



CURRICULUM VITAE (December, 2021)

Tatjana S Kostic, PhD, Professor (<https://www.dbe.uns.ac.rs/redovni-profesori/tatjana-kostic/>)

Head of Cathedra for Animal Physiology

(<https://www.dbe.uns.ac.rs/o-nama/katedre/katedra-za-fiziologiju-zivotinja/>)

Head of Laboratory for Chronobiology and Aging

(<https://www.dbe.uns.ac.rs/nauka/laboratorije/chronage/>; see: Галерија)

Founder and member of the Accredited Center of Excellence for Reproductive Endocrinology and Signaling (CeRES) (<https://ceres.pmf.uns.ac.rs/>)

Member of the Laboratory for Reproductive Endocrinology and Signaling (LaRES)

(<http://wwwold.dbe.pmf.uns.ac.rs/en/nauka-eng/lares/>; <https://www.dbe.uns.ac.rs/nauka/laboratorije/lares/>; see: Галерија)

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Date & place of birth: March 7, 1962, Maribor, Slovenia

Citizenship: Serbia, Slovenia

Family: Twins (Danilo, Matej)

Language: English, Slovenian, Serbian

Education:

1990. B.Sc. Biology, University of Novi Sad, Faculty of Sciences, Novi Sad

1994. M.Sc. in Neurosciences, University of Belgrade, Center for Multidisciplinary Studies, Belgrade

1997. Ph.D. Biology, University of Novi Sad, Faculty of Sciences, Novi Sad

Training:

1999–2002: *Visiting fellow* - SCS, ERRB, NICHD, NIH, Bethesda, MD, USA.

Employment experience:

December 1991 - March 1998 Assistant, Department of Biology and Ecology, Faculty of Science, University of Novi Sad,

March 1998 – October 2002 Assistant Professor, Department of Biology and Ecology, Faculty of Science, University of Novi Sad

October 1999–October 2002 Visiting fellow, Section on Cellular Signaling, ERRB, NICHD, NIH, USA

October 2003 – Jun 2008 Associate professor, Department of Biology and Ecology, Faculty of Science, University of Novi Sad

July 2008 - present Full professor, Faculty of Science, University of Novi Sad

Teaching:

Animal Physiology (45 hours/year),
Comparative Animal Physiology (15 hours/year),
Mechanisms of Cell Signaling (15 hours/year),
Molecular and Cellular Immunology (15 hours/year),
Molecular Physiology (15 hours/year)
Reproductive Physiology (15 hours/year)
Reproductive Endocrinology (15 hours/year)
Bachelor, Master and PhD level

Mentoring

Post-doc candidates: **1**

PhD candidates: **8** (3 completed)

Master candidates: **47** (40 completed)

Diploma candidates: **47** (47 completed)

Research area: Cellular Signaling, Reproductive Endocrinology, Stress, Aging, Circadian Rhythm

Citations (Scopus): 1214 (self-citation excluded), *h*-index 20.

RESEARCH GRANTS

Ongoing Research Grants

ON173057 National Ministry of Science and Environmental Protection. Project: “*Molecular mechanisms and signal transduction pathways involved in regulation of steroidogenesis and adaptation of Leydig cells to disturbed homeostasis*”. Kostic T (PI)

Role: Principal Investigator.

EU4TPOC-1593008532-020 European Union EUTech4PoC

Project: “*Mito-Fert-Signature: a new prognostic/diagnostic tool to detect male (in) fertility using mitochondrial markers in spermatozoa*”

Role: Co-Investigator

APV1137 APV Province Committee for Higher Education, Science and Technology. Project: “*Are the reproductive hormones linking point between stress, metabolic syndrome and aging*”. Andric S (PI)

Role: Co-investigator.

Serbian Academy of Sciences – Academy of Sciences of the Czech Republic. Project: “*The CNG channels in Leydig cell – identification, characterization and functional coupling to testosterone production*”. Andric S (PI).

Role: Co-investigator.

COST Action: CA15203 “*MITOEAGLE-Mitochondrial mapping: Evolution - Age - Gender - Lifestyle - Environment*”

(http://www.cost.eu/COST_Actions/ca/CA15203)

Role: Investigator.

