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#### Education and academic titles

- 1994-1999 **M.Sc.** in Molecular Biology, Faculty of Science and Mathematics, University of Zagreb, Croatia.  
The final thesis was in Biochemistry, under the supervision of Prof Ivana Weygand-Djurasvic, in collaboration with the lab of Dieter Söll at Yale University.  
The research topic was identification, manual sequencing and assembly of a maze seryl-tRNA synthetase gene from a plant genomic plasmid collection.
- 2000-2004 **Ph.D. *summa cum laude*** in Molecular Microbiology, University Paris XI, and Génétique Microbienne at INRA Jouy-en-Josas, France.  
The thesis was supervised by Dr Pierre Renault, in the lab of Dr Dusko Ehrlich. The research topic was on sugar transport and direct signal transduction leading to gene regulation in G+ bacterium *Lactococcus lactis*. The project was partially in collaboration with the lab of Linc Sonnenshein at Tufts University.
- 2012 **Docent** in the field of Cell and Molecular Biology, Chalmers University of Technology, Gothenburg, Sweden
- 2016-2018 **Executive MBA:** Executive Master of Business Administration, School of Law, Business and Economics, Gothenburg University, Sweden. The final thesis was on industrial foundations and my proposed model of “collateral benefits”.

#### Additional education and professional degrees

- 1994 Certified French Teacher, Alliance française, Zagreb, Croatia
- 2006-2007 Pedagogical portfolio and pedagogical diploma for teaching at university level, Learning Lab Technical University of Denmark
- 2015 Course in Supervision and mentoring of PhD students, Chalmers, Sweden
- 2015 Course in Intercultural communication, Chalmers, Sweden
- 2016 Course in Cross-cultural organization and leadership, Chalmers, Sweden
- 2016 Mentorship course in innovation, Chalmers, Sweden
- 2016 Course on IP and utilization, Chalmers, Sweden
- 2017 Course in inclusiveness and diversity, Volvo Cars, Sweden
- 2020 Course in project management, Implement Consulting and Novo Nordisk Foundation, Denmark.

#### Employments

- 1997-1998 Teaching Assistant in Biochemistry, Faculty of Science and Mathematics, University of Zagreb, Croatia
- 2000-2004 PhD student, Université Paris XI and INRA, Paris, France
- 2004-2007 Post-doc, Molecular Physiology and Genetics, Technical University of Denmark, Lyngby, Denmark
- 2007-2008 Project Leader, Center for Microbial Biotechnology, Technical University of Denmark, Lyngby, Denmark
- 2008-2012 Assistant Professor (tenure track), Chalmers University of Technology, Gothenburg, Sweden
- 2012-... Associate Professor (tenured), Chalmers University of Technology, Gothenburg, Sweden
- 2012-2018 CEO Global of Molecular Frontiers, Sweden

2019-2020	Senior Scientific Manager in Biotechnology, Novo Nordisk Foundation, Hellerup, Denmark
2021-...	Chief Partnership Officer, Center for Biosustainability, Technical University of Denmark, Lyngby, Denmark

#### Academic visits

2001	Visiting PhD student at Technical University of Denmark (Peter R Jensen's Lab)
2002	Visiting PhD student at Technical University of Denmark (Peter R Jensen's Lab)
2006	Study visit at Harvard University, USA (Rich Losick's Lab)
2012	Visiting faculty at MIT/Whitehead Institute for Biomedical Research, USA (Susan Lindquist's Lab)
2018	Sabbatical at MIT/Koch Institute for Integrative Cancer Research, USA (Robert Langer's Lab)
2018	Sabbatical at CalTech/Chemistry and Chemical Engineering, USA (Frances Arnold's Lab)

#### Teaching

1997-1998	Biochemistry I & II, Faculty of Science and Mathematics, University of Zagreb, Zagreb, Croatia
2004-2007	Molecular Genetics, Technical University of Denmark, Lyngby, Denmark
2004-2007	Molecular Biotechnology, Technical University of Denmark, Lyngby, Denmark
2009-2018	Visiting lecturer in various courses at Chalmers University of Technology, Gothenburg, Sweden
2010-2018	Teacher and Examiner "Introduction to Molecular and Cell Biology" at Chalmers
2011-2014	Teacher and Examiner "Molecular and Cell Biology 2", at Chalmers
2016-2017	Guest lecturer at The Gothenburg University School of Business, Law and Economics, Sweden

