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EDUCATION

2016-2018

1999–2004	Doctor of Philosophy (Ph.D) in Biotechnology, Department of Biochemistry, Faculty of Biotechnology and Biomolecular Sciences, Universiti Putra Malaysia, Malaysia.		
1994–1999	Bachelor of Science (B.Sc) in Chemistry, Department of Chemistry, Faculty of Mathematics and Natural Sciences, University of Indonesia, Indonesia.		
WORK EXPERIENCE			
2019-now	Associate Professor, Department of Chemistry, Universiti Putra Malaysia.		
2016–2019	Dean, Faculty of Applied Sciences, UCSI University, Malaysia.		
2016–2019	Associate Professor, Department of Biotechnology, UCSI University, Malaysia.		
2015–2016	Co-Founder & Chief Scientist, Biamics Research, Malaysia.		
2015	Dean, Faculty of Life Sciences, Surya University, Indonesia.		
2013–2015	Lecturer, Department of Biotechnology, Surya University, Indonesia.		
2013	Visiting Scientist, Institute of Cell and Molecular Biology, University of Edinburgh, UK (September–December 2013).		
2010–2013	Senior Lecturer, Department of Chemistry, Universiti Putra Malaysia.		
2008–2010	Lecturer, Department of Chemistry, Universiti Putra Malaysia.		
2005–2008	Postdoctorate, Department of Pharmaceutical Chemistry, School of Pharmacy, University of Kansas, USA.		
2005	Visiting Scientist, Institute of Cell and Molecular Biology, University of Edinburgh, UK (February–May 2005).		
2004–2005	Postdoctorate, Department of Biochemistry, Faculty of Biotechnology and Biomolecular Sciences, Universiti Putra Malaysia, Malaysia.		

Postgraduate Diploma in Tertiary Teaching, UCSI University, Malaysia.

2002–2003 Visiting Scientist, Institute of Technical Biochemistry, University of Stuttgart, Germany.

PUBLICATIONS

Peer-reviewed Journals (58 papers, *h*-index = 20):

- 1. A.A.Q. Al-Khdhairawi, S.S. Ng, A. Muhamad, <u>B.A. Tejo</u>. Rational design and characterization of short antifreeze peptides derived from *Lolium perenne* antifreeze protein. *Cryobiology* (accepted).
- 2. I.A. Nadzirin, A.L.T. Chor, A.B. Salleh, M.B.A. Rahman, <u>B.A. Tejo</u>. Discovery of new inhibitor for the protein arginine deiminase type 4 (PAD4) by rational design of α-enolase-derived peptides. *Computational Biology and Chemistry*, 2021; **92**:107487.
- 3. N.N.N. Maarof, A. Alsalahi, E.A. Malek, S. Fakurazi, <u>B.A. Tejo</u>, M.B.A. Rahman. Efficacy of afatinib in the treatment of patients with non-small cell lung cancer and head and neck squamous cell carcinoma: A systematic review and meta-analysis. *Cancers*, 2021; **13(4)**:688.
- 4. <u>B.A. Tejo</u>, A.A. Asmawi, M.B.A. Rahman. Antifreeze proteins: Characteristics and potential applications. *Makara Journal of Science*, 2020; 24(1):58–64.
- 5. L.F. Kong, A.A.Q. Al-Khdhairawi, <u>B.A. Tejo</u>. Rational design of short antifreeze peptides derived from *Rhagium inquisitor* antifreeze protein. *Biocatalysis and Agricultural Biotechnology*, 2020; **23**:10147.
- 6. D. Afriza, S.J.A. Ichwan, W.H. Suriyah, F.S. Wahyuni, Yanwirasti, <u>B.A. Tejo</u>. Prediction of binding affinity of nordentatin and quercetin against anti-apoptotic Bcl-2 protein. *Journal of International Dental and Medical Research*, 2018; **11(3)**:1116–1122.
- 7. S.S. Ang, A.B. Salleh, L.T. Chor, Y.M. Normi, <u>B.A. Tejo</u>, M.B.A. Rahman, M.-A. Fatima. Biochemical characterization of the cytochrome P450 CYP107CB2 from *Bacillus lehensis* G1. *The Protein Journal*, 2018; **37(2)**:180–183.
- 8. S.A. Abdul Ahmad, U.D. Palanisamy, <u>B.A. Tejo</u>, M.F. Chew, H.W. Tham, S. Syed Hassan. Geraniin extracted from the rind of *Nephelium lappaceum* binds to dengue virus type-2 envelope protein and inhibits early stage of virus replication. *Virology Journal*, 2017; **14(1)**:229.
- 9. C.Y. Teo, <u>B.A. Tejo</u>, A.L.T. Chor, A.B. Salleh, M.B.A. Rahman. Novel furan-containing peptide-based inhibitors of protein arginine deiminase type IV (PAD4). *Chemical Biology & Drug Design*, 2017; **90**:1134–1146.
- 10. Z. Ibrahim, <u>B.A. Tejo</u>, M.A.M. Latif, R.A. Karjiban, A.B. Salleh, M.B.A. Rahman. In-silico identification of potential protein arginine deiminase IV (PAD4) inhibitors. *Malaysian Journal of Analytical Sciences*, 2016; **20(6)**:1269–1277.
- 11. M.B.A. Rahman, A.A. Asmawi, E. Abdulmalek, A.B. Salleh, <u>B.A. Tejo</u>. Tailoring peptidomimetics antifreeze protein from exotic Antarctic marine. *Malaysian Journal of Analytical Sciences*, 2016; **20(3)**:477–483.
- 12. R.K. Kar, K.H. Mroue, D. Kumar, <u>B.A. Tejo</u>, A. Bhunia. Structure and dynamics of antifreeze protein–model membrane interactions: A combined spectroscopic and molecular dynamics study. *Journal of Physical Chemistry B*, 2016; **120** (5):902–914.

