

## ***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**

My early work (2000-2015) focused on deciphering the physiological roles of protein phosphorylation in bacterial cell regulation. In this period, my group discovered the first protein substrates of bacterial tyrosine kinases, developed key methodology for mapping site-specific bacterial phosphoproteomes, and laid down the methodology for assigning protein substrates to kinases, based on a combination of biochemistry, proteomics, and genetics approaches. For overview of my impact on the field see Nat Rev Microbiol (2019) 17:651-4. My most important original contributions include: PNAS (2002) 99: 13442-7., EMBO J (2003) 22: 4709-18., Nucleic Acids Res (2006) 34:1588-96., J Mol Biol (2018) 430:27-32., PNAS (2024) 121: e2321890121. Since 2015, I have been increasingly incorporating interdisciplinary aspects into my research, working with nanotechnology and medical sciences. This has led to some seminal work on applications of advanced nanomaterials in the areas of infection, cancer and neurodegenerative disease, as well as in environmental protection/remediation. My most important contributions from this period include Adv Mater Interfaces (2018) 5: 1701331, Small (2020) 16: e1904756, Chem Eng J (2020) 397: 125437, Biotechnol Adv (2020) 43: 107570, Adv Mater Interfaces (2021) 8: 2101132, Adv Funct Mater (2023) 33: 2370265, Nucleic Acids Res (2024) 52: 10040-10067, Adv Healthcare Mater (2025) 16: 2570023. As a leader in the field of infection microbiology, I have extensive experience in leading international research consortia, e.g., the EU MSCA ITN project PEST-BIN (2021-2024, 15 PhD students, 8 universities, 1 hospital, 5 companies, budget 4.1 M€), the Nord Forsk Interdisciplinary project GRAMI (2021-2025, 2 universities, 1 research institute, 1.4 M€) and the upcoming EU MSCA DN project BUG-ID (2026-2029, 15 PhD students, 7 universities, 1 hospital,

5 companies, 4.5 M€). Currently I lead a research group implanted at two sites, Chalmers (main site) and DTU (satellite), with about 25 members (not counting guests).

### **Distinctions and awards**

2025 “Distinguished Innovator Award”, Novo Nordisk Foundation  
 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  
 2015-present Associate Editor at *Periodicum Biologorum*  
 2014-2024 Chairman of the Scientific Committee for the International Conference Series on Post-translational Modifications in Bacteria  
 2018-2022 Member of the Scientific Advisory Board of the Chalmers Graphene Centre, Sweden  
 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.  
 2003-present Peer reviewer for reputable journals such as Nat Microbiol, Nat Nanotechnol, PNAS, J Mol Biol, J Biol Chem, Mol Microbiol, etc.

### **Supervision of group members (students/staff members)**

|                              |          |           |
|------------------------------|----------|-----------|
| Researchers/staff scientists | 8 total  | 5 ongoing |
| Postdoctoral fellows         | 31 total | 8 ongoing |
| PhD students                 | 20 total | 6 ongoing |
| Guest PhD students           | 7 total  | 1 ongoing |
| MSc students                 | 30 total | 2 ongoing |

**Senior researchers & junior 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. Vikash Kumar (2025-present)  
Dr. Olena Tkachova (2024-present)  
Dr. Mostafa Salehrozveh (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)  
Hengzi Ruan (2021-2025)  
Suvasini Balasubramanian (2021-2025)  
Mukil Madhusudanan (2021-2024)  
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**

Kristian Nakic (2025-present)  
Claudia Capella (2023-2024)  
Pragati Rajendra More (2022-2023)  
Amani Belaiba (2021-2021)  
Samira Ebrahimi (2020-2021)  
Hosseini Helalat (2020-2021)  
Alireza Neissi (2019-2020)

### **Master students supervised**

A total of 28 Master students graduated from my lab.

