

## ***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         | 32 total | 9 ongoing |
| PhD students                 | 20 total | 6 ongoing |
| Guest PhD students           | 8 total  | 2 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. Colleen Manyumwa (2022-present)  
Dr. Golnaz Mobasser (2022-present)  
Dr. Zhejian Cao (2021-present)  
Dr. Lei Shi (2009-present)  
Dr. Munis Khan (2025-2025)  
Dr. Jian Zhang (2021-2025)  
Dr. Mostafa Salehrozveh (2024-2025)  
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 K hler (2019-2023)  
Dr. Avlant Nilsson (2020-2022)  
Dr. Vaishnavi Ravikumar (2015-2022)  
Dr. Mohsen Zareian (2020-2022)  
Dr. Abhroop Garg (2018-2021)  
Dr. M ri m 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)  
Leonarda Acha Alarcon (2021-present)  
Belay Tilahun Tadesse (2022-2025)  
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**

Jaume Sempere Torregrosa (2025-present)  
Kristian Nakic (2025-present)  
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 30 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: 30.5 M€**

This total amount has been awarded to 77 individual projects carried out in my laboratory from 2004-present, in France (2008-2013), Denmark (2004-2008, 2014-present) and Sweden (2014-present).

#### **Currently ongoing research grants**

| <b>Granting agency</b>                                | <b>Years</b> | <b>Amount</b> |
|-------------------------------------------------------|--------------|---------------|
| 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 €     |
| Danish Research Council FTP grant                     | 2026-2028    | 430 000 €     |
| Danish Research Council FTP grant                     | 2026-2028    | 430 000 €     |
| Villum Foundation grant                               | 2025-2027    | 335 000 €     |
| 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 Innovator      | 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 | 697 000 €   |

### Selection of most important previous research grants

| Granting agency                                | Years     | Amount      |
|------------------------------------------------|-----------|-------------|
| EU MSCA ITN Grant PEST-BIN                     | 2021-2024 | 4 150 000 € |
| Swedish Research Council VR                    | 2021-2024 | 320 000 €   |
| Swedish Research Council VR                    | 2021-2024 | 330 000 €   |
| VINNOVA 2DTech Center grant                    | 2020-2024 | 325 000 €   |
| Lundbeckfonden                                 | 2019-2024 | 300 000 €   |
| Danish Research Council Green transition grant | 2022-2024 | 380 000 €   |
| Vinnova MedTech grant                          | 2021-2023 | 300 000 €   |
| Vinnova SIO Grafen grant                       | 2020-2022 | 300 000 €   |
| 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€      |

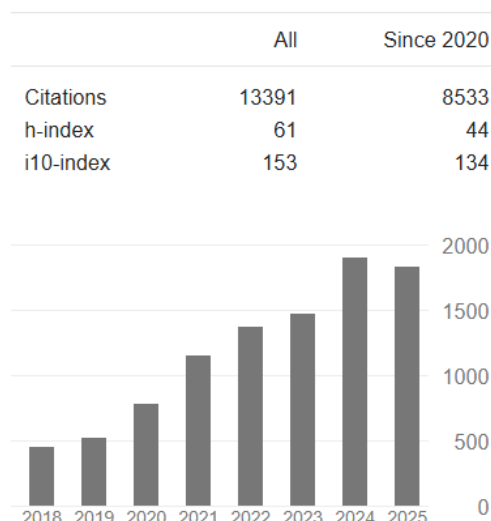
### Scientific collaboration with industrial partners

- 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, September 2025

|                             |        |
|-----------------------------|--------|
| Peer reviewed papers:       | 209    |
| First authorships:          | 15     |
| Last authorships:           | 110    |
| Total citations:            | 13 391 |
| H-index:                    | 61     |
| i10-index:                  | 153    |
| Book chapters:              | 2      |
| Patents/filed applications: | 4      |



## Peer reviewed publications

1. Yan Z, Niu W, Liu Y, Qu L, Pandit S, **Mijakovic I**, Wei Y (2025) Microbial fermentation alters the phytochemical profile of *Ginkgo biloba* leaves. *Future Foods* 12: 100764.
2. Singh H, **Mijakovic I**, Singh P (2025) Advances in precision oncology using patient-derived organoids and functional biomaterials. *Front Cell Dev Biol* 13: 1670328.
3. Cappella C, Jers C, Ninivaggi L, **Mijakovic I**, Agrimi G, Scarcia P (2025) Development of a toolkit for high-efficiency, markerless, and iterative genome editing in *Shoucheilla clausii*. *Microb Biotechnol*, in press.
4. Singh H, Balusamy SR, Sukweenadhi J, Saravanan M, Aruchamy M, **Mijakovic I**, Singh P (2025) Smart hybrid nanomaterials for chronic infections: microbiome-responsive and sustainable therapeutic platforms. *J Nanobiotechnol*, in press.
5. Balusamy SR, Rahimi S, Tkachova O, Lee S, Ramakrishna S, **Mijakovic I**, Perumalsamy H (2025) One stone two birds: conjugation of graphene oxide with Rg3–doxorubicin reduces its toxicity and downregulates metallothionein expression for improved liver-targeted therapy. *Cancer Nanotechnol* 16: 43.
6. Cao Z, Pandit S, Amombo Noa FM, Zhang J, Gao W, Rahimi S, Öhrström L, **Mijakovic I** (2025) Mechano-bactericidal surfaces achieved by epitaxial growth of metal-organic frameworks. *Adv Sci* e05976.
7. Singh P, Joshi AS, Singh H, **Mijakovic I** (2025) Medical applications and pharmacokinetics of gold nanoparticles in the human body. *Mol Cancer*, in press.



8. Balusamy SR, Balamurugan M, Nag S, Mohanto S, Elsadek MF, Altwaijry N, Sohn D, **Mijakovic I**, Singh P, Perumalsamy H (2025) Anti-cancer potential of Copper-NTB complex via damaging cellular organelles and apoptosis in triple-negative breast cancer. *Nano Sel* e70049.
9. 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* 24: 4575-4585.
10. Salehirozveh M, Dehghani P, **Mijakovic I** (2025) Nanopore-based neurotransmitter detection: advances, challenges, and future perspectives. *ACS Nano* 19: 24404-24424.
11. 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* 75: 006813.
12. Khan M, **Mijakovic I**, Pandit S, Yurgens A (2025) A complimentary impedance spectroscopy biosensing method with graphene. *NPJ 2D Mater Appl*, in press.
13. 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.
14. 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.
15. 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* 2400194.
16. Balasubramanian S, Mobasser G, Shi L, Jers C, Bonne Kähler 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* 43: 2304-2322.
17. 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.
18. 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.
19. Salehirozveh 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.
20. 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.
21. 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.
22. 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.

