Nuankanya Sathirapongsasuti, M.D., Ph.D.

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Education

MD
Faculty of Medicine Ramathibodi Hospital
Mahidol University
2005

PHD
Department of Medical Genome Sciences
Graduate School of Frontier Sciences
The University of Tokyo
2010

Career Summary

ASSISTANT DEAN FOR FINANCE AND PROCUREMENT
Faculty of Medicine Ramathibodi Hospital
Mahidol University
2023 to present

LECTURER
Translational Medicine
Ramathibodi School of Medicine
Chakri Naruebodindra Medical Institute
Faculty of Medicine Ramathibodi Hospital
Mahidol University
2013 to present

JUNIOR RESEARCHER
Pacific Center for Emerging Infectious Diseases Research
John A. Burns School of Medicine
University of Hawaii at Manoa, Hawaii, USA
2012 to 2013

POSTDOCTORAL FELLOW
Genome Science Division
Research Center for Advanced Science and Technology, The University of Tokyo,
2010 to 2011

Professional Affiliations and Activities:

Thai Working Group on the Toxic Marine Animal

Secretary of the Expert Opinion Protocol Committee on jellyfish envenomation especially box jellyfish envenomation

Director of Research Network of NANOTEC, Translational Research In Nanotechnology-based Diagnostics (TREND) 2018-2022

Reviewer of the Government Pharmaceutical Organization (GPO) Strategic Plan 2016-2020

Research Experiences:

LECTURER, MAHIDOL UNIVERSITY; BANGKOK, 2013 - PRESENT

I. Identify and study how microRNAs alter the expression of key genes involved in developmental and pathophysiology of human diseases

II. Multi-omics data integration to identify novel pathways in kidney diseases

III. Thai water box jellyfish: species identification, venom biochemistry and toxinological responses

IV. Translational research in nanotechnology-based diagnostics

JUNIOR RESEARCHER, UNIVERSITY OF HAWAII AT MANOA; HAWAII, 2012 - 2013

I. Discovery of nonrodent-borne hantaviruses using high throughput sequencing

POSTDOCTORAL FELLOW, UNIVERSITY OF TOKYO; TOKYO, 2010 - 2011

I. The differential expression of non-coding RNA in cancer cells under hypoxic condition

II. Integrated transcriptomic and epigenomic analysis of non-coding RNA in cellular

Publications

Pitikultham P, Putnin T, Pimalai D, Sathirapongsasuti N, Kitiyakara C, Jiang Q, Ding B, Japrung D. Ultrasensitive Detection of MicroRNA in Human Saliva via Rolling Circle Amplification Using a DNA-Decorated Graphene Oxide Sensor. ACS Omega. 2023 Apr 17;8(17):15266-15275.

Osathanunkul, M., Sawongta, N., Sathirapongsasuti, N., Poonsawat, T., Detsri, U., Aungtonya, C., & Suwannapoom, C. (2022). Distinguishing venomous jellyfish species via high resolution melting analysis. Frontiers in Marine Science, 9, 1019473.

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Ngamjanyaporn P, Worawichawong S, Pisitkun P, Khiewngam K, Kantachuvesiri S, Nongnuch A, Assanatham M, Sathirapongsasuti N, Kitiyakara C. Predicting treatment response and clinicopathological findings in lupus nephritis with urine epidermal growth factor, monocyte chemoattractant protein-1 or their ratios. PLoS One. 2022 Mar 10;17(3):e0263778.

Runtuwene LR, Sathirapongsasuti N, Srisawat R, Komalamisra N, Tuda JSB, Mongan AE, Aboge GO, Shabardina V, Makalowski W, Nesti DR, Artama WT, Nguyen-Thi LA, Wan KL, Na BK, Hall W, Pain A, Eshita Y, Maeda R, Yamagishi J, Suzuki Y. Global research alliance in infectious disease: a collaborative effort to combat infectious diseases through dissemination of portable sequencing. BMC Res Notes. 2022 Feb 12;15(1):44.

Mathema VB, Duangkumpha K, Wanichthanarak K, Jariyasopit N, Dhakal E, Sathirapongsasuti N, Kitiyakara C, Sirivatanauksorn Y, Khoomrung S. CRISP: a deep learning architecture for GC × GC-TOFMS contour ROI identification, simulation and analysis in imaging metabolomics. Brief Bioinform. 2022 Mar 10;23(2):bbab550.

Anekthanakul K, Manocheewa S, Chienwichai K, Poungsombat P, Limjiasahapong S, Wanichthanarak K, Jariyasopit N, Mathema VB, Kuhakarn C, Reutrakul V, Phetcharaburanin J, Panya A, Phonsatta N, Visessanguan W, Pomyen Y, Sirivatanauksorn Y, Worawichawong S, Sathirapongsasuti N, Kitiyakara C, Khoomrung S. Predicting lupus membranous nephritis using reduced picolinic acid to tryptophan ratio as a urinary biomarker. iScience. 2021 Oct 25;24(11):103355.

Nongnuch A, Kitiyakara C, Sappadungsuk S, Sathirapongsasuti N, Vipattawat K, Zhang P, Davies N, Davenport A. Pilot study to investigate differences in middle molecules, oxidative stress and markers of peripheral vascular disease in patients treated by high flux haemodialysis and haemodiafiltration. PLoS One. 2021 Oct 6;16(10):e0258223.

Putnin T , Waiwinya W , Pimalai D , Chawjiraphan W , Sathirapongsasuti N , Japrung D . Dual sensitive and rapid detection of glycated human serum albumin using a versatile lead/graphene nanocomposite probe as a fluorescence-electrochemical aptasensor. Analyst. 2021 Jul 7;146(13):4357-4364.

