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EDUCATION

Ph.D. 2004-2007

Institute for Clinical Biochemistry and Pathobiochemistry
Julius Maximilian University of Würzburg, Germany

Dissertation: "NO/cGMP and ROS Pathways in Regulation of Platelet Function and Megakaryocyte Maturation"

Master in Medical Biochemistry 1994-2000

Faculty of Pharmacy and Biochemistry
University of Zagreb, Croatia

Thesis: "Effect of ochratoxin A on apoptosis and cytoskeleton in renal cell lines"

RESEARCH AND PROFESSIONAL EXPERIENCE

Department of Biotechnology 2013-

University of Rijeka, Croatia

Assistant Professor

Brigham and Women's Hospital 2007-2013

Harvard Medical School, Boston, USA

Post-doctoral research fellow, research on cytoskeletal mechanisms involved in megakaryocytes and platelet formation in Dr. John Hartwig's laboratory.

Institute of Clinical Biochemistry and Pathobiochemistry 2004-2007

Julius Maximilian University of Würzburg, Germany

Graduate (Ph.D.) student, research on cyclic nucleotide signaling pathways and reactive oxygen species in platelet regulation and megakaryocyte development, mentors Dr. Ulrich Walter and Dr. Stepan Gambaryan.

Department of Molecular Diagnostics 2001-2003

Clinical Institute of Chemistry

University Hospital "Sestre milosrdnice", Zagreb, Croatia

Graduate research assistant, studying the role of coagulation factors gene polymorphisms as possible genetic markers for vascular diseases, mentor Dr. Elizabeta Topic.

Clinical Institute of Chemistry 2000

University Hospital "Sestre milosrdnice", Zagreb, Croatia

Clinical chemistry internship.

State exam, December 2001.

Department of Medical Biochemistry 1999

Faculty of Pharmacy and Biochemistry

University of Zagreb, Croatia

Undergraduate student, research on the cytotoxic effects of ochratoxin A, a naturally occurring mold toxin, and its role in triggering apoptosis in two renal cell lines, mentor Dr. Karmela Barišić.

AWARDS AND HONORS

Award for best oral presentation 1 st Italian UK Platelet meeting, Bath, UK	September 7-8th 2017
Scientific award for the best poster 3rd EUPLAN Conference, Bad Homburg, Germany	September 23rd 2016
NEWFELPRO fellowship (Marie Curie FP7-PEOPLE-2011-COFUND)	2014-2016
American Society of Hematology Travel Award 52 nd American Society of Hematology Meeting, Orlando, USA	2010
Abstract Achievement Award, ISTH (Top Third by Score) International Society of Thrombosis and Hemostasis XXII Congress, Boston, MA, USA	2009
CEEPUS fellowship Department of Biochemistry Faculty of Pharmacy Charles University Prague, Czech Republic	April-May 2001
Rector's Award, University of Zagreb	1999
CEEPUS fellowship Clinical Chemistry Institute University Hospital, Pecs, Hungary	March 1999
Fellowship from the University of Zagreb	1997
Scholarship from the city of Zadar	1995 - 1999

GRANTS**Principal Investigator, projects**

American Society of Hematology Global Research Award Grant	2019 - 2022
University of Rijeka Support grant for young investigators	2019 -
Croatian Science Foundation Installation Grant	2016-2019
International Centre for Genetic Engineering and Biotechnology-CRP Starting grant	2016-2018
University of Rijeka Support grant for young investigators	2014-2017
NEWFELPRO, Marie Curie FP7-PEOPLE-2011-COFUND,	2014-2016

Mentor, PhD program

Croatian Science Foundation Grant – PhD student **2018-2022**

Croatian Science Foundation Grant – PhD student **2016-2020**

Collaborator, projects

H2020-MSCA-ITN-2017, “Targeting Platelet Adhesion Receptors in Thrombosis”, coordinator dr. Steve Watson, (associated partner) **2018 - 2021**

NIH RO1 HL59561 „Mechanisms of thrombocytopenia in WASP and WIP null mice“, PI dr. John H. Hartwig **2012-2013**

NIH RO1 HL104145 „Filamin A-Syk interactions modulate platelet ITAM-based signaling“, PI dr. John H. Hartwig **2007-2011**

DFG/SFB 688, „Cardiovascular cell-cell interactions“, voditelj prof. Ulrich Walter **2004-2007**

MZOS 0134019 „Molekularno biokemijski poremećaji u akutnih, kroničnih i degenerativnih bolesti“, PI dr. Elizabeta Topić **2002-2003**

COURSES AND TRAININGS

- Confocal microscopy course (Zeiss) **2015**
- English as a Scientific Language, Harvard Medical School, Boston, USA **2010**
- BD Course in FACS Compensation, Heidelberg, Germany **September 2006**
- Megakaryocytes culturing methods and analysis **15-30 May 2005**
Dr. Harald Schulze’s Lab, Charité University, Berlin, Germany

PROFESSIONAL MEMBERSHIPS

- **American Society of Hematology, 2018**
- **International Society on Thrombosis and Haemostasis (ISTH), 2019**
- **European Hematology Association (EHA)**
- **Croatian Society of Biochemistry and Molecular Biology (HDBMB)**

PUBLICATIONS (Web of Science: h-index 13, total citations 586)

