CURRICULUM VITAE

Name : Mohd Helmi bin Sani

Date of Birth : 2nd May 1982

Nationality : Malaysian

Marital Status : Married

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ACADEMIC QUALIFICATION

2016	:	Ph.D. Biochemical Engineering University College London (UCL), United Kingdom
2011	:	M.Sc. Biotechology Universiti Malaya (UM), Malaysia
2006	:	B. Sc. Biotechnology Universiti Islam Antarabangsa Malaysia (UIAM), Malaysia

AWARDS AND HONORS RECEIVED

Date	Awards/Achievement
2019	Award of Service Excellence UTM (Citra Karisma)
2018	Award of Excellence on Active Blended Learning Course for Research Methodology (SMBT2613) Sem 2 – 2017/2018 from UTMLead, UTM
2015	Bursary Award for 25th Annual Meeting European Soceity for Animal Cell Technology (ESACT-UK) 2015,
2014	Bursary Award for 11th Annual bioProcess UK Conference 2014, bioProcess UK.

2013	Bursary Award for 10th Annual bioProcess UK Conference 2013, bioProcess UK.
2011	UTM-SLAI (Skim Latihan Akademik IPTA) Scholarship Kementerian Pengajian Tinggi Malaysia for PhD Biochemical Engineering (2011-2015).
2008	UTM-SLAB (Skim Latihan Akademik Bumiputra) Scholarship Kementerian Pengajian Tinggi Malaysia for MBiotechnology (2008 – 2010).

PROFESSIONAL EXPERIENCE

Date	**Positions/Employer**
Since 2014	Associate Member, Institution of Chemical Engineer (IchemE), UK, membership no: 99970033
Since 2016	Fellow, Johor Biotalent Development Centre

ADMINISTRATIVE EXPERIENCE

Faculty Level

2020	i) Program Coordinator for Master of Philosophy (Bioscience), Faculty of Science (FS), UTM ii) Head Cluster of Industrial Biotechnology for Biology Industry, Faculty of Science (FS), UTM
2019	i) Program Coordinator for Master of Philosophy (Bioscience), Faculty of Science (FS), UTM ii) Head Cluster of Industrial Biotechnology for Biology Industry, Faculty of Science (FS), UTM iii) Committee for UTM Degree ++ 'How to Get Yourself Employed' Faculty of Science iv) Committee for Student Development Program, Department Bioscience, Faculty of Science
2018	i) Program Coordinator for Master of Philosophy (Bioscience), Faculty of Biosciences and Medical Engineering (FBME), UTM ii) Head Cluster of Industrial Biotechnology for Biology Industry, Faculty of Biosciences and Medical Engineering (FBME), UTM iii) Advisor of FBME International Innovation Day 2018 at Faculty of Biosciences and Medical Engineering (FBME), UTM
2017	i) Committee for Innovation and Commercialisation Faculty of Biosciences and Medical Engineering (FBME), UTM ii) Committee Member for How to Write a Good Resume (HTWAGR2017) & How to Get Yourself Employed (HTGYE2017) programs by Faculty of Biosciences and Medical Engineering, UTM iii) Advisor of FBME Innovation Day 2017 at Faculty of Biosciences and Medical Engineering (FBME), UTM iv) Committee of First Year Experience (FYE) programme Faculty of Biosciences and Medical Engineering (FBME), UTM

2016 Program Coordinator for Master of Philosophy (Bioscience), Faculty of Biosciences and Medical Engineering (FBME), UTM
ii) Head Cluster of Industrial Biotechnology for Biology Industry, Faculty of Biosciences and Medical Engineering (FBME), UTM
iii) Deputy Director (Activities) for FBME Innovation day 2016 (15 March 2016, V01, FBME)
iv) Committee Member and Interview Panel for How to Get Yourself Employed (HTGYE) Program
v) Committee Member for Occupational, Safety, Health and Environtment Faculty of Biosciences and Medical Engineering (FBME), UTM
vi) Committee Member Innovation and Commercialistion FBME, UTM
vii) Committee Member and Interview Panel for First Year Experience (FYE), FBME, UTM

University Level

2019 i) Task Force UTM Flexible Learning Space (Flexspace), Pejabat Timbalan Naib Canselor (Akademik & Antarabangsa), UTM

2017 i) Committee Member for UTM Marketing Team representating FBME, SRAD UTM.
ii) Committee for Innovation and Commercialisation FBME, lantikan Pejabat Timbalan Naib Canselor (Penyelidikan dan Inovasi).

