

# **UNIVERSITI PUTRA MALAYSIA**

## **CURRICULUM VITAE**



**AZIZAH HAJI HAMID  
DEPARTMENT OF FOOD SCIENCE  
FACULTY OF FOOD SCIENCE AND TECHNOLOGY  
UNIVERSITI PUTRA MALAYSIA**

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## CURRICULUM VITAE

1. AZIZAH HAJI HAMID
2. DEPARTMENT OF FOOD SCIENCE
3. FACULTY OF FOOD SCIENCE AND TECHNOLOGY
4. SPECIALIZATION/RESEARCH INTEREST

FOOD CHEMISTRY, FUNCTIONAL FOOD, BIOACTIVE COMPOUNDS,  
BIOLOGICAL PROPERTIES OF NATURAL PRODUCTS AND  
METABOLOMICS

## EDUCATION AND ACADEMIC QUALIFICATIONS

YEAR	UNIVERSITY	DEGREE
1978-1982	Indiana University USA	B. Sc in Chemistry
1982-1984	Indiana University USA	M.Sc. in Nutrition
1989-1993	Wisconsin University USA	PhD in Food Chemistry (minor in Toxicology)

H-INDEX : 34  
CITATIONS : 4291

## SUPERVISION OF STUDENTS

### Supervision of Post-graduate students – PhD

No.	Name	Topic of Research	Status
1.	Normala Halimon	Phenolics Antioxidant with Nutraceutical Applications from Palm Oil Mill Effluent <b>(Graduated 2006)</b>	Main Supervisor
2.	Mohsen Zargar	Antioxidant, antimicrobial and anti- inflammatory effect of <i>Vitex negundo</i> <b>(Graduated 2010)</b>	Main Supervisor
3.	Mizher Hezam Al-Zuaidy	Antidiabetic property of <i>Melicope Lunu Ankenda</i> using NMR-based Metabolomics <b>(Graduated 2017)</b>	Main Supervisor
4.	Hana Kadum	Ergogenic Analysis and their effects on Sprague Dawley Rats using NMR-based Metabolomics <b>(Graduated 2018)</b>	Main Supervisor
5	Najla Gooda Sahib	Metabolomic study of functional foods from <i>Morinda citrifolia</i> <b>(Graduated 2015)</b>	Main Supervisor
6.	Hafeedza Abdul Rahman	Antiobesity activity of <i>cosmos caudatus</i> using metabolomic approach <b>(Graduated 2016)</b>	Main Supervisor
7.	Nurjuliana Mokhtar	Authentication of Meat through Metabolomics (Theses submitted)	Main Supervisor
8.	Mahanom Hussein	Anti-Ageing properties of <i>Persicaria minus</i> and effect on Sprague dawley rats (Writing theses)	Main Supervisor
9.	Muhammad Mustafa Jibrail	Anti-diabetic effects of watermelon and their mechanism of action (Graduated 2021)	Main Supervisor
10.	Behnaz Hassan Baglou	Antioxidant, antimicrobial and antidiabetic effect of <i>pereskia bleu</i>	Main Supervisor
11.	Azrina Azlan	The Health Benefits of Rice Bran in Lowering Blood Cholesterol: Clinical Investigation on Free-living Men	Co-Supervisor

		(Graduated)	
12.	Muhammad Ibrahim	Nutritional composition, antioxidant capacity toxicity study of Babbangan ( <i>Mangifera panjang Kosterman</i> ) juice powder (Graduated)	Co-Supervisor
13.	Fouad Abdulrahman Hassan	Characterization and Improvement of Dietary with antioxidant properties in biscuit fortified bambangan peel powder and study its effect on lowering cholesterol (Graduated)	Co-Supervisor
14.	Kabir Umar Mustapha	Metabolic Engineering of Catechins in <i>Lactococcus lactis</i> and their application as Functional Food (Graduated)	Co-Supervisor
15.	Bita Forghani	Purification and Characterization of Ace Inhibitory Bioactive Peptides derived from sea cucumber (Graduated)	Co-Supervisor
16.	Wan Nadilah Adibah Wan Ahmad	Metabolomic approach using NMR and GCMS (Graduated)	Co-Supervisor
17.	Fatima Abdelhameed Hussein Hassan	Development of Proteolysates with Angiotensin Converting Enzyme Inhibitory and Antioxidant Bioactive Peptides from Whey Protein Concentrate (WPC). (Graduated)	Co-Supervisor
18.	Cheng Shi Hui	Effect of <i>Cosmos caudatus</i> on diabetic Patients (Graduated)	Co-Supervisor
19.	Majida Fadhil Ayfan	Physicochemical, Technological and Physiological Properties of Pitaya ( <i>Hylocereus Polyrhizus</i> ) pectin (Graduated)	Co-Supervisor

