

## CURRICULUM VITAE

### CHUTI LAOWTAMMATHRON

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### EDUCATION

- 2009            Ph.D. Biotechnology  
School of Biotechnology, Suranaree University of Technology  
Thesis Title: Establishment of embryonic stem cell lines from transgenic rhesus monkey blastocyst
- 2004            M. Sc. Biotechnology  
School of Biotechnology, Suranaree University of Technology  
Thesis Title: Cloning of bovine embryos by using ear fibroblasts as donor cell: comparison of survival rate after freezing in several media.
- 2000            B.Sc. Animal Production Technology  
School of Animal Production Technology, Suranaree University of Technology

### WORK EXPERIENCE

- May 2012-Present    Research scientist  
Siriraj Center of Excellence for Stem Cell Research (SiSCR),  
Faculty of Medicine, Mahidol University, Thailand
- 2010-2012            Postdoctoral Research Fellow under supervision of Prof. Ng Huck Hui  
Genome Institute of Singapore, A\*-STAR, Singapore

### TRAINING COURSES

- 2010            Responsible care and use of laboratory animals course  
Biological Resource Center, A\*-STAR, Singapore
- 2002            Training in vitrification technique at Department of applied biology,  
Shinshu University, Nagano, Japan with Prof. Dr. Shinichi Hochi
- Training in piezo driven at Center for Genetic Analysis of Behavior,  
National Institute for Physiological sciences, Japan,  
with Assoc. Prof. Masumi Hirabayashi, PhD.

## **AWARDS/HONORS**

- 2014 Outstanding Poster Presentation at The 11<sup>th</sup> Annual Conference of Asian Reproductive Biotechnology Society, 2<sup>nd</sup> - 8<sup>th</sup> November 2014, Thailand. In the title of “Derivation of human disease-specific stem cell from homozygous  $\alpha$ -Thalassemia-1 embryo”
- 2007 Graduate student outstanding awarded by Suranaree University of Technology, Nakhon Ratchasima, Thailand.
- 2006-2009 Royal Golden Jubilee Ph.D. program fellowship from Thailand Research Fund.
- 2006 Outstanding Master thesis from Thai Society of Biotechnology in 2006 in the title of “Cloning of bovine embryos by using ear fibroblasts as donor cell: comparison of survival rate after freezing in several media”
- Outstanding of research and oral presentation at the RGJ Seminar Series XL VII: Reproductive Biotechnology for Improving Animal Breeding Strategies., Nan, Thailand. 20<sup>th</sup> October 2006. In the title of “Production of sexed bovine embryo by *in vitro* fertilization”
- 2005 Graduate student outstanding awarded by Suranaree University of Technology, Nakhon Ratchasima, Thailand.
- 2004 Outstanding of research and oral presentation at the 42<sup>nd</sup> Kasetsart University Annual Conference, 3-6 February, 2004. Bangkok, Thailand. In the title of “The effect of hatching status on the survival rate of cloned bovine embryos after vitrification”

## **GRANTS AND EXTERNAL FUNDING**

- 2014-2016: The Thailand research fund (TRG5780180)  
Siriraj research fund (R015736002)

## **VISITING SCHOLAR**

- 2008 Department of Human Genetics, Emory University School of Medicine, Atlanta, Georgia, U.S.A. Hosted by Prof. Anthony W.S. Chan
- 2005-2006 Fellowship from National Center for Genetic Engineering and Biotechnology Research on “Production of bovine IVF-derived embryos from sexed-sorted semen” at Department of Animal Science, Faculty of Agriculture and Life Science, University of Wisconsin-Madison, USA from March - June 2005; Feb-June 2006.

## **PAST AND PRESENT TRAINEES**

- 2014 Patthicha Tiempetch, undergraduate student from faculty of pharmaceutical sciences, Chulalongkorn University, was under my supervision from 4<sup>th</sup> August – 31<sup>st</sup> October, 2014.
- 2012 Nazreen Abdul Muthaliff, undergraduate student from National University of Singapore, 3 month trainee.

