



UNIVERSITY OF BELGRADE

FACULTY OF
MEDICINE



Twelve-year evaluation of PhD study program in Medical Sciences at the Faculty of Medicine, University in Belgrade

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UNIVERSITY OF BELGRADE



Faculty of Medicine University of Belgrade (MFUB), founded in December 9, 1920, is one of the oldest institutions of Higher Education in Serbia. Over the past decades, MFUB was successfully completed by more than 37 000 MDs, 3 500 candidates obtained the title of Master in Medical Sciences, and 2 600 candidates successfully defended their Doctoral dissertations, which contributed to our Faculty becoming the leading institution for Medical Education in the country, together with its significant position in the regional framework.

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In accordance with the Law on Higher Education and Standards of ORPHEUS (Organization of PhD Education in Biomedicine and Health Sciences in the European System), MFUB organizes Doctoral academic studies (DAS) in medical sciences and offers 22 modules. The latest PhD program in medical sciences was accredited in the academic year of 2016/2017 and it includes a broad range of basic, preventive and clinical thematic fields.

MODULES

1. Molecular Medicine
2. Tumor Biology and Oxidative Diseases
3. Epidemiology
4. Physiology
5. Neurosciences
6. Medical Pharmacology
7. Microbes and Infections
8. Public Health
9. Biomedical Informatics
10. Ecological and Nutritional factors and Health
11. Applied Research in Sports Medicine and Motor Skills
12. Skeletal Biology (in English language)
13. Endocrinology
14. Cardiology
15. Neurology
16. Pulmology
17. Nephrology
18. Reconstructive Surgery
19. Radiology and Nuclear Medicine
20. Research in Rehabilitation
21. Inflammation and Autoimmunity
22. Human Reproduction, Perinatology and Neonatology



REQUIREMENTS

General requirements for all the modules:

- Grade Point Average from the previous level of studies at least 8.00;
- English language skills: ability to communicate and monitor the scientific literature;
- Adequate computer skills;
- Recommendations for scientific research (preferably).

Special requirements are defined for each module.

The selection of candidates is carried out by the corresponding Program Council based on the fulfillment of the requirements of the call, including the following:

- Grade Point Average from the previous level of studies - 50%;
- previous candidates' research experience - 30%;
- individual preferences and abilities of candidates assessed through the interview with the Program Council - 20%.

