



DR. MOHD SHIHABUDDIN BIN AHMAD NOORDEN
 (MyRA IMPACT ACTIVITIES - Updated on 5 SEP 2023)

Name :	DR. MOHD SHIHABUDDIN BIN AHMAD NOORDEN
Faculty :	PHARMACY, UiTM PUNCAK ALAM
Grade of Position (VK7/DM54/DM52 etc)	DM51
Telephone No. (Office)	+603-32584843
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Email	budin360@gmail.com or shiha@uitm.edu.my
Area of Expertise	Molecular Biology, Cancer Research, RNA Technology

BASIC PROFILE

Appointments	Date/Year of Appointment
Lecturer DM52/DM51	1 st June 2011
Year of Birth :	7 th Nov 1983
Bachelor of Science	BSc. (Hons), UKM Bangi, Malaysia (2002-2005)
Ph.D Qualification (Year Obtained)	PhD (Pharmaceutical Sciences) Kyushu University, Japan 2011
Professional Qualification (Year Obtained)	Senior Lecturer, 2011

NATIONAL LEVEL RESEARCH COMMITTEE

	Name of Research Committee	Hosting Secretariat	Year Involved
1.	Malaysia Qualification Agency, MQA	Evaluator, Molecular Biology	2014-present
2	Head of Brain Research Laboratory, Faculty of Pharmacy, UiTM Puncak Alam	Head of Brain Research Laboratory	2020-present
3.	Member of Health & Wellbeing Community of ReNeu UiTM	Member	2013-present
4.	Neuroscience: Brain Degeneration and Therapeutics Research Group IRMI	Member	2017-present
5.	Coordination Chemistry Research Interest Group IRMI UiTM	Member	2013-2020
6.	STEM UiTM, CSPI Canseleri UiTM Shah Alam	Representative for Faculty of Pharmacy	2017-2020
7.	Assoc. Fellow, Atta-ur-Rahman Institute	Assoc. fellow	2013-2015
8.	Research Fellow, Health & Wellbeing CoRe	Full fellow	2013-2015

AHLI PANEL PENILAI (APP) MALAYSIA QUALIFICATION AGENCIES (MQA)

	Involvement	Institution	Year Involved
1.	Full accreditation - Master of Science (Life Sciences)	Sunway University, Sunway Kuala Lumpur	7-8 Mac 2016
2.	Internal examiner for DEEMED ACCREDITED PROGRAM - BACHELOR OF SCIENCE (HONS.) BIOLOGY (AS 201)	Faculty of Applied Sciences, UiTM	Feb 2018
3.	Internal examiner for DEEMED ACCREDITED PROGRAM - BACHELOR of SCIENCE (HONS.) BIOMOLECULAR SCIENCES (AS 244)	Faculty of Applied Sciences, UiTM	Feb 2018
4.	Full accreditation - Master of Science (Life Sciences)	Tunku Abdul Rahman College University, Kuala Lumpur	Aug 2019
5.	Full accreditation – PhD Medical Sciences	RMCP-UNIKL, Ipoh	1 Oct 2020

POSTGRADUATE SUPERVISION

(Only those within 2011 – 2021, Please indicate if it is at other institutions)

ON-GOING Master (RESEARCH) SUPERVISION (Includes Co-supervision)

