

# CURRICULUM VITAE



## A. BUTIR-BUTIR PERIBADI (*Personal Details*)

<b>Nama Penuh (<i>Full Name</i>)</b>	Siti Mariam Mohd Nor		<b>Gelaran (<i>Title</i>):</b> Dr
<b>Jawatan (<i>Designation</i>)</b>	Lecturer	<b>Bangsa (<i>Race</i>)</b>	Malay
<b>Warganegara (<i>Citizenship</i>)</b>	Malaysia	<b>Jantina (<i>Gender</i>)</b>	Female

<b>Jabatan/Fakulti (<i>Department/Faculty</i>)</b>	Department of Chemistry, Faculty of Science, Universiti Putra Malaysia, 43400 Serdang, Selangor Tel: 03-89466780 Fax: 03-89435380
<b>E-mel dan URL (<i>E-mail Address and URL</i>)</b>	smariam@upm.edu.my

## B. KELAYAKAN AKADEMIK (*Academic Qualification*)

<b>Nama Sijil / Kelayakan (<i>Certificate / Qualification obtained</i>)</b>	<b>Nama Sekolah Institusi (<i>Name of School / Institution</i>)</b>	<b>Tahun (<i>Year obtained</i>)</b>	<b>Bidang pengkhususan (<i>Area of Specialization</i>)</b>
PhD	University of Nottingham, England	2007	Chemistry (Organic Synthesis)
B. Sc (Hons)	Universiti Putra Malaysia	1996	Chemistry
Matriculation	Universiti Putra Malaysia	1991	Science

## C. PENGALAMAN SAINTIFIK DAN PENGGHUSUSAN (*Scientific experience and Specialisation*)

<b>Organization</b>	<b>Jawatan / Position</b>	<b>Tarikh Lantikan / <i>Start Date</i></b>	<b>Tarikh Tamat / / <i>End Date</i></b>	<b>Kepakaran / <i>Expertise</i></b>
IBM Almaden Research Centre, San Jose, California, USA	Researcher (Research attachment)	27/3/2015	26/9/2015	Organic Synthesis
Universiti Putra Malaysia	Lecturer/Science Teacher	1996	Present	Organic Chemistry Organic Synthesis

## D. PEKERJAAN (*Current and Previous Employment*)

<b>Majikan / <i>Employer</i></b>	<b>Jawatan / <i>Designation</i></b>	<b>Jabatan / <i>Department</i></b>	<b>Tarikh lantikan / / <i>Start Date</i></b>	<b>Tarikh tamat / / <i>Date Ended</i></b>
Universiti Putra Malaysia	Senior Lecturer	Department of Chemistry, Faculty of Science	1/5/2010	Present
Universiti Putra Malaysia	Lecturer	Department of Chemistry, Faculty of Science	23/9/2007	30/4/2010
Universiti Putra Malaysia	Tutor	Department of Chemistry, Faculty of Science	31/3/2001	22/9/2007

Universiti Putra Malaysia	Science Teacher	Department of Food Technology, Faculty of Food Science and Biotechnology	1/5/2000	30/3/2001
Universiti Putra Malaysia	Science Teacher	Pusat Pengajian Matrikulasi, UPM	1/7/1996	30/4/2000
Associated Pan Malaysia Cement Sdn Bhd (APMC), Rawang Works, Rawang, Selangor	Trainee Chemist	Research and Development Unit, APMC	Apr 1995	May 1995

