

## CURRICULUM VITAE



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 Position: Associate Professor  
 Department of Human Anatomy  
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### Education

1. PhD Physiology and Pharmacology, UNSW, Australia
2. MSc Physiology, UPM, Malaysia
3. BSc Biomedical Sciences, UPM, Malaysia

### Areas of Interest

1. Maternal programming
2. Obesity
3. Hypercholesterolemia
4. Neuroscience
5. Natural products discovery towards commercialization

### Professional Qualification/ Membership/ Affiliation

1. Life member Malaysian Association for the Study of Obesity
2. Life member Microscopy Society Malaysia
3. Member Malaysian Society of Pharmacology and Physiology

### Appointments (Inside and Outside UPM)

1. Chief Editor Malaysian Journal Of Microscopy (2020)
2. Coordinator Industrial Linkage and Community (Dept. Human Anatomy) (2018-2020)
3. Coordinator of Package 7 (2018)
4. Coordinator of Module SPP3552: Alimentary System (2015-2017)

### Appointments (Inside and Outside UPM)

Date	Designation	Remarks
1. 2020	Editorial manager	Malaysian Journal of Microscopy, Vol 16, No1, Year 2020
2. 2019	Project leader	11th Protein Detection ELISA Hands-on Workshop 2019
3. 2019	Project leader	10th Protein Detection ELISA Hands-on Workshop 2019
4. 2019	Project leader	9th Protein Detection ELISA Hands-on Workshop 2019
5. 2019	Project leader	8th Protein Detection ELISA Hands-on Workshop 2019
6. 2018	Editorial manager	Malaysian Journal of Microscopy, Year 2018
7. 2018	Scientific committee	27th Scientific Conference of the Microscopy Society Malaysia 2018