	Students Name (<i>supervisors name</i>)	Institutions	Year Enrolled	Year End
1.	Nursyamila Shamsuddin (PhD. Main-supervision)	Faculty of Pharmacy, UiTM Puncak Alam.	May 2021	Expected 2024
2.	Affandi Omar (PhD. Main-supervision)	IMR NIH/ Faculty of Pharmacy, UiTM Puncak Alam.	May 2021	Expected 2024
3.	Noor Anilizawatima Sulong (PhD. Main-supervision)	Faculty of Pharmacy, UiTM Puncak Alam.	2018	Expected 2024
4.	Muhamad Faridz Osman (PhD. Co-supervision)	Faculty of Applied Sciences, UiTM Shah Alam.	2019	2022 (quitted)
5.	Adibah Che Mohamad Nor (MSc. Main-supervision)	Faculty of Pharmacy, UiTM Puncak Alam.	Nov 2021	Expected Sep 2023
6.	Nursyamila Shamsuddin (MSc. Main-supervision)	Faculty of Pharmacy, UiTM Puncak Alam.	2016	2020 (graduated)
7.	Syarifah Anis Wafa Binti Syed Mohd Azmi (MSc. Co-supervision)	School of Bioscience and Biotechnology, Faculty of Science and Technology, UKM Bangi.	2013	2019 (graduated)
8.	Nur Azimah binti Mansor (MSc. Co-supervision)	Faculty of Applied Sciences, UiTM Shah Alam.	2012	2015 (graduated)
9.	Nur Serene Sofia binti Nor Azri (PhD. Main-supervision)	Faculty of Pharmacy, UiTM Puncak Alam.	2013	2018 (quitted)

RESEARCH FUNDINGS (*State whether Principal/Co-Researcher*)

NATIONAL AND INTERNATIONAL RESEARCH FUNDING (MOSTI/FRGS & Others) (2011 – Present)

No.	Research Project	Total Funds (RM)	Source	Begin Year	End Year
1.	Hypothetical Mirna Regulating Primary-Mir195-497 Tumour Suppressor miRNA In Liver Cancer Position: P.I.	RM 160,000	Fundamental Research Grant Scheme FRGS 2019	Sep 2019	Nov 2023
2.	Gene Editing On Drug Metabolism Capable Human Hepatocytes. How Will Crispr/Cas9 System Do? Position: Co-researcher	RM 150,000	Fundamental Research Grant Scheme FRGS 2019	Sep 2019	Aug 2021

3.	Computational 2d/3d Structural Modelling And Impedimetric Interrogation Of Conformational Changes For Sequence Specific Binding Of Micro Rna-21 Towards P-19 Protein Position: Co-researcher	RM 111,300	Fundamental Research Grant Scheme FRGS 2019	Jan 2019	Dec 2021
4.	NACOTS : Covid19 Detection Device Position: Co-researcher	RM1,112,000	e-DANA MOSTI 2021 (18 months)	OCT 2021	July 2023
5.	Identification and Functional Studies of Putative miRNA during miRNA Maturation of a Polysitronic miRNA for Controlling Human Carcinogenesis Position: P.I.	RM 150,000	Exploratory Research Grant Scheme	July 2012	June 2015
6.	Neuroprotective Effects of Centella asiatica On Methamphetamine-induced Neurotoxicity And Micro-RNA Analysis Position : P.I.	RM 212,000.00	NGRS Skim Geran Penyelidikan NKEA Pertanian EPP#1	Dec 2014-	Jan 2017
7.	Development of Zinc Oxide-based Biosensor to Verify the Production of messenger-RNA and Protein in In vitro Cell-free Reaction Position : P.I.	RM 20,000.00	International Research Grant MSTF Toray 2015	1 Nov 2015	31 Oct 2016
8.	Identification of Novel miRNA Responsible for G6PD Deficiency in Malaysian Orang Asli Position: Co-researcher	RM 114,800	Fundamental Research Grant Scheme	July 2013	June 2016
9.	Effects of Platinum Nanoparticles in Hydrogen Peroxide Treated Human Airway Cells in Epithelia Sodium Channel and PKC Pathway Position: Co-researcher	RM 148,000	Fundamental Research Grant Scheme	April 2013	March 2015
9.	Electrochemical DNA Biosensor Based ZnO Nanowires For Detection of Breast Cancer Genes Position: Co-researcher		Exploratory Research Grant Scheme	2012	2015
10.	Oct4 Expression Patterns In Amniotic Fluid Stem Cells: Isoform or Pseudogene? Position: Co-researcher	RM 32,000	Dana Kecemerlangan UiTM (RIF)	2012-	2014
11.	Unravelling The Changes In Phase Ii Enzymes And Neurosteroid Metabolism During The Progression Of Alzheimer's Disease Using Tg2576 Mice. Position: Co-researcher	RM 149,700	Fundamental Research Grant Scheme	2015	2017
12.	Integrated Potentiostat For Electrochemical Sensing Of Breast Cancer (Brca1) Diagnostic Device Position: Co-researcher	RM 335,263.16	CREST 2015	2015	2018

