

PERSONAL INFORMATION



Balik Dzhambazov

📍 Faculty of Biology, Paisii Hilendarski University of Plovdiv, 24 Tsar Asen Str., 4000 Plovdiv, Bulgaria

📍 Immunobiomarkers Lab, PERIMED, Centre of Technologies at the Paisii Hilendarski University of Plovdiv, 21 Kostaki Peev Str., 4000 Plovdiv, Bulgaria

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Research interests:

In vitro cell cultures, Primary cell cultures, Cytotoxicity and anticancer activity of different natural products, Immunology, Autoimmune and allergic diseases, Tolerance, Vaccines, Recombinant proteins, Antigen presentation, Animal models for human diseases, Immunomodulation by probiotics/prebiotics, Bionanotechnology and nanomedicine.

POSITION HELD AND RESEARCH FIELD

Professor in Cell Biology

Head of the Immunobiomarkers Lab, PERIMED

WORK EXPERIENCE

Nov 1, 2012 – at present

Professor in Cell Biology

Department of Developmental Biology, Faculty of Biology, Paisii Hilendarski University of Plovdiv, BG-4000 Plovdiv, Bulgaria.

Lecturer in: Cell Biology, Immunobiotechnologies, Molecular Developmental Biology, Laboratory Immunology, Bionanotechnology, Animal Models in the Biomedicine.

Nov 8, 2011 – Nov 17, 2015

Vice Dean of the Faculty of Biology at the Plovdiv University "Paisii Hilendarski"

Faculty of Biology, Paisii Hilendarski University of Plovdiv, BG-4000 Plovdiv, Bulgaria.

Organizing and managing the teaching and publishing activities of the faculty.

Editor in Chief of the faculty's journal "**Journal of BioScience and Biotechnology**"
<http://www.jbb.uni-plovdiv.bg>

Jan 1, 2010 – Oct 31, 2012

Associate Professor in Cell Biology

Department of Developmental Biology, Faculty of Biology, Paisii Hilendarski University of Plovdiv, BG-4000 Plovdiv, Bulgaria.

Lecturer in: Cell Biology, Cytology, histology and embryology.

Sep 1, 2009 – Dec 31, 2009

parental leave

Jan 1, 2008 – Aug 31, 2009

Senior Researcher

Division of Medical Inflammation Research, Department of Medical Biochemistry and Biophysics (MBB), Karolinska Institute, 171 77 Stockholm, Sweden.

Group leader – MHC group.

The role of the antigen-presenting cells and different posttranslational modifications of the proteins (glycosylation, hydroxylation, deamidation) for the development and pathogenesis of autoimmune diseases. Animal models for autoimmune diseases (rheumatoid arthritis, multiple sclerosis). Induction of tolerance by using different antigens and vaccination strategies.

Sep 1, 2006 – Dec 31, 2007

Chief Assistant Professor in Cell Biology

Department of Developmental Biology, Faculty of Biology, Paisii Hilendarski University of Plovdiv, BG-4000 Plovdiv, Bulgaria.

Lecturer in: Cell Biology; Cytology, histology and embryology; Cell Cycle.

Mar 1, 2006 – Aug 31, 2006

Postdoctoral fellow (Full time)

Medical Inflammation Research, Department of Experimental Medical Science, Lund University, Lund, Sweden.

Posttranslational modifications of proteins and induction of tolerance by using different antigens and vaccination strategies.

October 2005 – February 2006

Chief Assistant Professor in Cell Biology

Department of Developmental Biology, Faculty of Biology, Paisii Hilendarski University of Plovdiv, BG-4000 Plovdiv, Bulgaria.

Lecturer in: Cell Biology; Cytology, histology and embryology; Cell Cycle.

Laboratory practice in: Cell Biology; Cytology, histology and embryology; Cell Cycle.

March 2005 – September 2005

Postdoctoral fellow (Full time)

Medical Inflammation Research, Department of Experimental Medical Science, Lund University, Lund, Sweden.

Expression and purification of MHC II proteins and T-cell receptors (TCRs). Preparation and purification of MHC II / peptide complexes and MHC II / peptide / TCR complexes.

June 2004 – February 2005

Chief Assistant Professor in Cell Biology

Department of Developmental Biology, Faculty of Biology, Paisii Hilendarski University of Plovdiv, BG-4000 Plovdiv, Bulgaria.

Lecturer in: Cytology, histology and embryology.

Laboratory practice in: Cell Biology; Cytology and Cytotoxicology.

June 1, 2001 – May 31, 2004

Postdoctoral fellow (Full time)

Section for Medical Inflammation Research, Department of Cell and Molecular Biology, Lund University, Lund, Sweden.

T-cell response in autoimmune diseases. Animal models for rheumatoid arthritis and multiple sclerosis).

November 1996 – May 2001

Assistant Professor in Cell Biology

Department of Developmental Biology, Faculty of Biology, Paisii Hilendarski University of Plovdiv, BG-4000 Plovdiv, Bulgaria.

Lecturer in: Cytotoxicology; Signal transduction.

Laboratory practice in: Cell Biology; Cytology and Cytotoxicology.

