

## CV – Aleksandar Z Baburski

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### Obrazovanje:

- 2010 - 2017 Doktorske studije molekularne biologije (BF UBG; <http://www.bio.bg.ac.rs/>) Prosečna ocena: 10
- 2009 – 2010 Master akademske studije molekularne biologije (PMF UNS; <http://www.pmf.uns.ac.rs>) Prosečna ocena: 9.75
- 2005 – 2009 Osnovne akademske studije molekularne biologije (PMF UNS; <http://www.pmf.uns.ac.rs>) Prosečna ocena: 9.42



### Karijera:

- April 2013 – Istraživač-saradnik (PMFUNS; <http://www.pmf.uns.ac.rs>)
- Jul 2010 – April 2013 Istraživač-pripravnik (PMFUNS; <http://www.pmf.uns.ac.rs>)

### Studijski boravci i obuke:

- 06/02/2016 – 25/03/2016 Strčni boravak, finansiran od strane COST organizacije, na departmanu za biologiju, Univerziteta u Friburgu, Švajcarska, pod mentorstvom prof. Urs Albrecht.
- 15/07/2015 – 10/08/2015 stručno usavršavanje u okviru Bilateralnog projekta Slovenija – Srbija u Centru za Funkcionalnu genomiku i Bio-čipove (CFGBC), institute za Biohemiju, Ljubljana, Slovenija, pod rukovodstvom prof Damjane Rozman
- 22/06/2011 – 04/07/2011 stručno usavršavanje u okviru Bilateralnog projekta Slovenija – Srbija na Departmanu za nauke o životinjama, Biotehnički fakultet Univerziteta u Ljubljani, Domžale, Slovenija, pod rukovodstvom prof Simon Horvat

### Učešće na projektima:

- OI173057, Kostic T (PI), 01/01/2011 – 31/12/2015 MPNTR RS. Projekat: “*Molekularni mehanizmi i putevi signalne transdukcije uključeni u regulaciju steroidogeneze i adaptaciju Leydig-ovih ćelija na poremećenu steroidogenezu*”. Uloga: istraživač.
- APV970, Andric S (PI), 01/06/2011 – 31/12/2015 PSNTR APV. Projekat: “*Signalni putevi i molekularni mehanizmi uključeni u održavanje homeostaze seksualnih steroida*“. Uloga: istraživač.
- Bilateralni projekat, Slovenija-Srbija, 01/01/2013 – 31/12/2015, Projekat: “*Synchronization of circadian rhythm in Leydig cells - connection of cAMP signaling with clock*”. Uloga: istraživač.

### Nagrade i stipendije:

- Grant za dvomesečno stručno usavršavanje finansirano od strane COST organizacije
- Grant za 14<sup>th</sup> YSF FEBS, Pariz, Francuska
- Grant za putne troškove za 3<sup>rd</sup> IRD Barcelona International PhD Student Symposium, Barselona, Španija
- Stipendista Fonda za mlade talente Ministarstva za omladinu i sport Republike Srbije 2009/2010.
- Stipendista Ministarstva prosvete i sporta 2007/2008, 2008/2009.

### Članstvo u udruženjima:

- Evropsko društvo za biološke ritmove (EBRS)
- Srpsko društvo za molekularnu biologiju