### E. SENARAI PENERBITAN (*Publication*)

<i>Journal</i>	
	<ol style="list-style-type: none"> <li>Zarif Ashhar, Nor Azah Yusof, Fathinul Fikri Ahmad Saad, <b>Siti Mariam Mohd Nor</b>, Faruq Mohammad, Wan Hamirul Bahrin Wan Kamal, Hishar Hassan Muhammad, Hazlina Ahmad Hassali, Hamad Al-Lohedan. Preparation, Characterization, and Radiolabeling of [<sup>68</sup>Ga]Ga-NODAGA-Pamidronic Acid: A Potential PET Bone Imaging Agent. <i>Molecules</i>, 2020, <b>25</b>, 2668-2689.</li> <li>Radhiahtul Raehan Mustafa, Rashidah Sukor, <b>Siti Mariam Mohd Nor</b>, Nazamid Saari and Farah Asilah Azri. Enhancing Extraction Yield and Purity of Mitragynine from <i>Mitragyna speciosa</i> Through Sequential Solvent Extraction and Characterisation Using NMR Technique. <i>International Journal of Scientific and Technology Research</i>, 2020, <b>9</b>, 3846-3854.</li> <li>Noor Khairin Mohd, Shoot-Kian Yeong, Nor Azowa Ibrahim, <b>Siti Mariam Mohd Nor</b>, Chung-Hung Chan, Sook-Wah Tang, Wen-Huei Lim and Zainab Idris. Corrosion Inhibition, Adsorption Behaviour and Thermodynamic Properties of <i>N</i>-Cinnamalidene Palmitohydrazide on Mild Steel in Hydrochloric Acid Solution. <i>Journal of Oil Palm Research</i>, 2020, <b>32</b>, 124-138.</li> <li>Siti Fadilah Juhan, Siti Munirah Mohd Faudzi, Nur Kartinee Kassim, Mohd Shukri Mat Ali and <b>Siti Mariam Mohd Nor</b>. One-Step Synthesis of New Derivatives of 4-Arylcoumarins and Neolignans. <i>Chemistry Research Journal</i>, 2018, <b>3</b>, 85-97.</li> <li>Siti Fadilah Juhan, Siti Munirah Mohd Faudzi, Nur Kartinee Kassim, Mohd Shukri Mat Ali and <b>Siti Mariam Mohd Nor</b>. 2-Aryldihydrobenzofuran Neolignans: Synthesis of Ficusal and Tomentosanan B. <i>Der Chemica Sinica</i>, 2018, <b>9</b>, 633-639.</li> <li>Nakisah Mat Amin, Muhammad Shafiq Hamdin, Muhd Amir Taufiq Azarnudin, Asnuzilawati Asari, Fatin Nur Ain Abdul Rashid and <b>Siti Mariam Mohd Nor</b>. Cytotoxicity Effect of Aaptamine and Its Derivatives on <i>Acanthamoeba castellanii</i> (IMR Isolate). <i>Science International (Lahore)</i>, 2018, <b>30</b>, 309-313.</li> <li>Keng Hong Teng, Gwendoline Cheng Lian Ee, Intan Safinar Ismail, Thiruventhan Karunakaran, Soek Sin Teh, Vivien Yi Mian Jong and <b>Siti Mariam Mohd Nor</b>. A new coumarin from stem bark of <i>Calophyllum wallichianum</i>. <i>Natural Product Research</i>, 2018, <b>32</b>, 2565-2570.</li> <li>Lee Kar Wei, Nor Hisam Zamakshshari, Gwendoline Cheng Lian Ee, Siau Hui Mah and <b>Siti Mariam Mohd Nor</b>. Isolation and structural modifications of ananixanthone from <i>Calophyllum teysmannii</i> and their cytotoxic activities. <i>Natural Product Research</i>, 2018, <b>32</b>, 2147-2151.</li> <li>Thiruventhan Karunakaran, Gwendoline Cheng Lian Ee, Intan Safinar Ismail, <b>Siti Mariam Mohd Nor</b> and Nor Hisam Zamakshshari. Acetyl- and O-alkyl- derivatives of <math>\beta</math>-mangostin from <i>Garcinia mangostana</i> and their anti-inflammatory activities. <i>Natural Product Research</i>, 2018, <b>32</b>, 1390-1394.</li> <li><b>Siti Mariam Mohd Nor</b>, Fatin Nurul Atiqah Osman, Kartini Ahmad and Mohd Azlan Nafiah. Synthesis of N-alkylated and N-acylated derivatives of girinimbine. <i>Asian Journal of Chemistry</i>, 2017, <b>29</b>, 801-804.</li> <li>NK Mohd, MJ Ghazali, YS Kian, NA Ibrahim, WMZW Yunus, <b>SMM Nor</b>, Z Idris. Corrosion inhibition of mild steel in hydrochloric acid solution using fatty</li> </ol>