#### Awards

2013	Chalmers Pedagogical Award for the best teacher at the University.
2016	Chalmers Innovation Award, for the best innovation and utilization project
2017	Female CEO Excellence Awards 2017: Public Education CEO of the Year 2017 - Sweden & Best Scientific Education NPO - Sweden

#### Additional tasks at Chalmers University

2009-2018	Advisor to the SBE@Chalmers, undergraduate organization for Biological Engineering.
2015	Member of the Committee for development of Msc programs at Chalmers
2015	Director of the Bioscience Doctoral School at Chalmers, Sweden
2015	Member of the Committee for development of doctoral education at Chalmers
2015	Elected Faculty representative at the department's Advisory Council, Chalmers, Sweden.
2016-2018	Elected Faculty deputy at the department's Advisory Council, Chalmers, Sweden.
2017-2018	Co-founder and committee member of Diversity committee at the department

#### Academic supervision

Since 2006 I have been the **main supervisor of 42 researchers** (10 post-doctoral fellows, 5 PhD students, 3 visiting PhD students, 10 Msc students, 3 Bsc students and 11 internship students) and **co-supervisor** of 19 researchers (6 post-doctoral fellows, 6 PhD students, 7 Msc students).

#### Innovation

2015-2016	Collaboration with the Chalmers business school on evaluations of strategies
2015-2016	Selected for the Mentor for Research program, under the Chalmers Innovation office. Mentor: Karin Wingstrand, former vice-president and head of clinical development at AstraZeneca. The project that I did within this framework was awarded the Chalmers Innovation Prize.
2020	Filed IP on production of heme-containing proteins in yeast.

**Memberships**

1994-...	Member of the Croatian Society for Genetics
1994-...	Member of the Croatian Society for Biochemistry and Molecular Biology (section of the FEBS and IUBMB)
2010-...	Member of the International Society for Metabolic Engineering (SBE and AIChE)

**Editorial tasks**

	<i>Ad hoc</i> reviewer for many international journals since 2004.
2012	Guest Editor FEMS Yeast Research
2013-2018	Academic Editor of Microbial Cell
2013-2016	Editorial Board FEMS Yeast Research
2014-2018	Associate Editor Quarterly Reviews in Biophysics Discovery
2016-2018	Editor FEMS Yeast Research

**Scientific evaluations and expertise**

2009	Expert for evaluation of proposals for the French National Research Agency (ANR)
2010	Expert for evaluation of proposals for the French National Research Agency (ANR)
2010	Expert for evaluation of proposals for the South African Funding Agency
2010-2018	Member of 16 Theses committees in Sweden (Chalmers University of Technology, Göteborg University, Lund University)
2010-2011	Evaluator of two theses in South Africa (Stellenbosch University).
2011	Expert for evaluation of proposals for the French Governmental program for Scientific Excellence (LabEX)
2012	Expert for evaluation of proposals for the Research Foundation Flanders (FWO), Belgium
2013	Expert for evaluation of proposals for SystemsX, Swiss Governmental program for Systems Biology
2015	Expert for evaluation of tenure at KU Leuven, Belgium.
2016	Expert for evaluation of proposals for the Research Foundation Flanders (FWO), Belgium Expert for evaluation of proposals for the Israeli Science Foundation (ISF) Thesis committee expert TU Delft, Netherlands Thesis committee examiner, INA-PG, Paris, France
2018	Expert for evaluation of proposals for the US-Israel Binational Science Foundation Expert evaluator of proposals for the Austrian Science Fund Expert evaluator for Danish Technical University

**Positions of trust**

2012-2014	Committee member of the Jay Bailey Award for Metabolic Engineering
2013-2018	Co-Chair of the "Functional genomics section" of the European Federation for Biotechnology (EFB), responsible for the "Yeast section".
2013-2014	Faculty deputy Chair at the Department of Chemical and Biological Engineering, Chalmers University
2014-2017	Member of the Scientific Advisory Board of "Universeum" (Nordic region's largest Science Centre), Sweden.
2015-2018	Member of the Scientific Advisory Board of "Innovatum Science Center", Sweden.
2016-2018	Swedish representative for European Federation of Biotechnology (EFB)
2017-2018	Founding member of the departmental equality committee at the Department of Biology and Biological Engineering at Chalmers University.

