Curriculum vitae

Name: Ivan Mijakovic
Date of birth: 08-08-1975
Nationality: Croatian & Swedish
Residence: Frölundagatan 35C, 431 44 Mölndal, Sweden

Current positions

2013-present Professor, Chalmers University of Technology, Sweden
2017-present Professor, DTU-Biosustain, Technical University of Denmark, Denmark

Education and degrees

2008 Professor Habilitation, University Claude Bernard Lyon, France
2007 University Level Teaching Diploma (UdTU), Technical University of Denmark, Denmark
2003 PhD degree in Molecular Microbiology, University Paris XI, Orsay, France
1997 Engineering degree in Molecular Biology (MSc degree), University of Zagreb, Croatia

Previous positions

2013-2016 Professor with special responsibilities, Technical University of Denmark, Denmark
2013-2016 Consulting Professor, AgroParisTech, France
2008-2013 Professor of Systems Biology, AgroParisTech, France
2007-2008 Associate Professor, Technical University of Denmark, Denmark
2006-2007 Assistant Professor, Technical University of Denmark, Denmark
2004-2005 Postdoctoral fellow, Technical University of Denmark, Denmark
2000-2003 PhD student, INRA-CNRS, France
1998-2000 Research associate, Faculty of Science and Mathematics, University of Zagreb, Croatia

Brief career synopsis and research interests

In 1997 I obtained an Engineering degree in Molecular Biology from the University of Zagreb, Croatia. I graduated at the top of my class and was honored as the Best Student at the University of Zagreb (25 000 students) by the Rector. After spending a brief period as Research Associate at the University of Zagreb, I moved to Paris, France, for my PhD studies. After obtaining a PhD degree in Molecular Microbiology from the University Paris XI in 2003, I moved to the Technical University of Denmark (DTU) as a postdoctoral fellow. In 2006 I became Assistant and in 2007 Associate Professor at the DTU, starting my independent research group. In 2008, I accepted a Full Professor appointment at AgroParisTech and moved to Paris as Professor of Systems and Synthetic Biology. In 2013, I accepted an offer to move to the Chalmers University of Technology, as Full Professor of Bacterial Systems Biology. At the same time, I started a satellite group at the DTU, with a part-time affiliation, first as Professor with special responsibilities (2013-2016), and from January 2017 as Full Professor. Currently I lead a research group implanted at two sites, Chalmers and DTU, with over 30 members (http://www.sysbio.se/Lab_Mijakovic/IM_lab.html). The oldest research topic in my group is bacterial protein phosphorylation, its physiological role and means to use it to engineer bacterial cell factories or to fight bacterial pathogens. My group is among the world leaders in this field, with pioneering contributions in methods to study protein phosphorylation and seminal studies elucidating its physiological role. More recent topics in my group are metabolic engineering of bacterial cell factories (for production of industrial enzymes, platform chemicals, nanoparticles) and various bio-applications of 2D nanomaterials. These include antibacterial coatings, biosensors, treatment of cancer and neurodegenerative diseases, and

extraction of oleochemicals from microbial cell factories. My group is increasingly using approaches of experimental evolution in our basic and applied science projects.

Distinctions and awards

2020 "Spiridion Brusina Medal", Croatian Society of Natural Sciences
2007 "Skou Award", Danish Natural Science Research Council (FNU)
2007 "Jorcks Pris" for excellence in teaching and research, award from Jorcks Foundation
2006 "Researcher of the Year 2006", BioCentrum, Technical University of Denmark
2005 "Teacher of the Year 2005", BioCentrum, Technical University of Denmark
2003 "Costa Award", Conference on Functional Genomics of Gram-positive Bacteria
1997 "Rector's Award" for the best student at the University of Zagreb