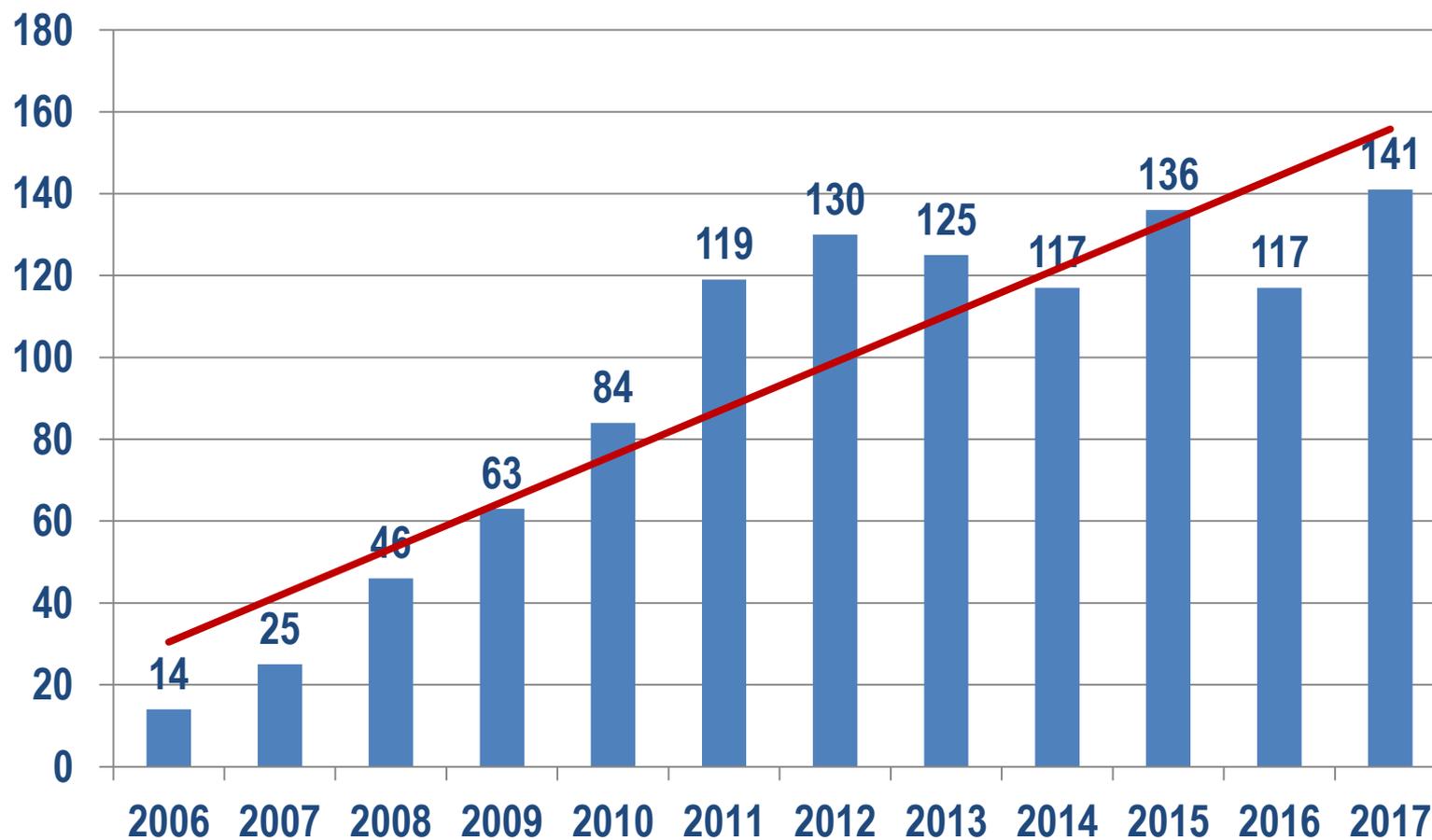
PhD program structure

Educational part	Research part	Transferable skills
<p>Compulsary courses:</p> <ul style="list-style-type: none"> -Methodology of scientific research -Biostatistics (basic course) -Research Ethics -Module-specific obligatory course -Biostatistics (advanced course) <p>Elective course</p>	<p>Realization of PhD thesis project</p>	<ul style="list-style-type: none"> - Journal Clubs - Rotations Laboratories, Clinical Research Units, Population Surveys - Essays, presentations, publications

PhD studies last for three academic years (180 ECTS).



Enrollment in the PhD study program, 2006-2017



1215 students were enrolled

Ministry of Education, Science and Technological Development of the Republic of Serbia, 2011-2020

- 55 research projects
- 651 investigators
- 74 young investigators
- Research equipment (about **2,000,000 EUR**)

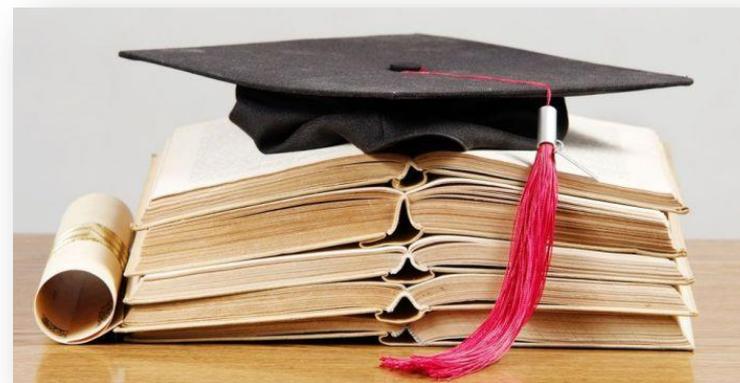


Publications at the Faculty of Medicine, University in Belgrade

Year	2012	2013	2014	2015	2016	2017	2018
Number of publications (JCR list)	608	675	589	540	580	552	545
Cumulative impact factor	1236	1675	1460	1553	1615	1556	2063

Criteria for evaluation of the PhD study program

- Number of published papers (JCR list)
- Cumulative impact factor (IF)
- Time to completion of thesis



- The minimum requirements for a successful defense of PhD thesis are **two full text research papers**, published in a journal (from JCR list) with **IF more than 1**.
- In both of these papers the student should **be the first author** or second author if his/her mentor is the first author.

