

Institute of Bioscience

Name : Siti Nurulhuda Mastuki
Position : Research Officer
Email : ctnurulhuda@upm.edu.my
Tel : 03-97691482
Field of expertise : Biochemistry, Natural Products, Animal Studies, Cell Culture and Microbiology.

**Research Interests:**

Siti Nurulhuda Mastuki is a biochemistry researcher and Ph.D. candidate who has experience leading research projects, writing papers and chapters in book in the expertise of natural products, microbiology, metabolomics and animal studies. She has experience in developing nutraceutical products, including filing a patent, copyright, and awarded with local and international exhibition awards. She received an academic scholarship (Hadiah Latihan Persekutuan) from the Ministry of Higher Education Malaysia to pursue her current Ph.D. program.

List of Publications: H index = 2

- Mastuki, S.N. & Faudzi, S.M.M. 2020. Kesan Pandemik COVID-19 terhadap Komuniti di Malaysia: Keganasan Domestik. Pandemik COVID-19 dan Kesannya Kepada Komuniti di Malaysia dan Indonesia. Penerbit UPM- Review.
- Mastuki, S.N., Faudzi, S.M.M. & Ismail, N., Saad N. (2019) *Muntingia calabura*: Chemical Composition, Bioactive Component and Traditional Uses. https://doi.org/10.1007/978-3-030-31885-7_41.
- Ismail, N., Azmi, N.H., Mastuki, S.N., Saad, N. & Razis, A.F.A. (2019) *Antidesma montanum*: Biochemistry and Bioactive Compounds. https://doi.org/10.1007/978-3-030-31885-7_27.
- Hashim, S.E., Ismail, I.S., M.,Kong, Mastuki, S.N. & H.,Y., Heng Yen Kong. 2020. Comparative Study of Biological Activities of Extracts from Two Hornstedtia Species: Evaluation of Biological Activities of *Hornstedtia conica* and *Hornstedtia havilandii*. Marmara Pharmaceutical Journal – Review.
- Nazarudin, M.F., Isha, A., Mastuki, S.N., Ain, N.M., Ikhsan,N.F.M., & Paiko, M.A. 2020. Composition and Evaluation of the α glucosidase inhibitory and Cytotoxic Properties of Marine Algae *Ulva intestinalis*, *Halimeda macroloba* and *Sargassum ilicifolium*. 2019. Evidence-based Complementary and Alternative Medicine. – Review.
- Mastuki, S.N. & Ismail, I.S. 2017. Effects of Flower *Acmella uliginosa* (Swartz) Cass. on Human Breast Cancer MCF-7 cell and its Correlation with Metabolites Composition– GCMS based Metabolomics Approach. Malaysian Journal of Medicine and Health Sciences. Vol.13:27 (ISSN 1675-8544).
- Hashim SE, Sirat HM, Yen KH, Ismail IS, Matsuki SN. 2015. Antioxidant and α -Glucosidase Inhibitory Constituents from Hornstedtia Species of Malaysia. Natural Product Communications 10(9):1561-1563.
- Isha, A., Suyut, M., Yusof, N.A., Mastuki, S.N., Ismail, I.S. 2013. Optimization of extraction method and qualitative FT-NMR analysis of *Andrographis paniculata* leaves. International Journal of Food Science & Technology, 3(4): 1-10.
- Ong, H.M., Mohamad, A.S., Makhtar, N.A., Khalid, M.H., Khalid, S., Perimal, E.K., Mastuki, S.N., Zakaria, Z.A., Lajis, N., Israf, D.A. and Sulaiman, M.R. 2011. Antinociceptive activity of methanolic extract of *Acmella uliginosa* (Sw.) Cass. Journal of Ethnopharmacology, 133 (1): 227-233.
- Ong,H.M., Lee,M.T., Khalid,H., Khalis, S., Perimal,E.K., Mastuki, S.N., Zakaria, Z.A., Mohamad,T.A.S.T., Lajis, N.H., Israf, D.A. & Sulaiman, M.R. 2010. Antinociceptive activity of *Acmella uliginosa* hexane fraction. Malaysian Journal of Pharmaceutical Science. 8: 181. ISSN: 1675-7319.
- Mastuki, S.N., Lajis, N.H. & Sulaiman, M.R. 2010. Anti-acetylcholinesterase activity of *Acmella uliginosa* (Pokok Getang). Malaysian Journal of Pharmaceutical Science. 8:132. ISSN: 1675-7319.
- Mastuki, S.N., Lope Pihie, A.H. & Abdullah Sani, H. 2008. Antihypercholesterolemic Effects of *Hylocereus polyrhizus* peel aqueous extract on hypercholesterolemia induced rats. Malaysian Journal of Biochemistry and Molecular Biology. 16 (1): 57. ISSN: 15112616.
- Baharoom, A., Ahmad, M.A., Mastuki, S.N. & Abdullah Sani, H. 2008. *Hylocereus polyrhizus* extract effects on Serum Lipid profile and liver MDA-TBAR level in hypercholesterolemic rats. Malaysian Journal of Biochemistry and Molecular Biology. 16 (1): 58. ISSN: 15112616.

