

# CURRICULUM VITAE



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

Nama Penuh <i>(Full Name)</i>	Norhaizan Mohd. Esa	Gelaran <i>(Title)</i> : Assoc. Prof.
No. MyKad / No. Pasport <i>(Mykad No. / Passport No.)</i>	Warganegara <i>(Citizenship)</i> Malaysia	Bangsa <i>(Race)</i> Malay
Jawatan <i>(Designation)</i>	Deputy Dean of Academic (Health Sciences) and Students Affair and Alumni	Tarikh Lahir <i>(Date of Birth)</i> 11 October 1969
		Jantina <i>(Gender)</i> Female

Alamat Semasa <i>(Current Address)</i>	Jabatan/Fakulti <i>(Department/Faculty)</i>	E-mel dan URL <i>(E-mail Address and URL)</i>
Tel:	Department of Nutrition and Dietetics, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, 43400 Serdang, Selangor  Tel: 03-89472427 Fax: 03-89426769	E-mail: nhaizan@upm.edu.my  URL:  H/P:

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

Nama Sijil / Kelayakan <i>(Certificate / Qualification obtained)</i>	Nama Sekolah Institusi <i>(Name of School / Institution)</i>	Tahun <i>(Year obtained)</i>	Bidang pengkhususan <i>(Area of Specialization)</i>
BSc (Hons)	Universiti Pertanian Malaysia	1993	Biochemistry and Microbiology
MSc	Universiti Pertanian Malaysia	1996	Enzyme Technology
PhD	University of Surrey, Guildford, UK	2001	Nutritional Biochemistry

## C. KEMAHIRAN BAHASA *(Language Proficiency)*

Bahasa / Language	Lemah <i>Poor (1)</i>	Sederhana <i>Moderate (2)</i>	Baik <i>Good (3)</i>	Amat Baik <i>Very good (4)</i>	Cemerlang <i>Excellent (5)</i>
English			/		
Bahasa Melayu					/
Chinese					
Lain-lain <i>(other)</i> :					

<b>D. PENGALAMAN SAINTIFIK DAN PENGKHUSUSAN</b> ( <i>Scientific experience and Specialisation</i> )				
<i>Organization</i>	<i>Position</i>	<i>Start Date</i>	<i>End Date</i>	<i>Expertise</i>
Department of Biochemistry and Group on the Molecular and Cell Biology of Lipids, School of Molecular and 328 Heritage Medical Research Centre, University of Alberta, Edmonton, Canada	Sabbatical	1 May 2010	30 Jan 2011	Conducted research entitle 'Possible role of miR 339-5p on CT $\alpha$ '

<b>E. PEKERJAAN</b> ( <i>Employment</i> )				
<i>Majikan / Employer</i>	<i>Jawatan / Designation</i>	<i>Jabatan / Department</i>	<i>Tarikh lantikan / Start Date</i>	<i>Tarikh tamat / Date Ended</i>
Universiti Putra Malaysia	Tutor	Nutrition and Dietetics	1997	2001
Universiti Putra Malaysia	Lecturer	Nutrition and Dietetics	Jun 2001	Until present

<b>F. ANUGERAH DAN HADIAH</b> ( <i>Honours and Awards</i> )				
<i>Name of awards</i>	<i>Title</i>	<i>Award Authority</i>	<i>Award Type</i>	<i>Year</i>
<i>Academic Awards</i>	1. Recipient of Mevlana Exchange Program Award (At Firat University, Elazig, Turkey)	Turkey	Fellowship	2015
	2. Recipient of The 3 <sup>rd</sup> South East Asia Nutrition Leadership Program (SEA-NLP) Scholarship, by SEAMEO-TROPMED.	SEAMEO-TROPMED	Fellowship	2003
	3. Bronze Medal in Pameran Rekacipta, Penyelidikan Inovasi UPM 2011". Title: Anti-cancer effects of phytic acid extracted from Malaysian rice bran on human colorectal adenocarcinoma cells.	UPM	University	2011
	4. Silver Medal in "Pameran Rekacipta, Penyelidikan Inovasi UPM 2010". Title: The Suppression Mechanism of Rice Bran Phytic Acid in <i>in vivo</i> and <i>in vitro</i> Studies as Anticancer Agent	UPM	University	2010
	5. Bronze Medal "Pameran Rekacipta, Penyelidikan Inovasi UPM 2009". Title: The Potential Anticancer Effect of Rice Bran Phytic Acid in Colonic Cancer Development.	UPM	University	2009
	6. Gold Medal in "Pameran Rekacipta, Penyelidikan Inovasi UPM 2006". Title: Possible Synergistic Effects of an Antioxidative Compound Phytic Acid (IP6) on Colon Cancer Cells, <i>in vitro</i> and <i>in vivo</i> .	UPM	University	2006

	7. Bronze medal in ‘Pameran Rekacipta, Penyelidikan Inovasi UPM 2005’. Title: Functional components of Roselle seed.	UPM	University	2004
Non-Academic Awards				
Awards of Merit	Anugerah Khidmat Cemerlang	UPM	Universiti	2005, 2009

