

## CURRICULUM VITAE



### A. BUTIR-BUTIR PERIBADI (*Personal Details*)

Nama Penuh ( <i>Full Name</i> )	Lai Mei I	Gelaran ( <i>Title</i> ):Dr.
Alamat Semasa ( <i>Current Address</i> )	Jabatan/Fakulti ( <i>Department/Faculty</i> )	E-mel dan URL ( <i>E-mail Address and URL</i> )
Department of Pathology Faculty of Medicine and Health Sciences, Universiti Putra Malaysia 43400 UPM Serdang Selangor. Tel: 03-8947 2494	Department of Pathology Faculty of Medicine and Health Sciences, Universiti Putra Malaysia 43400 UPM Serdang Selangor. Tel: 03-8947 2494 Fax: 03-8941 2787	E-mail: lmi@upm.edu.my

### B. KELAYAKAN AKADEMIK (*Academic Qualification*)

Nama Sijil / Kelayakan ( <i>Certificate / Qualification obtained</i> )	Nama Sekolah Institusi ( <i>Name of School / Institution</i> )	Tahun ( <i>Year obtained</i> )	Bidang pengkhususan ( <i>Area of Specialization</i> )
PhD (or equivalent)	King's College London, University of London	2007	Molecular Haematology
First Degree	Universiti Putra Malaysia	2002	Bsc. Biomedical Science (First Class Honours)

### F. ANUGERAH DAN HADIAH (*Honours and Awards*)

Name of awards	Title	Award Authority	Award Type	Year
<i>Academic Awards</i>				
<i>Non-Academic Awards</i>	Berend Houwen Travel Award	International Society of Laboratory Hematology	International	2009
	PRPI	UPM	Silver Medal	2011
	PRPI	UPM	Bronze Medal	2011
	PRPI	UPM	Bronze Medal	2009
<i>Awards of Merit</i>	Anugerah Perkhidmatan Cemerlang	UPM	University	2015
	Anugerah Perkhidmatan Cemerlang	UPM	University	2012
	Education and	Japan Society for	International	2011

	Research Program for Young Scientists in collaboration with East Asia Thalassemia Research Network	the Promotion of Sciences		
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**G. SENARAI PENERBITAN (Sila masukan nama pengarang, tajuk, nama jurnal, jilid, muka surat dan tahun diterbitkan) (List of publications – author (s), title, journal, volume, page and year published)**