RESEARCH EXPERIENCE (2004 - Present)

	Research Title	Institution / Duration
(April 2004-Mar. 2005)	Transformation of GUS gene to <i>Lycopersicon esculentum</i> using <i>Agrobacterium Rhizogenes</i>	Undergraduate project in the National University of Malaysia
(April 2005-May 2007)	Identification of chitinase genes in <i>Colletotrichum gloeosporioides</i> using PCR-based microarray	2 years as research assistant in the National University of Malaysia
(June 2007-March 2011)	Evaluation of the Artificial Oligonucleotides Incorporating Non-Natural Nucleotides for RNA Editing RNAエディティングのための非天然ヌクレオチドを組み込んだ人工オリゴヌクレオチドの評価	PhD in Kyushu University, Japan
(June 2007-March 2011)	Conjugation of PEG to ssH linker at 3' end of antisense DNA oligonucleotide	Other research focus in Kyushu University, Japan
(June 2007-March 2011)	Evaluation of triple-helix forming oligonucleotides incorporating WNA-βT nucleoside on the <i>bcl-2</i> and <i>c-myc</i> genes	Other research focus in Kyushu University, Japan
(2011-Present)	Identification and Functional Studies of Putative miRNA during miRNA Maturation of a Polysitronic miRNA for Controlling Human Carcinogenesis	Universiti Teknologi MARA
(2014-Present)	Development of Zinc Oxide-based Biosensor/ Genesensor to Verify the Target DNA and RNA.	Universiti Teknologi MARA
(2015-Present)	Neuroprotective Effects of Centella Asiatica on Methamphetamine-induced Neurotoxicity and miRNA Analysis	Universiti Teknologi MARA
(2019-Present)	Gene Editing On Drug Metabolism Capable Human Hepatocytes Using Crispr/Cas9 System.	Universiti Teknologi MARA
(2020-Present)	Screening of Novel Industrial Potential Enzymes From Insects and Microorganisms in Malaysia Rainforest.	Universiti Teknologi MARA
(2020-Present)	Rapid Detection of COVID19 Virus (Sars-CoV-2) in Human Nasopharyngeal Swab Specimens using Aptamers based Impedimetric RNA/DNA Biosensor	Universiti Teknologi MARA CREST & MOSTI
(2021-Present)	Potential Pharmacological Chaperone Therapy For The Treatment of Mucopolysaccharidoses	Universiti Teknologi MARA/ IMR, Affandi Omar IEM & Genetics NMCRC

