

# *Curriculum vitae*

## **Marija Cvijovic**

<b>Address</b>	University of Gothenburg and Chalmers University of Technology Department of Mathematical Sciences Chalmers tvärgata 3, 41296 Göteborg +46 31 772 5321	
<b>Email</b>	marija.cvijovic@chalmers.se	
<b>Current position</b>	Assistant professor, University of Gothenburg, Sweden Parental leave: 2011 August - 2012 March (7 months) 2014 March - 2014 November (7 months)	April 11 2011
<b>Previous positions</b>	<i>Postdoc</i> , The Sahlgrenska Academy <i>Postdoc</i> , Chalmers University of Technology	Jan-April 2011 Aug 2008 – Dec 2010
<b>Education</b>	<i>Docent in Mathematical Biology</i> , University of Gothenburg, Sweden <i>PhD in Mathematics</i> , Max Planck Institute for Molecular Genetics and Free University, Berlin, Germany <i>M.Sc. Bioinformatics</i> , Chalmers University of Technology, Sweden <i>B.Sc. Mathematics</i> , University of Belgrade, Belgrade, Serbia	2014 2009 2005 2003
<b>Additional training</b>	2013 Leadership program for Assistant Professors (Sharing Insight Peter Lysell) 2013 Mentor4research (Kungl. Ingenjörsvetenskapsakademien)(one of eight finalists)	
<b>Exchange Scientific Visits</b>	Bordeaux University, LaBri , France Project Leaders: Macha Nikolski and David Sherman  Virginia Bioinformatics Institute, Blacksburg, USA Project Leaders: Pedro Mendes and Stefan Hoops	2007, 2008  2006
<b>Open-access software</b>	BioMet ToolBox: <a href="http://www.sysbio.se/BioMet">http://www.sysbio.se/BioMet</a> (500users/month) Yeast Cell Death database: <a href="http://www.ycelldeath.com/">http://www.ycelldeath.com/</a>	
<b>Grants</b>	<b>Most relevant</b> Stiftelsen för Strategisk Forskning (SSF) Assistant Professor in applied mathematics Yeast Systems Biology Network Fellow DAAD scholarship – German Academic Exchange Service Marie Curie PhD Fellow  <b>Other</b> Lars Hierta Foundation Knut and Alice Wallenberg Foundation Travel grant FEBS YTF Grant Cold Spring Harbour Laboratory	2014 2011 2008 2006 2005  2013 2009, 2010, 2012 2010 2007

<b>Awards</b>	<b>Best poster Award</b> 5 <sup>th</sup> Swedish Bioinformatics Workshop, Lund, Sweden	2004
<b>Invited conference presentations</b>	2012: 13 <sup>th</sup> International Conference on Systems Biology, Toronto, Canada Nordic Yeast Research Community Symposium, Göteborg, Sweden 2010: 35 <sup>th</sup> FEBS Congress, Göteborg, Sweden 2010: 2 <sup>nd</sup> Swedish Meeting on Mathematical Biology, Göteborg, Sweden 2009: 7 <sup>th</sup> International Meeting on Yeast Apoptosis, Graz, Austria 2008: 10 <sup>th</sup> International Conference on Systems Biology, Göteborg, Sweden	
<b>Invited symposium presentations</b>	2014: Symposium: Systems Biology and Systems Medicine in Gothenburg , Sweden and Europe 2013: Sweden – South Africa Symposium: From systems biology to metabolic engineering and synthetic biology, Stellenbosch, South Africa 2010: BaSysBio Meeting, Beaune, France 2009: ECUST Symposium on Systems Biology, Shanghai, China 2009: Mini Symposium: Systems Biology in Sweden, Stockholm, Sweden 2006: 1 <sup>st</sup> YSBN Workshop, Vienna, Austria 2006: Ageing Summer School, Spetses, Greece	
<b>Popular science presentations</b>	2013: Quest for the Fountain of Youth or why Gilgamesh should have studied math; <i>Academic Open Mic Night   SBE Student Chapter Chalmers</i>	
<b>Review commissions</b>	Biotechnology & Bioengineering, Bioinformatics, PLOS Genetics, Science, BMC Bioinformatics, Molecular Biology and Evolution, FEBS Journal, Advances in Systems Biology	
<b>Commissions of trust</b>	2014-ongoing: The International Society for Systems Biology – Foundation Chair 2013-ongoing: Gothenburg Centre for Systems Biology (GCSB) – CEO 2013-ongoing: EC funded Infrastructure for Systems Biology Europe (ISBE) (WP training and education) 2013 EC Human Brain Project Competitive Call – external reviewer 2011-ongoing: Gothenburg Bioinformatics Network (GOTBIN) – Steering Board Member 2008-2010: EC funded SYSINBIO (WP leader)	
<b>Management / Organizational skills</b>	2014: Workshop: Systems Biology Training and Education, Heidelberg, Germany Workshop: Systems Biology Training and Education, Göteborg 2013: Current Challenges in Systems Biology Workshop, Göteborg (organizing and scientific committee member) EUROMATH (session coordinator) 6 <sup>th</sup> International course on yeast Systems Biology (Scientific committee member) 2011: FutureSysBio Workshop on Defining Modeling Strategies, Göteborg (organizing and scientific committee member) 2010: 10th Swedish Bioinformatics Workshop, Göteborg (organizing committee member) 2010: FEBS International Course on Systems Biology of Metabolism (course proposal, coordination) 2010: 35 <sup>th</sup> FEBS congress, Göteborg (organizing committee member, workshop organizer)	
<b>Pedagogic education</b>	HPE103 Applied Analysis (5hp) HPE201 Supervision in postgraduate programmes (5hp)	2015 2013

