

PHD MARTA POPOVIĆ – CURRICULUM VITAE

Present position: **Research Associate**, Department for Marine and Environmental Research, Institute Ruder Boskovic, Croatia. E-mail: mpopovic@irb.hr

Research experience

2017- present – Research Associate (i.e. Assistant Professor). Setting up a research group with the focus on deciphering DNA-Protein Crosslink Repair *in vivo* using CRISPR/Cas9 genome editing in zebrafish model. Institute Ruder Boskovic, Croatia

2014 - 2017 – Postdoctoral Researcher (DNA Damage and Repair Group) working on the project: The role of SPRTN protease in the repair of DNA-protein crosslinks at CRUK/MRC Oxford Institute for Radiation Oncology, **University of Oxford, UK.**

2008 - 2014 - PhD student/Research Assistant in the Laboratory for Molecular Ecotoxicology, Division for Marine and Environmental Research, Ruder Boskovic Institute, **Zagreb, Croatia.**

2010 - 5 months stay in the laboratory of Prof. Karl Fent, **University of Applied Sciences, Basel, Switzerland** during the PhD studies; collaboration on the joint research project „Establishing and developing of an ecotoxicology platform in Serbia and Croatia: a focus on zebrafish (*Danio rerio*)“; SCOPES project funded by the Swiss National Science foundation (SNSF), Grant SCOPES-IZ73ZO_128025/1.]

Education

Feb 2014 **PhD in Molecular Biosciences, Ruder Boskovic Institute, Zagreb, Croatia.**

Doctoral thesis: Identification, characterization and ecotoxicological relevance of membrane transport protein families SLC21 and SLC22 in zebrafish (*Danio rerio*), supervisor: Dr. Tvrtko Smital, Senior Scientist.

2008 - 2014 Doctoral studies in Molecular Biosciences (GPA 5.0/5.0), joint interdisciplinary postgraduate programme - University of Osijek, University of Dubrovnik and Ruder Boskovic Institute, Zagreb.

2006/2007 **MSc in Environmental Sciences, Oxford University Centre for Environment (OUCE), University of Oxford, UK** (MSc thesis - *distinction*).

1999 - 2005 **BSc in Biology and Ecology, Faculty of Science, University of Zagreb** (GPA 4.9/5.0), Zagreb, Croatia.

Publications

Author of **18 scientific publications**, out of which **9 as a lead author**. 10 are published in Q1, 7 in Q2 and 1 in Q4 journals. Highest-impact publications are published as a lead author and **two** of those are published in **very high**

impact journals (IF 13-14). Out 18 publications, 16 are original articles and 1 is a review article. **H index** - 11, Number of **citations** – 250.

1. **Popovic, M.***, Vaz, B*., Ramadan, K. (2017). DN-Protein Crosslink Proteolysis Repair. *Trends in Biochemical Sciences*. (Invited review article) (*equal contribution) (IF 13; Q1).
2. **Popovic, M.***, Vaz, B*., Newman, J., Fielden, J., Aitkenhead, H., Halder, S., Gileadi, O., Ramadan, K. (2016) Metalloprotease SPRTN/DVC1 Orchestrates Replication-Coupled DNA-Protein Crosslink Repair. *Molecular Cell*. 64, 704–719. (*equal contribution) (IF 14; Q1).
3. Mihaljevic, I., **Popovic, M.**, Zaja, R., Marakovic, N., Sinko, G., Smital, T. (2017) Interaction between the zebrafish (*Danio rerio*) organic cation transporter 1 (Oct1) and endo- and xenobiotics. *Aquatic toxicology* 187, 18–28 (IF 3.5; Q1).
4. Dragojevic, J., Mihaljevic, I., **Popovic, M.**, Zaja, R., Smital, T. (2018) In vitro characterization of zebrafish (*Danio rerio*) organic anion transporters (Oat2a-e). *Toxicology in vitro* 46, 246-256 (IF 2.9; Q2)
5. **Popovic, M.***, Mihaljevic, I.*, Zaja, R., Smital, T. (2016) Phylogenetic, syntenic, and tissue expression analysis of slc22 genes in zebrafish (*Danio rerio*). *BMC genomics*. 17:626. (*equal contribution) (IF 3.9; Q1).
6. **Popovic, M.***, Lončar, J*., Krznar, P., Zaja, R., Smital, T. (2016) First characterization of MATE (Multidrug and Toxin Extrusion) proteins in zebrafish. *Scientific Reports*. Article number: 28937. (*equal contribution) (IF 5.5; Q1).
7. Zaja, R., **Popovic, M.**, Loncar, J. Smital, T. (2016) Functional characterization of rainbow trout (*Oncorhynchus mykiss*) Abcg2a (Bcrp) transporter. *Comparative Biochemistry and physiology C-Toxicology & Pharmacology*. 190 (2016) 15–23. (IF 2.3; Q2).
8. **Popovic, M.**, Zaja, R., Fent, K., Smital, T. (2014). Interaction of environmental contaminants with zebrafish uptake transporter Oatp1d1 (*Slco1d1*). *Toxicology and applied pharmacology*, 280 (1), 149-158. (IF 3.7; Q1).
9. Glisic, B.*, Mihaljevic, I.*, **Popovic, M.**, Zaja, R., Loncar, J., Fent, K., Kovacevic, R., Smital, T. (2014) Characterization of glutathione-S-transferases in zebrafish (*Danio rerio*). *Aquatic toxicology*, 158, 50–62. (*equal contribution) (IF 3.5; Q1).
10. **Popovic, M.**, Zaja, R., Fent, K., Smital, T. (2013) Molecular characterization of zebrafish Oatp1d1 (*Slco1d1*), a novel organic anion transporting polypeptide. *Journal of Biological Chemistry*, 288 (47) 33894-33911. (IF 4.6; Q1).
11. Zaja, R., Terzić, S., Senta, I., Lončar, J., **Popovic, M.**, Ahel, M., Smital, T. (2013) Identification of P-Glycoprotein Inhibitors in Contaminated Freshwater Sediments. *Environmental Science and Technology*, 47(9), 4813-21. (IF 5.5; Q1).