September 1995 – October 1996

Financier

Municipality of Velingrad, BG-4600 Velingrad, Bulgaria.

EDUCATION AND TRAINING

January – February, 2009

Postgraduate course in Laboratory Animal Science

Karolinska Institute, 171 77 Stockholm, Sweden.

FELASA certificate ID: 428. Category C.

May 7, 2001

DOCTORAL (PhD) DEGREE

Institute of Zoology, Bulgarian Academy of Sciences, Sofia, Bulgaria.

PhD degree in Biology.

Diploma No. 27194, Council of Ministers, Higher Attestation Committee, Sofia, Bulgaria.

October 1, 1991 – June 30, 1993

JOURNALISM

Free Faculty, Paisii Hilendarski University of Plovdiv, BG-4000 Plovdiv, Bulgaria.

Reporter in the media

Free Faculty, University of Plovdiv "Paisii Hilendarski", BG-4000, Plovdiv, Bulgaria.

October 1, 1990 – July 26, 1995

UNIVERSITY DEGREE

Faculty of Biology, University of Plovdiv "Paisii Hilendarski", BG-4000 Plovdiv, Bulgaria.

BSc and MSc in Biology. Major: Biology; Minors: Teacher in Biology, Ecology.

Diploma VD-95 No. 0005159, Faculty of Biology, Paisii Hilendarski University of Plovdiv BG-4000, Plovdiv, Bulgaria.

Sep 15, 1986 – Jun 15, 1990

SECONDARY EDUCATION

Economic School "Georgi Stefanov", BG-4400 Pazardzhik, Bulgaria.

Economy. Economist-accountant.

PERSONAL SKILLS

Mother tongue(s) Bulgarian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
Russian	C2	C2	B2	B2	C1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Researcher ID: H-1220-2015

ORCID: <http://orcid.org/0000-0001-8052-5840>

Scopus Author ID: 6602462962

h-index (WoS, Scopus): 16

Google Scholar: <https://scholar.google.com/citations?user=on5DE8QAAAAJ&hl=bg&oi=ao>

Research Gate: https://www.researchgate.net/profile/Balik_Dzhambazov

PATENT: Holmdahl R., Kihlberg J., **Dzhambazov B.**, Vestberg M. 2007. A compound comprising an autoantigenic peptide and a carrier with a MHC binding motif.

Patent number: **WO/2007/058587 A1**

OTHER SKILLS

Lab techniques:

- Cell isolation and cell cultures, Cell proliferation assay
- Flow cytometry (FACS)
- Cell separation (MACS and Dynabeads)
- ELISA techniques
- T- and B-cell hybridoma technology, Antigen processing and presentation
- Production and characterization of antibodies
- Cell cytotoxicity assays
- Cell transfection, Protein expression and purification
- Western blot
- HPLC chromatography
- DNA extraction, PCR techniques, DNA and Protein Electrophoresis
- Sequencing and genotyping
- Histology techniques
- ***In vivo techniques:*** mouse models for autoimmune diseases

Supervised PhD students:

1. **Tsvetelina Batsalova** (2009-2012). The role of MHC II and posttranslational modifications of type II collagen in the pathogenesis of rheumatoid arthritis. (Defended: January 26, 2012).
2. **Zhivka Kostova** (2014-2015). Characterization of the cellular and humoral immune response to pollen allergens and antigens. (Defended: December 21, 2015).
3. **Vladimir Staykov** (2012-2016). Application of mitochondrial markers for assessment of human sperm. (Defended: April 25, 2017).
4. **Dzhemal Moten** (2015-2018). Application of specific macromolecules for phylogenetic modeling within Cyanobacteria. (Defended: May 23, 2017).
5. **Pavlina Sredkova** (2013-2016). Immunomodulatory properties of probiotics and prebiotics. (Defended: December 11, 2017).
6. **Borislav Mateev** (2014-2018). Development of a system from biomarkers for determining the implantation window in assisted reproduction. (Defended: June 5, 2019).
7. **Desislava Kolchakova** (2017-2020). Functional analysis of the protein claudin in tumor cell lines. (Defended: July 22, 2021).

AWARDS AND STIPENDS:

- 2007 Research Grant, Anna-Greta Crafoord Foundation for Rheumatological Research, Sweden. (120 000 SEK)
- 2005 Research Grant, King Gustav V 80 years foundation, Sweden. (102 000 SEK)
- 2003 – 2004. Research fellowship, King Gustav V 80 years foundation, Sweden. (12 months)
- 2001 – 2003 Postdoc fellowship, Foundation for Strategic Research (SSF), Sweden. (24 months)

EDITOR-IN-CHIEF:

2012 – 2015

Journal of BioScience and Biotechnology (<http://www.jbb.uni-plovdiv.bg>)
Faculty of Biology, University of Plovdiv "Paisii Hilendarski"
print ISSN: 1314-6238, online ISSN: 1314-6246

MEMBER OF EDITORIAL/ REVIEWER BOARD:

- Toxicology and Forensic Medicine Open Journal (TFMOJ)
- International Journal of Molecular Sciences (IJMS)

ADDITIONAL INFORMATION

Expert at the Research Executive Agency (REA), European Commission