

Jury Member Report – Doctor of Philosophy thesis.

Name of Candidate: Dmitrii Travin

PhD Program: Life Sciences

Title of Thesis: Phazolicin — a novel azole-modified peptide antibiotic: structure, mechanisms of action, transport, and biosynthesis

Supervisor: Professor Konstantin Severinov

Name of the Reviewer:

I confirm the absence of any conflict of interest	Signature: Date: 08-08-2022
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Reviewer's Report

The dissertation work is well-designed and methodologically very diverse, ranging from comparative genomic analysis to an array of molecular biology techniques to experiments with growing plants. The author has identified numerous new gene cassettes likely involved in the synthesis of azole-modified peptide antibiotics, and experimentally studied biosynthesis, structure, and function of one of them. While the author could not establish *in vivo* conditions where the production of the antibiotic provided an advantage over competing, susceptible strains, these experiments are an important part of the study, as they suggest possible directions for further research.

The author has published four papers in good journals; three are first-author ones, of which one is in a Nature Index journal. The results have been reported at two international conferences of a good standing.

My technical remarks and comments made during the pre-defense have been accounted for in the final version, so I have no further comments.

Provisional Recommendation

I recommend that the candidate should defend the thesis by means of a formal thesis defense

I recommend that the candidate should defend the thesis by means of a formal thesis defense only after appropriate changes would be introduced in candidate's thesis according to the recommendations of the present report

The thesis is not acceptable and I recommend that the candidate be exempt from the formal thesis defense