COST Action: CA18133 “*ERNEST-European research network on signal transduction*” (<https://www.cost.eu/actions/CA18133>)

Role: MC substitute from Serbia.

Ongoing Education Grants

Ministry of Education, Science and Technological Development

Project: “*Introduction of new teaching contents in order to raise the diagnostic and digital competencies of students of biology and biochemistry (BioDig)*”.

Role: Co-Investigator

Completed Research Support

APV3822 Province Committee for Higher Education, Science and Technology. Project: “*The slowdown in the development of aging-related hypogonadism: the effect of cGMP-dependent mechanisms*”.

Kostic T (PI)

Role: Principal Investigator

Bilateral cooperation Serbia-Slovenia Ministry of Science Republic of Serbia. Project: “*Synchronization of the Leydig cell circadian timing system: coupling cAMP signaling to clock*”. Kostic T, (PI)

Role: Principal Investigator

APV1137 APV Province Committee for Higher Education, Science and Technology. Project: “*Signaling pathways and molecular mechanisms involved in maintenance of sex steroids homeostasis*”.

Andric S (PI)

Role: Co-investigator

APV3551 APV Province Committee for Higher Education, Science and Technology. Project “*Predictive models in cardiometabolic risk quantification in AP Vojvodina*”.

Aleksandar Kupusinac (PI).

Role: Co-investigator

COST Action: BM1105 0, 01/04/2012 – 31/03/2016 Project: “*GnRH network – Neuroendocrine Control of Reproduction*”.

Role: MC substitute for basic science from Serbia. (<https://www.chuv.ch/en/hhn/hhn-home/neuroendocrine-control-of-reproduction>)

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. (www.mouseage.eu)

ON143055 National Ministry of Science and Environmental Protection 01/01/2006. – 31/12/2010 Project: “*No-cGMP related mechanisms in regulation of Leydig cell steroidogenesis*” Kostic T (PI) Role: Principal Investigator.

Completed Education Grants

- 627-777E6E, Andric S (PI), 01/09/2016 – 31/08/2018 Institute for the Advancement of Education
Project: *“Reproductive growth and aging”*.
Role: Lecturer.
- 627-777E6E, Andric S (PI), 01/09/2016 – 31/08/2018, Institute for the Advancement of Education
Project: *“Contemporary achievements and methods in human physiology”*
Role: Lecturer.

Awards:

- 1990 Award for postgraduate students received from Vojvodina Scientific Grant.
1997 Award Serbian Biological Society for the best Ph.D. Thesis
2000 Endocrine Society Award
2003 FEBS Award travel grant
2004 Award for publications (2002-2004) funded by National Ministry of Science and Environmental Protection
2005 Award for participation in development of scientific progress at the Faculty of Science, University of Novi Sad

Membership:

- 1992 – present Yugoslav Biological Society, Serbian Biochemical Society
2000 – 2003 The Endocrine Society
2002 - present Womens in Endocrinology
2002 - present IAD
2003 – present FEBS
2012 – present Serbian Physiological Society
2012 – present Serbian Biology Society
2013 – present Serbian Society for Mitochondrial and Free Radical Physiology
2015 – present Serbian Molecular Biology Society
2017 – present Society for the Study of Reproduction