- A. Muhamad, K.L. Ho, M.B.A. Rahman, <u>B.A. Tejo</u>, D. Uhrin, W.S. Tan. Hepatitis B virus peptide inhibitors: solution structures and interactions with the viral capsid. *Organic & Biomolecular Chemistry*, 2015; **13**:7780–7789.
- 14. S.M. Lim, M.N. Sulaiman, A.B.M. Sultan, N. Mustapha, <u>B.A. Tejo</u>. New real-coded genetic algorithm operators for minimization of molecular potential energy function. *Applied Artificial Intelligence*, 2015; **29(10)**:979–991.
- 15. Y.H. Chow, Y.J. Yap, C.P. Tan, M.S. Anuar, <u>B.A. Tejo</u>, P.L. Show, A.B. Ariff, E.P. Ng, T.C. Ling. Characterization of bovine serum albumin partitioning behaviors in polymer-salt aqueous two-phase systems. *Journal of Bioscience and Bioengineering*, 2015; **120(1)**:85–90.
- 16. R.A. Karjiban, Q.Y. Huan, M.B.A Rahman, M. Basri, <u>B.A. Tejo</u>. Self-assembly of palm kernel oil wax esters in aqueous media: a molecular dynamics study. *International Journal of Chemistry*, 2015; **7(1)**:133–139.
- 17. S.S. Ang, A.B. Salleh, A.L.T. Chor, Y.M. Normi, <u>B.A. Tejo</u>, M.B.A. Rahman. Molecular characterization, modeling and docking of CYP107CB2 from *Bacillus lehensis* G1, an alkaliphile. *Computational Biology and Chemistry*, 2015; **56**:19–29.
- 18. H.W. Tham, V.R.M.T. Balasubramaniam, <u>B.A. Tejo</u>, H. Ahmad, S.S. Hassan. CPB1 of *Aedes aegypti* interacts with DENV2 E protein and regulates intracellular viral accumulation and release from midgut cells. *Viruses*, 2014; **6(12)**:5028–5046.
- 19. S. Bayat, E.A. Malek, N.M. Yahaya, A.B. Salleh, <u>B.A. Tejo</u>, M.B.A. Rahman. Asymmetric aldol reactions catalyzed by the promiscuous aldo–ketoreductase enzyme. *Tetrahedron Letters*, 2014; **55(46)**:6303–6306.
- 20. C.H. Loo, R. Ismail, M. Basri, H.L.N. Lau, <u>B.A. Tejo</u>, H. Abu Hassan, Y.M. Choo, M.S. Kanthimathi. Nanostructured lipid carriers (NLC) for efficient delivery of palm phytonutrients. *Journal of Oil Palm Research*, 2014; **26(3)**:232–239.
- 21. M.A.M. Latif, <u>B.A. Tejo</u>, R. Abedikargiban, M.B.A. Rahman, N.M. Micaelo. Modeling stability and flexibility of α-chymotrypsin in room temperature ionic liquids. *Journal of Biomolecular Structure and Dynamics*, 2014; **32(8)**:1263–1273.
- 22. A. Baharudin, A.A. Hassan, R. Othman, Y. Xu, M. Huang, <u>B.A. Tejo</u>, R. Yusof, N.A. Rahman, S. Othman. Dengue envelope domain III-peptide binding analysis via tryptophan fluorescence quenching assay. *Chemical and Pharmaceutical Bulletin (Tokyo)*, 2014; **62(10)**:947–955.
- 23. S. Bayat, <u>B.A. Tejo</u>, E. Abdulmalek, A.B. Salleh, Y.M. Normi, M.B.A. Rahman. Rational design of mimetic peptides based on aldo-ketoreductase enzyme as asymmetric organocatalysts in aldol reactions. *RSC Advances*, 2014; **4 (73)**:38859–38868.
- 24. O.K. Choong, P. Mehrbod, <u>B.A. Tejo</u>, A.R. Omar. In vitro antiviral activity of circular triple helix forming oligonucleotide RNA towards feline infectious peritonitis virus replication. *BioMed Research International*, 2014; Art ID 654712.
- 25. S.M. Lim, M.D.N. Sulaiman, A.B.M. Sultan, N. Mustapha, <u>B.A. Tejo</u>. Real coded genetic algorithm (RCGA): a new RCGA mutator called scale truncated Pareto mutation. *Journal of Theoretical & Applied Information Technology*, 2014; **60(2)**:245–253.
- 26. S.M. Lim, M.D.N. Sulaiman, A.B.M. Sultan, N. Mustapha, <u>B.A. Tejo</u>. A new real coded genetic algorithm crossover: Rayleigh crossover. *Journal of Theoretical & Applied Information Technology*, 2014; **62(1)**:262–268.

- 27. S. Bayat, <u>B.A. Tejo</u>, E. Abdmalek, A.B. Salleh, N.M. Yahaya, M.B.A. Rahman. Asymmetric Michael reaction catalyzed by mimicked peptides. *Catalysis Letters*, 2014, **144**:222–228.
- 28. E.M. Omar, M.B.A. Rahman, E. Abdulmalek, <u>B.A. Tejo</u>, B. Ni, A.D. Headley. Optimization of microwave-assisted Michael addition reaction catalyzed by L-proline in ionic liquid medium using response surface methodology. *Synthetic Communications*, 2014; **44(3)**:381–398.
- 29. C.Y. Teo, M.B.A. Rahman, A.L.T. Chor, A.B. Salleh, P.J. Ballester, <u>B.A. Tejo</u>. Ligand-based virtual screening for the discovery of inhibitors for protein arginine deiminase type 4 (PAD4). *Metabolomics: Open Access*, 2013; **3(1)**:1000118.
- 30. V.R.M.T. Balasubramaniam, T.H. Wai, <u>B.A. Tejo</u>, A.R. Omar, S.S. Hassan. Highly pathogenic avian influenza virus nucleoprotein interacts with TREX complex adaptor protein Aly/REF. *PLoS ONE*, 2013; **8(9)**:e72429.
- 31. S. Bayat, <u>B.A. Tejo</u>, A.B. Salleh, E. Abdulmalek, Y.M. Normi, M.B. Rahman. Various polar tripeptides as asymmetric organocatalyst in direct aldol reactions in organic media. *Chirality*, 2013; **25(11)**:726–734.
- 32. Y.H. Chow, Y.J. Yap, M.S. Anuar, <u>B.A. Tejo</u>, A. Ariff, P.L. Show, E.P. Ng, T.C. Ling. Interfacial partitioning behavior of bovine serum albumin in polymer-salt aqueous two-phase system. *Journal of Chromatography B*, 2013; **934**:71–78.
- 33. K.W. Lee, B.T. Tey, K.L. Ho, <u>B.A. Tejo</u>, W.S. Tan. Targeting HeLa cells using hepatitis B virus-like particle (HBVLP) decorated with nanoglue-cell-internalizing peptides. *European Journal of Pharmaceutical Sciences*, 2013; **50**(Suppl 1):11–12.
- 34. S. Bayat, <u>B.A. Tejo</u>, E. Abdulmalek, N.M. Yahya, A.B. Salleh, M.B.A. Rahman. Enantioselectivity investigation of short polar peptides with different position in the Michael reaction. *Synthetic Communications*, 2013; **43(20)**:2725–2732.
- 35. S. Bayat, M.B.A. Rahman, <u>B.A. Tejo</u>, E. Abdulmalek, A.B. Salleh, N.M. Yahya. Novel octapeptide as an asymmetric catalyst for Michael reaction in aqueous media. *Synthetic Communications*, 2013; **43(23)**:3130–3140.
- 36. M.B.A. Rahman, D. Krishnan, M.J. Haron, <u>B.A. Tejo</u>, E. Abdulmalek, A.B. Salleh, M. Basri. Lipase-catalyzed amino sugar derivative in tri-solvent mixture. *Asian Journal of Chemistry*, 2013; **25(6)**:3014–3018.
- 37. C.H. Loo, M. Basri, R. Ismail, H.L.N. Lau, <u>B.A. Tejo</u>, M.S. Kanthimanthi, H.A. Hassan, Y.M. Choo. Effect of compositions in nanostructured lipid carriers (NLC) on skin hydration and occlusion. *International Journal of Nanomedicine*, 2013; **8**:13–22.
- 38. S.H.H. Shah, R.K. Kar, A.A. Asmawi, M.B.A. Rahman, A.M.A. Murad, N.M. Mahadi, M. Basri, R.N.Z.R.A. Rahman, A.B. Salleh, S. Chatterjee, <u>B.A. Tejo</u>, A. Bhunia. Solution structures, dynamics, and ice growth inhibitory activity of peptide fragments derived from an Antarctic yeast protein. *PLoS ONE*, 2012; **7(11)**:e49788.
- 39. K.W. Lee, B.T. Tey, K.L. Ho, <u>B.A. Tejo</u>, W.S. Tan. Nano-glue: an alternative way to display cell-internalizing peptide at the spikes of hepatitis B virus core nanoparticles for cell-targeting delivery. *Molecular Pharmaceutics*, 2012; **9(9)**:2415–2423.