### Management and Leadership

- 2007-2009 **Project manager** for “Yeast Systems Biology Network” YSBN (EU-funded project in the 6th framework, over 20 partner labs)
- 2007-2010 **Project manager** for “NordForsk network” (a Nordic network, 10 partner labs)
- 2008-2011 **Project manager** for “Systems Biology as a Driver for Industrial Biotechnology” SYSINBIO (EU-funded projects in the 7th framework, over 20 partner labs).
- 2010-2012 **Project manager** of “NordSysBio” (Nordic network for systems biology of metabolism, 9 partner labs)
- 2012-2018 **CEO Global** Molecular Frontiers Foundation, Chalmers University of Technology and Royal Academy of Sciences (KVA), Stockholm, Sweden. The organization is led by the BoD composed of academy members who are also in the Nobel committee. The organization operates via universities in Japan, China, Singapore, Ghana, Sweden and USA. The SAB is composed of about 30 leading scientists in the areas of all natural sciences, and 12 of the members are Nobel Laureates.
- 2013-2014 **Deputy Faculty Chair** for the department of Chemistry and Chemical Engineering. At the time the department had more than 400 employees and was the largest at Chalmers University. The Chair was the professor of nuclear chemistry, prof Christian Eckberg. During that time we led the spin out of the Biology and Biological Engineering as a separate department, which has 200 employees.

### Session chairing and awards judging at international conferences

- 2008 Organizing committee of the International Conference for Systems Biology ICSB2008 (Gothenburg, Sweden).
- 2010 Poster evaluation judge at PYFF4, Rotterdam
- 2010 Organizing committee and session chair at the Conference on Systems Biology of Microorganisms (Paris, France).
- 2010 Organizing committee and session chair at the Industrial Systems Biology (Gothenburg Life Science Conference XI), (Gothenburg, Sweden).
- 2011 Co-organizer and co-chair of System and Translational Medicine (Stockholm, Sweden).
- 2015 Member of the scientific committee, session chair and poster judge at the 11<sup>th</sup> International Meeting of Yeast Apoptosis (IMYA XI), in Porto, Portugal.

### Chairing of international conferences

- 2013 Organizer and co-chair of the Molecular Frontiers Symposium in May, at the Royal Swedish Academy of Sciences, (Stockholm, Sweden).
- 2014 Organizer and Chair of the 10<sup>th</sup> International Meeting of Yeast Apoptosis (IMYA X), (Gothenburg, Sweden).
- 2014 Organizer and co-chair of the Molecular Frontiers Symposium in May, at the Royal Swedish Academy of Sciences (KVA), (Stockholm, Sweden).
- 2014 Organizer and co-chair of the Molecular Frontiers Symposium in November, at Chalmers (Gothenburg, Sweden).
- 2015 Organizer and co-chair of the Nobel Workshop and the Molecular Frontiers Symposium “The Amazing Week”, May 4<sup>th</sup> -8<sup>th</sup>, at Chalmers, (Gothenburg, Sweden).
- 2016 Organizer at co-chair of the Molecular Frontiers Symposium “Healthy Aging”, at Chalmers, (Gothenburg, Sweden). Co-organized with Jan-Olof Jacke, CEO of AstraZeneca Sweden.
- 2018 Co-organizer, session co-chair and poster evaluator at the Metabolic Engineering Conference 12, June 24-28 Munich.
- 2018 Member of the Scientific Committee, Istanbul Technical University Molecular Biology and Genetics Student Club