## Publications

### Journals (in 5 years)

1. Kwaifa, I.K., Bahari, H., Yong, Y.K., Md Noor, S. Endothelial dysfunction in obesity-induced inflammation: Molecular mechanisms and clinical implications. *Biomolecules* 10(2),291
2. Kokila Vani Perumal, Nor Liyana Ja'afar, Santhra Segaran Balan, Azrina Zainal Abidin, Daryl J Arapoc, Nurul Husna Shafie, Hasnah Bahari. Preventive effect of *Elateriospermum tapos* seed extract against Sprague Dawley rats. *Oriental Pharmacy and Experimental Medicine*. <https://doi.org/10.1007/s13596-019-00394-w>.
3. Santhra Segaran Balan, Azrina Zainal Abidin, Kokila Vani Perumal, Amalia Hazirah Ahamad Lotafi , Sharmmila Danabala , Malarmugila Manimaran, Nurul Husna Shafie, Maizatun Atmadini Abdullah , Azmiza Syawani Jasni and Hasnah Bahari. Effect of *Elateriospermum tapos* Extract as Coadjuvant in Ameliorating Maternal Obesity on Female Offspring at Weaning. *Malaysian Journal of Microscopy* Vol. 15 (2019) Page 111-128
4. Siroshini K Thiagarajan, Khamini Rama Krishnan, Thandar Ei, Nurul Husna Shafie, Daryl J Arapoc, Hasnah Bahari. Evaluation of the Effect of Aqueous *Momordica charantia* Linn. Extract on Zebrafish Embryo Model through Acute Toxicity Assay Assessment. *Evidence-Based Complementary and Alternative Medicine*. Volume 2019, Article ID 9152757.
5. Siroshini K Thiagarajan, Daryl J Arapoc, Nurul Husna Shafie, Yong Yoke Keong, Hasnah Bahari, Zainah Adam, Thandar Ei. *Momordica charantia* (Indian and Chinese Bitter Melon) Extracts Inducing Apoptosis in Human Lung Cancer Cell Line A549 via ROS-Mediated Mitochondria Injury. *Evidence-Based Complementary and Alternative Medicine*. Volume 2019, Article ID 2821597.
6. Nor Liyana J, Siroshini KT, Nurul-Syahirah MB, Chang WL, Nurul Husna S, Daryl JA, Khairul Kamillah AK, Hasnah B. Phytochemical Analysis of *Elateriospermum tapos* and Its Inhibitory Effects of Alpha-Amylase, Alpha-Glucosidase and Pancreatic Lipase. *Journal of Tropical Forest Science*. 31(2):240-248. 2019
7. Nor Liyana Jaafar, Chai Pui Teng, Noor Syafiqah Aqila Mohd Rosmi, Siti Nur Atiqah ramble, Nurul Husna Shafie, Daryl J Arapoc, Hasnah Bahari. Total Antioxidant Activity and Enzymatic Inhibition against Alpha-Amylase, Alpha-Glucosidase and Pancreatic Lipase of Irradiated *Archidendron bubalinum*. *Malaysian Journal of Medicine and Health Sciences* 15(SP1): 120-128. 2019.
8. Chamundieswary Sellathory, Kokila Vani Perumal, Siroshini Thiagarajan, Azrina Zainal Abidin, Santhra Segaran Balan and Hasnah Bahari. Toxicity Evaluation of Instant Coffee via Zebrafish (*Danio rerio*) Embryo Acute Toxicity Test. *Current Topics in Toxicology*. Vol.15, 2019, page: 49-54
9. Srinivasan SPB, Raipuria M, Bahari H, Kaakoush NO, Morris MJ. Impacts of Diet and Exercise on maternal gut microbiota are transferred to offspring. *Frontiers in Endocrinology*. Doi: 10.3389/fendo.2018.00716
10. Thiagarajan SK, Mahadi IH, Jamaluddin N, Keong YY, Liew PM, Mat Taib CN, Hussain MK, Perumal KV, Bahari H. The protective effects of *Stachytarpheta jamaicensis* (L.) Vahl on LPS-induced hepatic and renal injury in ICR mice. *Journal of Microscopy* vol. 14 (2018) page 55-64.
11. Chowdhury SS, Bahari H, Caruso V, Maloney CA, Morris MJ. Can Voluntary exercise improve renal changes in offspring induced by maternal obesity. *The FASEB Journal*. 2017. 31: S792.2
12. Cheah, PS, Abdullah, S, Bahari, H, Chau, DM, Habib, O, Hasan, S, Khalid, M, Mok, PL, Nordin, N, Tan, NJ, Veerakumarasivam, A, Ling, KH. International Brain Research Organization (IBRO) global neuroscience advocacy programme: Four imperative resolutions to strengthen neuroscience research and development in Malaysia. *IBRO Reports*. 2017. 2: 41-46.
13. Ishak, AH, Shafie, NH, Mohd Esa, N, Bahari H. Nutritional, Phytochemical and Pharmacological Properties of *Mikania micrantha* Kunth. *Pertanika Journal of Scholarly Research Reviews*. 2016. 2(3): 123-132.
14. Mukesh R, Bahari H, Morris MJ. Effects of the maternal diet and exercise during pregnancy on glucose metabolism in skeletal muscle and fat of weanling rats. *PLoS One*. 2015; DOI: 10.1371/journal.pone.0120980.
15. Mukesh R, Hardy GO, Bahari H, Morris MJ. Maternal obesity regulates gene expression in the hearts of offspring. *Nutrition, Metabolism and Cardiovascular Diseases*. 2015. 25(9): 881-888.