- 40. C.Y. Teo, S. Shave, A.L.T. Chor, A.B. Salleh, M.B.A. Rahman, M. Walkinshaw, <u>B.A. Tejo.</u> Discovery of a new class of inhibitors for the protein arginine deiminase type 4 (PAD4) by structure-based virtual screening. *BMC Bioinformatics*, 2012; **13**(Suppl 17):S4.
- 41. J. Ekowati, <u>B.A. Tejo</u>, S. Sasaki, K. Highasiyama, Sukardiman, Siswandono, T. Budiati. Structure modification of ethyl *p*-methoxycinnamate and their bioassay as chemopreventive agent against mice's fibrosarcoma. *International Journal of Pharmacy and Pharmaceutical Sciences*, 2012; **4(3)**:528–532.
- 42. M.B.A. Rahman, K. Jumbri, N.A.M.A. Hanafiah, <u>B.A. Tejo</u>, M. Basri, A.B. Salleh. Enzymatic esterification of fatty acid esters by tetraethylammonium amino acid ionic liquids-coated *Candida rugosa* lipase. *Journal of Molecular Catalysis B: Enzymatic*, 2012; **79**:61–65.
- 43. E. Abdulmalek, H.S.M. Saupi, <u>B.A. Tejo</u>, M. Basri, A.B. Salleh, R.N.Z.A. Rahman, M.B.A. Rahman. Improved enzymatic galactose oleate ester synthesis in ionic liquid. *Journal of Molecular Catalysis B: Enzymatic*, 2012; **76**:37–43.
- 44. S.V. Lim, M.B.A. Rahman, <u>B.A. Tejo</u>. Structure-based and ligand-based virtual screening of novel methyltransferase inhibitors of the dengue virus. *BMC Bioinformatics*, 2011; **12**(Suppl 13):S24.
- 45. K. Shaari, V. Suppaiah, L.K. Wai, J. Stanslas, <u>B.A. Tejo</u>, D.I. Ahmad, F. Abas, I.S. Ismail, N.H. Shuaib, S. Zareen, N.H. Lajis. Bioassay-guided identification of an anti-inflammatory prenylated acylphloroglucinol from *Melicope ptelefolia* and molecular insights into its interaction with 5-lipoxygenase. *Bioorganic and Medicinal Chemistry*, 2011; **19(21)**:6340–6347.
- 46. L.C. Hung, M. Basri, <u>B.A. Tejo</u>, R. Ismail, H.L. Nang, H.A. Hassan, C.Y. May. An improved method for the preparations of nanostructured lipid carriers containing heat-sensitive bioactives. *Colloids and Surfaces B: Biointerfaces*, 2011; **87(1)**:180–186.
- 47. P. Manikwar, <u>B.A. Tejo</u>, H. Shinogle, D.S. Moore, T. Zimmerman, F. Blanco, T.J. Siahaan. Utilization of I-domain of LFA-1 to target drug and marker molecules to leukocytes. *Theranostics*, 2011; **1**:277–289.
- 48. L.C. Hung, R. Ismail, M. Basri, H.L.L. Nang, <u>B.A. Tejo</u>, H.A. Hassan, C.Y. May. A Testing of gyceryl monoesters for their antimicrobial susceptibility and their influence in emulsions. *Journal of Palm Oil Research*, 2010; **22**:846–855.
- 49. A. Lee, N. Chaibakhsh, M.B.A. Rahman, M. Basri, <u>B.A. Tejo</u>. Optimized enzymatic synthesis of levulinate ester in solvent-free system. *Industrial Crops and Products*, 2010; **32**:246–251.
- 50. M.B.A. Rahman, Q.-Y. Huan, <u>B.A. Tejo</u>, M. Basri, A.B. Salleh, R.N.Z.A. Rahman. Self-assembly formation of palm-based esters nano-emulsion: a molecular dynamics study. *Chemical Physics Letters*, 2009; **480**:220–224.
- 51. <u>B.A. Tejo</u>, T.J. Siahaan. Solution structure of a novel T-cell adhesion inhibitor derived from the fragment of ICAM-1 receptor: cyclo(1,8)-Cys-Pro-Arg-Gly-Gly-Ser-Val-Cys. *Biopolymers*, 2009; **91(8)**:633–641.
- 52. S. Majumdar, <u>B.A. Tejo</u>, A. Badawi, D. Moore, J.P. Krise, T.J. Siahaan. Effect of modification of the physicochemical properties of ICAM-1-derived peptides on internalization and intracellular distribution in the human leukemic cell line HL-60. *Molecular Pharmaceutics*, 2009; **6(2)**:396–406.

- 53. Iskandarsyah, <u>B.A. Tejo</u>, U.S. Tambunan, G. Verkhivker, T.J. Siahaan. Structural modifications of ICAM-1 cyclic peptides to improve the activity to inhibit heterotypic adhesion of T cells. *Chemical Biology & Drug Design*, 2008; **72**:27–33.
- 54. T. Zimmerman, J. Oyarzabal, E. San-Sebastian, S. Majumdar, <u>B.A. Tejo</u>, T.J. Siahaan, F.J. Blanco. ICAM-1 peptide inhibitors of T-cell adhesion bind to the allosteric site of LFA-1: an NMR characterization. *Chemical Biology & Drug Design*, 2007; **70**:347–353.
- 55. H.Y. Makagiansar, T. Yakovleva, <u>B.A. Tejo</u>, K.O. Hamilton, Y. Hu, G.M. Verkhivker, K.L. Audus, T.J. Siahaan. Sequence recognition of α-LFA-1-derived peptides by ICAM-1 cell receptors: inhibitors of T-cell adhesion. *Chemical Biology & Drug Design*, 2007; **70**:237–246.
- 56. M.E. Anderson, <u>B.A. Tejo</u>, T. Yakovleva, T.J. Siahaan. Characterization of binding properties of ICAM-1 peptides to LFA-1: inhibitors of T-cell adhesion. *Chemical Biology & Drug Design*, 2006; **68**:20–28.
- 57. <u>B.A. Tejo</u>, A.B. Salleh, J. Pleiss. Structure and dynamics of *Candida rugosa* lipase: the role of organic solvent. *Journal of Molecular Modeling*, 2004; **10**:358–366.
- 58. R.N.Z.A. Rahman, <u>B.A. Tejo</u>, M. Basri, M.B.A. Rahman, F. Khan, S.M. Zain, T.J. Siahaan, A.B. Salleh. Reductive alkylation of lipase: experimental and molecular modeling approaches. *Applied Biochemistry and Biotechnology*, 2004; **118**:11–20.

Book Chapter:

- C.Y. Teo, Z. Ibrahim, M.B.A. Rahman, <u>B.A. Tejo</u>. Structure-based design of peptide inhibitors for protein arginine deiminase type IV (PAD4). In *Encyclopedia of Bioinformatics and Computational Biology* (Eds. S. Ranganathan, K. Nakai, C. Schönbach, M. Gribskov), Elsevier, 2018; 3:729–740.
- 60. <u>B.A. Tejo</u>, C.K. Whye, A.B. Salleh, M. Basri. Modified lipases. In *New Lipases and Proteases* (Eds. A.B. Salleh, R.N.Z.A. Rahman, M. Basri), Nova Publishers, 2006; 127–148.
- 61. <u>B.A. Tejo</u>, M. Basri, R.N.Z.R.A. Rahman, M.B.A. Rahman, F. Khan, T.J. Siahaan, J. Pleiss, A.B. Salleh. Structural study of chemically-modified *Candida rugosa* lipase. In *The Effect of Conformation on Protein Function* (Eds. A.B. Salleh, M. Basri, M.B.A. Rahman, ISBN 967-960-161-7), UPM Press, 2004; 54–57.

Reports / Magazine / Research Bulletin / Articles in Newspaper:

- 62. <u>B.A. Tejo</u>. Tak gopoh dapatkan vaksin COVID-19 demi kemaslahatan. *Berita Harian*, 28 September 2020.
- 63. B.A. Tejo. Bangunkan ubat, vaksin cara terbaik akhiri COVID-19. Berita Harian, 16 April 2020.
- 64. B.A. Tejo. Kaji kesan gerbang nyah kuman. Berita Harian, 10 April 2020.
- 65. <u>B.A. Tejo</u>. Structure-based Drug Design: What Can Indonesia Do? (in Indonesian) INOVASI Online, 2011; 19 (XXIII):30–36, PPI Jepang, ISSN 2085-871X.
- 66. A.B. Salleh, R.N.Z.R.A. Rahman, M. Basri, M.B.A. Rahman, <u>B.A. Tejo</u>, N.A. Ibrahim, A. Muhamad. Understanding How Enzyme Work: Homology Modelling of F1 Protease from Bacillus stearothermophilus", In *R&D at UPM Part 2, Research Snapshots. 1st Edition* (Eds. N.D.S. Kanwal, M. S. Othman, S.A. Aziz, ISSN 1675-2236), Universiti Putra Malaysia, Serdang, Malaysia, 2004; pp 369.

