



# Shahidee Zainal Abidin

Senior Lecturer  
Faculty of Science and Marine Environment  
Universiti Malaysia Terengganu



shahidee.zainal@umt.edu.my



+609 668 3889 / +6013 342 2606



+609 668 3193

## QUALIFICATIONS

- Doctor of Philosophy (Neuroscience), Universiti Putra Malaysia
- Master of Science (Medicine), Universiti Teknologi MARA
- Bachelor of Science (Biomolecular Science), Universiti Teknologi MARA
- Diploma (Microbiology), Universiti Teknologi MARA

## FIELD OF RESEARCH

- Genetic and Molecular Biology
- Neuroscience
- Natural Product

## RESEARCH INTEREST

NeuroBiotechnology group (NBG) is interested in unraveling the mechanisms and molecular networks that regulate the development of nervous system. With the knowledge gained in fundamental science, ultimately, we aimed to move further towards translational research (bench-to-bedside). Our group places a great emphasis in three main areas of neuroscience research: (1) neuro-regeneration, (2) association of gut-brain axis in neurological disorders and (3) non-coding RNA roles in brain development and function.

In addition, this group also interested to explore the potential of natural product such as medicinal plant or microorganisms for application as therapeutic agents. The natural products remain a substantial and successful approach to provide a diverse and unique source of bioactive compound for drug discovery. Our group places special emphasis in the fundamental and applied biodiversity-based drug discovery with aims to screen for natural products with significant potential for therapeutic agents and to elucidate the biosynthetic pathway for the formation of important and chemically complex natural product.

## RESEARCH PROJECTS

- *In Silico* Analysis and Identification of Molecular Network underlying Nervous System Regeneration in *Diopatra clapedii*
- Unraveling the role of miR-222 and miR-126 in human umbilical vein endothelial cell (HUVEC) isolated from pregnancy-induced hypertension (PIH) mother to assess the risk of hypertension in the baby.

## EXPERT LINKAGES

- Center for Informatics of The University of San Agustin, PHILIPPINES
- Universiti Putra Malaysia, MALAYSIA
- Universiti Kebangsaan Malaysia, MALAYSIA

## PROFFESIONAL MEMBERSHIP

- Malaysian Society for Neuroscience – Basic Neuroscience Chapter
- Society for Neuroscience

## GRANTS

Project	:	<i>In Silico</i> Analysis and Identification of Molecular Network underlying Nervous System Regeneration in <i>Diopatra clapedii</i>
Position	:	Principle Investigator
Grant Name	:	Talent and Publication Enhancement-Research Grant (TAPE-RG)
Status	:	Active
Amount	:	RM20,000.00
Project	:	Unravelling the role of miR-222 and miR-126 in human umbilical vein endothelial cell (HUVEC) isolated from pregnancy-induced hypertension (PIH) mother to assess the risk of hypertension in the baby.
Position	:	Co-Researcher
Grant Name	:	Fundamental Research Grant Scheme (FRGS)
Status	:	Active
Amount	:	RM133,400.00

## AWARDS

### **International**

- **68<sup>th</sup> Lindau Nobel Laureate Meeting** - An award by Lindau Nobel Laureate Council for attending 68<sup>th</sup> Lindau Nobel Laureate Meeting, 24 – 29 Jun 2018 at Lindau, Germany.

- **IBRO-SFN Travel Award** - An award by International Brain Research Organisation (IBRO) for attending 47<sup>th</sup> Annual Meeting of Society for Neuroscience, 11 – 15 Nov 2017 at Washington DC, US.
- **Postgraduate Travel Award** - An award by Asian Pacific Society for Neurochemistry for attending 14<sup>th</sup> Meeting of Asian Pacific Society for Neurochemistry, 27 – 30 Aug 2016 at Kuala Lumpur, Malaysia.
- **IBRO-APRC Travel Award** - An award by the IBRO for attending IBRO-APRC Associate School, 19 – 23 Oct 2013 at Banaras Hindu University, Varanasi, India.