<i>Journal</i>	<ol style="list-style-type: none"> <li>1. Lee TY, Lai MI, Ismail P, Ramachandran V, Tan JA, Teh LK, Othman R, Hussein NH, George E. Analysis of <math>\alpha 1</math> and <math>\alpha 2</math> globin genes among patients with hemoglobin Adana in Malaysia. <i>Genetics and Molecular Research</i> (2016); 15(2). doi: 10.4238/gmr.15027400</li> <li>2. Lee TY, Lai MI, Ramachandran V, Tan JA, Teh LK, Othman R, Hussein NH, George E. Rapid detection of <math>\alpha</math>-thalassaemia variants using droplet digital PCR. <i>International Journal of Laboratory Hematology</i> (2016); Jun 28. doi: 10.1111/ijlh.12520.</li> <li>3. Tze Yan Lee, Logeswaran Muniandy, Lai Kuan Teh, Maha Abdullah, Elizabeth George, Jameela Sathar, <b>Mei I Lai</b> (2016). <i>Correlation of BACH1 and HbE/beta-thalassaemia Globin Expression</i>. <i>Turkish Journal of Haematology</i> 33(1):15-20. doi: 10.4274/tjh.2014.0197</li> <li>4. <b>Mei I Lai</b>, Lim Wai Feng, Boon Kar Yap, Elizabeth George, Maha Abdullah. Rapid ferritin iron release using FMN reductase. <i>International Journal of Bioscience, Biochemistry and Bioinformatics</i> (2015); 5(2):111-119.</li> <li>5. Keai Sinn Tan, Tomoko Inoue, Kasem Kulkeaw, Yuka Tanaka, <b>Mei I Lai</b>, and Daisuke Sugiyama. Localized SCF and IGF-1 secretion enhances erythropoiesis in the spleen of murine embryos. <i>Biology Open</i> (2015); 4(5):596-607. doi: 10.1242/bio.201410686.</li> <li>6. Teh LK, Lee TY, Tan JA, <b>Lai MI</b>, George E. The use of Taqman genotyping assays for rapid confirmation of <math>\beta</math>-thalassaemia mutations in the Malays: accurate diagnosis with low DNA concentrations. <i>International Journal of Laboratory Hematology</i> (2015); 37(1):79-89. doi: 10.1111/ijlh.12240.</li> <li>7. Lim WF, Muniandi L, George E, Sathar J, Teh LK, <b>Lai MI</b> (2015). HbF in HbE/<math>\beta</math>-thalassaemia: A clinical and laboratory correlation. <i>Hematology</i>. 20(6):349-53. doi: 10.1179/1607845414Y.0000000203.</li> <li>8. Ling KH, Hewitt CA, Tan KL, Cheah PS, Vidyadaran S, <b>Lai MI</b>, Lee HC, Simpson K, Hyde L, Pritchard MA, Smyth GK, Thomas T, Scott HS (2014). Functional transcriptome analysis of the postnatal brain of the Ts1Cje mouse model for Down syndrome reveals global disruption of interferon-related molecular networks. <i>BMC Genomics</i>. Jul 22;15(1):624. doi: 10.1186/1471-2164-15-624. Impact Factor: 4.04.</li> <li>9. Teh LK, Lee TY, Tan JA, <b>Lai MI</b>, George E (2014). The use of Taqman genotyping assays for rapid confirmation of <math>\beta</math>-thalassaemia mutations in the Malays: accurate diagnosis with low DNA concentrations. <i>Int J Lab Hematol</i>. Apr 12. doi: 10.1111/ijlh.12240. Impact Factor: 1.87</li> <li>10. Teh LK, George E, <b>Lai MI</b>, Tan JA, Wong L, Ismail P (2014). Molecular basis of transfusion dependent beta-thalassaemia major patients in Sabah. <i>J Hum Genet</i>. 59(3):119-23. Impact factor: 2.526.</li> <li>11. Low PT, <b>Lai MI</b>, Ngai SC, Abdullah S (2013). Transgene expression from CpG-reduced lentiviral gene delivery vectors in vitro. <i>Gene</i>. 533(1):451-5. Impact factor: 2.371.</li> <li>12. Lim WF, Inoue-Yokoo T, Tan KS, <b>Lai MI</b>, Sugiyama D (2013). Hematopoietic cell differentiation from embryonic and induced pluripotent stem cells. <i>Stem Cell Res Ther</i>. 2013 Jun 18;4(3):71. Impact factor: 3.652.</li> <li>13. Tan KS, Tamura K, <b>Lai MI</b>, Veerakumarasivam A, Nakanishi Y, Ogawa M, Sugiyama D (2013). Molecular Pathways Governing Development of Vascular Endothelial Cells from ES/iPS Cells. <i>Stem Cell Rev</i>. Oct;9(5):586-98. Impact factor: 4.523.</li> </ol>
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14. E George, LK Teh, R Rosli, **MI Lai** and JAMA Tan (2013). HbA2 levels in beta-thalassaemia carriers with Filipino beta-zero deletion: Are the levels higher than what is found in non deletional forms of beta-thalassaemia. *Pathology*, 45(1):62-65. Impact factor: 2.378.
15. E George, LK Teh, R Rosli, **MI Lai** and JAMA Tan (2012). *Beta thalassaemia mutations in Malays: A simplified cost-effective strategy to identify the mutations*. *Malaysian Journal of Medicine and Health Sciences*, 8(1):45-53.
16. Wai Feng Lim, Muniandi L, Elizabeth George, Jameela Sathar, Lai Kuan Teh, Gin Gin Gan, and **Mei I Lai** (2012).  *$\alpha$ -Haemoglobin stabilising protein expression is influenced by mean cell haemoglobin and HbF levels in HbE/ $\beta$ -thalassaemia individuals*. *Blood Cells, Molecules and Diseases*, 49:17-21. Impact factor: 2.716.
17. Elizabeth George, **Lai Mei I**, Teh Lai Kuan, Rajesh Ramasamy, Goh Ern Huei, Kamalan Asokan, Mary Anne Tan Jin Ai, Maithili Vasudevan, Sharon Low (2011). *Screening for intermediate and severe forms of thalassaemia in discarded red blood cells: Optimization and feasibility*. *Medical Journal of Malaysia*, 66(5):429-434.
18. S.N. Karthipan, E. George, S. Jameela, W.F. Lim, L.K. Teh, T.Y. Lee, V.K. Chin, **M.I. Lai** (2011). *An assessment of three non-commercial DNA extraction methods from dried blood spots for beta-thalassaemia mutation identification*. *International Journal of Laboratory Hematology*, 33:540-544. Impact factor: 1.304.
19. N. Nordin, **M.I. Lai**, A. Veerakumarasivam, R. Ramasamy, S. Abdullah, W.Y. Wendy-Yeo and R. Rosli (2011). *Induced Pluripotent Stem cells: History, Properties and Potential Applications*. *Medical Journal of Malaysia*, 66:35-40.
20. **Mei I Lai**, Wai Yeng Wendy-Yeo, Rajesh Ramasamy, Norshariza Nordin, Rozita Rosli, Abhi Veerakumarasivam, Syahril Abdullah (2011). *Advancements in Reprogramming Strategies for the Generation of Induced Pluripotent Stem Cells*. *Journal of Assisted Reproduction and Genetics*, 28(4):291-301. Impact factor: 1.359.
21. **Mei I Lai**, Chad Garner, Jie Jiang, Nicholas Silver, Steve Best, Stephan Menzel, and S.L. Thein. (2010). *A twins heritability study on alpha hemoglobin stabilizing protein (AHSP) expression variability*. *Twin Research and Human Genetics*, 13(6): 567-572. Impact factor: 1.994.
22. LK Teh, E George, **MI Lai**, A Rahimah, Z Zubaidah, JAMA Tan. (2009). *Concurrent Inheritance of Deletional  $\alpha$ -thalassaemia in Malays with HbE Trait*. *Malaysian Journal of Medicine and Health Sciences*, 5(2): 11-18.
23. Sabariah MN, **Lai MI**, Zainina S, Eusni MT, Faridah I, Norfadzillah Z, Ainon O. (2009). *Primary Plasma Cell Leukaemia: A Case Report*. *Malaysian Journal of Medicine and Health Sciences*, 5 (1): 69-74.
24. **Lai MI**, Jiang J, Silver NA, Best S, Menzel S, Mijovic A, Colella S, Ragoussis J, Garner C, Weiss MJ, Thein SL. (2006). *AHSP is a quantitative trait gene that modifies the phenotype of beta-thalassaemia*. *British Journal of Haematology*, 133 (6): 675-82. Impact Factor: 4.49
25. Jie Jiang, Steve Best, Stephan Menzel, Nicholas Silver, **Mei I Lai**, Gabriela L Surdulescu, Tim D Spector, Swee Lay Thein. (2006). *cMYB is involved in the regulation of fetal hemoglobin production in adults*. *Blood*, 108 (3): 1077-83. Impact Factor: 10.896
26. Mei I Lai, Sharon Karthipan, Wai Feng Lim, Elizabeth George, Jameela Sathar. *Assessment of two dried blood spots DNA extraction methods for the characterization of beta thalassaemia mutations*. (2010). **International Journal of Laboratory Hematology**, 2010. 32, Supplement 1:136.
27. Elizabeth George, Teh Lai Kuan, **Lai Mei I**, Mary Anne Tan Jin Ai, *An Innovative 2-Step Strategy for Beta -Thalassaemia Mutation detection in Malays* (2010). **International Journal of Laboratory Hematology**, 2010. 32, Supplement 1:112.
28. **Lai MI**, Jiang J, Silver NA, Best S, Menzel S, Mijovic A, Colella S, Ragoussis J, Garner C, Weiss MJ, Thein SL. *Differential Allelic Expression Analysis for AHSP Gene*. **International Journal of Laboratory Hematology**, 2009. 31, Supplement 1:72.
29. **Lai MI**, Jiang J, Silver NA, Best S, Menzel S, Mijovic A, Colella S, Ragoussis J,