### Conference Proceedings (in 5 years)

1. Hasnah Bahari, Thandar Ei, Rokiah Bahari , Santra Segaran Balan, Azrina Zainal Abidin, Muhammad Fuad Mohd , Hazreen Haizi Harith. Understanding Mechanism of Gastric Acid Secretion via 3D-Printing Model. Putra Innocreative Carnival in Teaching and Learning 2019 (PicTL'19), Serdang, Selangor.
2. Santhra Segaran Balan, Azrina Zainal Abidin, Sitell Maya, Muhammad Fuad Mohd, Hazreen Haizi Harith and Hasnah Bahari. The Effectiveness of 3D-Printing Rat Model for Teaching Blood Withdrawal Technique Among Students. Putra Innocreative Carnival in Teaching and Learning 2019 (PicTL'19), Serdang, Selangor.
3. Azrina Zainal Abidin, Santhra Segaran Balan, Nur Farrah Fatheen, Muhammad Fuad Mohd, Thandar Ei, Hazreen Haizi Harith and Hasnah Bahari. The Efficacy of the 3D-Printing Model and Interactive Puzzle as a Learning Instrument in Understanding Musculoskeletal System Among Students. Putra Innocreative Carnival in Teaching and Learning 2019 (PicTL'19), Serdang, Selangor.
4. Azrina Zainal Abidin, Santhra Segaran Balan, Kokila Vani Perumal, Amalia Hazirah Ahamad Lotafi, Sharmila Danabala, Malarmugila Maninaran, Maizatun Atmadini Abdullah, Nurul Husna Shafie, Azmiza Syawani Jasni and Hasnah Bahari. Anti-Obesity Effect of Elateriospermum Tapos in Female Adult Offspring of High-Fat Diet-Induced Obese Dams. 28th Scientific Conference of the Microscopy Society Malaysia (28th SCMSM 2019). Pahang, Malaysia.
5. Santhra Segaran Balan, Azrina Zainal Abidin, Kokila Vani Perumal, Amalia Hazirah Ahamad Lotafi , Sharmila Danabala , Malarmugila Manimaran, Nurul Husna Shafie, Maizatun Atmadini Abdullah , Azmiza Syawani Jasni, Hasnah Bahari. Effect of Elateriospermum tapos extract as adjuvant in ameliorating maternal obesity on female weaners via histopathological changes. 28th Scientific Conference of the Microscopy Society Malaysia (28th SCMSM 2019). Pahang, Malaysia.
6. Santhra Segaran Balan, Azrina Zainal Abidin, Kokila Vani Perumal, Amalia Hazirah Ahamad Lotafi , Sharmila Danabala , Malarmugila Manimaran, Nurul Husna, Maizatun Atmadini, Azmiza Syawani Jasni and Hasnah Bahari. The effect of Elateriospermum tapos on maternal obesity in adipogenesis of female offspring rat at weaning. 30th National Scientific Conference in Conjunction with Borneo Scientific Meeting 2019. Sarawak, Malaysia.
7. Sirosini K Thiagarajan, Thandar Ei, Nurul Husna Shafie, Daryl J Arapoc, Hasnah Bahari. Apoptosis Induction of Crude Water Soluble Momordica charantia in Human Lung Cancer Cell and Zebrafish Embryo. 7th International Symposium on Applied Engineering and Sciences (SAES2019). Serdang, Selangor.
8. Kokila Vani Perumal, Nor Liyana Ja'afar, Che Norma Mat Taib, Daryl J Arapoc, Nurul Husna Shafie, Hasnah Bahari. Evaluation of Anti-Obesity Effect of Elateriospermum tapos Shell Extract Against Obese Sprague dawley Rats. 7th International Symposium on Applied Engineering and Sciences (SAES2019). Serdang, Selangor.
9. Santhra Segaran Balan, Azrina Zainal Abidin, Sitell Maya, Muhammad Fuad Mohd, Hazreen Haizi Harith, and Hasnah Bahari. The effectiveness of 3D-printing rat model for teaching blood withdrawal technique among undergraduate students. 7th International Symposium on Applied Engineering and Sciences (SAES2019). Serdang, Selangor.
10. Hasnah Bahari, Thandar Ei, Muhammad Fuad Mohd, Hazreen Haizi Harith, Rafidah Hod, Yong Yoke Keong, Nur Izah Ab Razak. 3D-Printing Model as a Teaching Tool in Understanding Musculoskeletal System Among Medical Students. 9th Federation of the Asian and Oceanian Physiological Societies Congress (FAOPS2019). Kobe, Japan. 2019.
11. Nurain SyahirahRosli, Azrina zainal Abidin, Santhra Segaran, Hasnah Bahari. Potential of Elateriospermum tapos in Ameliorating Maternal Obesity-Induced Deficit Cognitive Function of the Offspring. 11th International Medical, Pharmaceutical, Cosmeceutical and Health Science Symposium. Selangor, Malaysia. 2018