20. Bertovic I, Kurelic R, Milosevic I, Bender M, Krauss M, Haucke V, **Jurak Begonja A**. Vps34 derived phosphatidylinositol 3-monophosphate modulates megakaryocyte maturation and proplatelet production through late endosomes/lysosomes. **J Thrombosis Haemostasis**. 2020, doi: 10.1111/jth.14764.
19. Developmental differences in platelet inhibition response to PGE1. Palma-Barqueros V, Torregrosa JM, Caparrós-Pérez E, Mota N, Bohdan N, Llanos MC, **Jurak Begonja A**, Sola-Visner M, Vicente V, Teruel-Montoya R, Rivera J, Ferrer Marin F. **Neonatology**. 2019 Nov 29;1-9. doi: 10.1159/000504173.
18. Marecic V, Shevchuk O, Ozanic M, Mihelcic M, Steinert M, **Jurak Begonja A**, Abu Kwaik Y, Santic M. Isolation of F. novicida-containing phagosome from infected human monocyte derived macrophages. **Frontiers in Cellular and Infection Microbiology**. 2017 Jul 5;7:303.
17. **Jurak Begonja A**, Pluthero FG, Suphamongmee W, Giannini S, Christensen H, Leung R, Lo RW, Nakamura F, Lehman W, Plomann M, Hoffmeister KM, Kahr WH, Hartwig JH, Falet H. FlnA binding to PACSIN2 F-BAR domain regulates membrane tubulation in megakaryocytes and platelets. **Blood**. 2015 Apr 2. pii: blood-2014-07-587600. [Epub ahead of print].
16. Grozovsky R, **Begonja AJ**, Liu K, Visner G, Falet H, Hartwig JH, Hoffmeister KM. The Ashwell-Morell receptor regulates hepatic thrombopoietin production via JAK2-STAT3 signaling. **Nat Med**, 2015 Jan; 21(1):47-54. **IF 28, citations: 2**
15. **Begonja AJ**, Gambaryan S, Schulze H, Patel-Hett S, Italiano JE, Hartwig JH, Walter U. Differential roles of cAMP and cGMP in megakaryocyte maturation and platelet biogenesis. **Exp Hematol**, 2013 Jan;41(1):91-101. **IF 2.9, citations: 3**
14. Thon JN, Devine MT, **Jurak Begonja A**, Tibbitts J, Italiano JE Jr. High-content live cell imaging assay used to establish mechanism of trastuzumab emtansine (T-DM1)-mediated inhibition of platelet production. **Blood** 2012 Sep 6; 120(10): 1975-84. **IF 9.8, citations: 21**
13. Thon JH, Macleod H, **Begonja AJ**, Zhu J, Lee KC, Mogilner A, Hartwig JH, Italiano JE Jr. Microtubule and cortical forces determine platelet size during vascular platelet production. **Nat Commun** 2012 May 22;3:852. **IF 10.7, citations: 26**
12. **Jurak Begonja A**, Hoffmeister K, Hartwig JH, Falet H. FlnA-null megakaryocytes prematurely release large and fragile platelets that circulate poorly. **Blood** 2011; 118(8):2285-95. **IF 9.8, citations: 24**
11. Patel-Hett S, Wang H, **Begonja AJ**, Thon JN, Alden EC, Wandersee NJ, An X, Mohandas N, Hartwig JH, Italiano JE Jr. The spectrin-based membrane skeleton stabilizes mouse megakaryocyte membrane systems and is essential for proplatelet and platelet formation. **Blood** 2011; 118(6):1641-52. **IF 9.8, citations: 15**
10. Falet H, Pollitt AY, **Begonja AJ**, Weber SE, Duerschmied D, Wagner DD, Watson SP, Hartwig JH. A novel interaction between FlnA and Syk regulates platelet ITAM-mediated receptor signaling and function. **J Exp Med**. 2010; 207(9):1967-79. **IF 13.9, citations: 35**
9. Rukoyatkina N, **Begonja AJ**, Geiger J, Eigenthaler M, Walter U, Gambaryan S. Phosphatidylserine surface expression and integrin alpha IIb beta 3 activity on thrombin/convulxin stimulated platelets/particles of different sizes. **Br J Haematol**. 2009; 144:591-602. **IF 4.9, citations: 9**
8. **Begonja AJ**, Geiger J, Rukoyatkina N, Rauchfuss S, Gambaryan S, Walter U. Thrombin stimulation of p38 MAP kinase in human platelets is mediated by ADP and thromboxane A2 and inhibited by cGMP/cGMP-dependent protein kinase. **Blood**. 2007; 109:616-618. **IF 9.8, citations: 23**
7. Zahedi RP, **Begonja AJ**, Gambaryan S, Sickmann A. Phosphoproteomics of human platelets: A quest for novel activation pathways. **Biochim Biophys Acta**. 2006; 1764:1963-1976. **IF 3.2, citations: 24**

