

Curriculum Vitae



Name/Family Name: Ekawat Pasomsub

Nationality: Thai

Education:

B.Sc. in Medical Technology	Mahidol University	1995
M.Sc. in Clinical Pathology	Mahidol University	1998
Ph.D. in Clinical Pathology	Mahidol University	2002
Post-doctoral research RIKEN Yokohama Institute inside the Institute of Medical Science	The University of Tokyo	2011

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Status in Organization

1. Data analyzer of Thailand SNP discovery project, Bioinformatics section, National Center Genetic Engineering and Biotechnology (Biotec).
2. Administrator of DNA Banking in pharmacogenomic project under TCELS, 2006-2011
3. Bioinformatician of Pharmacogenomics project, The Thailand Center of Excellence for Life Sciences (TCELS), 2006-2011.
4. Teaching assistance of HyperCourse on Bioinformatics, Thailand Graduate Institute of Science and Technology, National Science and Technology Development Agency
5. Administrator of HIV Therapy-Edge and ViroScore Suite, 2008-2011

6. Administrator of HIV Ramascore, 2008-2011
7. Co-administration of LIS in Ramathibodi Hospital

Current research and areas of interest

8. Phenotypic resistance prediction from genotypes for HIV-1 protease and reverse transcriptase inhibitors using Neural networks
9. Development of workflow and associated web services for better prediction of the effect of Single nucleotide polymorphism in pharmacogenomics research
10. Software and database development for DNA banking system
11. Research topic in molecular biotechnology and bioinformatics
12. Research topic in population analysis using STR locus information
13. SNPs and covariation analysis from pharmacogenomics information
14. Software and tools for DNA banking and anonymous sample system
15. Thai Genome Browser for SNPs information of 189 genes involved in drug metabolizing enzymes and 550K SNPs based on affymetrix microarray technology
16. Genome wide association study for Leprosy, Tuberculosis, Thalassemia, HIV-rash, Aspirin resistant
17. Genetic imputation study for Leprosy, Tuberculosis, Thalassemia, HIV-rash, Aspirin resistant

Grants

18. Thailand SNPs discovery project in 32 Healthy population with DNA sequencing (2004-2006), BIOTEC
19. Individualized HIV-1 drug resistant estimation: a bioinformatics approach to predict phenotype of drug resistance from HIV-1 genotype based on computational chemical calculations, artificial intelligence and machine learning technologies from The National Center for Genetic Engineering and Biotechnology, Thailand (2005-2007).
20. Semi-automatic presentation of Thai GWAS data under DMSc-RIKEN (2010)

Training

- Genetic statistic, Seoul University, South Korea, 2006
- Database management for blood sample (GenVault), Carlsbad, California, USA, 2006
- Microarray data analysis, CapitalBio, Beijing, China, 2007
- Taverna -Automatic Bioinformatic Workflow, Manchester, England, 2008

Speakers

- DNA banking system, Ramathibodi Research Conference, 2007
- Workshop “Basic to Advanced Genome Wide Association Analysis” , Ramathibodi Hospital, 2008
- Workshop “The 4th HIV Drug Resistance Workshop: Basic Principles & Clinical Implications” , Ramathibodi Hospital, 2008
- Workshop “The 6th HIV Drug Resistance Workshop: Basic Principles & Clinical Implications” , Ramathibodi Hospital, 2010

Text Books and Learning Materials

- Self learning with Bioinformatics, 2004
- Multimedia CD-ROM Self learning with Bioinformatic, 2004
- Maximize the effectiveness of HIV-1 treatment by using molecular techniques, bioinformatic and pharmacogenomics, 2007
- วิเคราะห์เจาะลึกจีโนมมนุษย์ด้วยชีวสารสนเทศ (Use of Bioinformatic for Extensive Genome Analysis), 2008

Poster presentations

- Genotype imputation analysis in Thai population. The 11th International Conference on Bioinformatics 2012 (InCoB2012) at Centara Grand at Central Plaza Ladprao Bangkok, Thailand during 3 – 5 October 2012.

- Genotype imputation analysis in Thai population. New Frontiers Symposium in Personal Genomics, 3 & 4 December 2012, Nijmegen, The Netherlands.

