ACADEMIC CURRICULUM VITAE

Name: <u>Irma SCHABUSSOVA</u>

Title: Assoc. Prof. Univ. Doc. Mag. PhD **Born:** August 31 1969, Brno, Czech Republic

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ORCID: https://orcid.org/0000-0002-2109-2640

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Language skills: Czech/Slovak – native speaker; German/English – C1 (Advanced

proficiency in speaking, reading, and writing); Russian - B1

EDUCATION AND ACADEMIC MILESTONES

04/2019 <u>Venia Docendi (Habilitation)</u> for the Specific Prophylaxis and Tropical

Medicine Institute of Specific Prophylaxis and Tropical Medicine,

Medical University of Vienna, Vienna, Austria

06/2017-Present Associate Professor, Institute of Specific Prophylaxis and Tropical

Medicine, Medical University of Vienna, Vienna, Austria

Medicine, Medical University of Vienna, Vienna, Austria

07/2007-06/2014 Postdoctoral Research Scientist, Institute of Specific Prophylaxis and

Tropical Medicine, Medical University of Vienna, Vienna, Austria

University of Vienna, Vienna, Austria

07/2003-10/2005 **Postdoctoral Research Fellow**, University of Edinburgh, Edinburgh,

UK

12/2001-04/2003 Research Assistant, Department of Marine Biology, University of

Vienna, Vienna, Austria

01/1998-12/2001 Research Assistant, Department of Comparative Animal Physiology

and General Zoology, Masaryk University, Brno, Czech Republic

12/2002 PhD degree in Parasitology, Department of Parasitology, Masaryk

University, Brno, Czech Republic

1996-2002 PhD Thesis at the Department of Parasitology, Masaryk University,

Brno, Czech Republic

10/1996 Master of Science degree in Parasitology, Masaryk University, Brno,

Czech Republic

MAIN AREAS OF RESEARCH

Our research aims to elucidate the fundamental mechanisms and key mediators involved in the complex interplay between the host, parasites, and microbiota, with a particular focus on developing innovative prophylactic and therapeutic strategies for immune-mediated inflammatory diseases, including allergy and IBD. Recently, we have expanded our work to include extracellular vesicles (EVs) derived from both bacteria and mammalian cells. We investigate their immunological potential and their roles in host–microbe interactions. Our group has demonstrated that oral administration of probiotic bacteria can prevent acute ulcerative colitis in mice in a strain-specific manner. Furthermore, we have shown that the gut microbiota promotes the maturation and intestinal homing of mast cells, a process that is essential for the manifestation of experimental food allergy. In parallel, we have provided

evidence that intranasal administration of probiotic bacteria, bacterial EVs, or Toxoplasma gondii extracts effectively suppresses experimental allergic airway inflammation.

10 MOST IMPORTANT SCIENTIFIC/SCHOLARLY RESEARCH ACHIEVEMENTS

- 1. 2022-2024: MSCA European Postdoctoral Fellowships:"LactoVES". (Principal investigator) (199k€)
- 2. 2021-2024: Austrian Science Fund: "Proteases of Schistosomes in host-parasite interaction". (Principal investigator) (391k €)
- 3. 2020-2023: Danube Allergy Research Cluster. (Co-applicant) (441k €)
- 4. 2013-2021: Doctoral Program MCCA: "Influence of obesity on development of allergy and mucosal tolerance". (Co-applicant) (103k €)
- 5. 2012-2020: Austrian Science Fund: SFB F04612: "Parasite-derived adjuvants for prevention and therapy of allergy". (Co-applicant) (338k €)
- 6. 2018-2020: OEAD WTZ: Travel Grant: "Testing the hygiene hypothesis: *Trichinella spiralis*-secreted proteins in treatment of airway inflammation. (Principal investigator) (6,9k €)
- 7. 2017-Present: Member of the scientific board of the Institute of Microbiology of the Czech Academy of Sciences
- 8. 2014: Researcher of the months at the Medical University Vienna
- 9. 2012: Patent: *Lactobacillus paracasei* Ncc2461 (ST11) for use by perinatal maternal administration in the reduction and prevention of allergies in progeny
- 10. 2003-2005: Wellcome Trust Fellowship at the University of Edinburgh

PUBLICATIONS (see LIST OF PUBLICATIONS)

Peer-reviewed publications: **41**; Book chapters: **2**; Invited lectures: **42**; h-Factor: **19** Total cites: **2326** (according to Scopus); Patents: **4**; Total impact factor: ~ **250**

TEACHING ACTIVITIES

Supervised Master students: 1 (Present), 3 defended

Supervised PhD students: 1 (defended 2019); 1 (2015-Present); 1 (2022-Present)

Co-supervision of PhD students: **5** (all defended)

Hold courses: **35** (e.g. Journal club, Methods seminar, Progress

reports)

10 MOST IMPORTANT EDITORIAL AND REVIEWER ACTIVITIES

- 1. Topic Editor in Frontiers in Immunology/Microbiology. "Employing Experimental Gnotobiotic Models to Decipher the Host-Microbiota Cross-Talk in Health and Disease"
- 2. Topic Editor in Frontiers in Microbiology/Nutrition/Immunology. "Probiotic bacteriaderived effector molecules and their impact on the host in health and disease"
- 3. Review Editor in Frontiers in Therapies, Therapeutic Targets & Mechanisms
- 4. Review Editor in Frontiers in Allergens
- 5. Review Editor in Frontiers in Systems Microbiology
- 6. Review Editor in Frontiers in Infectious Agents and Disease
- 7. Academic Editor for PLOS ONE
- 8. Guest Editor Microorganisms MDPI
- 9. Reviewer for 32 scientific journals
- 10. Reviewer for OEAD (AT) and NATIONAL SCIENCE CENTRE (PL) grants