PUBLICATIONS

1. Identification of MicroRNAs Binding Site in the 3'Untranslated Region of Long Non-Coding RNA, MIR497HG: A Computational Prediction" in its current form for publication in the Malaysian Journal of Medicine & Health Sciences. Nursyamila Shamsuddin, Fazleen Haslinda Mohd Hatta, **Mohd Shihabuddin Ahmad Noorden**. Malaysian Journal of Medicine and Health Sciences Vol. ___ Page _ Accepted on 5 Sep 2023
2. Loop-mediated Isothermal Amplification (LAMP): A Potential Alternative for Nucleic Acid Amplification Method in COVID-19 Detection. Adibah Che Mohamad Nor, Zainiharyati Zain, Rozainanee Mohd Zain, Munirah Zulhairee, **Mohd Shihabuddin Ahmad Noorden**. Malaysian Journal of Medicine and Health Sciences Vol.19 Supp 7, June 2023 (eISSN 2636-9346).
3. The effects of small molecules chaperone on cell viability in primary neonatal fibroblast cell line: Toxicity indicator for pharmacological chaperone therapy. Affandi Omar, Muhammad Nor Farhan Saat, Fatimah Diana Amin Nordin, Salina Abdul Rahman, Balqis Kamarudin, Nur Jannaim Muhamad, **Mohd Shihabuddin Ahmad Noorden** and Julaina Abdul Jalil. BMC Proceedings 2022, 16(Suppl 7):P-4.
4. In Silico Identification and Prediction of MicroRNA in the 3'Untranslated Region of Long Non-Coding RNA MIR497HG: A Step towards HCC Candidate Biomarker. Nursyamila Shamsuddin, Fazleen Haslinda Mohd Hatta, **Mohd Shihabuddin Ahmad Noorden**. Malaysian Journal of Medicine and Health Sciences Vol.19 Supp 7, June 2023 (eISSN 2636-9346)
5. Clinical Performance of Reverse Transcription Loop Mediated Isothermal Amplification COVID-19 Assay on Gold- nanoparticle-modified Screen-printed Carbon Electrode Using Differential Pulse Voltammetry. Munirah Zulhairee, Rozainanee Mohd Zain, Adibah Che Mohamad Nor, Nur Fadhilah Jafar, Mohd Fairulnizal Md Noh, **Mohd Shihabuddin Ahmad Noorden**, Anis Nurashikin Nordin, Rosminazuin Ab Rahim, Teddy Surya Gunawan, Lim Ying Chin, Yusairie Mohd, Nur Asyiqin Azman, and Zainiharyati Mohd Zain. Sensors and Materials, Special Issue on Recent Trends in Electrochemical Biosensing. SS-4430. Accepted in July 2023
6. Centella asiatica Exerts Neuroprotection Against Methamphetamine-Induced Neurotoxicity on SH-SY5Y Cells. N Shamsuddin, **MS Ahmad Noorden**, MI Adenan, NH Reshidan and M Mat Zain. Akademi Sains Malaysia Sc. J. 2021. ASM Sc. J., 16, 2021. <https://doi.org/10.32802/asmscj.2021.907> (Published).
7. Ethanol Extract of Centella asiatica Improved Methamphetamine-Induced Neurotoxicity on Mouse Model via Stimulating Superoxide Dismutase II and microRNA-34A Expression. Nursyamila Shamsuddin, Mazatulikhma Mat Zain, Mohd Ilham Adenan & **Mohd Shihabuddin Ahmad Noorden**. Sains Malaysiana 52(1)(2023): 233-244.
8. Application and Modification of RT-LAMP for Rapid Detection of SARS-CoV-2 Viral Genome. Adibah Che Mohamad Nor, Zainiharyati Mohd Zain, **Mohd Shihabuddin Ahmad Noorden**. Malaysian Journal of Medicine and Health Sciences. (eISSN 2636-9346) 2023. 19 (2), 286-292.
9. Portable electrochemical biosensors based on microcontrollers for detection of viruses: a review. Muhammad Afiq Abdul Ghani, Anis Nurashikin Nordin, Munirah Zulhairee, Adibah Che Mohamad Nor, **Mohd Shihabuddin Ahmad Noorden**, Muhammad Khairul Faisal Muhamad Atan, Rosminazuin Ab Rahim, Zainiharyati Mohd Zain. Biosensors 12 (8) 2022, 666.
10. Detection of Breast Cancer 1 (BRCA1) Gene Using An Electrochemical DNA Biosensor Based on Immobilized ZnO Nanowires. Nur AzimahMansor, Zainiharyati Mohd Zain, Hairul Hisham Hamzah, **Mohd ShihabuddinAhmad Noorden**, Siti Safura, Zafar Husain Ibupoto, Valerio Beni. Open Journal of Applied Biosensor (OJAB). Volume 3, Number 2, May 2014.

