

KHOZIRAH SHAARI

Personal information

Date of birth: 4th May 1961
Place of birth: Perak, Malaysia
Married to Shaari Jantan, 5 children
Address:
Laboratori Hasil Semulajadi
Institut Biosains
Universiti Putra Malaysia
43400 UPM Serdang
Selangor
Tel: +6013-3420686
E-mail: khozirah@upm.edu.my;
khozirah@yahoo.com.my



Education

Secondary: MCE (1977-1978).
Alor Setar Technical School (SMTAS), Alor Setar, Kedah, Malaysia
(*Mechanical Engineering*)

College: GCE 'A' Levels (1979-1980)
Loughborough Technical College, England, United Kingdom (*Pure Chemistry*)

University: BSc.(Hons.)(1981-1984)
University College of Swansea, Wales, United Kingdom (*Chemistry*)
MSc(1986-1988)
University Malaya, Kuala Lumpur, Malaysia (*Phytochemistry*)
PhD. (1991-1994)
University of Strathclyde, Glasgow, Scotland, United Kingdom (*Natural Product Chemistry*)

Professional career and responsibilities

1988 – 1990: Research Officer, Chemistry Division, Forest Research Institute Malaysia (FRIM), Kepong, Kuala Lumpur

1991 – 2001: Research Officer, Medicinal Plants Division, Forest Research Institute Malaysia (FRIM), Kepong, Kuala Lumpur.

2001 – 2009: Associate Professor, Chemistry Dept. Faculty of Science, UPM

2001 – present: Coordinator for Spectroscopy Unit, Laboratory of Natural Products Discovery, IBS, UPM

2009 – present: Program Coordinator for Natural Products Metabolomics, Laboratory of Natural Products Discovery, IBS, UPM

2010 – present: Professor, Chemistry Dept. Faculty of Science, UPM, Serdang

2010 – 2014: Deputy Director, Research Grant Division, Research Management Center (RMC), Office of the Vice Chancellor for Research, UPM

2014 – 2016: Director, Research Grant Division, Research Management Center (RMC), Office of the Vice Chancellor for Research, UPM

2017 – present: Head, Laboratory of Natural Products, Institute of Bioscience, UPM

2011 – present: Editorial Advisory Board and Reviewer, *Phytochemical Analysis*

2015 – present: Associate Editor, *Journal of Ethnopharmacology*

Research interests

1. Isolation, structure elucidation, chemistry, and pharmacology of biologically active natural products from higher plants, bryophytes and marine organisms
2. Standardization and quality control of plant-based products (eg herbs, herbal products, functional food, and phytomedicinal preparations)
3. Comprehensive metabolite profiling, dereplication and molecular networks
4. NMR- and LCMS-based metabolomics (from agriculture and health perspectives)
5. Sustainability research on natural products and traditional medicines in global health care
6. Synthesis of bioactive natural products and structure-activity-relationships (SAR) chemical modifications and biotransformations of natural products and organic compounds

Research

Expertise: Natural Products Chemistry; Phytochemistry, Organic Chemistry, and Metabolomics
Publications: 130 publications in international scientific journals and 3 book chapters
Patents: 3 patent pending