**G. SENARAI PENERBITAN (Sila masukan nama pengarang, tajuk, nama jurnal, jilid, muka surat dan tahun diterbitkan)** (*List of publications – author (s), title, journal, volume, page and year published*)

Journal	<ol style="list-style-type: none"> <li>1. Chan KW, Maznah I, <b>Norhaizan ME</b>, Noorjahan Banu MA, Mustapha UI, Ooi DJ and Nicholas MHK (2017). Dietary supplementation of defatted kenaf (<i>Hibiscus cannabinus</i> L.) seed meal and its phenolics-saponins rich extract effectively attenuate diet-induced hypercholesterolemia in rats. <i>Food and Function</i> (Accepted) (Q1).</li> <li>2. Amirah Haziyah I, Nurul Husna S, <b>Norhaizan ME</b>, Hasnah B and Amin I (2017). From weed to medicinal plant: Antioxidant capacities and phytochemicals of various extracts of <i>Mikania micrantha</i>. <i>Int J Agric Biol</i>, (Accepted) (Q2).</li> <li>3. Katyakyini M, Sivapragasam G, Tan WS, S. Suresh K, <b>Norhaizan ME</b>, Palanisamy A, G Chandramohan and Khalid S. Al-Numair (2017). In vitro wound healing potential of stem extract of <i>Alternanthera sessilis</i>. <i>Evidence-Based Complementary and Alternative Medicine</i> (Accepted) (Q2).</li> <li>4. Tan BL, <b>Norhaizan ME</b> and Liew PP (2017). Nutrients and oxidative stress: Friend or foe? <i>Oxidative Medicine and Cellular Longevity</i> (Accepted) (Q2).</li> <li>5. Katyakyini M, Sivapragasam G, Palanisamy A, S. Suresh Kumar, <b>Norhaizan ME</b>, Arthanari U and Sharida F (2017). Wound healing potential of edible plants – A short review. <i>Pak. J. Pharm. Sci.</i> (Accepted).</li> <li>6. Pandurangan AK, Mohebbali N, Hasanpourghadi M, <b>Esa NM</b>, Munusamy MA, Arfajj AA (2017). Caffeic acid phenethyl ester protects against dextran sulfate sodium-induced experimental ulcerative colitis. <i>American Journal of Translational Research</i>. (Accepted) (JIF-2.829, (Q2).</li> <li>7. Radhakrishnan N, Lam KW and <b>Norhaizan ME</b> (2017). Molecular docking analysis of phytic acid and 4-hydroxyisoleucine as COX-2, mPGES-2, Tyrosinase, HNE, MMP-2 &amp; 9, XO, SQS, NOS, HAR and LOX inhibitors, <i>Pharmacognosy Magazine</i> 13(51): S512-S518.</li> <li>8. Pandurangan AK, Salmiah S and <b>Norhaizan ME</b> (2017). Inositol-6 Phosphate (IP6) inhibits mTOR pathway and induces autophagy-mediated cell death in HT-29 colon cancer cells. <i>Archives of Medical Science</i> (Accepted) (Q2).</li> <li>9. Kumaran S, Pandurangan AK, Shenbhagaraman R, <b>Esa NM</b> (2017). Isolation and characterization of lectin from the Artist’s Conk medicinal mushroom, <i>Ganoderma applanatum</i> (Agaricomycetes) and evaluation of its antiproliferative activity in HT-29 colon cancer cells. <i>International Journal of Medicinal Mushrooms</i>, 19(8): 675-684.</li> <li>10. Mariamu NK, Mustapha UI, <b>Norhaizan ME</b> and Maznah I* (2017). Aqueous extract of <i>Clinacanthus nutans</i> ameliorates 1, 2- dimethylhydrazine-induced aberrant crypt foci formation in Sprague Dawley rats. <i>BMC Complementary and Alternative Medicine</i> (Accepted) (IF=2.02) (Q2).</li> <li>11. Farah Nadira A, Rosita J, <b>Norhaizan ME</b> and Mohd Redzwan S (2017). Screening of aflatoxin M1 occurrence in selected milk and dairy products in Terengganu, Malaysia. <i>Food Control</i>, 73(1):209-214</li> <li>12. Amirah Haziyah I, Nurul Husna S, <b>Norhaizan ME</b> and Hasnah B (2017).</li> </ol>
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Nutritional, phytochemical and pharmacological properties of *Mikania micrantha* Kunth: A Review. *Pertanika Journal of Scholarly Research Reviews*, 2(3): 123-132.