Sathirapongsasuti N, Panaksri A, Boonyagul S, Chutipongtanate S, Tanadchangsaeng N. Electrospun Fibers of Polybutylene Succinate/Graphene Oxide Composite for Syringe-Push Protein Absorption Membrane. Polymers (Basel). 2021 Jun 22;13(13):2042.

Waiwinya W, Putnin T, Pimalai D, Chawjiraphan W, Sathirapongsasuti N, Japrung D. Immobilization-Free Electrochemical Sensor Coupled with a Graphene-Oxide-Based Aptasensor for Glycated Albumin Detection. Biosensors (Basel). 2021 Mar 17;11(3):85.

Sathirapongsasuti N, Khonchom K, Poonsawat T, Pransilpa M, Ongsara S, Detsri U, Bungbai S, Lawanangkoon SA, Pattanaporkrattana W, Trakulsrichai S. Rapid and Accurate Species-Specific PCR for the Identification of Lethal Chironex Box Jellyfish in Thailand. Int J Environ Res Public Health. 2020 Dec 30;18(1):219.

Chawjiraphan W, Apiwat C, Segkhoonthod K, Treerattrakoon K, Pinpradup P, Sathirapongsasuti N, Pongprayoon P, Luksirikul P, Isarankura-Na-Ayudhya P, Japrung D. Albuminuria detection using graphene oxide-mediated fluorescence quenching aptasensor. MethodsX, Volume 7, 2020, 101114

Thaikruea L, Siriarayaporn P, Pruedthiphap M, Chaiyakul T, Wananukul W, Trakulsrichai S, Srisuma S, Sathirapongsasuti N. Clinical Practice Guideline of Jellyfish Envenomation, especially Box Jellyfish Envenomation. Royal Thai Navy Medical Journal. 2020 Aug 19.Vol.47 No.2: 518-524.

Na Nakorn P, Pannengpetch S, Isarankura-Na-Ayudhya P, Thippakorn C, Lawung R, Sathirapongsasuti N, Kitiyakara C, Sritara P, Vathesatogkit P, Isarankura-Na-Ayudhya C. Roles of kininogen-1, basement membrane specific heparan sulfate proteoglycan core protein, and roundabout homolog 4 as potential urinary protein biomarkers in diabetic nephropathy.

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Srinoun K, Sathirapongsasuti N, Paiboonsukwong K, Sretrirutchai S,Wongchanchailert M, Fucharoen S. miR-144 regulates oxidative stress tolerance of thalassemic erythroid cell via targeting NRF2. Annals of Hematology. 2019 Jun 10; DOI 10.1007/s00277-019-03737-4

Tangprasittipap A, Kaewprommal P, Sripichai O, Sathirapongsasuti N, Satirapod C, Shaw PJ, Piriyapongsa J, Hongeng S. Comparison of gene expression profiles between human erythroid cells derived from fetal liver and adult peripheral blood. PeerJ. 2018 Aug 31;6:e5527.

Khonchom K, Poonsawat T, Ongsara S, Pransilpa M, Detsri U, Sathirapongsasuti N. Molecular identification of box jellyfish in Thai waters. PROCEEDINGS of The 6th Marine Science Conference. 2018:748-759.

Chanrat E,Worawichawong S, Radinahamed P, Sathirapongsasuti N, Nongnuch A,Assanatham M, Udomsubpayakul U, Kitiyakara C. Urine epidermal growth factor, monocyte chemoattractant protein-1 or their ratio as predictors of complete remission in primary glomerulonephritis. Cytokine. 2018 Apr;104:1-7.

Yamagishi J, Runtuwene LR, Hayashida K, Mongan AE,Thi LAN,Thuy LN,That CN,Limkittikul K, Sirivichayakul C, Sathirapongsasuti N, Frith M, et al. Serotyping dengue virus with isothermal amplification and a portable sequencer. Sci Rep. 2017 Jun 14;7(1):3510.

Kongsakon R, Sathirapongsasuti N, Rerkamnuaychoke B. Haplotype Analysis of Genetic Polymorphism in Antisocial Alcoholism. JOURNAL OF THE MEDICAL ASSOCIATION OF THAILAND. 2017 Jun 1;100(6):679.

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Gu SH, Nicolas V, Lalis A, Sathirapongsasuti N,Yanagihara R. Complete genome sequence and molecular phylogeny of a newfound hantavirus harbored by the Doucet's musk shrew (Crocidura douceti) in Guinea. Infection, Genetics and Evolution, 2013 Aug 27. pii: S1567-1348(13)00312-2

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Sathirapongsasuti JF, Sathira N, Suzuki Y, Huttenhower C, Sugano S. Ultraconserved cDNA Segments in Human Transcriptome Are Implicated in Functions at Multiple Post-Translational Stages. Nucleic Acids Research. 39 (6), 1967-79, March, 2011

Sathira N*, Yamashita R*, Tanimoto K, Kanai A, Arauchi T, Kanematsu S, Nakai K, Suzuki Y, Sugano S. Characterization of transcription start sites of putative non-coding RNAs by multifaceted use of massively paralleled sequencer. DNA Research. 17(3), 169-183, June, 2010

Noppornpanth S, Sathirapongsasuti N , Chongsrisawat V, Poovorawan Y. Detection of HBsAg and HBV DNA in serum and saliva of HBV carriers, Southeast Asian J Trop Med Public Health. 31(2) 419-21, June, 2000

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