11. The Roles of Tumour Suppressor miRNAs in Liver Cancer Progression. Nur Najwa Adlina Mohd Zaid, Fazleen Haslinda Mohd Hatta, Siti Syairah Mohd Mutalip, Ruzianisra Mohamed, **Mohd Shihabuddin Ahmad Noorden**. Int. J. Pharm. Nutraceut. Cosmet. Sci. (2021) Vol 4 13-32. (Non-indexed).

Patent

1. Patent: A Detection Reagent And A Method For Detecting Sars-Cov-2. Head of Project. **PI 2023002953** (600-BITCOM (IP 5/3/19/2022) PT). Letter 100-TNCPI(BITCOM.30/6) on 12 Julai 2023.
2. Patent: Method Of Preparing A Double-Coated Screen-Printed Electrode And The Use Thereof. Member of Project. Application **No.: PI 2023000465**. No. Ref.: 2022/PT/O5.29/OP. Date of Filing: 27 January 2023

PROCEEDINGS / PRESENTATIONS

1. In silico evaluation of miRNA binding site in mutated 3'UTR mRNA of G6PD. Syarifah Anis Wafa Binti Syed Mohd Azmi, Mohd Shihabudin Noorden, Nurul Yuziana Mohd Yusof, and Endom Ismail. AIP Conference Proceedings 1678, 030024 (2015); <https://doi.org/10.1063/1.4931245>.
2. Analysis of translated products from the chemically modified mRNA. **M. S. Ahmad Noorden**, Y. Taniguchi, K. Onizuka and S. Sasaki, Joint Symposium of the 5th Annual Meeting of the Oligonucleotide Therapeutics Society and the 19th Antisense Symposium 2009. [03-06/11/2009] p101.
3. Evaluation of the RNA editing efficiency using antisense oligonucleotides containing the functional nucleoside. **M. S. Ahmad Noorden**, Y. Taniguchi and S. Sasaki. Asian Federation for Pharmaceutical Sciences 2009. [15-17/10/2009].
4. Site-Selective Chemical Modification of mRNA and its Effects on Polymerization and Translation. K. Onizuka, Y. Taniguchi, **M. S. Ahmad Noorden** and S. Sasaki. Joint Symposium of the 5th Annual Meeting of the Oligonucleotide Therapeutics Society and the 19th Antisense Symposium 2009. [03-06/11/2009].
5. Cloning and sequencing analysis of micro-RNA 17-92a from HepG2 cancer cell line Nur Serene Sofia binti Nor Azri and **Mohd Shihabuddin bin Ahmad Noorden**.

20th MSMBB Scientific Meeting and MSMBB 25th Anniversary 2013. [26-27/06/2013].

6. Cloning of 3'-UTR region from the Primary miRNA 195-497 into luciferase reporter vector for the isolation of endogenous putative miRNAs.

Nur Serene Sofia Binti Nor Azri, Hamid Fauzi and **Mohd Shihabuddin Bin Ahmad Noorden**
3rd International Postgraduate Conference on Pharmaceutical Sciences (iPoPS), 11–12 August 2014 UiTM Puncak Alam. Poster Presenter.

7. Cloning of the hypothetical microRNA binding sites from primary microRNA 195-497 into luciferase reporter vector for the isolation of novel microRNAs

Nur Serene Sofia Binti Nor Azri, Fazleen Haslinda Mohd Hatta, Hamid Fauzi and **Mohd Shihabuddin Bin Ahmad Noorden**
International Conference on Biomedical and Health Sciences Research (ICBHSR) 2015, 25-27 January 2015. Everly Hotel Putrajaya.

8. Evaluation of luciferase reporter vector containing hypothetical microRNA binding sites from primary hsa-miR-195-497 to isolate novel microRNA.

Nur Serene Sofia Binti Nor Azri, Fazleen Haslinda Mohd Hatta, Hamid Fauzi and **Mohd Shihabuddin Bin Ahmad Noorden**. 5th International Postgraduate Conference on Pharmaceutical Sciences 2017 (iPoPS 2017) 17-18 May 2017, Faculty of Pharmacy, UiTM Selangor.