23. 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.
24. 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.
25. 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.
26. Salehizoveh M, Dehghani P, **Mijakovic I** (2024) Synthesis, functionalization, and biomedical applications of iron oxide nanoparticles. *J Funct Biomater* 15: 340.
27. 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.
28. 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.
29. 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.
30. 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.
31. 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.
32. 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.
33. Ghai V, Pandit S, Svensson M, Larsson R, Matic A, Ngalyo 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.
34. 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.
35. Shi L, Derouiche A, Alazmi M, Ventrux M, Svetlicic E, Bonne Køhler J, Noirot-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.
36. Singh P, **Mijakovic I** (2024) Harnessing barley grains for green synthesis of gold and silver nanoparticles with antibacterial potential. *Discover Nano* 19: 101.
37. Zhang J, Li A, Yu X, **Mijakovic I**, Pandit S (2024) Polydopamine modified carbon nitride and PAMAM assembled electrochemical immunosensor for detection of indole-3-acetic acid. *Chem Electro Chem* 11: e202400145.

38. Tadesse BT, Svetlicic E, Zhao S, Berhan N, Jers C, Solem C, **Mijakovic I** (2024) Bad to the bone? - Genomic analysis of *Enterococcus* isolates from diverse environments reveals that most are safe and display potential as food fermentation microorganisms. *Microbiol Res* 283: 127702.
39. Joshi AS, Bapat MV, Singh P, **Mijakovic I** (2024) *Viridibacillus* culture derived silver nanoparticles exert potent anticancer action in 2D and 3D models of lung cancer via mitochondrial depolarization-mediated apoptosis. *Materials Today Bio* 25: 100997.
40. More PR, Shinde S, Cao Z, Zhang J, Pandit S, De Filippis A, **Mijakovic I**, Galdiero M (2024) Antibacterial applications of biologically synthesized *Pichia pastoris* silver nanoparticles. *Helyon* 10: e25664.
41. Balasubramanian S, Bonne Køhler J, Jers C, Ruhdal Jensen P, **Mijakovic I** (2024) Exploring the secretome of *Corynebacterium glutamicum* ATCC 13032. *Front Bioeng Biotechnol* 12: 1348184.
42. **Mijakovic I**, Rahimi S (2024) Learning by teaching efficiently enhances learning outcomes in Molecular Biology of the Cell course. *Biochem Mol Biol Educ* 52: 15-24.
43. Zou G, Li T, **Mijakovic I**, Wei Y (2024) Synthetic biology enables mushrooms to meet emerging sustainable challenges. *Front Microbiol* 15: 1337398.
44. Lanai, V., Chen Y, Naumovska E, Pandit S, Schröder E, **Mijakovic I**, Rahimi S (2024) Differences in interaction of graphene/graphene oxide with bacterial and mammalian cell membranes. *Nanoscale* 16: 1156-1166.
45. Chen Y, Pandit S, Rahimi S, **Mijakovic I** (2024) Graphene nanospikes exert bactericidal effect through mechanical damage and oxidative stress. *Carbon* 218: 118740.
46. Zhang X, Miao Q, Tang B, Qu L, **Mijakovic I**, Wei Y (2023) Discovery of novel alkaline tolerant xylanases from fecal microbiota of dairy cows. *Biotechnol Biofuels* 16: 182.
47. Ruan H, Bek M, Pandit S, Aulova A, Zhang J, Bjellheim P, Lovmar M, **Mijakovic I**, Kádár R (2023) Biomimetic antibacterial gelatin hydrogels with multifunctional properties for biomedical applications. *Appl Mater Interfaces* 15: 54249-54265.
48. Cao Z, Fu X, Li H, Pandit S, Amombo Noa F, Ohrstrom L, Zelezniak A, **Mijakovic I** (2023) Synthesis of metal-organic frameworks through enzymatically recycled polyethylene terephthalate. *ACS Sustain Chem Eng* 11: 43.
49. Balusamy SR, Joshi AS, **Mijakovic I**, Singh P (2023) Advancing sustainable agriculture: a critical review of smart and eco-friendly nanomaterial applications. *J Nanobiotechnology* 21: 372.
50. Liang J, Zhao X, Wan D, Dai J, Zhang J, Mai W, Tang J, Shi L, **Mijakovic I**, Wei Y (2023) Long-term microbiota and performance monitoring of a highly efficient propylene oxide co-production methyl tert-butyl ether production wastewater treatment plant. *J Water Process Eng* 56: 104376.
51. Aminian-Dehkordi J, Rahimi S, Golzar-Ahmadi M, Singh A, Lopez J, Ledesma-Amaro R, **Mijakovic I** (2023) *Biotech Adv* 68: 108239.
52. Joshi AS, Madhusudanan M, **Mijakovic I** (2023) 3D printed inserts for reproducible high throughput screening of cell migration. *Front Cell Dev Biol* 11: 1256250.
53. Ruan H, Aulova A, Ghai V, Pandit S, Lovmar M, **Mijakovic I**, Kádár R (2023) Polysaccharide-based antibacterial coating technologies. *Acta Biomater* 168: 42-77.
54. Zhang J, Neupane N, Dahal PR, Rahimi S, Cao Z, Pandit S, **Mijakovic I** (2023) Antibiotic-loaded boron nitride nanoconjugate with strong performance against planktonic bacteria and biofilms. *ACS Appl Bio Mater* 6: 3131-3142.
55. Chen X, Pandit S, Shi L, Ravikumar V, Bonne Køhler J, Svetlicic E, Garg A, Petranovic D, **Mijakovic I** (2023) Graphene oxide attenuates toxicity of amyloid- $\beta$  aggregates in yeast by promoting disassembly and boosting cellular stress response. *Adv Funct Mater* 33: 2370265.