**Invited lectures at specialized international conferences**

2012	Invited speaker at the 9 <sup>th</sup> International Meeting on Yeast Apoptosis (IMYA9), Rome, Italy.
2013	Invited speaker at the Biotechnology Conference, Cancun, Mexico
2015	Invited speaker at the Nobel Workshop "Frontiers in Molecular Sciences", Göteborg, Sweden.
2015	Invited speaker at the Symposium on Networks and Pathways, Crete, Greece
2015	Invited speaker at the 11 <sup>th</sup> International Meeting on Yeast Apoptosis (IMYA11), Porto, Portugal.
2015	Invited speaker at the Volkswagen Foundation Symposium, in Hannover, Germany.
2015	Invited lecture at the Dalian Institute for Chemistry, Chinese Academy of Sciences (CAS), China
2016	Invited speaker at the 14 <sup>th</sup> International Congress on Yeasts (ICY14), Awaji Island, Japan.
2016	Invited plenary at the 10 <sup>th</sup> International Conference of Natural and Life Sciences, COINS, Lithuania.
2016	Invited speaker at the 13 <sup>th</sup> International Symposium on Genetics of Industrial Microorganisms (GIM2016), Wuhan, China.
2016	Invited speaker at the Biotechnology Days, Göteborg, Sweden
2017	Invited speaker at the 12 <sup>th</sup> International Meeting on Yeast Apoptosis (IMYA12), Bari, Italy.
2017	Invited speaker at the ISSY33 International Specialized Symposium on Yeasts, Cork, Ireland.
2018	Invited lecturer at Shandong University, China
2018	Invited keynote at IMYA 13 Conference in KU Leuven

**Public outreach**

2001-2003	Moderator for the Science section of the largest Croatian forum online (more than 2 million unique participants, more than 6 million visits each month, around 350 000 discussion themes)
2010-2018	Advisor and co-organizer of SBE@Chalmers (Society for Biological Engineering, student chapter at Chalmers)
2014	Invited speaker for the Symposium in honor of Barbro Osher, Göteborg, Sweden
2014	Interview for the SVT national morning TV-news, Sweden
2014	Interview with Göteborgs Posten, Sweden
2015	Invited speaker for Chalmers Alumni, Göteborg, Sweden
2016	Co-organizer of Inspiration Future Days (Futurdagarna) for high school students, Innovatum Science Center, Tröllhättan, Sweden
2016	Public speaker on the Nordstan square, at the Science festival (Vetenskapsfestivalen) in Göteborg, Sweden
2018	Invited speaker for the SBE@Chalmers open microphone nights

**Grants**

2000-2001	Competitive PhD Scholarship from the French Government
2001-2004	INRA PhD Scholarship, France
2008-2011	SYSINBIO, EU-funded coordination action on systems biology
2008-2012	Chalmers Foundation, Life Science initiative
2008-2013	UNICELLSYS, EU-funded integrated project on yeast systems biology
2009	Wallenberg Foundation Travel Grant
2010-2014	Chalmers Faculty Fund for yeast as a model for human diseases
2011-2020	part of the Novo Nordisk Foundation Center for Biosustainability, funding for protein production (proteostasis and secretion)
2012-2018	As CEO of MFF raised more than 7 MSEK, in addition to grants for organization of symposia
2013	Kristina Stenborgs Stiftelse grant on yeast as a model for proteins in neurological diseases (PI)
2015-2020	SSF Grant on production of human hemoglobin in yeast (PI for yeast work)
2017-2019	VR project on production of Cellulosome in yeast, collaboration China-Sweden (PI for Sweden)
2017-2022	SSF project on production of pharmaceutical proteins in yeast (co-PI)
2018-2023	Vinnova CellNova grant on biologicals in yeast (PI for yeast)