6. **Begonja AJ**, Teichmann L, Geiger J, Gambaryan S, Walter U. Platelet regulation by NO/cGMP signaling and NAD(P)H oxidase-generated ROS. **Blood Cells Mol Dis.** 2006; 36:166-170. **IF 2.4, citations: 24**
5. **Begonja AJ**, Gambaryan S, Geiger J, Aktas B, Pozgajova M, Nieswandt B, Walter U. Platelet NAD(P)H-oxidase-generated ROS production regulates alphaIIb beta3-integrin activation independent of the NO/cGMP pathway. **Blood.** 2005; 106:2757-2760. **IF 9.8, citations: 76**
4. Simundic AM, Basic V, Topic E, Demarin V, Vrkic N, Kunovic B, Stefanovic M, **Begonja A**. Soluble adhesion molecules in acute ischemic stroke. **Clin Invest Med.** 2004; 27:86-92. **IF 1, citations: 35**
3. Gambaryan S, Geiger J, Schwarz UR, Butt E., **Begonja A**, Oberfell A, Walter U. Potent inhibition of human platelets by cGMP analogs independent of cGMP-dependent protein kinase. **Blood.** 2004;103:2593-2600. **IF 9.8, citations: 66**
2. Zuntar I, Topic E, Vukosavic D, Vukovic V, Demarin V, **Begonja A**, Antoljak N, Simundic AM. Croatian population data for the C677T polymorphism in methylenetetrahydrofolate reductase: frequencies in healthy and atherosclerotic study groups. **Clin Chim Acta.** 2003; 335:95-100. **IF 2.7, citations: 13**
1. **Begonja A**, Simundic AM, Stefanovic M, Topic E. PCR-SSCP genotyping of the plasminogen activator inhibitor-1 4G/5G polymorphism. **Biochemia Medica.** 2002; 12: 1-5.

OTHER PUBLICATIONS

5. Bertović I, **Jurak Begonja A**. Regulacija megakariopoeze i trombopoeze. **Bilten KroHema**, studeni 2018, 31-33.
4. **Begonja AJ**. Molecular mechanisms of megakaryocyte and platelet development. **RAD, Croatian Academy of Science and Arts.** 2015; 524:42, 35-47.
3. **(WoS)** Simundic,AM, Basic V, Topic E, Demarin V, Vrkic N, Kunovic B, Stefanovic M, **Begonja A**. Soluble adhesion molecules in acute stroke. *Advances in Critical Care Testing.* 2004; 111-112. **Proceedings at: 18th International Congress of Clinical Chemistry and Laboratory Medicine (ICCC), Kyoto, Japan, October 20-25, 2004.**
2. Topic E, Turek-Cubrilo M, **Begonja A**, Simundic AM, Demarin V, Stancic V, Zuntar I. MTHFR polymorphism in patients with cerebrovascular insult and deep venous thrombosis. *Atherosclerosis: Risk factors, diagnosis and treatment.* 2002; 481-487. **Proceedings at: 73rd Congress of the European Atherosclerosis Society, Salzburg, Austria, July 7-10, 2002.**
1. Drzata J, Bousova I, Sobotkova J, **Begonja A**, Beranek M, Palicka V. Factors influencing in vitro stability of aminotransferases as model proteins for glycation experiments. 2002; 49-50. **Proceedings at: 11th International Pharmaceutical Technology Symposium, Istanbul, Turkey, September 9-11, 2002.**

MANUSCRIPTS IN PREPARATION

- Begonja AJ** et al. Filamin A stabilizes thrombopoietin c-Mpl receptor and regulates its function.
- Begonja AJ** et al. GAP43 associates with microtubules in megakaryocytes and platelets.

INVITED TALKS

- Begonja AJ**. **Tiny lipids in the big cells: The role of PI3P in megakaryocyte development and platelet production.**
St. Cloud State University, Department of Biology, St. Cloud, MN, USA. 25.11.2019.

Begonja AJ. Vesicular trafficking in megakaryopoiesis and platelet production: the role of PI3P and late endosomes/lysosomes.

FEBS3+ "From Molecules to living systems", Siofok, Hungary, September, 2-5, 2018.

Begonja AJ. Presentation of Career Path and Croatian Science Foundation Installation grant #2400: "The role of phosphoinositides in platelet formation"

Croatian Science Foundation and Croatian Academy of Arts and Sciences, *Presentation of Tenure Track Pilot Program (in cooperation with EPFL, Switzerland)*, Zagreb, May 15th 2018.

Begonja AJ. Molecular mechanisms of platelet production: cytoskeleton and phosphoinositides.

KroHem – Croatian Cooperative Group for Hematologic Diseases meeting, Vukovar, Croatia, May 11th 2018.

Begonja AJ. Molecular mechanisms governing platelet production: the role of PI3P and late endosomes/lysosomes.

Leibniz – Institut für Analytische Wissenschaften - ISAS, Dortmund, Germany, April 19th 2018.

Begonja AJ. Greasing up megakaryocytes: the role of PI3P in platelet production.

Institute of Cardiovascular Sciences, University of Birmingham, Birmingham, UK, January 10th 2018.

Begonja AJ. Platelet function, thrombopoiesis and immune thrombocytopenia.

Joint St. Cloud State University/USA & Department of Biotechnology/University of Rijeka Summer School "Public health and pathophysiology". Rijeka, Croatia, June 16th 2017.

Begonja AJ. Platelet function, thrombopoiesis and immune thrombocytopenia.

Joint St. Cloud State University/USA & Department of Biotechnology/University of Rijeka Summer School "Public health and pathophysiology". Rijeka, Croatia, June 17th 2016.

Begonja AJ. Filamin A in regulation of megakaryocyte development.

Dani Medicinskog fakulteta u Rijeci: Croatian Academy of Sciences and Arts 8. Scientific Forum: Biology and Pathology of P <http://www.kroh.hr/en/Default.aspx?latelets>. Rijeka, Croatia. December 17th 2015.

