



CHARLES UNIVERSITY
Faculty of Pharmacy
in Hradec Králové

SUPERVISOR'S EVALUATION

Candidate: **Vinod Sukanth Kumar Pallabothula**
Supervisor: doc. PharmDr. Jan Zitko, Ph.D.
Thesis title: **Synthesis, development and biological evaluation of new antimicrobial compounds**

Vinod S. Pallabothula (hereinafter referred to as VP) began full-time doctoral studies in Pharmaceutical Chemistry at the Faculty of Pharmacy of Charles University in November 2019. During his postgraduate studies, he successfully passed **five partial exams**, and in April 2023, he also passed the **state doctoral exam** in Pharmaceutical Chemistry. VP has fulfilled all other requirements of his individual study plan (submission of a GA UK project - funded, 3-month internship abroad, publication activities).

Since the beginning of his doctoral studies, VP has been actively involved in our team's scientific work, and the core of his work laid in the **project** dealing with **inhibitors of mycobacterial prolyl-tRNA synthetase (ProRS)** derived from 3-aminopyrazine-2-carboxamide. In this project, I especially valued his efforts in optimizing the acylation procedure that led to the key intermediates. Notably, this project led to the successful repurposing of inhibitors of human ProRS to antimycobacterial compounds. The work of VP laid a solid foundation on which we will build with our international collaborators, who study the binding of our compounds to mycobacterial and bacterial ProRSs.

In Autumn 2022, VP completed a **three-month internship** at the University of Milan (Prof. Fiorella Meneghetti, Prof. Carlo Castellano, Prof. Stefania Villa), where he was trained in the basics of crystallography of both small compounds and proteins and in microscale thermophoresis (MST). This internship led to a joint first-author publication, and there are at least two more joint manuscripts under review/preparation.

In the last two years of his studies, VP independently and successfully **supervised two diploma theses** as a consultant and supported younger doctoral students. VP served as the principal investigator of his **GA UK project** on ProRS inhibitors. Furthermore, VP was a team member of START/MED/017 project within the **Grant Schemes at Charles University**. VP has published the results of his scientific work in **four international impacted publications**, with **two as the first author**. He has actively participated in both domestic and international **conferences**.

In conclusion, Vinod S. Pallabothula has demonstrated full capability for independent scientific work in pharmaceutical chemistry, computer-aided drug design, and related fields. I recommend his dissertation for defence and propose that he be awarded the title of Ph.D. in Pharmaceutical Chemistry.

Hradec Králové, 30th October 2024

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