56. Pandit S, Jacquemin L, Zhang J, Gao Z, Nishina Y, Meyer RL, **Mijakovic I**, Bianco A, Pang Kamp C (2023) Polymyxin B complexation enhances the antimicrobial potential of graphene oxide. *Front Cell Infect Microbiol* 13: 1209563.
57. Hintzen J, Abujubara H, Rahimi S, **Mijakovic I**, Tietze D, Tietze AA (2023) Substrate-derived sortase A inhibitors: targeting an essential virulence factor of Gram-positive pathogenic bacteria. *Chem Sci* 14: 6975-6985.
58. Rahimi S, Lovmar T, Aulova A, Pandit S, Lovmar M, Forsberg S, Svensson M, Kádár R, **Mijakovic I** (2023) Automated prediction of bacterial exclusion areas on SEM images of graphene-polymer composites. *Nanomaterials* 13: 1605.
59. Zhang J, Singh P, Cao Z, Rahimi S, Pandit S, **Mijakovic I** (2023) Polydopamine/graphene oxide coatings loaded with tetracycline and green Ag nanoparticles for effective prevention of biofilms. *Appl Surf Sci* 626: 157221.
60. Eswaran M, Rahimi S, Pandit S, Chokkiah B, **Mijakovic I** (2023) A flexible multifunctional electrode based on conducting PANI/Pd composite for non-enzymatic glucose sensor and direct alcohol fuel cell applications. *Fuel* 345: 128182.
61. Balusamy SR, Perumalsamy H, Huq A, Yoon TH, **Mijakovic I**, Thangavelu L, Rahimi S (2023) A comprehensive and systemic review of ginseng-based nanomaterials: synthesis, targeted delivery, and biomedical applications. *Med Res Rev* 43: 1374-1410.
62. Rahimi S, van Leeuwen D, Roshanzamir F, Pandit S, Shi L, Sasanian N, Nielsen J, Esbjörner EK, **Mijakovic I** (2023) Ginsenoside Rg3 reduces the toxicity of graphene oxide used for delivery of doxorubicin to liver and breast cancer cells. *Pharmaceutics* 15: 391.
63. More PR, Pandit S, De Filippis A, Franci G, **Mijakovic I**, Galdiero M (2023) Silver nanoparticles: applications in the field of biomedicine. *Microorganisms* 11: 369.
64. Garg A, Jers C, Hwang HJ, Kalantari A, Ventina I, **Mijakovic I** (2023) Engineering *Bacillus subtilis* for production of 3-hydroxypropanoic acid. *Front Bioeng Biotechnol* 11: 1101232.
65. Acet Ö, Dikici E, Acet BÖ, Odabaşı M, **Mijakovic I**, Pandit S (2023) Inhibition of bacterial adhesion by epigallocatechin gallate attached polymeric membranes. *Colloids Surf B Biointerfaces* 221: 113024.
66. Svetlicic E, Jaén-Luchoro D, Sauerborn Klobucar R, Jers C, Kazazic S, Franjevic D, Klobucar G, Shelton BG, **Mijakovic I** (2023) Genomic characterization and assessment of pathogenic potential of *Legionella* spp. isolates from environmental monitoring. *Front Microbiol* 13: 5404.
67. Khan F, Singh P, Joshi AS, Tabassum N, Bamunuarachchi NI, **Mijakovic I**, Kim YM. (2023) Multiple potential strategies for the application of nisin and derivatives. *Crit Rev Microbiol* 49: 628-657.
68. Ravikumar V, **Mijakovic I**, Pandit S (2022) Antimicrobial activity of graphene oxide contributes to alteration of key stress-related and membrane bound proteins. *Int J Nanomedicine*, 17: 6707-6721.
69. Khan F, Jeong GJ, Singh P, Tabassum N, **Mijakovic I**, Kim YM (2022) Retrospective analysis of the key molecules involved in the green synthesis of nanoparticles. *Nanoscale* 14: 14824-14857.
70. Eswaran M, Chokkiah B, Pandit S, Rahimi S, Dhanusuraman R, Aleem M, **Mijakovic I** (2022) A road map towards field-effect transistor biosensor technology for early-stage cancer detection. *Small Methods* 6: 2200809.
71. Yang Y, Qu L, **Mijakovic I**, Wei Y (2022) Advances in the human skin microbiota and its roles in cutaneous diseases. *Microb Cell Fact* 21: 176.
72. Rahimi S, Chen Y, Zareian M, Pandit S, **Mijakovic I** (2022) Cellular and subcellular interactions of graphene-based materials with cancerous and non-cancerous cells. *Adv Drug Deliv Rev* 189: 114467.
73. Singh P, **Mijakovic I** (2022) Green synthesis and antibacterial applications of gold and silver nanoparticles from *Ligustrum vulgare* berries. *Sci Rep* 12: 7902.
74. Jiang S, Tang J, Rahimi S, **Mijakovic I**, Wei Y (2022) Efficient treatment of industrial wastewater with microbiome and synthetic biology. *Front Environ Sci* 10: 902926.

75. Singh P, **Mijakovic I** (2022) Antibacterial effect of silver nanoparticles is stronger if the production host and the targeted pathogen are closely related. *Biomedicines* 10: 628.
76. Singh P, **Mijakovic I** (2022) Strong antimicrobial activity of silver nanoparticles obtained by green synthesis in *Viridibacillus* sp. extracts. *Front Microbiol* 13: 820048.
77. Balusamy SR, Rahimi S, Sukweenadhi J, Sunderraj S, Shanmugam R, Thangavelu, L, **Mijakovic I**, Perumalsamy H (2022) Chitosan, chitosan nanoparticles and modified chitosan biomaterials, a potential tool to combat salinity stress in plants. *Carbohydr Polym* 284: 119189.
78. Neissi A, Rafiee G, Rahimi S, Farahmand H, Pandit S, **Mijakovic I** (2022) Enriched microbial communities for ammonium and nitrite removal from recirculating aquaculture systems. *Chemosphere* 295: 133892.
79. Sun J, Rattanasawatesun T, Tang P, Bi Z, Pandit S, Lam L, Wasén C, Erlandsson M, Bokarewa M, Dong J, Ding F, Xiong F, **Mijakovic I** (2022) Insights into the mechanism for vertical graphene growth by plasma-enhanced chemical vapor deposition. *ACS Appl Mater Interfaces* 14: 7152-7160.
80. Singh P, **Mijakovic I** (2022) Rowan berries: a potential source for green synthesis of extremely monodisperse gold and silver nanoparticles. *Pharmaceutics* 14: 82.
81. **Mijakovic I** (2021) Fantastic science and where to find it. *Period Biol* 123: 45-47.
82. Pandit S, Li M, Chen Y, Rahimi S, Mokkapati VRSS, Merlo A, Yurgens A, **Mijakovic I** (2021) Graphene-based sensor for detection of bacterial pathogens. *Sensors* 21: 8085.
83. Chen Y, Pandit S, Rahimi S, **Mijakovic I** (2021) Interactions between graphene-based materials and biological surfaces: a review of underlying molecular mechanisms. *Adv Mater Interfaces* 8: 2101132.
84. Pandit S, Konzock O, Leistner K, Mokkapati VRSS, Merlo A, Sun J, **Mijakovic I** (2021) Graphene coated magnetic nanoparticles facilitate the release of biofuels and oleochemicals from yeast cell factories. *Sci Rep* 11: 20612.
85. Helalat SH, Jers C, Bebahani M, Mohabatkar H, **Mijakovic I** (2021) Metabolic engineering of *Deinococcus radiodurans* for pinene production from glycerol. *Microb Cell Fact* 20:187.
86. Singh P, Pandit S, Jers C, Joshi AS, **Mijakovic I** (2021) Silver nanoparticles produced from *Cedecea* sp. exhibit antibiofilm activity and remarkable stability. *Sci Rep* 11: 12619.
87. Singh P, **Mijakovic I** (2021) Advances in gold nanoparticle technology as a tool for diagnostics and treatment of cancer. *Exp Rev Mol Diagn* 3: 1-4.
88. Pandit S, Rahimi S, Derouiche A, Boulaoued A, **Mijakovic I** (2021) Sustained release of usnic acid from graphene coatings ensures long term antibiofilm protection. *Sci Rep* 11: 9956.
89. Sultan A, Jers C, Ganief TA, Shi L, Senissar M, Kähler JB, Macek B, **Mijakovic I** (2021) Phosphoproteome study of *Escherichia coli* devoid of Ser/Thr kinase YeaG during the metabolic shift from glucose to malate. *Front Microbiol* 12: 771.
90. Futo M, Opasic L, Koska S, Corak N, Siroki T, Ravikumar V, Thorsell A, Kifer D, Domazet-Loso M, Vlahovick K, **Mijakovic I**, Domazet-Loso T (2021) Embryo-like features in developing *Bacillus subtilis* biofilms. *Mol Biol Evol* 38: 31-47.
91. Pandit S, Gaska K, Kádár R, **Mijakovic I** (2021) Graphene based antimicrobial biomedical surfaces. *Chem Phys Chem* 22: 250-263.
92. Neissi A, Rafiee G, Farahmand H, Rahimi S, **Mijakovic I** (2020) Improvement of waterborne using *Dyadobacter* sp. (No. 68) and *Janthinobacterium* sp. (No. 100) bacteria and comparing the hematological indices in a recirculating rainbow trout (*Oncorhynchus mykiss*) culture system. *J Anim Environ* 12: 353-358.
93. **Mijakovic I** (2020) Evolutionary age of genes can assist in genome mining. *Period Biol* 121-122: 3-6.
94. Motwalli O, Uludag M, **Mijakovic I**, Alazmi Meshari, Bajic V, Gojobori T, Gao Xin, Essack M (2020) PATHcre8: A tool that facilitates the searching for heterologous biosynthetic routes. *ACS Synth Biol* 9: 3217-3227.