Publication List

1. Simonovic I., Milin J., **Kostic T.**, Kovacevic R., Maric D. Effect of hypothalamic deafferentation on naloxone-induced modification of LH and PRL in stress condition. *Proc. Nat. Sci Matica Srpska*, 86: 21-27, 1994.
2. Simonovic I., **Kostic T.** and Maric D. Participation of the pineal gland in the reproductive physiology. *Proc Nat SciFac Nat Sci*, 23: 5-12, 1994.
3. **Kostic T.**, Milin J., Maric D. Morphofunctional recovery of the rat pineal gland after acute immobilization. First Congress of Electron Microscopy, Proceedings, Novi Sad, 87-89, 1994.
4. Maric D., **Kostic T.**, Simonovic I. Paracrine regulation of the testis. *Proc. Nat. Sci Matica Srpska*, 87: 5-17, 1994.
5. Maric D., Simonovic I., Kovacevic R., **Kostic T.** and Andjus R.K. Opioid-mediated and opioid-independent components of hormonal responses to acute restraint stress in the male rat. *Proc Nat SciFac*, 24: 17-20, 1995.
6. **Kostic T.**, Maric D. Effects of stress on neuroendocrine responses. *Proc Nat Sci Fac*, 24: 5-12, 1995.
7. Maric D., **Kostic T.**, Kovacevic R. Effects of acute and chronic immobilization stress on rat Leydig cell steroidogenesis. *J. Steroid Biochem. Molec. Biol.* 58: 351-355, 1996.
8. **Kostic T.**, Andric S., Kovacevic R., Maric D. The effect of opioid antagonists on testicular response to acute stress in adult rats. *Yugoslav. Physiol. Pharmacol Acta*, 32: 197-203, 1996.
9. **Kostic T.**, Andric S., Kovacevic R., Maric D. The effect of opioid antagonists in local regulation of testicular response to acute stress in adult rats. *Steroids*, 62: 703-708, 1997.
10. **Kostic T.**, Milin J., Maric D. The implication of the rat pineal gland in Leydig cells reactive response to acute immobilization. *Neuroendocrinol. Lett*, 18: 41-46, 1997.
11. Kovacevic R., **Kostic T.**, Andric S. Handbook of general physiology. Published by *University of Novi Sad*, 1997.
12. **Kostic T.**, Andric S., Maric D., Kovacevic R. The effect of acute stress and opioid antagonist on the activity of NADPH-P450 reductase in rat Leydig Cells. *J. Steroid Biochem. Molec. Biol.* 66: 51-54, 1998.
13. Kovacevic R., Andric S., **Kostic T.**, Lazetic B., Pekaric-Nadj N. The effects of chronic exposure of male rats to 50 Hz magnetic field: III steroidogenic capacity of whole testes and Leydig cells in vitro. *Exp. Biol. Med.* 45: 135-138, 1998.
14. Andric S., **Kostic T.**, Sakac M., Medic-MijacevicLj., Gasi K and Kovacevic R. Biological characterization of some novel 5-androstene derivates as potential antiandrogens. *Proc. Nat. Sci Matica Srpska* 94: 43-51, 1998.
15. **Kostic T.**, Andric S., Kovacevic R., Maric D. Is nitric oxide involved in stress impaired testicular steroidogenesis? *Proc. Nat. Sci Matica Srpska* 94: 53-62, 1998.
16. **Kostic T.**, Andric S., Kovacevic R., Maric D. The involvement of nitric oxide in immobilization stress impaired testicular steroidogenesis. *Eur J Pharmacol* 346, 267-273, 1998.
