

List of publications

1. **Mijakovic I** (2020) Evolutionary age of genes can assist in genome mining. *Period Biol* in press.
2. Pandit S, Gaska K, Kádár R, **Mijakovic I** (2020) Graphene based antimicrobial biomedical surfaces. *Chem Phys Chem*, in press.
3. 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* in pres.
4. Futo M, Opasic L, Koska S, Corak N, Siroki T, Ravikumar V, Thorsell A, Kifer D, Domazet-Loso M, Vlahovicek K, **Mijakovic I**, Domazet-Loso T (2020) Embryo-like features in developing *Bacillus subtilis* biofilms. *Mol Biol Evol* in press.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. Rahimi S, Modin O, **Mijakovic I** (2020) Technologies for biological removal and recovery of nitrogen from wastewater. *Biotechnol Adv* 43: 107570.
11. Singh P, Pandit S, Mokkalapati 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.
12. 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.
13. 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.
14. Shi L, Derouiche A, Pandit S, Rahimi S, Kalantari A, Mokkalapati 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.
15. 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.
16. Pandit S, Gaska K, Mokkalapati 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.
17. 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.
18. 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.
 19. Pandit S, Gaska K, Mokkaḡati 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.
 20. Macek B, Forchhammer K, Hardouin J, Weber-Ban E, Grangeasse C, **Mijakovic I** (2019) Protein post-translational modifications in bacteria. *Nat Microbiol Rev* 17: 651-664.
 21. Rahimi S, Kim YJ, Kim J, **Mijakovic I**, Jung K (2019) Triterpenoid-biosynthetic UDP-glycosyltransferases from plants. *Biotechnol Adv* 7: 124.
 22. Othoum G, Bougouffa S, Bokhari A, Lafi FF, Gojoberi T, Hirt H, **Mijakovic I**, Bajic VB, Essack M (2019) Mining biosynthetic gene clusters in *Virgibacillus* genomes. *BMC Genomics* 20: 696.
 23. Xu L, WenY, Pandit S, Mokkaḡati 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.
 24. 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.
 25. Gaska K, Kádár R, Xu X, Gubanski S, Müller C, Pandit S, Mokkaḡati VRSS, **Mijakovic I**, Rybak A, Siwek A, Svensson M (2019) Highly structured graphene polyethylene nanocomposites. *AIP Conf Proc* 2065: 030061.
 26. 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.
 27. Singh P, Garg A, Pandit S, Mokkaḡati VRSS, **Mijakovic I** (2018) Antimicrobial effects of biogenic nanoparticles. *Nanomaterials* 8: 1009.
 28. 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.
 29. Mokkaḡati VRSS, Pandit S, Kim J, Lovmar M, Westerlund F, **Mijakovic I** (2018) Antibacterial activity of graphene oxide and reduced graphene oxide integrated in agar plates. *Royal Soc Open Sci* 5: 181083.
 30. Singh P, Pandit S, Beshay M, Mokkaḡati VRRS, 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.
 31. 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.
 32. Merlo A, Mokkaḡati VRSS, Pandit S, **Mijakovic I** (2018) Boron nitride nanomaterials: biocompatibility and bio-applications. *Biomater Sci* 6: 2298-2311.
 33. Singh P, Pandit S, Mokkaḡati VRSS, Garg A, Ravikumar V, **Mijakovic I** (2018) Gold nanoparticles in diagnostics and therapeutics for human cancer. *Int J Mol Sci* 19: 1979.
 34. Cantatore V, Pandit S, Mokkaḡati 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.

35. 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 industrial hemp and their capacity for biofilm inhibition. *Int J Nanomed* 13: 3571-3591.
36. 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.
37. Garcia 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.
38. 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.
39. 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.
40. 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.
41. 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.
42. 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.
43. 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.
44. 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.
45. 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.
46. 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.
47. 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.
48. 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 inverted in graphene oxide anti-solvent. *RSC Adv* 7: 4378-4386.
49. 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.