67. A.B. Salleh, M. Basri, R.N.Z.R.A. Rahman, M.B.A. Rahman, <u>B.A. Tejo</u>, N.A. Ibrahim, A. Muhamad. Understanding How Protein Work: Structural Prediction by Homology Modelling. *Bioscientist*, 2003; **1(2)**:2–3.

PATENTS

- 1. A Multiple Emulsion Composition and A Method of Producing the Emulsion (Malaysian Patent, patent pending PI 2013701379, filed on 06 August 2013).
- 2. Circular Antiviral RNA (Malaysian Patent, patent pending PI 2013162350, filed on 23 April 2013).
- 3. A Process for Producing Levulinate and Succinate Esters (Malaysian Patent, patent pending PI 2010004139, filed on 02 September 2010).
- 4. A Method of Producing Nanostructures Lipid Carriers and A Product Derives Thereof (Malaysian Patent, patent pending PI 2010002809, filed on 16 June 2010).
- 5. Antifreeze Peptides Derived From Fungal Protein (Malaysian Patent, patent pending Pl 20095541, filed on 23 December 2009).

RESEARCH GRANTS

- Molecular Dynamics-based Approach for Elucidating the Inhibition Mechanism of Mycobacterium tuberculosis Cytochrome P450 CYP121, an Anti-Tuberculosis Drug Target, Fundamental Research Grant Scheme (FRGS), Ministry of Education, RM 135,400, 2020–2023 (Project Leader).
- 2. Mechanistic and Structural Understanding of Inhibitory Activity of an Oil Palm Defensin (EgDFSm) against α -Amylase as a Potential Anti-fungal Drug and as a Potent α -Amylase Inhibitor, Fundamental Research Grant Scheme (FRGS), Ministry of Education, **RM 144,800**, 2020–2023 (co-Principal Investigator).
- 3. A Novel Approach of NMR-Fragment Based Drug Discovery for Inhibitors Targeting Viral Proteins of A Malaysian SARS-CoV-2, Skim Dana Khas (SDK), Universiti Malaysia Sabah, **RM 190,000**, 2020–2023 (co-Principal Investigator).
- 4. Development of Peptide-Based Inhibitors Targeting FKBP35 of Plasmodium knowlesi as Potent Antimalarial Drugs, Skim Penyelidikan Berimpak (SPB), Universiti Malaysia Sabah, **RM 149,980**, 2020–2023 (co-Principal Investigator).
- 5. In Silico Screening of Malaysian Tropical Plant Compounds Against Structural and Non-Structural Proteins of SARS-CoV-2, Skim Dana Khas (SDK), Universiti Malaysia Sabah (UMS) COVID-19 Screening Team, **RM 100,000**, 2020–2023 (co-Principal Investigator).
- 6. Thermodynamic Analysis and Molecular Dynamics Study for the Separation of Azeotropic Mixtures by using Novel Ionic Liquids, Fundamental Research Grant Scheme (FRGS), Ministry of Education, **RM 136,800**, 2019–2022 (co-Principal Investigator).
- 7. A Pharmacophore-based Virtual Screening Approach for Identifying Bioactive Compounds from Various Malaysian Plants As Potential Protein Arginine Deiminase IV (PAD4) Inhibitors, Fundamental Research Grant Scheme (FRGS), Ministry of Education, **RM 92,500**, 2019–2022 (co-Principal Investigator).

- 8. Design and Synthesis of Short Hypothetical Antifreeze Peptides Derived from Winter Flounder Antifreeze Protein, Pioneer Scientist Incentive Fund (PSIF), UCSI University, **RM 25,000**, 2017–2018 (Project Leader).
- 9. Novel Peptide Inhibitor Derived from α-Enolase for Suppression of Autoimmune Disease, Pioneer Scientist Incentive Fund (PSIF), UCSI University, **RM 25,000**, 2017–2018 (Project Leader).
- 10. Novel Peptide Inhibitor for Suppression of Rheumatoid Arthritis, Exploratory Research Grant Scheme (ERGS), Ministry of Higher Education, **RM 136,000**, 2012–2015 (Project Leader).
- 11. Novel Mini-Enzyme for Enantiomeric Separation of (*R*,*S*)-Ibuprofen, ScienceFund, Ministry of Science, Technology, and Innovation, **RM 240,000**, 2012–2014 (Project Leader).
- 12. Peptide Design and Synthesis Based on Enzyme Mimic for Industrial Needs, ScienceFund Special Allocation, Ministry of Science, Technology, and Innovation, **RM 500,000**, 2011–2013 (Project Leader).
- 13. Designer Biocatalyst for Sustainable Processes in the Conversion of Renewable Raw Materials to Platform Chemicals, Top Down Research Grant, Ministry of Science, Technology, and Innovation, **RM 145,000**, 2009–2012 (co-Principal Investigator).
- 14. Molecular Construction and Interaction of Nanodelivery System: Deciphering Molecular Evolution and Structural Properties of Palm-Oil Esters Swollen Micelles, Fundamental Research Grant Scheme (FRGS), Ministry of Higher Education, **RM 34,000**, 2009–2011 (Project Leader).
- Structure Elucidation and Binding Study of PLP-BPI, A Novel Peptide Inhibitor for Suppression of Multiple Sclerosis, Research University Grant Scheme (RUGS), Universiti Putra Malaysia, RM 18,000, 2009–2010 (Project Leader).
- 16. Structural and Functional Characterization of *Leucosporidium antarcticum* Antifreeze Protein, Top Down Research Grant, Ministry of Science, Technology and Innovation, **RM 254,120**, 2007–2009 (co-Principal Investigator).

CONFERENCES

- 1. National Seminar on Challenges to New Normal Post-COVID-19, Faculty of Medicine, Universitas Lambung Mangkurat, 26 December 2020 (Invited speaker: Strategies to Overcome Challenges during COVID-19 Pandemic, online).
- 2. The 19^{th} International Conference on Bioinformatics (InCoB2020), 25–29 November 2020 (Session Chair and oral presentation: Discovery of New Inhibitor for the Protein Arginine Deiminase Type 4 (PAD4) by Rational Design of α -Enolase-derived Peptides, online).
- 3. The Indonesian Industrial Hygiene Association (IIHA) Sharing Session, 21 November 2020 (Invited speaker: COVID-19 Vaccines: Updates and Challenges, online).
- 4. The 2nd Jogjakarta Annual Meeting of Pharmacology and Therapy, Universitas Gadjah Mada, Indonesia, 4 November 2020 (Invited speaker: Drug Design and Development for COVID-19, online).
- 5. International Indonesian Scholars Association Lecture Series, 24 October 2020 (Invited speaker: The Curious Case of Protein Arginine Deiminase 4 (PAD4), online).