2016 i) Committee for Johor Entreprenuership and Innovation Day (JenID) 2016
ii) Fellow, Program Saintis Agenda Nobel (PSAN-UTM).

NATIONAL COMMITTEE

i) Committee for Asian Federation of Biotechnology (AFOB) Malaysia Chapter, (2019-2021).
ii) Committee for Karnival Kimia Johor (K2J) 2018.
iii) Module Leader (Biology) and Committee for National Science Challenge, Semi Final Level 2018.
iv) Fasilitator National Science Challenge and Science Outreach Johor State Level 2016.
v) Juruaudit for Asian Federation of Biotechnology (AFOB) Malaysia Chapter, (2016-2018).

INTERNATIONAL APPOINTMENT/COMMITTEE

i) Regional Committee (Malaysia) for Asian Federation of Biotechnology (AFOB), Incheon, South Korea.
ii) Committee of the Asian Federation of Biotechnology (AFOB) Malaysia Chapter International Symposium 2019, 21 -23 Oct 2019.
iii) Committee of the 2nd International Conference on Biosciences and Medical Engineering (ICBME 2019), 10-11 April 2019.
iv) Committee of the Asian Federation of Biotechnology (AFOB) Malaysia Chapter International Symposium 2018, 18 -21 Aug 2018.
v) Committee of the International Conference on Medical Device and Technology (iMeditec) 2017.
vi) Committee of the 1s tInternational Conference on Biosciences and Medical Engineering (ICBME 2016).

PROFESSIONAL MEMBERSHIP AND RECOGNITION

i) Associate Member, Institution of Chemical Engineers, UK (IChemE), Membership No: 99970033, since 2014.
ii) Life member, Asian Federation of Biotechnology (AFOB) Malaysia Chapter, Membership No: MY00073, since 2011.
iii) Member, Malaysia Biosafety and Biosecurity Association (MBBA), Membership No: AO234, since 2018.
iv) Member, Asian Federation of Biotechnology (AFOB), Membership No: MY00073 Incheon, South Korea, since 2011.
v) Member, Tissue Engineering and Regenerative Medicine Society of Malaysia (TESMA), Membership No: TESMA/0/2020/001

TEACHING EXPERIENCES

UNDERGRADUATE COURSES TAUGHT

SMBB 2193	:	Bioethics in Research and Development
SMBT 2233	:	Fermentation Technology + Lab
SMBT 2513	:	Introduction to Bioprocess Engineering + Lab
SMBT 2613	:	Research Methodology
SMBT 4263	:	Pharmaceutical Biotechnology
SMBT 4293	:	Environmental Biotechnology

POSTGRADUATE COURSE TAUGHT

MMBT 1233	:	Industrial Technology and Bioreactor Design
UMBP0010	:	Research Methodology

RESEARCH PROJECT UNDERTAKEN

Date	**Project Leader/Project Member**
2019	i) Project Member, SGSShine 1.1: A Competitve Activated Carbon from Agricultural Residues for Dye Removal, Signature Grant, Budget approved RM 50, 000 (Vot 07G78).
2018	i) Project Leader, Screening of Microcarriers for Mammalian Mesenchymal Stem Cells in Microwell Plate, UTM RUG Tier 1 Grant, Budget approved RM50,000 (Vot 18H36). ii) Project Member, Prevalence of Antibiotic Resistance Bacteria using Next-Generation Sequencing (NGS) approach: Johor River, UTMShine Grant, Budget approved RM50,000 (Vot 04G97).

	iii) Project Member, Optimisation of Transfection conditions for Mammalian Cells Transient Expression using Factorial Experimental Design (FED), UTM RUG Tier 1 Grant, Budget approved RM50,000, (Vot 19H23). iv) Project member, In-situ Sterilisation of Photobioreactor and Contaminants Control through Ozonolysis, PAS Grant, Budget approved RM20,000, (Vot 03K23).
2017	i) Project Member, Batch production of Yellowish Orange Pigment from C. artocarpi CECT 8497 using Particle Swarm Optimisation (PSO), UTM RUG Tier 1 Grant,, Budget approved RM40,000, (Vot 16H96).
2016	i) Project Leader, Effects of Process Parameter on Mammalian Cell Growth and Metabolism for Batch Fermentation, UTM RUG Tier 2 Grant, Budget approved RM20,000, (Vot 11J88). ii) Project member, Efficiency Evaluation of Commercial Immobilisation Carriers, , UTM RUG Tier 1 Grant, Budget approved RM40,000, (Vot 4Y113).
2011	i) Project member, Enhancement of Novel Alpha-amylase performance by Consolidate Bioprocessing and Protein Engineering Approach UTM RUG Tier 1 Grant, Budget approved RM147, 000 (Vot 15H50).

