



Professor Dr. Raina Tsvetanova Gergova, PhD

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PROFESSIONAL EXPERIENCE

- ❖ 2020 –up to today, Professor, Head of the Department of Medical Microbiology, Faculty of Medicine, Medical University, Sofia,
- ❖ 2012–2020 –Associate Professor, Head of „Postgraduate education”, MF – MU Sofia
- ❖ 2002 – 2012 –HeadAssistant Professor, Department of Medical Microbiology, MF – MU Sofia
- ❖ 1998 – 2002–Senior Assistant Professor, Department of Medical Microbiology, MF – MU Sofia
- ❖ 1994 – 1998 – Assistant Professor, Department of Medical Microbiology, MF – MU Sofia
- ❖ 1992 – 1994 – Head of Hygiene Inspection, branch, City of Lom
- ❖ 1988–1992 – Doctor in Microbiological Laboratory, Hygiene Inspection branch, city of Lom
- ❖ 1986 – 1988 – Doctor at the an Isoserological Laboratory Hematological center, city of Lom

EDUCATION

- 1991 successfully passed the state exam for the Master in "Medical Microbiology"
- 1981 -1986– MU Sofia - higher education, medicine. MF, MU Sofia
- 1983–1985–Faculty of Social Professions, MU Sofia, specialty “Scientificmedical information ” MU Sofia
- 1981– Graduated with a gold medalThe Rusian Language Highscholl in the city of Lom.

TEACHINGACTIVITY IN HIGHER EDUCATIONALINSTITUTIONS:

Training of Bulgarian and foreign students in medicine, dentistry, pharmacy, medical laboratory assistants, postgraduate training of specialists; teaching in Bulgarian and English languages. Preparationof curricula, abstracts, tests, conducting specialized courses, teaching aids and guides, lectures and exams.

RESEARCH ACTIVITY:

Defended her doctoral dissertation thesis in 2008 - scientific degree "Doctor". Supervisor of three successfully defended doctoral dissertations in 2017, 2018. and 2021. Administrationas a leading researcher of 10 research projects at MU Sofia and participant in 16 other projects. Author / co-author of over 100 real publications in peer-reviewed journals 23 of them with impact factor) and nearly 50 other participations in Bulgarian and international scientific forums.Co-author of three textbooks in Bulgarian and English for students. First author in 38 publications, last author in 21 publications. Over 300 citations (without auto-citations) at the moment - mainlyin international databases (h-index 7 of the researcher in Scopus; and in Google scolar h-index 8), over 50 citations in Bulgarian sources.

GAINED THE AWARD in the name of Acad. Dimitar Orahovac for significant contributions inthe scientific and teaching activity in the field of basic medical sciences in 2018.

HEALTHCARE - DIAGNOSTIC AND TREATMENT ACTIVITY

Performing medical-diagnostic, methodological and consulting activities in connection with determining the therapeutic behavior in problematic systemic infections.

ADMINISTRATIVE ACTIVITY

- ◆ Management of the training laboratory for postgraduate education in the Department for over 8 years.
- ◆ Organization and participations since 2015 in the commission for the State exam for the specialty of Medical Microbiology.
- ◆ Participation in scientific juries for the acquisition of scientific titles and academic positions
- ◆ Participation in examinations for assistants, enrollment of doctoral students, doctoral minimum.
- ◆ Participation in writing two Ordinances for combating infectious diseases, assigned by the Minister of the Ministry of Interior with Orders RD-02-108 / 04.05.2018. and RD-02-157 03.08. 2018 in connection with the control of intestinal and respiratory infections.
- ◆ Participation in the Working Group for Combating Antimicrobial Resistance, appointed by the Minister of the Ministry of Interior by Order RD-02-46 / 03.04.2019.
- ◆ Fourth term as a member of the Faculty Council at the Medical Faculty of the Medical University of Sofia.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:

- Union of Scientists in Bulgaria
- Bulgarian Association of Microbiologists
- Bulgarian Society of Medical Microbiology
- Bulgarian Medical Association - BAM
- European Society of Clinical Microbiology and Infectious Diseases (ESCMID)

SCIENTIFIC EXPERTISE AND INTERESTS:

- Clinical microbiology; Respiratory infections; Nasopharyngeal microbiome
- Urogenital infections; Etiology of bacterial vaginosis; Vaginal microbiome;
- Infections in dentistry and application of various techniques for their treatment, incl. photodynamic therapy; Oral microbiome
- Biofilms, electron microscopy
- Factors of virulence, toxigenicity
- Mechanisms of antimicrobial resistance
- Immunological methods and studies
- Genetic methods and research
- *M. catarrhalis*; *G. vaginalis*; *S. pyogenes*; *S. agalatae*; *S. mutans*; *S. aureus*
- Epidemiology, epidemiological marking
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KNOWLEDGE AND USE OF FOREIGN LANGUAGES

1. Bulgarian language – mother tongue
2. Russian language – excellent in speaking and writing
3. English language – excellent in speaking and writing

REPRESENTATIVE ARTICLES: <https://www.researchgate.net/profile/Raina-Gergova>

1. Kostova I., L. Changov, E. Keuleyan, **R. Gergova**, I. Manolov, Synthesis, analysis and in vitro antibacterial activity of new metal complexes of sulbactam, *Il Farmaco*, 53, 1998, 737-740 (IF 1998 - **0,512**)
2. Changov L., E. Naydenova, G. Ivanova, **R. Gergova**, E. Keuleyan, B. Aleksiev, Synthesis and β -Lactamase Inhibitory Activity of New 6β -Cysteinesulfonamidopenicillanic Acid, *Bioorganic & Medical Chemistry* 7, 1999, 2899-2904 (IF 1999 – **1.759**)