Begonja AJ. From the biggest to the smallest: Filamin A regulates differentiation of megakaryocytes into platelets.

International Centre for Genetic Engineering and Biotechnology (ICGEB). Trieste, Italy. November 17th 2015.

Begonja AJ. Platelet function, thrombopoiesis and immune thrombocytopenia.

Joint St. Cloud State University/USA & Department of Biotechnology/University of Rijeka Summer School "Public health and pathophysiology". Rijeka, Croatia, June 23rd 2015.

Begonja AJ. Molecular mechanisms of megakaryocyte and platelet development.

Croatian Academy of Sciences and Arts Symposium: Developmental biology of platelets, thrombocytopenia and myeloproliferative neoplasms. Rijeka, Croatia, March 12th 2015.

Begonja AJ. Different faces of platelets.

Forum of Croatian Academy of Sciences and Arts: New achievements in immunology and hematology. Rijeka, Croatia, October 15th 2014.

Begonja AJ. The Many Faces of Filamin A in Megakaryocytes.

Institute for Clinical Biochemistry and Pathobiochemistry, University of Würzburg, Germany. December 9th, 2013.

Begonja AJ. New Insights on Mechanisms of Platelet Production.

3rd Congress of Croatian Physiological Society and 1st Regional Congress of the Physiological Societies, Rijeka, Croatia. September 13-15, 2013.

Begonja AJ. Development of Platelets.

Department of Biotechnology, University of Rijeka, Croatia. February 14th, 2013.

Begonja AJ. Filamin A and Thrombopoiesis.

Center for Thrombosis and Haemostasis, Mainz, Germany. February 27th, 2012.

Begonja AJ. Differential role of cAMP and cGMP in megakaryocyte differentiation from mouse fetal liver stem cells.

Children's Hospital Boston, USA. December 8th, 2008.

Begonja AJ. Role of Cyclic Nucleotides in Development of Megakaryocytes.

Croatian Society of Medical Biochemists, Split, Croatia. April 18th 2007.

Begonja AJ, Gambaryan S, Walter U. cGMP/cAMP Signaling in Megakaryocyte and Platelet Production.

SFB 688 Meeting, Würzburg, Germany. December 14th 2006.

Begonja AJ, Gambaryan S, Walter U. Platelet Regulation by NAD(P)H Oxidase-Generated ROS and NO/cGMP Signaling.

Brigham and Women's Hospital, Harvard Medical School, Boston, USA. September 21st 2006.

Begonja AJ, Gambaryan S, Walter U. Function of ROS in Platelets.

14th Virtual Platelet Meeting Club, Würzburg, Germany. December 14th 2005.

Begonja A, Bilopavlovic N, Petrik J, Barisic K, Juretic D. Effect of Ochratoxin A on Cell Death and Intracellular ATP in Kidney RK-13 and LLC-PK1 Cells.

Summer University School of Biochemistry, Zadar, Croatia. July 15-25, 1999.

SELECTED CONFERENCE PRESENTATIONS**Bertović I, Kurelić R, Begonja Jurak A. Early endosomal GTPase Rab5 mediates GPIb trafficking and platelet formation in vitro. (Poster, talk)**

HDBMB congress: Crossroads in Life Sciences. 25.-28.9.2019. Lovran, Croatia

Tomović E*, Bertović I*, Begonja Jurak A. Characterization of Sorting nexin 9 (SNX9) in DAMI megakaryocytic cell line and primary mouse megakaryocytes. *Autori su jednako kontribuirali. (Poster)

HDBMB congress: Crossroads in Life Sciences. 25.-28.9.2019. Lovran, Croatia

Bura A, Bertović I, Begonja Jurak A. The role of PI(4,5)P₂ and its phosphatase OCRL on actin cytoskeleton during platelet activation. (Poster)

HDBMB congress: Crossroads in Life Sciences. 25.-28.9.2019. Lovran, Hrvatska- **A.B. AWARD FOR THE BEST POSTER PRESENTATION**

Marcelic M, Mahmutefendic Lucin H, Jurak Begonja A, Blagojevic Zagorac G, Karleusa Lj, Jug Vucko N, Lukanovic Juric S, Pavisic V, Lucin P. Role of PI3P in the remodeling of the intracellular compartments during MCMV infection. (Poster)

EMBO Workshop: Lipid function in health and disease. 27.-30.09.2019. Dresden, Germany

Marcelic M, Mahmutefendic Lucin H, Jurak Begonja A, Blagojevic Zagorac G, Karleusa Lj, Jug Vucko N, Lukanovic Juric S, Pavisic V, Lucin P. PI3P is involved in the remodeling of the membranous system during MCMV infection. (Poster)

13th Annual Meeting of Croatian Physiological Society with International Participation. 18.-19.09.2019. Osijek, Croatia

Neaogoe RAI, Stegner D, Jurak Begonja A, Nieswandt B, Watson SP, Poulter NS. The effect of Rac1 inhibitor EHT1864 on aggregation, spreading and GPVI clustering in human platelets. (Poster)

The 1st Platelet Society Meeting. 12-13.9.2019. Cambridge, UK

Bertović I, Kurelić R, Begonja Jurak A. Early endosomal GTPase Rab5 regulates platelet production. (Poster, talk)

FEBS Advanced Course: Biochemistry of membrane proteins – Structure, Trafficking, Regulation. 25-30.8.2019. Budapest, Hungary – **I.B. AWARD FOR THE BEST POSTER PRESENTATION, FEBS Youth Travel grant**