13. Palanisamy A, Zobir M and **Norhaizan ME** (2017). Sustained release of anticancer agent phytic acid from its chitosan-coated magnetic nanoparticles for drug delivery system. *Int J Nanomedicine*, 12:2361-2372 (IF=4.32) (Q1)
14. Tan BL and **Norhaizan ME** (2017). Scientific evidence-based of rice by-products for cancer prevention: Chemopreventive properties of waste products from rice milling on carcinogenesis *in vitro* and *in vivo*. *Biomed Res Int* Volume 2017, Article ID 9017902, 18 pages (IF=2.314) (Q3).
15. Somayeh K, **Norhaizan ME**, Vasudevan R, Roslida AH, Ashok Kumar P, Ali E and Patimah I (2017). *In vitro* antiproliferative and apoptosis inducing effect of *Allium atrovioleaceum* bulb extract on breast, cervical and liver cancer cells. *Frontiers in Pharmacology*, 8: 5 (Q2)
16. Somayeh K, Roslida AH, **Norhaizan ME**, Vasudevan R, Farizeh AGT and Patimah I (2017). Promotion of HepG2 cell apoptosis by flower of *Allium atrovioleaceum* and the mechanism of action. *BMC Complementary and Alternative Medicine* (2017) 17:104
17. Somayeh K, Vasudevan R, Roslida AH, **Norhaizan ME**, Ali E and Patimah I (2017). Flower extract of *Allium atrovioleaceum* triggered apoptosis, activated caspase-3 and down-regulated antiapoptotic Bcl-2 gene in HeLa cancer cell line, *Biomedicine and Pharmacotherapy* 89: 1216-1226.
18. Somayeh K, Roslida AH, Vasudevan R, **Norhaizan ME**, Pandurangan AK, Fatemeh D and Patimah I (2017). Cytotoxicity and pro-apoptotic effects of *Allium atrovioleaceum* flower extract by modulating cell cycle arrest, caspase-dependent and p53-independent pathway in breast cancer cell lines. *eCAM (Evidence-based Complementary and Alternative Medicine)* (Accepted) 2017 (IF=2.6) (Q2).
19. Jian AN, Soh KG, **Norhaizan ME**, Nabeel AA (2017). Home based physical activity intervention programme in war-torn country like Iraq. *International Journal of Geomate*, 12(30): 126-131
20. Pandurangan AK, Mohebbali N, Mohadeseh H, Rais M, and **Norhaizan ME** (2016). Boldine suppresses dextran sulfate sodium -induced mouse experimental colitis: NF- $\kappa$ B and IL-6/STAT3 as potential targets. *Biofactors* 2(3):247-58 (IF=4.59) (Q2).
21. Nadarajan S, Mustapha UI, **Norhaizan ME**, Norhasnida Z and Maznah I (2016). Effects of phenolic-rich extracts of *Clinacanthus nutans* on high fat and high cholesterol diet-induced insulin resistance. *BMC Complementary and Alternative Medicine* (2016) 16:88 (IF=2.02) (Q2).
22. Hadiza AA, Mustapha UI, Ooi DJ, **Norhaizan ME**, Rozita R and Maznah I (2016). Perinatal exposure to germinated brown rice and its gamma amino-butyric acid-rich extract prevents high fat diet-induced insulin resistance in first generation rat offspring. *Food and Nutrition Research*. 60: 30209 (IF=2.16) (Q1)
23. Lee ST, Voon PT, Ng TKW, **Norhaizan ME**, Lee VKM, Hazizi AS and Loh SP (2016). Palm based high oleic cooking oil and extra virgin olive oil diets do not affect markers of insulin resistance and glucose tolerance in overweight adults. *J Food Nutr Disor*, 5:5
24. Palanisamy A, Masoumeh TF, Tan WS, Sivapragasam Gothai, Sharida F, **Norhaizan ME** and Suresh SK (2016). Role of antioxidants and natural products in inflammation. *Oxidative Medicine and Cellular Longevity*, Volume 2016, Article ID 5276130, 15 pages (IF=3.36) (Q2).
25. Palanisamy A, Tan WS, Sivapragasam G, Katyakyini M, Sharida F, **Norhaizan ME**, Suresh KS (2016). Anti-inflammatory potential of ethyl

acetate fraction from *Moringa oleifera* by down-regulating the NF- $\kappa$ B Signaling pathway in LPS-stimulated macrophages. *Molecules*, 21, 1452 (IF=2.463) (Q2).