Academic appointments and commissions of trust

2021-present	Deputy Head of Department of Life Sciences, Chalmers, Sweden
2019-present	Head of Division of Systems and Synthetic Biology, Chalmers, Sweden
2018-present	Member of the Scientific Advisory Board of the Chalmers Graphene Centre, Sweden
2015-present	Associate Editor at *Periodicum Biologorum*
2014-present	Chairman of the Scientific Committee for the International Conference Series on Post-translational Modifications in Bacteria
2018-2019	Member of the Board of Directors of the Sahlgrenska Science Park, Sweden
2018-2019	Member of the Advisory Board of the Vestra Götaland Region Innovation Platform, Sweden
2018-2019	Member of the Advisory Board of the Gothia Forum, Sweden
2016-2019	Director of the Chalmers Area of Advance Life Science Engineering, Sweden
2015-2019	Associate Editor at *Frontiers in Microbiology*
2015-2018	Member of the Steering Committee of the BACELL Society
2013-2016	Chairman of the Section of Functional Genomics of the European Federation of Biotechnology
2012-2015	Member of the Steering Committee of the Centre of Excellence for Industrial Agrobiotechnology, France
2011-2013	Head of Division of Microbiology and Molecular Genetics, AgroParisTech, France
2003-present	Evaluator for funding calls from: DFF (Danish Free Research Council), ANR (Agence Nationale de la Recherche, France), ARC (Fondation pour la Recherche sur le Cancer, France), the Polish Natural Science Council, the Croatian Academy of Science, the Rumanian National Funding Agency, the Latvian Council of Science and Umeå University.
2003-present	Evaluator in recruitment committees for faculty members at the University of Wageningen, Chalmers University of Technology, Technical University of Denmark, Lund University, and University Claude Bernard Lyon I.

Senior researchers & Extended faculty members supervised

Dr. Shadi Rahimi (2023-present)
Dr. Santosh Pandit (2023-present)
Dr. Priyanka Singh (2023-present)
Dr. Martin Lovmar (2022-present)
Dr. Carsten Jers (2019-present)
Dr. Tao Chen (2016-2017)
Dr. Sandrine Poncet (2011-2013)
Dr. Yves Pagot (2011-2013)

Postdoctoral fellows supervised
Dr. Olena Tkachova (2024-present)
Dr. Mostafa Salehirozveh (2024-present)
Dr. Colleen Manyumwa (2022-present)
Dr. Golnaz Mobasseri (2022-present)
Dr. Zhejian Cao (2021-present)
Dr. Jian Zhang (2021-present)
Dr. Lei Shi (2009-present)
Dr. Xin Chen (2021-2024)
Dr. Paula Martínez Pérez (2021-2023)
Dr. Julie Couillaud (2021-2023)
Dr. Caroline Wasén (2020-2023)
Dr. Yanyan Chen (2020-2023)
Dr. Santosh Pandit (2015-2023)
Dr. Shadi Rahimi (2018-2023)
Dr. Priyanka Singh (2016-2023)
Dr. Mutusankar Eswaran (2021-2023)
Dr. Abhayraj Joshi (2019-2023)
Dr. Julie Bonne Køhler (2019-2023)
Dr. Avlant Nilsson (2020-2022)
Dr. Vaishnavi Ravikumar (2015-2022)
Dr. Mohsen Zareian (2020-2022)
Dr. Abhroop Garg (2018-2021)
Dr. Mériem Senissar (2019-2021)
Dr. Abderahmane Derouiche (2014-2020)
Dr. Carsten Jers (2015-2019)
Dr. Abida Sultan (2015-2019)
Dr. Raghu Mokkapati (2015-2018)
Dr. HeeJin Hwang (2017-2018)
Dr. Valentina Cantatore (2016-2017)
Dr. Fen Yang (2015-2016)

PhD students supervised
Peter Gockel (2023-present)
Saranya Nallapareddy (2023-present)
Mohammed Ghalib (2022-present)
Anargyros Alexiou (2022-present)
Belay Tilahun Tadesse (2022-present)
Leonarda Acha Alarcon (2021-present)
Suvasini Balasubramanian (2021-present)
Hengzi Ruan (2021-present)
Mukil Madhusudanan (2021-present)
Ema Svetlicic (2021-2024)
Chenxhi Zhang (2021-2024
Pedro Aragón Fernández (2021-2022)
Aida Kalantari (2012-2016)

Charlotte Cousin (2010-2014)
Abderrahmane Derouiche (2010-2013)
Ahasanul Kobir (2009-2012)
Boumediene Soufi (2007-2010)
Sujata Vijay Sohoni (2007-2010)
Carsten Jers (2007-2010)
Mette Erichsen Hansen (2006-2009)

Guest PhD students supervised
Claudia Capella (2023-2024)
Pragati Rajendra More (2022-2023)
Amani Belaiba (2021-2021)
Samira Ebrahimi (2020-2021)
Hossein Helalat (2020-2021)
Alireza Neissi (2019-2020)

Master students supervised
A total of 25 Master students graduated from my lab.

Teaching experience
I have experience of teaching at three European universities: The Technical University of Denmark (Denmark, 2006-2008), AgroParisTech (France, 2008-2013) and Chalmers University of Technology (Sweden, 2013-2022). I have been appointed as course responsible for a number of courses at all three universities.