3. Boyanova L., D. Petrov, I. Mitov, G. Gergova, R. Petkov, Z. Minchev, M. Plochev, **R. Gergova**. Anaerobic bacteria in patients with postpneumonectomy empyema treated with omentoplasty. *Probl. Inf. Parasit. Dis.*, 2003; 31:25-26.
4. **Gergova RT**, Iankov ID, Haralambieva IH, Mitov IG. Bactericidal monoclonal antibody against *Moraxella catarrhalis* lipooligosaccharide cross-reacts with *Haemophilus* spp. *Curr. Microbiol.* 2007; 5485-90 (IF₂₀₀₈ - 1.330)
5. **Gergova R.**, Markovska R., Mitov I. Antimicrobial resistance and production of beta-lactamases in Bulgarian clinical isolates *Moraxella catarrhalis* *Annals of microbiology*, 2009; 59, 1, 169-172 (IF₂₀₁₀ – 0.350)
6. Mitov, I.G., **Gergova, R.T.**, Ouzounova-Raykova V.V. Distribution of genes encoding virulence *ompB2*, *ompCD*, *ompE*, beta-lactamase and serotype in pathogenic and colonizing strains *Moraxella catarrhalis*, *Archives of medical research*, 41, 7, 2010, 530-535 (IF₂₀₁₀ - 1,986)
7. **Gergova R.**, Georgieva T, Angelov I, Mantareva V, Valkanov S, Mitov I, Dimitrov S. Photodynamic therapy with water-soluble phthalocyanines against bacterial biofilms in teeth root canals. *Proc. SPIE 8427, Biophotonics: Photonic Solutions for Better Health Care III*, 842744, 2012; doi:10.1117/12.923859; <http://dx.doi.org/10.1117/12.923859>
8. **Gergova R.**, Gueorgieva Tz, Dencheva-Garova MS, Krasteva-Panova A, Kalchinov V, Mitov I, Kamenoff J. Antimicrobial activity of different disinfection methods against biofilms in root canals" *Journal of Investigative and Clinical Dentistry* 2015a; doi: 10.1111/jicd.12147
9. Markovska R., I Schneider, D Ivanova, E Keuleyan, T Stoeva, M Sredkova, B Markova, K Bojkova, **R Gergova**, A Bauernfeind, I Mitov High prevalence of CTX-M-15-producing O25b-ST131 *Escherichia coli* clone in Bulgarian hospitals", *Microbial Drug Resistance*, 2012; 18, 4: 390-395 (IF₂₀₁₂ - 2,364)
10. **Gergova RT**, Strateva TV, Mitov IG. *Gardnerella vaginalis* – associated bacterial vaginosis in Bulgarian women, *The Brazilian Journal of Infectious Diseases*, 2013; 17(3):313–318 (IF₂₀₁₃ - 1.036)
11. Dogandzhiyska V, **Gergova R**, Dimitrov S, Doychinova M. Antimicrobial activity of photodynamic therapy against microorganisms isolated from deep carious lesions. *IMAB*, 2013; 19 (4) <http://dx.doi.org/10.5272/jimab.2013194.430>
12. **Gergova R**, Muhtarova A, Mitov I. Virulence potential of Bulgarian *Streptococcus pyogenes* clinical isolates, *Comptes rendus de l'Académie bulgare des sciences: sciences mathématiques et naturelles*. 2015, 68(8):1061-1070 (IF₂₀₁₆ - 0.321)
13. **Gergova RT**, MP Slavova, VI Boev, MS Mourdjeva, LK Yotova, RT Georgieva-Nikolova, Comparative investigation the feasibility of bacterial biofilms formation on the surface of hybrid material UREASIL, *Bulgarian Chemical Communications*, 2015;47(2), 706-713 (IF₂₀₁₅ - 0. 349)
14. Mitova N., M. Rashkova, **R. Gergova**, G. Jegova, H. Nocheva, D. Krastev Treatment of deep dental caries with micro-invasive technique a clinical and microbiological evaluation *Sylvan Journal*, 2015; 159(3), 498-505 (IF₂₀₁₆ -0.301)
15. **Gergova R.**, Petrova G., Gergov S., Minchev P., Mitov I., Strateva T. Microbiological features of the upper respiratory tract infections in Bulgarian children for the period 1998-2014 – our University's experience. *Balk. Med. J.* 2016; 33 (6): 675-680. (IF₂₀₁₆ - 1.083)
16. **R Gergova**, I Sirakov, I Mitov, and T Strateva, (2016) Detection and phylogenetic characterization of *Gardnerella vaginalis* exotoxin in samples from Bulgarian women with bacterial vaginosis, *C R Acad Bulg Sci (Proceedings of the Bulgarian Academy of Sciences)*, 69(8), 1085-94 (IF₂₀₁₆ - 0.321)
17. Muhtarova Adile A., **Raina T. Gergova**, Ivan G. Mitov. Distribution of macrolide resistance mechanisms in Bulgarian clinical isolates of *Streptococcus pyogenes* during the years of 2013-2016. *J Glob Antimicrob Res.* 2017;10;238-242 (IF₂₀₁₇ 2.022) [Q3]
18. Tosheva-Daskalova K, Strateva T, Mitov I, **Gergova R**. Multiplex PCR detection of problematic pathogens of clinically heterogeneous bacterial vaginosis in Bulgarian women *Turkish J Med Sci*, 2017; 47:1492-1499. doi:10.3906/sag-1702-4 (IF₂₀₂₀ 0.746) [Q3]
19. Gyulbenkiyan E, Gusiyska A, Vassileva R, **Gergova R**. (2018) Evaluation of antibacterial properties of chitosan-citrate solution – an in vitro study. *International Journal of Recent Scientific Research.* 9, 3(I), 25237-25240, DOI: 10.24327/IJRSR

