

Curriculum Vitae

Marin (Mario) Jukić

Date and place of birth: 18. January 1986. Belgrade

Research field and areas: Neuropsychopharmacology, Pharmacogenetics, Psychiatric genetics, Affective disorders, Translational psychiatry, Monoaminergic neurotransmission

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Education:

2004 – 2010 *Master of Pharmacy*; University of Belgrade – Faculty of Pharmacy, Serbia; integrated bachelor and master program; average grade 9.13 (10.00 is max); Master thesis title: The effect of selective modulators of α subunit of GABA_A receptor on anxiety and sedation in rats

2010 – 2014 *PhD in neuroscience*; Ben Gurion University of the Negev – Faculty of Health Sciences, Israel; average grade: 93/100; Doctoral thesis title: The impact of aberrant development of dopaminergic and serotonergic neurons on affective instability and bipolar disorder

Employment history

2010 – 2014 *Teaching assistant in Histology*; Ben Gurion University– Faculty of Health Sciences

2014 – 2017 *Teaching assistant in Pharmacology*; Karolinska Institute – Medical school

2014 – Present *Postdoc*; Karolinska Institute – Department of Physiology and Pharmacology

2016 – 2017 *Lecturer in Pharmacology*; Karolinska Institute – Medical school

2017 – Present *Assistant Professor in Physiology*; University of Belgrade – Faculty of Pharmacy

Key recent publications

Jukic MM, Smith RL, Haslemo T, Molden E, Ingelman-Sundberg M. Effect of CYP2D6 genotype on exposure and efficacy of risperidone and aripiprazole: a retrospective, cohort study. *Lancet Psychiatry* 2019 May;6(5):418-426. **IF:18.2**

Jukic MM, Haslemo T, Molden E, Ingelman-Sundberg M. Impact of CYP2C19 Genotype on Escitalopram Exposure and Therapeutic Failure: A Retrospective Study Based on 2,087 Patients. *Am J Psychiatry* 2018 May 1;175(5):463-470. **IF:13.4**

Jukić MM, Opel N, Ström J, Carrillo-Roa T, Miksys S, Novalen M, Renblom A, Sim SC, Peñas-Lledó EM, Courtet P, Llerena A, Baune BT, de Quervain DJ, Papassotiropoulos A, Tyndale RF, Binder EB, Dannlowski U, Ingelman-Sundberg M. Elevated CYP2C19 expression is associated with depressive symptoms and hippocampal homeostasis impairment. *Mol Psychiatry*. 2017 Aug;22(8):1155-1163. **IF:12.0**

Jukic MM, Carrillo-Roa T, Bar M, Becker G, Jovanovic VM, Zega K, Binder EB, Brodski C. Abnormal development of monoaminergic neurons is implicated in mood fluctuations and bipolar disorder. *Neuropsychopharmacology*. 2015 Mar;40(4):839-48. **IF:7.2**

Total number of papers: 14

<https://www.ncbi.nlm.nih.gov/pubmed/?term=jukic+mm>

Citation number: 131, **Hirsch index:** 7

<https://scholar.google.com/citations?user=UQ76kiEAAA&hl=sv&oi=ao>

Invited oral presentations:

- 2019 – Impact of the CYP2C19 and CYP2D6 genotype on the treatment with psychotropic drugs – American College of Neuropsychopharmacology (ACNP) Congress, Orlando, Florida, USA
- 2018 – Risperidone and paliperidone are not the same drugs – Annual Conference of the Psychiatry Clinic, Clinical centre of Serbia, Belgrade, Serbia
- 2017 Role of CYP2C19 in major depressive disorder: translational study - World Congress of Biological Psychiatry, Copenhagen, Denmark
- 2016 Involvement of CYP2C19 in stress responsiveness, anxiety and depression - European College for Neuropsychopharmacology (ECNP) Congress, Vienna, Austria (webcast - <http://www.ecnp.eu/presentations/cg14/S.12.07/default.aspx>)
- 2015 Involvement of CYP2C19 in stress-induced despair – Federation of European Neuroscience Societies (FENS) featured regional meeting, Thessaloniki, Greece
- 2014 Aberrant development of monoaminergic neurons is implicated in mood fluctuations and bipolar disorder – ECNP Congress, Berlin, Germany (webcast - <http://www.ecnp.eu/presentations/cg16/S.05.04/default.aspx>)
- 2013 – 2016 Presented posters at: ECNP meetings (6), FENS meetings (2), CINP (College of international neuropsychopharmacology) meeting (1), ISAD (International society for affective disorder) meeting (1).

