycine residues in the putative $\alpha 2$ of the <i>Bordetella pertussis</i> CyaA pore-forming fragment
35	Chaneiam, N. Changtam, C. Chitchumroonchokchai, C. Failla, M. Winichagoon, P. Suksamrarn, A. Fucharoen, S. and Svasti, S.	Curcumin: Bioavailability and induction of gamma globin expression
36	Sriwimol, W. and Angsuthanasombat, C.	The oligomerization of <i>Bacillus thuringiensis</i> Cry4Ba pore-forming toxin could not spontaneously form in solution
37	Rattanachuen, W. Wikan, N. Suksan, L. and Smith, DR.	Infection of mammalian-derived and insect-derived dengue virus in various cell lines
38	Radabutra, S. and Thanawan, S.	Surface chlorination of natural rubber for controlling tack and friction properties
39	Urtgam, S. and Udomkit, A.	Expression profile of gonad inhibiting hormone (GIH) during ovarian maturation of <i>Penaeus monodon</i>
40	Leebonoi, E. Udomkit, A.	Characterization of gonad-specific argonaute protein of <i>Penaeus monodon</i>



No.	Authors	Title
The 11 th National Graduate research Conference, 12 February 2010, Graduate School Khon Kaen University, Khon Kaen		
41	Merga, IF. Yap, YK.	Introduction of GUS gene at the P1/HCP-Pro Junction of <i>Papaya ringspot virus</i> infectious clone
The 16 th National Graduate Research Conference, 11 March 2010, Maejo University, Chiangmai		
42	Neadruengsang, W. Karoonuthaisiri, N. and Tirasophon, W.	An alternative effective procedure for gene knockdown in <i>Drosophila Melanogaster</i> S2 cell
The 10 th TRF Junior and Senior Researchers Meeting, 14-16 October 2010, Holiday Inn Resort Regent Beach, Cha Am, Phetchaburi		
43	Klinklai, W. Kawahara, S. Sakdapipanich, J.	Polymer Electrolyte Prepared From Deproteinized Natural Rubber Having Epoxy Group (LEDPNR)/ Polyethylene Glycol(PEG) Blend
44	Tanyong, D. Panichob, P. Hheansaard, W. Fucharoen, S.	Role of Erythropoietin and its Receptor in Erythropoiesis of Thalassemic Patients
45	Assavalapsakul, W. Panyim, S.	Cloning and Characterization of PmToll Receptor in <i>Panaeus monodon</i>
46	Thongtipsiridech, S. Sivilaikul, S. Jitprom, A. Kularb, A. Kornkaewrut, K. Suthanmaphimnuth, P. Mahasawangkul, S. Saikhun, K. Wajjwalku, W.	Relationship between Seminal and Serum Calcium Concentration with Semen Quality in the Asian Elephant (<i>Elephas maximus</i>)
47	Chimnaronk, S.	Isolation of the Intact Membrane-Integral Dengue Viral Protease Complex NS2B-NS3 for Chemical and Structural Characterizations
48	Khudamrongsawat, J. Siripunkaw, C.	Population Genetics of the Endemic Spiny-breasted Frog (<i>Paa fasciculispina</i>) in Khao Soi Dao, Chantaburi Province
49	Jirasripongpun, K. Wattanakaroon, W. Jirakanjanakit, N.	Antioxidant Capacity of Astaxanthin Extracted from <i>Phaffia rhodozyma</i> Mutant Yeast
50	Krittana, C. Taengchaiyaphum, S. Havanapan, P. Pungtamon, N. Roytrakul, S. Sritunyalucksana, K.	Proteomics and Phosphoproteomics of Viral Infected Hemocytes in Black Tiger Shrimp
51	Sritunyalucksana, K. Sa-guanrut, P. Somboonna, N. Mangkalan, S. Krittana, C. Flegel, T.W.	Persistent Infection of White Spot Syndrome Virus in the Mud Crab <i>Scylla olivacea</i>
52	Boonserm, P. Sinkhamanan, K. Limpanawat, S. Tangsongcharoen, C. Promdonkoy, B.	Structure and Function of the Binary Toxin, a Mosquito-larvicidal agent of <i>Bacillus sphaericus</i>
53	Triwitayakorn, K. Sraphet, S. Boonchanawiwat, A. Thanyasiriwat, T. Boonseng, O. Tabata, S. Sasamoto, S. Shirasawa, K. Isobe, S. Lightfoot, D.A. Tangphatsonruang, S.	TA Microsatellite-Based Genetic Linkage Map of the Paper
54	Chungjatupornchai, W. Fa-aroonasawat, S. Kitraksa, P. Uduyay, N. Leanglum, P. Pattanapanyasat, K.	Synthetic Regulatory-sequence Libraries for Improvement of Heterologous Gene Expression in Cyanobacteria