12. Smital, T., Terzić, S., Lončar, J., Senta, I., Žaja, R., **Popović, M.**, Mikac, I., Tollefsen, K.-E., Thomas, K.V., Ahel, M. (2013) Prioritisation of organic contaminants in a river basin using chemical analyses and bioassays. *Environmental Science and Pollution Research* 20 (3), 1384-1395. (IF 2.8; Q2).
13. Zaja, R., Lončar, J., **Popovic, M.**, Smital, T. (2011) First characterization of fish P-glycoprotein (abcb1) substrate specificity using determinations of its ATPase activity and calcein-AM assay with PLHC-1/dox cell line. *Aquatic toxicology* 103 (1-2), 53-62. (IF 3.8; Q1).
14. Smital, T., Terzic, S., Zaja, R., Senta, I., Pivcevic, B., **Popovic, M.**, Mikac, I., Tollefsen, K.E., Thomas, K.V., Ahel, M. (2011) Assessment of toxicological profiles of the municipal wastewater effluents using chemical analyses and bioassays. *Ecotoxicology and Environmental Safety* 74 (4), 844-851. (IF 2.3; Q2).
15. **Popovic, M.**, Zaja, R., Smital, T. (2010) Organic anion transporting polypeptides (OATP) in zebrafish (*Danio rerio*): phylogenetic analysis and tissue distribution. *Comparative Biochemistry and physiology-A: Molecular & Integrative Physiology* 155 (3), 327-335. (IF 3.1; Q2).
16. **Popovic, M.**, Zaja, R., Loncar, J., Smital, T. (2010) A novel ABC transporter: The first insight into zebrafish (*Danio rerio*) Abch1. *Marine Environmental Research* 69 (SUPPL. 1), pp. S11-S13. (IF 2; Q2).
17. Loncar, J., **Popovic, M.**, Zaja, R., Smital, T. (2010) Gene expression analysis of the efflux transporters in rainbow trout (*Oncorhynchus mykiss*). *Comparative Biochemistry and physiology C-Toxicology & Pharmacology*. (IF 2.3; Q2).
18. **Popović, M.**, Gottstein-Matočec S. (2006). Biological aspects of the Spinicaudata (Branchiopoda, Diplostraca) in the largest alluvial wetland in Croatia. *Crustaceana* 79 (4), 423-440. (IF 0.4; Q4).

Fellowships

2014 – 2017. Postdoctoral position/fellowship in the DNA Damage and Repair Group (K. Ramadan) at CRUK/MRC Oxford Institute for Radiation Oncology, **Oxford University**, UK.

2006/2007, **OSI/FCO Chevening Scholarship** (Open Society Institute/Foreign Commonwealth Office), fully funded for MSc at **Oxford University**, UK.

2002 - 2004, **City of Zagreb Scholarship** for exceptionally gifted students, during the 3th and 4th year of undergraduate studies.

Conference proceedings and platform presentations

Published in more than **20 conference proceedings**. Only platform presentations are listed below.