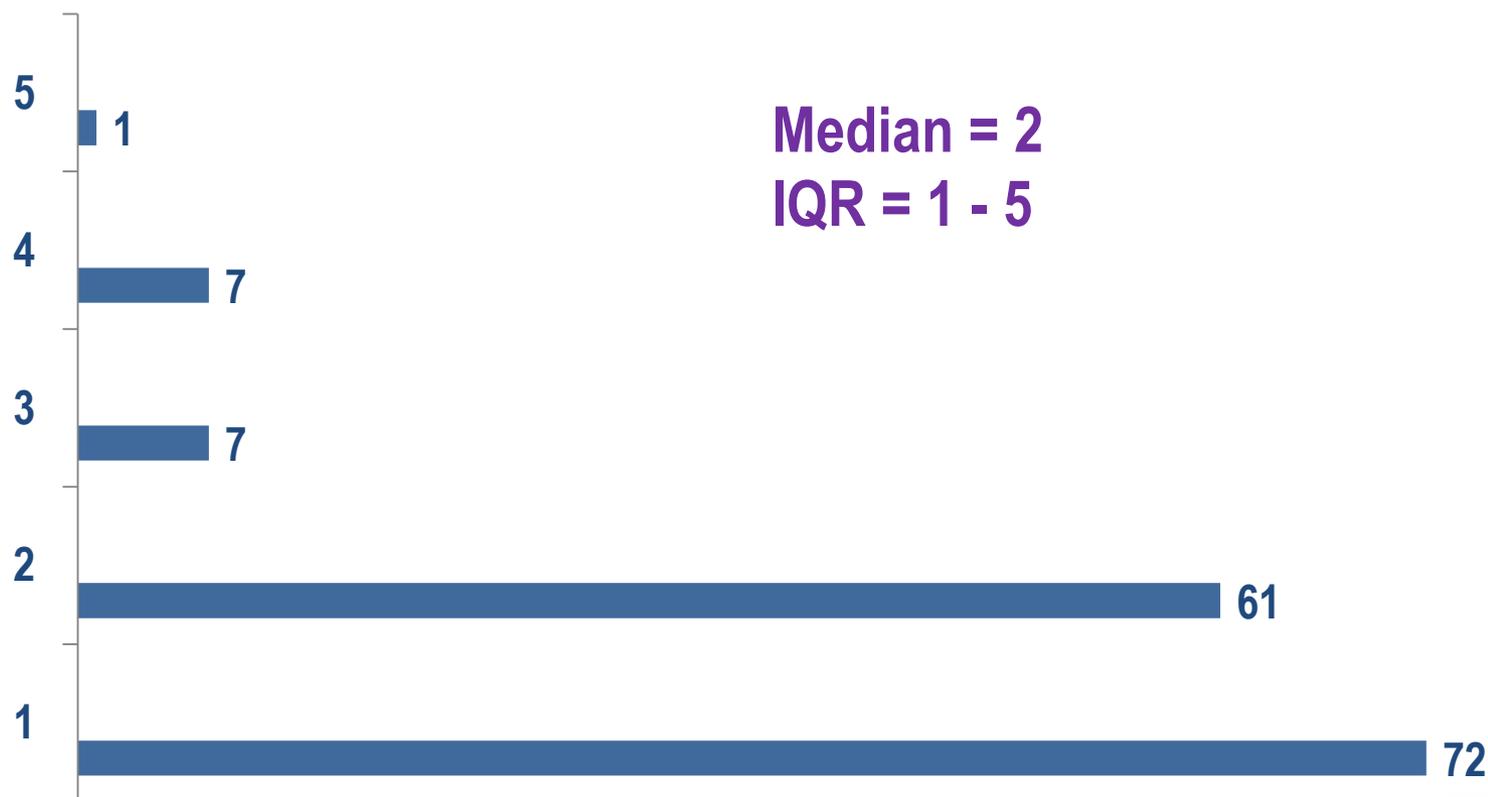
PhD theses and related papers, 2006-2017

In procedure		PhD Projects approved	PhD completed	Average cumulative IF (mean)	Number of papers per thesis (median)
Approvals	Defenses				
34	15	327	148	3,84	2