Publications

1. Phuphuakrat A, Phawattanakul S, **Pasomsub E**, Kiertiburanakul S, Chantratita W, Sungkanuparph S. [Coreceptor tropism determined by genotypic assay in HIV-1 circulating in Thailand, where CRF01_AE predominates.](#) HIV Med. 2013 Nov 11. doi: 10.1111/hiv.12108. [Epub ahead of print]
2. Viratyosin W, Kulawonganunchai S, Smittipat N, Juthayothin T, Penpassakarn P, **Pasomsub E**, Chantratita W, Chaiprasert A, Palittapongarnpim P. [Draft Genome Sequence of the Mycobacterium tuberculosis Strain 43-16836, Belonging to the Indo-Oceanic Lineage, Isolated From Tuberculous Meningitis in Thailand.](#) Genome Announc. 2013 Oct 3;1(5). doi:pii: e00801-13. 10.1128/genomeA.00801-13
3. Sensorn I, Sirachainan E, Chamnanphon M, **Pasomsub E**, Trachu N, Supavilai P, Sukasem C, Pinthong D. [Association of CYP3A4/5, ABCB1 and ABCC2 polymorphisms and clinical outcomes of Thai breast cancer patients treated with tamoxifen.](#) Pharmgenomics Pers Med. 2013 Aug 26;6:93-8. doi: 10.2147/PGPM.S44006.
4. Chamnanphon M, Pechatanan K, Sirachainan E, Trachu N, Chantratita W, **Pasomsub E**, Noonpakdee W, Sensorn I, Sukasem C. [Association of CYP2D6 and CYP2C19 polymorphisms and disease-free survival of Thai post-menopausal breast cancer patients who received adjuvant tamoxifen.](#) Pharmgenomics Pers Med. 2013 May 24;6:37-48. doi: 10.2147/PGPM.S42330. Print 2013.
5. Sungkanuparph S, **Pasomsub E**, Chantratita W. [Surveillance of Transmitted HIV Drug Resistance in Antiretroviral-Naive Patients Aged less than 25 Years, in Bangkok, Thailand.](#) J Int Assoc Provid AIDS Care. 2013 May 24. [Epub ahead of print]

6. **Sukasem C**, Cressey TR, Prapaithong P, Tawon Y, **Pasomsub E**, Srichunrusami C, Jantararoungtong T, Lallement M, Chantratita W. [Pharmacogenetic markers of CYP2B6 associated with efavirenz plasma concentrations in HIV-1 infected Thai adults](#). Br J Clin Pharmacol. 2012 Dec;74(6):1005-1012. doi: 10.1111/j.1365-2125.2012.04288.x.
7. Sungkanuparph S, Sukasem C, Kiertiburanakul S, **Pasomsub E**, Chantratita W. [Emergence of HIV-1 drug resistance mutations among antiretroviral-naïve HIV-1-infected patients after rapid scaling up of antiretroviral therapy in Thailand](#). J Int AIDS Soc. 2012 Mar 12;15(1):12. doi: 10.1186/1758-2652-15-12.
8. Phuphuakrat A, **Pasomsub E**, Kiertiburanakul S, Chantratita W, Sungkanuparph S. [HIV Type 1 Integrase Polymorphisms in Treatment-Naive and Treatment-Experienced HIV Type 1-Infected Patients in Thailand Where HIV Type 1 Subtype A/E Predominates](#). AIDS Res Hum Retroviruses. 2012 Aug;28(8):937-43. Epub 2011 Nov 22.
9. Sukasem C, Cressey TR, Prapaithong P, Tawon Y, **Pasomsub E**, Srichunrusami C, Jantararoungtong T, Lallement M, Chantratita W. [Pharmacogenetic Markers of CYP2B6 Associated with Efavirenz Plasma Concentrations in HIV-1 infected Thai Adults](#). Br J Clin Pharmacol. 2012;74(6):1005-1012. Epub 2012 Jan 13.
10. Chantratita W, Sukasem C, Sirinavin S, Sankuntaw N, Srichantaratsamee C, **Pasomsub E**, Malathum K. [Simultaneous detection and subtyping of H274Y-positive influenza A \(H1N1\) using pyrosequencing](#). J Infect Dev Ctries. 2011 May 28;5(5):348-52.
11. Kaewpongsri S, Sukasem C, Srichunrusami C, **Pasomsub E**, Zwang J, Pairoj W, Chantratita W. [An integrated bioinformatics approach to the characterization of influenza A/H5N1 viral sequences by microarray data: Implication for monitoring H5N1 emerging strains and designing appropriate influenza vaccines](#). Mol Cell Probes. 2010 Dec;24(6):387-95. doi: 10.1016/j.mcp.2010.08.006. Epub 2010 Aug 24
12. Surapolchai P, Hongeng S, Mahachoklertwattana P, Pakakasama S, Winaichatsak A, Wisanuyothin N, **Pasomsub E**, Mahasirimongkol S, irachainan N. [Impaired glucose tolerance and insulin resistance in survivors of childhood](#)