HPE102 Teaching and learning in higher education 2 (5hp) 2013  
 HPE101 Teaching and learning in higher education 1 (5hp) 2012

## Teaching

### University of Gothenburg

#### PhD courses

*Statistics for genome sciences*, Fall 2013, 2014

*Industrial perspectives on systems biology and bioinformatics*, Spring 2013

7<sup>th</sup> *International PhD Course in Yeast Systems Biology*, Spring 2015

6<sup>th</sup> *International PhD Course in Yeast Systems Biology*, Spring 2013

5<sup>th</sup> *International PhD Course in Yeast Systems Biology*, Spring 2011

4<sup>th</sup> *International PhD Course in Yeast Systems Biology*, Spring 2009

#### Master courses

*Experimental systems biology (BIO448)*, Spring 2014, 2015

*Functional genomics and systems biology (BIO406)*, Fall 2012, 2013, 2014

### Chalmers University of Technology

#### PhD courses

1<sup>st</sup> *International Course on Systems Biology of Metabolism*, Spring 2010

*Metabolic Engineering and Systems Biology*, Fall 2008

#### Master courses

*Synthetic biology (KBT225)*, Spring 2014, 2015

*Large Scale Genomics, Techniques and Analysis (MVE130)*, Spring 2011

*Data acquisitions and Handling in Systems Biology (KMG060)*, Fall 2009,10

#### Undergraduate courses

Linjär algebra (TMV141), Spring 2015

### NTNU, Trondheim, Norway

*PhD course Introduction to Systems Biology*, Fall 2008

### Max Planck Institute for Molecular Genetics, Berlin, Germany

*Master course Dynamic Modelling*, Fall 2007

## Supervision

### PhD students

Niek Welkenhuysen (EC FP7 project ISOLATE) 2013 (ongoing, co-supervisor)

Sviatlana Shashkova (EC FP7 project ISOLATE) 2013 (ongoing, co-supervisor)

Frederik Boulund 2011 (ongoing, co-supervisor)

Kwanjeera Wanichthanarak 2010 (co-supervisor)

### Master students (30 and 60 credit points)

Jens Persson (60cp) 2014/2015

Erik Ländström (60cp) 2014/2015

Mattias Backman (60cp) 2014/2015

Mathias Johnsson (60cp) 2014/2015

Riccardo Dainese (60cp) 2013/2014

(current position: PhD student at EPFL, Swiss)

Robert Andersson (30cp) 2013

(current position: PhD student at University of Warwick, UK)

Kwanjeera Wanichthanarak (30cp) 2009

(current position: post-doc at UC Davis, USA; previous position: PhD student at Chalmers)

Laleh Kazemzadeh (30cp) 2010  
(current position: PhD student at Digital Enterprise Research Institute (DERI), Ireland)

**Project students (15 credit points)**

Ajay Anantha 2013  
Eva Sörenson 2013  
Olle Elias 2012  
Robert Andersson 2012

**Publications**

16. X. Yang, Y. Shen, E. Garre, X. Hao, D. Krumlinde, M. Cvijovic, C.Arens, T. Nyström, B. Liu, P. Sunnerhagen, Stress granule-defective mutants deregulate stress responsive transcripts, *PLoS Genet.* Vol 10(11) (2014)

