

**EUROPEAN
CURRICULUM VITAE
FORMAT**



PERSONAL INFORMATION

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Nationality(-ies)	Croatian
Date of birth	February 22, 1983
Identification number from Records of Scientific Workers	314431

WORK EXPERIENCE

• Dates (from – to)	2009 -
Name and address of employer	University of Split Medical School
Type of business or sector	Academic institution
Occupation or position held	2013 - - Assistant professor, Department of Histology and Embryology 2013 - - Head of the Laboratory for Microscopy 2009 - 2013 Research fellow, Department of Histology and Embryology
Main activities and responsibilities	Research and teaching

EDUCATION

Date	2013
Place of education	Split
Name and type of organization providing education	University of Split School of Medicine, doctoral program TRIBE (Translational Research in Biomedicine)
Title or qualification awarded	PhD (Neuroscience)
Date	2008
Place of education	Zagreb
Name and type of organization providing education	Faculty of Food Technology and Biotechnology, University of Zagreb
Title or qualification awarded	MSc (Biotechnology)

TRAINING

Date	2013
Place of education	University of Siena, Siena, Italy
Name and type of organization providing education	European Pain School
Date	2011 – 2012
Place of education	Medical College of Wisconsin, Wisconsin, USA
Name and type of organization providing education	Research scholar Department of Anesthesiology, MCW, WI, USA

Date	1.3. 2011 – 1.5. 2011
Place of education	Medical College of Wisconsin, Wisconsin, USA
Name and type of organization providing education	Unity Through Knowledge Fund, Department of Anesthesiology, MCW, WI, USA

Date	2010
Place of education	Split
Name and type of organization providing education	EMBO (European Molecular Biology Organization) - Anatomy and Embryology of the Mouse

Date	2010
Place of education	Split
Name and type of organization providing education	University of Split, School of Medicine – University Educational Course of Educators (Scientific Approach to Medical Education)

Date	2009
Place of education	Trilj
Name and type of organization providing education	Scientific Summer School in Trilj – Research Design and Workshop Teaching Method organized under the patronage of the Journal of Electrocardiology, Anatolian Journal of Cardiology and Croatian Medical Journal in collaboration with the University of Split, School of Medicine

Date	2009
Place of education	Split
Name and type of organization providing education	University of Split, School of Medicine - First Croatian Cochrane Symposium (Continuous medical education course – second level)

TEACHING ACTIVITIES

<p><u>Undergraduate education</u></p> <ul style="list-style-type: none"> - Histology and Embryology: <ul style="list-style-type: none"> • Medicine • Dental Medicine • Pharmacy • Medical Studies in English • Health Sciences - Elective course - How to construct your own organ? <ul style="list-style-type: none"> - The puzzle of pain - Empathy and Pain - The Cochrane Library and Pain - How safe and effective are treatments used in medicine? - “Test tube” baby - Hello kidney - The secret of human development - Muscle games <p><u>Graduate education</u></p> <ul style="list-style-type: none"> • Courses: - How to construct your own organ? <ul style="list-style-type: none"> - The puzzle of pain - Experimental animals and animal models - Adventures of pain in the brain - Development of human spinal ganglia - Seeing invisible - the world under microscope

RESEARCH THEME

- Effect of nerve injury on behavioral and morphological properties of the dorsal root ganglion neurons (2009 - -)

RESEARCH EXPERIENCE

Extensive experience in immunofluorescence histology techniques. Routine usage of neuropathic pain models (spinal nerve ligation) and related behavioral testing procedures. Basic knowledge of electrophysiological techniques (patch clamp methodology) and other major research methodologies used in morphology and molecular biology laboratories.

RESEARCH GRANTS

- 2015 - - Participation in grant STRIPmed "Jačanje kapaciteta Sveučilišta u Splitu za istraživanje, razvoj i inovacije u području medicinske neuroelektronike";
- 2014 - - Participation in NZZ grant "Treating neuropathic pain with dorsal root ganglion stimulation – NeuroMod"
- 2011-2012 Participation in National Institutes of Health Grant NS-42150, Q. Hogan
- UKF 2A travel grant (amount awarded 60.000 kn)
- Participation in MZOS grant "Functional analysis of injured primary afferent neurons"
- Participation in MZOS program project grant "Nerve injury and neuropathic pain"
- Participation in NZZ grant „Molecular Memory in Diabetic Neuropathy“

OTHER ACTIVITIES IN PROFESSIONAL ASSOCIATIONS

- Executive editor – Electronic publishing – Croatian Medical Journal (2010 - -)
- Instructor at EMBO Practical Course (2010, 2012)
- Participation in the organization of Festival of Science in Split, Croatia (2010, 2011)
- Participation in the organization of the "Night of the Researchers" in Split, Croatia (2013, 2014)
- Organization of the workshop "Introduction to human body" - Festival of Science in Split, Croatia, 2014