Project participation history

- 2011 – 2014 Bmp-Lmx1a interplay in specification of dopaminergic neurons in early development, Israel research council grant **1391/11** to Claude Brodski – **Participant**
- 2011 – 2013 Involvement of aberrant serotonergic neuronal development in mood fluctuations, National Institute of Psychobiology (Israel) grant **209-11-12** to Claude Brodski – **Participant**
- 2011 – 2013 Otx2 mutant mouse as a model for bipolar disorders, Israeli Ministry of Health grant **3-7433** to Claude Brodski – **Participant**
- 2014 – 2017 Role of genetic polymorphisms in drug metabolizing cytochrome P450 enzymes expressed in the brain for affective disorders H2020:ERA-NET Neuron **BrainCYP** grant to Julia Stingl – **Participant**
- 2015 – 2017 Involvement of CYP2C19 in anxiety and depression – Swedish brain foundation **FO2015-0276** grant to Magnus Ingelman-Sundberg and Marin Jukić – **Co-PI**
- 2017 – 2019 Role of CYP2C19 in serotonergic and GABA signaling in ventroanterior hippocampus - Swedish brain foundation **FO2017-0111** grant to Magnus Ingelman-Sundberg and Marin Jukic – **Co-PI**
- 2017 – 2019 Biomarkers of organ damage and dysfunction - Serbian Ministry of Education, Science and Technological Development **OI175036** grant to Svetlana Ignjatović - **Participant**
- 2018 – 2019 Transgenic mouse, carrier of human CYP2C19 as an animal model for hyperdopaminergicism-induced hyperkinesia - Philip Morris **2018-S04** grant to Marin Jukić – **PI**
- 2019 – 2020 Personalization of escitalopram therapy with the aid of CYP2C19 genotyping and therapeutic plasma level monitoring - Philip Morris **2018-G05** grant to Marin Jukić – **PI**
- 2019 – 2021 Role of CYP2C19 in brain development - Swedish brain foundation **FO2019-0016** grant to Magnus Ingelman-Sundberg and Marin Jukic – **Co-PI**

Patent applications

PCT stage – A method for evaluating mental disorder
<https://patents.google.com/patent/WO2012101619A1/en>

Research leadership experience

Swedish brain foundation grants project administration – 4 years (2015-2019) – FO2015-0276 and FO2017-0111
Philip Morris grant administration – 2 years (2017-2019) – 2018-S04 and 2019-G05

Student supervision

Ben Gurion university of the Negev – 8 bachelor theses 1 master thesis
Karolinska Institute – 2 bachelor theses, 1 master thesis
University of Belgrade – 1 master thesis complete, supervision of 3 master students and 1 PhD student

Competitive awards, prizes, and scholarships

- 2019 The International Medis Awards for Medical Research for the best research paper in 2019 in South-East Europe in the field of clinical pharmacology
- 2019 Award for the best research paper in the field of biomedicine published from the University of Belgrade by foundation 'Đoka Vljaković
- 2018 The International Medis Awards for Medical Research for the best research paper in 2018 in South-East Europe in the field of clinical pharmacology
- 2017 Travel award to the Medical university of Vienna International brain research organization (IBRO) InEUROPE short stay grant (5 were awarded for the top young neuroscientists in Europe)
- 2016 Poster award at the 29th ECNP Congress, Vienna, Austria: (10 selected out of 1000)