### **Supervision of junior PIs/Assistant professors:**

As the Head of SysBio division at CTH, I have directly supervised/coached 6 Assistant Professors on their way to tenure: Aleksej Zelezniak (tenured), Florian David (tenured), Martin Engquist (transitioned to industry), Annikka Polster (tenure-track), Johan Bengtsson-Palme (tenure track), Ines Weber (tenure-track). I have also coached/supported the emergence as independent PIs of several extended faculty members at SysBio: Verena Siewers (research professor), Eduard Kerkhoven, Yun Chen and Michael Molin (senior researchers).

### **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 (MMSEI) 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 signaling in bacteria” (October 2013) Gothenburg, Sweden

### Selected invited/keynote lectures

- FEBS Meeting (September 2025) Belgrade, Serbia
- 5<sup>th</sup> 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
- 2<sup>nd</sup> 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) Göttingen, Germany
- International conference on inhibitors of bacterial protein kinases (June 2007) Warsaw, Poland

### Career total of external funding raised for research as the main applicant: 29.3 M€

This total amount has been awarded to 73 individual projects carried out in my laboratory from 2004-present, in France (2008-2013), Denmark (2004-2008, 2014-present) and Sweden (2014-present).

### Current research grants

| Granting agency                                       | Years     | Amount      |
|-------------------------------------------------------|-----------|-------------|
| EU MSCA Doctoral Network "BUG-ID"                     | 2026-2029 | 4 560 000 € |
| Novo Nordisk Foundation Distinguished Innovator grant | 2026-2028 | 915 000 €   |
| Novo Nordisk Foundation Casein Mission grant          | 2025-2029 | 750 000 €   |
| EU MSCA Postdoc grant                                 | 2025-2027 | 250 000 €   |
| Total Energies Incubator grant                        | 2025-2026 | 400 000 €   |
| Vinnova 2Dtech Center grant (phase II)                | 2025-2029 | 375 000 €   |
| Mölnlycke Healthcare co-financing for Vinnova 2Dtech  | 2025-2029 | 275 000 €   |
| Danish Research Council Green transition grant        | 2024-2027 | 435 000 €   |
| Swedish Research Council FORMAS grant                 | 2024-2026 | 300 000 €   |
| Novo Nordisk Foundation Pioneer Inovator              | 2024-2025 | 150 000 €   |
| WISE Postdoc project grant                            | 2023-2025 | 200 000 €   |
| Vinnova SIO Grafen project grant                      | 2023-2025 | 300 000 €   |

|                                              |           |             |
|----------------------------------------------|-----------|-------------|
| ÅForsk project grants (two projects)         | 2023-2025 | 250 000 €   |
| Novo Nordisk Foundation Project grant        | 2022-2025 | 135 000 €   |
| Danish Research Council FTP grant            | 2022-2025 | 380 000 €   |
| Nord Forsk Interdisciplinary project "GRAMI" | 2021-2025 | 1 450 000 € |
| Novo Nordisk Foundation Center grant         | 2021-2025 | 670 000 €   |