- 6. Persatuan Ahli Farmasi Indonesia (PAFI) Webinar, 6 September 2020 (Invited speaker: Herbal Drug for COVID-19: Are We Shooting in the Dark, online).
- 7. Webinar Series: Kimia Untuk Bangsa, Faculty of Mathematics and Natural Sciences, University of Indonesia, 19 August 2020 (Invited speaker: Mission Impossible: Designing Drugs for COVID-19, online).
- 8. MIPAtalk Series 8, Faculty of Mathematics and Natural Sciences, University of Indonesia, 30 July 2020 (Invited speaker: The Role of Science During Pandemic: The Malaysian Experience, online).
- 9. Guest Lecture Series, Faculty of Medicine, Universitas Lambung Mangkurat, Indonesia, 25 July 2020 (Invited speaker: The Role of Millennials in Welcoming the New Normal, online).
- 10. International Webinar on Biology and Technology, Faculty of Science and Technology, Universitas Medan Area, Indonesia, 25 June 2020 (Invited speaker: COVID-19 Mitigation: Opportunities and Challenges, online).
- 11. Persatuan Ahli Farmasi Indonesia (PAFI) Webinar, 20 June 2020 (Invited speaker: Welcoming New Normal with COVID-19, online).
- 12. DIRAIAT, Universitas Islam Sunan Gunung Djati, Indonesia, 30 May 2020 (Invited speaker: Living New Normal with COVID-19, online).
- 13. Persatuan Ahli Farmasi Indonesia (PAFI) Webinar, 21 April 2020 (Invited speaker: Update on Drugs and Vaccines for COVID-19, online).
- 14. The Indonesian Industrial Hygiene Association (IIHA) Sharing Session, 28 March 2020 (Invited speaker: Facts and Myths about Coronavirus Disinfection, online).
- 15. The National Congress of Indonesian Biomedical Consortium, Universitas Andalas, Padang, Indonesia, 31 October–2 November 2019 (Invited speaker: Rational Design of Therapeutic Peptides).
- 16. Green Industry Research Symposium for Sustainable Development, Universitas Airlangga, Indonesia, 11–12 September 2019 (Invited speaker: Rational Design of Short Antifreeze Peptides Derived from *Rhagium inquisitor* Antifreeze Protein).
- 17. The 4th International Science and Mathematics Academics Research Talk 2019, Universitas Indonesia, Indonesia, 19 August 2019 (Keynote speaker: The Role of Chemistry and Biology Towards Creating A Sustainable Future).
- 18. Makara International Colloquium of Science, Universitas Indonesia, Indonesia, 11 April 2019 (Keynote speaker: Antifreeze Peptide: Design, Structure, and Properties).
- 19. School of Biosciences Lecture Series, Taylor's University, Malaysia, 24 October 2018 (Invited speaker: Biotechnology in Malaysia: Where Are We Heading To?).
- 20. The 6th International Postgraduate Conference on Pharmaceutical Sciences, International Medical University, Malaysia, 15–16 August 2018 (Invited speaker: The Curious Case of Protein Arginine Deiminase Type 4).
- 21. Designing Drugs Workshop: Predictions, Assays & Applications, UCSI University, Malaysia, 13–14 August 2018 (Speaker).

- 22. The 22nd International Seminar of the Indonesian Society of Biochemistry and Molecular Biology, University of Sam Ratulangi, Manado, Indonesia, 9–10 November 2017 (Invited speaker: Design and Discovery of Novel Peptide Inhibitor for Suppression of Rheumatoid Arthritis).
- 23. Regional Workshop: Introduction to Bioinformatics for Healthcare, Research and Education, University of Riau, Indonesia, 13–14 October 2017 (Invited speaker).
- 24. International Symposium on Bioinformatics (InSyB) 2017, Yarsi University, Jakarta, Indonesia, 11–12 July 2017 (Workshop facilitator).
- 25. Bioinformatics and Computational Biology Workshop (BioComBio) 2017, Lampung University, Lampung, Indonesia, 26–27 April 2017 (Speaker).
- 26. I3L PowerTalk, Indonesia International Institute for Life Sciences, Jakarta, Indonesia, 29 March 2017 (Speaker: The Role of Chemistry and Biology in Discovering Therapeutic Peptides).
- 27. The Star Education Fair 2017, Kuala Lumpur Convention Centre, Malaysia, 8 January 2017 (Speaker: Science and Entrepreneurship: A True Story).
- 28. The 2nd BioMedETC Mini Symposium 2016, Kuala Lumpur Convention Centre, Malaysia, 28–29 September 2016 (Speaker: An Academician's True Story into Start Up).
- 29. The 41st Annual Conference of the Malaysian Society for Biochemistry and Molecular Biology (MSBMB), Kuala Lumpur, Malaysia, 17–18 August 2016 (Invited speaker: Life Below Zero: Understanding the Structure and Dynamics of Antifreeze Peptide).
- 30. Bioinformatics in Vaccine and Drug Design Workshop, Malaysia Genome Institute, 25–27 July 2016 (Speaker).
- 31. IMU Science Discovery Challenge Chemistry 2016, International Medical University, Malaysia, 18 June 2016 (Invited judge for poster competition).
- 32. The Malaysian Society for Molecular Biology and Biotechnology (MSMBB) Seminar Series 2016, UCSI University, Malaysia, 2 June 2016 (Invited speaker: The Role of Chemistry and Biology in Discovering Therapeutics).
- 33. The 7th Malaysian Symposium of Biomedical Science 2016, Universiti Putra Malaysia, 14–15 May 2016 (Invited panelist).
- 34. Bioinformatics and Computational Biology Workshop (BioComBio) 2016, Padjadjaran University, Bandung, Indonesia, 9–12 May 2016 (Speaker).
- 35. Docking and Molecular Dynamics Simulation Workshop, Malaysia Genome Institute, 26–28 January 2016 (Speaker).
- 36. The 28th Regional Symposium of Malaysia Analytical Sciences, Ipoh, Malaysia, 17–20 August 2015 (Invited speaker: Physicochemical Characterization of Therapeutic Peptides).
- 37. International Conference and Expo on Drug Discovery & Designing, Frankfurt, Germany, 11–13 August 2015 (Poster: Geraniin Extracted from the *Nephelium lappaceum* (rambutan) Rind Inhibits Dengue Virus Type-2).
- 38. Bioinformatics and Computational Biology Workshop (BioComBio) 2015, Multidisciplinary Graduate School, University of Indonesia, 27–30 April 2015 (Speaker).

- 39. International Conference on Civil, Biological and Environmental Engineering 2014, Istanbul, Turkey, 27–28 May 2014 (Poster: Design and Function of Exotic Ice Structuring Peptides from Antarctic Yeast *Glaciozyma antarctica*).
- 40. Bioinformatics and Computational Biology Workshop (BioComBio) 2014, Swiss-German University, Indonesia, 14–17 April 2014 (Speaker).
- 41. The 2nd International Symposium and Workshop on Functional Genomics and Structural Biology (FGSB2014), MINES, Kuala Lumpur, 21–24th January 2014 (Poster: Identification and Functional Analysis of a Newly Sequenced Cytochrome P450 Gene from Bacillus sp.)
- 42. International Conference on Ionic Liquids (ICIL 13), Resort World Hotel, Langkawi, Kedah, Malaysia, 11–13 December 2013 (Poster: Elucidating The Effects Of Different Anions Towards Enzyme Structure And Dynamics In Room Temperature Ionic Liquids, **Best Poster Award**)
- 43. International Conference on Ionic Liquids (ICIL 13), Resort World Hotel, Langkawi, Kedah, Malaysia, 11–13 December 2013 (Poster: Enzymatic Synthesis Of Galactose Oleate Ester in Ionic Liquids).
- 44. The 26th Regional Symposium Of Malaysia Analytical Sciences, Kuching, Sarawak, 4–5 December 2013 (Poster: Synthesis and Structure-Activity Relationship of Ice Structuring Peptides from Type I Shorthorn Sculpin).
- 45. The 5th BBBB International Conference: From Drug Discovery and Formulation Strategies To Pharmacokinetics-Pharmacodynamics, Athens, Greece, 26–28 December 2013 (Oral presentation: Targeting HeLa Cells Using Hepatitis B Virus-Like Particle (HBVLP) Decorated With Nanoglue-Cell-Internalizing Peptides).
- 46. International Seminar on Mathematics and Natural Sciences (ISMNS 2013), Samarkand, Uzbekistan, 15–17 August 2013 (Poster: Reusability of Ionic Liquid In Enzymatic Synthesis Of Galactose Oleate Ester).
- 47. The 44th IUPAC World Chemistry Congress, Istanbul, Turkey, 11–16 August 2013 (Poster: Rational Design Of New Alkylimidazolium-Based Room Temperature Ionic Liquids For Molecular Solvation Of DNA).
- 48. The 44th IUPAC World Chemistry Congress, Istanbul, Turkey, 11–16 August 2013 (Poster: Multifunctional Mimetic Peptides As Asymmetry Catalyst Based On Biocatalytic Promiscuous Aldo-Ketoreductase In Construction Of C-C Bond).
- 49. The 15th Asian Chemical Congress, Singapore, 10–12 August 2013 (Poster: Ligand-Based Virtual Screening for the Discovery of Inhibitors for Protein Arginine Deiminase Type 4 (PAD4)).
- 50. The 4th Regional Annual Fundamental Science Symposium, UPM Serdang, Selangor, 17–18 July 2013 (Poster: Novel Octapeptide As An Asymmetric Catalyst For Michael Reaction In Aqueous Media).
- 51. The 11th International Conference on Bioinformatics (InCob2012), Bangkok, Thailand, 3–5 October 2012 (Oral presentation: Discovery of a New Class of Inhibitors for the Protein Arginine Deiminase Type 4 (PAD4) by Structure-based Virtual Screening, **2**nd **Best Paper Award**).
- 52. The 37th Annual Conference of the Malaysian Society for Biochemistry & Molecular Biology, Sime Darby Convention Center Kuala Lumpur, Malaysia, 18–19 July 2012 (Poster: Microcalorimetry Studies of Hepatitis B Capsid and Peptide Inhibitor).