Course responsible

2013-2022	Chalmers University of Technology, Bachelor level advanced course in Cell and Molecular Biology II (KMG050), theoretical course (lectures), approx. 60 students per generation.
2016-2022	Chalmers University of Technology, Bachelor level basic course in Cell and Molecular Biology I (UCM010), theoretical course (lectures), approx. 110 students per generation.
2010-2013	AgroParisTech, Bachelor level course in Molecular Genetics, theoretical course (lectures), approx. 350 students per generation.
2010-2013	AgroParisTech, Master level course in Bioengineering, theoretical course (lectures), approx. 20 students per generation.
2012-2013	AgroParisTech, Master level course in Medical Systems Biology, theoretical course (lectures), approx. 80 students per generation.
2009-2013	AgroParisTech, Master level course in Functional Genomics, theoretical course (lectures), approx. 20 students per generation.
2006-2008	Technical University of Denmark, Master level course in Molecular and Cellular Biology, theoretical course (lectures), approx. 100 students per generation.
2006-2008	Technical University of Denmark, Master level course in Microbial Biotechnology, practical course (experimental), approx. 30 students per generation.

Leading functions in education

2017-2019	Responsible for joint education initiatives between Chalmers and the Sahlgrenska Academy/Sahlgrenska Hospital
2013-2017	Responsible for Chalmers bilateral Erasmus exchange agreements with AgroParisTech, France and University of Zagreb, Croatia.

2012-2013 Coordinator for educational activities in the partnership between AgroParisTech and the pre-industrial platform Metagenopolis.

2009-2013 Coordinator for Master programs: Mathematical Modeling at the Interface of Life Science and Economy (MMSESI) and Systems and Synthetic Biology (MSSB), AgroParisTech, France.

2009-2013 Responsible for the Erasmus Student exchange between AgroParisTech, France and University of Zagreb, Croatia.

2007-2008 Coordinator for foreign exchange students at the BioCentrum, Technical University of Denmark, Denmark.

Conference organization

- Chairman of the scientific committee of the "5th International meeting on post-translational modifications in bacteria" (May 2024) Rouen, France
- Main organizer and Chairman of the scientific committee of the "4th International meeting on post-translational modifications in bacteria" (May 2022) Copenhagen, Denmark
- Main organizer of the PEST-BIN Summer School (October 2021) Copenhagen, Denmark
- Chairman of the scientific committee of the "3rd International meeting on post-translational modifications in bacteria" (December 2018) Tübingen, Germany
- Main organizer of the "NanoMed North" conference (May 2017) Gothenburg, Sweden
- Chairman of the scientific committee of the "2nd International meeting on post-translational modifications in bacteria" (October 2016) Lyon, France
- Chairman of the scientific committee of the conference on "Metabolic engineering in bacteria" (April 2015) Amsterdam, The Netherlands
- Member of the organizing committee of the BACELL 2015 meeting (April 2015) Amsterdam, The Netherlands
- Chairman of the organizing committee of the "1st International meeting on post-translational modifications in bacteria" (September 2014) Göttingen, Germany
- Main organizer of the "Symposium on regulation and signalling in bacteria" (October 2013) Gothenburg, Sweden

Selected invited/keynote lectures

- 5th International meeting on post-translational modifications in bacteria (May 2024) Rouen, France
- CaRe Meeting (October 2021) Gothenburg, Sweden
- FEBS Meeting (July 2021) Ljubljana, Slovenia
- Spiridon Brusina Lecture (April 2021) Zagreb, Croatia
- Materials for Tomorrow (November 2016), Gothenburg, Sweden
- 2nd International meeting on post-translational modifications in bacteria (October 2016) Lyon, France
- NanoMedNorth (June 2016) Copenhagen, Denmark
- Big Data & Biotechnology (January 2016), Tuval, Saudi Arabia
- UCD Symposium (December 2015), Dublin, Ireland
- Conference on Functional Genomics of Gram-positive Bacteria (June 2015) Montecatini, Italy
- Novo Nordisk Prize Symposium (December 2014), Copenhagen, Denmark
- Annual Meeting of the Croatian Society for Biochemistry and Molecular Biology, (September 2014) Zadar, Croatia
- SFM Mikrobiologisk Vårmöte (April 2014) Trollhättan, Sweden
- iBIOK: Innovative Bioproduction Kobe (January 2014) Kobe, Japan