26. Lee SS, **Norhaizan ME** and Loh SP (2015). *In vitro* inhibitory activity of selected legumes against pancreatic lipase. *J Food Biochem* 39(4): 485–490.
27. Tan BL, **Norhaizan ME**, Huynh K, Heshu SR, Yeap SK, Hazilawati H and Roselina K (2015). Water extracts of brewers' rice induces apoptosis in human colorectal cancer cells via activation of caspase-3 and caspase-8 and downregulate the Wnt/ $\beta$ -catenin downstream signaling pathway in azoxymethane-induced colon carcinogenesis in rats. *BMC: Complementary and Alternative Medicine* 15:205 (Q2).
28. Tan BL, **Norhaizan ME**, Pandurangan AK, Hazilawati H and Roselina K (2015). Brewers' rice attenuated aberrant crypt foci developing in colon of azoxymethane-treated rats. *Pakistan J Pharmaceutical Sciences*, 29(1): 205-212.
29. Tan BL, **Norhaizan ME**, Ky H, Yeap SK, Hazilawati H, Roselina K (2015). Brewers' rice modulates oxidative stress in azoxymethane-mediated colon carcinogenesis in rats. *World J Gastroentero*, 21(29): 8826-8835 (Q2).
30. Tan BL, **Norhaizan ME**, Hazilawati H and Roselina K (2015). Water extract of brewers' rice induce antiproliferation of human colorectal cancer (HT-29) cell lines through induction of apoptosis. *European Rev Med Pharma Sci*, 19(6): 1-22-1029. (IF=1.093) (Q4).
31. Chang SK, Amin I, Teruyoshi Y, **Norhaizan ME**, Mohamad THB (2015). Antioxidant peptides purified and identified from the oil palm (*Elaeis guineensis* Jacq.) kernel protein hydrolysate. *J Functional Food* 14: 63-75, (IF=4.4) (Q1).
32. Pandurangan AK, Ghazal Saadat, **Norhaizan ME** and Amin I (2015). Dietary cocoa protects against colitis-associated cancer by activating Nrf2/Keap1 pathway. *BioFactors* 41(1): 1-14 (JIF= 3.00) (Q2).
33. Norshafawati AA, Rosita J\* and **Norhaizan ME** (2014). Body mass index as the predictor of high sensitivity C-reactive protein: A risk marker of cardiovascular disease. *Mal J Nutr* 21 (3): 291-302.
34. Faisal A, Amin I, **Norhaizan ME**, Chong PP (2015). Transcriptomics expression analysis to unveil the molecular mechanisms underlying the cocoa polyphenols treatment in diet-induced obesity rats. *Genomic* (IF=3.0) (In Press) (Q2).
35. Saghar E, **Norhaizan ME**, Seyed MM, Gholamali G, and Sepehr E (2014). Effects of gamma oryzanol supplementation on anthropometric measurements & muscular strength in healthy males following chronic resistance training. *Indian J Med Res* 139: 857-863, (IF=1.66) (Q2).
36. Siti Suriani A, **Norhaizan ME**, Hazilawati H, Fauziah O (2014). Histopathologic changes in liver and kidney tissues after treated with *Rhaphidophora decursiva* (Roxb.) schott extract in male Sprague Dawley rats. *Journal of Cytology & Histology* S4: 001. doi:10.4172/2157-7099.S4-001. (IF=1.06).
37. Tan BL, **Norhaizan ME**, Heshu Sulaiman Rahman, Hazilawati H and Roselina K (2014). Brewers' rice induces apoptosis in azoxymethane (AOM)-induced colon carcinogenesis in rats through suppression of cell proliferation and Wnt signaling pathway. *BMC Complementary and Alternative Medicine* 14:304. (IF=1.88) (Q2).
38. Pandurangan AK and **Norhaizan ME** (2014). Luteolin, a bioflavonoid inhibits colorectal cancer through modulation multiple signaling pathways. *Asian J Cancer Prevention*, 15(4): 5501-5508 (IF-1.27) (Q4).
39. Chiaw Mei Winne Sia, Amin I, **Norhaizan ME**, Akyiyirem AG, Chun WH and

