

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: 2023

Year of the defense: 2024

Student: **Hanieh Kamangar**
Thesis Tutor: doc. PharmDr. Jan Zitko, Ph.D.
Consultant: Ghada Basem Bouz, Ph.D.
Opponent: doc. PharmDr. Mgr. Martin Krátký, Ph.D.
Thesis title: **Synthesis and evaluation of novel quinazolones as potential antimicrobial compounds**

Scope of work, number of: 65 pages, 9 figures, 14 tables, 81 citations

Evaluation of experimental work:

- | | |
|---|-----------|
| a) Evaluation of methodological procedures: | Very good |
| 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:

Hanieh Kamangar joined our research group with a sincere interest in antimicrobial research. Under the direct supervision of Ghada Bouz, Ph.D., she began experimental work on synthesizing simple quinazolinones designed as potential antistaphylococcal compounds. Slowly but steadily, Hanieh progressed to mostly independent work in the lab, where she learned the basic methodology of simple organic reactions, workup, and purification methods, including flash chromatography. The consultant guided the write-up of the diploma thesis. My comments and suggestions on the draft were incorporated. Overall, I am satisfied with the project's outcomes. Partial results were presented at the Student Scientific Conference, and the obtained results will be incorporated into a future impacted publication.

The Thesis similarity check shows a cumulative similarity of 41%, with the highest similarity (36%) to the "twin" diploma thesis of Asal Askari (2024), which was also elaborated within our group on a very similar topic. The Turnitin system indicated a cumulative similarity of 42%, including matches in the list of cited literature. In most cases, the similarities constitute short fragments in the description of methods and/or instrumentation and are expected and understandable. The description of the biological methods (which the student did not perform

in person) is copied word-by-word, but this is properly cited and does not constitute a problem despite being reported by the systems.

The only problematic part is the description of the synthetic procedures (common intermediate, final compounds), where some sentences are identical to the twin diploma thesis of Asal Askari (2024). After investigating the situation with the student and the consultant Ghada Bouz, I concluded that, in most cases, the student was not copying from the previous diploma thesis. The identical parts were mostly written by the mentor or the consultant, and, because the twin theses were almost identical in the aims, methodology, structures, etc., it is understandable that these fragments of the text were pasted to both diploma theses. Therefore, in my opinion, these matches do not constitute plagiarism but rather highlight the parts which the students were not able to write in sufficient quality by themselves and the consultant or mentor stepped in. Importantly, the disclosed thesis is undoubtedly original in its results and their discussion. Therefore, I still consider the disclosed theiss original.

Evaluation of the thesis: Excellent

**For the Recommend
defense:**

In Hradec Králové

9. září 2024

signature of the opponent