PUBLICATIONS

1. **Kostic S**, Pan B, Guo Y, Yu H, Sapunar D, Kwok WM, Hudmon A, Wu HE, Hogan QH. Regulation of voltage-gated Ca²⁺ currents by Ca²⁺/calmodulin-dependent protein kinase II in resting sensory neurons. *Mol Cell Neurosci*. 2014 Jul 24. pii: S1044-7431(14)00077-3. doi: 10.1016/j.mcn.2014.07.004. [Epub ahead of print]
2. Jelacic Kadic A, Boric M, **Kostic S**, Sapunar D, Puljak L. The effects of intraganglionic injection of calcium/calmodulin-dependent protein kinase II inhibitors on pain-related behavior in diabetic neuropathy. *Neuroscience*. 2014; 3;256:302-8.
3. **Kostic S**, Puljak L, Sapunar D. Attenuation of pain-related behaviour evoked by carrageenan injection through blockade of neuropeptide Y Y1 and Y2 receptors. *Europ J Pain*. 2013;**17**:493–504.
4. Ferhatović L, Banožić A, **Kostić S**, Tičinović TK, Novak A, Vrdoljak L, Heffer M, Sapunar D, Puljak L. Expression of calcium/calmodulin-dependent protein kinase II and pain-related behavior in rat models of type 1 and type 2 diabetes. *Anesth Analg*. 2013;116(3):712-21.
5. Ferhatovic L, Banozic A, **Kostic S**, Sapunar D, Puljak L. Sex differences in pain-related behavior and expression of calcium/calmodulin-dependent protein kinase II in dorsal root ganglia of rats with diabetes type 1 and type 2. *Acta Histochem*. 2013; 115(5):496-504.
6. Tang Q, Bangaru ML, **Kostic S**, Pan B, Wu HE, Koopmeiners AS, Yu H, Fischer GJ, McCallum JB, Kwok WM, Hudmon A, Hogan QH. Ca²⁺-Dependent Regulation of Ca²⁺ Currents in Rat Primary Afferent Neurons: Role of CaMKII and the Effect of Injury. *J Neurosci*. 2012;32(34):11737-49.
7. Basic Z, **Kostic S**, Kosta V, Carija R, Puljak L, Sapunar D. Posthemilaminectomy stabilization of the spine in a rat model of neuropathic pain reduces pain-related behavior. *Spine (Phila Pa 1976)*. 2012;37(22):1874-82.
8. Sapunar D, **Kostic S**, Banozic A, Puljak L. Dorsal root ganglion – a potential new therapeutic target for neuropathic pain. *J of Pain Research. J Pain Res*. 2012;5:31-8.
9. Sapunar D, Vukojevic K, **Kostic S**, Puljak L. Attenuation of injury-evoked pain-related behavior by blockade of neuropeptide Y Y2 receptor. *Pain* 2011;152; 1173-1181.
10. Fisher GJ, **Kostic S**, Nakai H, Park F, Sapunar D, Yu H, Hogan Q. Direct injection into the dorsal root ganglion: Technical, Behavioral and Histological observations. *Journal of Neuroscience Methods* 2011; 199(1):43-55.
11. Sapunar D, **Kostić S**, Banožić A, Ferhatović L, Puljak L. Pain research in Croatia: Analysis of bibliometric trends. *Periodicum Biologorum* 2011; 113(2):137-140
12. Klinar I, Ferhatovic L, Banozic A, Raguz M, **Kostic S**, Sapunar D, Puljak L. Physicians' attitudes about interprofessional treatment of chronic pain: family physicians are considered the most important collaborators. *Scand J Caring Sci*. 2012 Jul 15. doi: 10.1111/j.1471-6712.2012.01039.x. [Epub ahead of print]
13. Durgo K, **Kostić S**, Gradiški K, Komes D, Osmak M, Franekić J. Genotoxic Effects of Green Tea Extract on Human Laryngeal Carcinoma Cells In Vitro. *Arh Hig Rada Toksikol*. 2011; 62(2):139-146.
14. Novak K, Aljinović J, **Kostić S**, Čapkun V, Novak Ribičić K, Batinić T, Štula I, Puljak L. Pain to hospital times after myocardial infarction in patients from mainland and islands of Dalmatia, Southern Croatia. *Croat Med J* 2010; 51; 423-31.

BOOKS

1. Saraga-Babić M, Puljak L, Mardešić S, **Kostić S**, Sapunar D. Human Embryology and

- histology. Health Sciences, University of Split, Redak, 2014.
2. Sapunar, D, Puljak, L, **Kostić S**, Banozic, A. Are mice small rats? Rodent models of neuropathic pain, in Anatomy and Embryology of the Mouse, A. Marusic, Editor. 2010, University of Split School of Medicine: Split.