- 53. Research and Invention Exhibition 2012, Universiti Putra Malaysia, 17–19 July 2012 (Poster: Circular RNA TFO as Antiviral Therapy against Feline Infectious Peritonitis Virus, **Gold Medal Award**).
- 54. The 10th International Conference on Bioinformatics (InCob2011) 1st Asia Joint Conference 2011, Kuala Lumpur, Malaysia, 30 November 2 December 2011 (Oral presentation: Structure-based and Ligand-based Virtual Screening of Novel Methyltransferase Inhibitors of the Dengue Virus).
- 55. The 24th Regional Symposium of Malaysia Analytical Sciences (SKAM 24), Langkawi, Malaysia, 21–23 November 2011 (Poster: Lipase-catalysed Amino Sugar Derivative in Tri-solvents Mixture).
- 56. The 24th Regional Symposium of Malaysia Analytical Sciences (SKAM 24), Langkawi, Malaysia, 21–23 November 2011 (Poster: Rational Design of Nucleotide-Based Ionic Liquids for Molecular Solvation of DNA)
- 57. The 24th Regional Symposium of Malaysia Analytical Sciences (SKAM 24), Langkawi, Malaysia, 21–23 November 2011 (Poster: Microwave-Assisted Asymmetric Michael Addition Reaction of Aldehydes to β-Nitrostyrenesin Ionic Liquids Catalyzed by L-Proline).
- 58. The 14th Asian Chemical Congress, Queen Sirikit National Convention Center, Thailand, 5–8 September 2011 (Oral presentation: Solution Structures of Short Peptides Derived from *Leucosporidium antarcticum* Antifreeze Protein, **Young Chemist Award, IUPAC and Chemical Society of Thailand**).
- 59. The 25th Scientific Meeting of the Malaysian Society of Pharmacology and Physiology, Universiti Putra Malaysia, 25–26 May 2011 (Oral presentation: Structure-based Virtual Screening of Novel Inhibitors Against Dengue Methyltransferase).
- 60. The 15th Industrial Chemistry Seminar, Universiti Putra Malaysia, 11 May 2011 (Poster: Virtual Screening of New Potential Inhibitors against Methyltransferase of Dengue Virus using the Program EDULISS and LIDAEUS).
- 61. The 15th Industrial Chemistry Seminar, Universiti Putra Malaysia, 11 May 2011 (Poster: Virtual Screening of New Potential Inhibitors against H5 and N1 Receptors of Influenza Virus using the Program EDULISS and LIDAEUS, **Best Poster Award**).
- 62. Public Lecture "Peptide-based Drug", University of Indonesia, 23 April 2011 (Invited speaker).
- 63. Faculty of Science Colloquium 2010, Universiti Putra Malaysia, 17 December 2010 (Oral presentation: Novel Antifreeze Peptides Derived from Helical Regions of *Leucosporidium antarcticum* Antifreeze Protein: Structure-Function Approaches).
- 64. The 16th Malaysian Chemical Congress, Putra World Trade Centre Kuala Lumpur, Malaysia, 12–14 October 2010 (Oral presentation: Novel Antifreeze Peptides Derived from Helical Regions of *Leucosporidium antarcticum* Antifreeze Protein: Structure-Function Approaches).
- 65. The 11th Eurasia Conference on Chemical Sciences, Dead Sead, Jordan, 6–10 October 2010 (Poster: Lipase-catalysed Bioconversion of Glucose Amino Ester in Ionic Liquid).
- 66. The 11th Eurasia Conference on Chemical Sciences, Dead Sead, Jordan, 6–10 October 2010 (Poster: Molecular Dynamics Analysis of Palm Oil Esters Nano-emulsion via Swollen Micellisation).

- 67. International Conference on Cellular and Molecular Bioengineering (ICCMB2), Nanyang Technological University Singapore, 2–4 August 2010 (Poster: Design of Novel Antifreeze Peptides Derived from Helical Regions of *Leucosporidium antarcticum* Antifreeze Protein).
- 68. Research and Invention Exhibition 2010, Universiti Putra Malaysia, 20–22 July 2010 (Poster: Novel Antifreeze Peptides Derived from Fungal Protein, **Bronze Medal Award**).
- 69. Research and Invention Exhibition 2010, Universiti Putra Malaysia, 20–22 July 2010 (Poster: Natural-based Mica Network as Nanoreactor for Enzymes in Chiral Syntheses, **Gold Medal Award**).
- 70. International Conference and Exhibition on Pharmaceutical, Nutraceutical and Cosmeceutical Technology: Formulation and Applications, Kuala Lumpur Convention Centre, Malaysia, 25–27 May 2010 (Poster: Tocopherol Acetate-loaded Palm Oil Esters-in-Water Nanoemulsions for Nanocosmeceuticals Skin Care, **Best Poster Award**).
- 71. Fundamental Science Congress 2010, Universiti Putra Malaysia, 18–19 May 2010 (Oral presentation: Structure Elucidation of PLP-BPI, A Novel Peptide Inhibitor for Suppression of Multiple Sclerosis).
- 72. The 14th Industrial Chemistry Seminar, Universiti Putra Malaysia, 10 April 2010 (Poster: Blocking of LFA-1/ICAM-1 Interaction: *In Silico* Inhibitor Search, **Best Poster Award**).
- 73. The 14th Industrial Chemistry Seminar, Universiti Putra Malaysia, 10 April 2010 (Poster: Blocking of HA and NA Receptors of H1N1 Influenza Virus: *In Silico* Inhibitor Search).
- 74. Bandung International Conference on Medicinal Chemistry, Institut Teknologi Bandung, Indonesia, 6–8 August 2009 (Oral presentation: Structure and Binding Properties of ICAM-1 Derived Peptides).
- 75. Bandung International Conference on Medicinal Chemistry, Institut Teknologi Bandung, Indonesia, 6–8 August 2009 (Poster: Finding the Hotspots on a Cold Protein: A Structure-Function Study on *Leucosporidium antarcticum* Type 1 Antifreeze Protein).
- 76. Fundamental Science Congress 2009, Universiti Putra Malaysia, 17–18 June 2009 (Poster: Novel Antifreeze Protein I from *Leucosporidium antarcticum*: Structure-Function Approaches).
- 77. The 13th Industrial Chemistry Seminar, Universiti Putra Malaysia, 11 April 2009 (Poster: Solution Structure of A Novel T-cell Adhesion Inhibitor Derived from the Fragment of ICAM-1 Receptor: Cyclo(1,8)-Cys-Pro-Arg-Gly-Gly-Ser-Val-Cys).
- 78. Faculty of Science Convention, Universiti Putra Malaysia, 23–24 December 2008.
- 79. The 2007 AAPS National Biotechnology Conference, San Diego, 24–27 June 2007 (Poster: Identification of Receptor Binding Site of ICAM-1-derived Peptide using Photoaffinity Cross-linking Method).
- 80. The 38th Higuchi Research Seminar: Biological Membranes, Understanding and Overcoming the Barriers to Molecular Transport, University of Kansas, Lawrence, 7–9 May 2006.
- 81. EMBO Course: Methods for Protein Simulations and Drug Design, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai, China, 13–24 September 2004.