### **Selection of most important previous research grants**

| <b>Granting agency</b>                         | <b>Years</b> | <b>Amount</b> |
|------------------------------------------------|--------------|---------------|
| EU MSCA ITN Grant PEST-BIN                     | 2021-2024    | 4.15 M€       |
| Swedish Research Council VR                    | 2021-2024    | 320 k€        |
| Swedish Research Council VR                    | 2021-2024    | 330 k€        |
| VINNOVA 2DTech Center grant                    | 2020-2024    | 325 k€        |
| Lundbeckfonden                                 | 2019-2024    | 300 k€        |
| Danish Research Council Green transition grant | 2022-2024    | 380 k€        |
| Vinnova MedTech grant                          | 2021-2023    | 300 k€        |
| Vinnova SIO Grafen grant                       | 2020-2022    | 300 k€        |
| Danish Research Council FNU grant              | 2019-2022    | 380 k€        |
| Swedish Research Council FORMAS grant          | 2019-2021    | 300 k€        |
| Villum Experiment grant                        | 2019-2021    | 250 k€        |
| Danish Research Council FTP grant              | 2018-2020    | 380 k€        |
| Vinnova SIO Grafen grant                       | 2017-2019    | 320 k€        |
| Novo Nordisk Foundation Project grant          | 2017-2019    | 370 k€        |
| Danish Research Council FNU grant              | 2015-2018    | 380 k€        |
| Swedish Research Council VR                    | 2015-2018    | 280 k€        |
| Chalmers Areas of Advance grant                | 2015-2017    | 330 k€        |
| KAUST project grant                            | 2015-2017    | 600 k€        |
| Vinnova SIO Grafen grant                       | 2015-2017    | 300 k€        |
| Chaire Agrobiotechnologie grant                | 2013-2015    | 150 k€        |
| French Research council ANR grant              | 2010-2014    | 690 k€        |
| INRA Project grant                             | 2008-2012    | 400 k€        |
| Danish Research Council Skou grant             | 2007-2009    | 450 k€        |
| Danish Research Council FNU grant              | 2005-2008    | 150 k€        |

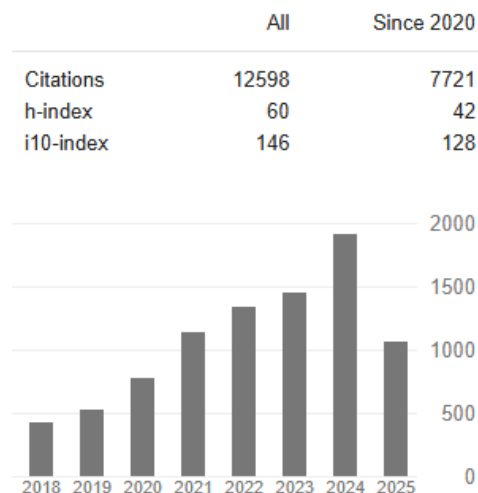
### **Scientific collaboration with industrial partners**

- Total Energies, France, 2025-present (CO<sub>2</sub> fixation)
- Mölnlycke Healthcare, Sweden, 2023-present (wound dressings)
- 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)
- Naicons, Italy, 2020-2024 (antimicrobial peptides)
- Clinical Microbiomics, Denmark, 2020-2024 (microbiomics and bacterial infections)
- AltraBio, France, 2020-2024 (big data and infection diagnostics)
- Danisco A/S, Denmark: 2007-2009 (engineering of *Bacillus subtilis* for production of nisin)
- 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*)

## Bibliometric Data from Google Scholar, June 2025

|                             |        |
|-----------------------------|--------|
| Peer reviewed papers:       | 201    |
| First authorships:          | 15     |
| Last authorships:           | 108    |
| Total citations:            | 12 598 |
| H-index:                    | 60     |
| i10-index:                  | 146    |
| Book chapters:              | 2      |
| Patents/filed applications: | 4      |