- Yim HS (2014). The effectiveness of rambutan (*Nephelium lappaceum* L.) extract in stabilization of sunflower oil under accelerated conditions. *Antioxidant*, 3: 371-386.
40. Imam MU, Aminu I, Ooi DJ, Sarega N, Maznah I and **Norhaizan ME** (2014). Germinated brown rice regulates hepatic cholesterol metabolism and cardiovascular disease risk in hypercholesterolemic rats. *J Functional Food*. 8: 193-203 (IF=2.63) (Q1).
  41. Pandurangan AK and **Norhaizan ME** (2014). Signal transducer and activator of transcription 3: A promising target in colitis-associated colorectal cancer. *Asian J Cancer Prevention* 15(2): 551-560 (JIF= 1.27) (Q4).
  42. Chang SK, Hamajima H, Amin I, Yanagita T, **Mohd. Esa N** and Baharuldin MTH (2014). Cytotoxicity effect of oil palm (*Elaeisguineensis*) kernel protein hydrolysates. *Int Food Res J*. 21(3): 909-914.
  43. Chang SK, Amin I, Yanagita T, **Norhaizan ME**, Mohamad Taufik Hidayat B (2014). Biochemical characterization of soluble proteins, protein isolate and hydrolysates from oil palm (*Elaeis guineensis*) kernel. *Food Bioscience*, 7: 1-10.
  44. Chang SK, Amin I, Mohamad Taufik Hidayat B and **Norhaizan ME** (2014). Health promoting properties of protein hydrolysates produced from oil palm (*Elaeis guineensis*) kernel. *Food Science and Biotechnology* 23(4):1279-1285.
  45. Akmar Zuraini D, **Norhaizan ME**, Azrina A and Chan YM (2013). The trans fatty acids content of selected foods in Malaysia. *Mal J Nutr*, 19(1):87-99.
  46. Akmar Zuraini D, **Norhaizan ME**, Azrina A and Chan YM (2013). Trans fatty acids content in human milk and its association with maternal diet among lactating mothers in Bandar Baru Bangi. *Asia Pac J Clin Nutr*, 22 (3): 431-442 (Q3).
  47. **Norhaizan ME**, Lee Sin Tien, Hossini S, Gangadaran S, Ramezani Kapourchali F, Moghadasian MH (2013). Palm oil: Features and Applications. *Lipid Technology*, 25(2): 39-42 (Scopus).
  48. Azimah R., Azrina A, **Norhaizan ME**, Mohd Sokhini AM, Akmar Z (2013). Industrially Produced Trans Fatty Acids: Major Potential Sources in Malaysian Diet. *Int Food Res J* 20(3): 1157-1164 (Scopus).
  49. **Norhaizan ME**, Khairul-Kamilah AK, Zulkhairi A and Azrina A (2013). *In vivo* and *in vitro* antioxidant activity of white rice, brown rice and germinated brown rice and the effects on lipid peroxidation and liver enzymes in hyperlipidaemic rabbits. *Food Chem.*, 141: 1306-1312 (Q1).
  50. Yazan R, Faisal A and **Norhaizan ME** (2013). The protective effect of cocoa (*Theobroma cacao* L.) in colon cancer. *J Nutr Food Sci* 3(2): (Scopus).
  51. Norazalina S, **Norhaizan ME**, Hairuszah I (2013). Suppression expression of  $\beta$ -catenin, cyclooxygenase-2 and cell proliferation of Ki-67 in azoxymethane-induced colonic cancer in rats by rice bran phytic acid. *Asian J Cancer Prevention*, 14(5): 5285-5291(Q4).
  52. Tan BL, **Norhaizan ME**, Lai CC, Suhaniza S, Norazalina S and Roselina K (2013). Antioxidant properties and anti-proliferative effect of brewers'rice extract (*temukut*) on selected cancer cell lines. *Int Food Res J* 20(5): 2117-2124 (Scopus).
  53. Tan BL, **Norhaizan ME** and Loh SP (2013). By-products of rice processing: An overview of health benefits and applications. *J Rice Res* 1(1): 107 (Scopus).
  54. Nurul Husna, S, **Norhaizan, ME**, Hairuszah I, Abdah, MA, Norazalina, S and Pandurangan AK (2013). Preventive inositol hexaphosphate (IP6) extracted from rice bran inhibits colorectal cancer through involvement of Wnt/ $\beta$ -catenin and COX-2 pathway. *BioMed Res Int* 2013: 10 pages (IF=2.88).
  55. **Mohd. Esa, N**, Shafie NH, Ithnin H and Saad N (2013). Changes in Bax, Bcl-xl, caspase 3 and 8 contribute to phytic acid (IP6) induced apoptotic in HT-29

- cells. *Annal Nutr Metab*, 63 (Suppl1): 1578 (IF=1.6).
56. Pandurangan AK and **Norhaizan ME** (2013). Dietary non-nutritive factors on targets of colorectal cancer: An update. *Asian Pacific J Cancer Prevention* 14(10): (IF=1.27).
  57. Siti Suriani A, **Norhaizan ME** and Haziawati H and Pauziah, O. (2013). Evaluation of acute, subacute and subchronic oral toxicity studies of *Rhaphidophora decursiva* (Roxb.) Schott extract in male Sprague Dawley rats. *J Medicinal Plants Res*, 7(41): 3030-3040
  58. Faisal A, Yazan R, Amin I, **Norhaizan ME** and Sander K (2013). Identification of Phenolic Compounds in Polyphenols-rich Extract of Malaysian Cocoa Powder using the HPLC-UV-ESI—MS/MS and Probing Their Antioxidant Properties. *J Food Sci Tech* (IF=1.123) (In Press).
  59. Nurul Husna S, **Norhaizan ME**, Hairuszah I, Norazalina S and Pandurangan AK (2013). Apoptosis induction effect of rice bran inositol hexaphosphate (IP6) through regulation of pro- and anti-apoptotic genes and caspase dependent pathway on colorectal cancer cells. *Int J Mol Sci* 14: 23545-23558 (Q2).
  60. Yee YST, Zaitun Y, Chan YM and **Norhaizan ME** (2013). Association between anthropometric, dietary and physical activity with bone health status among pre-menopausal Chinese women in the Klang Valley, Malaysia. *Mal J Nutr* 19(3): 293-302 (Scopus).
  61. Khairunnuur Fairuz A, Zulkhairi A, Azrina A, **Norhaizan ME**, Rasadah MA, Zamree MS and Khairul Kamilah, AK (2012). Antiobesity effect of *Tamarindus indica* L. pulp aqueous extract in high-fat diet. *J Natural Medicines*, 66(2): 333-342 (Q3).
  62. Norazalina S, **Norhaizan ME**, Hairuszah I and Sabariah AB (2011). Antiproliferation and apoptosis induction of phytic acid in hepatocellular carcinoma (HepG2) cell lines. *African J Biotech* (10(73): 16646-16653.
  63. **Norhaizan ME**, Ng SK, Norashareena MS and Abdah MA (2011). Antioxidant and cytotoxicity effect of rice bran phytic acid as an anticancer agent on ovarian, breast and liver cancer cell lines. *Mal J Nutr*, 17(3): 367-375. (Scopus).
  64. **Norhaizan ME**, Khairul Kamilah K, Zulkhairi A and Azrina A (2011). Improving lipid profile in hypercholesterolemia-induced rabbit by supplementation of germinated brown rice. *J Agric Food Chem*, 59(14): 7985-7991 (Q1).
  65. Norhayati M, Azrina A, **Norhaizan ME** and Muhammad Rizal R (2011). Trans fatty acids content of biscuits commercially available in Malaysian market and comparison with other countries. *Int Food Res J*, 18(3): 1049-1055 (Scopus).
  66. Norazalina S, **Norhaizan ME**, Hairuszah I and Nurul-Husna S (2011). Optimization of optimum condition for phytic acid extraction from rice bran. *African J Plant Science* 5(3): 168-176.
  67. Narges Yazdekhashti, Y. Zaitun, **M.E. Norhaizan**, M. Entezari, S. Najafpour (2011). Effects of roasted soy-nut supplementation on lipid profile of Iranian postmenopausal women. *Middle-East J Scientific Res*, 8(4): 816-822 (Scopus).
  68. Ikhsan SK, Zulkhairi HA, Abdah MA, Daryl JA, Noramalina, **Norhaizan ME**, Aris MAM, Taufik MB (2011). Antioxidant properties of aqueous and methanol extract from *Tinospora crispa* and its ability to attenuate hydrogen peroxide-induced stress injury in human umbilical vein endothelial cells. *Research J Biol Sci*, 6(5): 230-236.
  69. Fazali, F, Zulkhari A, **Norhaizan ME**, Kamal NH, Zamree MS and Shahidan (2011). Phytochemical screening, in vitro and in vivo antioxidant activities of aqueous extract of *anacardium occidentale* Linn. and its effects on endogenous antioxidant enzymes in hypercholesterolemic induced rabbits. *Research J*