95. Joshi AS, Singh P, **Mijakovic I** (2020) Interactions of gold and silver nanoparticles with bacterial biofilms: molecular interactions behind inhibition and resistance. *Int J Mol Sci* 21: 7658.
96. Pandit S, Fazilati M, Gaska K, Derouiche A, Nypelö T, **Mijakovic I**, Kádár R (2020) The exopolysaccharide component of extracellular matrix is essential for the viscoelastic properties of *Bacillus subtilis* biofilms. *Int J Mol Sci* 21: 6755.
97. Abdel-Haleem AM, Ravikumar V, Ji B, Mineta K, Gao X, Nielsen J, Gojobori T, **Mijakovic I** (2020) Integrated metabolic modeling, culturing and transcriptomics explains enhanced virulence of *V. cholerae* during co-infection with ETEC. *mSystems* 5: e00491-20.
98. Neissi A, Rafiee G, Farahmand H, Rahimi S, **Mijakovic I** (2020) Cold-resistant heterotrophic ammonium and nitrite removing bacteria improve aquaculture conditions of rainbow trout (*Oncorhynchus mykiss*). *Microb Ecol* 80: 266-277.
99. Bonne Køhler J, Jers C, Senissar M, Shi, Derouiche A, **Mijakovic I** (2020) Importance of protein Ser/Thr/Tyr phosphorylation for bacterial pathogenesis. *FEBS Lett* 594: 2339-2369.
100. Rahimi S, Modin O, **Mijakovic I** (2020) Technologies for biological removal and recovery of nitrogen from wastewater. *Biotechnol Adv* 43: 107570.
101. Singh P, Pandit S, Mokkapati VRSS, Garnæs J, Jers C, **Mijakovic I** (2020) A sustainable approach for the green synthesis of silver nanoparticles from *Solibacillus isronensis* sp. and their application in biofilm inhibition. *Molecules* 25: 2783.
102. Rahimi S, Modin O, Roshanzamir F, Neissi A, Saheb Alam S, Seelbinder B, Pandit S, Shi L, **Mijakovic I** (2020) Co-culturing *Bacillus subtilis* and wastewater microbial community in a bio-electrochemical system enhances denitrification and butyrate formation. *Chem Eng J* 397: 125437.
103. Aminian-Dehkordi J, Mousavi SM, Marashi SA, Jafari A, **Mijakovic I** (2020) A systems-based approach for cyanide overproduction by *Bacillus megaterium* for gold bioleaching enhancement. *Front Bioeng Biotechnol* 8: 528.
104. Shi L, Derouiche A, Pandit S, Rahimi S, Kalantari A, Mokkapati VRSS, Futo A, Ravikumar V, Jers C, Vlahoviček K, **Mijakovic I** (2020) Evolutionary analysis of the *Bacillus subtilis* genome reveals new genes involved in sporulation. *Mol Biol Evol* 37: 1667-1678.
105. Huang C, Gonzales-Lopez C, Henry C, **Mijakovic I**, Ryan K (2020) HipBA toxin-antitoxin systems and persistence in *Caulobacter crescentus*. *Sci Rep* 10: 2865.
106. Pandit S, Gaska K, Mokkapati VRSS, Svensson M, Forsberg S, Kádár R, **Mijakovic I** (2020) Pre-controlled alignment of graphite nanoplatelets in polymeric composites prevents bacterial attachment. *Small* 16: e1904756.
107. Othoum G, Prigent S, Derouiche A, Shi L, Bokhari A, Alamoudi S, Bougouffa S, Gao X, Hoehndorf R, Arold S, Gojobori T, Hirt H, Lafi F, Nielsen J, Bajic V, **Mijakovic I**, Essack M (2019) Comparative genomics study reveals Red Sea *Bacillus* with characteristics associated with potential microbial cell factories (MCFs). *Sci Rep* 9: 19254.
108. Aminian-Dehkordi J, Mousavi SM, Jafari A, **Mijakovic I**, Marashi SA (2019) A manually curated genome-scale reconstruction of the metabolic network in *Bacillus megaterium* DSM319. *Sci Rep* 9: 18762.
109. Pandit S, Gaska K, Mokkapati VRSS, Forsberg S, Svensson M, Kádár R, **Mijakovic I** (2019) Antibacterial effect of boron nitride flakes with controlled orientation in polymer composites. *RSC Adv* 9: 33454-33459.
110. Macek B, Forchhammer K, Hardouin J, Weber-Ban E, Grangeasse C, **Mijakovic I** (2019) Protein post-translational modifications in bacteria. *Nat Rev Microbiol* 17: 651-664.
111. Rahimi S, Kim YJ, Kim J, **Mijakovic I**, Jung K (2019) Triterpenoid-biosynthetic UDP-glycosyltransferases from plants. *Biotechnol Adv* 7: 124.