## Peer reviewed publications

1. Svetlicic E, Alarcon L, Karlsson R, Jers C, **Mijakovic I** (2025) Mass spectrometry-based analysis of surface proteins in *Staphylococcus aureus* clinical strains: identification of promising k-mer targets for diagnostics. J Proteome Res, in press.
2. Salehrozveh M, Dehghani P, **Mijakovic I** (2025) Nanopore-based neurotransmitter detection: advances, challenges, and future perspectives. ACS Nano, in press.
3. Sauerborn Klobucar R, Kovačević M, Svetlicic E, Kasalo N, Vasari K, Santic M, Antonic M, Posta A, Ivančić Šantek M, Stopić K, Kazazic S, Malev O, Kapetanovic D, Vucić M, Begic K, Franjevic D, Klobučar G, **Mijakovic I** (2025) *Legionella sheltonii* sp. nov., a novel species isolated on a cruise ship during routine monitoring. Int J Syst Evol Microbiol, in press.
4. Khan M, **Mijakovic I**, Pandit S, Yurgens A (2025) A complimentary impedance spectroscopy biosensing method with graphene. NPJ 2D Mater Appl, in press.
5. Andersson D, Kristiansson H, Santamaría ML, **Mijakovic I**, Torinsson Naluai Å, Ståhlberg A (2025) Evaluation of automatic cell free DNA extraction metrics using different blood collection tubes. Sci Rep 15: 19364.
6. Jers C, Mišetić H, Ravikumar V, Garg A, Franjević D, Domazet-Lošo T, **Mijakovic I** (2025) Gene age and genome organization in *Escherichia coli* and *Bacillus subtilis*. Front Microbiol 16: 1512923.
7. Madhusudanan M, Pandit S, Zhang J, Jeong GJ, Singh P, Khan F, **Mijakovic I** (2025) Green synthesis of silver nanoparticles: A review of polymer and antimicrobial drug combinations for enhanced antimicrobial applications. Adv Nano Biomed Res, in press.
8. Balasubramanian S, Mobasser G, Shi L, Jers C, Bonne Køhler J, Boire A, Berton-Carabin C, **Mijakovic I**, Ruhdal Jensen P (2025) Production of phosphorylated and functional  $\alpha$ 1-casein in *E. coli*. Trends Biotechnol, in press.
9. Tadesse BT, Zhao S, Gu L, Jers C, **Mijakovic I**, Solem C (2025) Genome analysis reveals a biased distribution of virulence and antibiotic resistance genes in the genus *Enterococcus* and an abundance of safe species. Appl Environ Microbiol 91: e0041525.



10. Hamidi M, Nagarajan S, Ravikumar V, Gueguen-Chaignon V, Laguri C, Freton C, **Mijakovic I**, Simorre JP, Ravaud S, Grangeasse C (2025) The juxtamembrane domain of StkP is phosphorylated and influences cell division in *Streptococcus pneumoniae*. *mBio* 16: e0379924..
11. Salehrozveh M, Bonne R, Kumar P, Abazar F, Dehghani P, **Mijakovic I**, Roy VAL (2025) Enhanced detection of brain-derived neurotrophic factor (BDNF) using a reduced graphene oxide field-effect transistor aptasensor. *Nanoscale* 17: 4543-4555.
12. Basak S, Singh P, Weller A, Kadumudi FB, Kempen PJ, **Mijakovic I**, Dolatshahi-Pirouz A, Almdal K (2025) Cost-effective and eco-friendly sprayable nanogels (ZC-CSNG) for multifunctional wound dressing applications. *Chem Eng J* 503: 158312.
13. Singh P, Pandit S, Balusamy SR, Madhusudanan M, Singh H, Haseef HMA, **Mijakovic I** (2025) Advanced nanomaterials for cancer therapy: gold, silver, and iron oxide nanoparticles in oncological applications. *Adv Healthcare Mater* 16: 2570023.
14. Che J, Fan Z, Bijl E, Thomsen JPS, **Mijakovic I**, Hetting K, Poulsen NA, Larsen LB (2025) Unravelling the dominant role of phosphorylation degree in governing the functionality of reassembled casein micelles: Implications for future dairy production through precision fermentation. *Food Hydrocoll* 159: 110615.
15. Balusamy SR, Mani B, Somasundaram S, Sohn D, **Mijakovic I**, Rahimi S, Perumalsamy H (2025) Apoptotic cell death of stomach cancer lines (AGS) induced by Co-NTB complex through cellular organelles and DNA damage. *RSC Advances* 15: 739-747.
16. Manyumwa CV, Zhang C, Jers C, **Mijakovic I** (2025) Rational engineering of a highly active and resilient  $\alpha$ -carbonic anhydrase from the hydrothermal vent species *Persephonella hydrogeniphila* (2025) *FEBS J* 292: 2515–2526.
17. Nashier P, Samp I, Adler M, Ebner F, Lê LT; Göppel M, Jers C, **Mijakovic I**, Schwarz S, Macek B (2024) Deep phosphoproteomics of *Klebsiella pneumoniae* reveals HipA-mediated tolerance to ciprofloxacin. *PLoS Pathogens* 20: e1012759.
18. Salehrozveh M, Dehghani P, **Mijakovic I** (2024) Synthesis, functionalization, and biomedical applications of iron oxide nanoparticles. *J Funct Biomater* 15: 340.
19. Rahimi S, Balusamy SR, Perumalsamy H, Ståhlberg A, **Mijakovic I** (2024) CRISPR-Cas target recognition for sensing viral and cancer biomarkers. *Nucleic Acids Res* 52: 10040-10067.
20. Ribeiro S, Chaumet G, Alves K, Nourikyan J, Shi J, Lavergne J-P, **Mijakovic I**, de Bernard S, Buffat L (2024) BacSPaD: A robust bacterial strains' pathogenicity resource based on integrated and curated genomic metadata. *Pathogens* 13: 672.
21. Tadesse BT, Gu L, Solem C, **Mijakovic I**, Jers C (2024) The probiotic *Enterococcus lactis* SF68 as a potential food fermentation microorganism for safe food production. *J Agric Food Chem* 72: 18089-18099.
22. Zhang J, Pandit S, Rahimi S, Cao Z, **Mijakovic I** (2024) Vertical graphene nanoarray decorated with Ag nanoparticles exhibits enhanced antibacterial effects. *J Colloid Interface Sci* 676: 808-816.
23. Prabhu PP, Mohanty B, Lobo CL, Balusamy SR, Shetty A, Perumalsamy H, Mahadev M, **Mijakovic I**, Dubey A, Singh P (2024) Harnessing the nutraceuticals in early-stage breast cancer: mechanisms, combinational therapy, and drug delivery. *J Nanobiotechnology* 22: 574.
24. Ruiz JMO, Gerner E, Rahimi S, Alarcón LA, **Mijakovic I** (2024) Biofilm formation and dispersal of *Staphylococcus aureus* wound isolates in microtiter plate-based 2-D wound model. *Helyon* 10: e33872.