CONGRESS ABSTRACTS

1. **Kostić S**. Plenary lecture „Treating neuropathic pain with dorsal root ganglion stimulation“ - 5th Croatian Neuroscience Congress, Split, 17.-19. 09. 2015.
2. **Kostić S**, Puljak L, Sapunar D. Acute blood flow alterations within sciatic nerve following its transection. Presentation number: PT231. 14th World Congress on Pain. Milan, Italy, August 27-31, 2012.
3. Jelacic Kadic A, Boric M, **Kostić S**, Sapunar D, Puljak L. Intrathecal and intraganglionic injection of calcium/calmodulin-dependent protein kinase II inhibitors as potential treatment of neuropathic pain-related behavior. Workshop Application of biomaterials and in vivo imaging in stem cell research. Zagreb, Croatia. March 27-29, 2014.
4. Ferhatovic L, Banozic A, **Kostić S**, Ticinovic TK, Novak A, Vrdoljak L, Sapunar D, Puljak L. Sensory changes and increase of Calcium/Calmodulin-Dependent Protein Kinase II expression in animal models of diabetes type I and type II. Presentation number: PF246. 14th World Congress on Pain. Milan, Italy, August 27-31, 2012.
5. Ferhatovic L, Banozic A, **Kostić S**, Sapunar D, Puljak L. Role of Calcium/Calmodulin-Dependent Protein Kinase II in the diabetic neuropathy. Young Neuroscientists Meeting (YNM). June, 2011. Trieste, Italy.
6. Ferhatovic L, **Kostić S**, Banozic A, Vrdoljak L, Sapunar D, Puljak L. A role of calcium/calmodulin-dependent protein kinase II in diabetic neuropathy. Invited oral presentation. Bridges in Life Sciences 7th Annual Conference: Science and Art for the Advancement in Medicine. March 30 – April 1, 2012. Budapest, Hungary.
7. Bangaru MLY, **Kostić S**, Tang Q, Wu HE, Ashpole N, Mueller S, Hudetz AG, Kwok WM, Hudmon A, Hogan QH. Ca²⁺-dependent facilitation of Ca²⁺ current in sensory neurons: Loss of excitability regulation after nerve injury. Neuroscience Meeting, Washington DC, November 12-16, 2011.
8. Ferhatovic L, **Kostić S**, Banozic A, Sapunar D, Puljak L. A role of calcium/calmodulin-dependent protein kinase II in diabetic neuropathy. 7th Congress of the European Federation of IASP Chapters. Hamburg 21-24 September, 2011.
9. Novak K, **Kostić S**, Čapkun V, Novak Ribičić K, Batinić T, Štula I, Puljak L. Pain to hospital times after myocardial infarction in patients from mainland and islands of Dalmatia, Southern Croatia. 8th Congress of the Croatian Cardiac Society with international participation, Opatija, October, 21st-24th, 2010.
10. **Kostić, S**; Puljak, L. Sapunar, D. Targeted delivery of NPY into dorsal root ganglion reduces pain-related behavior following intraplantar carrageenan injection. 2.hrvatski kongres iz liječenja boli, Osijek, 7.-9. Listopad 2010.
11. Sapunar, D; Vukojevic, K; **Kostić,,S**; Puljak, L. Attenuation of injury evoked pain-related behavior by blockade of neuropeptide Y Y2 receptor. 2.hrvatski kongres iz liječenja boli, Osijek, 7.-9. Listopad 2010.
12. **Kostić, S**; Puljak, L. Sapunar, D. Targeted delivery of NPY into dorsal root ganglion reduces pain-related behavior following intraplantar carrageenan injection. Presentation number: PW255. 13th World Congress on Pain. Montreal, Canada, August 29-September 2, 2010.
13. Sapunar, D; Vukojevic, K; **Kostić,,S**; Puljak, L. Attenuation of injury evoked pain-related behavior by blockade of neuropeptide Y Y2 receptor. Presentation number: PH180. 13th World Congress on Pain. Montreal, Canada, August 29-September 2, 2010.
14. Durgo, K; **Kostić, S**; Kopjar, N; Osmak, M; Franekić Čolić, J. Investigation of genotoxic properties of green tea extract // Toxicology Letters, Volume 180, Supplement 1, Abstracts of the 45th Congress of the European Societies of Toxicology.

AWARDS

- 3rd place at Symposium of Young Scientists, January 26th 2011
- The Award for Excellence in Teaching (Histology and embryology teaching, academic year 2012/2013), 2014

MEMBERSHIP AND ACTIVITIES IN PROFESSIONAL ASSOCIATIONS

- Member of International Association for the Study of Pain (IASP) (2010 -)
- Member of Croatian Society for Pain Management (Hrvatsko društvo za liječenje boli, HDLB)
- Member of Croatian Microscopy Society

- Member of Croatian Society for Anatomy, Histology and Embryology
- Member of Croatian Medical Association (Hrvatski liječnički zbor, HLZ)