- [acute lymphoblastic leukemia: prevalence and risk factors.](#) J Pediatr Hematol Oncol. 2010 Jul;32(5):383-9. doi: 10.1097/MPH.0b013e3181dccc0b.
13. **Pasomsub E**, Sukasem C, Sungkanuparph S, Kijisirikul B, Chantratita W. [The application of artificial neural networks for phenotypic drug resistance prediction: evaluation and comparison with other interpretation systems.](#) Jpn J Infect Dis. 2010 Mar;63(2):87-94
 14. Poonpiriya V, Sungkanuparph S, Leechanachai P, **Pasomsub E**, Watitpun C, Chunchakan S, Chantratita W. [A study of seven rule-based algorithms for the interpretation of HIV-1 genotypic resistance data in Thailand.](#) J Virol Methods. 2008 Jul;151(1):79-86. doi: 10.1016/j.jviromet.2008.03.017. Epub 2008 May 6
 15. Sukasem C, Churdboonchart V, Chasombat S, Kohreanudom S, Watitpun C, **Pasomsub E**, Piroj W, Tiensuwan M, Chantratita W. [Surveillance of genotypic resistance mutations in chronic HIV-1 treated individuals after completion of the National Access to Antiretroviral Program in Thailand.](#) Infection. 2007 Apr;35(2):81-8.
 16. Rerkamnuaychoke B, Rinthachai T, Shotivaranon J, Jomsawat U, Siriboonpiputtana T, Chaiatchanarat K, Pasomsub E, Chantratita W. [Thai population data on 15 tetrameric STR loci-D8S1179, D21S11, D7S820, CSF1PO, D3S1358, TH01, D13S317, D16S539, D2S1338, D19S433, vWA, TPOX, D18S51, D5S818 and FGA.](#) Forensic Sci Int. 2006 May 10;158(2-3):234-7. Epub 2005 Jul 5.
 17. Mahasirimongkol S, Chantratita W, Promso S, **Pasomsab E**, Jinawath N, Jongjaroenprasert W, et al. Similarity of the allele frequency and linkage disequilibrium pattern of single nucleotide polymorphisms in drug-related gene loci between Thai and northern East Asian populations: implications for tagging SNP selection in Thais. J Hum Genet 2006;51(10):896-904.
 18. Ruangrit U, Srikummool M, Assawamakin A, Ngamphiw C, Chuechote S, Thaiprasarnsup V, Agavatpanitch G, **Pasomsab E**, Yenichitsomanus PT, Mahasirimongkol S, Chantratita W, Palittapongarnpim P, Uyyanonvara B, Limwongse C, Tongsimas S. Thailand mutation and variation database (ThaiMUT). Hum Mutat. 2008 May 16;29(8):E68-E75.

19. Damkliang K, Tandayya P, **Pasomsub E**, Chantratita W, Mahasirimongkol S. Taverna Workflow for Validating BioMart Services Signal Processing Systems, International Conference on. 2009;0:459-63.
20. Lee VS, Wittayanarakul, K., Remsungnen, T., Parasuk, V., Sompornpisut, P., Chantratita, W., Sangma, J., Vannarat, S., Srichaikul, P., Hannongbua, S., Saparpakorn, P., Treesuwan, W., Aruksakulwong, O., **Pasomsub, E.**, Promsri, S., Chuakheaw, D., Hannongbua, S. Structure and Dynamics of SARS Coronavirus Proteinase: The Primary Key to the Designing and Screening for Anti-SARS Drugs. ScienceAsia 2003;29(181).