## Peer-reviewed original research articles

1. Chen X, Ji B, Hao X, Li X, Eisele F, Nyström T, **Petranovic D.** (2020) FMN reduces Amyloid- $\beta$  toxicity in yeast by regulating redox status and cellular metabolism. *Nat Commun.* 2020 Feb 13;11(1):867. doi: 10.1038/s41467-020-14525-4.
2. Wang G, Björk SM, Huang M, Liu Q, Campbell K, Nielsen J, Joensson HN, **Petranovic D.** (2019) RNAi expression tuning, microfluidic screening, and genome recombineering for improved protein production in *Saccharomyces cerevisiae*. *Proc Natl Acad Sci U S A.* 2019 May 7;116(19):9324-9332. doi: 10.1073/pnas.1820561116. Epub 2019 Apr 18.
3. Huang M, Wang G, Qin J, **Petranovic D,** Nielsen J. (2018) Engineering the protein secretory pathway of *Saccharomyces cerevisiae* enables improved protein production. *Proc Natl Acad Sci U S A.* 2018 Nov 20;115(47):E11025-E11032. doi: 10.1073/pnas.1809921115. Epub 2018 Nov
4. Tang H, Wang J, Wang S, Shen Y, **Petranovic D,** Hou J, Bao X. (2018) Efficient yeast surface-display of novel complex synthetic cellulosomes. *Microb Cell Fact.* 2018 Aug 7;17(1):122. doi: 10.1186/s12934-018-0971-2.
5. Muñoz-Arellano A.J., Chen X., Molt A., Meza E., **Petranovic D.** (2018) Different Expression Levels of Human Mutant Ubiquitin B+1 (UBB+1) Can Modify Chronological Lifespan or Stress Resistance of *Saccharomyces cerevisiae*. *Frontiers in Molecular Neuroscience* (11) 2018:200. DOI=10.3389/fnmol.2018.00200.
6. Bao J, Huang M, **Petranovic D,** Nielsen J. Balanced trafficking between the ER and the Golgi apparatus increases protein secretion in yeast *AMB Express.* 2018 Mar 12;8(1):37. doi: 10.1186/s13568-018-0571-x.
7. Huang M., Bao J., Hallström B., **Petranovic D.,** Nielsen J. (2017) Efficient protein production by yeast requires global tuning of metabolism. *Nature Comm.* #NCOMMS-17-01945C
8. Chen X., Bisschops M.M.M, Agarwal N.R., Ji B., Shanmugavel K.P., **Petranovic D.** (2017) Interplay of energetics and ER stress exacerbates Alzheimer's amyloid- $\beta$  (A $\beta$ ) toxicity in yeast. *Front. Mol. Neurosci.*, 27 July 2017 | <https://doi.org/10.3389/fnmol.2017.00232>
9. Shumangavel K.P., **Petranovic D.,** Wittung-Stafshede P. (2017) Probing functional roles of Wilson disease protein (ATP7B) copper-binding domains in yeast. *Metallomics,* 2017 Jul 19;9(7):981-988. doi: 10.1039/c7mt00101k.
10. Bao J, Huang M, **Petranovic D,** Nielsen J (2017) Moderate expression of *SEC16* increases protein secretion by *Saccharomyces cerevisiae*. *Appl Environ Microbiol.* pii: AEM.03400-16. doi: 10.1128/AEM.03400-16.
11. 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: 99-104.
12. Martínez JL, Meza E, **Petranovic D** and Nielsen J. (2016). The impact of respiration and oxidative stress response on recombinant  $\alpha$ -amylase production by *Saccharomyces cerevisiae*. *Met. Eng. Comm.*3: 205–210.
13. Johansson M., Chen X, Milanova S, Santos C and **Petranovic D** (2016) PUFA-induced cell death is mediated by YCA1p-dependent and -independent pathways, and is reduced by vitamin C in yeast. *FEMS Yeast Res.*, 2016 Mar; 16(2):fow007.
14. Huang M, Bai Y, Sjoström SL, Hallström BM, Liu Z, **Petranovic D,** Uhlén M, Joensson HN, Andersson Svahn H and Nielsen J. (2015) Microfluidic screening and whole-genome sequencing identifies mutations associated with improved protein secretion. *Proc Natl Acad Sci U S A.* 2015 Aug 10.
15. Liu L, Zhang Y, Liu Z, **Petranovic D** and Nielsen J (2015) Improving heterologous protein secretion in aerobic conditions by activating hypoxia induced genes in *Saccharomyces cerevisiae*. *FEMS Yeast Res.* 2015 Jul 27.
16. Chen X and **Petranovic D** (2015) Cytotoxicity and Mitochondrial Dysfunction in yeast expressing amyloid-beta peptide. *FEMS Yeast Res.* 2015 Sep; 15(6).
17. Wanichthanarak K, Wongtosrad N, **Petranovic D.** (2015). Genome-wide expression analyses of the stationary phase model of ageing in yeast, *Mech Ageing Dev.* 2015 Jul; 149:65.
18. Caspeta L, Chen Y, Ghiaci P, Feizi A, Buskov S, Hallström BM, **Petranovic D,** Nielsen J. (2014) Altered sterol composition renders yeast thermotolerant. *Science.* 2014 Oct 3;346(6205):75-8
19. Martínez JL, Liu L, **Petranovic D,** Nielsen J. (2014) Engineering the oxygen sensing regulation results in an enhanced recombinant human hemoglobin production by *Saccharomyces cerevisiae*. *Biotechnol Bioeng.* 2014 Jul 31.