9. Identification of purine-rich site from upstream of miRNA17-92A sequence for a potential triple-helix forming oligonucleotides (TFO) target site.

Nur Amira Binti Jemal @ Zainal, Nur Serene Sofia Nor Azri, **Mohd Shihabuddin Ahmad Noorden**. 5th International Postgraduate Conference on Pharmaceutical Sciences 2017 (iPoPS 2017) 17-18 May 2017, Faculty of Pharmacy, UiTM Selangor.

10. Shamsuddin, N., **Ahmad Noorden, M.S.**, & Mat Zain, M. (2019). Centella asiatica extract (CAE) improves motor performance of methamphetamine-treated rats. BMC Proceedings, 13(7). 4th Asian Conference of Pharmaceutical Sciences (ASIA PHARM IV), 28-29 AUG 2019. Concorde Hotel Shah Alam. Organizer: Faculty of Pharmacy, UiTM Selangor.

11. Shamsuddin, N., Reshidan, N.H., Adenan, M.I., Mat Zain, M., & **Ahmad Noorden, M.S.** (2018). Preliminary study on potential neuroprotective effects of Centella asiatica extract on methamphetamine-induced neurotoxicity in SH-SY5Y cell line. Asian Journal of Pharmaceutical and Clinical Research, 11(4).

12. Preliminary study on potential neuroprotective effect of *Centella Asiatica* extract on methamphetamine-induced neurotoxicity in SH-SY5Y cell line.

Nursyamila Shamsuddin, Nur Hidayah Reshidan, Mohd Ilham Adenan, Mazatulikhma Mat Zain2, **Mohd Shihabuddin Ahmad Noorden**. 5th International Postgraduate Conference on Pharmaceutical Sciences 2017 (iPoPS 2017) 17-18 May 2017, Faculty of Pharmacy, UiTM Selangor.

13. Amplification of Purine Rich Site from Col4A3 Gene for Triple Helix Study in Keratoconus Eye Disease. **Mohd Shihabuddin Ahmad Noorden***, Qishtina Mizan, Nur Serene Sofia Nor

Azri, Fazleen Haslinda Mohd Hatta. 4th Asian Conference of Pharmaceutical Sciences (ASIA PHARM IV), 28-29 AUG 2019. Concorde Hotel Shah Alam. Organizer: Faculty of Pharmacy, UiTM Selangor.

14. Identification of Homopurine Sites in miR17-92A Gene for Triple Helix DNA Application. YSN-ASM International Scientific Virtual Conference (ISVC) 2021. 29/03/2021 - 01/04/2021. Organizer: Young Scientists Network - Academy Of Sciences Malaysia (YSN-ASM). Nur Amira Jemal @ Zainal, Norfarahin Norhisam, Azwandi Ahmad, Fazleen Haslinda Mohd Hatta, Ruzianisra Mohamed, Siti Syairah Mohd Mutalip, Ahmad Azani Othman, John Shia Kwong Siew and **Mohd Shihabuddin Ahmad Noorden***

15. Interaction Between Zinc Oxide Nanoparticles And Centella Asiatica Plant. Noor Anilizawatima Sulong, Aishah Adam, M.Rusop, Hannis Fadzillah Mohsin, **Mohd Shihabuddin Ahmad Noorden**. YSN-ASM International Scientific Virtual Conference (ISVC) 2021. 29/03/2021 - 01/04/2021. Organizer : Young Scientists Network - Academy Of Sciences Malaysia (YSN-ASM).

16. Kinetics study of noncompetitive inhibition of iduronate- 2-sulfatase by chondroitin dermatan trisulfate. Affandi Omar, Salina Abdul Rahman, Fatimah Diana Amin Nordin, Balqis Kamarudin, Julaina Abdul Jalil, **Mohd Shihabuddin Ahmad Noorden**. IRNI-IPOPS. 28-29 SEP 2021

17. Inhibition Properties of Iduronate-2-Sulphatase by Chondroitin Dermatan Sulphate Dissaccharide and Heparin Oligosaccharide. Affandi Omar, Fatimah Diana Amin Nordin, Balqis Kamarudin, **Mohd Shihabuddin Ahmad Noorden** & Julaina Abdul Jalil. NIH Conference 2021.

