

Short CV - Silvana Andric

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Education:

- 1992 BSc in Biology (Faculty of Sciences at University of Novi Sad; <http://www.pmf.uns.ac.rs/en>)
- 1995 MSc in Biochemistry (FSUNS; <http://www.pmf.uns.ac.rs/en>)
- 1999 PhD in Reproductive Endocrinology (FSUNS; <http://www.pmf.uns.ac.rs/en>)
- 2004 Postdoctoral fellow in Cell Signaling (SCS, ERRB, NICHD, NIH; <http://www.nichd.nih.gov>)

Study visits:

1998 (July): *Summer Program* – University of Illinois at Urbana Champaign, Coll. Vet. & Med.
1998 (August): *Visiting Scientist* - SCS, ERRB, NICHD, NIH, Bethesda, MD, USA.
1999 (April - September): *Visiting Scientist* - SCS, ERRB, NICHD, NIH, Bethesda, MD, USA.
2000 (June - September): *Visiting Scientist* - SCS, ERRB, NICHD, NIH, Bethesda, MD, USA.
06/10/2001 – 10/01/2004: *Postdoctoral Fellow* - SCS, ERRB, NICHD, NIH, Bethesda, MD, USA.
Summer 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013 - *Visiting Scientist* - SCS, PND, NICHD, NIH.

Career:

- 1995 – 1999 Teaching Assistant of Animal Physiology (FSUNS; <http://www.pmf.uns.ac.rs/en>)
- 1999 – Nov 2004 Assistant Professor of Animal Physiology (FSUNS; <http://www.pmf.uns.ac.rs/en>)
- 2001 – 2004 Post-doctoral fellow in Cell Signaling (SCS, NICHD, NIH; <http://www.nichd.nih.gov>)
- 2004 – June 2009 Associate Professor of Animal Physiology (FSUNS; <http://www.pmf.uns.ac.rs/en>)
- July 2009 – pres. Professor of Animal Physiology (FSUNS; <http://www.pmf.uns.ac.rs/en>)

Teaching (Bachelor, Master, PhD level):

Basic physiology (45 hours/year), Animal physiology (45 hours/year), Comparative animal physiology (22 hours/year), Molecular & cellular physiology (45 hours/year), Mechanisms of cell communication (15 hours/year), Molecular & cellular immunology (15 hours/year), Reproductive physiology (15 hours/year), Reproductive endocrinology (15 hours/year).

Mentoring

Post-doc candidates: 1
PhD candidates: 3 (1 completed)
Master candidates: 23 (21 completed)
Diploma candidates: 31 (all completed)

Languages: English, Russian

Research area: Cell signaling, reproductive endocrinology, stress, mitochondrial biogenesis

Research Support as PI

Ongoing Research Support

APV970, 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*”;
Serbian Academy of Sciences – Academy of Sciences of the Czech Republic, 01/01/2014 – 31/12/2017, Project: “*The CNG channels in Leydig cell – identification, characterization and functional coupling to testosterone production*”.

COST Action: BM1105, 01/04/2012 – 31/03/2016; Project: “*GnRH network – Neuroendocrine Control of Reproduction*”. Role: MC member for basic science from Serbia.

COST Action: BM1402, 01/12/2014 – 30/11/2018 Project: “*Development of a European network for preclinical testing of interventions in mouse models of age and age-related diseases (MouseAGE)*” Role: Investigator.

Completed Research Support

FNS SNFS IZ73Z0_128070, Nef S, Andric S (PIs), 01/12/2009 – 31/11/2012, Swiss National Science Foundation (SNSF) SCOPES Eastern Europe program; Project: “*Investigating the role of the insulin receptor family in regulating testicular steroidogenesis*”. Role: Principal Investigator from Serbian part.

Bilateral cooperation Serbia-Slovenia, 01/01/2010 – 31/12/2011, MESTD Republic of Serbia; Project: “*Evaluation of Leydig-cell-specific knockout of Cyp51 gene function on spermatogenesis and steroidogenesis*”.

APV02530, 01/06/2006 – 31/12/2010, APV Province Committee for Science and Technology; Project: “*Molecular physiology of Leydig cells in response to stress*”.

Completed Teaching Support as PI

WUS-C.D.P+ -SE118-2006, 01/07/2006 – 31/06/2007, WUS Austria “*Support to Higher Education in Serbia and Montenegro in 2005/2007*” (Project No: 8093-01-2005). Project: “*Module: Molecules and Cells in Health and Disease: Molecular and Cellular Immunology; Mechanisms of Cell Signaling*”.