*Biological Sciences*, 6(2): 69-74.

70. Fazali F, Zulkhairi A, **Nurhaizan ME**, Mohd Kamal NH, Khairul Kamilah AK, Zamri MS and Shahidan S (2011). Toxicity screening and hypocholesterolemic Effect evaluation of aqueous extract of *Anacardium occidentale* Linn. in hypercholesterolemic induced rabbits. *International Journal of Phytomedicine*, 3: 192-197.
71. **Mohd.-Esa, N**, Fong, SH, Amin, I and Chew, LY (2010). Antioxidant activity in different part of Roselle (*Hibiscus sabdariffa* L.) extracts and potential exploitation of the seeds. *Food Chem* 122(4): 1055-1060 (Q1).
72. Nurul Husna S, **Norhaizan ME**, Abdah MA, Hairuszah I, Norazalina S and Norsharina I (2010). Rice bran phytic acid (IP<sub>6</sub>) induces growth inhibition, cell cycle arrest and apoptosis on human colorectal adenocarcinoma cells. *J Med Plants Res*. 4(21): 2283-2289
73. Norazalina, S, **Mohd.-Esa, N** and Hairuszah, I. (2010). Anticarcinogenic efficacy of phytic acid extracted from rice bran on azoxymethane-induced colon carcinogenesis in rats. *J Experimental Pharmacology and Toxicology*, 62:259-268 (Q2).
74. Hock-Eng, K, Nagendra Prasad, K, Amin, I and **Nohaizan, ME** (2010). Antioxidant capacity and carotenoids from *Mangifera Pajang*. *Molecules*, 15: 6699-6712 (Q3).
75. Ghanya, NA, Adel SA, Maznah, I, Zulkhairi A and **Norhaizan, ME** (2010). Antiatherogenic potential of Nigella sativa seeds and oil in diet-induced hypercholesterolemic in rabbits, *eCAM (Evidence-based complementary and alternative medicine)* 2010:1-9 (Q2).
76. Nawal, SH, Zulkhairi, HA, Nor AI, Norhafizah, M, **Norhaizan, ME** and Azrina, A (2010). Nutritional composition and in vitro evaluation of the antioxidant properties of various dates extracts (*Phoenix dactylifera* l.) from Libya. *Asian Journal of Clinical Nutrition*, 294: 208-214.
77. **Mohd.-Esa, N.** and Phuah, S.C. (2009). Rhabdiphora decursive (Roxb.) Schott Leaves: Phenolic contents and antioxidant capacity. *J Agric Tropical Plant*. 37(1): 61-66.
78. **Mohd.-Esa, N** and Nurfaizadatul, A.A.W. and (2009). Determination of phytate, iron, zinc, calcium contents and their molar ratios in commonly consumed raw and prepared food in Malaysia. *Mal J Nutr* 15(2): 213-222 (Scopus).
79. Otgontuya Dugee, Khor G.L., Lye M.S., Jamyang B and **Norhaizan M.E.** (2009). Association of major dietary patterns with obesity risk among Mongolian men and women. *Asia Pacific J Clinical Nutrition*. 18(3): 433-440 (**IF=1.6**).
80. Otgontuya Dugee, Khor GL, Lye MS and **Norhaizan ME** (2009). Obesity among Mongolian adults from urban and rural areas. *Malaysian J Nutr*, 15(2): 185-194 (Scopus).
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Chapter in book	<ol style="list-style-type: none"> <li>1. Immobilization of Lipases on Hydrogels by Abu Bakar S, <b>Norhaizan ME</b>, Mahiran B, Che Nyonya AR, Wan Md Zin WY and Mansor A (Chapter) In: <b>Methods in Biotechnology (2001)</b>. EN Vulfson, PJ Halling and HL Holland (Eds), Humana Press Inc., Totowa, NJ. Pp41-48.</li> <li>2. Epidemiology of Trans Fatty Acids Consumption and Health Implications by Khor, GL and <b>Mohd.-Esa, N</b> (Chapter) In: <i>Trans Fatty Acids</i> (2008). Richard J. Hamilton, Wolf Hamm and Albert J Dijkstra (Eds.) Blackwell Publishing, Oxford, UK pp.25-54.</li> <li>3. Therapeutic utility of Malaysian rice by Zulkhairi A, Azrina A and <b>Norhaizan ME</b> (Chapter). In: Research Trends in Medicinal Botany. Muhammad Iqbal and Altaf Ahmad (Eds). Jamia Hamdard, New Delhi, India, pg 214-239.</li> <li>4. Pandurangan AK, Kanagesan S, Narayanaswamy R, <b>Norhaizan ME</b> and Padmanabhan P* (2016). In: Nano Biomaterials in Cancer Therapy: Application of NanoMaterials. (Ed. A. M. Grumezescu) Volume VII: NanoBioMaterials-Based Delivery of Drugs in Various Cancer Therapies: Classifying the Mechanisms of Action (Using Biochemical and Molecular Biomarkers, Elsevier Publication (ISBN: 978-0-323-42863-7).</li> <li>5. Nurul Husna S and <b>Norhaizan ME</b> (2017). In: Functional food: Wonder of the world. Evidence-based functional food in health and disease (Ed. Azrina A and Amin I) Chapter 16: The healing components of rice bran, pp. 341-369, Universiti Putra Malaysia Press (ISBN: 978-967-344-737-44).</li> <li>6. Tan Bee Ling and <b>Norhaizan ME*</b> (2017). In: Anticancer plants: Properties and application (Ed. Akhtar MS and Swamy MK). Plant-derived compounds in cancer therapy: Traditions of past and drugs of future (Accepted), Springer Publication</li> </ol>
Proceedings	
Computer software	