112. Othoum G, Bougouffa S, Bokhari A, Lafi FF, Gojobori T, Hirt H, **Mijakovic I**, Bajic VB, Essack M (2019) Mining biosynthetic gene clusters in *Virgibacillus* genomes. BMC Genomics 20: 696.
113. Xu L, WenY, Pandit S, Mokkapati VRSS, **Mijakovic I**, Li Y, Ding M, Ren S, Li W, Liu G (2019) Graphene-based biosensors for the detection of prostate cancer protein biomarkers: a review. BMC Chemistry 13: 112.
114. Jers C, Kalantari A, Garg A, **Mijakovic I** (2019) Production of 3-hydroxypropanoic acid from glycerol by metabolically engineered bacteria. Front Bioeng Biotechnol 7:124.
115. Gaska K, Kádár R, Xu X, Gubanski S, Müller C, Pandit S, Mokkapati VRSS, **Mijakovic I**, Rybak A, Siwek A, Svensson M (2019) Highly structured graphene polyethylene nanocomposites. AIP Conf Proc 2065: 030061.
116. Shi L, Cavagnino A, Rabefiraisana JL, Lazar N, de la Sierra-Gallay IL, Ochsenbein F, Valerio-Lepiniec M, Urvoas A, Minard P, **Mijakovic I**, Nessler S (2019) Structural analysis of the Hanks-type protein kinase YabT from *Bacillus subtilis* provides new insights in its DNA-dependent Activation. Front Microbiol 9: 3014.
117. Singh P, Garg A, Pandit S, Mokkapati VRSS, **Mijakovic I** (2018) Antimicrobial effects of biogenic nanoparticles. Nanomaterials 8: 1009.
118. Ravikumar V, Nalpas N, Anselm V, Krug K, Lenuzzi M, Šestak MS, Domazet-Lošo T, **Mijakovic I**, Macek B (2018) In-depth analysis of *Bacillus subtilis* proteome identifies new ORFs and traces the evolutionary history of modified proteins. Sci Rep 8: 17246.
119. Mokkapati VRSS, Pandit S, Kim J, Lovmar M, Westerlund F, **Mijakovic I** (2018) Bacterial response to graphene oxide and reduced graphene oxide integrated in agar plates Royal Soc Open Sci 5: 181083.
120. Singh P, Pandit S, Beshay M, Mokkapati VRSS, Garnæs J, Olsson M, Sultan A, Mackevica A, Mateiu RV, Lütken HV, Daugaard A, Baun A, **Mijakovic I** (2018) Anti-biofilm effects of gold and silver nanoparticles synthesized by the *Rhodiola rosea* rhizome extracts. Artif Cells Nanomed Biotechnol 13: 1-14.
121. Motwalli O, Essack M, Salhi A, Hanks J, **Mijakovic I**, Bajic VB (2018) BioPS: System for screening and assessment of biofuel-production potential of cyanobacteria. PLoS One 13: e0202002.
122. Merlo A, Mokkapati VRSS, Pandit S, **Mijakovic I** (2018) Boron nitride nanomaterials: biocompatibility and bio-applications. Biomater Sci 6: 2298-2311.
123. Singh P, Pandit S, Mokkapati VRSS, Garg A, Ravikumar V, **Mijakovic I** (2018) Gold nanoparticles in diagnostics and therapeutics for human cancer. Int J Mol Sci 19: 1979.
124. Cantatore V, Pandit S, Mokkapati VRSS, Schindler S, Eigler S, **Mijakovic I**, Panas I (2018) Modeling of a novel graphene based selective bio-sensor for glucose. Carbon 137: 343-348.
125. Singh P, Pandit S, Garnaes J, Tunjic S, Mokkapati VRSS, Thygesen A, Mateiu RV, Baun A, Daugaard AE, Sultan A, **Mijakovic I** (2018) Green synthesis of gold and silver nanoparticles from *Cannabis sativa* (industrial hemp) and their capacity for biofilm inhibition. Int J Nanomedicine 13: 3571-3591.
126. Othoum GK, Bougouffa S, Razali RM, Bokhari A, Alamoudi S, Antunes A, Gao X, Hoehndorf R, Arold ST, Gojobori T, Hirt H, **Mijakovic I**, Bajic VB, Lafi FF, Essack M (2018) In silico exploration of Red Sea *Bacillus* genomes for natural product biosynthetic gene clusters. BMC Genomics 19: 382.
127. García TG, Ventroux M, Derouiche A, Bidnenko V, Correia Santos SF, Henri C, **Mijakovic I**, Noirot-Gros MF, Poncet S (2018) Phosphorylation of the *Bacillus subtilis* replication controller YabA plays a role in regulation of sporulation and biofilm formation. Front Microbiol 9: 486.
128. Pandit S, Cao Z, Mokkapati VRSS, Celauro E, Yurgens A, Lovmar M, Westerlund F, Sun J, **Mijakovic I** (2018) Vertically aligned graphene coating is bactericidal and prevents the formation of bacterial biofilms. Adv Mater Interfaces 5: 1701331.