50. Wang N, Pandit S, Ye L, Edwards M, Mokkapatil 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.
51. 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.
52. 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.
53. 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.
54. **Mijakovic I**, Grangeasse C, Turgay K (2016) Exploring the diversity of protein modifications: special bacterial phosphorylation systems. *FEMS Microbiol Rev* 40: 398-417.
55. 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.
56. Ravikumar V, Macek B, **Mijakovic I** (2016) Resources for assignment of phosphorylation sites on peptides and proteins. *Methods Mol Biol* 1355: 293-306.
57. 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.
58. Ravikumar V, Jers C, **Mijakovic I** (2015) Elucidating host-pathogen interactions based on post-translational modifications using proteomics approaches. *Front Microbiol* 6: 1312.
59. Kalantari A, Derouiche A, Shi L, **Mijakovic I** (2015) Serine/threonine/tyrosine phosphorylation regulates DNA-binding of bacterial transcription regulators. *Microbiology* 161: 1720-1729.
60. Derouiche A, Shi L, Bidnenko V, Ventrux 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.
61. Grangeasse C, Stülke J, **Mijakovic I** (2015) Regulatory potential of post-translational modifications in bacteria. *Front Microbiol* 6: 500.
62. **Mijakovic I**, Deutscher J (2015) Protein-tyrosine phosphorylation in *Bacillus subtilis*: a 10-year retrospective. *Front Microbiol* 6: 18.
63. Shi L, Pignonneau N, Ventrux 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.
64. Shi L, Pignonneau 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.
65. 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.
66. 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.
67. 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.

68. 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.
69. 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.
70. 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.
71. 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.
72. 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.
73. 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.
74. Derouiche A, Coussin C, **Mijakovic I** (2012) Protein phosphorylation from the perspective of systems biology. *Curr Opin Biotechnol* 23: 585-590.
75. **Mijakovic I**, Macek B (2012) Impact of phosphoproteomics on studies of bacterial physiology. *FEMS Microbiol Rev* 36: 877-892.
76. 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.
77. 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.
78. Macek B, **Mijakovic I** (2011) Site specific analysis of bacterial phosphoproteomes. *Proteomics* 11: 3002-3011.
79. 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.
80. 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.
81. 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.
82. Shi L, Kobir A, Jers C, **Mijakovic I** (2010) Bacterial protein-tyrosine kinases. *Curr Proteomics* 7: 188-194.
83. 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.
84. 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.

85. 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.
86. **Mijakovic, I** (2010) Protein phosphorylation in bacteria. *Microbe* 5, 21-25.
87. 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.
88. 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.
89. 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.
90. 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.
91. 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.
92. 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.
93. 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.
94. 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.
95. 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.
96. 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.
97. 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.
98. 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.
99. Grangeasse C, Cozzzone AJ, Deutscher J, **Mijakovic I** (2007) Tyrosine phosphorylation: an emerging regulatory device of bacterial physiology. *Trends Biochem Sci* 32: 86-94.
100. **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.
101. Hammer K, **Mijakovic I**, Jensen PR (2006) Synthetic promoter libraries - tuning of gene expression. *Trends Biotechnol* 24: 53-55.
102. **Mijakovic I**, Petranovic D, Bottini N, Deutscher J, Jensen PR (2005) Protein-tyrosine phosphorylation in *Bacillus subtilis*. *J Mol Microbiol Biotechnol* 9: 189-197.

103. 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.
104. **Mijakovic I**, Petranovic D, Jensen PR (2005) Tunable promoters in systems biology. *Curr Opin Biotechnol* 16: 329-335.
105. **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.
106. **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.
107. 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.
108. 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.
109. 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.
110. 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.
111. **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.
112. Grangeasse C, Obadia B, **Mijakovic I**, Deutscher J, Cozzone 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.
113. 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.
114. **Mijakovic I**, Poncet S, Galinier A, Monedero V, Fiulaine 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: 13442-13347.
115. Fiulaine 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.
116. 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.
117. Monedero V, Poncet S, **Mijakovic I**, Fiulaine 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.
118. 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.

119. **Mijakovic I**, Lenhard B, Weygand-Durasevic I (1999) Evolutionary relationships of seryl-tRNA synthetases based on 3D-modelling. *Period Biol* 101: 319-324.