<b>H. PROJEK PENYELIDIKAN TERDAHULU(Past Research Project)</b>					
<i>Project No.</i>	<i>Project Title</i>	<i>Role</i>	<i>Year</i>	<i>Source of fund</i>	<i>Status</i>
06-02-04-0805-EA001	The Study of Phytic Acid As Nutraceutical Product On The Proliferation of Colon Cancer	Project leader	2004-2007	(IRPA)-RM200,500	Completed
	Development of Nutraceutical Formulated Porridge from Brown Rice and Germinated Brown Rice with Cardioprotective Properties	Co-researcher	2005-2007	BERNAS-	Completed
03-03-08-447FR	Effect of Phytate on Bioavailability of Minerals	Project leader	2008-2009	FRGS-RM45,000	Completed
06-01-04-SF0923	The Effect of Trans Fatty Acid Consumption on Lipid Composition of Human Milk in Malaysia	Project leader	2008-2010	Science Fund (MOSTI)-RM203,603	Completed
05-01-04-SF0856	<i>In vitro</i> and <i>in vivo</i> Study of the Mechanism Behind Phytic Acid (IP6) Growth Inhibitory Action on Colon Cancer	Project leader	2008-2011	Science Fund (MOA)-RM185,604	Completed
04-01-09-0716RU	Effect of gamma oryzanol supplementation on lipid profile, anabolic hormone and oxidative stress markers in young resistance athletes	Project leader	2009-2011	RUGS 2–RM60,000	Completed
04-02-11-1383RU	Study on the anticancer effect of the <i>Rhaphidophora decursiva</i> (Roxb.) Schott extract on azoxymethane-induce-colon carcinogenesis in rats	Project leader	2011-2013	RUGS 6-(RM13,000)	Completed
04-01-12-1616RU	Study on the expression of pro-and anti-apoptotic effects of phytic acid extracted from Malaysian rice bran	Project leader	2012	RUGS-6 (RM 15,000)	Completed