## **TEACHING EXPERIENCE**

- 2016 - Present Course Coordinator for SIIM616 Stem Cell Science (3 credits), Department of Immunology, Faculty of Graduate Studies, Mahidol University.
- 2012 - Present Lecturer for SIIM616 Stem Cell Science (3 credits), Department of Immunology, Faculty of Graduate Studies, Mahidol University.

## **PROJECT ORGANIZATIONS**

- 2016 Organizing committee, The 4<sup>th</sup> Annual Meeting of the Society for Stem cell Research “Stem cells in Biomedicine” on 31<sup>th</sup> March 2016 at Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand.
- 2014-2016 Committee for “Research Mapping and Roadmap for Cellular and Gene Therapy in Thailand” funded by Thailand Center of Excellence for Life Sciences (TCELS).
- 2014 Organizing committee, “The 11<sup>th</sup> Asian Reproductive Biotechnology Conference”, 3-5 November, 2014. Bangkok, Thailand. (300 participants)
- 2013 Organizing committee, Annual Meeting of the Society for Stem cell Research “Stem cells and Developmental Biology” on 28<sup>th</sup> February 2013 at Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand. (250 participants)
- 2012-Present Committee of Thai Society for Stem Cell Research (SCR)
- 2005 Organizing committee, “The 2<sup>nd</sup> Asian Reproductive Biotechnology Conference”, 2-7 November, 2005. Bangkok, Thailand. (300 participants)

## MEMBERSHIP IN PROFESSIONAL SOCIETIES

2015-Present	International Society for Stem Cell Research (ISSCR)
2012-Present	Thai Society for Stem Cell Research (SCR)
2011-2012	Stem Cell Society of Singapore
2004- Present	Asian Reproductive Biotechnology Society (ARBs)

## RESEARCH INTERESTS

My research interest is about to generate disease-specific human embryonic stem cell to studying human diseases and regulatory network of pluripotent stem cell.

## PATENT

- 2004 Electro Cell Fusion Generator; Appl.No. 91442 (0401002131)  
School of Biotechnology, Suranaree University of Technology,  
Nakhon Ratchasima, Thailand.
- 2016 Derivation of human embryonic stem cells by TPI technique; App.No.1601001844  
Siriraj Center of Excellence for Stem Cell Research (SiSCR)  
Faculty of Medicine Siriraj hospital, Mahidol University, Thailand.

## PEER REVIEWED

- Kamprom, W., Kheolamai, P., U-Pratya, Y., Supokawej, A., Wattanapanitch, M.,  
**Laowtammathron, C.** and Issaragrisil, S. 2016. Effects of mesenchymal stem cell-derived cytokines on the functional properties of endothelial progenitor cells. *Eur J Cell Biol.* 95: 153-163.
- Kamprom, W., Kheolamai, P., U-Pratya, Y., Supokawej, A., Wattanapanitch, M.,  
**Laowtammathron, C.**, Roytrakul, S. and Issaragrisil, S. 2016. Endothelial Progenitor Cell Migration-Enhancing Factors in the Secretome of Placental-Derived Mesenchymal Stem Cells. *Stem Cells Int.* 2016: 2514326.
- Siripin, D., Kheolamai, P., U-Pratya, Y., Supokawej, A., Wattanapanitch, M., Klincumhom, N.,  
**Laowtammathron, C.**, Issaragrisil, S. 2015. Transdifferentiation of erythroblasts to megakaryocytes using FLI1 and ERG transcription factors. *Thromb Haemost.* 114.3/2015
- Wattanapanitch, M., Klincumhom, N., Potirat, P., Amornpisutt, R., Lorthongpanich, C.,  
U-Pratya, Y., **Laowtammathron, C.**, Kheolamai, P., Pongvarin, N. and Issaragrisil, S. 2014. Dual small-Molecule targeting of SMAD signaling stimulates human induced pluripotent stem cells toward neural lineages. *PLoS One.* ;9(9):e106952. doi:10.1371/ journal. pone.0106952.
- Srirattana, K., Imsoonthornruksa, S., **Laowtammathron, C.**, Sangmalee, A., Ketudat-Cairns, M., and Parnpai, R. 2012. Full-term development of gaur-bovine interspecies somatic cell nuclear transfer embryos: effect of Trichostatin A treatment. *Cell Reprogram.* 14: 248-257.
- Imsoonthornruksa, S., Lorthongpanich, C., Sangmalee A, Srirattana, K., **Laowtammathron, C.**, Tunwattana, W., Somsa, W., Ketudat-Cairns, M., Nagai, T., and Parnpai R. 2011. The effects of manipulation medium, culture system and recipient cytoplasm on in vitro development of intraspecies and intergeneric felid embryos. *J Reprod Dev.* 57:385-392.