- 82. Research and Invention Exhibition, Institute of Bioscience, Universiti Putra Malaysia, 19–20 August 2004 (Poster: Structure and Dynamics of Two Conformational States of *Candida rugosa* Lipase in Aqueous and Nonaqueous Solvent, **Silver Medal Award**).
- 83. The 14th National Biotechnology Seminar, Penang, Malaysia, 11–13 December 2003 (Poster: Alkylated Lipase Works Better in Organic Solvent: A Structural Perspective, **Best Poster Award**).
- 84. The Public Institutions of Higher Learning (IPTA) Research and Development Conference, Putra World Trade Centre, Kuala Lumpur, Malaysia, 9–12 October 2003 (Poster: Structural Properties of *Candida rugosa* Lipase in Water and Organic Solvent).
- 85. Research and Invention Exhibition, Universiti Putra Malaysia, 8–10 July 2003 (Poster: Structure and Dynamics of Two Conformational States of *Candida rugosa* Lipase in Aqueous and Nonaqueous Solvent, **Silver Medal Award**).
- 86. International Conference on Biotechnology, Trivandrum, India, 28–30 April 2003 (Oral presentation: Reductive Alkylation of Lipase: Experimental and Molecular Modeling Approaches).
- 87. Structural Biology Colloquium, Pangkor, Malaysia, 11–13 April 2003 (Oral presentation: Structural Study of Chemically-modified *Candida rugosa* Lipase).
- 88. Research and Invention Exhibition, Universiti Putra Malaysia, 13–14 August 2002 (Poster: Understanding How Enzyme Works: Homology Modeling of F1 Protease from *Bacillus stearothermophilus*, **Silver Medal Award**).
- 89. The 13th National Biotechnology Seminar, Penang, Malaysia, 10–13 November 2001 (Poster and Proceeding: Effect of Chemical Modification on the Secondary Structure of *Candida rugosa* isolipase B).
- 90. JSPS-NRCT/DOST/LIPI/VCC Joint Seminar, Bangkok, Thailand, 7–10 November 2001 (Poster: Effect of Chemical Modification on Candida rugosa Lipase: A Structural Approach).
- 91. National Biotechnology Seminar and 2nd Congress of Indonesian Biotechnology Consortium, Malang, Indonesia, 20–21 September 1998 (Poster and Proceeding: Resolution of (R,S)-Ibuprofen with Lipase from Several Local Strain Microorganisms).

TEACHING EXPERIENCE

Universiti Putra Malaysia (2019-present)

2020 Semester 1 2020/2021 CHM3402 – Chemical Spectroscopy (3+1)

CHM3702 – Protein Chemistry (3+0)

CHM5406 – Atomic Spectroscopy (3+0)

Semester 2 2019/2020 CHM3701 – Computational Chemistry (3+1)

CHM3702 – Protein Chemistry (3+0) CHM3504 – Oleochemistry (3+1)

UCSI University (2016–2019):

2019 Semester 1 2019 FAB101 – Biotechnology and Forensics (3)

GB504 – Bioinformatics & Computational Biology (4)

Semester 2 2019 FAB101 – Biotechnology and Forensics (3)

MB113 – Bioinformatics (3)

Semester 3 2019 FAB101 – Biotechnology and Forensics (3)

2018	Semester 1 2018 Semester 2 2018 Semester 3 2018	FAB101 – Biotechnology and Forensics (3) FAB101 – Biotechnology and Forensics (3) FAB101 – Biotechnology and Forensics (3) MB113 – Bioinformatics (3)	
2017	Semester 1 2017 Semester 2 2017	MF112 – Chemistry 2 (3) MF112 – Chemistry 2 (3)	
2016	Semester 3 2016	GB504 – Bioinformatics & Computational Biology (4)	
Surya Unive 2015	rsity (2013–2015): Semester 1 2015/2016	BIO10332 – Bioassay (2+0) BIO20352 – Protein Biotechnology (2+0) BIO10152 – Introduction to Biotechnology (2+0) BIO10022 – Technical English (2+0)	
	Semester 2 2014/2015	BIO10963 – Organic Chemistry (3+0) CHE10061 – Analytical Chemistry Lab (1) BIO10021 – Organic Chemistry Lab (1)	
2014	Semester 1 2014/2015	BIO1007 – Bioethics (2+0) BIO2006 – Introduction to Biotechnology (2+0) CHE1002 – General Chemistry (3+0) LBA1003 – Technical English (2+0)	
	Semester 2 2013/2014	CHE1003 – Analytical Chemistry (2+0) CHE1009 – Organic Chemistry (3+0) CHE1004 – Analytical Chemistry Lab (2)	
Universiti Putra Malaysia (2008–2013): 2013 Semester 2 2012/2013 CHM3701 – Computational Chemistry (3+1)			
2012	Semester 1 2012/2013	CHM3402 – Chemical Spectroscopy (3+1) CHM5201 – Spectroscopy I (3+0)	
	Semester 2 2011/2012	CHM3402 – Chemical Spectroscopy (3+1) CHM5401 – Spectroscopy II (3+0)	
2011	Semester 1 2011/2012	CHM3401 – Analytical Chemistry (2+1)	
	Semester 2 2010/2011	CHM3402 – Chemical Spectroscopy (3+1) CHM3701 – Computational Chemistry (3+1)	
2010	Semester 1 2010/2011	CHM3401 – Analytical Chemistry (2+1)	
	Semester 2 2009/2010	CHM3402 – Chemical Spectroscopy (3+1) CHM5901 – Research Methodology (3+0)	
2009	Semester 1 2009/2010	CHM2000 – General Chemistry (3+1) CHM3401 – Analytical Chemistry (2+1)	
	Semester 2 2008/2009	CHM2000 – General Chemistry (3+1) CHM3402 – Chemical Spectroscopy (3+1)	

STUDENT SUPERVISION (as main supervisor)

Postdoctorate:

1. Dr. Md. Ashraful Hoque (Bangladesh) – Design, Synthesis, and Bioactivity of Peptidomimetics Inhibitor Against Peptidyl Arginine Deiminase Type IV, April 2013.

Doctor of Philosophy:

- 1. Teo Chian Ying (Malaysia) Synthesis, Bioactivity, and Structural Studies of Inhibitors Against Peptidyl Arginine Deiminase Type IV, June 2010–December 2014 (completed).
- 2. Zalikha Ibrahim (Malaysia) Molecular Insights of Peptidyl Arginine Deiminase Type IV, January 2012 –January 2017 (completed).
- 3. Amaal Mohammed Salih Nasr (Libya) Design of Novel Inhibitors of Dengue RdRp (ongoing).
- 4. Priya a/p Murugan (Malaysia) Rational Design of Novel Inhibitors of Mycobacterium tuberculosis CYP121 (ongoing).
- 5. Zainab Hujee AlHussain (Saudi Arabia) Rational Design of Novel Inhibitors of Dengue Helicase (ongoing).

