CV – Aleksandar Z Baburski

(aleksandar.baburski@dbe.uns.ac.rs; *http://www.dbe.uns.ac.rs*)

Education:

- 2005 – 2009 (GPA 9.42/10) B.Sc. in Molecular biology (FSUNS; *http://www.pmf.uns.ac.rs*)
- 2009 – 2010 (GPA 9.75/10) M.Sc. in Molecular biology (FSUNS; *http://www.pmf.uns.ac.rs*)
- 2010 - pres. Ph.D. in Molecular Biology (FBUBG; *http://www.bio.bg.ac.rs/*)

Career:

- July 2010 – April 2013 Research trainee (PMFUNS; *http://www.pmf.uns.ac.rs*)
- April 2013 – pres. Research assistant (PMFUNS; *http://www.pmf.uns.ac.rs*)

Study visits/trainings:

- 22/06/2011 – 04/07/2011 research training in the frame of Bilateral project Slovenia-Serbia at Department of Animal Science, Biotechnical Faculty, Slovenia under the supervision of prof. Simon Horvat.
- 15/07/2015 – 10/08/2015 research training in the frame of Bilateral project Slovenia-Serbia at Centre for Functional Genomics and Bio-Chips (CFGBC) at Institute of Biochemistry, Ljubljana, Slovenia under the supervision of prof Damjana Rozman

Ongoing Research Support:

- OI173057, Kostic T (PI), 01/01/2011 – 31/12/2014 Serbian Ministry of Education, Science and Technological Development Project: *"Molecular mechanisms and signal transduction pathways involved in regulation of steroidogenesis and adaptation of Leydig cells to disturbed steroidogenesis"*, Role: Co-investigator
- APV970, Andric S (PI), 01/06/2011 – 31/12/2015 APV Province Committee for Science and Technology, Project: "*Signaling pathways and molecular mechanisms involved in maintenance of sex steroids homeostasis*", Role: Co-investigator
- Bilateral project, Slovenia-Serbia: "*Synchronization of circadian rhythm in Leydig cells - connection of cAMP signaling with clock*" Role: Co-investigator.

Awards:

2014 Grant for 14th YSF FEBS, Paris, France
2013 Travel grant for 3rd IRD Barcelona International PhD Student Symposium, Barcelona, Spain
2009 – 2010 Scholarship of **Fund for Young Talents**, Ministry of Youth and Sports of the Republic of Serbia
2008 – 2009 University Award for Academic Achievement in 2007/2008 and 2008/2009

Membership in scientific associations:

- Serbian Biochemical Society - 2014.
- Serbian Society for Molecular Biology - 2015

Languages: Serbian (mother tongue), English (active knowledge),

Research area: Cell signaling, reproductive endocrinology, chronobiology

Relevant publications:

- **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. *Exp Gerontol*. doi: 10.1016/j.exger.2015.11.002.
- **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*. 58:19-29.
- Stojkov NJ, **Baburski AZ**, Bjelic MM, Sokanovic SJ, Mihajlovic AI, Drljaca DM, Janjic MM, Kostic TS, Andric SA (2014) In vivo blockade of α1-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.
- Medar MLj, **Baburski AZ**, Andrić SA, Kostić TS. Pinealectomy changes 24 – h rhythm of expression of some genes included in NO – cGMP signaling pathway in Leydig cells of adult rats. *III simpozijum biologa i ekologa Republike Srpske*, Banja Luka, Bosna i Hercegovina, 12.–14. novembar 2015.
- **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, Andric SA, Kostic TS (2015) Aging has the opposite effect on circadian variations of cAMP and NO-cGMP signaling elements in rat Leydig cells. 3rd 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.
- Medar MLj, **Baburski AZ**, Andric SA, Kostic TS (2015) Pineal is involved in shaping of 24h rhythmic activity of NO-cGMP signaling in adult rat Leydig cells. 3rd 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.

- 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. *2nd EYES meeting*, Belgrade, Serbia, 24-26 September, 2014.
- **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.
- **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. *14th FEBS Young Scientists' Forum (YSF)*, Paris, France, 27-30 August, 2014.
- **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. 3rd IRD Barcelona International PhD Student Symposoum: *The Clock of Life – Cellular and molecular processes of development, ageing and disease*, Barcelona, Spain, 14-15 November, 2013.
- 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. 3rd IRD Barcelona International PhD Student Symposoum: *The Clock of Life – Cellular and molecular processes of development, ageing and disease*, Barcelona, Spain, 14-15 November, 2013.
- 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.
- Drljaca DM, Bjelic MM, Stojkov NJ, Mihajlovic AI, Sokanovic SJ, **Baburski AZ**, Janjic MM, Kostic TS, Andric SA (2012) The transcriptional signature of the insulin family of growth factors and their receptors in Leydig cells of adult rats during whole organism disturbed homeostasis. EMBO Practical course: *Anatomy & embryology of the mouse*. Split, Croatia, 8-16 September, 2012.
- 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. 22nd IUBMB & 37th FEBS: *From single molecules to systems biology*. Sevilla, Spain, 4-9 September, 2012.
- Stojkov NJ, Janjić MM, Drljača DM, Bjelić MM, Sokanović SJ, **Baburski AZ**, Kostić TS, Andrić SA (2013) Molekularne adaptacije mitohondrija Leydig-ovih ćelija u stresu. Drugi kongres Srpskog društva za mitohondrijalnu i slobodno-radikalsku fiziologiju (SDMSRF): *Život sa slobodnim radikalima: hemija, biologija, medicina.* Niš, Srbija, 28. septembar, 2013.
- **Baburski AZ**, Sokanovic SJ, Radovic SM, Bjelic MM, Andric SA, Kostic TS (2015) Melatonin replacment restores the circadian behavior in adult rat Leydig cells after pinealectomy. FEBS3+Meeting: *Molecules of Life*, Portoroz, Slovenia, 16-19 September, 2015.
- Sokanović SJ, **Baburski AZ**, Janjić MM, Stojkov NJ, Bjelić MM, Andrić SA Kostić TS (2013) Azot oksid i cGMP imaju suprotnu ulogu u regulaciji testikularne steroidogeneze kod starih pacova. Drugi kongres Srpskog društva za mitohondrijalnu i slobodno-radikalsku fiziologiju (SDMSRF): *Život sa slobodnim radikalima: hemija, biologija, medicina.* Niš, Srbija, 28. septembar, 2013.

Popularization of science

2011-2015 - "Noć Biologije"