Research Support as investigator of MESTD Republic of Serbia

ON173057, Kostic T (PI), 01/01/2011 – 31/12/2015, MESTD; Project: “*Molecular mechanisms and signal transduction pathways involved in regulation of steroidogenesis and adaptation of Leydig cells to disturbed homeostasis*”. Role: Co-investigator.

ON143055, Kostic T (PI), 01/01/2006 – 31/12/2010 MESTD; Project: “*NO-cGMP related mechanisms in regulation of Leydig cell steroidogenesis*”. Role: Co-Investigator

Reviewer for Scientific Journals:

- 2009 – present *Journal of Physiology (London), International Journal of Andrology*
- 2010 – present *Endocrinology, Journal of Endocrinology, Endocrine*
- 2011 – present *Human Reproduction, British Journal of Pharmacology, Molecular Pharmacology*
- 2012- present *Science Signaling, Seminars in Cancer Research, Cancer Research*

Publications: 60 peer-review publication; 882 hetero-citations, *h-index* 17 (source: SCOPUS 2000-2015).

Relevant publications:

- Baburski AZ, Sokanovic SJ, Radovic SM, Bjelic MM, **Andric SA** & Kostic TS (2015). Circadian rhythm of the Leydig cells endocrine function is attenuated during aging. *Exp Gerontol* 73: 5-13.
- Gak IA*, Radovic SM*, Dukic AR, Janjic MM, Stojkov-Mimic NJ, Kostic TS & **Andric SA** (2015). Stress stimulates mitochondrial biogenesis to preserve steroidogenesis in Leydig cells of adult rats. *BBA Mol Cell Res* 1853: 2217-2227.

- 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 Endo* 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 Endo* 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, Mihajlovic AI, Baburski AZ, Sokanovic SJ 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 Endo* 396 (1-2): 10-25.
- Sokanovic SJ, Janjic MM, Stojkov NJ, Baburski AZ, Bjelic MM, **Andric SA** & Kostic TS (2014). Age-related changes in 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 alpha1-adrenergic receptors mitigates stress-disturbed cAMP & cGMP signaling in Leydig cells. *Mol Hum Reprod* 20 (1):77-88.
- Stojkov NJ, Janjic MM, Kostic TS & **Andric SA** (2013). *In vitro* blockade of α 1-adrenergic receptors (α 1-ADRs) affects testosterone production in Leydig cells of adult rats. *Biol Serb* 35 (1-2):48-56.
- 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, Baburski AZ, Janjic MM, Bjelic MM, Mihajlovic AI, Drljaca DM, Sokanovic SJ, Kostic TS & **Andric SA** (2013) Sustained *in vivo* blockade alpha1-adrenergic receptors prevented some of stress-triggered effects on steroidogenic machinery in Leydig cells. *Am J Physiol Endocrinol Metab* 305 (2): E194-E204.
- Stojkov NJ, Janjic MM, Kostic TS & **Andric SA** (2013) Orally applied Doxazosin disturbed testosterone homeostasis and changed the transcriptional profile of steroidogenic machinery, cAMP/cGMP signaling and adrenergic receptors in Leydig cells of adult rats. *Andrology* 1 (2): 332-347.
- **Andric SA**, Kojic Z, Bjelic MM, Mihajlovic AI, Baburski AZ, Sokanovic SJ, Janjic MM, Stojkov NJ, Stojilkovic SS & Kostic TS (2013). The opposite role of glucocorticoid and alpha1-adrenergic

receptors in stress-triggered apoptosis of Leydig cells. *Am J Physiol Endocrinol Metab* 304 (1): E51-E59.