#### **National**

- **BNC-MSN Education Grant** - An award by the Malaysian Society of Neurosciences for attending 47<sup>th</sup> Annual Meeting of Society for Neuroscience, 11 – 15 Nov 2017 at Washington DC, US.
- **BNC-MSN Education Grant** - An award by the Malaysian Society of Neurosciences for attending 10<sup>th</sup> FENS Forum, 02 – 06 Jul 2016 at Copenhagen, Denmark.
- **First Place - Best Presentation Award** - Introductory Bioinformatic Workshop, 17 – 25 Aug 2015 at Perdana University, Selangor, Malaysia.
- **BNC-MSN Education Grant** - An award by the Malaysian Society of Neurosciences for attending 26<sup>th</sup> Annual Scientific Meeting of Malaysian Society of Neurosciences, 05 – 07 Jun 2015 at Perak, Malaysia.
- **Third Prize - Best Poster Presentation (Clinical/Medical Sciences Category)** - Research Week 2014 Poster Symposium, 25 – 26 Jun 2014 at Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Selangor, Malaysia.
- **Second Prize - Best Poster Presentation** - 25<sup>th</sup> Annual Scientific Meeting of Malaysian Society for Neurosciences, 20 – 22 Jun 2014 at Kuala Lumpur, Malaysia.
- **BNC-MSN Education Grant** - An award by the Malaysian Society of Neurosciences for attending IBRO-APRC Associate School, 19 – 23 Oct 2013 at Banaras Hindu University, Varanasi, India.

#### **University**

- **Best Oral Presenter** – The 3rd Seminar on Biological Security and Sustainability 2021, 25 & 26 Jan 2021 at Faculty of Science and Marine Environment, Universiti Malaysia Terengganu, Terengganu, Malaysia.
- **Research Attachment Overseas Grant** – An award by Universiti Putra Malaysia for attachment at Harvard Medical School, Harvard University, Boston, US from 01 Dec 2017 – 30 Nov 2018.
- **Best Postgraduate Award** - Faculty Excellence Month, 26 – 27 Aug 2015 at Faculty of Medicine and Health Science, Universiti Putra Malaysia, Selangor, Malaysia.
- **First Prize – Neuroscience Trophy Competition** - NeuroFair 2013, 11 – 12 Jun 2013 at Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Selangor, Malaysia.

## PUBLICATIONS

### Journal Article

1. Lee HC, Hamzah H, Leong MPY, Yusof HM, Habib O, **Zainal Abidin S**, Seth EA, Lim SM, Vidyadaran S, Mohd Moklas MA, Abdullah MA, Nordin N, Hassan Z, Cheah PS and Ling KH (2021). Transient prenatal ruxolitinib treatment suppresses astrogenesis during development and improves learning and memory in adult mice, *Scientific Report*, 11, 3847.
2. **Zainal Abidin S**, Fam SZ, Chong CE, Abdullah S, Cheah PS, Nordin N & Ling KH (2019). *miR-3099* promotes neurogenesis and inhibits astroglialogenesis during murine neural development. *Gene*, 697, 201-212.
3. Lee HC, Md Yusof HH, Leong MP, **Zainal Abidin S**, Seth EA, Hewitt CA, Vidyadaran S, Nordin N, Scott HS, Cheah PS & Ling KH (2019). Gene and protein expression profiles of JAK-STAT signalling pathway in the developing brain of the Ts1Cje Down syndrome mouse model. *Int J Neurosci*, 129(9), 871-881.
4. **Shahidee ZA**, Lee HC, Fam SZ, Syahril A, Norshariza N, Cheah PS & Ling KH (2018). Construction and validation of a mammalian expression vector for *in utero* electroporation study of *miR-3099* in the mouse neocortex. *Malay J Med Heal Sci*, 14(SP1), 20-29.
5. Asraa F, Hadri HMY, **Shahidee ZA**, Omar H, Cheah PS, Johnson S, Normala I, Lye MS, Abhi V, Rozita R & Ling KH (2018). Development and validation of high-resolution melting assays for high-throughput screening of *BDNF* rs6265 and *DAT1* rs40184. *Malay J Med Heal Sci*, 14(SP1), 64-71.
6. **Abidin SZ**, Leong JW, Mahmoudi M, Nordin N, Abdullah S, Cheah<sup>PS</sup> & Ling KH (2017). *In silico* prediction and validation of *Gfap* as an *miR-3099* target in mouse brain. *Neurosci Bull*, 33(4), 373-382.
7. Reza Etemadi M, Ling KH, **Zainal Abidin S**, Chee HY & Sekawi Z (2017). Gene expression patterns induced at different stages of rhinovirus infection in human alveolar epithelial cells. *PLoS ONE*, 12(5), e0176947.
8. Ling KH, Brautigan PJ, Moore S, Fraser R, Leong MP, Leong JW, Zainal **Abidin S**, Lee HC, Cheah PS, Raison JM, Babic M, Lee YK, Daish T, Mattiske DM, Mann JR, Adelson DL, Thomas PQ, Hahn CN & Scott HS (2016). In depth analysis of the *Sox4* gene locus that consist of sense and antisense transcripts. *Data Brief*, 7, 282-290.
9. **Zainal Abidin S**, Tan EL, Chan SC, Jaafar A, Lee AX, Abd Hamid MH, Abdul Murad NA, Pakarul Razy NF, Azmin S, Ahmad Annuar A, Lim SY, Cheah PS, Ling KH & Mohamed Ibrahim N (2015). DRD and GRIN2B polymorphisms and their association with the development of impulse control behaviour among Malaysian Parkinson's disease patients. *BMC Neurol*, 15, 59.
10. **Zainal Abidin S**, Abbaspourbabaei M, Ntimi CM, Siew WH, Pike-See C, Rosli R, Nordin N & Ling KH (2014). *MiR-3099* is overexpressed in differentiating 46C mouse embryonic stem cells upon neural induction. *Malay J Med Sci*, 21(Spec Issue), 27-33.
11. **Abidin SZ**, Ibrahim E, Nasibah A & Nuraliza AS (2013). A time-dependent study on the effects of cortiosterone-induced DNA damage in mouse embryos. *Acta Biol Malay*, 2, 45-53.

