



Přírodovědecká
fakulta

Univerzita Palackého
v Olomouci

Záznam o průběhu obhajoby

Jméno uchazeče:	Rutuja Patil, M.Sc.
Studijní program:	Analytical Chemistry
Školící pracoviště:	Katedra analytické chemie
Předseda komise:	prof. RNDr. Karel Lemr, Ph.D.

**Report on the defense of MSc. Rutuja Patil's doctoral thesis, a Ph.D. student of analytical chemistry, held on August 29, 2023, at 12:00,
Department of Analytical Chemistry, Faculty of Science, Palacký University,
17. listopadu 12, Olomouc**

Prof. Karel Lemr, the chairman of the board for the defense of a doctoral thesis, welcomed the student, her supervisor, the referees, and board members. He introduced MSc. Rutuja Patil, a Ph.D. student of analytical chemistry. Supervisor Prof. Vladimír Havlíček read his evaluation of the student and recommended approaching the defense. Assoc. Prof. Petr Bednář as the head of the department, presented a positive opinion to the final step of MSc. R. Patil's study, i.e., to the defense of her thesis.

The chairman asked MSc. R. Patil to present important results of her doctoral thesis entitled "Metabolomics of clinically important *Aspergillus fumigatus* and *Rhizopus microsporus* in the diagnoses of invasive fungal infections". The student described the purposes of her research. She discussed infection metallomics, focusing on siderophores, sample preparation, analytical processes, and data mining. She also presented the characterization of *R. microsporus* and *A. fumigatus* siderophores and described the quantitative profile of *A. fumigatus* siderophores during germination. MSc. R. Patil talked about *A. fumigatus* and other pathogenes' interplay. Finally, she formulated her conclusions.

Subsequently, the referees, Prof. David Friedecký, and Prof. Zbyněk Zdráhal, read their expert opinions. The third referee Prof. Filip Růžička was excused and his evaluation was read by the

chairman of the board for the defense. The student responded to the comments and questions. Both referees were satisfied with the student's answers and her explanation. Prof. D. Friedecký had to leave. The board confirmed satisfaction with the student's response to the third opinion. All three expert opinions were positive and recommended the defense of the thesis. The supervisor had no additional comments.

In a public scientific debate, Assoc. Prof. D. Milde discussed the quantitation of metals, free and bonded to siderophores. Assoc. Prof. P. Bednář was interested in how many people could be screened to diagnose fungal infections. The life cycle of fungi was discussed with the participant from the audience. Prof. V. Havlíček was interested in the competition of fungi. MSc. Rutuja Patil answered the questions and responded to the comments, demonstrating her knowledge of studied topics, her experience with applied analytical methods, and her knowledge of studied systems.

In the closed part of the defense, the members of the board summarized and discussed the achieved results, MSc. Rutuja Patil's presentation, the opinions of the referees, and student's responses to the questions and the comments. After discussion they balloted. Six members chose evaluation „passed“ (see ballot's protocol). Prof. D. Friedecký did not participate in the ballot. Chairman Prof. K. Lemr disclosed the decision of the board.

It can be summarized that MSc. Rutuja Patil fulfilled her study duties and successfully passed the defense of her doctoral thesis. It can be recommended that a degree „doctor“ (abbreviated Ph.D.) can be conferred on MSc. Rutuja Patil by Palacký University.

Olomouc, August 29, 2023

Prof. RNDr. Karel Lemr, Ph.D.
chairman of the board for defense