No.	Authors	Title
The 36 th Congress on Science and Technology of Thailand, 26-28 October 2010, BITEC, Bangkok		
55	Sathapondecha, P. Udomkit, A.	Molecular characterization and expression of putative ion transport peptide of black tiger shrimp, <i>Penaeus monodon</i>
56	Ho, T. Panyim, S. Udomkit, A.	Prevention of infectious hypodermal and haematopoietic necrosis virus (IHHNV) infections in white shrimp (<i>Litopenaeus vannamei</i>) by double-stranded RNA
57	Htoo, H. Ketterman, AJ.	Characterization and functional analysis of two Zeta class glutathione transferases in <i>Drosophila</i>
58	Phetrungrnapha, A. Panyim, S. Ongvarrasopone, C.	Suppression of tudor staphylococcal nuclease gene of <i>Penaeus monodon</i> through dsRNA targeting SN-like domain
59	Maibunkaew, S. Tanapongpipat, S. Tirasophon, W.	Development of a novel gene expression system in <i>Pichia pastoris</i>
60	Sangsuwan, P. Thong-Ngam, P. Kitiyanant, Y.	BAX gene silencing with miRNA in H2O2-induced buffalo fibroblast cells (BFC)
61	Chimongkon, D. Chimwai, C. Panyim, S. Attasart, P.	Investigation of luciferase gene expression from a plasmid injected into shrimp
62	Kinoon, P. Chimwai, C. Panyim, S. Attasart, P.	Silencing of viral anti-apoptotic protein (wssv449) enhances shrimp mortality rate
63	Benjawan, K. Panyim, S. Ongvarrasopone, C.	Prevention of IHHNV replication in <i>L. vannamei</i> through LvRab7 knock-down
64	Tharad, S. Krittanai, C. Promdonkoy, B.	Introduction of trypsin cleavage sites at N-and C-termini of a mosquito-larvicidal toxin Cyt2Aa2 affects protein production and toxicity
65	Mongkalanon, S. Pungtanom, N. Roytrakul, S. Sritunyalucksana, K. Sanguanrut, P. Krittanai, C.	Responses of small granular hemocyte of mud crab (<i>Scylla olivacea</i>) to white spot syndrome virus
66	Havanapan, PO. Taengchaiyaphum, S. Roytrakul, S. Krittanai, C.	Differential multiplexing proteome of <i>Penaeus monodon</i> Hyaline cells in response to Yellow head virus
67	Wikan, N. Sakoonwatanyoo, P. Smith, DR.	Induction of apoptosis in chikungunya virus-infected mammalian cells
68	Sriam, S. Leecharoenkiat, A. Lathanatudom, P. Svasti, S. Fucharoen, S. Srisomsap, C. Chokchaichamnankit, D. Smith, DR.	Proteomic analysis of Hb H-CS erythroblasts
69	Surit, T. Leecharoenkiat, A. Lathanatudom, P. Svasti, S. Fucharoen, S. Srisomsap, C. Chokchaichamnankit, D. Smith, DR.	Phospho-proteome of beta-thalassemia erythroblasts
70	Chimwai, C. Panyim, S. Attasart, P.	Shrimp wastewater treatment by duckweed for recycling system



