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: 2024

Student: **Asal Askari**

Thesis Tutor: doc. PharmDr. Jan Zitko, Ph.D.

Consultant: Ghada Basem Bouz, Ph.D.

Opponent: prof. PharmDr. Petr Zimčík, Ph.D.

Thesis title: **Design, synthesis and evaluation of heterocyclic compounds with potential antimicrobial activity V**

Scope of work, number of: 56 pages, 14 figures, 10 tables, 60 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: Excellent
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: Very good
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:

Asal Askari joined our research group with a sincere interest in antimicrobial research. Under the supervision of Ghada Bouz, Ph.D., she began experimental work on synthesizing simple quinazolinones designed as potential antistaphylococcal compounds. Slowly but steadily, Asal 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 partially guided the write-up of the diploma thesis. My comments and suggestions on the draft were carefully incorporated. Overall, I am satisfied with the project's outcomes, although the analytical characterization of some final compounds was incomplete. Partial results were presented at the Student Scientific Conference, and the obtained results will be incorporated into a future publication.

The thesis similarity check shows a cumulative similarity of 34%, with the highest similarity to the diploma thesis of Cristina Paredes De La Red (2018), which was also elaborated within our group on a similar topic. The Turnitin system indicated a cumulative similarity of 53%, 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 only problematic part is the description of the biological methods used (performed by our collaborators, not by the student herself) in sections 4.3.2., 4.3.3., and 4.3.4. The description of the methods is almost identical to one of our latest publications (EJMECH, 2023). This source was referenced in section 4.3.1 (as ref 52) but was missing in the following three sections. It is also possible that the student took the descriptions from our group's internal documents, which in turn were the source of the text for the EJMECH publication—in this scenario, the student could not be blamed much for not citing uncitable documents. Asal was advised to clarify the issue in an Errata. After examining the protocols, I consider the thesis an original work.

Evaluation of the thesis: Excellent		**For the defense: Recommend**
In Hradec Králové	1. června 2024	signature of the opponent