PROTOKOL I ZAPISNIK OBRANE DOKTORSKOG RADA

Povjerenstvo ulazi u prostor za obranu, doktorand stoji ispred Povjerenstva. Članovi Povjerenstva i ostali nazočni sjednu, a potom Predsjednik čita:

Dear applicant, members of the Committee for the Defense of doctoral thesis , dear colleagues and guests.
I am pleased to announce that today, on 12 July 2013, our applicant

Nada Ilić

will defend her doctoral thesis entitled:

Naslov doktorskog rada:	*Jezik pisanja rada:*	Engleski
	Hrvatski:	Dizajn i testiranje adepantina – novih prirodnih antibiotika
	Engleski:	Design and testing of adepantins functional artificial antibiotics

and which was supervised by two mentors:

	Titula, ime i prezime :	**Ustanova, država:**
Prvi mentor:	Prof. Dr. Davor Juretić	Faculty of Science, University of Split, Croatia
Drugi mentor:	Prof. Dr. Alessandro Tossi	Department of life sciences, University of Trieste

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Predsjednik čita **životopis** doktoranda/doktorandice:

CV - English

Predsjednik čita **obrazloženje** ocjene doktorskog rada.

The evaluation of Doctoral thesis

Nakon što je pročitao Izvještaj, Predsjednik daje riječ doktorandu/doktorandici) riječima:

I invite the applicant Nada Ilić to present her doctoral thesis. The presentation can last up to 45 min

I invite the members of the Committee to ask questions related to the dissertation

(Note: The mentor (s) will not ask).

At the end of President asks questions.

Does anyone in the audience want to ask a question? Please, introduce yourself

Pitanja nazočnih	
(ime i prezime)	
(ime i prezime)	
(ime i prezime)	

President ends the procedure by saying:
If there are no more questions, I declare the defense of the dissertation completed and suggest that the Commission withdraw for the counseling.

* * *

After returning President reads:

The doctoral thesis was defended in front of the Committee for the Defense of doctoral thesis composed of 5 members:

	Titula, ime i prezime:	Ustanova, država:	Potpis
Izabrano povjerenstvo za obranu doktorskog rada	1.prof. dr. Jasna Puizina	Faculty of Science, University of Split, Croatia	
	2.doc. dr. sc. Stjepan Orhanović	Faculty of Science, University of Split, Croatia	
	3.dr. sc. Bono Lučić	Ruđer Bošković Institute, Zagreb, Croatia	
	4.prof. dr. sc. Davor Juretić	Faculty of Science, University of Split, Croatia	
	5. prof. dr. sc. Alessandro Tossi	Department of Life Sciences, University of Trieste, Italy	

which was elected by

the Faculty Council of the Faculty of Science, University of Split

on 15 May 2013

Doctoral dissertation was accepted by

the Faculty Council of the Faculty of Science, University of Split

on 12 June 2013
at the proposal of the elected Committee for the evaluation of doctoral thesis, which was in the same composition as the Committee for the Defense of doctoral thesis

Upon public defense of the doctoral thesis, the Committee for the Defense of doctoral thesis issued a

unanimously - majority of votes (underline)

DECISION

Nada Ilić

defended her doctoral thesis.

The Commission will ask the Rector of the University of Split to promote

Nada Ilić

into the highest academic title

Doctor of Science

In the scientific field of natural sciences,

scientific field of chemistry

scientific branches of Biochemistry and Medical Chemistry

In Split, 12 July 2013

M.P.

Sveučilište u Splitu, Prirodoslovno-matematički fakultet

Poslijediplomski sveučilišni studij Biofizika

Obrana doktorskog rada NADE ILIĆ, 12. srpnja 2013. godine, MedILS

Pitanja nazočnih:

1) CAN YOU COMMENT ON THE RELATIVE PROBLEMS OF DETERMINING BOTH THEORETICAL AND EXPERIMENTAL Tt VALUES, AND WOULD YOU IN HINDSIGHT USE SOME OTHER PARAMETERS?

2) WHAT ARE YOUR THOUGHTS ON THE REMARKABLE SELECTIVITY OF ADEPANTINS FOR E. COLI, NOT ONLY W.R.T. HOST CELLS BUT ALSO S. AUREUS?

3) WHAT IS THE BASIS FOR THE INCREASED ACTIVITY OF DIMERS WITH RESPECT TO BOTH BACTERIA AND HOST CELLS.

MedILS
SPLIT 12/07/2013

Alessandro Grdi

Sveučilište u Splitu, Prirodoslovno-matematički fakultet

Poslijediplomski sveučilišni studij Biofizika

Obrana doktorskog rada NADE ILIĆ, 12. srpnja 2013. godine, MedILS

Pitanja nazočnih:

1) The incubation of adepontins with bacterial cells lasted for 18 hrs. How did you reach this duration period? Did you try other time points?

2) What are the practical possible applications of adepontins?
as antimicrobial peptides

Prof. Dr. Josip Ruzić

Sveučilište u Splitu, Prirodoslovno-matematički fakultet

Poslijediplomski sveučilišni studij Biofizika

Obrana doktorskog rada NADE ILIĆ, 12. srpnja 2013. godine, MedILS

Pitanja nazočnih:

DAVOR JURETIĆ -

1) AMPIPATHICITY - HOW IT IS ASSOCIATED WITH SMALL MOTIVS (PRESENTATION, FIRST FIGURE, DISCUSSION PAGE 82) ?

2) HYDROPHOBICITY SCALES

a) WHY DIFFERENT RANGE OF MEAN VALUES IN PRESENTATION 0,5 TO -1.5 AND IN THESIS 0.0 TO -1.2 ?

b) ARE BEST DESCRIPTORS ALL ASSOCIATED WITH HYDROPHOBICITY SCALES I.E. ARE SCALES 5, 7, 29, 31, 35 (PAGE 50) ALL HYDROPHOBICITY SCALES ?

University of Split
Faculty of Science

MedILS

Split, July 12, 2013

Defense of PhD thesis of student Nada Ilić – questions:

1. Error bars of y-values are shown, on both sides of the average value, for data points in several Figures - for example in Figure 33. What is the range of a interval defined by the error bar? How many data points of a single measurement belong to interval bounded by the error bars? In which range one can expect more than 99% data points?

2. The values of therapeutic index (TI) are calculated as the ratio of HC50 and MIC concentrations. Explain the influence of measurement errors (Table 20) of these concentrations on the error of TI values, and which of experimental errors (HC50 or MIC) has stronger influence on the error of TI?

3. In available data sets of antimicrobial peptides the distribution of therapeutic index (TI) values is asymetric. Explain why all TI values are logarithmically transformed in modeling?

Bono Lučić

Dr. sc. Bono Lucic, higher research associate
Rudjer Bošković Institute
Zagreb, Croatia

Sveučilište u Splitu, Prirodoslovno-matematički fakultet

Poslijediplomski sveučilišni studij Biofizika

Obrana doktorskog rada NADE ILIĆ, 12. srpnja 2013. godine, MedILS

Pitanja nazočnih:

(1) BASED ON AMPs SELECTIVITY FOR DIFFERENT MEMBRANES, THEIR ABILITY TO BIND OR PENETRATE MEMBRANES AND THEIR ABILITY TO CARRY CARGO WHAT ARE OTHER POSSIBLE USES OF AMPs OTHER THAN BEING ANTIBIOTICS.

(2) IS THERE ANY EXPERIMENTAL TECHNIQUE ABLE TO COMPLENT BIOINFORMATICS IN PROCESS OF SELECTION OF EFFICIENT AMPs.