17. Andric S., **Kostic T.**, Lazetic B., Pekaric-Nadj N., Kovacevic R. The effects of chronic exposure of male rats to 50 Hz magnetic field on the steroidogenic capacity of whole testis and Leydig cells in vitro. *Proc Nat SciFac* 27-28: 46-50, 1999.
18. **Kostic T.**, Andric S., Kovacevic R., Maric D. The effect of short term immobilization stress on rat Leydig Cell steroidogenesis. *Proc Nat Sci Fac* 27-28: 58-63, 1999.
19. **Kostic T.**, Andric S., Kovacevic R., Maric D. Stress and paracrine regulation of Leydig cell function. *Basic and clinical aspects of the theory of functional systems*. Eds. B. Lazetic& K.V. Sudakov& P.K. Anokhin: 215-221, 1998.
20. Andric S., **Kostic T.**, Vojinovic-Miloradov M., Dragisic S.M., Stojilkovic S.S., Kovacevic R. Acute effects of PCB- and Mineral Oil based dielectric fluids on antioxidant enzyme activities in adult rat testis. *International Symposium Interdisciplinary Regional Researc, Proceeding part II* : 915-918, 1999.
21. **Kostic T.S.** Andric S.A., Dragisic S.M., Kovacevic R., Maric D. Nitric oxide is involved in down regulation of testicular steroidogenesis in stress conditions. *International Symposium Interdisciplinary Regional Researc, Proceeding part II*: 483-486, 1999.
22. **Kostic T.S.** Andric S.A., Maric D., Stojilkovic S.S., Kovacevic R. Involvement of inducible nitric oxide synthase in stress-impaired testicular steroidogenesis. *Journal of Endocrinology* 163, 409-416, 1999.
23. Andric S.A., **Kostic T.S.**, Stojilkovic S.S., Kovacevic R. Inhibition of rat testicular androgenesis by polychlorinated biphenyl mixture Aroclor 1248. *Biol Reprod* 62: 1882-1888, 2000.
24. Andric S.A., **Kostic T.S.**, Dragisic S.M., Andric N.L., Stojilkovic S.S., Kovacevic R.Z. Acute effects of polychlorinated biphenyl-containing and -free transformer fluids on rat testicular steroidogenesis. *Environ Health Perspect* 108: 955-959, 2000.
25. Grubor-Lajsic G., Andric S.A., Andric N., Dragisic S., Taski K., Stanic B., **Kostic T.**, Kovacevic R. Changes on antioxidant enzymes in aquatic biota – an answer to oil refinery spills. *Central European Journal of Occupational and Environmental Medicine* 6 (2-3): 189-193, 2000.
26. **Kostic T.S.**, Andric S.A., Maric D., Kovacevic R.Z. Inhibitory effects of stress-activated nitric oxide on antioxidant enzymes and testicular steroidogenesis. *J Steroid BiochemMolecBiol* 75 (4-5): 299-306, 2000.
27. Andric S.A., **Kostic T.S.**, Tomic M., Koshimizu T., Stojilkovic S.S. Dependence of soluble guanylyl cyclase on calcium signaling in pituitary cells. *J Biol Chem* 276: 844-849, 2000.
28. **Kostic T.S.**, Andric S.A., Stojilkovic S.S. Spontaneous and receptor controlled soluble guanylyl cyclase activity in anterior pituitary cells. *Mol Endocrinol* 15 (6): 1010-1022, 2001.
29. Andric S.A., **Kostic T.S.**, Dragisic S.M., Stojilkovic S.S. Kovacevic R.Z. 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. 303-307, 2001.