	<p>acid derivatives. <i>Journal of Oil Palm Research</i>, 2017, <b>29</b>, 97-109.</p> <p>12. SF Juhan, MA Md Sukari, SS Syed Abdul Azziz, WC Fah, H Alimon and <b>SM Mohd Nor</b>. New synthesised aminoanthraquinone derivatives and its antimicrobial and anticancer activities (Route II). <i>International Journal of Contemporary Applied Sciences</i>, 2016, <b>3</b>, 18-33.</p> <p>13. Fatin Nur Ain Abdul Rashid, Asnuzilawati Asari, Habsah Mohamad and <b>Siti Mariam Mohd Nor</b>. Synthesis and Antibacterial Study of Aaptamine Derivatives. <i>Asian Journal of Chemistry</i>, 2014, <b>26</b>, 6903-6907.</p> <p>14. <b>Siti Mariam Mohd Nor</b>, Mohd Aspollah Hj Md Sukari, Saripah Salbiah Syed Abdul Azziz, Wong Chee Fah, Hasimah Alimon and Siti Fadilah Juhan. Synthesis of new cytotoxic aminoanthraquinone derivatives <i>via</i> nucleophilic substitution reactions. <i>Molecules</i>, 2013, <b>18</b>, 8046-8062.</p> <p>15. <b>Siti Mariam Mohd Nor</b>, Nawwar Fathiah Mohd Fauzi and Intan Safinar Ismail. Synthesis of nitrogen-substituted pyran-2-ones <i>via</i> radical cyclisation approach. <i>International Journal of Education and Research</i>, 2013, <b>1</b>, 241-248.</p> <p>16. Nurulhaidah Daud, Nor Azah Yusof and <b>Siti Mariam Mohd Nor</b>. Electrochemical characteristic of biotinyl somatostatin-14/nafion modified gold electrode in development of sensor for determination of Hg(II). <i>International Journal of Electrochemical Science</i>, 2013, <b>8</b>, 10086-10099.</p> <p>17. Ili Syazana Johari, Nor azah Yusof, Md Jelas Haron and <b>Siti Mariam Mohd Nor</b>. Preparation and characterization of poly(ethyl hydrazide)-grafted oil palm empty fruit bunch fibre for the removal of Ni(II) ions from an aqueous environment. <i>Polymers</i>, 2013, <b>5</b>, 1056-1067.</p> <p>18. Ili Syazana Johari, Nor azah Yusof, Md Jelas Haron and <b>Siti Mariam Mohd Nor</b>. Preparation and characterization of poly(ethyl hydrazide)-grafted oil palm empty fruit bunch fibre for the removal of Cu(II) ions from an aqueous environment. <i>Molecules</i>, 2013, <b>18</b>, 8461-8472.</p> <p>19. M. A. Sukari, R. Utami, B. K. Neoh, G. C. L. Ee, S. Jusoh, <b>S. M. M. Nor</b> and M. Rahmani. Antileukemic properties of Spermacoce species. <i>Asian Journal of Chemistry</i>, 2013, <b>25</b>, 4595-4598.