- Symposium on Proteomics of Microorganisms (December 2013) Tübingen, Germany
- VAAM Annual Meeting (March 2013), Bremen, Germany
- Annual conference of the Croatian Society of Biology (September 2012) Sibenik, Croatia
- Conference on Transmembrane Proteins (October 2010) Maratea, Italy
- FEBS Meeting (July 2010) Gothenburg, Sweden
- ASM General Meeting (May 2009) Philadelphia, USA
- Plasmidtagung Conference (October 2008) Götingen, Germany
- International conference on inhibitors of bacterial protein kinases (June 2007) Warsaw, Poland

Current funding (research grants) active in my group

Granting agency	Years	Amount
EU Marie Curie ITN Grant	2021-2024	4.15 M€
Nord Forsk	2021-2024	1.45 M€
Swedish Research Council VR	2021-2024	320 k€
Swedish Research Council VR	2021-2024	330 k€
DTU PhD grant	2021-2024	250 k€
DTU PhD grant (partial funding)	2021-2024	125 k€
DTU PhD grant (partial funding)	2022-2025	85 k€
VINNOVA 2DTech	2020-2025	325 k€
Lundbeckfonden	2019-2024	300 k€
Novo Nordisk Foundation Center grant	2021-2025	670 k€
Danish Research Council Green transition grant	2022-2024	380 k€
Novo Nordisk Foundation Project grant	2022-2024	135 k€
Danish Research Council FTP	2022-2025	380 k€
WISE Postdoc project	2023-2024	200 k€
Vinnova SIO Grafen	2023-2025	300 k€
ÅForsk	2023-2025	100 k€
Danish Research Council Green transition grant	2024-2027	435 k€
Chalmers Area of Advance NANO grant	2024-2024	55 k€
Swedish Research Council FORMAS	2024-2026	300 k€
ÅForsk	2023-2025	150 k€
Novo Nordisk Foundation Pioneer Innovator	2024-2025	150 k€
Vinnova SIO Grafen	2024-2025	90 k€
Vinnova 2Dtech	2025-2029	600 k€

Career total of external funding raised for research as the main applicant: 22.4 M€
This total amount has been awarded to 68 individual projects carried out in my laboratory from 2004-2024, in France (2008-2013), Denmark (2004-2008, 2014-2024) and Sweden (2013-2024).

Scientific collaboration with industrial partners

- Mölnlycke Healthcare, Sweden, 2023-present (wound dressings)
- Naicons, Italy, 2020-2024 (antimicrobial peptides)
- Clinical Microbiomics, Denmark, 2020-2024 (microbiomics and bacterial infections)
- AltraBio, France, 2020-2024 (big data and infection diagnostics)
- Nanoxis Consulting, Sweden, 2020-present (proteomics of bacterial pathogens, diagnostic chips)

- Wellspect Healthcare, Sweden, 2015-present (advanced antibacterial coating of catheters and other biomedical devices)
- Danisco A/S, Denmark: 2007-2009 (engineering of Bacillus subtilis for production of nisine)
- Novozymes A/S, Denmark: 2007-2008 (transcriptomics characterization of Bacillus licheniformis under heat stress and iron limitation)
- Christian Hansen A/S, Denmark: 2007-2008 (improvement of protein secretion and folding for heterologous protein expression in *Bacillus subtilis*)

Patents

1. **Mijakovic I**, Jers C, Zhang C, Manyumwa C (2024) Thermophilic bacterium comprising a surface displayed carbonic anhydrase. EU Patent App 24182851.6. Patent Assignee: Technical University of Denmark.
2. Balasubramanian S, Ruhdal Jensen P, Jers C, Mobasseri G, **Mijakovic I**, Shi L. (2024) Method to produce phosphorylated milk proteins in microbes. US Patent App 18/390, 266. P6930US00-CLI. Patent Assignee: Technical University of Denmark.
3. Kádár R, **Mijakovic I**, Gaska K, Pandit S, Svensson M. (2022) Antibacterial article comprising a polymer matrix with aligned nanoscale flakes of platelets. US Patent App. 17/597, 290. Patent Assignee: DENTSPLY IH AB(DENX-C)
4. Kádár R, **Mijakovic I**, Gaska K, Pandit S, Svensson M. (2021) Method for producing antibacterial surface provided on surface of device/article e.g., coating, involves providing surface of processed mixture which is oriented essentially to longitudinal directions of nanoscale flakes. Patent Number: WO2021001149-A1; EP3760243-A1. Patent Assignee: DENTSPLY IH AB(DENX-C)

Bibliometrics

Google Scholar, July 2024

- 185 peer reviewed publications
- 11 083 citations
- h-index 57
- i-10 index 137