No.	Authors	Title
The 36 th Congress on Science and Technology of Thailand, 26-28 October 2010, BITEC, Bangkok		
71	Faisaikarm, T. Kitiyanan, Y. Fucharoen, S. Boonkusol, D.	<i>In vitro</i> development of vitrified 8 to 16-cell thalasaemic mouse embryos
Iron in Health & Diseases, 26-29 November 2010, Shangri-La Hotel, Chiangmai		
72	Fucharoen, S.	Thalassaemia and iron overload in Asia-Pacific
73	Winichagoon, P.	Iron deficiency : Beyond anaemia
Symposium on Emerging Diseases and Innovative Therapies, 21 November 2010, Siam City Hotel, Bangkok		
74	Yoksan, S.	New and improved vaccines for dengue and chikungunya viruses
75	Auewarakul, P.	Epidemiology and pathogenesis of influenza a virus
76	Fucharoen, S. Winichagoon, P. Svasti, S.	Thalassemia in southeast asia
The 10 th TRF Junior and Senior Researchers Meeting, 14-16 October 2010, Holiday Inn Resort Regent Beach, Cha Am, Phetchaburi		
77	Smith, DR. Panyasrivanit, M. Khakpoor, A. Wikan, N.	Autophagy as a mediator of the dengue virus : host cell interaction
78	Srichairatanakool, S. Kulprachakarn, K. Pattanapanyasart, K. Fucharoen, S.	Green tea extract and epigallocatechin 3-gallate reduced labile iron pool and protected oxidative stress in iron-loaded cultured hepatocytes
79	Mongkol, N. Tangdenpaisal, K. Ruchirawat, S. Thasana, N.	On-water chemistry : "Green" Synthesis of benzopyranone derivatives with "subcritical" water
80	Chetsawang, B. Suwanjang, W. Govitrapong, P.	Involvement of calpain-dependent death pathway in methamphetamine-induced toxicity in human neuroblastoma SH-SY5Y cultured cells
81	Wongtrakul, J. Sukittikul, S. Saisawang, C. Ketterman, A.J.	Modulation of mitogen-activated protein kinase p38 by glutathione transferases



Graduate Programs

The Institute of Molecular Biosciences offers 5 graduate programs:

1. Ph.D. and M.Sc. Programs in Molecular Genetics and Genetic Engineering
2. Ph.D. and M.Sc. Programs in Neurosciences
3. M.Sc. Program in Biomedical Instrumentation

Student Enrollment

Numbers of student enrolled and graduated in academic year 2010

Programs	Students enrolled	Student graduated
M.Sc. (Mol. Genet. & Genet. Eng.)	44	6
Ph.D. (Mol. Genet. & Genet. Eng.)	42	4
M.Sc. (Neurosciences)	15	1
Ph.D. (Neurosciences)	33	1
M.Sc. (Biomedical Instrumentation)	16	3
Total	150	15

Scholarship and Financial Support for Graduate Students

Source of Funding	Number of M.Sc. Students funded	Number of Ph.D. Students funded
	2010	2010
1. The Development and Promotion of Science and Technology Talents Project (DPST)	3	3
2. The National Center for Genetic Engineering and Biotechnology (BIOTEC)	1	-
3. Thailand Graduate Institute of Science and Technology: TGIST	1	2
4. The Thailand Research Fund-Royal Golden Jubilee Scholarship (RGJ)	-	30
5. The Commission on Higher Education Staff Development Scholarships (CHE)	-	12
6. Ph.D.-M.D. Scholarship	-	2
7. IMBG Scholarship	8	-
8. The 60 th Year Supreme Reign of His Majesty King Bhumibol Adulyadej	6	2



Outstanding Staff

No.	Awardee	Award	Organization	Date
1	Assist.Prof. Somsri Daochai	Outstanding Mahidol University Graduate Studies Alumni 2009	Mahidol University Graduate Studies Alumni	27 Jan. 2010
2	Dr.M.L. Saovaros Svasti	Outstanding Government Employee 2009	Mahidol University	3 Feb. 2010
3	Assist.Prof. Chalernporn Ongvarrasopone	Outstanding University Employee (Academic) 2009	Mahidol University	3 Feb. 2010
5	Prof. Suthat Fucharoen	The Highest Number of Publication Award of Mahidol University 2008 (Based on ISI Web of Science database 2009)	Mahidol University	12 Apr. 2010