20. Hou J, Tang H, Liu Z, Osterlund T, Nielsen J, **Petranovic D.** (2014) Management of the endoplasmic reticulum stress by activation of the heat shock response in yeast. *FEMS Yeast Res.* 2014 May;14(3):481-94
21. Liu L, Martínez JL, Liu Z, **Petranovic D,** Nielsen J. (2014) Balanced globin protein expression and heme biosynthesis improve production of human hemoglobin in *Saccharomyces cerevisiae*. *Metab Eng.* 2014 Jan;21:9-16.
22. Wanichthanarak K, Nookaew I, **Petranovic D.** (2014) yStreX: yeast stress expression database. *Database (Oxford).* 2014 Jul 14; 2014
23. Liu Z, Liu L, Österlund T, Hou J, Huang M, Fagerberg L, **Petranovic D,** Uhlén M, Nielsen J (2014). Improved production of a heterologous amylase in *Saccharomyces cerevisiae* by inverse metabolic engineering. *Appl Environ Microbiol.* 2014 Sep;80(17):5542-50
24. Tyo KE, Liu Z, Magnusson Y, **Petranovic D,** Nielsen J. (2014). Impact of protein uptake and degradation on recombinant protein secretion in yeast. *Appl Microbiol Biotechnol.* 2014 Aug; 98(16):7149-59.
25. Wanichthanarak K, Cvijovic M, Molt A, **Petranovic D.** (2013) yApoptosis: yeast apoptosis database. *Database (Oxford).* 2013 Sep 29; 2013.
26. Feizi A, Österlund T, Bordel S, **Petranovic D,** Nielsen J. (2013) Genome-Scale Modeling of the Protein Secretory Machinery in Yeast. *PLoS One.* 2013 May 7; 8(5):e63284.
27. Liu Z, Osterlund T, Hou J, **Petranovic D,** Nielsen J (2013) Anaerobic  $\alpha$ -amylase production and secretion with fumarate as the final electron acceptor in yeast. *Appl Environ Microbiol.* 2013 Feb 22
28. Liu Z, Hou J, Martínez JL, **Petranovic D,** Nielsen J. (2013) Correlation of cell growth and heterologous protein production by *Saccharomyces cerevisiae*. *Appl Microbiol Biotechnol.* 2013 Feb 8
29. Kazemzadeh L., Cvijovic M., **Petranovic D.** (2012) Boolean model of Yeast Apoptosis as a tool to study yeast and human apoptotic regulations. *Front Physiol.* 2012 Dec 10; 3:446.
30. Karlsson F., Fåk F., Nookaew I., Tremaroli V., Fagerberg B., **Petranovic D.,** Bäckhed F., and Nielsen J. (2012) Symptomatic atherosclerosis is associated with an altered gut metagenome. *Nat Commun.* 2012 Dec 4; 3 :1245.
31. Hou J, Osterlund T., Zihe L., **Petranovic D.,** Nielsen J. (2012) Heat Shock Response Improves Heterologous Protein Secretion in *Saccharomyces cerevisiae*. *Appl Microbiol Biotechnol.* 2012 Dec 4.
32. Tyo KEJ, Liu Z, **Petranovic D,** Nielsen J (2012) Imbalance of heterologous protein folding and disulfide bond formation rates yields runaway oxidative stress. *BMC Biol.* **10**:16
33. Hou J, Tyo KEJ, Liu Z, **Petranovic D,** Nielsen J. Engineering of Vesicle Trafficking Improves Heterologous Protein Secretion in *Saccharomyces cerevisiae*. *Metab Eng.* (2):120-7.
34. Liu Z, Tyo KEJ, Martinez JL, **Petranovic D,** Nielsen J (2012) Differential expression systems for production of recombinant proteins in *Saccharomyces cerevisiae*. *Biotechnol. Bioeng.* **109**:1259-1268
35. 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.
36. Ruenwai R, Neiss A, Laoteng K, Vongsangnak W, Badoei Dalfard A, Cheevadhanarak S. **Petranovic D,** Nielsen J. (2010) PUFAs in yeast cause a global stress response due to reduced proteasomal activity and increased oxidative stress. *Biotechnol. J.* 2011 Mar; 6(3):343-56.
37. Canelas A. B, Harrison N, Fazio A, Zhang J, Pitkänen J-P, van den Brink J, Bakker B.M., Bogner L, Bouwman J, Castrillo J.I, Cankorur A, Chumnanpuen P, Daran-Lapujade P, Dikicioglu D, van Eunen K, Ewald J. C, Heijnen J. J, Kirdar B, Mattila I, Mensonides F. I. C, Niebel A, Penttilä M, Pronk J. T., Reuss M, Salusjärvi L, Sauer U, Sherman D, Siemann-Herzberg M, Westerhoff H, de Winde J, **Petranovic D,** Oliver S. G, Workman C. T, Zamboni N, Nielsen J (2010) Integrated multi-laboratory systems biology reveals 1 differences in protein metabolism between two reference 2 yeast strains. *Nat. Comm.* 2010; 1:145.
38. **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 BY-Kinase PtkA Proceeds via Phosphorylation of Its Residue Tyrosine 70. *J Mol Microbiol Biotechnol.* 17(2):83-9.
39. Herrgård MJ, Swainston N, Dobson P, Dunn WB, Arga KY, Arvas M, Blüthgen N, Borger S, Costenoble R, Heinemann M, Hucka M, Le Novère N, Li P, Liebermeister W, Mo ML, Oliveira AP, **Petranovic D,** Pettifer S, Simeonidis E, Smallbone K, Spasić I, Weichart D, Brent R, Broomhead DS, Westerhoff HV, Kirdar B, Penttilä