	<p>Garner C, Weiss MJ, Thein SL. <i>AHSP is a Quantitative Trait Gene that modifies the phenotype of beta-thalassaemia</i>. <b>Blood</b>, <b>2005</b>. 106.</p> <p>30. <b>Lai MI</b>, Jiang J, Silver NA, Best S, Menzel S, Mijovic A, Colella S, Ragoussis J, Garner C, Weiss MJ, Thein SL. <i>AHSP expression in Thalassaemia Intermedia</i>. <i>Blood Cells, Molecules, and Diseases</i>, <b>2005</b>. 34 (2): 71-134.</p>
<i>Books/Monographs</i>	
<i>Chapter in book</i>	<p>1. Suraini MS, Sabariah MN, <b>Lai Mei I</b>. Neck Swelling. Problem Based Learning-Cases for Medical Students. Dec 2012; 3 (2): 98-114. ISSN 1985-0042.</p>
<i>Proceedings</i>	<ol style="list-style-type: none"> <li>1. Tan KS, Anagha J, Inoue T, Kulkeaw K, Mizuochi C, Tani K, Akashi K, the FANTOM consortium, Suzuki H, Forrest ARR, Hayashizaki Y, Sugiyama D. Promoterome Analysis of Transcript Specific Dynamics during Hematopoietic Stem Cell Ontogeny. The 76th Annual Meeting of the Japanese Society of Hematology. 31-2 November 2014. Osaka, Japan. (Poster Presentation). <i>Travel Award</i>.</li> <li>2. Tan KS, Inoue T, Kulkeaw K, Lim WF, Preedagasamzin S, Tanaka Y, Lai MI, Sugiyama D. Embryonic spleen niche accelerates erythropoiesis through SCF and IGF-1 secretion. The 2nd Red Cell Conference. 30 October 2014. Osaka, Japan. (Oral Presentation).</li> <li>3. Tan KS, Inoue T, Kulkeaw K, Lim WF, Preedagasamzin S, Tanaka Y, Lai MI, Sugiyama D. Embryonic spleen niche accelerates erythropoiesis through SCF and IGF-1 secretion. The 12th Stem Cell Symposium. 30-31 May 2014. Fukuoka, Japan. (Poster Presentation).</li> <li>4. Tan KS, Inoue T, Lim WF, Mizuochi C, Kulkeaw K, Preedagasamzin S, Tanaka Y, Lai MI, Sugiyama D. SCF and IGF-1 accelerate erythropoiesis in the spleen of mouse embryo. The 7th Takeda Science Foundation Symposium on PharmaScience. 15-18 January 2014. Osaka, Japan. (Poster Presentation).</li> <li>5. Tan KS, Inoue T, Lim WF, Mizuochi C, Kulkeaw K, Preedagasamzin S, Tanaka Y, Lai MI, Sugiyama D. Spleen Niche Cells Accelerate Erythropoiesis through SCF and IGF-1 Secretion in Mouse Embryo. The 75th Annual Meeting of the Japanese Society of Hematology. 11-13 October 2013. Sapporo, Japan. (Oral Presentation).</li> <li>6. Tan KS, Inoue T, Lim WF, Mizuochi C, Kulkeaw K, Preedagasamzin S, Tanaka Y, Lai MI, Sugiyama D. Analysis of Endothelial Niche Cells in Fetal Spleen Erythropoiesis. The 11th Stem Cell Symposium. 17-18 May 2013. Tokyo, Japan. (Poster Presentation).</li> <li>7. Wai Feng Lim, Lai Kuan Teh, Tze Yan Lee, Voon Kin Chin, Karthipan Sharon Nisha, Elizabeth George, Jameela Sathar, Gin Gin Gan, <b>Mei I Lai</b>. <i>Investigation of the role of Alpha Haemoglobin Stabilizing Protein (AHSP) in HbE/beta-thalassaemia patients in Malaysia</i>. 9<sup>th</sup> Annual Scientific and General Meeting, College of Pathologists, Academy of Medicine Malaysia (<b>2010</b>).</li> <li>8. Elizabeth George, <b>Lai Mei I</b>, Teh Lai Kuan, Lim Wai Feng, Goh Ern Huei, Kamalan Asokan, Maithili Vasudevan. <i>A Novel Diagnostic Tool for Thalassaemia Screening of Red Blood Cells in Cord Blood Samples: A Malaysian Cord Blood Banking Experience</i>. 19<sup>th</sup> Congress of Obstetrical and Gynaecological Society of Malaysia (<b>2009</b>). 3<sup>rd</sup> Prize for Poster Competition.</li> <li>9. Elizabeth George, Teh Lai Kuan, Rozita Rosli, <b>Lai Mei I</b>, Mary Anne Tan Jin Ai, <i>Innovative Diagnostic Tool to Simultaneously Identify Common Beta Thalassaemia Mutation in Malays</i>. 8<sup>th</sup> Annual Scientific and General Meeting, College of Pathologists, Academy of Medicine Malaysia (<b>2009</b>).</li> <li>10. Elizabeth George, Teh Lai Kuan, Rozita Rosli, <b>Lai Mei I</b>, Mary Anne Tan Jin Ai, <i>Innovative Diagnostic Tool to Simultaneously Identify Common Beta Thalassaemia Mutation in Chinese Malaysians</i>. Inventions, Research and Innovation Exhibitions Universiti Putra Malaysia (<b>2009</b>).</li> <li>11. <b>Lai MI</b>, Jiang J, Silver NA, Best S, Menzel S, Mijovic A, Colella S,</li> </ol>

