

Curriculum vitae

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

Current positions

2017-present Professor, Center for Biosustainability, Technical University of Denmark, Denmark
2013-present Professor, Chalmers University of Technology, Sweden

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 (Master 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. That is when I started my independent research group, so I have about 10 years of experience as an independent group leader. In 2008 I accepted a Full Professorship from 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, the DTU extended to me a gracious offer to start a satellite group there, with a part-time position, 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 15 members, mostly postdoctoral fellows (http://www.sysbio.se/Lab_Mijakovic/IM_lab.html). The oldest and still dominant research topic in my group is bacterial protein phosphorylation, its physiological role and means to use it to engineer bacterial cell factories or 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 bio-applications of the advanced carbon material graphene (antibacterial coatings and bio-sensors).

Distinctions and awards

- 2007 "Skou" stipend, 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", for the best oral presentation and the 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

- 2016-present Director of the Chalmers Area of Advance Life Science Engineering
- 2015-present Member of the Steering Committee of the BACELL Society (European society for research on Bacilli)
- 2015-present Associate Editor at *Frontiers in Microbiology* and *Periodicum Biologorum*
- 2014-present Chairman of the Scientific Committee for the International Conference Series on Post-translational Modifications in Bacteria
- 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, Reims, France
- 2012-2013 Head of Division of Microbiology and Molecular Genetics, AgroParisTech, France
- 2003-present, Reviewer for Molecular Microbiology, Molecular and Cellular Proteomics, Science Signalling, PLoS Genetics, Journal of Proteome Research, Journal of Proteomics, Journal of Biological Chemistry, Microbiology, Journal of Bacteriology, Biochemica & Biophysica Acta, Proteomics, PLoS Pathogens, Molecular & Cellular Biology, FEBS Letters, Frontiers in Microbiology, PLoS One and many other molecular biology and biochemistry journals.
- 2003-present Evaluator for funding agencies: ANR (Agence Nationale de la Recherche, France), ARC (Fondation pour la Recherche sur le Cancer, France), the Croatian Academy of Science and the Rumanian National Funding Agency.
- 2003-present Evaluator in recruitment committees for Assistant and Associate Professors at the University of Wageningen, Chalmers University of Technology, the Technical University of Denmark, the Lund University, and the University of Lyon I.

Assistant/Associate Professors supervised

- Dr. Tao Chen (2016-present)
- Dr. Sandrine Poncet (2011-2013)
- Dr. Yves Pagot (2011-2013)

Postdoctoral fellows supervised

- Dr. Priyanka Singh (2016-present)
- Dr. Santosh Pandit (2015-present)
- Dr. Vaishnavi Ravikumar (2015-present)
- Dr. Carsten Jers (2015-present)
- Dr. Raghu Mokkalapati (2015-present)

Dr. Abida Sultan (2015-present)
Dr. Abderahmane Derouiche (2014-present)
Dr. Lei Shi (2009-present)
Dr. Valentina Cantatore (2016-2017)
Dr. Fen Yang (2015-2016)

PhD students supervised

Ivan Andreas Stancik (2017-present)
Matthieu da Costa (2017-present)
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)

Master students supervised

A total of 16 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-present). Cumulative experience from teaching at Bachelor level 8 years, at Master level 8 years and on doctoral level 10 years. I have been appointed as course responsible for a number of courses at all three universities (currently responsible for two bachelor courses at Chalmers: UCM010 and KMG050).

Course responsible

2013-present	Chalmers University of Technology, Bachelor level advanced course in Cell and Molecular Biology II (KMG050), theoretical course (lectures), approx. 60 students per generation.
2016-present	Chalmers University of Technology, Bachelor level basic course in Cell and Molecular Biology I (UCM010), theoretical course (lectures), approx. 100 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 Bio-engineering, 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

- 2013-present 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

- Main organizer of the NanoMed North conference, to be held in May 2017, Gothenburg, Sweden
- Chairman of the organizing committee of the “2nd International meeting on post-translational modifications in bacteria and archaea” (October 2016) Lyon, France
- Chairman of the organizing 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) Göttingen, Sweden

Invited or keynote lectures at conferences

- 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 PhD 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) Göttingen, Germany
- International conference on inhibitors of bacterial protein kinases (June 2007) Warsaw, Poland

Invited lectures at Universities, Institutes, Companies

- Technical University of Denmark (January 2017) Lyngby, Denmark
- KAUST (November 2015), Tuval, Saudi Arabia
- Christian Hansen AS (September 2015), Horsholm, Denmark
- Svenska Cellulosa Aktiebolaget (April 2015) Sundsvall, Sweden
- University of Gothenburg (January 2015) Gothenburg, Sweden
- Novo Nordisk Center of Biosustainability (November 2014) Horsholm, Denmark
- University of Gothenburg (April 2014) Gothenburg, Sweden
- University of Tübingen (December 2013) Tübingen, Germany
- University of Lund (November 2013) Lund, Sweden
- Technical University of Denmark (September 2013) Lyngby, Denmark
- INRA MICALIS (August 2013) Jouy en Josas, France
- University Paris XI (August 2013) Orsay, France
- Sahlgrenska Academy (April 2013) Gothenburg, Sweden
- Novozymes A/S (March 2013) Kalundborg, Denmark
- Technical University of Denmark (January 2012) Lyngby, Denmark
- University of Tübingen (October 2011) Tübingen, Germany
- Chalmers University of Technology (March 2011) Gothenburg, Sweden
- Institut Pasteur (March 2010) Paris, France
- AgroParisTech (May 2009) Moulon, France
- INRA (January 2009) Jouy en Josas, France
- Pasteur Institute (December 2008) Paris, France
- Niels Bohr Institute (May, 2008) Copenhagen, Denmark
- IBCP-CNRS (October 2007), Lyon, France
- INRA-CNRS (May 2007) Thiverval-Grignon, France
- University of Gothenburg (May 2007) Gothenburg, Sweden
- CNRS (April 2007) Gif-sur-Yvette, France
- University of Lund (April 2007) Lund, Sweden
- Novozymes A/S (September 2006) Bagsværd, Denmark
- Max Planck Institute (May 2006) Martinsried, Germany
- INRA-CNRS (March 2006) Thiverval-Grignon, France
- University of Lisbon (October 2005) Lisbon, Portugal