**Supervision of Post-graduate students – MSc.**

No.	Name	Topic of Research	Status
1.	<b>Zamri Bin Md. Shah</b>	Extraction and Identification of Bioactive Agents in <i>Centella asiatica</i> <b>(Graduated 2002)</b>	<b>Main Supervisor</b>
2.	<b>Mahanom Hussin</b>	Efficacy of <i>Centella asiatica</i> in Reducing Oxidative Stress in Rats <b>(Graduated 2005)</b>	<b>Main Supervisor</b>
3.	<b>Zamzahaila Mohd. Zin</b>	Identification of Antioxidative Compound/s in Mengkudu ( <i>Morinda citrifolia L.</i> ) Fruits, Leaves and root <b>(Graduated 2003)</b>	<b>Main Supervisor</b>
4.	<b>Leow Min Min</b>	Effect of Fermentation on Physico-Chemical quality of Cocoa Beans from Malaysia and Sumatra <b>(Graduated 2002)</b>	<b>Co-Supervisor</b>
5.	<b>Irine Runnie</b>	Production of Flavonoid from Oil Palm and its Efficacy against Degenerative Diseases <b>(Graduated 2004)</b>	<b>Co-Supervisor</b>
6.	<b>Norhasnida Zawawi</b>	<b>Graduated (2006)</b>	<b>Co-Supervisor</b>
7.	<b>Raja Rohaya Raja Sula</b>	Development of ferulate rich extract from Rice Bran <b>(Graduated 2010)</b>	<b>Main Supervisor</b>
8.	<b>Mohd. Khairi Zainol</b>	Developments of Various Nutraceuticals from <i>centella asiatica</i> <b>(Graduated 2003)</b>	<b>Main Supervisor</b>
9.	<b>Mohd. Rezza Hussin</b>	Enzymic extraction of oil from Rice Bran <b>(Graduated 2011)</b>	<b>Main Supervisor</b>
10.	<b>Rosnizam Ismail</b>	Separation of different isomers of tocoferol/tocotrienol and oryzanol in Rice Bran Oil <b>(Graduated 2008)</b>	<b>Main Supervisor</b>

<b>11.</b>	<b>Ong Mei Khing</b>	Elicitation of Flavonoids in <i>centella asiatica</i> <b>(Graduated in 2008)</b>	<b>Co- Supervisor</b>
<b>12.</b>	<b>Wong Mei Chee</b>	Development of Methods for Shelflife Extension of Chili <b>(Graduated 2005)</b>	<b>Co-Supervisor</b>
<b>13.</b>	<b>Roheeyati Ashikin Mustafa</b>	Evaluation of antioxidant properties and phenolic compounds in selected tropical extracts <b>(Graduated 2009)</b>	<b>Main supervisor</b>
<b>14.</b>	<b>Sabri Pak Dek</b>	Extraction of catechin rich extract utilizing SFE <b>(Graduated 2010)</b>	<b>Main supervisor</b>
<b>15.</b>	<b>Khairulnisak Mohsin</b>	Exposure assessment of Malaysian to Glutamate <b>(Graduated 2009)</b>	<b>Main supervisor</b>
<b>16.</b>	<b>Najla Gooda Sahib</b>	Antiobesity activity of <i>momordica charantia</i> , <i>centella</i> and <i>morinda citrifolia</i> <b>(Graduated 2010)</b>	<b>Main supervisor</b>
<b>17.</b>	<b>Norshahida Mohamad Shofian</b>	Antioxidant preservation technique for functionality enhancement of minimally processed fruits (Graduated)	<b>Main supervisor</b>
<b>18.</b>	<b>Mar Mar Win</b>	Antioxidants and activity from peanuts hull and flour <b>(Graduated 2011)</b>	<b>Main supervisor</b>
<b>20.</b>	<b>Nordiana Majid</b>	Metabolomic Approaches to Investigate the Ergogenic Effect of <i>Morinda citrifolia</i> Extract in Obese Sprague Dawley Rats <b>(Graduated 2019)</b>	<b>Main Supervisor</b>
<b>21.</b>	<b>Liana Adnan</b>	Antioxidant profile and activity of red and white flesh pitaya (Graduated)	<b>Co-Supervisor</b>
<b>22.</b>	<b>Normahani Mohd Maid</b>	Antimicrobial activity from skin, pulp and seed of red flesh Pitaya (Graduated)	<b>Co-Supervisor</b>
<b>23.</b>	<b>Mehrdad Yazdanmehr</b>	Winged-bean Protein Hydrolysates Exhibiting High ACE Inhibitory Activities (Graduated)	<b>Co-Supervisor</b>
<b>24.</b>	<b>Mohd. Asraf Zainuddin</b>	Kinetic Modeling of Antioxidant Degradation of selected fruits (Graduated)	<b>Main Supervisor</b>