- **Andric SA**, Janjic MM, Stojkov NJ & Kostic TS (2012) NO-cGMP signaling increases the mitochondrial membrane potential and affects androgenesis in Leydig cells. *Biol Serb* 34 (1): 12-16.
- Janjic MM, Stojkov NJ, **Andric SA** & Kostic TS (2012) Anabolic-androgenic steroids induce apoptosis and NOS2 (nitric oxide synthase 2) in adult rat Leydig cells following *in vivo* exposure. *Reprod Toxicol* 34(4):686-693.
- Janjic MM, Stojkov NJ, Bjelic MM, Mihajlovic AI, **Andric SA** & Kostic TS (2012) Transient rise of serum testosterone level after single sildenafil treatment of adult male rats *J Sex Med* 10 (9): 2534-2543.
- Stojkov NJ, Janjic MM, Bjelic MM, Mihajlovic AI, Kostic TS & **Andric SA** (2012) Repeated immobilization stress disturbed steroidogenic machinery & stimulated the expression of cAMP signaling elements & adrenergic receptors in Leydig cells. *Am J Physiol Endocrinol Metab* 302(10): E1239-E1251.
- Kostic TS, Stojkov NJ, Bjelic MM, Mihajlovic AI, Janjic MM & **Andric SA**. (2011) Pharmacological doses of testosterone up-regulated androgen receptor (AR) and 3-beta-hydroxysteroid dehydrogenase/delta-5-delta-4 isomerase (3bHSD) and impaired Leydig cells steroidogenesis in adult rat. *Toxicol Sci* 121(2): 397-407.
- **Andric SA**, Janjic MM, Stojkov NJ & Kostic TS (2010): Sildenafil treatment *in vivo* stimulates Leydig cell steroidogenesis via cAMP and cGMP signaling pathway. *Am J Physiol Endocrinol Metab* 299(4): E544-E450.
- **Andric SA**, Janjic MM, Stojkov NJ & Kostic TS (2010): Testosterone-induced modulation of Nitric Oxide-cGMP signaling pathway and androgenesis in the rat Leydig cells. *Biol Reprod* 83(3): 434-442.
- Kostic TS, Stojkov NJ, Janjic MM & **Andric SA** (2010): Structural complexity of the testis and PKG-I/StAR interaction regulate the Leydig cell adaptive response to repeated immobilization stress. *Int J Androl* 33(5): 717-729.
- Stojilkovic SS, Murano T, Gonzalez-Iglesias AE, **Andric SA**, Popovic MA, Van Goor F & Tomic M (2009): Multiple roles of Gi/o protein-coupled receptors in control of action potential secretion coupling in pituitary lactotrophs. *Ann N Y Acad Sci* 1152: 174-186. Review.
- Kostic TS, Stojkov NJ, Janjic MM, Maric D & **Andric SA** (2008): The adaptive response of adult rat Leydig cells to repeated immobilization stress: Role of PKA and StAR protein. *Stress* 11(5): 370-380.
- Cokic VP, **Andric SA**, Stojilkovic SS, Noguchi CT & Schechter AN (2008): Hydroxyurea nitrosylates and activates soluble guanyll cycles in human erythroid cells. *Blood* 111 (3): 1117-1123.

- Djurendic EA, Sakac MN, Zavis M, Gakovic AR, Canadi JJ, **Andric SA**, Klisuric OR, Kojic VV, Bogdanovic GM & Gasi KM (2008): Synthesis and biological evaluation of some new A,B-ring modified steroidal D-lactones. *Steroids* 73 (6): 681-688.
- Djurendic EA, Daljev JJ, Sakac MN, Canadi J, Santa SJ, **Andric SA**, Klisuric O, Kojic V, Bogdanovic G, Djurendic-Brenesel M, Novakovic S, Gasi KP (2008): Synthesis of some epoxy and/or N-oxy 17-picolyl and 17-picolinylidene-androst-5-ene derivatives and evaluation of their biological activity. *Steroids* 73 (1): 129-138.
- **Andric SA**, Janjic MM, Stojkov NJ & Kostic TS (2007): Protein kinase G – mediated stimulation of basal Leydig cell steroidogenesis. *Am J Physiol Endocrinol Metab* 293 (5): E1399-E1408.
- Sakac MN, Penov-Gasi KM, Djurendic EA, **Andric SA**, & Miljkovic DA (2007): Synthesis and biological evaluation 17-[4-(2-aminoethoxy)phenyl]-16,17- secoestra-1,3,5(10)-triene derivatives. *Coll Czech Chem Comm* 72 (3): 403-410.
- Gasi KM, Brenesel MDj, Djurendic EA, Sakac MN, Canadi JJ, Daljev JJ, Armbruster T, **Andric SA**, Sladic DM, Bozic TT, Novakovic IT, Juranic ZD (2007): Synthesis, X-ray crystal structures and biological activity of 16-amino-17-substituted –D-homosteroid derivatives. *Steroids* 72 (1): 31-40.
- Gonzalez-Iglesias AE, Jiang Y, Tomic M, Kretschmannova K, **Andric SA**, Zemkova H & Stojilkovic SS (2006): Dependence of electrical activity and Ca²⁺ influx-controlled prolactin release on adenylyl cyclase signaling pathway in pituitary lactotrophs. *Mol Endocrinol* 20 (9): 2231-2246.
- **Andric SA**, Kostic TS & Stojilkovic SS (2006): Contribution of multidrug resistance protein - MRP5 in control of cGMP intracellular signaling in anterior pituitary cells. *Endocrinology* 147 (7): 3435-3445.
- Andric NL, Kostic TS, Zoric SN, Stanic BD, **Andric SA**, Kovacevic R Z (2006): Effect of a PCB-based transformer oil on testicular steroidogenesis and xenobiotics-metabolizing enzymes. *Reprod Toxicol* 22: 102-110.
- **Andric SA**, Zivadinovic D, Gonzalez-Iglesias AE, Lachowicz A, Tomic M & Stojilkovic SS (2005): Endothelin-induced long lasting and Ca²⁺ influx-independent blockade of intrinsic secretion in pituitary cells by G_z subunits. *J Biol Chem* 280 (28): 26896-26903.
- Sakac MN, Penov-Gasi KM, Popsavin M, Djurendic EA, **Andric S**, & Kovacevic R (2005): Synthesis and estrogenic activity screening of some 6,9-disubstituted estradiol derivatives. *Coll Czech Chem Comm* 70: 479-486.
- Sakac MN, Miljkovic DA, Penov-Gasi KM, Popsavin M, Klisuric OR, Stankovic SM, **Andric S**, & Kovacevic R (2005): Synthesis, X-ray crystal structure and antiestrogenic activity of 17-methyl-16,17-secoestra-1,3,5(10)-triene derivatives. *Coll Czech Chem Comm* 70: 63-71.