	<p>Ragoussis J, Garner C, Weiss MJ, Thein SL. <i>AHSP is a Quantitative Trait Gene that modifies the phenotype of beta-thalassaemia</i>. Postgraduate Research Symposium, King's College London (2006).</p> <p>12. <b>Lai MI</b>, Jiang J, Silver NA, Best S, Menzel S, Mijovic A, Colella S, Ragoussis J, Garner C, Weiss MJ, Thein SL. <i>AHSP is a Quantitative Trait Gene that modifies the phenotype of beta-thalassaemia</i>. Association of Physician's Meeting, Guy's Hospital, London (2006).</p> <p>13. <b>Lai MI</b>, Jiang J, Silver NA, Best S, Menzel S, Mijovic A, Colella S, Ragoussis J, Garner C, Weiss MJ, Thein SL. <i>AHSP is a Quantitative Trait Gene that modifies the phenotype of beta-thalassaemia</i>. American Society of Hematology 47<sup>th</sup> Annual Meeting, Atlanta, USA (2005).</p> <p>14. <b>Lai MI</b>, Jiang J, Silver NA, Best S, Menzel S, Mijovic A, Colella S, Ragoussis J, Garner C, Weiss MJ, Thein SL. <i>AHSP expression in Thalassaemia Intermedia</i>. 14<sup>th</sup> Hemoglobin Switching Conference, Seattle, USA (2004).</p>
<i>Other publications</i>	<ol style="list-style-type: none"> <li>Lai Mei I (2008). Induced Pluripotent Stem Cells from Mature Cells: The Way Forward? Research Bulletin, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, 2:11-12.</li> <li>Lai Mei I (2008). In the name of Research. Research Bulletin, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, 2:16.</li> <li>Lai Mei I (2008). The Encode Project. Research Bulletin, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, 1:3.</li> <li>Lai Mei I (2008). Grants.... grants.... grants. Research Bulletin, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, 1:9.</li> <li>Lai Mei I (2009). Embryonic Stem Cells. Research Bulletin, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, 3:5.</li> </ol>
<i>Computer software</i>	