12. Chowdhury S, Bahari H, Caruso VC, Maloney CM, Morris MM. Can Voluntary exercise in rat offspring reverse renal changes caused by maternal obesity? (2017). 10th World Congress Developmental Origins of Health and Disease.
13. Azlinda Ibrahim, Nurul Husna Shafie, Tan Si Ying, Rosmaieda Rozaini, Amirah Haziyah Ishak and Hasnah Bahari. Antioxidant Contents and Activities of Pithecellobium jiringa (Jering) Seeds. IABS Conference 2017. UPM, Serdang, Malaysia. 1 – 2 August 2017.
14. Zulika A, Nurul Husna S, Hasnah B. The potential of Pithecellobium bubalinum (kerdas) and Pithecellobium jiringa (jering) seeds to inhibit pancreatic lipase,  $\alpha$ -amylase and  $\alpha$ -glucosidase activities in vitro. 1st SEA-PHN Conference 2017. Kuala Lumpur, Malaysia. 14 - 17 May 2017.
15. Chang Wei Lin, Nurul Husna Shafie, Hasnah Bahari. Anti-obesity and antidiabetic effects of Elateriospermum tapos crude extracts in vitro. 31st Scientific Conference ' Better Nutrition, Healthier Malaysians 31 May – 1 June 2016.
16. Saadiah Abu Bakar, Nurul Husna Shafie, Hasnah Bahari. Inhibitory effects of pancreatic lipase,  $\alpha$ - amylase and  $\alpha$ - glucosidase in Lasia spinosa in vitro. 31st Scientific Conference ' Better Nutrition, Healthier Malaysians 31 May – 1 June 2016.
17. Nurul Nadiah Hamdan, Nurul Husna Shafie, Hasnah Bahari, Amirah Haziyah Ishak. Determination of total phenolic content, total flavonoid content and antioxidant activity in Lasia spinosa. 31st Scientific Conference ' Better Nutrition, Healthier Malaysians 31 May – 1 June 2016.
18. Syaza Lyana Idris, Nurul Husna Shafie, Hasnah Bahari, Nai'mah Isa. Nutritional Composition of Citrus microcarpa and Citrus hystrix. 31st Scientific Conference ' Better Nutrition, Healthier Malaysians 31 May – 1 June 2016.
19. Amirah Haziyah Ishak, Nurul Husna Shafie, Na'imah Isa, Norhaizan Mohd Esa and Hasnah Bahari. Antioxidant contents and antioxidant capacities of different parts of Selaput Tunggul (Mikania micrantha Kunth). ICMST 'Continuing Challenges in 21st Century Healthcare". Hotel Bangi-Putrajaya. 23 – 24 November 2016.
20. Nurul Syahirah Mohammad Bakhtiar, Nurul Husna Shafie, Hasnah Bahari, Amirah Haziyah Ishak. Screening for total phenolic content, total flavonoid content and antioxidant activity of E. tapos in aqueous and ethanol extracts. 31st Scientific Conference ' Better Nutrition, Healthier Malaysians. Hotel Renaissance, Kuala Lumpur, Malaysia. 31 May – 1 June 2016.
21. Nurul Husna Shafie, Syaza Lyana Idris, Nurul Nadiah Hamdan, Saadiah Abu Bakar, Amirah haziyah Ishak, Na'imah Isa and Hasnah Bahari. Nutritional Composition, antioxidative, and inhibitory effects against pancreatic lipase, alpha-amylase and alpha-glucosidase of Lasia spinose. Herbstem 2016 International Conference on Herbal Science, Technology & Medicine. Krabi, Thailand. 30 November – 2 December 2016.
22. Mukesh Raipuria, Hasnah Bahari, Margaret Morris. Voluntary Exercise during Pregnancy Reduces Risk for Metabolic Disease in adult Rat Offspring in a Sex Specific Manner. Perinatal Society of Australia and New Zealand 19th Annual Conference 2015, 19-22 April, 2015. Melbourne, Australia.

**Books (If any)**

N/A

**Chapter in Books (If any)**

N/A

## Research Grants

### Received 2020

1. Development of novel fraction from local ingredients that target lipid-dependent cancer pathways. MRUN-LRGS

### On-going

1. Linking Obesity to Cancer: An Integrative Study From Molecule to Society. MRUN-LRGS
2. Biogenic Mechanism Profiling of *Acalypha indica* against Lipid Dependant Cancer in Vitro. CRG UTM-National & UPM matching Grant
3. Bioavailability, toxicity and chemopreventive efficacy of chitosan-based nanoformulation of tea polyphenols for colorectal cancer therapy. FRGS 2018

## Research Grants

No.	Project Title	Amount (RM)	Year	Source of Fund
1.	Bioavailability, toxicity and chemopreventive efficacy of chitosan-based nanoformulation of tea polyphenols for colorectal cancer therapy. (Co-researcher)		2018	FRGS, MoHE
2.	Effect of <i>Momordica Charantia</i> Inducing Apoptosis in Human Lung Cancer Cell Lines A549 and NCI-H1688 via P13K/Akt Signaling Pathway (Co-researcher)		2018	GP-IPS, UPM
3.	True-to-Live Animal Model via 3D Printing Towards Dissection Technique Enhancement. (Principal Investigator)		2017	GIPP, UPM
4.	Lipid Lowering Effects of Ethyl Acetate Extract of <i>Mikania Micrantha</i> Stems (EAMMS) and its Regulation on Key Enzymes Involved in Cholesterol Metabolism in High-Cholesterol-Fed Mice (Co-researcher)		2017	GP-IPM
5.	Investigating E.Tapos and its omega-3 fatty acids in ameliorating maternal obesity effects on offspring through the mesolimbic reward pathway. (Principal Investigator)		2016	FRGS, MoHE
6.	Mechanism of iron chelation of green tea catechin and its role in inducing endoplasmic reticulum (ER) stress for colon cancer therapy (Co-researcher)		2015	FRGS, MoHE