**Jezici:** Engleski

**Oblast istraživanja:** hronobiologija, reproduktivna endokrinologija, ćelijska signalizacija

**Publikacije:**

- **Baburski AZ**, Sokanovic SJ, Andric SA, Kostic TS (2017) Aging has the opposite effect on cAMP and cGMP circadian variations in rat Leydig cells. *J Comp Physiol B*. 187(4):613-623.
- **Baburski AZ**, Medar MLj, Andric SA, Kostic TS (2017) Circadian rhythm patterns of NO-cGMP signaling are moderately synchronized by melatonin in testosterone-producing Leydig cells. *Biologia Serbica* 39(2):17-24
- **Baburski AZ**, Sokanovic SJ, Bjelic MM, Radovic SM, Andric SA, Kostic TS (2016) Circadian rhythm of the Leydig cells endocrine function is attenuated during aging. *Exp Gerontol*. 73:5-13.
- **Baburski AZ**, Sokanovic SJ, Janjic MM, Stojkov NJ, Bjelic MM, Andric SA, Kostic TS (2015) Melatonin replacement restores the circadian behavior in adult rat Leydig cells after pinealectomy. *Mol Cell Endocrinol*, 413:26-35.
- Stojkov-Mimic NJ, Bjelic MM, Radovic SM, Mihajlovic AI, Sokanovic SJ, **Baburski AZ**, Janjic MM, Kostic TS, Andric SA (2015) Intratesticular alpha1-adrenergic receptors mediate stress-disturbed transcription of steroidogenic stimulator NUR77 as well as steroidogenic repressors DAX1 and ARR19 in leydig cells of adult rats. *Mol Cell Endocrinol*. 412:309-319
- Bjelic MM, Stojkov NJ, Radovic SM, **Baburski AZ**, Janjic MM, Kostic TS, Andric SA. (2015) Prolonged in vivo administration of Testosterone-enanthate, the widely used and abused anabolic androgenic steroid, disturbs prolactin and cAMP signaling in Leydig cells of adult rats. *J Steroid Biochem Mol Biol*. 149:58-69
- Bjelic MM, Stojkov NJ, **Baburski AZ**, Sokanovic SJ, Mihajlovic AI, Janjic MM, Kostic TS, Andric SA (2014) Molecular adaptations of testosterone-producing Leydig cells during systemic in vivo blockade of the androgen receptor. *Mol Cell Endocrinol*. 396(1-2):10-25.
- Sokanovic SJ, Janjic MM, Stojkov NJ, **Baburski AZ**, Bjelic MM, Andric SA, Kostic TS (2014) Age related changes of cAMP and MAPK signaling in Leydig cells of Wistar rats. *Exp Gerontol*. 58C:19-29.
- Stojkov NJ, **Baburski AZ**, Bjelic MM, Sokanovic SJ, Mihajlovic AI, Drljaca DM, Janjic MM, Kostic TS, Andric SA (2014) In vivo blockade of  $\alpha$ 1-adrenergic receptors mitigates stress-disturbed cAMP and cGMP signaling in Leydig cells. *Mol Hum Reprod*. 20(1):77-88.
- Sokanovic SJ, **Baburski AZ**, Janjic MM, Stojkov NJ, Bjelic MM, Lalosevic D, Andric SA, Stojilkovic SS, Kostic TS (2013) The Opposing Roles of Nitric Oxide and cGMP in the Age-Associated Decline in Rat Testicular Steroidogenesis. *Endocrinology* 154(10):3914-3924.
- Stojkov NJ, Janjic MM, **Baburski AZ**, Bjelic MM, Mihajlovic AI, Drljaca DM, Sokanovic SJ, Kostic TS, Andric SA (2013) Sustained in vivo blockade of alpha1-adrenergic receptors prevented some of stress-triggered effects on steroidogenic machinery in Leydig cells. *Am J Physiol Endocrinol Metab* 305(2):E194-204
- Andric S, Kojic Z, Bjelic M, Mihajlovic A, **Baburski A**, Sokanovic S, Janjic M, Stojkov N, Stojilkovic S & Kostic T (2013) The opposite role of glucocorticoid and alpha1-adrenergic receptors in stress-triggered apoptosis of Leydig cells. *Am J Physiol Endocrinol Metab* 304(1):51-59.
- Nagl N, Taski-Ajdukovic K, Barac G, **Baburski A**, Seccareccia I, Milic D, Katic S (2011) Estimation of the Genetic Diversity in Tetraploid Alfalfa Populations Based on RAPD Markers for Breeding Purposes. *Int J Mol Sci* 12(8):5449-5460.

### Oralne prezentacije

- **Baburski AZ**, Andric SA, Kostic TS (2017) Luteinizing hormone affects expression of clock genes in rat leydig cells via cAMP signaling pathway. In: Abstract book of *15th Congress European Biological Rhythms Society (EBRS)*, Amsterdam, The Netherlands, 30 July – 3 August 2017.
- **Baburski AZ**, Sokanovic SJ, Janjic MM, Radovic MS, Bjelic MM, Drljaca DM, Stojkov NJ, Andric SA, Kostic TS (2014) Peripheral biological clock and its role in age-related decline in function of rat Leydig cells. In: Abstract book of *14th FEBS Young Scientists' Forum (YSF)*, Paris, France, 27-30 August 2014.

### Poster prezentacije

- **Baburski AZ**, Sokanovic SJ, Andric SA, Kostic TS (2015) Aging has the opposite effect on circadian variations of cAMP and NO-cGMP signaling elements in rat Leydig cells. 3<sup>rd</sup> Congress of the Serbian Society for Mitochondrial

and Free Radical Physiology (SSMFRP), *Redox Medicine: Reactive Species Signaling, Analytical Methods, Phytopharmacy, Molecular Mechanisms of Disease*, Belgrade, Serbia, 25-26 September 2015