2017 – Gordon Research Conference - Mammalian DNA Repair, Ventura, CA, USA. "DNA-Protein Crosslink Repair in Humans: SPRTN Is a Novel Mammalian Protease with the Central Role in DPC Repair Pathway (Short talk – poster previews).

2017 – Gordon Research Seminar - Mammalian DNA Repair, Ventura, CA, USA. "DNA-Protein Crosslink Repair in Humans: SPRTN Is a Novel Mammalian Protease with the Central Role in DPC Repair Pathway.

2012 - Göttinger Transporttage, Center of Physiology, Gottingen, Germany. Molecular characterization of a novel Organic Anion Transporting Polypeptide, zebrafish Oatp1d1 (Slco1d1).

2012 - FEBS3+ Meeting - From molecules to life and back, Opatija, Croatia. Molecular characterization of a novel Organic Anion Transporting Polypeptide, zebrafish Oatp1d1 (Slco1d1).

2011 - 16th International Symposium on Pollutant Responses in Marine Organisms (PRIMO 16), California, US. First characterization of zebrafish (*Danio rerio*) uptake transporters (Solute Carrier families SLC21 and SLC22).

2009 - 15th International Symposium on Pollutant Responses in Marine Organisms (PRIMO 15), Bordeaux, France (Best presentation award). A novel ABC transporter: first insight into zebrafish (*Danio rerio*) Abch1.

Awards and scholarships

2014 - Annual award for the best publication by young scientists in the field of molecular biology 'Zeljko Trgovcevic' given by Croatian Genetics Society (Popovic et al., JBC, 2013).

2014 - Departmental award for best publication in 2013, Institute Ruder Boskovic, Zagreb, Croatia.

2013 - **FEBS** (Federation of European Biochemical Societies), **EMBO** (European Molecular Biology Organization) and **IUBMB** (International Union of Biochemistry and Molecular Biology) joint scholarship for the attendance at Spetsai summer school 'Protein interactions, assemblies and human disease', Greece.

2012 - Student scholarship given by **FEBS** and Croatian society for biochemistry and molecular biology for the attendance (oral presentation) at the FEBS3+ Meeting – From molecules to life and back, Opatija, Croatia.

2011 - Student scholarship for the attendance (presentation) at the 16th International Symposium on Pollutant Responses in Marine Organisms (PRIMO 16), Long Beach, California.

2010 - **FEBS scholarship** for the attendance (poster and short presentation) at the 35th Annual meeting of Federation of European Biochemical Societies – 'FEBS - Molecules of Life' and YSF (Young scientist Forum), Göteborg, Sweden.

2009 - **Scholarship given by** 'European Biophysical Societies' Association (**EBSA**)' for the attendance at 10th International Summer School on Biophysics 'Supramolecular Structure and Function', Rovinj, Croatia.

2009 - **Best presentation award** for young researchers at the 15th International Symposium on Pollutant Responses in Marine Organisms (PRIMO 15), Bordeaux, France.

2009 - Student scholarship for the attendance (presentation) at the 15th International Symposium on Pollutant Responses in Marine Organisms (PRIMO 15), Bordeaux, France.

Trainings

2013 - Summer school on 'Protein interactions, assemblies and human diseases', Spetses, Greece.

2012 - Education and Training in Basic Radiation Safety for Radiation Workers (to work with radiation sources used in scientific and research laboratories), University of Applied Health Studies, Zagreb, Croatia.

2009 - 10th International Summer School on Biophysics: Supramolecular Structure and Function, Rovinj, Croatia.

Memberships

Croatian society of biochemistry and molecular biology

Croatian genetic society

Informal co-supervisions

Diploma thesis, Petra Krznar (2012). Gene expression and phylogeny of MATE (Multi Drug and Toxin Extrusion) proteins in zebrafish, *Danio rerio* (Hamilton, 1822.). Faculty of Sciences, University of Zagreb, Croatia.

PhD thesis (2012 - 2016). BSc Ivan Mihaljevic. Functional characterization of SLC22 transporters in zebrafish (*Danio rerio*). Laboratory for Molecular Ecotoxicology, Division for Marine and Environmental Research, Ruder Boskovic Institute, Zagreb, Croatia.

PhD thesis (2011 - 2016). BSc Branka Glisic. Glutathione S-transferases in zebrafish (*Danio rerio*): phylogenetic analysis, expression profiling and functional characterization of selected enzymes. Laboratory for Ecotoxicology, Department of Biology and Ecology, University of Novi Sad, Faculty of Sciences, Novi Sad, Serbia.