15. S. Jia, Q. Yang, X. Hao, L. Larsson, J. Yang, X. Zhu, S. Malmgren-Hill, D. Höglund, **M. Cvijovic**, J. Fernandez-Rodriguez, J. Grantham, C.M. Gustafsson, B. Liu, T. Nyström, Essential genes of the SIR2 genetic interaction network required for asymmetrical inheritance of protein aggregates, *PLOS Genet.* Vol 10 (7)(2014)

14. L. Bendrioua, M. Smedh, J. Almquist, **M. Cvijovic**, M. Jirstrand, M. Gokso, C. B. Adiels, S. Hohmann, Yeast AMP-Activated Protein Kinase Monitors Glucose Concentration Changes as well as Absolute Glucose Levels, *J. Biol. Chem* 289(18):12863-75 (2014)

13. **M. Cvijovic**<sup>#</sup>, J. Almquist, J. Hagmar, S. Hohmann, H.-M. Kaltenbach, E. Klipp, M. Krantz, P. Mendes, S. Nelander, J. Nielsen, A. Pagnani, N. Przulj, A. Raue, J. Stelling, S. Stoma, F. Tobin, J. A. H. Wodke, R. Zecchina, M. Jirstrand Bridging the gaps in systems biology, *Molecular Genetics and Genomics* (2014)

12. J. Almquist, **M. Cvijovic**, V. Hatzimanikatis, J. Nielsen, M. Jirstrand, Kinetic Models in Industrial Biotechnology - Improving Cell Factory Performance, *Metabolic Engineering* 24C:38-60 (2014)

11. K. Wanichthanarak, **M. Cvijovic**<sup>#</sup>, A. Molt, D. Petranovic yApoptosis: Yeast Apoptosis Database, *Database* (2013)

10. M. Hernebring, Å. Fredriksson, M. Liljevald, **M. Cvijovic**, K. Norrman, J. Wiseman, H. Semb, T. Nyström Removal of damaged proteins during ES cell fate specification requires the proteasome activator PA28, *Nature Scientific Reports* 3: 1381 (2013)

9. L. Kazemzadeh, **M. Cvijovic**<sup>#</sup>, D. Petranovic Boolean model of yeast apoptosis as a tool to study yeast and human apoptotic regulations, *Front Physiol* 3:446 (2012)

8. F. Cuklev, J. Fick, **M. Cvijovic**, E. Kristiansson, L. Förlin, D.G.J. Larsson Does ketoprofen or diclofenac pose the lowest risk to fish? *J Hazard Mater*, 229-230:100-6 (2012)

7. F. Cuklev, L. Gunnarsson, **M. Cvijovic**, E. Kristiansson, C. Rutgeron, B. Björleinius D.G.J. Larsson Global hepatic gene expression in rainbow trout exposed to sewage effluents: A comparison of different sewage treatment technologies, *Science of the Total Environment*, 427-428:106-14 (2012)

6. **M. Cvijovic**, S. Velasco Bordel, J. Nielsen Mathematical Models of Cell Factories: Moving towards the core of Industrial Biotechnology, *Microbial Biotechnology*

(2011)

5. **M. Cvijovic**, R.Olivares–Hernández, R. Agren, N.Dahr, W. Vongsangnak, I. Nookaew, K. R. Paril, J. Nielsen BioMet Toolbox: genome-wide analysis of metabolism, *Nucleic Acid Research, NAR vol 38* (2010)
4. N. Erjavec\*, **M. Cvijovic\***, E. Klipp, T. Nyström Selective benefits of damage partitioning in unicellular systems; effects on robustness, fitness and aging, *PNAS vol 105* (2008) (Recommended by Faculty of 1000)
3. **M. Cvijovic\***, H. Soueidan\*, D. J. Sherman, E. Klipp, M. Nikolski Exploratory simulation of Cell Ageing Using Hierarchical Models, *Genome Informatics 21:114-25* (2008)
2. **M. Cvijovic**, D.Dalevi, E. Bilsland, G.J.L. Kemp, P. Sunnerhagen, Identification of putative regulatory upstream ORFs in the yeast genome using heuristics and evolutionary conservation, *BMC Bioinformatics 8:295* (2007)
1. Selpi, C.H. Bryant, G.J.L. Kemp, **M. Cvijovic**, A First Step towards Learning which uORFs Regulate Gene Expression, *Journal of Integrative Bioinformatics, 3(2)* (2006)

\*Equal contribution; #Corresponding author