<b>25.</b>	<b>Choon Sea Yeat</b>	Effect of Seeding Density and Watering Duration on Quality Attributes and phytochemical content of Taugeh (Graduated)	<b>Co-Supervisor</b>
<b>26.</b>	<b>Norzaleha Kassim</b>	Antioxidant activity and phenolic compo of different varieties of coloured rice (Graduated)	<b>Co-Supervisor</b>
<b>27.</b>	<b>Vikneswari Perumal</b>	Antidiabetic property of <i>Cosmos caudatus</i> in Rats	<b>Co-Supervisor</b>
<b>28.</b>	<b>Adilla Jamaluddin</b>	Effect of ripening on betacyanin content antioxidant activity of pitaya (Graduated)	<b>Co-Supervisor</b>
<b>29.</b>	<b>Hani Hafeeza Halim</b>	Ergogenic activity of coconut water (graduated)	<b>Co-Supervisor</b>
<b>30.</b>	<b>Farah Amna Othman</b>	Toxicological study of <i>cosmos caudatus</i>	<b>Co-Supervisor</b>

## PUBLICATION

1. **Abdul-Hamid, A.** and O. Fennema. \* (1995). Reaction conditions in vitro affect rate of lipase-catalysed hydrolysis of olive oil. *Journal of Food Lipids* 2(3);155-168.
2. **Abdul-Hamid, A.** and O. Fennema. \* (1995). Various Dietary Fibers decrease the rate of lipase-catalyzed hydrolysis of olive oil in vitro. *Journal of Food Lipids* 2(3);169-180
3. **Abdul-Hamid, A.** and O. Fennema\* (1995). Revival of inhibited in vitro lipolysis. *Journal of Food Lipids* 2(3);181-192.
4. **Abdul-Hamid, A.** and O. Fennema\* (1995). Effect of acidification/neutralization on the ability of dietary fiber to inhibit lipolysis in vitro. *Journal of Food Lipids* 2(3);193-206
5. Emenhiser, C., Notturno, M.H., **Abdul-Hamid, A.** and O. Fennema. \* (1995) Rate of lipase-catalyzed hydrolysis of olive oil in vitro as influence by reactant concentrations and other conditions. *Journal of Food Lipids* 2;107-120.

6. **Abdul-Hamid, A.\*** and Zainon Hairon (1997). Effects of processing on dietary fiber contents of selected legumes and cereals (1997). *Malaysian Journal of Nutrition*, 2:131-136
7. **Abdul-Hamid, A.\*** Nik Ruslawati Nik Mustafa and Thed, S.T. (1999). Extraction and characterization of antioxidant from cocoa by-products. *Food Chemistry*. 64, 199-202.
8. **Abdul-Hamid, A.\*** and Yu Siew Luan (1999). Functional properties of dietary fiber extracted from defatted rice bran. *Food Chemistry* 68(1):15-19.
9. M. Hussin, **Abdul-Hamid, A. \*** and D. Mat Hashim. (1999). Effect of Different Drying Methods on Several Phytochemicals in Herbal Preparation of 8 Medicinal Plants. *Malaysian Journal of Nutrition*. 5(1&2), 47-54.
10. **Abdul-Hamid, A.\*** Gan, H.B. and Bakar, J. (2002). Nutritional Quality of Spray Dried Protein Hydrolysate from Fresh Water Fish. *Food Chemistry*; 78: 69-74
11. **Abdul-Hamid. A.\***, Zamree, M.S., Muse R. and Mohamed, S. (2002). Characterisation of antioxidative activities of various extracts of *Centella asiatica*. *Food Chemistry*; 77:465-469
12. Mohd. Zin, Z., **Abdul-Hamid, A\***. and Osman, A. (2002) Antioxidative Activity of Extracts from Mengkudu (*Morinda citrifolia L.*) Root, Fruit and Leaf. *Food Chemistry*; 78:227-231
13. Zainol, M.K., **Abdul-Hamid, A\*.**, Yusof, S. and Muse, R. (2003) Antioxidative Activity and Total Phenolic Compounds of Leaf, Root and Petiole of Four Accessions of *Centella asiatica* (L.) Urban. *Food Chemistry*; 81; 575-581
14. Irine, R., Noordin,M.M., Radzali, M., **Azizah, H.**, Hapizah, N., Mahinda, Y.A. & Suhaila, M. (2003). Antioxidant and Hypcholesterolemic Effects of *Elaeis guineensis* Frond Extract on Hypercholesterolemic Rabbits. *ASEAN Food Journal*; 12 (3);137-147
15. Mohd. Zin, Z., **Abdul-Hamid, Azizah\*.**, Osman, A. and Saari, N. (2006). Antioxidative activities of chromatographic fractions obtained from root, fruit and leaf of Mengkudu (*Morinda citrifolia*, L.) *Food Chemistry*; 94:169-178
16. Hussein, M., **Abdul-Hamid, Azizah\*.**, Mohamed, S., Saari, N. and Ismail, M. Mohd. Hair Bejo (2007). Protective effect of *Centella asiatica* extract and powder on Oxidative Stress in rats. *Food Chemistry* 100: 535-541
17. Mohd Zin, Z., **Abdul Hamid, Azizah.\***, Osman, A. Saari, N. and Misran, A (2007). Isolation and Identification of Antioxidative Compound from Fruit of Mengkudu (*Morinda citrifolia L.*). *International Journal of Food Properties*