Bura A, Bertović I, **Jurak Begonja A. The role of PI4P and its phosphatase SACM1L in primary megakaryocytes. (Poster)**

FEBS-EMBO Advanced Lecture Course "Molecular Organization, Function and Dynamics of Biomembranes". June 10-20, 2019. Cargese, Corsica, France. **A.B. FEBS Youth Travel grant**

Bura A, Bertović I, **Jurak Begonja A. Expression and localization of SACM1L phosphatase and PI4P in Dami cell line and primary mouse megakaryocytes. (Poster)**

The 2018 FEBS Special Meeting on Golgi: Membrane trafficking in cell organization and homeostasis. October 15-19 2018. Sorrento, Italy

Ivana Bertović, Roberta Kurelić, Michael Krauss, Volker Haucke, **Antonija Jurak Begonja. PI3P modulates megakaryocyte maturation and proplatelet production through late endosomes/lysosomes. (Poster)**

FEBS Advanced Course "Lipid dynamics and membrane contact sites", Spetses, Greece, August 31st - September 7th, 2018.

Bura A, Bertović I, Boscher J, **Jurak Begonja A. Characterization of SACM1L phosphatase and PI4P in Dami cell line and primary mouse megakaryocytes. (Poster)**

FEBS3+ "From Molecules to living systems", Siófok, Mađarska, September 2-5, 2018.

Ivana Bertović, Roberta Kurelić, Michael Krauss, Volker Haucke, **Antonija Jurak Begonja. PI3P modulates megakaryocyte maturation and proplatelet production *in vitro*. (Poster)**

European Hematology Association (EHA) 23rd Congress. Stockholm, Sweden, June 14-17, 2018.

Cokarić Brdovčak M, Djaković L, Bertović I, Lončarić M, **Jurak Begonja A, Malatesti N, Jurak I. Several mechanisms contribute to photodynamic inhibition of HSV-1 infection. (Poster)**

31st International Conference on Antiviral Research (ICAR), Porto, Portugal, June 11-15, 2018.

Cokarić Brdovčak M, Djaković L, Bertović I, Lončarić M, **Jurak Begonja A, Malatesti N, Jurak I. A novel cationic amphiphilic porphyrin-based photosensitizer effectively inhibits replication of HSV-1 by several different mechanisms. (Poster)**

Power of Viruses, FEMS. Poreč, Croatia, May 16-18, 2018.

Bertović I, Kurelić R, Krauss M, Haucke V, **Jurak Begonja A. PI3P modulates megakaryocyte maturation and platelet production through late endosomes/lysosomes. (Talk, poster)**

Keystone Symposia: Phosphoinositide Biology: New Therapeutic Targets Beyond Class I PI3K, Taos, NM, SAD, February 11-15, 2018.

Marcelic M, Mahmutefendic H, **Jurak Begonja A, Blagojevic Zagorac G, Karleusa Lj, Jug N, Lukanovic Juric S, Pavisic V, Lucin P. PI3P is important for early phase endosomal retention compartment (EPERC) formation in MCMV infected fibroblasts. (Talk, poster)**

4th Congress of Croatian Physiological Society, Dubrovnik, Croatia, September 21-24, 2017.

Cokarić Brdovčak M, Djaković L, Bertović I, Knežević K, Jurak Begonja A, Malatesti N, Jurak I. **Efficient photodynamic inhibition of hsv-1 replication using a novel cationic amphiphilic porphyrin. (Poster)**

7th Congress of Slovenian Society of Microbiology, Bled, Slovenia, September 20-22, 2017.

Bertović I, Krauss M, Haucke V, **Jurak Begonja A. Bertović I, Krauss M, Haucke V, Jurak Begonja A. Membrane traffic modulating lipid PI3P regulates platelet production. (Talk, poster) - AWARD FOR THE BEST ORAL PRESENTATION**

1st Italian-UK Platelet Meeting, Bath, UK, September 7-8, 2017.

Bertović I, Krauss M, Haucke V, **Jurak Begonja A. Membrane traffic modulating lipid PI3P regulates platelet production. (Poster)**

2nd International Advances in Biomedical Research conference, MedILS, Split, Croatia, July 3 -7, 2017.

Bertović I, Krauss M, Haucke V, **Jurak Begonja A. Phosphatidylinositol 3-monophosphate (PI3P) regulates megakaryocyte maturation and proplatelet formation. (Poster)**
FEBS/EMBO Advanced Lecture Course: Molecular Architecture, Dynamics and Function of Biomembranes, Cargèse, Corsica, France, June 12-21, 2017. **FEBS Youth Travel Fund fellowship I. Bertović**

Bertović I, Krauss M, Haucke V, **Jurak Begonja A. Differential levels and localization of PI3P in immature and mature megakaryocytes. (Poster)**
Gordon Research Conference: Cell biology of megakaryocytes and platelets. Barga, Italy, February 26 – March 3, 2017. – **invited discussion leader**

Bertovic I, Banovic M, Paskvan P, Hartwig JH, **Jurak Begonja A. Phosphatidylinositol 3-monophosphate (PI3P) regulates proplatelet formation *in vitro*. (Poster) - **SCIENTIFIC AWARD FOR THE BEST POSTER****
3rd EUPLAN (European Platelet Network) Conference, Bad Homburg, Germany. September 21-23, 2016.