NETWORKING RESEARCH GRANT (NG) WITH UNIVERSITI MALAYSIA PAHANG (UMP)

Date	**Project Leader/Project Member**
2017	Project member, Expansion of Vero cells on Low-cost ultraviolet/ozone (UVO) treated polystryene (PS) microcarrier for Newcastle disease virus (NDV) production, Budget approved RM 30,000 (Vot 4X324).

BUSSINESS ENTITY PROJECT AWARDED BY ACADEMY SCIENCE MALAYSIA (ASM)

i) Project member, Empowering Science, Technology, Engineering and Mathematics (STEM) Education to School Students through National Science Challenge 2018 (NSC 2018), Semi Final Level, Budget approved RM23,201.

BUSSINESS ENTITY PROJECT AWARDED BY ROYAL SOCIETY OF BIOLOGY (RSB), UK

i) Project member, Biology Outreach Programme for Malaysia Primary School Children, Budget received RM2,568

POSTGRADUATE SUPERVISION

PhD Student

Year	***No.***	***Name***	***Status***	***Title***	***Roles of supervisor***
2016-current	1	Nurul Farhana binti Hussin	On going	Structural studies of an intracellular serine protease from *Bacillus pumilis*	Co-supervisor
2017-current	2	Amnah Ismail A Asiri	On going	Synthesis and biological Evaluation of electrospun PVA nanofibers with (FB/EP) GF for medical wound healing application	Co-supervisor

MSc. Research Student

Year	**No.**	**Name**	**Status**	**Title**	**Type**	**Roles Of Supervisor**
2016-current	1	Nurul Aida Nabila binti Chasrol Nizam	On going	Production of Bioethanol by Halotolerant Yeasts using Glucose as a substrate in seawater medium	Research	Co Supervisor

2018-2019	2	AbdulKarim AbdulKader Yousfi	On going	Evaluation of CHO Cell Performance in Batch and Fed-batch culture Using 6-Multiwell plate As a High-Throughput System	Mixed mode	Main Supervisor
2017-2018	3	Darshini a/p Murugiah	Graduated	Selection of micro carriers for the mammalian cells in a micro well attachment plates	Mixed mode	Main Supervisor
2016-2017	4	Fatin Syamimi binti Sabri	Graduated	Evaluation of multiwell based system for Antibody production using CHO cell	Mixed mode	Main Supervisor

POSTGRADUATE EXAMINATION /VIVA

UTM STUDENTS/VIVA

i) Chairperson of the Msc Mixed mode Viva Panels for Zahira Ali Hassan, March 2019.
ii) Chairperson of the Msc Mixed mode Viva Panels for Kam Kar Yern, Jan 2019.
iii) Assistant Chairperson of the PhD. Viva Panels for Auni Afiqah Amiru, Jan 2018.
iv) Assistant Chairperson of the PhD. Viva Panels for Seyedeh Nazanin Kardi, Feb 2017.
v) Assistant Chairperson of the PhD. Viva Panels for Tijani Hamzat Ibiyeye, March 2017.
vi) Assistant Chairperson of the PhD. Viva Panels for Amira Suriaty Yaakop, Jan 2017.
vii) Assistant Chairperson of the PhD. Viva Panels for Renuka a/p Krishnan, September 2016

MSc EXTERNAL EXAMINER

i) Arvind Devar Ramachendrin, Characterisation of milliltre scale bioreactor for anaerobic fermentation of *S. cerevisae*, SKT, UTM, Feb 2019.

MSc INTERNAL EXAMINER

i) Dharsigah a/p N Baniear Salvam, Optimisation of Biohydrogen Production by Enterococcus sp NFE using Starch as Substrate, June 2017.

PUBLICATIONS AND PAPER PRESENTED

THESIS

i) **Mohd Helmi Sani**, Evaluation of Microwell Based Systems and Miniature Bioreactors for Rapid Cell Culture Bioprocess Development and Scale-up, Ph.D. Thesis, University of College London (UCL), UK (2016).

ii) **Mohd Helmi Sani**, Nutrient Removal from Shrimp Pond Effluent using Gracilaria (Rhodophyta), Master Thesis, Universiti Malaya (2011).

iii) **Mohd Helmi Sani**, Isolation, Purification and Screening of Trichorderma spp for Lignin Peroxidase and Cellulase Enzymes from Domestic Wastewater Sludge, Bachelor Degree thesis, International Islamic University Malaysia (2006).