18. R. Rohaya R.S., **Abdul-Hamid, Azizah\***, Osman, A. and Saari, N (2007). The Chemical Composition of *in situ* stabilized rice bran derived from different milling fractions, *Journal of Food Composition and Analysis*, 20:627-637
19. Hussein, M., Abdul-Hamid, A.\*., Mohamed, S., Saari, N. Bakar, F. and S.P. Dek (2009). Modulation of lipid Metabolism by centella asiatica in oxidative stress rats. *Journal of Food Science*, 74(2):72-78.
20. Mohd Sabri Pak-Dek, Azizah Abdul-Hamid\*, Azizah Osman and Cui San Soh. (2008). Inhibitory Effect of Morinda citrifolia L. on lipoprotein lipase activity. *Journal of Food Science*, 73(8):595-598
21. Azrina, A., Maznah, I. and Azizah, A.H. (2008). Extraction and Determination of Oryzanol in Rice Bran of mixed herbarium UKMB;AZ 6807:MR 185,AZ 6808:MR 211,AZ 6809:MR 29, ASEAN Food Journal, 15 (1):89-96
22. Azizah Abdul-Hamid\*, Kerk Chai Wee, Azizah Osman and Azizah Misran (2009) Total phenolics, carotenoids and radical scavenging activity of cooked. Pumpkin. *International Food Research Journal*. 16 (2):45-51
23. M. Khairunnisak, Azizah Abdul Hamid\*, Jinap, and A. Nurul Izzah (2009). Quantitative analysis of free glutamic acid in processed foods, dishes and condiments. *Food Additives and Contaminants*. 26 (4):
24. Mustafa, R. A., Azizah Abdul Hamid\* and Mohamed S. (2010). Total Phenolic compounds, Flavonoids and radical scavenging activity of selected tropical plants. *Journal of Food Science*. 75 (1): C28-C35
25. Mohd. Zainol, M.K., Abdul-Hamid\* A., Abu Bakar, F and Pak Dek, Sabri. (2009). Effect of different drying methods on the degradation of selected flavonoids in Centella asiatica. *Int Fd Research J.* 16 (4): 531-537
26. M.S. Liza, R. Abdul R, Mandana B, Jinap S., Rahmat, A., Zaidul I. S. S. M., and A. Hamid. (2010). Supercritical Carbon dioxide Extraction of bioactive flavonoids from Strobhilantes crispus (Pecah Kaca) *Food and Bioproducts Processing* 88:319-326
27. M. Bimakr, R.A. Rahman, 1F.S. Taip, L.T. Chuan, A. Ganjloo L. Md Salleh, J. Selamat and Azizah Hamid (2008). Supercritical Carbon Dioxide (SC-CO<sub>2</sub>) Extraction of Catechin, Epicatechin, Rutin and Luteolin from Spearmint (*Mentha spicata* L.) Leaves. *World Applied Sciences Journal* 5 (4): 410-417