Student Awards

Name	Award	Organization
Mr. Atipong Boonchanawiwat	Dean's List Award 2009	Faculty of Graduate Studies, Mahidol University
Mr. Suriyan Sukati	Poster Presentation Award	The 11 th National Graduate research Conference, Graduate School, Khon Kaen University
Dr. Tirawat Wannatung	Thesis Publication Award 2009	Faculty of Graduate Studies, Mahidol University
Dr. Natee Jearawiriyapaisarn	Thesis Publication Award 2009	Faculty of Graduate Studies, Mahidol University
Ms. Wilasinee Suwanjang	Thesis Publication Award 2009	Faculty of Graduate Studies, Mahidol University
Dr. Natee Jearawiriyapaisarn	Distinguished Thesis award 2009	National Research Council of Thailand
Mr. Opas Choksupmanee	Oral Presentation Award	The 11 th National Graduate research Conference, Graduate School, Khon Kaen University
Dr. Supattra Treerattrakool	Distinguished Thesis award 2009	Faculty of Graduate Studies, Mahidol University



Name	Award	Organization
Dr. Tirawat Wammatung	Thesis Publication Award 2009	Faculty of Graduate Studies, Mahidol University
Mr. Seksan Mangkalan	Oral Presentation award	Office of the Higher Education Commission

Training Courses, Workshops and Conferences

Organized by the Institute			
Name	Host	Period	Venue
1. Prevention and Control Of Thalassemia	Thalassemia Research Center	20-21 Nov. 2009	Royal River Hotel, Bangkok
2. Symposium on Emerging Diseases and Innovative Therapies	Inst. of Molecular Biosciences	21 Nov. 2009	Siam City Hotel, Bangkok
3. Asia-Pacific Iron Academy Conference 2009: Iron in Health and Diseases	Thalassemia Research Center	26-29 Nov. 2009	Shangira Hotel, Bangkok
4. Medical Instrumentation Workshop for ICU Nurses Class 20	Center for Biomedical Instrument Research and Development	5-16 Oct. 2009	Inst. of Molecular Biosciences, Nakhon Pathom
5. Workshop on Thalassemia Diagnosis in Thailand	Thalassemia Research Center	9-12 Mar. 2010	Inst. of Molecular Biosciences, Nakhon Pathom
6. Medical Equipment Intensive Course for Technician	Center for Biomedical Instrument Research and Development	15-26 Mar. 2010	Inst. of Molecular Biosciences, Nakhon Pathom
7. Telemetry Transmitters for Research In Animal Model	Inst. of Molecular Biosciences	9 Apr. 2010	Inst. of Molecular Biosciences, Nakhon Pathom
8. MB Annual Conference	Inst. of Molecular Biosciences	12 May 2010	Inst. of Molecular Biosciences, Nakhon Pathom
9. Workshop on Knee-Sleeve derived from MaccacoalforOsteoarthritis knee patients	Inst. of Molecular Biosciences	31 May 2010	Inst. of Molecular Biosciences, Nakhon Pathom

Name	Host	Period	Venue
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10 Medical Instrumentation Workshop for ICU Nurses Class 21	Center for Biomedical Instrument Research and Development	17-27 May 2010	Inst. of Molecular Biosciences, Nakhon Pathom
11 Ventilators Intensive Course for Technician	Center for Biomedical Instrument Research and Development	21 Jun.-2 Jul. 2010	Inst. of Molecular Biosciences, Nakhon Pathom
12 The 23th Conference on Medical Instrumentation: Medical Instrumentation for ICU and Emergency Health Care	Center for Biomedical Instrument Research and Development	5-6 Aug. 2010	Twin Towers Hotel, Bangkok
Academic Forum			
1. Influenza Evolution and the Inter-species Barrier	Prof. Prasert Auewarakul	29 Jun. 2010	Inst. of Molecular Biosciences, Nakhon Pathom
2. Current Research at Thalassemia Research Center	Prof. Suthat Fucharoen	17 Aug. 2010	Inst. of Molecular Biosciences, Nakhon Pathom

Activities



41th Anniversary of the Royal Bestowal of Mahidol University's name: Marh 2, 2010



Songkran Festival: April 9, 2010



Professor Emeritus Serene Piboonniyom Honorary Lecture: May 12, 2010



Wai Kru: July 1, 2010



Mahidol Day: September 24, 2010



Making a Good Merit on MB Day: May 12, 2010



MB Annual Conference: May 12, 2010



Thalassemia Center's Workshop: March 9-12, 2010



Thalassemia Conference on Prevention and Control of Thalassemia: November 20-21, 2009.