	on human colorectal cancer cell lines (HT-29)				
05-02-12-1862RU	The study of <i>temukut</i> as anti-colon cancer agent ( <i>in vivo</i> and <i>in vitro</i> )	Project leader	2012	RUGS-2 (RM 52, 500)	Completed
GP-IPS/2013/9397900	The effect of cocoa polyphenol rich diet from Malaysian cocoa powder in prevention of colitis associated colon cancer in mice	Project leader	2013-2014	Geran Putra-IPS (RM15,000)	Completed
GP-IPS/2013/9397800	A study in brewers' rice ( <i>temukut</i> ) against colon cancer <i>in vivo</i> : Involvement of Nrf2/Keap1 and Wnt/beta-catenin signaling	Project leader	2013-2015	Geran Putra-IPS (RM15,000)	Completed
FRGS/2/2013/SKK10/UPM/02/6	Involvement of mTOR pathway in autophagy-mediated cell death in human colon cancer cells by phytic acid.	Project leader	2013-2015	FRGS (RM120,000)	Completed
	Effects of oat $\beta$ -glucan on lipid profile, the markers of insulin resistance, inflammatory and obesity in Malaysian hypercholesterolemic adults	Project leader	2015-2016	Legosan Malaysia Sdn Bhd (RM102,286)	Completed
02-01-04-SF2141	A study on phytic acid-chitosan nanoparticles inhibit VEGF signaling and induce intrinsic mode of apoptosis: Drug delivery system for colon cancer therapy	Project leader	2015-2017	MOSTI (Science Fund) (RM 160,000)	Completed
TRGS/5535709	Nutraceutical properties and probiotic potential of stingless bee honey for establishment of quality markers against oxidative stress.	Project leader	2016-2019	TRGS (Ministry of Higher Education) (RM189,000)	On-going
GP-IPS/2016/9509600	Acute oral toxicity study of phytic acid-	Project leader	2016-2018	Geran Putra-IPS	On-going

	chitosan-iron oxide nanoparticles in mice			(RM20,000)	
GP-IPS/2016/9489300	Anti-diabetic and anti obesity activity of leaves and stems of <i>Mikania micrantha</i> H.B.K <i>in vitro</i>	Project leader	2016-2018	Geran Putra-IPS (RM20,000)	On-going
GP-IPS/2016/9505300	Drugbility of <i>Alternanthera sessilis</i> in hepatocellular carcinoma by induction of autophagy via JNK and AK/Mtor signaling pathways	Project leader	2016-2017	Geran Putra-IPS (RM20,000)	On-going
	Anticancer potential of <i>Moringa oleifera</i> on ocular cancer	Project leader	2017-2019	Geran Putra Berimpak (RM 141,000)	On-going

## POSTGRADUATE STUDENTS (AS MAIN SUPERVISOR)

### PHD

1. Shagar Eslami– Effect of gamma oryzanol supplementation on lipid profile, anabolic hormones, markers of stress oxidative of young resistance athletes **(Completed)**.
2. Nurul Husna Shafie - *In vivo* and *in vitro* study of the mechanisms behind phytic acid (IP6) growth inhibitory action on colon cancer **(Completed)**.
3. Tan Bee Ling - Effect of ‘temukut’ on colon cancer in AOM-induced rat carcinogenesis **(Completed)**.
4. Lee Sin Tien - Effects of high oleic palm olein (NoveLin), virgin olive oil and refined bleached and deodorized coconut oil diets on lipid profile, markers of insulin resistance, inflammatory and obesity in overweight subjects. **(On-going)**.
5. Gothai Sivapragasam- Drugbility of *Alternanthera sessilis* in hepatocellular carcinoma by induction of autophagy via JNK and AKT/mTOR signaling pathways **(On-going)**.
6. Norain Tamsir- *In vitro* study on phytic acid-chitosan nanoparticles inhibit VEGF signaling and induce intrinsic mode of apoptosis: Drug delivery system for colon cancer therapy **(On-going)**.

### MSc

1. Norazalina Saad – Effects of phytic acid extracted from rice bran on azoxymethane-induced colon carcinogenesis in rats **(Completed)**.
2. Akmar Zuraini Daud – The trans fatty acid consumption and lipid composition of human milk among lactating mother in selected area of Selangor **(Completed)**.
3. Norashareena Mohamed Shakrin - The study of phytic acid as a nutraceutical product on the proliferation of colon cancer (*In vitro*) **(Completed)**.
4. Siti Suriani bt Arshad (MSc) - Study on the anticancer effect of the *Rhaphidophora decursiva* (Roxb.) Schott extract on azoxymethane-induce colon carcinogenesis in rats **(Completed)**.

5. Daryl b. Jesus Arapoc (MSc) - The antioxidant activity in *hibiscus cannabinus* leaf aqueous extract on human umbilical vein endothelial cells (HUVEC) and its potential benefit in experimental atherosclerosis *in vitro*. **(Completed)**.
6. Yazan Ranneh - The anti-inflammatory, hyposensitive and anti-oxidative effect of cocoa extract in different methods **(Completed)**.
7. Zeinab Saadatdoust – The effect of Malaysian cocoa powder as prevention and treatment of colon cancer in rats **(Completed)**.
8. Mohamad Zulhafiz Syafiq bin Zulhilmi Cheng - Study on nutraceuticals properties of stingless bee honey **(On-going)**.
9. Nai'mah Isa - Diabetic and anti-obesity of leaves and stems extract of *Mikania Micrantha* HBK **(On-going)**.