28. M. Bimakr, R.A. Rahman, F.S. Taip, L.T. Chuan, A. Ganjloo L., J. Selamat and Azizah Hamid (2009). Supercritical Carbon Dioxide (SC-CO<sub>2</sub>) Extraction of Bioactive Flavonoid Compounds from Spearmint (*Mentha spicata* L.) Leaves. European Journal of Scientific Research, 33 (4): pp 679-690
29. Willy Pranata Widjaja, Fatimah Abu Bakar, Nazamid Saari, Zamri Ishak and Azizah Abdul-Hamid (2009). Lipid Quality Deterioration of Bagride Catfish (*Mystus nemurus*) During Storage. Research J. Biological Sciences 4(4):525-530
30. Mansor Bin Ahmad, Kamyar Shameli, Majid Darroudi, Wan Md Zin Wan Yunus, Nor Azowa Ibrahim, Azizah Abdul Hamid and Mohsen Zargar (2009). Synthesis and Antibacterial Activity of Silver/Montmorillonite Nanocomposites. Research Journal of Biological Sciences 4 (9): 1032-1036
31. Mansor Bin Ahmad, Majid Darroudi, Kamyar Shameli, Nor Azowa Ibrahim, Azizah Abdul Hamid and Mohsen Zargar (2009). Antibacterial Effect of Synthesized Silver/Montmorillonite Nanocomposites by UV Radiation Method. Research Journal of Biological Sciences 4 (9): 1056-1060
32. Shahin Roohinejad, Hamed Mirhosseini, Nazamid Saari, Shuhaimi Mustafa, Ismail Alias Anis Shobirin MH, Azizah Hamid, and Mohd Yazid Manap. (2009). Evaluation of GABA, crude protein and amino acid composition from different varieties of Malaysian's Brown Rice. Australian Journal of Crop Science 3(4); 184-190
33. Shahin Roohinejad, Hamed Mirhosseini, Nazamid Saari, Shuhaimi Mustafa, Ismail Alias Anis Shobirin MH, Azizah Hamid, and Mohd Yazid Manap. (2009). Effect of hypcholesterolemic properties of Brown rice varieties containing different gamma aminobutyric acid (GABA) levels on Sprague-Dawley male rats. Journal of Food, Agriculture and Environment, 7 (3 & 4): 197-203
34. Nurul Aqilah Mohd Zaini, Akanbi Taiwo Olusesan, Anwarul Hidayah Zulkifli, Fatimah Abu Bakar, Azizah Osman, Azizah Abdul Hamid and Nazamid Saari (2010). Chemical and Microbiological Safety of Chili Bo Journal of Food Protection, 73(3):pp541-546
35. Shahin Roohinejad, Hamed Mirhosseini, , Nazamid Saari, Shuhaimi Mustafa, Ismail Alias Anis Shobirin MH , Azizah Hamid, and Mohd Yazid Manap. (2010). Effect of pre-germination times of Brown rice on Serum Cholesterol level in Experimentally induced hypercholesterolemic rats. Journal of Science of Food and Agriculture 90 (2):245-251
36. Onsa, G.H., Abdul-Hamid, A., Selamat, J. , Bakar, J.b , Manap, M.Y. , Bin Saari, N.. Analysis of thermal inactivation kinetics of membrane-bound polyphenol oxidases and peroxidases from *Metroxylon sagu*. (2011) Journal of Food Biochemistry, 35 (3), pp. 819-832

37. Nurul Aqilah Mohd Zaini, Akanbi Taiwo Olusesan, Anwarul Hidayah Zulkifli, Fatimah Abu Bakar, Azizah Osman, Azizah Abdul Hamid and Nazamid Saari (2010). Kundur [Benincase hispida (Thunb) Cogn. ] A potential Source for Valuable Nutrients and Functional Foods (2010). Food Research International, 44 (7), pp. 2368-2376
38. Muhammad Ibrahim, K. Nagendra Prasad, Amin Ismail, Azrina Azlan and Azizah Abdul Hamid. (2010). Physicochemical Composition and antioxidant activities of underutilized Mangifera pajang Fruit. African Journal of Biotechnology, 9(28), pp.4392-4397
39. Chang Chew Sew, Nurul Aqilah Mohd Zaini, Farooq Anwar, Azizah Abdul Hamid and Nazamid Saari (2010). Nutritional composition and oil fatty acids of kundur [Benincasa Hispida (Thunb.) Cogn.] seed. Pak. J. Bot., 42(5): 3247-3255.
40. Shahin Roohinejad, Hamed Mirhosseini, Anis Shobirin MH, Azizah Hamid, Nazamid Saari, Shuhaimi Mustafa, Ismail Aliaand Mohd Yazid Manap. (2009). Effect of Pre-germination time on Gamma Amino Butyric Acid (GABA) contents in different varieties of Malaysian Brown Rice. International Journal of Food Properties 14 (6):1386-1399
41. Najla Gooda Sahib, Azizah Abdul Hamid\*, David Kitts, Monica Purnama, Nazamid Saari and Faridah Abas (2011). The effects of Morinda citrifolia, Momordica charantia and Centella asiatica extracts on Lipoprotein Lipase and 3T3-L1 preadipocytes. Journal of Food Biochemistry 35(4):1186-1205
42. Heidarpour, F., Mohammadabadi, M.R., Zaidul, I.S.M., Maherani, B., Saari, N., Hamid, A.A., Abas, F., Manap, M.Y.A., Mozafari, M.R. (2011). Use of Probiotics in oral delivery of bioactive compounds: A nanotechnology perspective, Pharmazie, 66 (5), pp. 319-324
43. S. Y. Choon, Siti Hajar Ahmad, Phebe Ding, Uma Rani Sinniah, Azizah Abdul Hamid (2010). Morphological and chemical characteristics of Black Gram (*vigna mungo L.*) sprouts produced in a modified atmosphere chamber using four seeding densities Pertanika 33(2): 179-191.
44. Gooda Sahib, N., Abdul-Hamid, Azizah\*, Saari, N., Abas, F., Pak Dek, S. and Rahim, M. (2012). Antioxidative and Anti Pancreatic Lipase activity of selected tropical herbs. Int. Journal of Food Properties 15 (3), pp. 569-578
45. Jahurul, H. A. M., Ang Seah Jing, Hajeb, P., Jinap, S.\* , Abdul-Hamid, A., Lioe, H. N., Zaidul, I.S (2010). Dietary exposure of heterocyclic amines in protein rich high temperature cooked foods in Malaysia. Food Additives and Contaminants 27(8): 1060-1071