129. Jers C, Ravikumar V, Lezyk M, Sultan A, Sjöling A, Wai SN, **Mijakovic I** (2018) The global acetylome of the human pathogen *Vibrio cholerae* V52 reveals lysine acetylation of major transcriptional regulators. *Front Cell Infect Microbiol* 7: 537.
130. Stancik IA, Sestak MS, Ji B, Axelson-Fisk M, Franjevic D, Jers C, Domazet-Loso T, **Mijakovic I** (2018) Serine/Threonine protein kinases from bacteria, archaea and eukarya share a common evolutionary origin deeply rooted in the tree of life. *J Mol Biol* 430: 27-32.
131. Pandit S, Ravikumar V, Abdel Haleem AM, Derouiche A, Mokkapati VRSS, Sihlbom C, Mineta K, Gojobori T, Gao X, Westerlund F, **Mijakovic I** (2017) Low concentrations of vitamin C reduce the synthesis of extracellular polymers and destabilize bacterial biofilms. *Front Microbiol* 8: 2599.
132. Pandit S, Mokkapati VRSS, Helgadóttir S, Westerlund F, **Mijakovic I** (2017) Combination of cold atmospheric plasma and vitamin C effectively disrupts bacterial biofilms. *Clin Microbiol* 6: 3.
133. Nielsen J, Archer J, Essack M, Bajic VB, Gojobori T, **Mijakovic I** (2017) Building a biobased industry in the Middle East through harnessing the potential of the Red Sea biodiversity. *Appl Microbiol Biotechnol* 101: 4837–4851.
134. Avaz S, Roy RB, Mokkapati VRSS, Bozkurt A, Pandit S, **Mijakovic I**, Menciloglu YZ (2017) Graphene based nanosensor for aqueous phase detection of nitroaromatics. *RSC Adv* 7: 25519-25527.
135. Kalantari A, Chen T, Ji B, Stancik IA, Ravikumar V, Franjevic D, Saulou-Bérion C, Goelzer A, **Mijakovic I** (2017) Conversion of glycerol to 3-hydroxypropanoic acid by genetically engineered *Bacillus subtilis*. *Front Microbiol* 8: 638.
136. Helgadóttir S, Pandit S, Mokkapati VRSS, Westerlund F, Apell P, **Mijakovic I** (2017) Vitamin C pretreatment enhances the antibacterial effect of cold atmospheric plasma. *Front Cell Infect Microbiol* 7: 43.
137. Derouiche A, Petranovic D, Macek B, **Mijakovic I** (2017) *Bacillus subtilis* single-stranded DNA-binding protein SsbA is phosphorylated at threonine 38 by the serine/threonine kinase YabT. *Period Biol* 118: 399-404.
138. Mokkapati VRSS, Yuksel D, Imerbc K, Yilmazd N, **Mijakovic I**, Koyuncu I (2017) Membrane properties and antibacterial activity of polysulfone-graphene oxide composite membranes phase inversed in graphene oxide anti-solvent. *RSC Adv* 7: 4378-4386.
139. Motwalli O, Essack M, Jankovic BR, Ji B, Liu X, Ansari HR, Hoehndorf R, Gao X, Arold ST, Mineta K, Archer JAC, Gojobori T, **Mijakovic I**, Bajic VB (2017) In silico screening for candidate chassis strains of free fatty acid-producing cyanobacteria. *BMC Genomics* 18:33.
140. Wang N, Pandit S, Ye L, Edwards M, Mokkapati VRSS, Murugesan M, Kuzmenko V, Zhao C, Westerlund F, **Mijakovic I**, Liu J (2017) Efficient surface modification of carbon nanotubes for fabricating high performance CNT based hybrid nanostructures. *Carbon* 111: 402-410.
141. Derouiche A, Shi L, Kalantari A, **Mijakovic I** (2016) Substrate specificity of the *Bacillus subtilis* BY-kinase PtkA is controlled by alternative activators: TkmA and SalA. *Front Microbiol* 7: 1525.
142. Shi L, Ravikumar V, Derouiche A, Macek B, **Mijakovic I** (2016) Tyrosine 601 of *Bacillus subtilis* DnaK undergoes phosphorylation and is crucial for chaperone activity and heat shock survival. *Front Microbiol* 7: 533.
143. Zhao C, Pandit S, Fu Y, **Mijakovic I**, Jesorka A, Liu J (2016) Graphene oxide-based coatings on nitinol for biomedical implant applications: effectively promote mammalian cell growth but kill bacteria. *RSC Adv* 6: 38124.
144. **Mijakovic I**, Grangeasse C, Turgay K (2016) Exploring the diversity of protein modifications: special bacterial phosphorylation systems. *FEMS Microbiol Rev* 40: 398-417.
145. Garcia-Garcia T, Poncet S, Derouiche A, Shi L, **Mijakovic I**, Noirot-Gros MF (2016) Role of Protein Phosphorylation in the Regulation of Cell Cycle and DNA-Related Processes in Bacteria. *Front Microbiol* 7: 184.



146. Ravikumar V, Macek B, **Mijakovic I** (2016) Resources for assignment of phosphorylation sites on peptides and proteins. *Methods Mol Biol* 1355: 293-306.
147. Derouiche A, Shi L, Kalantari A, **Mijakovic I** (2016) Evolution and tinkering: what do a protein kinase, a transcriptional regulator and chromosome segregation/cell division proteins have in common? *Curr Genet* 62: 67-70.
148. Ravikumar V, Jers C, **Mijakovic I** (2015) Elucidating host-pathogen interactions based on post-translational modifications using proteomics approaches. *Front Microbiol* 6: 1312.
149. Kalantari A, Derouiche A, Shi L, **Mijakovic I** (2015) Serine/threonine/tyrosine phosphorylation regulates DNA-binding of bacterial transcription regulators. *Microbiology* 161: 1720-1729.
150. Derouiche A, Shi L, Bidnenko V, Ventroux M, Pignonneau N, Franz-Wachtel M, Kalantari A, Nessler S, Noirot-Gros MF, **Mijakovic I** (2015) *Bacillus subtilis* SalA is a phosphorylation-dependent transcription regulator which represses *scoC* and activates the production of the exoprotease AprE. *Mol Microbiol* 97: 1195-1208.
151. Grangeasse C, Stülke J, **Mijakovic I** (2015) Regulatory potential of post-translational modifications in bacteria. *Front Microbiol* 6: 500.
152. **Mijakovic I**, Deutscher J (2015) Protein-tyrosine phosphorylation in *Bacillus subtilis*: a 10-year retrospective. *Front Microbiol* 6: 18.
153. Shi L, Pigeonneau N, Ventroux M, Derouiche A, Bidnenko V, **Mijakovic I**, Noirot-Gros MF (2014) Protein-tyrosine phosphorylation interaction network in *Bacillus subtilis* reveals new substrates, kinase activators and kinase cross-talk. *Front Microbiol* 5: 538.
154. Shi L, Pigeonneau N, Ravikumar V, Dobrinic P, Macek B, Franjevic D, Noirot-Gros MF, **Mijakovic I** (2014) Cross-phosphorylation of bacterial serine/threonine and tyrosine protein kinases on key regulatory residues. *Front Microbiol* 5: 495.
155. Sohoni SV, Lieder S, Bapat P, **Mijakovic I**, Lantz AE (2014) Low molecular weight protein tyrosine phosphatases control antibiotic production in *Streptomyces coelicolor* A3(2). *Enz Eng* 3: 122.
156. Sohoni SV, Fazio A, Workman CT, **Mijakovic I**, Eliasson Lantz A (2014) Synthetic promoter library for modulation of actinorhodin production in *Streptomyces coelicolor* A3(2). *PLoS One* 9: e99701.
157. Kobir A, Poncet S, Bidnenko V, Delumeau O, Jers C, Zouhir S, Grenha R, Nessler S, Noirot P, **Mijakovic I** (2014) Phosphorylation of *Bacillus subtilis* gene regulator AbrB modulates its DNA-binding properties. *Mol Microbiol* 92: 1129-1141.
158. Shi L, Ji B, Kolar-Znika L, Boskovic A, Jadeau F, Combet C, Grangeasse C, Franjevic D, Talla E, **Mijakovic I** (2014) Evolution of bacterial protein-tyrosine kinases and their relaxed specificity towards substrates. *Genome Biol Evol* 6: 800-817.
159. Ravikumar V, Shi L, Krug K, Derouiche A, Jers C, Cousin C, Kobir A, **Mijakovic I**, Macek B (2014) Quantitative phosphoproteome analysis of *Bacillus subtilis* reveals novel substrates of the kinase PrkC and phosphatase PrpC. *Mol Cell Proteom* 13: 1965-1978.
160. Derouiche A, Bidnenko V, Grenha R, Pignonneau N, Ventroux M, Franz-Wachtel M, Nessler S, Noirot-Gros MF, **Mijakovic I** (2013) Interaction of bacterial fatty-acid-displaced regulators with DNA is interrupted by tyrosine phosphorylation in the helix-turn-helix domain. *Nucleic Acids Res* 41: 9371-9381.
161. Cousin C, Derouiche A, Shi L, Pagot Y, Poncet S, **Mijakovic I** (2013) Protein-serine/threonine/tyrosine kinases in bacterial signaling and regulation. *FEMS Microbiol Lett* 346: 11-19.
162. Bidnenko V, Shi L, Kobir A, Ventroux M, Pigeonneau N, Henry C, Trubuil A, Noirot-Gros MF, **Mijakovic I** (2013) *Bacillus subtilis* serine/threonine protein kinase YabT is involved in spore development via phosphorylation of a bacterial recombinase. *Mol Microbiol* 88: 921-935.
163. Grangeasse C, Nessler S, **Mijakovic I** (2012) Bacterial tyrosine-kinases: evolution, biological function and structural insights. *Philos Trans R Soc Lond B Biol Sci* 367: 2640-2655.

