



UNIVERZITA KARLOVA

Farmaceutická fakulta v Hradci Králové

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Mrs. Latifah Al Shammari joined my research group ADINACO as a Ph.D. student in academic year 2017/2018. She has been involved in the project “Secondary metabolites from Amaryllidaceae plants as potential drugs for the neurodegenerative and oncological diseases”. Latifah’s work involved mostly phytochemical techniques such as column chromatography, analytical and preparative thin layer chromatography, she collected also basic knowledges in flash and HPLC chromatography. Analytical methods for compound characterization included GC-MS, NMR spectroscopy, optical rotatory. During her study she successfully passed the following exams: Chemistry of Natural Products, English Language, Phytochemical isolation methods, Pathobiochemistry, Selected instrumental-analytical methods, and State doctoral exam from the field Pharmacognosy and nutraceuticals.

She has been participating at three conferences held by Faculty of Pharmacy in Hradec Králové in years 2019, 2020 and 2021, with different presentations. Additionally, she has been participating at Conference of the Slovak Pharmaceutical Society (Drug synthesis and Analysis) in 2019 with the poster entitled “Alkaloid profiling of *Hippeastrum* cultivars by GC-MS, isolation of Amaryllidaceae alkaloids, and evaluation for their cytotoxic activity”.

Mrs. Al Shammari went her work with care and intelligence, and after few months she became a competent member of my research team. She learned new methods and techniques and was productive during her study.

Unfortunately, the situation around Covid-19 did not allow the student to apply for an international internship within Erasmus project.

On the other hand, the quality of her work is evidenced by the publishing activity: she is either the lead author or co-author of 4 original works (2x as first-author, all with the IF; one article is under review). Published and submitted articles are following:

- 1) L. Al Shammari, A. Al Mamun, D. Koutová, M. Majorošová, D. Hulcová, M. Šafratová, K. Breiterová, J. Maříková, R. Havelek and L. Cahlíková; Alkaloid profiling of *Hippeastrum* Cultivars by GC-MS, Isolation of Amaryllidaceae Alkaloids, and Evaluation For Their Cytotoxic Activity, *Rec. Nat. Prod*, 14:2 (2020) p. 154-159.

- 2) L. Al Shammari, D. Hulcová, J. Maříková, T. Kučera, M. Šafratová, L. Nováková, M. Schmidt, L. Pulkrábková, J. Janoušek, O. Soukup, J. Kuneš, L. Opletal and L. Cahlíková; Amaryllidaceae alkaloids from *Hippeastrum x hybridum* cv. Ferrari, and preparation of vittatine derivatives as potential ligands for Alzheimer's disease; *South African Journal of Botany* 136 (2021) p. 137-146.
- 3) J. Maříková, A. Al Mamun, L. Al Shammari, J. Korábečný, T. Kučera, D. Hulcová, J. Kuneš, M. Malaník, M. Vašková, E. Kohelová, L. Nováková, L. Cahlíková and M. Pour; Structure Elucidation and Cholinesterase Inhibition Activity of Two New Minor Amaryllidaceae Alkaloids, *Molecules* 26 (2021) 1279.
- 4) Negar Maafi, Filip Pidaný, Jana Maříková, Jan Korábečný, Daniela Hulcová, Tomáš Kučera, Monika Schmidt, Latifah Al Shammari, Marcel Špulák, Maria Carmen Catapano, Marko Mecava, Lukáš Prchal, Jiří Kuneš, Eliška Kohelová, Lucie Nováková, Jakub Chlebek, Lucie Cahlíková, Derivatives of montanine-type alkaloids and their implication for the treatment of Alzheimer's disease: synthesis, biological activity and in silico study, *Bioorg. Chem.*, submitted 05/2021

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