25. Ghai V, Pandit S, Svensson M, Larsson R, Matic A, Ngaley R, Dash SP, Terry A, Nygard K, **Mijakovic I**, Kádár R (2024) Achieving long-range arbitrary uniform alignment of nanostructures in magnetic fields. *Adv Funct Mater* 2024: 2406875.
26. Manyumwa CV, Zhang C, Jers C, **Mijakovic I** (2024) Alpha carbonic anhydrase from *Nitratiruptor tergaricus* engineered for increased activity and thermostability. *Int J Mol Sci* 25: 5853.
27. Shi L, Derouiche A, Alazmi M, Ventroux M, Svetlicic E, Bonne K hler J, Noiro-Gros MF, Gao X, **Mijakovic I** (2024) Connection between protein-tyrosine kinase inhibition and coping with oxidative stress in *Bacillus subtilis*. *Proc Natl Acad Sci USA* 121: e2321890121.
28. Singh P, **Mijakovic I** (2024) Harnessing barley grains for green synthesis of gold and silver nanoparticles with antibacterial potential. *Discover Nano* 19: 101.
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#### **Book chapters:**

1. Chokkiah B, Eswaran M, Annamalai P, Ramalingam M, **Mijakovic I**, Sivakumar B, Ponnusamy KV, Ramakrishnan K (2023) Trace level detection of heavy metal ions using electrochemical sensors: mercury, lead, cadmium, and chromium. *Materials Technology for Energy and Environmental Nexus*, Volume 2. IOP Publishing Ltd. 13/1-13/33.
2. Rahimi S, Mohanan P, Zhang D, Jung KH, Yang DC, **Mijakovic I**, Kim YJ (2021) Metabolic Dynamics and Ginsenoside Biosynthesis. *The Ginseng Genome*. Springer International Publishing. 121-141.

#### 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)