Selected papers

1. Utilization of the ethyl acetate fraction of *Zanthoxylumrhetsa* bark extract as an active ingredient in natural sunscreen formulations. Ramesh Kumar Santhanam, Muhammad Tayyab Akhtar, SyahidaAhmad, Faridah Abas, IntanSafinar Ismail, Yaya Rukayadi, KhozirahShaari. *Industrial Crops and Products*, 2017, 96, 165 -172.
2. Structural characterization and evaluation of prebiotic activity of oilpalm kernel cake mannanoligosaccharides. Naveena Reddy Kalidas, MookiahSaminathan, IntanSafinar Ismail, Faridah Abas, Prasenjit Maity, Syed Sirajul Islam, NurhudaManshoor, KhozirahShaari. *Food Chemistry*, 2017, 234, 348 – 355.
3. Discriminative analysis of different grades ofgaharu (*Aquilariamalaccensis*Lamk.) via¹H-NMR-based metabolomics using PLS-DA andrandom forests classification mode. Siti Nazirah Ismail, Maulidiani, Muhammad Tayyab Akhtar, Faridah Abas,IntanSafinar Ismail, Alfi Khatib, Nor Azah Mohamad Ali andKhozirahShaari. *Molecules*2017, 22, 1612;doi:10.3390/molecules22101612.
4. Anti-allergic activity of 2,4,6-trihydroxy-3-geranylacetophenone (tHGA) via attenuation of IgE-mediated mast cell activation and inhibition of passive systemic anaphylaxis. Ji Wei Tan, Daud Ahmad Israfa, HanisHazeera Harith, Nur Fariesha Md Hashim, Chean Hui Ng, KhozirahShaari, Chau Ling Tham. *Toxicology and Applied Pharmacology*, 2017, 319, 47 - 58.
5. An orally active geranyl acetophenone attenuates airway remodeling in amurine model of chronic asthma. Yu Zhao Lee, KhozirahShaari, Manraj Singh Cheema, Chau Ling Tham, MohdRoslanSulaiman, Daud Ahmad Israfa. *European Journal of Pharmacology* 2017, 797, 53–64
6. Anti-diabetic activity and metabolic changes induced by *Andrographispaniculata* plant extract in obese diabetic rats. Muhammad Tayyab Akhtar, Mohamad Syakir Bin MohdSarib, IntanSafinar Ismail, Faridah Abas, Amin Ismail, NordinHjLajisand KhozirahShaari. *Molecules* 2016, 21, 1026; doi:10.3390/molecules21081026
7. Urinary metabolic profiling of cisplatin nephrotoxicity and nephroprotective effects of *Orthosiphon stamineus* leaves elucidated by ¹H NMR spectroscopy. Raghunath Pariyani, IntanSafinar Ismail, AmalinaAzam, Alfi Khatib, Faridah Abas, KhozirahShaari, Hazilawati Hamza. *Journal of Pharmaceutical and Biomedical Analysis*, 2017, 135, 20–30.
8. Metabolic alteration in obese diabetes rats upon treatment with *Centellaasiatica* extract. Maulidiani, F. Abas, A. Khatib, V. Perumal, V. Suppaiah. A. Ismail, M. Hamid, K. Shaari and NH. Lajis. *Journal of Ethnopharmacology*. 2016. 180: 60 - 69.
9. Biochemical studies of *Piper betle* L leaf extract on obese treated animalusing ¹H-NMR-based metabolomic approach of blood serum samples.ZuleenDelinaFasya Abdul Ghania, JuaniMazminHusin, Ahmad Hazri Ab Rashid,KhozirahShaari, ZamriChik. *Journal of Ethnopharmacology*, 2016, 194, 690–697
10. Barrier protective effects of 2,4,6-trihydroxy-3-geranylacetophenone on lipopolysaccharides-stimulated inflammatory responses n human umbilical vein end othelial cells. Yi Joong Chong,