164. Derouiche A, Coussin C, **Mijakovic I** (2012) Protein phosphorylation from the perspective of systems biology. *Curr Opin Biotechnol* 23: 585-590.
165. **Mijakovic I**, Macek B (2012) Impact of phosphoproteomics on studies of bacterial physiology. *FEMS Microbiol Rev* 36: 877-892.
166. Jadeau F, Grangeasse C, Shi L, **Mijakovic I**, Deléage G, Combet C (2012) BYKdb: The Bacterial protein tYrosine Kinase database. *Nucleic Acids Res* 40: D321-324.
167. Misra S, Milohanic E, Ake F, **Mijakovic I**, Deutscher J, Monnet V, Henry C (2011) Analysis of the Serine/Threonine/Tyrosine phosphoproteome of the pathogenic bacterium *Listeria monocytogenes* reveals phosphorylated proteins related to virulence. *Proteomics* 11: 4155-4165.
168. Macek B, **Mijakovic I** (2011) Site specific analysis of bacterial phosphoproteomes. *Proteomics* 11: 3002-3011.
169. Kobir A, Shi L, Boskovic A, Grangeasse C, Franjevic D, **Mijakovic I** (2011) Protein phosphorylation in bacterial signal transduction. *Biochim Biophys Acta* 1810: 989-994.
170. Jers C, Kobir A, Sondergaard EO, Jensen PR, **Mijakovic I** (2011) *Bacillus subtilis* two-component system sensory kinase DegS is regulated by serine phosphorylation in its input domain. *PLoS One* 6: e14653.
171. Soufi B, Kumar C, Gnad F, Mann M, **Mijakovic I**, Macek B (2010) Stable Isotope Labeling by Amino Acids in Cell Culture (SILAC) applied to quantitative proteomics of *Bacillus subtilis*. *J Proteome Res* 9: 3638-3646.
172. Shi L, Kobir A, Jers C, **Mijakovic I** (2010) Bacterial protein-tyrosine kinases. *Curr Proteomics* 7: 188-194.
173. Jers C, Pedersen MM, Paspaliari DK, Schutz W, Johnsson C, Soufi B, Macek B, Jensen PR, **Mijakovic I** (2010) *Bacillus subtilis* BY-kinase PtkA controls enzyme activity and protein localization of its protein substrates. *Mol Microbiol* 77: 287-299.
174. Nielsen AK, Breuner A, Krzystanek M, Andersen JT, Poulsen TA, Olsen B, **Mijakovic I**, Rasmussen MD (2010) Global transcriptional analysis of *Bacillus licheniformis* reveals an overlap between heat shock stimulon and iron uptake regulon. *J Mol Microbiol Biotechnol* 18: 162-173.
175. Solem C, Petranovic D, Koebmann B, **Mijakovic I**, Jensen PR (2010) Phosphoglycerate mutase is a highly efficient enzyme without flux control in *Lactococcus lactis*. *J Mol Microbiol Biotechnol* 18: 174-180.
176. **Mijakovic I** (2010) Protein phosphorylation in bacteria. *Microbe* 5, 21-25.
177. Hansen ME, Wangari R, Hansen EB, **Mijakovic I**, Jensen PR (2009) Engineering of *Bacillus subtilis* 168 for increased nisin resistance. *Appl Environ Microbiol* 75: 6688-6695.
178. Petranovic D, Grangeasse C, Macek B, Abdillatef M, Gueguen-Chaignon V, Nessler S, Deutscher J, **Mijakovic I** (2009) Activation of *Bacillus subtilis* Ugd by the tyrosine kinase PtkA proceeds via phosphorylation of its residue tyrosine 70. *J Mol Microbiol Biotechnol* 17: 83-89.
179. Bechet E, Guiral S, Torres S, **Mijakovic I**, Cozzzone AJ, Grangeasse C (2009) Tyrosine-kinases in bacteria: from a matter of controversy to the status of key regulatory enzymes. *Amino Acids* 37: 499-507.
180. Miller M, Soufi B, Jers C, Pedersen TN, Macek B, Blom N, **Mijakovic I** (2009) NetPhosBac - Prediction of protein phosphorylation sites in bacteria. *Proteomics* 9: 116-125.
181. Jers C, Soufi B, Grangeasse C, Deutscher J, **Mijakovic I** (2008) Phosphoproteomics in bacteria – towards a systemic understanding of bacterial phosphorylation networks. *Expert Rev Proteomics* 5: 619-627.
182. Lacour S, Bechet E, Cozzzone AJ, **Mijakovic I**, Grangeasse C (2008) Tyrosine phosphorylation of the UDP-glucose dehydrogenase of *Escherichia coli* is at the crossroads of colanic acid synthesis and polymyxin resistance. *PLoS One* 3: e3053.