## Awards/ Recognition (Current)

No.	Name of awards	Award Authority	Award Type	Year
1.	Republic of Croatia International Award of Merit	Republic of Croatia	International	2020
2.	Malaysia Technology Expo 2020, Invention and Innovation Awards, Bronze Award	SIRIM	International	2020
3.	Gold Medal kNOVASI	UKM	National	2020
4.	Silver Medal kNOVASI	UKM	National	2020
5.	Travel Grant AOCE-SICEM 2020	AOCE-SICEM	International	2020
6.	Gold Medal – Putra InnoCreative Competition. 2019.	UPM	National	2019



7.	Silver Medal – Putra InnoCreative Competition. 2019.	UPM	National	2019
8.	Scholarship Programme Award by SCOPE School Greece.	IASO	International	2019
9.	Scholarship Programme Award by SCOPE School Kuwait	IASO	International	2019
10.	Young Educators Travel Award	FAOPS	International	2019
11.	Scholarship Programme Award by SCOPE School South Africa.	FAOPS	International	2018
12.	Gold Medal – Putra InnoCreative Competition (2018).	UPM	National	2018
13.	Silver Medal – Putra InnoCreative Competition (2018).	UPM	National	2018
14.	Anugerah Khidmat Cemerlang	UPM	National	2019
15.	Anugerah Khidmat Cemerlang	UPM	National	2015

### Professional Services/ Consultation

No.	Year	Title	Authority
1.	2020	Invited lecturer	Xiamen University Malaysia
2.	2018	Invited lecturer	Xiamen University Malaysia
3.	2018	Invited lecturer	Medic Mesir

### Student Supervision

PhD (Main Supervisor)			
No.	Name	Title	Status
1.	SANTHRA SEGARAN A/L BALAN	Potential of E. tapos in ameliorating maternal obesity effects on female offspring of Sprague Dawley rats through the hypothalamic feeding circuitry.	On-going
2.	AZRINA BINTI ZAINAL ABIDIN	Potential of Elateriospermum tapos in ameliorating maternal obesity effects female offspring mesolimbic reward pathway.	On-going

### Master with Thesis (Main Supervisor)

No.	Name	Title	Status
1.	KOKILA VANI A/P PERUMAL	Potential effects on a combination of Zinger officinale, Aliium sativum, Citrus lemon, Honey, and Malus domestica vinegar (ZACA) extract in rats fed with high cholesterol diet	On-going
2.	SIROSHINI A/P K THIAGARAJAN	Putative apoptosis effect of Momordica charantia linn. (Chinese and Indian bitter melon) extracts in human lung cancer cell line A549	Completed
3.	NOR LIYANA BINTI JA'AFAR	Protective effects of Elateriospermum tapos against obesity in high-fat diet Sprague dawley rats via inhibition of lipoprotein lipase and triglyceride absorption	Completed



Master without Thesis (Main Supervisor)			
No.	Name	Title	Status
N/A			

Attended Seminars/ Workshops/ Forums both National and International			
No.	Year	Title	Organizers
1.	2020	Malaysia Technology Expo 2020	SIRIM and Republic of Croatia
2.	2020	kNOVASI	UKM
3.	2019	Putra Innocreative Carnival in Teaching and Learning 2019 (PicTL'19)	UPM
4.	2019	28th Scientific Conference of the Microscopy Society Malaysia (28th SCMSM 2019)	MSM
5.	2019	7th International Symposium on Applied Engineering and Sciences (SAES2019)	UPM and Kyutech
6.	2019	9th Federation of the Asian and Oceanian Physiological Societies Congress (FAOPS2019).	FAOPS
7.	2018	11th International Medical, Pharmaceutical, Cosmeceutical and Health Science Symposium.	MSU
8.	2017	10th World Congress Developmental Origins of Health and Disease.	DOHAD

Intellectuals Property			
Patent Granted			
No.	Date	Patent No.	Name
N/A			

Patent Field			
No.	Date	Patent No.	Name
N/A			