</p> <p>20. Mohd Rashidi Abdull Manap, Nor Azah Yusof, <b>Siti Mariam Mohd Nor</b> and Faujan B. H. Ahmad. Spectrofluorimetry determination of arsenic(III) using dansylated peptide. <i>Asian Journal of Chemistry</i>, 2013, <b>25</b>, 4195-4198.</p> <p>21. Mustahil N. A., Riyanto S., Sukari M. A., Rahmani M., <b>Mohd Nor S. M.</b> and Ali A. M. Antileukemic activity of extracts and constituents of <i>Aegle marmelos</i>. <i>Research Journal of Chemistry and Environment</i>, 2013, <b>17</b>, 62-67.</p> <p>22. Nadiah Abdul Rahman, Nor Azah Yusof, Nor Amirah Mohd Maamor and <b>Siti Mariam Mohd Noor</b>. Development of electrochemical sensor for simultaneous determination of Cd(II) and Hg(II) ion by exploiting newly synthesized cyclic peptide. <i>International Journal of Electrochemical Science</i>, 2012, <b>7</b>, 186-196.</p> <p>23. R. L. Toh Choon, M. Sariah and <b>M. N. Siti Mariam</b>. Ergosterol from the soilborne fungus <i>Ganoderma boninense</i>. <i>Journal of Basic Microbiology</i>, 2012, <b>52</b>, 608-612.</p> <p>24. Mohd Rashidi Abdull Manap, Nor Azah Yusof, <b>Siti Mariam Mohd Nor</b> and Faujan B. H. Ahmad. Synthesis and characterization of a fluorescent peptide, dansyl-ala-val-OMe by solution phase. <i>International Journal of Chemistry</i>, 2012, <b>1</b>, 241-246.</p> <p>25. Mohd. Rashidi Abdull Manap, Nor Azah Yusof, <b>Siti Mariam Mohd Nor</b>, Faujan B. H. Ahmad. Recent development of amino acids and peptides in metal ions detection: an overview. <i>Oriental Journal of Chemistry</i>, 2010, <b>26</b>, 23-29.</p> <p>26. <b>Siti Mariam Mohd Nor</b>, Gerald Pattenden. Synthesis and Metal Binding of Cyclic Peptide from Ascidian. <i>Science Putra Research Bulletin</i>, 2008, <b>16</b>, 28-48.</p> <p>27. Anna Bertram, Nakia Maulucci, Olivia M. New, <b>Siti Mariam Mohd Nor</b> and Gerald Pattenden. Synthesis of libraries of thiazole, oxazole and imidazole-based cyclic peptides from azole-based amino acids. A new synthetic approach to bistratamides and didmolamides. <i>Journal Org. Biomol. Chem.</i>, 2007, <b>5</b>, 1541-1553.</p>
Chapter in book	<p>1. <b>Siti Mariam Mohd Nor</b>, Zhengshuang Xu and Tao Ye. Chapter 16: Bioactive Macrocyclic Natural Products, <i>Heterocycles in Natural Product Synthesis</i>. 1<sup>st</sup> Edition,</p>