30. Andric N.L., Andric S.A., **Kostic T.S.**, Dragisic M.D., Kovacevic R.Z. Inhibitory effects of L-arginine methyl ester on antioxidant enzymes and stress-impaired steroidogenesis in rat testes. *Review of Reseaech, Faculty of Sciences, Biology Series*, 30: 43-57, 2001.
31. Andric N., Andric S., Zoric S., **Kostic T.**, Kovacevic R. Effects of commercial PCB mixture on rat testicular enzyme activities. *Proceedings of the 6th International Symposium Interdisciplinary Regional Research* (Hungary, Romania, Yugoslavia), University of Novi Sad, YU, CD 0103, 2002.
32. **Kostic T.S.**, Tomic M., Andric S.A., Stojilkovic S.S. Calcium-independent and cAMP-dependent modulation of soluble guanylyl cyclase activity by G protein-coupled receptors in pituitary cells. *J Biol Chem* 276: 16412-16418, 2002.
33. Andric S., Andric N., Zoric S., **Kostic T.**, Kovacevic R. Effects of polychlorinated biphenyl-containing and -free transformer fluids on testicular enzyme activities. *Fresenius Environ. Bull.* 12: 245-249, 2003.
34. Andric N. L., Andric S.A, Zoric S.N., **Kostic T .S.**, Stojilkovic S. S., Kovacevic R. Z. Paralelizam and dissociation in the actions of an Aroclor 1260-based transformer fluid on testicular androgenesis and antioxidant enzymes. *Toxicology* 194: 65-75, 2003.
35. **Kostic T.S.**, Andric S.A., Stojilkovic S.S. Receptor-controlled phosphorylation of alpha-1 soluble guanylyl cyclase enhances nitric oxide-dependent cGMP production in pituitary cells. *Mol Endocrinol* 18 (2): 458-470, 2004.
36. Mirkov S.M., Djordjevic A.N., Andric N.L., Andric S.A., **Kostic T.S.**, Bogdanovic G.S., Vojinovic-Miloradov M.B., Kovacevic R.Z. Nitric oxide-scavenging activity of polyhydroxylated fullerene, C₆₀(OH)₂₄. *Nitric Oxide*, 11: 200-206, 2004.
37. Andric N. L., **Kostic T .S.**, Zoric S.N., Stanic B. D., Andric S.A, Kovacevic R. Z. Effect of a PCB-based transformer oil on testicular steroidogenesis and xenobiotic-metabolizing enzymes. *Reproductive Toxicology* 22: 102-110, 2006.
38. Andric S.A., **Kostic T.S.**, Stojilkovic S.S. Contribution of multidrug resistance protein - MRP5 in control of cGMP intracellular signaling in anterior pituitary cells. *Endocrinology* 147 (7): 3435-3445, 2006.
39. Andric S.A., Janjic M.M., Stojkov N.J., **Kostic T.S.** Protein kinase G – mediated stimulation of basal Leydig cell steroidogenesis. *Am J Physiol Endocrinol Metab* 293 (5): E1399-1408, 2007.
40. Andric N., **Kostic T.**, Kaisarevic S., Fa S., Pogrmic K., Kovacevic R. *In vivo* and *in vitro* effects of PCB126 and PCB153 on rat testicular androgenesis. *Environmental Toxicology and Pharmacology* 25: 222-226, 2008.
41. **Kostic T.S.**, Stojkov N.J., Janjic M.M., Maric D., Andric S.A. The adaptive response of adult rat Leydig cells to repeated immobilization stress: the role of protein kinase A and steroidogenic acute regulatory protein. *Stress* 11 (5): 370-380, 2008.
42. **Kostic T.S.**, Stojkov NJ, Janjic MM & Andric SA 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, 2010.
43. Andric SA, Janjic MM, Stojkov NJ & **Kostic T.S.** Testosterone-induced modulation of Nitric Oxide-cGMP signaling pathway and androgenesis in the rat Leydig cells. *BiolReprod* 83(3): 434-442, 2010.
44. Andric SA, Janjic MM, Stojkov NJ & **Kostic T.S** Sildenafil treatment in vivo stimulates Leydig cell steroidogenesis via cAMP and cGMP signaling pathway. *Am J Physiol Endocrinol Metab* 299 (4): E544-E450, 2010.
45. **Kostic TS**, Stojkov NJ, Bjelic MM, Mihajlovic AI, Janjic MM, Andric SA. 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, 2011.
46. Kojic Z, Scepanovic LJ, **Kostic T** Immobilization stress reduces oxygen consumption of the isolated interstitial rats' testes cells. *Acta Physiol Hung* 98 (1): 45-50, 2011.
47. Stojkov. NJ, Janjic MM, Bjelic MM, Mihajlovic AI, **Kostic TS**, Andric SA 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, 2012.
48. Janjic MM, Stojkov NJ, Bjelic MM, Mihajlovic AI, Andric SA, **Kostic TS** Transient rise of serum testosterone level after single sildenafil treatment of adult male rats. *J Sex Med* 10 (9): 2534-2543, 2012.
49. Janjic MM, Stojkov NJ, Andric SA, **Kostic TS** 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, 2012.
50. Andric SA, Janjic MM, Stojkov NJ, **Kostic TS** NO-cGMP signaling increases the mitochondrial membrane potential and affects androgenesis in Leydig cells. *Biol Serb* 34 (1): 12-16, 2012.
51. Andric SA, Kojic Z, Bjelic MM, Mihajlovic AI, Baburski AZ, Sokanovic SJ, Janjic MM, Stojkov NJ, Stojilkovic SS, **Kostic TS** 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, 2013.
52. Stojkov NJ, Janjic MM, **Kostic TS**, Andric SA 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, 2013.
53. Stojkov NJ, Janjic MM, Baburski AZ, Bjelic MM, Mihajlovic AI, Drljaca DM, Sokanovic SJ, **Kostic TS** & Andric SA 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-E204, 2013.
54. Sokanovic SJ, Baburski AZ, Janjic MM, Stojkov NJ, Bjelic MM, Lalosevic D, Andric SA, Stojilkovic SS & **Kostic TS** The opposing roles of nitric oxide and cGMP in the age-associated decline in rat testicular steroidogenesis. *Endocrinology* 154 (10): 3914-3924, 2013.
55. Stojkov NJ, Baburski AZ, Bjelic MM, Sokanovic SJ, Mihajlovic AI, Drljaca DM, Janjic MM, **Kostic TS** & Andric SA *In vivo* blockade of alpha1-adrenergic receptors mitigates stress-disturbed cAMP & cGMP signaling in Leydig cells. *Mole Hum Reprod* 20 (1):77-88, 2013.

