

CHARLES UNIVERSITY
FACULTY OF PHARMACY IN HRADEC KRALOVE
Department of Pharmaceutical Chemistry and Pharmaceutical Analysis

Study program: Pharmacy

Opinion of the Thesis Tutor/Consultant about the Diploma Thesis

Year of assignment: 2021

Year of the defense: 2023

Student: **Amir Hossein Fekri**
Thesis Tutor: doc. PharmDr. Jan Zitko, Ph.D.
Consultant: Mgr. Vinod Sukanth Kumar Pallabothula
Opponent: doc. PharmDr. Miroslav Miletín, Ph.D.
Thesis title: **Design, synthesis and evaluation of heterocyclic compounds with potential antimicrobial activity IV**

Scope of work, number of: 71 pages, 17 figures, 3 tables, 55 citations

Evaluation of experimental work:

- | | |
|---|-----------|
| a) Evaluation of methodological procedures: | Excellent |
| b) Skill in the laboratory or in obtaining experimental data: | Very good |
| c) Independence: | Very good |
| d) Initiative: | Excellent |
| e) Diligence and conscientiousness: | Excellent |

Evaluating the processing of results and writing up the thesis:

- | | |
|---|-----------|
| a) Processing of results (diligence and independence): | Very good |
| b) Interpretation and discussion of results: | Very good |
| c) Literary research: | Excellent |
| d) Text processing (stylistic level): | Excellent |
| e) Formal level of the work (text structure, graphic design): | Excellent |

I recommend the thesis for recognition as a rigorous thesis

Verbal evaluation, distinctive features of the author, and the thesis:

As a diploma student, Amir joined our research group in his 3rd grade of master studies. He became involved in synthetic work in our laboratory, where, under the supervision of doctoral student V.S.K. Pallabothula, he joined several running projects on small heterocyclic compounds as antimicrobial drugs. Amir learned the basics of simple organic synthesis, operating the microwave reactor and handling the automated flash chromatographs. Slowly but steadily, Amir progressed to mostly independent work and began working on his project of 3-aminopyrazine-2-carboxamides as new inhibitors of mycobacterial prolyl-tRNA synthetase. Amir also learned the basics of structure-based drug design methods based on molecular docking and applied this in his project/diploma thesis. The write-up of the diploma thesis was partially guided by the consultant. My comments to the draft were carefully incorporated, and overall, I am satisfied with the outcomes of the project. Partial results were presented at the Student Scientific Conference 2023. The obtained results will be later incorporated into an impacted publication.

The Theses similarity check gives a cumulative similarity of 21 %, with the highest similarity to the diploma thesis of N. Abdalrahman (2023) elaborated as well in our group on a similar

topic. The indicated similarities are located mainly in the description of the common laboratory equipment, where they are understandable. The Turnitin system indicates a cumulative similarity of 43 % including the matches in the list of cited literature. After a detailed examination of both protocols, I note that the matches found are insignificant and are located in parts where they are expected and understandable (e.g. instrumentation, description of biological assays, etc.). Therefore, I deem this thesis as an original work.

Evaluation of the thesis: Excellent

**For the Recommend
defense:**

In Hradec Králové

11. září 2023

signature of the opponent