	WILEY-VCH Germany, 2011, 569-619.
<i>Proceedings/Abstracts</i>	<ol style="list-style-type: none"> <li>1. Siti Fadilah Juhan, Siti Munirah Mohd Faudzi, Nur Kartinee Kassim, Mohd Shukri Mat Ali and <b>Siti Mariam Mohd Nor</b>. Synthesis of 2-aryldihydrobenzofuran neolignans and 2-arylbenzofuran neolignanans. <i>International Conference in Organic Synthesis 2019 (ICOS2019)</i>, Avillion Admiral Cove, Port Dickson, Negeri Sembilan, Malaysia, 9-10/12/2019, 9.</li> <li>2. Nur Adilah Abd Karim, Nurin Izzati Mohd Idris, Mohd Nazrul M Yunus and <b>Siti Mariam Mohd Nor</b>. Knoevenagel, Aldol and Wittig reactions of aldehydes. <i>22<sup>nd</sup> Industrial Chemistry Seminar (SKI XXII)</i>, Hotel Bangi Putrajaya, Bandar Baru Bangi, Selangor, Malaysia, 15/1/2019, 68.</li> <li>3. Siti Fadilah Juhan, <b>Siti Mariam Mohd Nor</b> and Saripah Salbiah Syed Abdul Azziz. Synthesis of aminoanthraquinone derivatives. <i>International Conference of Analytical Sciences 2018 (SKAM31)</i>, Vistana Hotel, Kuantan, Pahang, Malaysia, 17-19/8/2018, 129.</li> <li>4. Siti Zulaika Md Nor, Sylviana Awing Lawai and <b>Siti Mariam Mohd Nor</b>. Heck coupling reaction of methyl ferulate and methyl sinapinate. <i>20<sup>th</sup> Industrial Chemistry Seminar (SKI-XX)</i>, Hotel Bangi Putrajaya, Bandar Baru Bangi, Selangor, Malaysia, 23/5/2017, 22.</li> <li>5. Fatin Nurul Atiqah Osman, Nurliana Mohd Yunos, Kartini Ahmad, Mohd Azlan Nafiah and <b>Siti Mariam Mohd Nor</b>. N-derivatives og girinimbine and mahanumbine. <i>The 29<sup>th</sup> Malaysian Analytical Chemistry Symposium (SKAM29)</i>, Bayview Beach Resort, Penang, Malaysia, 15-17/8/2016.</li> <li>6. Siti Fadilah Juhan, Siti Munirah Mohd Faudzi, Nur Kartinee Kassim, Mohd Shukri Mat Ali and <b>Siti Mariam Mohd Nor</b>. Synthesis of benzofuran neolignans and stilbenes. <i>The 29<sup>th</sup> Malaysian Analytical Chemistry Symposium (SKAM29)</i>, Bayview Beach Resort, Penang, Malaysia, 15-17/8/2016.</li> <li>7. Siti Fadilah Juhan, Siti Munirah Mohd Faudzi, Nur Kartinee Kassim, Mohd Shukri Mat Ali and <b>Siti Mariam Mohd Nor</b>. Direct access to phenyl coumarin via Heck type cross coupling. <i>The Fundamental Science Congress 2015 (FSC2015)</i>, Faculty of Veterinary Medicine, Universiti Putra Malaysia, Serdang, Selangor, Malaysia, 12-13/11/2015.</li> <li>8. Nurliana Mohd Yunos, <b>Siti Mariam Mohd Nor</b>, Roghayeh Abedi Karjiban and Kartini Ahmad. Synthesis of mahanimbine derivatives via N-alkylation reaction. <i>The Fundamental Science Congress 2015 (FSC2015)</i>, Faculty of Veterinary Medicine, Universiti Putra Malaysia, Serdang, Selangor, Malaysia, 12-13/11/2015.</li> <li>9. Fatin Nurul Atiqah Osman, <b>Siti Mariam Mohd Nor</b> and Kartini Ahmad. Synthesis and modification og girinimbine and derivatives. <i>The Fundamental Science Congress 2015 (FSC2015)</i>, Faculty of Veterinary Medicine, Universiti Putra Malaysia, Serdang, Selangor, Malaysia, 12-13/11/2015.</li> <li>10. Asnuzilawati Asari, Fatin Nur Ain Abdul Rashid, Habsah Mohamad, <b>Siti Mariam Mohd Nor</b> and Siti Aisha Mohd Radzi. Synthesis and structure-activity relationship study of aaptamine derivatives as potent antibacterial agent. <i>Universiti Malaysia Terengganu 12<sup>th</sup> International Annual Symposium, UMTAS 2013</i>, Permai Hotel Kuala Terengganu, Terengganu, Malaysia, 8-10/10/2013, 845-852.</li> <li>11. Siti Fadilah Juhan, <b>Siti Mariam Mohd Nor</b>, Mohd Aspollah Sukari, Saripah Salbiah Syed Abdul Azziz, Wong Chee Fah and Hasimah Alimon. Synthesis of new aminoanthraquinone from 1,4-(dihydroxy)anthracene-9,10-dione. <i>International Conference on Natural Products 2013 (ICNP)</i>, Shah Alam Convention Centre (SACC), Selangor, Malaysia, 4-6/3/2013, 44-45.</li> <li>12. <b>MN Siti Mariam</b>, MF Nawwar Fathiah and Intan Safinar. Synthesis of lactone analogues of atranone F via radical cyclisation approach. <i>4<sup>th</sup> International Conference for Young Chemists 2013 (ICYC)</i>, Bayview Hotel, Georgetown, Penang, Malaysia, 30/1-1/2/2013, 185.</li> <li>13. <b>Siti Mariam Mohd Nor</b>, Nawwar Fathiah Mohd Fauzi and Intan Safinar Ismail. Synthesis of the lactone analogues of atranone F via radical cyclisation approach. <i>2<sup>nd</sup> National Symposium in Organic Synthesis (NaSOSII)</i>, Concorde Hotel Shah Alam, selangor, Malaysia, 16-17/7/2012, 28.</li> </ol>