56. Bjelic MM, Stojkov NJ, Baburski AZ, Sokanovic SJ, Mihajlovic AI, Janjic MM, **Kostic TS**, Andric SA Molecular adaptations of testosterone-producing Leydig cells during systemic in vivo blockade of the androgen receptor. *Mol Cell Endocrinol* 396(1-2):10-25, 2014.
57. Sokanovic SJ, Janjic MM, Stojkov NJ, Baburski AZ, Bjelic MM, Andric SA, **Kostic TS** Age related changes of cAMP and MAPK signaling in Leydig cells of Wistar rats. *Exp Gerontol* 58:19-29, 2014.
58. Bjelic MM, Stojkov NJ, Radovic SM, Baburski AZ, Janjic MM, **Kostic TS**, Andric SA 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, 2015.
59. Stojkov-Mimic NJ, Bjelic MM, Radovic SM, Mihajlovic AI, Sokanovic SJ, Baburski AZ, Janjic MM, **Kostic TS**, Andric SA 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, 2015.
60. Baburski AZ, Sokanovic SJ, Janjic MM, Stojkov NJ, Bjelic MM, Andric SA, **Kostic TS** Melatonin replacement restores the circadian behavior in adult rat Leydig cells after pinealectomy. *Mol Cell Endo* 413:26-35, 2015.
61. Gak IA, Radovic SM, Dukic AR, Janjic MM, Stojkov-Mimic NJ, **Kostic TS**, Andric SA Stress stimulates mitochondrial biogenesis to preserve steroidogenesis in Leydig cells of adult rats. *BBA Mol Cell Res* 1853:2217-2227, 2015.
62. Baburski AZ, Sokanovic SJ, Radovic SM, Bjelic MM, Andric SA, **Kostic TS** Circadian rhythm of the Leydig cells endocrine function is attenuated during aging. *Exp Gerontol* 73:5-13, 2016.
63. Baburski AZ, Sokanovic SJ, Andric SA, **Kostic TS** Aging has the opposite effect on cAMP and cGMP circadian variations in rat Leydig cells. *J Comp Physiol B* 187(4):613-623, 2017.
64. Kaisarevic SN, Andric SA, **Kostic TS** Teaching Animal Physiology: a 12-year experience transitioning from a classical to interactive approach with continual assessment and computer alternatives. *Adv Physiol Educ* 41(3):405-414, 2017.
65. Baburski AZ, Medar MLJ, Andric SA, **Kostic TS** Circadian rhythm patterns of NO-cGMP signaling are moderately synchronized by melatonin in testosterone-producing Leydig cells. *Biol Serb* 39(1):17-24, 2017.
66. Starovlah IM, Radovic SM, Marinovic MA, **Kostic TS**, Andric SA Circadian rhythm patterns of NO-cGMP signaling are moderately synchronized by melatonin in testosterone-producing Leydig cells. *Biol Serb* 39 (2): 43-51, 2017.
67. Sokanovic SJ, Capo I, Medar MM, Andric SA, **Kostic TS** Long-term inhibition of PDE5 ameliorates aging-induced changes in rat testis. *Exp Gerontol* 108:139-148, 2018.
68. Radovic SM, Starovlah IM, Capo I, Miljkovic D, Nef S, **Kostic TS**, Andric SA Insulin/IGF1 signalling regulates the mitochondrial biogenesis markers in steroidogenic cells of prepubertal testis, but not ovary. *Biol Reprod* 100(1):253-267, 2019
69. Baburski AZ, Andric SA, **Kostic TS** Luteinizing hormone signaling is involved in synchronization of Leydig cell clock and is crucial for rhythm robustness of testosterone production. *Biol Reprod* May 1;100(5):1406-1415, 2019. doi: 10.1093/biolre/ioz020.