183. Olivares-Illana V, Meyer P, Gueguen-Chaignon V, Soulat D, **Mijakovic I**, Deutscher J, Cozzzone AJ, Morera S, Grangeasse C, Nessler S (2008) Structural basis for the regulation mechanism of the tyrosine kinase CapB from *Staphylococcus aureus*. *PLoS Biology* 6: e143.
184. Soufi B, Gnad F, Petranovic D, Jensen PR, Mann M, **Mijakovic I**, Macek B (2008) The Ser/Thr/Tyr phosphoproteome of *Lactococcus lactis* IL1403 reveals multiply phosphorylated proteins. *Proteomics* 8: 3486-3493.
185. Macek B, Gnad F, Soufi B, Kumar C, Olsen JV, **Mijakovic I**, Mann M (2008) Phosphoproteome of *Escherichia coli* reveals high conservation of bacterial serine/threonine/ tyrosine phosphorylation. *Mol Cell Proteom* 7: 299-307.
186. Soufi B, Jers C, Macek N, Hansen M, Petranovic D, **Mijakovic I** (2008) Insights from site-specific phosphoproteomics in bacteria. *Biochim Biophys Acta* 1784: 186-192.
187. Petranovic D, Michelsen O, Zahradka K, Silva C, Petranovic M, Jensen PR, **Mijakovic I** (2007) *Bacillus subtilis* strain deficient for the protein-tyrosine kinase PtkA exhibits impaired DNA replication. *Mol Microbiol* 63: 1797-1805.
188. Macek B, **Mijakovic I**, Olsen JV, Gnad F, Kumar C, Jensen PR, Mann M (2007) The serine/threonine/tyrosine phosphoproteome of the model bacterium *Bacillus subtilis*. *Mol Cell Proteom* 6: 697-707.
189. Grangeasse C, Cozzzone AJ, Deutscher J, **Mijakovic I** (2007) Tyrosine phosphorylation: an emerging regulatory device of bacterial physiology. *Trends Biochem Sci* 32: 86-94.
190. **Mijakovic I**, Petranovic D, Macek B, Cepo T, Mann M, Davies J, Jensen PR, Vujaklija D (2006) Bacterial single-stranded DNA-binding proteins are phosphorylated on tyrosine. *Nucleic Acids Res* 34: 1588-1596.
191. Hammer K, **Mijakovic I**, Jensen PR (2006) Synthetic promoter libraries - tuning of gene expression. *Trends Biotechnol* 24: 53-55.
192. **Mijakovic I**, Petranovic D, Bottini N, Deutscher J, Jensen PR (2005) Protein-tyrosine phosphorylation in *Bacillus subtilis*. *J Mol Microbiol Biotechnol* 9: 189-197.
193. Deutscher J, Herro R, Bourand A, **Mijakovic I**, Poncet S (2005) P-Ser-HPr - a link between carbon metabolism and the virulence of some pathogenic bacteria. *Biochim Biophys Acta* 1754: 118-125.
194. **Mijakovic I**, Petranovic D, Jensen PR (2005) Tunable promoters in systems biology. *Curr Opin Biotechnol* 16: 329-335.
195. **Mijakovic I**, Musumeci L, Tautz L, Petranovic D, Edwards RA, Jensen PR, Mustelin T, Deutscher J, Bottini, N (2005) In vitro characterization of *B. subtilis* protein tyrosine phosphatase YwqE. *J Bacteriol* 187: 3384-3390.
196. **Mijakovic I**, Petranovic D, Deutscher J (2004) How tyrosine phosphorylation affects the UDP-glucose dehydrogenase activity of *Bacillus subtilis* YwqF. *J Mol Microbiol Biotechnol* 8: 19-25.
197. Maze A, Boel G, Poncet S, **Mijakovic I**, Le Breton Y, Benachour A, Monedero V, Deutscher J, Hartke A (2004) The *Lactobacillus casei* ptsHI47T mutation causes overexpression of a LevR-regulated but RpoN-independent operon encoding a mannose class phosphotransferase system. *J Bacteriol* 186: 4543-4555.
198. Poncet S, **Mijakovic I**, Nessler S, Gueguen-Chaignon V, Chaptal V, Galinier A, Boel G, Maze A, Deutscher J (2004) HPr kinase/phosphorylase, a Walker motif A-containing bifunctional sensor enzyme controlling catabolite repression in Gram-positive bacteria. *Biochim Biophys Acta* 1697: 123-135.
199. Boel G, Pichereau V, **Mijakovic I**, Maze A, Poncet S, Gillet S, Giard JC, Hartke A, Auffray Y, Deutscher J (2004) Loss of substrate dependent automodification of enolase prevents its export from bacteria. *J Mol Biol* 337: 485-496.
200. Petranovic D, **Mijakovic I** (2004) Photometric assay for measuring the intracellular concentration of branched-chain amino acids in bacteria. *J Meth Microbiol* 56: 133-136.

201. **Mijakovic I**, Poncet S, Boel G, Maze A, Gillet S, Decottignies P, Grangeasse C, Doublet P, Le Marechal P, Deutscher J (2003) Transmembrane modulator-mediated regulation of UDP-glucose DH, the first substrate of a bacterial tyrosine kinase. *EMBO J* 22: 4709-4718.
202. Grangeasse C, Obadia B, **Mijakovic I**, Deutscher J, Cozzzone AJ, Doublet P (2003) Autophosphorylation of the Escherichia coli protein kinase Wzc regulates tyrosine phosphorylation of Ugd, a UDP-glucose dehydrogenase. *J Biol Chem* 278: 39323-39329.
203. Boel G, **Mijakovic I**, Maze A, Poncet S, Taha MK, Larribe M, Galinier A, Deutscher J (2003) Transcriptional regulators as potential targets for HPr kinase/phosphorylase and proteins of the phosphotransferase system in Gram-negative bacteria, *J Mol Microbiol Biotechnol* 5: 206-215.
204. **Mijakovic I**, Poncet S, Galinier A, Monedero V, Fieulaine S, Janin J, Nessler S, Marquez HA, Scheffzek K, Hasenbein S, Hengstenberg W, Deutscher J (2002) Pyrophosphate-producing protein dephosphorylation by HPr kinase/phosphorylase: a relic of early life? *Proc Natl Acad Sci USA* 99: 13442-13447.
205. Fieulaine S, Morera S, Poncet S, **Mijakovic I**, Galinier A, Janin J, Deutscher J, Nessler S (2002) X-ray structure of a bifunctional protein kinase in complex with its protein substrate HPr. *Proc Natl Acad Sci USA* 99: 13437-13441.
206. Rokov-Plavec J, Lesjak S, Landeka I, **Mijakovic I**, Weygand-Durasevic I (2002) Maize seryl-tRNA synthetase: specificity of substrate recognition by the organellar enzyme. *Arch Biochem Biophys* 397: 40-50.
207. Monedero V, Poncet S, **Mijakovic I**, Fieulaine S, Dossonet V, Martin-Verstraete I, Nessler S, Deutscher J (2001) Mutations lowering the phosphatase activity of HPr kinase/phosphatase switch off carbon metabolism. *EMBO J* 20: 3928-3937.
208. Weygand-Durasevic I, Lenhard B, Filipic-Rocak S, Rokov J, Landeka I, **Mijakovic I** (2000) Organellar and cytosolic seryl-tRNA synthetases: structural, functional and evolutionary aspects. *Acta Biol. Slovenica* 43: 109-116.
209. **Mijakovic I**, Lenhard B, Weygand-Durasevic I (1999) Evolutionary relationships of seryl-tRNA synthetases based on 3D-modelling. *Period Biol* 101: 319-324.

#### 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, Mobasser 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)