- Mirkov S, Djordjevic A, Andric N, **Andric S**, Kostic T, Bogdanovic G, Vojinovic-Miloradov M & Kovacevic R (2004): Nitric oxide-scavenging activity of polyhydroxylated fullerene C60(OH)24. *Nitric Oxide* 11: 200-206.
- Kostic TS, **Andric SA** & Stojilkovic SS (2004): Receptor-controlled phosphorylation of α 1 soluble guanylyl cyclase enhances nitric oxide-dependent cyclic guanosine 5'-monophosphate production in pituitary cells. *Mol Endocrinol* 18 (2): 458-470.
- Andric NL, **Andric SA**, Zoric SN, Kostic TS, Stojilkovic SS & Kovacevic RK (2003): Parallelism and dissociation in the actions of Aroclor 1260-based transformer fluid on testicular androgenesis and antioxidant enzymes. *Toxicology* 194 (1-2): 65-75
- Jovanovic-Santa S, Petrovic J, **Andric S**, Djurendic EA, Sakac MN, Lazar D & Stankovic SM (2003): Synthesis, structure, and screening of estrogenic and antiestrogenic activity of new 3,17-substituted-16,17-seco-estratriene derivatives. *Bioorg Chem.* 31(6): 475-84.
- Penov-Gasi KM, Miljkovic DA, Medic-Mijacevic LD, Djurendic EA, Stojanovic SZ, Sakac MN, Djurendic MDj, Stankovic SM, Lazar D, **Andric S** & Kovacevic R (2003): Synthesis, X-ray crystal structures and biological activity of 16-amino-17-substituted -D-homosteroid derivatives. *Steroids* 68 (7-8): 667-676.
- **Andric SA**, Gonzalez-Iglesias AE, Van-Goor F, Tomic M & Stojilkovic SS (2003): Nitric oxide inhibits prolactin secretion in pituitary cells downstream of voltage-gated calcium influx. *Endocrinology* 144 (7): 12912-12921.
- Tomic M, **Andric SA** & Stojilkovic SS (2003): Dependence of prolactin release of coupling between Ca^{++} mobilization and voltage-gated Ca^{++} influx pathways in rat lactotrophs. *J Endocrine* 20 (1/2): 45-52.
- **Andric SA**, Andric NL, Zoric S, Kostic T & Kovacevic RK (2003): Effects of polychlorinated biphenyl-containing and -free transformer fluids on testicular enzyme activities. *Fresenius Environmental Bulletin* 12: 245-249.
- Andric N, **Andric S**, Zoric S, Kostic T & Kovacevic RK (2002): Effects of commercial PCB mixture on rat testicular enzyme activities. *Proceedings of the 6th International Symposium Interdisciplinary Regional Research* (Hungar, Romania, SERBIA and MONTENEGRO). University of Novi Sad, SERBIA and MONTENEGRO, CD 0103:1-6.
- Stankovic S, Lazar D, Medic-Mijacevic L, Penov-Gasi K, Sakac M, **Andric S** & Bruvo M (2002): D-Secoestrone derivatives. VI. 17 beta-Benzyl-17 alpha-hydroxy-3-methoxyestra-1,3,5(10)-trien-16-one. *Acta Crystallogr* 58 (Pt 3): 172-3.
- Kostic TS, **Andric SA**, Tomic M & Stojilkovic SS (2002): Calcium-independent and cAMP-dependent modulation of soluble guanylyl cyclase activity by G-protein coupled receptors in pituitary cells. *J Biol Chem* 277(19):16412-16418.