- Nazmi Firdaus Musa, Ng Chean Hui, KhozirahShaari, Daud Ahmad Israf, Chau Ling Tham. *Journal of Ethnopharmacology*, 2016, 192, 248–255
11. Muhammad T Akhtar, KhozirahShaari, Robert Verpoorte. Biotransformation of tetrahydrocannabinol. *Phytochem. Rev.*, 2015, doi | 10.1007/s11101-015-9438-9
 12. Shahfiza, N.; Osman, H.; Hock, T. T.; Shaari, K.; Abdel-Hamid, A. H. Metabolomics for characterization of gender differences in patients infected with dengue virus. *Asian Pacific Journal of Tropical Medicine* 2015, 8 (6), 451-6
 13. Leong, S. W.; MohdFaudzi, S. M.; Abas, F.; MohdAluwi, M. F.; Rullah, K.; Lam, K. W.; Abdul Bahari, M. N.; Ahmad, S.; Tham, C. L.; Shaari, K.; Lajis, N. H. Nitric oxide inhibitory activity and antioxidant evaluations of 2-benzoyl-6-benzylidenecyclohexanone analogs, a novel series of curcuminoid and diarylpentanoid derivatives. *Bioorganic & Medicinal Chemistry Letters* 2015, 25 (16), 3330-7
 14. Samat, N.; Tan, P. J.; Shaari, K.; Abas, F.; Lee, H. B. Prioritization of natural extracts by LC-MS-PCA for the identification of new photosensitizers for photodynamic therapy. *Analytical chemistry* 2014, 86 (3), 1324-31.
 15. Maulidiani; Abas, F.; Khatib, A.; Shaari, K.; Lajis, N. H. Chemical characterization and antioxidant activity of three medicinal Apiaceae species. *Industrial Crops and Products* 2014, (55), 238-247.
 16. Maulidiani; Abas, F.; Khatib, A.; Shitan, M.; Shaari, K.; Lajis, N. H. Comparison of Partial Least Squares and Artificial Neural Network for the prediction of antioxidant activity in extract of Pegaga (*Centella*) varieties from ¹H Nuclear Magnetic Resonance spectroscopy. *Food Research International* 2013, 54, 852-860.
 17. Tahir, N. I.; Shaari, K.; Abas, F.; Ahmad Parveez, G. K.; Hashim, T.; Ramlil, U. S. Identification of Oil Palm (*Elaeisguineensis*) Spear Leaf Metabolites Using Mass Spectrometry and Neutral Loss Analysis. *Journal Of Oil Palm Research* 2013, 25 (1), 72-83.
 18. Santhanam, R. K.; Ahmad, S.; Abas, F.; Ismail, I. S.; Rukayadi, Y.; Shaari, K. Photoprotective properties of *Zanthoxylumrhetsa*: An in vitro analysis. *Journal of Chemical and Pharmaceutical Research* 2013, 5 (12), 1512-1520.
 19. Al-Mekhlafi, N. A.; Shaari, K.; Abas, F.; Kneer, R.; Jeyaraj, E. J.; Stanslas, J.; Yamamoto, N.; Honda, T.; Lajis, N. H. Alkenylresorcinols and cytotoxic activity of the constituents isolated from *Labisiapumila*. *Phytochemistry* 2012, 80, 42-9.
 20. Tahir, N. I.; Shaari, K.; Abas, F.; Parveez, G. K.; Ishak, Z.; Ramli, U. S. Characterization of apigenin and luteolin derivatives from oil palm (*Elaeisguineensis* Jacq.) leaf using LC-ESI-MS/MS. *Journal of agricultural and food chemistry* 2012, 60 (45), 11201-10.
 21. Ismail, N.; Jambari, N. N.; Zareen, S.; Akhtar, M. N.; Shaari, K.; Zamri-Saad, M.; Tham, C. L.; Sulaiman, M. R.; Lajis, N. H.; Israf, D. A. A geranyl acetophenone targeting cysteinyl leukotriene synthesis prevents allergic airway inflammation in ovalbumin-sensitized mice. *Toxicology and applied pharmacology* 2012, 259 (2), 257-62.
 22. Hosoya, T.; Nakata, A.; Yamasaki, F.; Abas, F.; Shaari, K.; Lajis, N. H.; Morita, H. Curcumin-like diarylpentanoid analogues as melanogenesis inhibitors. *Journal of natural medicines* 2012, 66 (1), 166-76.
 23. Husain, K.; Zakaria, S. M.; Lajis, N. H.; Shaari, K.; Ismail, I. S.; Israf, D. A.; Paetz, C. Novel sesquiterpene and copyrine alkaloids from *Anaxagoreajavanica* Blume. *Phytochemistry Letters* 2012, 5, 788-792.
 24. Hashim, N. H. N.; Abas, F.; Shaari, K.; Lajis, N. H. LC-DAD-ESIMS/MS characterization of antioxidant and anticholinesterase constituents present in the active fraction from *Persicaria hydropiper*. *LWT - Food Science and Technology* 2012, 46,468-476.
 25. Hirasawa, Y.; Matsuya, R.; Shaari, K.; Lajis, N. H.; Uchiyama, N.; Goda, Y.; Morita, H. Lycobelines A–C, Novel C₁₆N₂-type *Lycopodium* alkaloids from *Huperziagoebelii*. *Tetrahedron Letters* 2012, 53, 3971-3973.