- Liang Y.Y., Ye, D.N., **Laowtammathron, C.**, Phermthai, T., Nagai, T., and Parnpai, R. 2011. Effects of chemical activation treatment on development of swamp buffalo (*Bubalus bubalis*) oocytes matured in vitro and fertilized by intracytoplasmic sperm injection. *Reprod. Domestic Anim.* 2011 Feb;46(1):e67-73. doi: 10.1111/j.1439-0531.2010.01636.x.
- Laowtammathron C**, Cheng ECh, Cheng PH, Snyder BR, Yang SH, Johnson Z, Lorthongpanich C, Kuo HC, Parnpai R, Chan AW. 2010. Monkey hybrid stem cells develop cellular features of Huntington's disease. *BMC Cell Biol.* 11:12.
- Srirattana, K., Lorthongpanich, C., **Laowtammathron, C.**, Imsoonthornruksa S., Ketudat-Cairns, M., Phermthai, T., Nagai, T. and Parnpai, R. 2010. Effect of donor cell types on developmental potential of cattle (*Bos taurus*) and swamp buffalo (*Bubalus bubalis*) cloned embryos. *J. Reprod. Dev.* 56:49-54.
- Imsoonthornruksa, S., Lorthongpanich, C., Sangmalee, A., Srirattana, K., **Laowtammathron, C.**, Tunwattana, W., Somsa, W., Ketudat-Cairns, M., and Parnpai, R. 2010. Abnormalities in the transcription of reprogramming genes related to global epigenetic events of cloned endangered felid embryos. *Reprod. Fertil. Dev.* 22:613-24.
- Lorthongpanich, C., **Laowtammathron, C.**, Chan, A.W.S., Ketudat-Cairns, M. and Parnpai, R. 2008. Development of interspecies cloned monkey embryo reconstructed with bovine enucleated oocyte. *J. Reprod. Dev.* 54: 306-313.
- Muenthaisong, S., **Laowtammathron, C.**, Ketudat-Cairns, M., Parnpai, R. and Hochi, S. 2007. Quality analysis of buffalo blastocysts derived from oocytes vitrified before or after enucleation and reconstructed with somatic cell nuclei. *Theriogenology* 67: 893-900.
- Laowtammathron, C.**, Lorthongpanich, C., Ketudat-Cairns, M., Hochi, S., and Parnpai, R. 2005. Factors effecting cryosurvival of nuclear-transferred bovine and swamp buffalo blastocysts: the effects of hatching stage, linoleic acid albumin in culture medium and ficoll supplementation solution. *Theriogenology* 64: 1185-1196.