- **Baburski AZ**, Sokanovic SJ, Janjic MM, Radovic MS, Bjelic MM, Drljaca DM, Stojkov NJ, Andric SA, Kostic TS (2014) Peripheral biological clock and its role in age-related decline in function of rat Leydig cells. FEBS EMBO 2014 Conference, Paris, France, 30 August - 4 September 2014. FEBS J. 2014 Sep;281 Suppl 1:1-784. doi: 10.1111/febs.12914
- **Baburski AZ**, Sokanovic SJ, Janjic MM, Bjelic MM, Drljaca DM, Stojkov NJ, Andric SA, Kostic TS (2013) The role of peripheral clock in regulation of Leydig cell steroidogenic function – insights into aging. In: Abstract book of 3<sup>rd</sup> IRD Barcelona International PhD Student Symposium: *The Clock of Life – Cellular and molecular processes of development, ageing and disease*, Barcelona, Spain, 14-15 November 2013, p. 5.
- **Baburski AZ**, Andric SA, Kostic TS (2011) The Circadian Rhythms of Leydig Cell Steroidogenic Function. In: Abstract book of 13<sup>th</sup> International EMBL PhD Symposium “*The Rhythm of Life – Cycles in Biology*“, Heidelberg, Germany, 17-19 November 2011, p. 53.

### **Apstrakti**

- Medar MLJ, **Baburski AZ**, Andric SA, Kostic TS (2017) One and ten times repeated immobilization stress affects the circadian expression pattern of Steroidogenic and Clock Genes in Rat Leydig cells. The Fifth International Experimental Biology and Medicine Conference, Biological Clock: Mechanism and Application. Rijeka, Croatia, 06-08 October 2017.
- **Baburski AZ**, Sokanovic SJ, Bjelic MM, Radovic SM, Andric SA, Kostic TS (2015) Circadian rhythm of the Leydig cells endocrine function is attenuated during aging. FEBS/EMBO Course “Mitochondria in Life, Death and Disease” – MITO 2015, Crete, Greece, 12-16 October 2015.
- **Baburski AZ**, Sokanovic SJ, Radovic SM, Bjelic MM, Andric SA, Kostic TS (2015) Melatonin replacement restores the circadian behavior in adult rat Leydig cells after pinealectomy. FEBS3+Meeting: Molecules of Life, Portoroz, Slovenia. 16-19 September 2015.
- Sokanovic SJ, Janjic MM, Stojkov NJ, **Baburski AZ**, Bjelic MM, Andric SA, Kostic TS (2014) Age related changes of cAMP and MAPK signaling in Leydig cells of Wistar rats. In: Abstract book of 2<sup>nd</sup> EYES (The European Young Endocrine Scientists) meeting: Belgrade, Serbia, 24-26 September 2014.
- Sokanovic SJ, **Baburski AZ**, Janjic MM, Stojkov NJ, Bjelic MM, Andric SA, Stojilkovic SS, Kostic TS (2013) The opposite roles of nitric oxide and cGMP in age-associated decline in rat testicular androgenesis. In: Abstract book of 3<sup>rd</sup> IRD Barcelona International PhD Student Symposium: *The Clock of Life – Cellular and molecular processes of development, ageing and disease*, Barcelona, Spain, 14-15 November 2013, p. 60.
- Andric SA, Kojic Z, Bjelic MM, Mihajlovic AI, **Baburski AZ**, Sokanovic SJ, Janjic MM, Stojkov NJ, Kostic TS (2012) The opposite role of glucocorticoid and alpha1 - adrenergic receptors in stress triggered apoptosis of rat Leydig cells. 22<sup>nd</sup> IUBMB & 37<sup>th</sup> FEBS: »From single molecules to systems biology«. Sevilla, Spain. 4-9 September 2012.
- Kostic TS, Janjic MM, Sokanovic SJ, **Baburski AZ**, Mihajlovic AI, Bjelic MM, Stojkov NJ, Andric SA (2012) Anabolic-androgenic steroid applied in vivo induced NOS2 (nitric-oxide synthase 2) and apoptosis in Leydig cells of adult rats. 22<sup>nd</sup> IUBMB & 37<sup>th</sup> FEBS: »From single molecules to systems biology«. Sevilla, Spain. 4-9 September 2012.
- Sokanovic SJ, Janjic MM, Stojkov NJ, Bjelic MM, **Baburski AZ**, Mihajlovic AI, Andric SA, Kostic TS (2012) Androgen anabolic steroids changed transcriptional profile of MAPK genes and transiently increased apoptosis of testicular Leydig cells. *Batsheva de Rothschild seminar on biochemistry, biology and pathology of MAP Kinases*. Maale Hachamisha, Jerusalem Hills, Israel. 14-18 October 2012.

### **Popularizacija nauke**

2011 – Noć Biologije