46. Liana Adnan, Azizah Osman and Azizah Abdul Hamid (2011). Antioxidant Activity of Different Extracts of Red Pitaya (*Hylocereus Polyrhizus*) Seed. International Journal of Food Properties 14 (6):1171-1181
47. M.Bimakr, R. Abdul R, Farah Saleena Taip, Ali Ganjloo, Liza Md Salleh, Jinap S., A. Hamid. and Zaidul I. S. S. M (2011). Comparison of different extraction methods for the extraction of major bioactive flavonoid compounds from spearmint (*Mentha spicata L.*) leaves.Food and Bioproducts Processing 89:67-72
48. Hassan, Fouad, Ismail, Amin, Abdul-Hamid, Azizah, Azlan, Azrina. (2011) Identification and quantification of phenolic compounds in bambangan (*Mangifera pajang kort.*) peels and their free radical scavenging activity. Journal of Agricultural and Food Chemistry 59:9102-9111
49. Hassan, Fouad, Ismail, Amin, Abdul-Hamid, Azizah, Azlan, Azrina and Sadeq Hasan Al-sheraji (2011). Characterisation of fibre-rich powder and antioxidant capacity of *Mangifera pajang K.* fruit peels Food Chemistry 126 (2011) 283-288
50. Zargar, M., Abdul-Hamid, A. \*, Mustafa, R., Abu Bakar, F., Jahanshiri, F. and Pak-Dek, M.S. (2011). Bioactive compounds and antioxidant activity of different extracts of *Vitex negundo L.* Journal of Medicinal Plants Research Vol 5(12): 2525-2532
51. Mar Mar, W., Abdul-Hamid, A. \*, Sham Bahrin, B., Anwar, F., Sabu, M.C. and Pak Dek, S. (2011). Phenolic compounds and antioxidant Activity of Peanut's Skin, Hull, Raw kernel and Roasted kernel Flour. Pakistan Journal of Botany 43(3): 1635-1642
52. Mar Mar, W., Abdul-Hamid, A. \*, Sham Bahrin, B. and Pak Dek, S. (2011). Effects of Roasting on Phenolics Composition and Antioxidant Activity of Peanut Kernel. European Food Research Technology 233 (4):599-608
53. Law, S.V., Abu Bakar, F., Mat Hashim, D. and Abdul Hamid, A. (2011). Mini review. Popular fermented foods and beverages in Southeast Asia. International Food Research Journal 18:474-483
54. Shukri, Radhiah; Mohamed, Suhaila, Mustapha, Noordin M and Abdul-Hamid, Azizah (2011). Evaluating the toxic and beneficial effects of *Archidendron jiringa* beans in normal and diabetic rats. Journal of Science of Food and Agriculture 91 (14): pp. 2697-2706
55. Mohamad Shofian N., Abdul-Hamid, A.\* and Osman A. (2011). Effect of freeze-Drying on the Antioxidant Compounds and Antioxidant of Selected tropical Fruits. Int. J. of Molecular Science 12:4678-4692
56. Zargar, M., Abdul-Hamid,A. \*, Abu Bakar, F., Jahanshiri, F., Mariana N. S, Mansor Ahmad and Kamyar Shamel (2011). Green Synthesis and Antibacterial Effect of Silver Nanoparticles Using *Vitex Negundo L.* Molecules 16, 6667-6676

57. Mohd Sabri Pak-Dek, Azizah Abdul-Hamid\*, Azizah Osman and Mastura Markom (2011). Effects of extraction techniques on phenolic components and antioxidant property of Mengkudu (*Morinda citrifolia L.*) leaf extracts Journal of Medicinal Plant Research vol. 5 (20) 5050-5057
58. Behnaz Hassanbaglou, Azizah Abdul Hamid\*, Norihan Abdul Saleh, Ahmad Sahib Abdulamir, Alfi Khatib and Sabu, M.C. (2012). Antioxidant activity of different extracts from leaves of pereskia bleo (Cactaceae) Journal of Medicinal Plant Research 6(15): 2932-2937
59. Nurmahani M.M., A., \*Osman, A., Abdul Hamid, F., Mohamad Ghazali and M.S., Pak Dek (2012). Antibacterial property of *Hylocereus polyrhizus* and *Hylocereus undatus* peel extracts. International Food Research Journal, 19(1): 77-84
60. Bahareh Sarmadi , Farhana Aminuddin, Muhamir Hamid , Nazamid Saari, Azizah Abdul-Hamid and Amin Ismail (2012). Hypoglycemic effects of cocoa (*Theobroma cacao L.*) autolysates using in vitro and in vivo models. Food Chemistry 134(2):905-911
61. Mohd. Zainuddin M. A., Abdul-Hamid, Azizah\*, Mohammad Shofian, N., Pak Dek, M.S. and Anwar, F. (2012). Effect of Fluorescent Light on Selected Antioxidant Compounds and Antioxidant Activity During Storage of Fresh-cut Carambola (*Averrhoa carambola L.*) Fruits. Pakistan Journal of Botany, 44(5): pp1681-1688
62. Nur Adilla Jamaludin, Phebe Ding and Abdul-Hamid, Azizah (2011) Physico-chemical and structural changes of red-fleshed dragon fruit (*Hylocereus polyrhizus*) during fruit development. Journal of the Science of Food and Agriculture. 91(1):278-285
63. Kabir Mustapha Umar, Abdulkarim Sabo Mohammed, Son Radu, Azizah Abdul Hamid and Nazamid Saari (2011). Extraction and Isolation of PCR amplifiable genomic DNA from *camellia sinensis* (L.) Kuntze. Journal of Food, Agriculture & Environment 9 (3&4): 529-532
64. Gooda Sahib, N., Abdul-Hamid, Azizah\*, Saari, N., Abas, F., (2012). Antiobesity activity of tropical herbs: A Review. The Scientific world Journal 2012, art. no. 436039
65. Liza, M.S., R. Abdul R, Mandana B, Jinap S., Rahmat, A., Zaidul I. S. S. M., and A. Hamid (2012). Supercritical fluid extraction of flavonoid from *Strobilanthes crispus* (pecah kaca) and its comparison with solvent extraction. International Journal Food Research 19(2):503-508
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## **RESEARCH ACTIVITIES**