12. **Shahidee ZA**, Nasibah A & Nuraliza AS (2013). The damaging effects of corticosterone on the developing mouse embryos. *Malay J Micr*, 9, 117-122.
13. **Shahidee ZA**, Ibahim MJ, Rajikin MH & Nuraliza AS (2012). Determination of vitamin E isomers in plasma using ultra performance liquid chromatography. *The Malay J Anal Sci*, 16 (1), 71-78.

#### Conference Publication

1. **Shahidee ZA**, Leong JW, Nordin N, Abdullah S, Cheah PS & Ling KH. A mouse embryonic stem cell culture system with stable and regulatable expression *miR-3099*: an *in vitro* approach towards functional genomics study. *14<sup>th</sup> Meeting of the Asian-Pacific Society for Neurochemistry*, 27 Aug - 30 Aug, 2016, Kuala Lumpur, Malaysia.
2. **Shahidee ZA**, Nasibah A & Nuraliza AS. The effect of corticosterone-induced DNA damage in embryonic development. *The 21<sup>st</sup> Scientific Conference of the Microscopy Society of Malaysia 2012*, 22 – 24 Nov 2012, Kelantan, Malaysia.
3. **Shahidee ZA**, Nasibah A, Effendi I, Froemming GRA & Nuraliza AS. Tocotrienol reverses the corticosterone-induced oxidative stress effect on the quality of mouse embryo. *AKEPT 2<sup>nd</sup> Global Annual Young Researchers Conferences and Exhibitions 2012*, 29 – 31 Oct 2012, Melaka, Malaysia.
4. **Shahidee ZA**, Effendi I, Nasibah A & Nuraliza AS. A time-dependent study on the effect of corticosterone-induced DNA damage in mouse embryos. *Malaysian International Biological Symposium 2012*, 11 – 12 Jul 2012, Selangor, Malaysia.

#### Other Outputs

1. **Zainal Abidin, S.** (2019). Characterization of *miR-3099*–mediated post-transcriptional target genes regulation during neurogenesis in mice (Unpublished doctoral dissertation thesis). Universiti Putra Malaysia.
2. **Zainal Abidin, S.** (2014). The protective role of tocotrienol on corticosterone-induced oxidative Stress during pre-implantation embryonic development in mice (Unpublished master dissertation thesis). Universiti Teknologi MARA.
3. **Zainal Abidin, S.** (2010). Study of protein profile *pleurotus ostreatus* mycelia grown on different substrates using gel electrophoresis method (Unpublished bachelor dissertation thesis). Universiti Teknologi MARA.
4. **Zainal Abidin, S.** (2007). Isolation of yeast from urban drain water for bio-ethanol production (Unpublished diploma dissertation thesis). Universiti Teknologi MARA.

## SUPERVISION

### Master Degree

Thesis Title : Aslah Nabilah Abdul Sukor  
Student Name : Evaluating The Expression of micro-RNAs and Their Target Genes in Human Umbilical Vein Endothelial Cells Exposed with Pregnancy Induced Hypertension  
Role : Co-Supervisor  
Status : Active

## COURSE TAUGHT

- BIO3004: Animal Structure and Function

## LINKS

- SCOPUS: 2482287
- WoS: P-6584-2017
- Researchgate: [https://www.researchgate.net/Shahidee\\_Abidin](https://www.researchgate.net/Shahidee_Abidin)
- LinkedIn: <https://www.linkedin.com/in/shahidee-zainal-abidin-40aba881/>
- ORCID: <https://orcid.org/0000-0003-4458-4565>
- Google Scholar: <https://scholar.google.com/citations?user=Jy0YMkAAAAAJ&hl=en>