	<p>14. Nor Azah Yusof, Mohd Rashidi Abdull Manap, <b>Siti Mariam Mohd Nor</b> and Faujan B. H. Ahmad. Synthesis and characterization of peptidyl fluorescent for metal ion detection. <i>Regional Fundamental Science Congress 2011</i>, Kompleks Mahasiswa, Universiti Putra Malaysia, Malaysia, 5-6/7/2011, 29-30.</p> <p>15. Siti Aminah Mohd Shah, Faujan Bin H. Ahmad, Mahiran Basri and <b>Siti Mariam Md. Noor</b>. Effect of temperature on enzymatic synthesis of 3-O-(3',3'-dimethylsuccinyl)-betulinic acid in organic solvent. <i>Regional Fundamental Science Congress 2011</i>, Kompleks Mahasiswa, Universiti Putra Malaysia, Malaysia, 5-6/7/2011, 135-136.</p> <p>16. <b>Siti Mariam Mohd Nor</b> and Nur Afiqah Rahmat. Synthesis of <i>trans</i>-4-methoxycinnamic acid derivatives. <i>Industrial Chemistry Seminar (SKI XV)</i>, Auditorium Jurutera, Faculty of Engineering, UPM, Malaysia, 11/5/2011, 35.</p> <p>17. <b>Siti Mariam Mohd Nor</b> and Siti Fadilah Juhan. Synthesis of <i>trans</i>-4-methoxycinnamic acid derivatives via esterification. <i>Industrial Chemistry Seminar (SKI XV)</i>, Auditorium Jurutera, Faculty of Engineering, Universiti Putra Malaysia, 11/5/2011, 36.</p> <p>18. <b>Siti Mariam Mohd Nor</b>. Synthetic studies towards mechercharmycin A: progress works on the penta-azole fragment. <i>16<sup>th</sup> Malaysian Chemical Congress (16MCC) 2010</i>, Putra World Trade Centre (PWTC), Kuala Lumpur, Malaysia, 12-14/10/2010, 99.</p> <p>19. <b>Siti Mariam Mohd Nor</b>. Progress and problems on the synthesis of polyazole fragment of mechercharmycin A. <i>23<sup>rd</sup> Malaysian Symposium on Analytical Sciences (SKAM-23)</i>, Permai Inn, Kuala Terengganu, Terengganu, Malaysia, 4-6/10/2010, 152-152.</p> <p>20. Mohd Rashidi Abdull Manap, Nor Azah Yusof, <b>Siti Mariam Mohd Nor</b> and Faujan H. Ahmad. Synthesis, characterization of peptidyl fluorescent probe Dansyl-Glycine-Serine-Glycine-Serine-Methyl Ester and application for metal ions detection. <i>Fundamental Science Congress 2009</i>, Auditorium Jurutera, Faculty of Engineering, Universiti Putra Malaysia, 17-18/6/2009, 263-264.</p> <p>21. <b>Siti Mariam Mohd Nor</b> and Gerald Pattenden. Synthesis of Azoles-Based Cyclic Peptides and A New Approach Towards Didmolamides. <i>Pameran Reka Cipta, Penyelidikan dan Inovasi 2009 (PRPI'09)</i>, PKKSSAAS, Universiti Putra Malaysia, 28/7/2009, 229.</p> <p>22. <b>Siti Mariam Mohd Nor</b> and Gerald Pattenden. Synthesis of Cyclic Peptides Containing Thiazole and Oxazoline-Based Amino Acids. <i>National Symposium in Organic Synthesis</i>, Primula Beach resort Kuala Terengganu, Terengganu, Malaysia, 14-15/6/2009, 60-61.</p> <p>23. <b>Siti Mariam Mohd Nor</b> and Gerald Pattenden. Synthesis of Azoles-Based Cyclic Peptides and A New Approach Towards Didmolamides. <i>Second International Conference and Workshops on Basic and Applied Sciences &amp; Regional Annual Fundamental Science Seminar 2009</i>, The ZON Regency Hotel, Johor Bahru, Malaysia, 2-4/6/2009, 38.</p>
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### G. PROJEK PENYELIDIKAN SEMASA DAN TERDAHULU (Current and Past Research Project)