20. **Gergova R**, Muhtarova A, Petrova G, Gergov S, Dikova M, Mitov I. Comparison of cultural, immunological and new PCR techniques for detection of *Streptococcus pyogenes* CR Acad Bulg Sci (Proceedings of the Bulgarian Academy of Sciences), 2018; 71 (10) 1410-1418 (IF₂₀₁₈ - **0.321**)
21. Markovska R, T Stoeva, P Stankova, L Boyanova, D Dimitrova, **R Gergova**, I Mitov (2019) First report of *Enterobacter asburiae* isolate, producing NDM-1 and a novel ACT-68 enzyme in Bulgaria Infectious Diseases 51(8) 1–3 <https://doi.org/10.1080/23744235.2019.1620964> (IF₂₀₁₉ - **2.494**) [Q3]
22. **Gergova R**, Muhtarova A, Mitov I, Setchanova L, Mihova K, Kaneva R, Markovska R. Relation between *emm* types and virulence gene profiles among Bulgarian *Streptococcus pyogenes* clinical isolates Infectious Diseases, 2019;51, (9), 668–675 ISSN: 2374-4235: <https://doi.org/10.1080/23744235.2019.1638964> (IF₂₀₁₉ - **2.494**) [Q3]
23. **Gergova RT**, V-M. S. Tzitou, I. G. Mitov. Molecular–genetic method for fast direct detection of *Staphylococcus aureus* and methicillin resistance in blood cultures and punctures Folia Medica, 2019; 61(4): 555–61. (IF₂₀₁₉-**0,87**)
24. Muhtarova Adile, Kalina Mihova, Romyana Markovska, Ivan Mitov, Radka Kaneva, **Raina Gergova**, Molecular *emm* typing of Bulgarian macrolide-resistant *Streptococcus pyogenes* isolates (manuscriptnumber: 921). Acta Microbiol Immunol Hungar, 2020; 67,1,1–4 <https://doi.org/10.1556/030.66.2019.033> (IF₂₀₂₀ - **2,048**) [Q3]
25. **Gergova, R.T.**, Tsitou, V.S., Gergova, I.I., Muhtarova, A.A., Mitov, I.G. (2019) Correlation of methicillin resistance and virulence genes of *Staphylococcus aureus* with infection types and mode of acquisition in Sofia, Bulgaria Afr. J. Clin. Exper. Microbiol. 20 (4): 280-288
26. A Muhtarova, **R Gergova**, I Mitov Virulence profile of Bulgarian clinical isolates *Streptococcus agalactiae*-PCR determination Journal of IMAB–Annual Proceeding Scientific Papers 2020; 26 (2), 3203-3207
27. V Kalchinov, **R Gergova**. Investigation of antimicrobial effect of photodynamic therapy with Fotosan in laboratory conditions Journal of IMAB–Annual Proceeding Scientific Papers 2020; 26 (3), 3308-3312
28. **R Gergova**, R Markovska Antimicrobial resistance of Bulgarian isolates *Moraxella catarrhalis* during the period 1999-2018 Journal of IMAB–Annual Proceeding Scientific Papers 2020; 26 (2), 3208-3212
29. TG Gueorgieva, **RT Gergova**. Comparative study of Antibacterial Activity of photoactivated disinfection with Fotosan and Standard Endodontic Treatment Journal of IMAB–Annual Proceeding Scientific Papers 2021; 27 (2), 3712-3717
30. **RT Gergova**, A Muhtarova, VM Tsitou, I Mitov Emergence of multidrug-resistant and-hypervirulent *Streptococcus agalactiae* in Bulgarian patients.Balkan Medical Journal 2021; 38 (2), 143-145 (IF₂₀₂₀ **2.021**) [Q3]
31. VM Tsitou, I Mitov, **R Gergova** Relationship between MLSB resistance and the prevalent virulence genotypes among Bulgarian *Staphylococcus aureus* isolates Acta Microbiologica et Immunologica Hungarica 2021; 68 (1), 55-61 (IF₂₀₂₀ **2,048**) [Q3]
32. TG Gueorgieva, **RT Gergova**. Investigation of Antibacterial Activity of Nd: Yag-Laser and Standard Endodontic Treatment Journal of IMAB–Annual Proceeding Scientific Papers 2021; 27 (2), 3736-3740
33. **Gergova R**, A.Muhtarova, L. Boyanova, R. Markovska (2019) Distribution of *msr(D)*, *mef(A/E)*, *emm* genotypes and virulence profiles among Bulgarian macrolide resistant *Streptococcus pyogenes* isolates, C R Acad Bulg Sci (Proceedings of the Bulgarian Academy of Sciences), 2021;74(11) 1673-1681 (IF₂₀₂₀ **0,378**) Boyanova L, Y Marteva-Proevska, **R Gergova**, R Markovska. Gardnerella vaginalis in urinary tract infections, are men spared? Anaerobe 2021; 72, 102438 (IF₂₀₂₀ **3,31**) [Q3]
35. Boyanova L, Y Marteva-Proevska, R Markovska, D Yordanov, **R Gergova**. Urinary tract infections: Should we think about the anaerobic cocci? Anaerobe, 2021; 102509 (IF₂₀₂₀ **3,31**) [Q3]