## **Research Completed**

- |           |                       |          |  |
|-----------|-----------------------|----------|--|
| <b>1.</b> | <b>Title</b>          | <b>:</b> | <b>Megadoses intake of Ascorbate and its effect on Calcium Excretion</b>   |
|           | <b>Date</b>           | <b>:</b> | <b>1986</b>  |
|           | <b>Source of Fund</b> | <b>:</b> | <b>UPM</b>   |
|           | <b>Amount</b>         | <b>:</b> | <b>RM5000</b>  |
| <b>2.</b> | <b>Title</b>          | <b>:</b> | <b>Effect of different types of Dietary Fiber on Lipase-Catalyzed hydrolysis of Olive oil. An in vitro study</b> |
|           | <b>Date</b>           | <b>:</b> | <b>1990 – 93 (Towards the award of PhD)</b>  |
| <b>3.</b> | <b>Title</b>          | <b>:</b> | <b>Dietary Fiber in selected Cereals and Legumes</b>   |
|           | <b>Date</b>           | <b>:</b> | <b>1994</b>  |
|           | <b>Source of Fund</b> | <b>:</b> | <b>UPM (short term grant)</b>  |
|           | <b>Amount</b>         | <b>:</b> | <b>RM10000</b>   |
| <b>4.</b> | <b>Title</b>          | <b>:</b> | <b>Extraction of β-glucan from Rice and Rice derivatives</b>   |
|           | <b>Date</b>           | <b>:</b> | <b>1995</b>  |
|           | <b>Source of Fund</b> | <b>:</b> | <b>UPM (short term grant)</b>  |
|           | <b>Amount</b>         | <b>:</b> | <b>RM10000</b>   |
| <b>5.</b> | <b>Title</b>          | <b>:</b> | <b>Utilization of Cocoa by-products for Food and Food Ingredients</b>  |
|           | <b>Source of Fund</b> | <b>:</b> | <b>IRPA (01-02-04-0117)</b>  |
|           | <b>Date</b>           | <b>:</b> | <b>1996 - 2000</b>   |
|           | <b>Allocation</b>     | <b>:</b> | <b>RM129000</b>  |
| <b>6.</b> | <b>Title</b>          | <b>:</b> | <b>Development of Malaysian Food Composition Database</b>  |
|           | <b>Source of Fund</b> | <b>:</b> | <b>IRPA (01-05-01-0001)</b>  |
|           | <b>Date</b>           | <b>:</b> | <b>1996 - 2000</b>   |
|           | <b>Allocation</b>     | <b>:</b> | <b>RM208500</b>  |
| <b>7.</b> | <b>Title</b>          | <b>:</b> | <b>Development of Biological Assays for Antioxidative properties of <i>Centella asiatica</i></b>                 |