List of Grants:

Understanding the mode of action and correlation between metabolites composition and anti-vaginal candidiasis activity of *Melastoma malabathricum* through metabolomics approach. 2018-2020. Putra Grant 9623100. RM47,000 (Project Leader)

Potential herbs (*Acmella uliginosa*, *Melastoma malabathricum*, *Piper sarmentosum* & *Piper betle*) against vaginal candidiasis induced rats. 2013-2016. Sciencefund MOSTI 06-01-04-SF1649. RM155,524.00 (Project Leader)

Isolation & Characterization of Acetylcholinesterase and Butyrylcholinesterase Inhibitors from *Acmella uliginosa* (Pokok Getang). 2010-2012. Putra Grant 9163600. RM30,000. (Project Leader)

Algaeomics for improving aquaculture health. 2016-2021. Fundamental Research Grant Scheme (FRGS), KPM RM187,400.00.(Members)

Metabolomics approaches for phytochemical and biological studies of *Ficus deltoidea* var. *kunstleri* subjected to different gamma irradiation dose. NM-R&D-18-50. 2019-2021. In-kind (Member)

List of Book/Book Chapter:

Mastuki, S.N., Faudzi, S.M.M. & Ismail, N., Saad N. (2019) *Muntingia calabura*: Chemical Composition, Bioactive Component and Traditional Uses. In: Mariod A. (eds) *Wild Fruits: Composition, Nutritional Value and Products*. Springer, Cham. 549-564. ISBN: 978-3-030-31884-0.

Ismail, N., Azmi, N.H., Mastuki, S.N., Saad, N. & Razis, A.F.A. (2019) *Antidesma montanum*: Biochemistry and Bioactive Compounds. In: Mariod A. (eds) *Wild Fruits: Composition, Nutritional Value and Products*. Springer, Cham. 359-365. ISBN: 978-3-030-31884-0.

Saad, N., Zin, N.K.M., Suhaimi, S.A., Rusli, M.E.F, Ismail, N. Mastuki, S.N. & Rosli, R. (2019). *Ricinoden dronheudelotii* (Njangsa): Composition, Nutritional Values and Product. In: Mariod A. (eds) *Wild Fruits: Composition, Nutritional Value and Products*. Springer, Cham. 301-311. ISBN: 978-3-030-31884-0.

List of Patent:

Nutritional Compositions for Controlling Blood Cholesterol Level and Methods Regarding Same

Inventor Name : Azimahtol Hawariah Lope Pihie & Siti Nurulhuda Binti Mastuki (PI 20081802)

Product Development

Cholestacare (™) : Peel to Pill- Waste to Wealth (Universiti Kebangsaan Malaysia) (TM2916910140)

(Cholestacare is a nutraceutical product developed from the peel of Dragon fruit. Experimental studies reveal anti-hypercholesterolemic effects of Dragon fruits).