- Andric NL, **Andric SA**, Kostic TS, Dragisic SM SS & Kovacevic RK (2002): Inhibitor effects of L-arginine methyl ester on antioxidant enzymes and stress-impaired steroidogenesis in rat testes. *Review of Research, Faculty of Science, Biology Series 30*: 43-57.
- **Andric S.A.**, Kostic T.S., Dragisic S.M., Andric N., Stojilkovic S.S. and Kovacevic R. (2001): Testicular enzymes as sensor to chemical stressors. *Biomarkers of Environmental Contamination, Proceeding*: T3-01.
- **Andric SA**, Kostic TS, Dragisic SM, Stojilkovic SS & Kovacevic RZ (2001): Acute *in vivo* and *in vitro* effects of Aroclors on rat testicular steroidogenesis. In: *PCBs-Recent Advances in the Environmental Toxicology and Health Effects*, edited by Larry W. Robertson and Larry G. Hansen. The University Press of Kentucky, pp 303-307.
- Kostic TS, **Andric SA** & Stojilkovic SS (2001): Spontaneous and receptor-controlled soluble guanylyl cyclase activity in anterior pituitary cells. *Mol Endocrinol 15 (6)*: 1010-1022.
- Penov-Gasi KM, Stankovic SM, Csanadi JJ, Djurendic EA, Sakac MN, Medic-Mijacevic Lj, Molnar-Gabor D, Arcson ON, Stojanovic SZ, **Andric SA**, & Kovacevic RZ (2001): New D-modified androstane derivatives as aromatase inhibitors. *Steroids 66 (8)*: 645-654.
- **Andric SA**, Kostic TS, Tomic M, Koshimizu T & Stojilkovic SS (2000): Dependence of soluble guanylyl cyclase activity on calcium signaling in pituitary cells. *J Biol Chem 276*: 844-849.
- Kostic TS, **Andric SA**, Maric D & Kovacevic RZ (2000): Inhibitory effects of stress-activated nitric oxide on antioxidant enzymes and testicular steroidogenesis. *J Steroid Biochem Molec Biol 75 (4-5)*: 299-306.
- Grubor-Lajsic G, **Andric SA**, Andric N, Dragisic S, Taski K, Stanic B, Kostic T and Kovacevic R (2000): Antioxidant enzymes changes in aquatic biota – an answer to oil refinery spills. *Central European Journal of Occupational and Environmental Medicine 6 (2-3)*: 189-193.
- Jovanovic-Santa S, **Andric S**, Kovacevic R & Pejanovic V (2000): Synthesis and biological activity of new 16,17-secoestrone derivatives. *Coll Czech Chem Comm 65*: 77-82.
- **Andric SA**, Kostic TS, Dragisic SM, Andric NL, Stojilkovic SS, Kovacevic RZ (2000): Acute effects of polychlorinated biphenyl-containing and -free transformer fluids on rat testicular steroidogenesis. *Environ Health Perspect 108*: 955-959.
- **Andric SA**, Kostic TS, Stojilkovic SS & Kovacevic R (2000): Inhibition of rat testicular androgenesis by a polychlorinated biphenyl mixture Aroclor 1248. *Biol Reprod 62*: 1882-1888.
- Tomic M, Koshimizu T, Yuan D, **Andric SA**, Zivadinovic D & Stojilkovic SS (1999): Characterization of a plasma membrane oscillator in rat pituitary somatotrophs. *J Biol Chem 274*: 35693-35702.