Medical Instrumentation Workshop for ICU Nurses: October 5-16, 2009.



Research Visit by Lancaster Girls's Grammar School: February 22, 2010



Research Visit by Mahidol Wittayanusorn School: June 22, 2010



MB's SAR team Visit Chaiyaboon Brothers Company Limited: March 30, 2010



MUQD Annual Assessment: February 15-16, 2010



Khao Pansa Buddhist Lent Ceremony: July 16, 2010



Performance Agreement Signing with MU President:



Commencement Ceremony: July 5, 2010





International Collaborations

The Institute of Molecular Biosciences has established collaborations and networks with a number of universities and institutions in several countries. This international collaboration promotes research cooperation in numerous areas and provides opportunities for faculty and student exchanges.

Collaborative Institutes in Asia

- Nanyang Technological University, Singapore
- National University of Singapore, Singapore
- Division of Medical Technology, Department of Health Sciences, Graduate School of Medical Sciences, Kyushu University
- Laboratory of Molecular Medicine, Institute of Medical Science, The University of Tokyo, Japan
- Department of Neurology and Psychiatry, Faculty of Medicine, Seoul National University, Korea
- Departments of Anatomy, Physiology and Neuroscience, All India Institutes of Medical Sciences, New Delhi, India
- WHO/SEARO Regional Office for South-East Asia, World Health House New Delhi, India
- Institute Pasteur in Cambodia Phnom Penh, Cambodia
- Hospital for Tropical Diseases (Cho Quan Hospital), Ho Chi Minh City, Vietnam

Collaborative Institutes in Australia and New Zealand

- Australian National University, Australia
- University of Western Australia, Australia
- Cell and Gene Therapy Group, Murdoch Children's Research Institute, Monash University, Australia
- Queensland Institute of Brain Research, University of Queensland, Australia
- Neuroscience Research Program, Department of Human Physiology, Flinders University, Adelaide, Australia
- Department of Psychological Medicine, Faculty of Medical and Health Sciences, University of Auckland, New Zealand

Collaborative Institutes in Europe

- Weatherall Institute of Molecular Medicine, John Radcliffe Hospital, Oxford University, UK
- University of Cambridge, UK
- University of Nottingham, UK



- College de France, and CNRS, Paris, France
- University of Pasteur at Strasbourg and Lyon, France
- Institute of Medical Anatomy, Panum Institute, University of Copenhagen, Denmark
- Center of Excellence for Molecular Biology and Neuroscience, and the Department of Basic Medical Science, School of Medicine, University of Oslo, Norway
- HARLOS, University of Bergen, Norway
- Department of Neuroscience and Center for Stem Cell Research, Karolinska Institute, Stockholm, Sweden
- WHO/TDR World Health Organization, Geneva, Switzerland

Collaborative Institutes in the United States of America

- Yale University, Connecticut
- Brown University, Rhode Island
- University of Michigan, Michigan
- Lineberger Comprehensive Cancer Center, University of North Carolina, North Carolina
- National Institute of Diabetes, Digestive and Kidney Disease, National Institutes of Health, University of California, California
- University of California at Irvine, California
- University of Miami, Centers for Diseases Control, Florida
- Neuroscience Program, Beckmann Institute, University of Illinois, Urbana-Champaign, Illinois
- University of North Dakota School of Medicine and Health Sciences, North Dakota
- Albert Einstein College of Medicine, Yeshiva University, New York
- Department of Physiology and Biophysics, Georgetown School of Medicine, Washington D.C
- UCLA Neuroscience Research Institute, University of California at Los Angeles, Los Angeles, California
- Institute of Imaging Science, Vanderbilt University, Nashville, Tennessee
- Behavioral Medicine Research Center, Division of Health Psychology, Department of Psychology, University of Miami, Miami, Florida
- Positron Emission Tomography (PET) Center, Departments of Pediatrics, Neurology, and Radiology, Wayne State University, Detroit, Michigan USA

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