Bertovic I, **Jurak Begonja A. Phosphatidylinositol 3-monophosphate (PI3P) is required for platelet production *in vitro*. (Poster)**
Croatian Academy of Sciences and Arts 14th Symposium: Translation of basic immunology and neuroscience tools to therapies; Rijeka, Croatia; July 4th 2016.

Bertovic I, Banovic M, Hartwig JH, **Jurak Begonja A. Expression of PI3P binding phox (PX) domain inhibits megakaryocyte development into proplatelets. (Poster)**
Biochemical Society UK & FEBS, Signalling 2015: Cellular Functions of Phosphoinositides and Inositol Phosphates; Cambridge, UK; September 1-4, 2015.

Giannini S, Adelman M, **Jurak Begonja A**, Hoffmeister KM. **Beta galactosyltransferase (B4GALT1) is a key regulator of hematopoietic stem cell function and thrombopoiesis. (Talk)**
International Society of Thrombosis and Hemostasis Congress, Toronto, Canada; 20-25.6. 2015.

Giannini S, Adelman M, **Begonja AJ**, Mullally A, Hoffmeister KM. **Beta 1,4 Galactosyltransferase 1 is a key regulator of hematopoietic stem cell function and thrombopoiesis. (Poster)**
Gordon Research Conference: Cell biology of megakaryocytes and platelets, Barga, Italy, April 19-24, 2015.

Giannini S, Adelman M, **Begonja AJ**, Hoffmeister K. **CXCL12/SDF-1 Stimulates Megakaryocyte β -1,4-Galactosyltransferase 1 Activity to Enhance Platelet Production *In Vivo*. The FASEB Journal 29 (1 Supplement), 719-22, 2015. (Poster)**
Experimental Biology Meeting, Boston, MA, USA, March 28-April 1, 2015.

Grozovsky R, **Begonja AJ**, Hartwig JH, Falet H, Hoffmeister KM; **The Ashwell-Morell Receptor Regulates Hepatic Thrombopoietin Production Via JAK2-STAT3 Signaling *In Vivo* and *In Vitro*. Blood 2014 vol. 124, issue 21, 2. (Plenary talk)**
56th American Society of Hematology Meeting, San Francisco, CA, USA, December 6-9, 2014.

Jönsson T, Pluthero F, **Begonja AJ**, Kormann J, Demers M, Wagner DD, Plomann M, Hartwig JH, Kahr WH, Falet H; **The F-BAR Protein PACSIN2 Regulates Platelet Intracellular Membrane Architecture and *In Vivo* Hemostatic Functions. Blood 2014 vol. 124, issue 21, 4154. (Poster)**
56th American Society of Hematology Meeting, San Francisco, CA, USA, December 6-9, 2014.

Giannini S, Adelman M, **Begonja AJ**, Hoffmeister KM. **Posttranslational Modification in Megakaryocytes Regulates β 1 Integrin Expression, Migration and Platelet Production *In Vivo*. Blood 2014 vol. 124, issue 21, 1435. (Poster)**
56th American Society of Hematology Meeting, San Francisco, CA, USA, December 6-9, 2014.

Begonja AJ, Grozovsky R, Hoffmeister KM, Falet H, Hartwig JH. **Filamin A stabilizes thrombopoietin receptor surface expression and inhibits its degradation. (Talk) p.25**
2nd EUPLAN (European Platelet Network) Conference, Le Bischenberg, France. September 25-26, 2014.

Hoffmeister KM, **Begonja AJ**, Giannini S. **The role of glycans in platelet birth and death (359.2). FASEB J April 2014 28:359.2. (Poster)**

Experimental Biology Meeting, San Diego, CA, USA, April, 26-30, 2014.

Giannini S, **Begonja AJ**, Adelman M, Hoffmeister KM. **Aberrant Type-2-Lactosaminoglycan Synthesis Severely Impairs Thrombopoiesis.** *Blood* **2013** vol. 122, issue 21, **2320. (Poster)**
55th American Society of Hematology Meeting, New Orleans, LA, USA, December 5-7, 2013.

Hoffmeister KM, Grozovsky R, **Begonja AJ**, Hartwig JH. **The hepatic Ashwell-Morell receptor regulates thrombopoietin production.** *J Throm Haemost* **11**, (Sup2) p157. International Society on Thrombosis and Haemostasis XXIV Congress, Amsterdam, Netherlands, June 29-July 4, 2013. **(Talk)**

Giannini S, Adelman M, **Begonja AJ**, Hoffmeister KM. **Correct LacNAc synthesis is required for platelet production. (Poster)**
Gordon Research Conference, Galveston, TX, USA, March 10-15, 2013.

Jönsson T, **Begonja AJ**, Bender M, Kim H, Kormann J, Merkl B, Pluthero F, Kahr WH, Hartwig JH, Plomann M, Falet H. **The F-BAR protein PACSIN 2 orchestrates the intracellular membrane architecture of platelets and megakaryocytes. (Poster)**
Gordon Research Conference, Galveston, TX, USA, March 10-15, 2013.

Begonja AJ, Grozovsky R, Hoffmeister KM, Falet H, Hartwig JH. **Filamin A regulates thrombopoietin c-Mpl receptor function. (Poster)**
Gordon Research Conference, Galveston, TX, USA, March 10-15, 2013.