## **BOOK CHAPTER & REVIEWS**

- Laowtammathron, C.**, Chan, A.W. 2013. Pluripotent hybrid stem cells from transgenic Huntington's disease monkey. *Methods in molecular biology* (Clifton, NJ) 1010: 61-77. PubMed PMID: 23754219. Epub 2013/06/12. Eng
- Lorthongpanich, C., **Laowtammathron, C.**, and Parnpai, R. 2011. From Microsurgery to Single Blastomere Biopsy for ES cell Establishment. *Thai J Vet Med.* 41: 11-22.

## POSTER PRESENTATIONS

- Laowtammathron, C.,** Chingsuwanrote, P., Supraditaporn, K., U-pratya, Y., Lorthongpanich, C., Klincumhom, N., Wattapanitch, M., Luanpitpong, S., Kheolamai, P., Issaragrisil, S. 2015. The effect of long-term culture under low oxygen tension of human bone marrow-derived mesenchymal stem cell. *International Society for Stem Cell Research, Stockholm, Sweden.*
- Laowtammathron, C.,** Terao, T., Lorthongpanich, C., Muenthaisong, S., Vetchayan, T., Hochi, S., and Parnpai, R. 2004. Effect of hatching status on vitrification of cloned bovine blastocysts. *Reprod.Fert.Dev. 16: 174.*
- Laowtammathron, C.,** Terao, T., Lorthongpanich, C., Muenthaisong, S., Vetchayan, T., Hochi, S., and Parnpai, R. 2004. The effect of ficoll in vitrification solution and hatching status of cloned bovine blastocysts on the survival rate after vitrification by using cryotop. *Proceedings of the first workshop of the Asian Reproductive Biotechnology society. P 67.*

## ORAL PRESENTATION

- Laowtammathron, C.** 2016. Derivation of human embryonic stem cells by trophoblast inhibition proliferation. *Proceeding of the 4<sup>th</sup> Annual Meeting of the Society for Stem cell Research "Stem cells in Biomedicine" on 31<sup>th</sup> March 2016 at Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand.*
- Laowtammathron, C.,** Lorthongpanich, C., Imsoonthornruksa, S., Srirattana, K., Sangsritavong, S., Ketudat-Cairns, M and Parnpai, R. 2006. Production of sexed bovine embryos by *in vitro* fertilization. *Proceeding of the RGJ seminar series XLVII, Reproductive biotechnology for improving animal breeding strategies, October, 20<sup>th</sup>, 2006.*
- Laowtammathron, C.,** Imsoonthornruksa S., Mueanthaisong S., Lorthongpanich C., Vetchayun T., Sang-ngam C., Tangthai C., Ketudat-Cairns M. and R. Parnpai. 2005. Effect of two concentrations of cryoprotectant in vitrification solution on post-warmed survival of cloned bovine blastocysts vitrified by micro-drop technique. *The 12<sup>th</sup> International congress on Biotechnology in animal reproduction. 135-140.*
- Laowtammathron, C.,** Terao, T., Lorthongpanich, C., Muenthaisong, S., Vetchayan, T., Hochi, S., and Parnpai, R. 2004. The effect of hatching stage on the survival rate of cloned bovine embryos after vitrification. *Proceeding of The 42<sup>st</sup> Kasetsart University Annual Conference, 3-6 Febuary, 2004. Bangkok, Thailand. 88-93.*
- Laowtammathron, C.,** Lorthongpanich, C., Muenthaisong, S., Vetchayan, T., Somwan, S., Mernkatoke, P., Patitung, S., and Parnpai, R. 2003. Production of dairy and beef cattle by cloning technology. *The 10th Tri-University International Joint Seminar and Syposium, Mie University, Japan, October 18-21, 389-393.*
- Laowtammathron, C.,** Terao, T., Lorthongpanich, C., Muenthaisong, S., Vetchayan, T., Hochi, S., and Parnpai, R. 2003. Effect of Ficoll in vitrification solution on the post-warmed development of vitrified cloned bovine hatching blastocysts. *Stem cells and somatic cells cloning research: Present status and future trends, Chulalongkorn University, December 3-4, 48-51.*