Project No.	Project Title	Role	Year	Source of fund	Status
GP/2018/9666700 (RM50,000)	Synthesis of new 8-O-4'-neoligan derivatives from methyl sinapate and methyl ferulate and their insecticidal activity.	Project Leader	2018-2021	Geran Putra	Ongoing
GP-IPB/2014/9449901 (RM137,000)	Fundamental investigation of utilization of graphene-based anti-reflective coating to improve the efficiency of dye-sensitized solar cell.	Member	2017-2019	GP-IPB	Completed
01-02-14-1567FR (RM127,600)	Synthesis of 2-arylbenzofuran and 2-aryldihydrobenzofuran neolignans and their insecticidal activity.	Project Leader	2014-2017	FRGS	Completed
GP-IPS/2014/9438717	Synthesis of girinimbine and structure modification at N-terminal.	Project Leader	2014-2016	GP-IPS	Completed

(RM15,000)					
FRGS/1/2014/ST01 /UPM/01/1 (RM112,000)	Structural selective synthesis of xanthone chemopreventive agents from <i>Garcinia benthamiana</i> .	Member	2014-2016	FRGS	Completed
GP- IPM/2013/940570 (RM50,000)	Synthesis and characterization of fluorescene polythiophene composite nanofibers for sensor application.	Member	2013-2015	GP-IPM	Completed
05-02-12-1850RU (RM46,000)	Electrophilic-nucleophilic substitution-based synthesis of 1,4-dihydroxyanthraquinone	Project Leader	2012-2014	RUGS	Completed
05-02-12-1857RU (RM14,900)	Synthesis of new derivatives of 1,4-dihydroxyanthraquinone <i>via</i> aromatic substitution reactions.	Project Leader	2012-2014	RUGS	Completed
05-02-12-1856RU (RM11,900)	Synthesis of the lactone analogues of atranone F <i>via</i> radical cyclisation approach.	Project Leader	2012-2014	RUGS	Completed
01-04-10-878FR (RM45,600)	Synthetic studies towards atranone F: synthesis of the A- and B-lactone rings <i>via</i> radical cyclisation approach.	Project Leader	2010-2012	FRGS	Completed
05-03-08-0487RU (RM30,000)	Synthesis of cyclic peptides to be utilised in fabrication of peptide nanotube and selective determination of toxic metals.	Project Leader	2008-2010	RUGS	Completed