- M, Klipp E, Palsson BØ, Sauer U, Oliver SG, Mendes P, Nielsen J, Kell DB. (2008) A consensus yeast metabolic network reconstruction obtained from a community approach to systems biology. *Nat Biotechnol.* **10**:1155-60.
40. Soufi B, Gnad F, Jensen PR, **Petranovic D**, Mann M, Mijakovic I, Macek B. (2008) The Ser/Thr/Tyr phosphoproteome of *Lactococcus lactis* IL1403 reveals multiply phosphorylated proteins. *Proteomics.* **17**:3486-93.
41. Koebmann B, Blank LM, Solem C, **Petranovic D**, Nielsen LK, Jensen PR. (2008) Increased biomass yield of *Lactococcus lactis* during energetically limited growth and respiratory conditions *Biotechnol Appl Biochem.* **50**(Pt 1):25-33.
42. **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.* **6**: 1797-805.
43. 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.* **5**: 1588-96.
44. Mijakovic I, Musumeci L, Tautz L, **Petranovic D**, Edwards RA, Jensen PR, Mustelin T, Deutscher J, Bottini N. (2005) In vitro characterization of the *Bacillus subtilis* protein tyrosine phosphatase YwqE. *J. Bacteriol.* **10**:3384-90.
45. Mijakovic I, **Petranovic D**, Deutscher J. (2004) How tyrosine phosphorylation affects the UDP-glucose dehydrogenase activity of *Bacillus subtilis* YwqF. *J Mol Microbiol Biotechnol.* **1**: 19-25.
46. **Petranovic D**, Guédon E, Sperandio B, Delorme C, Ehrlich D, Renault P. (2004) Intracellular effectors regulating the activity of the *Lactococcus lactis* CodY pleiotropic transcription regulator. *Mol Microbiol.* **2**: 613-21.
47. **Petranovic D**, Mijakovic I. (2004) Photometric assay for measuring the intracellular concentration of branched-chain amino acids in bacteria. *J Microbiol Methods.* **01**:133-6.
48. Petranović M, Zahradka K, Zahradka D, **Petranović D**, Nagy B, Salaj-Smic E, Petranović D. (2001) Genetic evidence that the elevated levels of *Escherichia coli* helicase II antagonize recombinational DNA repair. *Biochimie.* **83**:1041-7.

#### Peer-reviewed review articles

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#### Additional

A full page about my work on humanized yeast models for human disease is featured in the 5<sup>th</sup> edition of the textbook "Microbiology: An Evolving Science" by Joan L. Slonczewski, John W. Foster and Erik R. Zinser, published in July 2020.