- Kostic TS, **Andric SA**, Maric D, Stojilkovic SS & Kovacevic R (1999): Involvement of inducible nitric oxide synthase in stress-impaired testicular steroidogenesis. *J Endocrinol* 163: 409-416.
- Kostic TS, **Andric SA**, Dragisic SM, Kovacevic R & Maric D (1999): Nitric oxide is involved in down regulation of testicular steroidogenesis in stress conditions. *Internat Symp Interdiscip Region Research, Proceedings, part II*: 483-486.
- **Andric S**, Kostic TS, Vojinovic-Miloradov M, Dragisic SM, Stojilkovic SS & Kovacevic R (1999): Acute effects of PCB- and mineral oil-based dielectric fluids on antioxidant enzyme activities in adult rat testis. *Internat Symp Interdiscip Region Research, Proceeding, part II*: 915-918.
- **Andric S.** (1999): Acute effects of commercial mixture of polychlorinated biphenyls (PCBs) on the steroidogenic functions of the testes. *Ph.D. Thesis*. Faculty of Sciences, University of Novi Sad.
- Kovacevic R, **Andric S**, Kostic T, Lazetic B & Pekaric-Nadj N (1999): The effect of chronic exposure of male rats to 50 Hz magnetic field: III Steroidogenic capacity of whole testes and Leydig cells *in vitro*. *Bull Exp Biol Med* 45: 135-138..
- Petrovic J, Penov-Gasi K, Sakac M, Jovanovic-Santa S, Arcson O, Djurendic E, Kovacevic R, **Andric S**, Stankovic S & Lazar D. (1998): New biological active estrone and androstenedione derivatives with modification in D ring. *Patent, P-128/98*.
- Kostic T, **Andric S**, Kovacevic R & Maric D (1998): Stress and paracrine regulation of Leydig cell function. In: *Basic and clinical aspects of the theory of functional systems*. Eds. B. Lazetic, K.V. Sudakov & P.K. Anokhin: 215-221.
- Kostic T, **Andric S**, Kovacevic R & Maric D (1998): The involvement of nitric oxide in immobilization stress impaired testicular steroidogenesis. *Eu J Pharmacol* 346: 267-273.
- Kostic T, **Andric S**, Kovacevic R & Maric D. (1998): The effect of acute stress and opioid antagonists on the activity of NADPH-P450 reductase in rat Leydig cells. *J Steroid Biochem Molec Biol* 66: 51-54.
- Kostic T, **Andric S**, Kovacevic R & Maric D (1998): Is nitric oxide involved in stress-impaired testicular steroidogenesis? *Proc Nat Sci Matica Srpska* 94: 53-62.
- **Andric S**, Kostic T, Sakac M, Medic-Mijacevic L, Gasi K & Kovacevic R (1998): Biological characterization of some novel 5-androstene derivatives as potential antiandrogens. *Proc Nat. Sci Matica Srpska* 94: 43-51.
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- **Andric S**, Kostic T, Lazetic B, Pekaric-Nadj N & Kovacevic R (1998): The effects of chronic exposure of male rats to 50 Hz magnetic field on the steroidogenic capacity of whole testes and Leydig cells *in vitro*. *Proc Nat Sci Fac Nat Sci* 27-28: 46-50.

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- Petrovic AJ, Stepic T, Pejanovic MV, Medic-Mijacevic L, Kovacevic R, **Andric SA** & Stankovic MS (1998): Synthesis and biological activity of two new D-secoestrone derivatives. *J Serb Chem Soc* 63: 113-116.
- Kostic T, **Andric S**, Kovacevic R & Maric D (1997): The effect of opioid antagonists in local regulation of testicular response to acute stress in adult rats. *Steroids* 62: 703-708.
- Kostic T, **Andric S**, Kovacevic R & Maric D (1996): The effect of opioid antagonists on testicular response to acute stress in adult rats. *Yugoslav Physiol Pharmacol Acta* 32: 197-203.
- **Andric S** (1995): Investigation of potential antiandrogenic activity of 16,17-disubstituted steroid derivates. *M. Sc. Thesis*. Faculty of Natural Sciences, University of Novi Sad.
- Kovacevic R, Vojinovic-Miloradov M, Teodorovic I. & **Andric S** (1995): Effect of PCBs on androgen production by suspension of adult rat Leydig cells *in vitro*. *J Steroid Biochem Molec Biol* 52: 595-597.
- **Patent:** Petrovic J., Penov-Gasi K., Sakac M., Jovanovic-Santa S., Arcson O., Djurendic E., Kovacevic R., **Andric S.**, Stankovic S & Lazar D. (1998): New biological active estrone and androstenedione derivatives with modification in D ring. Patent SRJ *P-128/98*.