	<b>Source of Fund</b>	:	<b>Ministry of Science (Top-down Project)</b>
	<b>Date</b>	:	<b>1999-2001</b>
	<b>Allocation</b>	:	<b>RM40000 (1999)</b>
			<b>RM65000 (2000)</b>
			<b>RM60000 (2001)</b>
<b>8.</b>	<b>Title</b>	:	<b>Development of Pineapple Powder</b>
	<b>Source of Fund</b>	:	<b>Malaysian Pineapple Industry Board (Contract Research)</b>
	<b>Date</b>	:	<b>2000</b>
	<b>Allocation</b>	:	<b>RM40000</b>
<b>9.</b>	<b>Title</b>	:	<b>Development of functional ingredients/foods from various components of Rice Bran</b>
	<b>Source of Fund</b>	:	<b>IRPA (01-02-04-0436)</b>
	<b>Date</b>	:	<b>2000-2002</b>
	<b>Allocation</b>	:	<b>RM118000</b>
<b>10.</b>	<b>Title</b>	:	Development of standardised catechin-rich extracts from <i>Morinda citrifolia</i>
	<b>Source of Fund</b>	:	<b>IRPA (01-02-04-10051-EAR)</b>
	<b>Date</b>	:	2005-2008
	<b>Allocation</b>	:	<b>RM157000</b>
<b>11.</b>	<b>Title</b>	:	Exposure of Malaysian Population to Glutamate
	<b>Source of Fund</b>	:	<b>SEAAGS (South East Asia Association Glutamate Sciences)</b>
	<b>Date</b>	:	2006-2008
	<b>Allocation</b>	:	<b>RM170000</b>
<b>12.</b>	<b>Title</b>	:	Utilization of <i>Morinda citrifolia</i> (L), <i>momordica</i> and <i>centella asiatica</i> extract as possible treatment for alleviating obesity and its related disorders
	<b>Source of Fund</b>	:	<b>MOSTE (02-01-04-SF0388)</b>
	<b>Date</b>	:	2007-2009
	<b>Allocation</b>	:	<b>RM199000</b>
<b>13.</b>	<b>Title</b>	:	Antioxidant preservation technique for functionality Enhancement of minimally processed fruits and Vegetables

	<b>Source of Fund</b>	:	<b>MOHE (01-01-07-150FR)</b>
	<b>Date</b>	:	2007-2009
	<b>Allocation</b>	:	<b>RM201000</b>
<b>14.</b>	<b>Title</b>	:	Production of Novel Functional Food Ingredients with Health Benefits from various Local Produce
	<b>Source of Fund</b>	:	<b>RUGS (02-01-07-0014RU)</b>
	<b>Date</b>	:	2007-2009
	<b>Allocation</b>	:	<b>RM300000</b>
<b>15.</b>	<b>Title</b>	:	Novel Bioactive Compound/Nutraceutical and their Functionalities Derived from <i>Vitex Negundo (Lemuni Hitam)</i>
	<b>Source of Fund</b>	:	<b>MOHE (01-11-08-643FR)</b>
	<b>Date</b>	:	2009-2011
	<b>Allocation</b>	:	<b>RM94000</b>
<b>16.</b>	<b>Title</b>	:	Milk Tablet Project
	<b>Source of Fund</b>	:	<b>MOSTE (Techno Fund)</b>
	<b>Date</b>	:	<b>2009-2010</b>
	<b>Allocation</b>	:	<b>RM77000 (Consultant)</b>
<b>17.</b>	<b>Title</b>	:	Functional Ingredient and Nutraceuticals with Anti-Diabetic and Antiobesity Activity from <i>Pereskia bleo</i>
	<b>Source of Fund</b>	:	<b>MOSTE (05-01-04-SF1119)</b>
	<b>Date</b>	:	2010-2011
	<b>Allocation</b>	:	<b>RM238,000</b>
<b>18.</b>	<b>Title</b>	:	<b>Metabolomics Study for The Development of Functional Foods with Anti-Diabetic Property</b>
	<b>Source of Fund</b>	:	<b>ABI R&amp;D Initiatives</b>
	<b>Date</b>	:	2011-2013
	<b>Allocation</b>	:	<b>RM2.5 Mil</b>
<b>19.</b>	<b>Title</b>	:	<b>Dietary Phytochemical Strategies for obesity using metabolomic research</b>
	<b>Source of Fund</b>	:	<b>MOSTE (Sciencefund)</b>

- Date** : 2012-2014  
**Allocation** : RM500,000
- 20. Title** : **Ergogenic Activity of *Morinda citrifolia* in prevention of Obesity and its Complication**  
**Source of Funding** : NRGs (MOA)  
**Date** : 2015-2017  
**Allocation** : RM406,000
- 21. Geran Putra** : UPM  
                           2018 – 2020  
**Anti-diabetic property of *Citrullus lanatus* leaf extract in high fat diet and STZ induced diabetic Sprague dawley rats**
- 22. IPS Grant** : UPM  
                           2017-2019  
**Metabolomic Approaches to Investigate the Ergogenic Effect of *Morinda Citrifolia L* Extract in Obese Sprague Dawley Rats**  
**Ergogenic properties and metabolites identification of five different varieties of Dates (*Phoenix dactylifera L.*)**  
**Anti-aging, radical scavenging activities and metabolites identification of six Malaysian herbs**

**PATENTS FILED :**

- TITLE OF INVENTION:** Extract from *Cosmos caudatus* for use as antidiabetic and anti-obesity agent- 2015
- TITLE OF INVENTION:** Production of standardized extract from *Morinda citrifolia* leaf using supercritical fluid extraction - 2009