<b>H. PROJEK PENYELIDIKAN TERDAHULU(Past Research Project)</b>					
<i>Project No.</i>	<i>Project Title</i>	<i>Role</i>	<i>Year</i>	<i>Source of fund</i>	<i>Status</i>
GIPP 9323660	Blended Learning Activity Pack – Integrating flashcards with a virtual learning environment for Haematology	Project leader	2015	GIPP	Ongoing
04-02-12-1767RU	A novel handheld application tool in detection of iron deficiency anaemia using plasma ferritin	Project leader	2012	RUGS	Completed
04-02-11-1378RU	Investigation of the effects of <i>Bach1</i> gene on the severity of beta-thalassaemia intermedia.	Project leader	2011	RUGS	Completed
04-04-10-837FR	The investigation on the heme oxygenase-1 effects on severity of beta-thalassaemia intermedia.	Project leader	2010	MOHE	Completed
03-10-07-324FR	Investigation of the role of Alpha Haemoglobin Stabilizing Protein (AHSP) in thalassaemia patients with HbE/β IVS I-5 (G-C) and HbE/β Codon 41/42 (-TCTT) in Malaysia	Project leader	2008	MOHE	Completed
02-01-04-SF0073	Development of a strip assay to identify beta-thalassaemia alleles in ethnic groups in Malaysia.	Co-investigator	2007	MOSTI	Completed

02-01-04-SF0876	Identification of Hb variants and development of an electronic database for thalassemia in Malaysia	Co-investigator	2008	MOSTI	Completed
02-01-04-SF1031	Innovative diagnostic markers: Polymorphism of beta-thalassaemia in the indigenous people of Sabah and its relation to population genetics	Co-investigator	2009	MOSTI	Ongoing