18. Optimization of bioactive compounds in Centella Asiatica using Zinc Oxide Nanoparticles. Noor Anilizawatima Sulong, Aishah Adam, M.Rusop, Hannis Fadzillah Mohsin, **Mohd Shihabuddin Ahmad Noorden**. IRNI-IPOPS. 28-29 SEP 2021

19. BAP1: Its relationship with cancers and current treatments. Syarifuddin Husain1, Ruzianisra Mohamed, Khairul Bariyyah Abd Halim, Siti Syairah Mohd Mutalip, Massita Nordin, **Mohd Shihabuddin Ahmad Noorden**. IRNI-IPOPS. 28-29 SEP 2021

20. MicroRNA-based therapeutics in hepatocellular carcinoma: Involvement of miR-195 and miR-497 Shamsuddin N, Hatta FHM, Hassan MH, **Noorden MSA**. IRNI-IPOPS. 28-29 SEP 2021.

21. Understanding Alzheimer's disease pathogenesis and the roles of miR-125b. Tajuddin NH, Hatta FHM, Mohamed R, Mutalip SSM, **Noorden MSA**. IRNI-IPOPS. 28-29 SEP 2021.

PINGAT PENGHARGAAN AKADEMIK (AWARDS)

Grand Winner Award. INNOVATHON 2023 ASTRO Ria. NACOTS. TBA 2 Sep 2023.

Grand Winner Award TECH PLANTER Kuala Lumpur, 20 July 2019.

Team Name: Electrochemical Material and Sensor Group (EMaS), UiTM.

Theme: Clinical Usage of DNA-Nanowires on Gold Electrode as Breast Cancer (BRCA) Screening Device.

CREST Special Prototype Award at TECH PLANTER Kuala Lumpur, 20 July 2019.

Team Name: Electrochemical Material and Sensor Group (EMaS), UiTM.

Theme: Clinical Usage of DNA-Nanowires on Gold Electrode as Breast Cancer (BRCA) Screening Device.

Finalist/ Qualified for TECH PLANTER Singapore, 2 Aug 2019.

Team Name: Electrochemical Material and Sensor Group (EMaS), UiTM.

Theme: Clinical Usage of DNA-Nanowires on Gold Electrode as Breast Cancer (BRCA) Screening Device.

Best Poster Presenter. 4th Asian Conference of Pharmaceutical Sciences (ASIA PHARM IV). Amplification of Purine Rich Site from Col4A3 Gene for Triple Helix Study in Keratoconus Eye Disease. 28-29 AUG 2019. Concorde Hotel Shah Alam. Organizer: Faculty of Pharmacy, UiTM Selangor.

Silver Medal in IID 2011 (Reka Bentuk dan Reka Cipta) 30 Nov. 2011, Bioengineering of A Human Cytochrome P450 3A4 Gene in *E. coli*: An *In vitro* tool for Drug Metabolism Screening.

Bronze Medal in Invention, Innovation & Design Exposition 2018 (iidex2018) UiTM, Bio-Dice (Education category).

Silver Medal in Pharm. Invention, Innovation & Design Exposition 2018 (Pharm-IIDEx 2018) Faculty of Pharmacy UiTM, Bio-Dice (Education category).

NADOTS – Nanosystem For DNA On The Spot Test, Malaysia Technology Expo MTE 2020, The International Expo om Innovation and Technology - Silver winner.

Bronze Medal in Pharm. Invention, Innovation & Design Exposition 2020 (Pharm-IIDEx 2020) Faculty of Pharmacy UiTM, FUN PHARM GAME (Education category).

Bronze Medal in Pharm. Invention, Innovation & Design Exposition 2021 (Pharm-IIDEx 2021) Faculty of Pharmacy UiTM, SAINS-2U (Education category).