70. Andric SA, **Kostic TS** Regulation of Leydig cell steroidogenesis: intriguing network of signaling pathways and mitochondrial signalosome. *Current Opinion in Endocrine and Metabolic Research* 6:7-20, 2019. Review.
71. Sokanovic SJ, Baburski AZ, Kojic Z, Medar MLJ, Andric SA, **Kostic TS**. Aging-related increase of cGMP disrupts mitochondrial homeostasis in Leydig cells. *J Gerontol A Biol Sci Med Sci*. Jan 18;76(2):177-186, 2021 doi: 10.1093/gerona/glaa132
72. Radovic Pletikosic SM, Starovlah IM, Miljkovic D, Bajic DM, Capo I, Nef S, **Kostic TS**, Andric SA. Deficiency in insulin-like growth factors signaling in mouse Leydig cells increase conversion of testosterone to estradiol due to feminization. *Acta Physiol (Oxf)* 2021 Mar;231(3):e13563. doi: 10.1111/apha.13563.
73. Starovlah IM, Radovic SM, **Kostic TS**, Andric SA. Reduced spermatozoa functionality during stress is the consequence of adrenergic-mediated disturbance of mitochondrial dynamics markers. *Sci Rep* 2020 Oct 8;10(1):16813 doi: 10.1038/s41598-020-73630-y.
74. Medar MLJ, Marinkovic DZ, Kojic Z, Becin AP, Starovlah IM, Kravic-Stevovic T, Andric SA, **Kostic TS**. Dependence of Leydig Cell's Mitochondrial Physiology on Luteinizing Hormone Signaling. *Life (Basel)*. 2020 Dec 31;11(1):19, 2021. doi: 10.3390/life11010019.
75. Marinkovic DZ, Medar MLJ, Becin AP, Andric SA, **Kostic TS**. Growing Up Under Constant Light: A Challenge to the Endocrine Function of the Leydig Cells. *Front Endocrinol (Lausanne)*. 2021 Mar 16;12:653602. doi: 10.3389/fendo.2021.653602. eCollection 2021.
76. Starovlah IM, Radovic Pletikosic SM, **Kostic TS**, Andric SA. Mitochondrial Dynamics Markers and Related Signaling Molecules Are Important Regulators of Spermatozoa Number and Functionality. *Int J Mol Sci*. 2021 May 27;22(11):5693. doi: 10.3390/ijms22115693.
77. Anbazhagan R, Kavarthapu R, Mathur PP, **Kostic TS**, Prakash H. Editorial: Systemic Regulation of Organ Homeostasis and Implications of Hormones and Immunity. *Front Endocrinol (Lausanne)*. 2021 Sep 14;12:740835. doi: 10.3389/fendo.2021.740835. eCollection 2021.
78. Medar ML, Andric SA, **Kostic TS**. Stress-induced glucocorticoids alter the Leydig cells' timing and steroidogenesis-related systems. *Mol Cell Endocrinol*. 2021 Oct 1;538:111469. doi: 10.1016/j.mce.2021.111469. Online ahead of print.

Books/Scripts:

1. Kovacevic R, **Kostic T** & Andric S (1997): Handbook of General Animal Physiology. *Ed. University of Novi Sad, Faculty of Sciences.*
2. Kovacevic R, **Kostic T**, Andric S & Zoric S (2005): Script of General Animal Physiology. *Ed. WUS Austria.*
3. Matavulj M, **Kostic T** & Andric S (2005): Script of Endocrinology. *Ed. World University Service (WUS) Austria.*
4. Andric S, **Kostic T**, Andric N & Zoric S (2005): Script of Comparative Animal Physiology. *Ed. WUS Austria*
5. **Kostic T** & Andric S (2007): Script of Molecular and Cellular Immunology. *Ed. WUS Austria.*
6. Andric S & **Kostic T** (2007): Script of Mechanisms of Cell Communication. *Ed. WUS Austria.*