Grozovsky R, **Begonja AJ**, Hartwig JH, Hoffmeister KM. **Clearance of Desialylated Platelets by the Hepatic Asialoglycoprotein Receptor Regulates TPO Homeostasis in Vivo.** *Blood* **2012** vol. 120, issue 21, **2170. (Poster)**
54th American Society of Hematology Meeting, Atlanta, USA, December 8-11, 2012.

Begonja AJ, Nguyen L, Italiano JE, Falet H, Meiri K, Hartwig JH. **The neuronal protein GAP-43 associates with microtubules and lipid rafts in platelets and megakaryocytes and is involved in platelet genesis.** *Blood* **2011** vol. 118, issue 21, **2201. (Poster)**
53rd American Society of Hematology Meeting, San Diego, USA, December 9-12, 2011.

Giannini S, Grozovsky R, **Begonja AJ**, Hoffmeister KM. **β -1,4-Galactosyltransferase 1 Expression Is Required for Platelet Production in Vitro and In Vivo.** *Blood* **2011** vol. 118, issue 21, **192. (Talk)**
53rd American Society of Hematology Meeting, San Diego, USA, December 9-12, 2011.

Jönsson T, **Begonja AJ**, Kormann J, Merkl B, Pluthero F, Kahr WH, Hartwig JH, Plomann M, Falet H. **The F-BAR Protein PACSIN 2 Specifically Coats the Anastomosing Intracellular Membrane Systems of Platelets and Megakaryocytes.** *Blood* **2011** vol. 118, issue 21, **3261. (Poster)**
53rd American Society of Hematology Meeting, San Diego, USA, December 9-12, 2011.

Giannini S, Grozovsky R, **Begonja AJ**, Hoffmeister KM. **β -1,4-Galactosyltransferase 1 Expression Is Required for Platelet Production in Vitro and In Vivo.** *Glycobiology* **2011**; volume 21, issue 11. **(Poster)**
Annual Conference of the Society for Glycobiology, Seattle, USA, November 9-12, 2011.

Jönsson T, **Begonja AJ**, Hartwig JH, Falet H. **Expression and localization of the membrane-binding and -deforming protein, pacsin 2, in platelets and megakaryocytes. (Poster)**
International Society on Thrombosis and Haemostasis XXIII Congress, Kyoto, Japan, July 23-28, 2011.

Begonja AJ, Hoffmeister K, Hartwig JH, Falet H. **FlnA null megakaryocytes prematurely release large and fragile platelets that spontaneously microvesiculate and poorly circulate. (Poster)**
Gordon Research Conference, Galveston, TX, USA, March 20-25, 2011.

Jönsson T, **Begonja AJ**, Hartwig JH, Falet H. **Expression and localization of the membrane-binding and -deforming protein, pacsin 2, in platelets and megakaryocytes. (Poster)**
Gordon Research Conference, Galveston, TX, USA, March 20-25, 2011.

Begonja AJ, Weber SE, Hoffmeister KM, Hartwig JH, Falet H. **Filamin A Deficiency Leads to Premature Platelet Formation and Increased Clearance.** *Blood* **2010** vol. 116, issue 21, **2207. (Poster)**

52nd American Society of Hematology Meeting, Orlando, USA, December 4-7, 2010.

Begonja AJ, Weber SE, Falet H, Hartwig JH. Aberrant Thrombopoiesis in Filamin A-Null Megakaryocytes Generates Abnormal Platelets that are Rapidly Cleared. (Poster)
BWH Research Excellence Awards, Boston, May 25, 2010.

Hartwig JH, **Begonja A**, Falet H, Patel-Hett S, Thon J, Italiano J. **Megakaryocytes and Thrombopoiesis. (Talk)**

International Society on Thrombosis and Haemostasis XXII Congress, Boston, USA, July 11-16, 2009.

Begonja AJ, Gambaryan S, Schulze H, Patel-Hett S, Italiano Jr. JE, Hartwig J, Walter U. Differential Roles of cAMP and cGMP in Megakaryocyte Maturation and Platelet Formation. (Poster)
International Society on Thrombosis and Haemostasis XXII Congress, Boston, MA, USA, July 11-16, 2009.

Begonja AJ, Gambaryan S, Walter U. Differential Mechanisms of Platelet ROS Production by Thrombin and Convulxin. (Talk)

XXth European Platelet Meeting, Ede, Netherlands. October 14th 2005.

Begonja AJ, Gambaryan S, Geiger J, Walter U. Platelet NAD(P)H Oxidase-Mediated ROS Production Regulates alphaIIb beta3 Activation. (Poster)

Gordon Research Conference, Buellton, CA, USA, March 5-11, 2005.

Begonja AJ, Gambaryan S, Geiger J, Aktas B, Walter U. NAD(P)H Oxidase Modulates GPIIb/IIIa Activity In Platelets. (Poster)

XIXth European Platelet Meeting, Bad Brückenau, Germany, October 14-16, 2004.

Begonja A, Topic E, Simundic AM, Stefanovic M, Nikolic V. PAI-1 And Fibrinogen Polymorphisms In Patients With Myocardial Infarction In Croatia. (Poster)

EUROMEDLAB, Barcelona, Spain, June 1-5, 2003.

Begonja A, Topic E, Simundic AM, Stefanovic M. Polymorphisms Of Some Coagulation Factor Genes In Healthy Croatian Subjects. (Poster)

13th Congress of the European anthropological association, Zagreb, Croatia, September 1-3, 2002.