PUBLICATIONS

Journal

i) Kahar, U. M., Chan, K. G., **Sani, M. H**., Noh, N. I. M., & Goh, K. M. (2017). Effects of single and co-immobilization on the product specificity of type I pullulanase from Anoxybacillus sp. SK3-4. *International Journal of Biological Macromolecules*. IF: 3.67

ii) **M.H., Sani** and F., Baganz, (2016), Mixing time as a criterion for scale translation of cell culture processes, *BioPharm International, 29* (1), pp. 47-49. IF: 0.5.

iii) Kahar UM, **Sani MH**, Chan KG, Goh KM (2016) Immobilisation of alpha amylase from Anoxybacillus sp. SK-34 on Relizyme and Immobead supports, *Molecules*, 21 (9). IF 1.8

iv) **Sani M.H**., Micheletti M., Baganz F. (2012) Miniature bioreactors for Rapid Bioprocess Development of Mammalian Cell Culture. *Jurnal Teknologi, DOI: 10.11113/jt.v59.1569*

INVITED/GUEST SPEAKER

i) **Mohd Helmi Sani.** CHO cell culture at the micro-bioreactor scale. Invited speaker for Technology Showcase Forum: Micro-bioreactors: the challenges and opportunities for down scale R&D by Applikon Biotechnology UK, Crowne Plaza, London, United Kingdom, 3-4 Nov 2014.

CONFERENCES

i) **Sani, M.H.** and Murugiah D. (2019). *Microcarriers for the Mammalian Cell Culture*. Oral presentation for 2nd International Conference of Biosciences and Medical Engineering (ICBME), Bali, Indonesia 10 – 11 April 2019.

ii) **Sani, M.H.** and Murugiah D. (2018). *Selection of Microcarriers for the Mammalian Cell in Microwell attachment plates*. Oral presentation for Asian Federation of Biotechnology International Symposium 2018, Kuching, Sarawak, Malaysia, 18 -21 Aug 2018.

iii) Hamdan N., Nik Ali, N.M.A., Khairuddin, N., **Sani, M.H.** (2018). *Screening of Microcarriers for Mammalian Mesenchymal Stem Cells in Microwell Attachment Plates*, Biosciences Symposium 2018, 14 – 15 May 2018.

iv) **Sani, M.H.** Robinson, G., Kreukniet, M., Baganz, F. (2017). *Evaluation of a Single Use 24-well Micro-Bioreactor System for CHO cell*, Oral presentation for 13th Asian Congress on Biotechnology, Khon Kaen, Thailand, 22 July -27 July 2017.

v) **Sani M. H.**, Kreukniet M., Robinson G., Baganz F. *Comparison of feeding strategies for a CHO cell culture process using a single use 24-well miniature bioreactor system (micro-Matrix)*. Oral and Poster for 25th Annual ESACT-UK 2015, Queens Hotel, Leeds, United Kingdom, 7-8 Jan 2015.

vi) **Sani M. H.**, Kreukniet M., Robinson G., Baganz F. *Initial evaluation of a single use 24-well miniature bioreactor system (micro-Matrix) applied to fed-batch cultivation of CHO cells.* Poster for 11th Annual bioProcess UK Conference, St George Hall, Liverpool, United Kingdom, 25-26 Nov 2014.

vii) **Sani M. H.,** Micheletti M., Baganz F*. A comparison of two different feeding methods for CHO cell cultures in shaken microtitre plates.* Poster for 10th Annual bioProcess UK Conference, BMA House, London, United Kingdom, 3-4 Dec 2013.

viii) **Sani M. H.,** Micheletti M., Baganz F. *Framework for Rapid Bioprocess Development and Optimisation: Application to IgG production in CHO cells.* Postgraduate Exam Meeting Board, Centre for Innovative Manufacturing in Emerging Macromolecular Therapies, Advanced Centre of Biochemical Engineering, UCL, United Kingdom, 13-14 September 2012.

ix) **Sani M. H**., Micheletti M and Baganz F., *Rapid Bioprocess Development Using Microwells for Mammalian Cell Culture*, Oral Presentation for International Conference on Humanities, Social Sciences, Science, and Technology (ICHSST 2012), Cardiff, Wales, 16 July 2012.

x) Aziz S.A., **Sani M. H.,** Hamisan A.F., Salleh M., and Hassan O., D, *Development of Microbial Inoculums for Fast Composting of Cow Manure,* Exhibition on Invention and Innovation (PRPI), Universiti Putra Malaysia (UPM), 2007.