



Dr. Sumudu N. Warnakulasuriya

Director (cov)

S&T Business Centre

Qualifications

Ph.D. Food Science (Canada)
M.Sc. Agriculture - By Research (Canada)
M.Sc. Applied Organic Chemistry (University of Colombo)
B.Sc. Food Science & Technology (University of Peradeniya)
Graduateship in Chemistry (Institute of Chemistry)
MIChem (Institute of Chemistry)

Contacts

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Specialized Fields

Food Chemistry
Natural Product Chemistry
Protein Chemistry
Food Microbiology

Interest Areas

Technology transfers & Business Incubation
Food Structure

Publications

SCI publications (Selected):

- Warnakulasuriya, S.N., Tanaka, T., and Wanasundara, J.P.D. 2023. Canola meal valorization via acid hydrolysis to generate free amino acids. *Journal of American Oil Chemists' Society*, <http://doi.org/10.1002/aocs.12739>
- Warnakulasuriya, S.N., and Nickerson, M.T. 2018. Review on plant protein-polysaccharide complex coacervation, and the functionality and applicability of formed complexes. *Journal of the Science of Food and Agriculture*, 98(15), 5559–5571.
- Warnakulasuriya, S.N., Pillai, P.K.S., Stone, A.K and Nickerson, M.T. 2018. Effect of the degree of esterification and blockiness on the complex coacervation of pea protein isolate and commercial pectic polysaccharides. *Food Chemistry*, 264, 180–188.
- Warnakulasuriya, S.N., Ziaullah, and Rupasinghe, H.P.V. 2016. Novel long chain fatty acid derivatives of quercetin-3-O-glucoside reduce cytotoxicity induced by cigarette smoke toxicants in human fetal lung fibroblasts. *European Journal of Pharmacology*, 781, 128-138.
- Warnakulasuriya, S.N., Ziaullah, and Rupasinghe, H.P.V. 2016. Long chain fatty acid esters of quercetin-3-O-glucoside attenuate H₂O₂-induced acute cytotoxicity in human lung fibroblasts and primary hepatocytes. *Molecules*, 21(4), 452.
- Warnakulasuriya, S.N., Ziaullah, and Rupasinghe, H.P.V. 2014. Long chain fatty acid acylated derivatives of quercetin-3-O-glucoside as antioxidants to prevent lipid oxidation. *Biomolecules*, 4(4), 980-993.

Books:

- Samarajeewa, U. and Warnakulasuriya, S. 2024. සුරක්ෂිත ආහාර සැකසීම. Second Edition. ISBN 978-624-6484-00-2.

Book Chapters:

- Yalegama, C., Warnakulasuriya, S.N., and Wanasundara J.P.D. 2023. Coconut; A sustainable source for plant protein with several co-products. In *Sustainable Protein Sources*. Second Edition. Eds. S. Nadathur, J.P.D. Wanasundara, L. Scanlin. Elsevier.
- Warnakulasuriya, S.N. and Rupasinghe, H.P.V. 2012. Physiological role of eicosapentaenoic acid (EPA) in reducing the coronary heart diseases. In *Eicosapentaenoic Acid: Sources*,

Health Effects and Role in Disease Prevention. Nova Science Publishers, Inc. Hauppauge, NY, USA. ISBN: 978-1-62257-480-3. pp. 143-154.

Scientific communications (Selected):

- Ekanayaka, E.M.G.S., Perera, O.D.A.N., and Warnakulasuriya, S.N. Study on market acceptability of locally available processed fruits and vegetable products in three districts of Sri Lanka. FoodTechno 2024 – 8th Annual Research Session of Institute of Food Science and Technology Sri Lanka. October 5, 2024.
- Wanasundara, J.P.D., Warnakulasuriya, S.N., and Tanaka, T. Development of N-lauroyl amino acids with antimicrobial properties from canola meal. 16th International Rapeseed Congress, Sydney, Australia. September 24 – 27, 2023.
- Warnakulasuriya, S.N., Tanaka, T., and Wanasundara, J.P.D. Valorization of Canola Meal Proteins Through Acylation with Lauroyl Chloride. American Oil Chemists' Society (AOCS) - Annual Meeting & Expo - virtual meeting, June 29, 2020.
- Warnakulasuriya, S.N., Tanaka, T., McIntosh, T., and Wanasundara, J.P.D. Antifungal properties of canola meal protein and their derivatives. 15th International Rapeseed Congress, Berlin. Germany. June 16-19, 2019.
- Warnakulasuriya, S.N., Tanaka, T., and Wanasundara, J.P.D. Alternative method of obtaining amino acids from canola meal for further conversions as functional molecules. American Oil Chemists' Society (AOCS) - Annual Meeting & Expo, St Louis. USA. May 5-8, 2019.
- Warnakulasuriya, S.N., Tanaka, T., and Wanasundara, J.P.D. Pre-treatment of expeller-pressed canola meal for improved protein extraction and hydrolysis. Canadian Lipid and Bioresource Conference, Saskatoon, SK, Canada. September 9-11, 2018.
- Warnakulasuriya, S. N., Pillai, P.K.S., and Nickerson, M.T. Effect of the degree of esterification and blockiness on the complex coacervation of pea protein isolate and commercial pectic polysaccharides under different solvent and mixing conditions. 2nd International Symposium on Innovations in Plant and Food Science, Saskatoon, SK, Canada. September 9 -10, 2017.
- Warnakulasuriya S. N., and Nickerson, M.T. Germination of waxy hulless barley and purple wheat. 2nd International Symposium on Innovations in Plant and Food Science, Saskatoon, SK, Canada. September 9 -10, 2017.
- Warnakulasuriya S. N., and Nickerson, M.T. Effect of biopolymer mixing ratio and pH on the formation of electrostatic complexes within mixtures of pea protein isolate and commercial pectin of different degrees of esterification. 10th Canadian Pulse Research Workshop, Winnipeg, MB, Canada. October 25-28, 2016.
- Warnakulasuriya, S.N., Nanayakkara, C.M., Kaumal, M.N., and Gunawardhana, H.D. Increasing solubility of rock phosphate: Use of phosphobacteria as solubilizing agents. 70th Proceedings of Sri Lanka Association of Advancement of Science, Colombo, Sri Lanka, December 1-5, 2014.
- Warnakulasuriya, S.N., and Rupasinghe, H.P.V. Cytoprotective effect of long chain fatty acid derivatives of Q3G against H₂O₂-induced oxidative stress in human lung fibroblasts and primary hepatocytes. In proceedings of 5th Annual Maritime Natural Products Conference, NS, Canada. August 12-14, 2013.
- Warnakulasuriya, S.N., Ziaullah, and Rupasinghe, H.P.V. Antioxidant properties of novel fatty acid esters of flavonoids. In Proceedings of 103rd American Oil Chemists' Society - Annual Meeting and Expo, Long Beach, California, U.S.A. April 29-May 2, 2012.
- Warnakulasuriya, S.N., Kathirvel, P., and Rupasinghe, H.P.V. Concentration-dependent effect of selected apple flavonoids on PUFA oxidation. In Proceedings of International Conference of Plant Canada, Halifax, NS, Canada, July 17-21, 2011.
- Warnakulasuriya, S.N., and Wimalasiri, K.M.S. Estimation of copper content in Sri Lankan black tea. 64th proceedings of Sri Lanka Association for Advancement of Science, Colombo, Sri Lanka, 2008.