2016 Travel award to the ECNP/Brain Prize Master Class, Copenhagen, Denmark (20 European junior scientists were selected to participate)
2015 Travel award to the FENS featured regional meeting, Thessaloniki, Greece: (56 awarded)
2014 Poster award at the 27th ECNP Congress, Berlin, Germany: (10 selected out of 1000)
2014 Travel award to ECNP Workshop, Nice, France (100 European junior scientists were selected to participate)
2013 Travel award to and Poster award at the 26th ECNP Congress, Barcelona, Spain (10 selected out of 700 for poster award and 40 for travel award)
2012 Israeli Ministry of Exterior Scholarship for top foreign graduate students in Israel (included three rounds of selection, 10 awarded out of unknown number of participants)
2010 - 2014 Serbian Ministry of Youth and Sports Scholarship for the best Serbian students abroad (4 consecutive years-About 500 scholarships awarded each year)
2009 Serbian Ministry of Youth and Sports Scholarship for 1000 best students in Serbia enrolled 2004/2005
2009 Awarded as a top finishing year pharmacy student in Serbia by Pharmacy Society in Belgrade -"Apoteka Beograd" award (10 awarded, ranked first)
2006 - 2008 Serbian Academy of Science Scholarship (3 consecutive years - 20 scholarships are awarded each year)
2006 Belgrade Parliament Scholarship for the best students from Belgrade (100 awarded)
2005 Belgrade University Scholarship (All students with average mark over 8.5 out of 10.0 are awarded)

Associate editor *Drug Metabolism Reviews* **IF:4.5**

Reviewer (reviewed more than three papers in 2019): *American Journal of Psychiatry* **IF:13.4**, *Molecular psychiatry* **IF:12.0**, *Neuropsychopharmacology* **IF:7.2**, *The Pharmacogenomics journal* **IF:4.4**

Key international scientific collaboration and mobility

Magnus Ingelman-Sundberg group, Pharmacogenetics section, Karolinska Institute, Sweden
Peter Damberg group, KERIC neuroimaging core facility, Karolinska Institute, Sweden
Espen Molden group, Pharmacokinetics department, University of Oslo, Norway
Rupert Lanzenberger group, Neuroimaging section, Psychiatry department, Medical University Vienna, Austria
Udo Dannlowski group, Neuroimaging section, Psychiatry department, University Muenster, Germany
Roberto Viviani group, Neuroimaging section, Psychiatry department, University Ulm, Germany
Andreas Papatotopoulos, Neuroimaging section, Psychiatry department, University of Zurich
Rachel Tyndale group, Pharmacogenetics section, Psychiatry department, University of Toronto
Claude Brodski group, Department of Physiology and Cell Biology, Ben Gurion University, Israel

Technical Skills

Molecular biology and biochemistry: real time PCR, Western blot, Dissections of mouse brain regions and embryonic brains, Cryostat and microtome, microdissection on microtome; Isolation of RNA/proteins/small molecules from and handling with large batches of biological samples, working with small quantities of biological samples, Histological staining techniques – Immunohistochemistry and RNA in situ hybridization, confocal microscopy, MatLab microscope image analysis and 3D reconstruction (Imaris software)

Behavioral neuroscience: Broad spectrum of behavioral for measuring anxiety, memory, and social behavior; Established and managed Noldus EthoVision system (software based video tracking of animals) for all neuroscience labs at BGU. Established DSI DataQuest system (software based activity, temperature and biopotential telemetry tracking of animals) system for the Neuroscience Center at BGU; Established a system for longitudinal animal home cage activity monitoring at BGU by using motion detection sensors and programed Visual Basic script to run it; Pharmacological treatment; Colony maintenance; Survival surgery; Acute and chronic animal pharmacotherapy.

Bioinformatics and programing: Big data mining processing, Intensive course on linkage analysis and genetic polymorphism at BGU, INRICH pathway analysis and DAPPLE protein interaction analysis for GWAS studies, Processing of large quantities of data; RNA seq annotation and analysis; MicroArray transcriptome analysis; Basic computer skills (MS Office, Adobe Photoshop, Dreamweaver and Illustrator, UNIX, LaTeX); Statistical analysis orientated software (SPSS, Prism, Statistica, R); Behavioral research orientated software (Noldus EthoVision, AnyMaze, TopScan, DSI DataQuest); Bioinformatical software (INRICH, GSEA, HaploView, DAPPLE); Database related software (R, KNIME); Code programing (C++, Delphi, Basic, MatLab); Understanding of hardware, wiring, and electronics.