International scientific collaborations

- Dr. Nunzio Bottini, La Jolla Institute for Allergy and Immunology, USA
- Prof. Peter Ruhdal Jensen, Technical University of Denmark, Denmark
- Dr. Marie-Francoise Noirot-Gros, Argonne, USA
- Prof. Boris Macek, University of Tübingen, Germany
- Prof. Matthias Mann, Max Planck Institute, Germany
- Dr. Duska Vujaklija, Rudjer Boskovic Institute, Croatia
- Dr. Christophe Grangeasse, CNSR, France
- Dr. Veronique Monet, INRA, France
- Prof. Jörg Stülke, University of Göttingen, Germany
- Dr. Damjan Franjevic, University of Zagreb, Croatia
- Dr. Vincent Fromion, INRA, France
- Prof. Eric Spinnler, AgroParisTech, France

- Prof. Anna Eliasson-Lantz, Technical University of Denmark, Denmark
- Dr. Allan Kent Nielsen, Novozymes A/S, Denmark
- Dr. Josef Deutscher, CNRS, France
- Dr. Tomislav Domazet-Loso, Rudjer Boskovic Institute, Croatia
- Dr. Markus Herrgard, DTU-Biosustain, Denmark
- Prof. Vladimir Bajic, KAUST, Saudi Arabia
- Prof. Takashi Gojobori, KAUST, Saudi Arabia
- Dr. Rute Neves, Christian Hansen A/S, Denmark
- Dr. Martin Lovmar, Wellspech Healthcare, Sweden
- Prof. Sun Nyunt Wai, Umeå University, Sweden
- Prof. Åsa Sjöling, Karolinska Institute, Sweden
- Prof. Avgust Yurgens, Chalmers Graphene Center, Sweden
- Dr. Vladimir Bidnenko, INRA, France
- Prof. Ivan Ahel, Oxford, UK
- Prof. Colin Harwood, Newcastle UNI
- Prof. Sylvie Nessler, University Paris Sud, France
- Prof. Hari Misra, Bhabha Atomic Research Centre, India

Current funding (research grants)

Granting agency	Years	Amount
VINNOVA	2015-2017	220 k€
Chalmers Graphene Centre	2015-2017	330 k€
Chalmers AoA LSE & Nano	2016-2018	330 k€
Swedish research council VR	2106-2018	260 k€
CSC	2016-2017	110 k€
Danish research Council FSS	2015-2018	300 k€
HC Oersted COFUND (EU)	2016-2018	200 k€
KAUST (seed funding)	2016-2017	300 k€
Bayer AG	2017-2019	300 k€
Novo Nordisk Foundation	2015-2019	700 k€

Career total of external funding raised for research as the main applicant/coordinator: 7.04 M€.

Industrial collaboration and outreach activities

I have successfully completed the 2015 Edition of the Chalmers course in Commercialization, Mentor4Research, and represented Chalmers as a finalist at the National Finals Ceremony in Stockholm. I maintain active collaborations with a number of Biotech companies in Sweden and Denmark.

Scientific collaboration with industrial partners

- Wellspect, Mölndal, Sweden, 2015-present (advanced antibacterial coating of catheters and other biomedical devices)
- Christian Hansen A/S, Denmark: 2015-present (phosphoproteome analyses of probiotic strains)
- 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*)

Outreach activities

- 2017: initiated a joint conference and communication platform between the Chalmers Area of Advance Life Science Engineering and Astra Zeneca (first joint conference scheduled for September 2017).
- 2015: in the frame of Mentor 4 Research program, spreading the word on Chalmers research to Swedish companies: SCA, Wellspect Healthcare & Astra Zeneca.
- 2014-present: Collaboration with Novozymes A/S on conference organization and organization of round-table discussions promoting the biotech research to broad audiences (Bacell meeting and Metabolic Engineering Conference in Amsterdam 2015).
- 2009-2013: Series of introductory lectures on general biology for the students of Economics, AgroParisTech, France
- 2009-2013: Series of introductory lectures on general biology for the students of the Electrical Engineering School SUPELEC, Orsay, France
- 2009 Lecture and debate on microbiology for a general audience, organized by the Matrix Croatica, Croatia

Bibliometrics

75 peer reviewed publications.

Web of Science: 2468 citations, H-index 30

Google Scholar: 3220 citations, H-index 31