Master of Science:

- 1. Syed Hussinien Hielmi Shah (Malaysia) Novel Antifreeze Peptides Derived from *Glaciozyma* antarctica Antifreeze Protein: Structure-Function Approaches, June 2009–June 2013 (completed).
- 2. Ahmad (Omar Abdelazim) Suliman Warrad (Jordan) Design and Synthesis of Short Antifreeze Peptide Segments from Type I Antifreeze Protein, December 2009–August 2013 (completed).
- 3. Hyzurahidayu binti Haizam (Malaysia) Design and Synthesis of Peptide-based Catalyst for Enantiomeric Purification of Ibuprofen, June 2010–December 2013 (completed).
- 4. Izzuddin bin Ahmad Nadzirin (Malaysia) Design, Synthesis, and Bioactivity of α -Enolase-based Peptide Inhibitors Against Peptidyl Arginine Deiminase Type IV, January 2011–August 2013 (completed).
- 5. Azren Aida binti Asmawi (Malaysia) Design, Synthesis, and Activity of Novel Antifreeze Peptides for Industrial Uses, September 2011–August 2013 (completed).
- 6. Rokhaya Dior Fall (Senegal) Synthesis of Vimentin-based Peptide Inhibitors of Protein Arginine Deiminase Type IV, May 2017–August 2018 (completed).
- 7. Ahmad Ayad (Iraq) Biophysical Study of Antifreeze Peptide using Spectroscopic Analysis and Molecular Dynamics Simulation, Sep 2018–Jan 2020 (completed).

Undergraduate Research Project:

Nurul Husna binti Abdul Rahem (ongoing)

Nur Afrina binti Mohamad Abdul Ghafar (ongoing)

Heng Pei Pei (ongoing)

Maisarah binti Asmaon (completed)

Siti Nur Indah binti Ahmad (completed)

Nurul Alia binti Norizham (completed)

Tarek El Moudaka (completed)

Edward Ng Wei Quan (completed)

Ng Xin Yie (completed)

Ng Shin Siong (completed)

Kong Lai Fun (completed)

Ahmad Mohannad Mufid Taha (completed)

Chin Yee Jhun (completed)

Bima Wedana (completed)

Faisal Akbar (completed)

Isadonna Fortune Tengganu (completed)

Jassica Prajna Dewi (completed)

Jeffrey Santoso (completed)

Yana Suryana (completed)

Alice Lee (completed)

Azzarul Syazwan bin Abdul Rasid (completed)

Noorhasriyantie binti Hassan (completed)

Nurul Syahidah binti Shaari (completed)

Siti Farhana binti Abu Osman (completed)

Lim See Ven (completed)

Rachel Tang Duo Yao (completed)

Siew Chan Huo (completed)

Chieng Yien Ziun (completed)

Asmaa' Athirah binti Suratman (completed)

Chang Hoi Jeh (completed)

Denis Filla a/k Lanjeg (completed)

Noraini binti Abu Bakar (completed)

UNIVERSITY SERVICES

- 1. The 25th Industrial Chemistry Seminar, Department of Chemistry, Universiti Putra Malaysia, 2 March 2021 (Committee Member).
- 2. The International Conference on Drug Discovery and Translational Medicine 2021 Satellite Symposium, 17 November 2020 (Committee Member).
- 3. Coordinator, Student Mobility Programme, Faculty of Science, Universiti Putra Malaysia, March 2019–present.
- 4. Institutional Biosafety Committee, UCSI University, 2019 (Member).
- 5. Board of Studies for Ph.D in Education, UCSI University, 2019 (Member).
- 6. The 3rd International Conference on Molecular Biology and Biotechnology 2019 (ICMBB2019), UCSI University, 24–25 April 2019 (Committee Advisor).
- 7. Drug Design for Infectious Diseases (A Pre-Conference Workshop of the 42nd Annual Conference of the Malaysian Society for Biochemistry and Molecular Biology), UCSI University, 14–15 August 2017 (Committee Advisor).
- 8. Board of Studies for B.Sc (Hons) Data Science and M.Sc Bioinformatics, Perdana University, 2017 (Member).
- 9. Dean, Faculty of Applied Sciences, UCSI University, March 2016–June 2019.

- 10. Dean, Faculty of Life Sciences, Surya University, January-November 2015.
- 11. Research-based Learning Working Group, Surya University, 2015 (Committee Member).
- 12. Head of Biochemistry Laboratory, Surya University, 2014–2015.
- 13. Bioinformatics and Computational Biology Workshop (BioComBio) 2015, Multidisciplinary Graduate School, University of Indonesia, 27–30 April 2015 (Committee Member).
- 14. Bioinformatics and Computational Biology Workshop (BioComBio) 2014, Swiss-German University, 14–17 April 2014 (Committee Member).
- 15. Global I-Lead Team (GILT 2012), Universiti Putra Malaysia and MARA Science Boarding School, 14–21 December 2012 (Project Reviewer).
- 16. Information and Communications Technology Unit, Faculty of Science, Universiti Putra Malaysia, 2012–2014 (Committee Member).
- 17. Academic Committee (Analytical Chemistry Unit), Department of Chemistry, Faculty of Science, Universiti Putra Malaysia, 2011–2012 (Member).
- 18. Instrument Calibration Unit, Faculty of Science, Universiti Putra Malaysia, 2011–2013 (Committee Member).
- 19. Peptide Synthesis Workshop 2011 (PepSyn 2011), Universiti Putra Malaysia and Malaysia Genome Institute, 11–15 July 2011 (Committee Chairman).
- 20. The 2nd Fundamental Science Congress, Faculty of Science, Universiti Putra Malaysia, 5–6 July 2011 (Committee Member).
- 21. The 14th Industrial Chemistry Seminar, Department of Chemistry, Universiti Putra Malaysia, 10 April 2010 (Committee Member).
- 22. Biomolecular NMR Workshop, Department of Chemistry, Universiti Putra Malaysia, 18–20 January 2010 (Committee Chairman).
- 23. Molecular Dynamics and Quantum Chemistry Workshop, Department of Chemistry, Universiti Putra Malaysia, 22–26 June 2009 (Committee Chairman).
- 24. The 13th Industrial Chemistry Seminar, Department of Chemistry, Universiti Putra Malaysia, 11 April 2009 (Committee Member).
- 25. Faculty of Science Quality Month, Faculty of Science, Universiti Putra Malaysia, 14 November–18 December 2008 (Committee Member).

PROFESSIONAL MEMBERSHIPS

MyBioInfoNet – Advisory Board Member American Chemical Society (ACS) – Member Malaysian Society for Biochemistry and Molecular Biology (MSBMB) – Member Malaysian Society for Molecular Biology and Biotechnology (MSMBB) – Member Indonesian Society for Bioinformatics and Biodiversity (ISBB) – Life Member

AWARDS and HONORS

- 1. Distinguished Speaker, Invitation Diaspora Programme, Faculty of Mathematics and Natural Sciences, Universitas Indonesia (2020–2021).
- 2. Elected Research Fellow, PICOMS International University College, Malaysia (2020–2021).
- 3. Elected Associate Researcher, Malaysia Genome Institute, Ministry of Science, Technology, and Innovation (2012–2017).
- 4. Distinguished Service Award 2011, Universiti Putra Malaysia (2012).
- 5. Young Chemist Award, IUPAC and Chemical Society of Thailand (2011).
- 6. Distinguished Service Award 2009, Universiti Putra Malaysia (2010).
- 7. Distinguished Scientist Award 2008, Faculty of Science, Universiti Putra Malaysia (2009).
- 8. Distinguished Faculty Award 2008, Faculty of Science, Universiti Putra Malaysia (2009).
- 9. Travel Grant, Bioimage Summer School (UNESCO Venice Office-ROSTE), Ecole Normale Supérieure, Paris, France (11–22 July 2005).
- 10. Visiting Researcher Travel Grant (Boehringer Ingelheim Fonds), Institute of Cell and Molecular Biology, University of Edinburgh, UK (February–May 2005).
- 11. Travel Grant, European Molecular Biology Organization (EMBO) Course: Methods for protein simulations and drug design, Shanghai Institute of Materia Medica, Shanghai, China (13–24 September 2004).
- 12. Visiting Researcher Grant (German Federal Ministry of Education and Research/BMBF), Institute of Technical Biochemistry, University of Stuttgart, Germany (June 2002–July 2003).
- 13. Graduate Research Assistantship, Universiti Putra Malaysia (May 2000–May 2003).