Begonja A, Topic E, Simundic AM, Stefanovic M. Plasminogen Activator Inhibitor-1 4G5G Polymorphism In Stroke Patients. (Poster)

European Human Genetics Conference 2002, Strasbourg, France, May 25-28, 2002.

TEACHING

Guest teacher, Biotechnology and Pharmacy Program, School of Biomedical Sciences, Universidad Europea Madrid, Spain

7-9th May, 2014

Platelets in hemostasis and beyond.

Biogenesis of megakaryocytes and platelets.

Uni meets research. The experience of working abroad.

Department of biotechnology, University of Rijeka, Croatia

Undergraduate study (Biotechnology and drug research)

2013 - Biology of the stem cells (3 ECTS, leader)

2014 -2018 Selected topics in **Immunology** course (associate)

2015 - General physiology and pathophysiology (8 ECTS, leader)

Graduate study (Biotechnology in medicine, Drug research and development, Medicinal chemistry)

2014 - Selected topics in **Introduction to research** (associate)

PhD programme Medicinal Chemistry

2017- Selected topics in **Introduction to research** course: Writing, evaluation and financing of project proposals (associate)

Master thesis mentor

2018/2019 **Eni Tomović**

2017/2018 **Ana Bura**

2016/2017 **Roberta Kurelić**

2015/2016 **Paola Paškvan**

2014/2015 **Marija Banović** – *won “Zoran Zgaga” award for best master thesis (Croatian Association of Genetic Engineers)*

2013/2014 **Romina Sabo**

Bachelor thesis mentor

2017/2018 **Rozalija Šajn**

2017/2018 **Tea Bruketa**

2016/2017 **Roberta Padavić**

2016/2017 **Andrea Mihalić**

2016/2017 **Martina Nenadić**

2015/2016 **Ana Bura**

2015/2016 **Iris Car**

2014/2015 **Marta Ursić**

SCIENTIFIC MEETING ORGANIZATION

2019, Congress of Croatian Society of biochemistry and molecular biology “Crossroads in life sciences” (25-28.9.2019.) Lovran, Croatia, organization board member

2015, Croatian Academy of Sciences and Arts Symposium: Developmental biology of platelets, thrombocytopenia and myeloproliferative neoplasms.

March 12th 2015, Rijeka, Croatia.

Scientific board member.

DISSEMINATION

- *Science for young in Vukovar*. Success stories in science, public lectures on success and examples of good practice, organized by academic prof. Ivan Đikić and Lotusmedia. Ružička’s House, Vukovar

October 25th 2019

- *What is blood?* Haematopoiesis Lab. Open day at Department of Biotechnology, University of Rijeka, Festival of Science.

April 9th 2019

- *What is our body made of?* Visit to kindergarten “Maestral”, Rijeka

May 15th 2018

- *What is blood?* Haematopoiesis Lab. Open day at Department of Biotechnology, University of Rijeka, Festival of Science.

April 17th 2018

- *What is lab? How to investigate blood?* Visit of elementary school “Belvedere” to Department of Biotechnology, University of Rijeka

June 7th 2017

- *Liquids of our body*. Visit to kindergarten “Maestral”, Rijeka **May 12th 2017**
- *What is blood?* Haematopoiesis Lab. Open day at Department of Biotechnology, University of Rijeka, Festival of Science. **April 25th 2017**
- *Academic career: international and domestic (national) experience*. Biotechnology Student Association, Department of Biotechnology, University of Rijeka. **December 8th 2016**
- *What is blood?* Haematopoiesis Lab. Open day at Department of Biotechnology, University of Rijeka, Festival of Science. **April 19th 2016**
- *Nova otkrića u području hemostaze i tromboze*. Novi list. **January, 9th 2015**
- *Borba za svaku pločicu*. Novi list. (interview in local newspapers) **March, 22nd 2015**
- *Band-aids in your blood*. Open day at Department of Biotechnology, University of Rijeka, Festival of Science. **April, 8th 2014**
- Visit of the Kindergarten children to the Department of biotechnology **June, 6th 2014**

NATIONAL AND INTERNATIONAL RECOGNITION

- Guest scientist, St. Cloud State University (SCSU), Department of biology, St. Cloud, MN, USA, November/December 2019.
- Croatian Society of Biochemistry and Molecular Biology (HDBMB), regional coordinator, 2019
- **Member of the panel for grant application revisions (Basic medical sciences)**, Croatian Science Foundation, 2016 – present
- **Invited Discussion Leader - Gordon Research Conference “Cell Biology of Megakaryocytes and Platelets”** Barga, Italy, February 26 – March 3, 2017.
- **Grant Reviewer**, Croatian Science Foundation, 2016 – present

JOURNAL PEER REVIEW

- Thrombosis Research
- Cell Communication and Signaling
- Periodicum Biologorum
- Blood
- Platelet

INSTITUCIJSKI DOPRINOS

University of Rijeka

- Expert council for internalization, research and projects (SVIIP), member, 2018 – now
- University Council, member, 2019 - now

Department of biotechnology

- Committee for Erasmus mobility, member od 2015 - 2018
- Committee for international collaboration and projects, member, 2015 - now
- Committee for bachelor and master, member, 2014 – now
- Council of Department, since 2013
- Disciplinary board of Appeal, member, 2019 - now