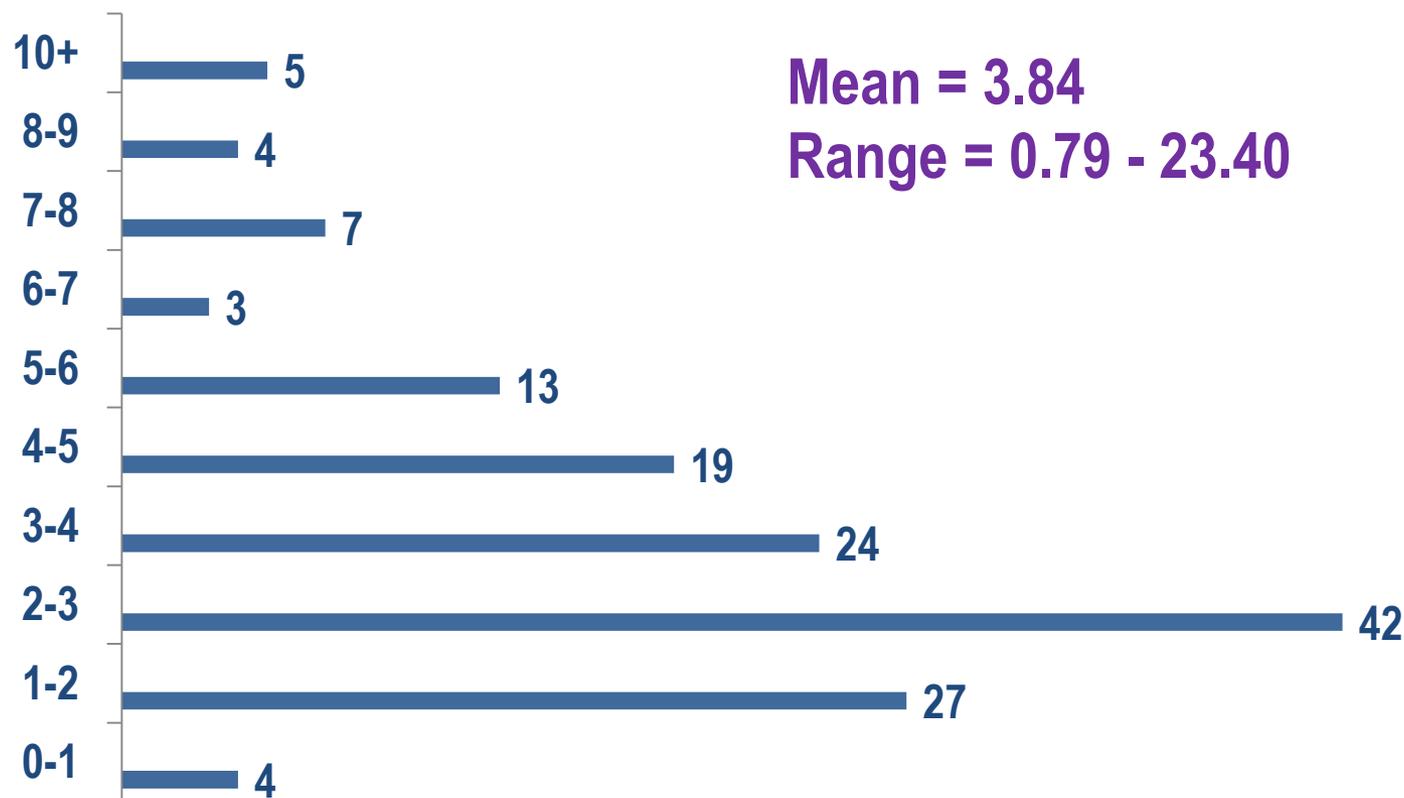




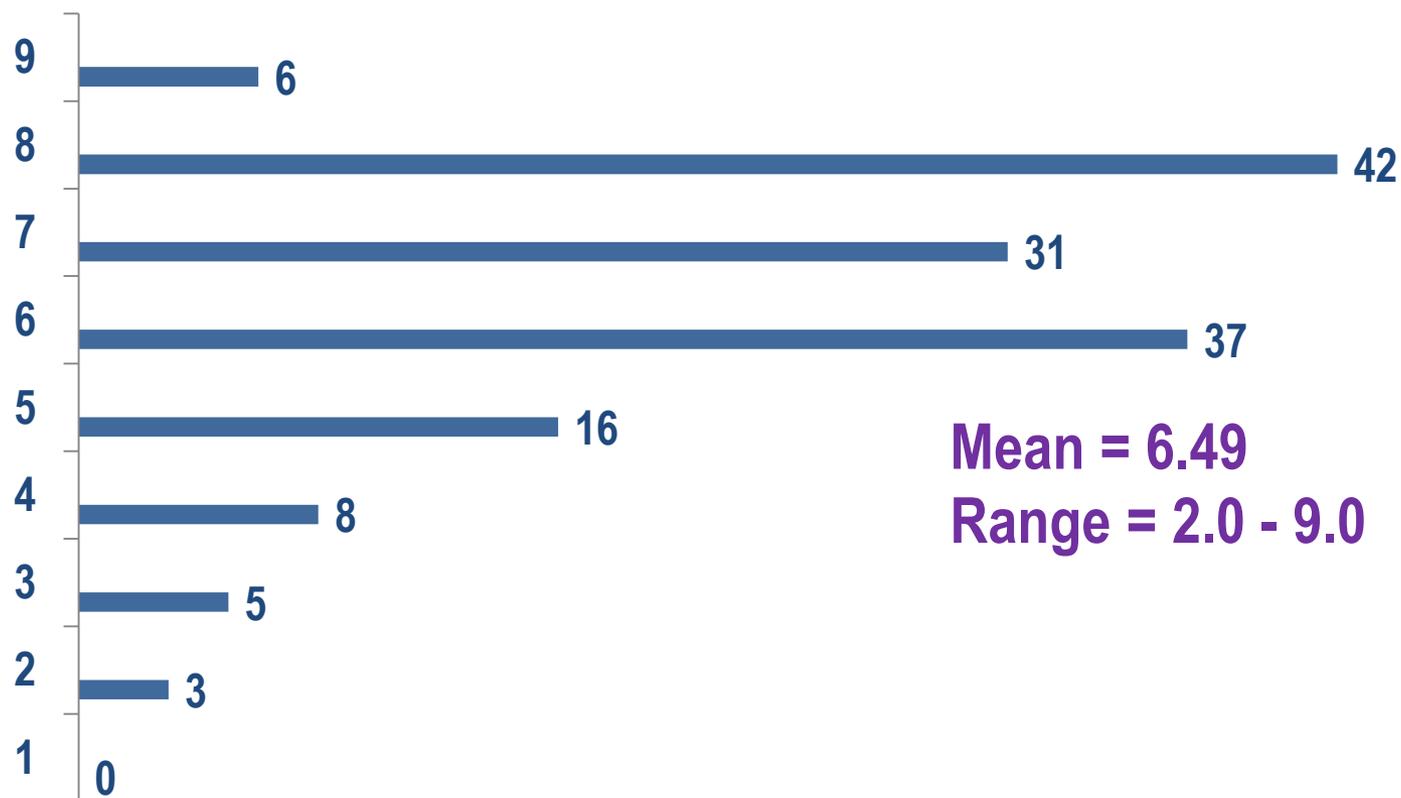
PhD theses and number of published papers, 2006-2017



PhD theses and cumulative impact factor, 2006-2017



PhD theses and time to completion, 2006-2017



ORPHEUS

Organization for **PHD** Education in Biomedicine
and Health Sciences in the **EU**ropean **S**ystem

Faculty of Medicine, University of Belgrade, Serbia

*has been awarded an ORPHEUS label
in recognition of its excellence in PhD training
and its compliance with the*

ORPHEUS/AMSE/WFME

*Standards for PhD education in Biomedicine
and Health Science in Europe*



Miroslav Cervinka
President, ORPHEUS

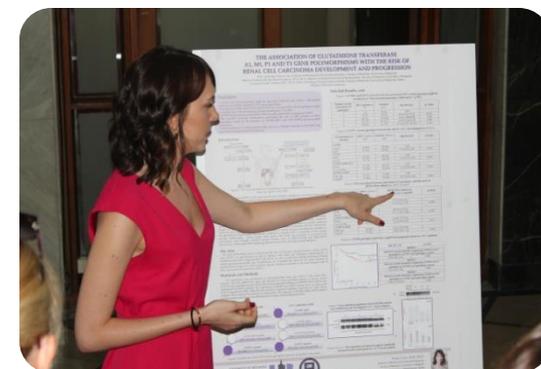


Michael Mulvany
Chairman ORPHEUS Labelling Board

2 August 2014

Improvements in PhD studies after ORPHEUS labeling

- Establishment of organization of PhD students in the Students' Parliament
- Inclusion of PhD students in Ethics Committee and Scientific Board of the Faculty of Medicine, University of Belgrade
- Organization of PhD Day (every year before admission)
- Awarding the best PhD students



Improvements in PhD studies after ORPHEUS labeling

- Introduction of Research Ethics in the PhD Curriculum
- External evaluation of PhD theses
- Introduction of mentors' education
- Evaluation of candidates and mentors
- **New Rulebook for PhD studies (2018)**

PhD Defence: Dr. Jelena Potić

**„CHARACTERIZATION OF THE MECHANISMS OF PHOTORECEPTOR DEGENERATION DURING RETINAL DETACHMENT;
THE EVALUATION OF POSTOPERATIVE ANATOMICAL AND FUNCTIONAL RECOVERY“**

Assessment Commission:

Prof. Dr. Vladimir Bumbaširević

Prof. Dr. Tatjana Pekmezović

Prof. Dr. Milenko Stojković

Prof.dr Dragan Vuković

Prof.Dr Francis Munier, Hopital ophtalmique Jules-Gonin, FM **Lausanne**

99 years of tradition in Education and Research in Medicine!



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