**Curiculum Vitae**

**Bálint Péter Kerekes**

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**Education**

Pázmány P. C. U. – Faculty of Information Techology and Bionics

Budapest, *Roska Tamás Doctoral School of Sciences and Technology* 2010-2015

Pázmány P. C. U. – Faculty of Information Techology and Bionics

Budapest, Bionic specialists in Information Technology-professional education2010-2012

Pázmány P. C. U. – Faculty of Information Techology and Bionics

Budapest, *Information Technology* M.Sc. 2005-2010

Teleki Blanka High School, Budapest 1999-2003

**Research experience**

In my M.Sc. studies I worked in the Laboratory of Endocrine Neurobiology in the Institute of Experimental Medicine of the Hungarian Academy of Sciences2008-2010. I studied the “GnRH secretion connected multiunit activity from the preoptic/ hypothalamic region” (supervisor Imre Kalló, DSc).

In my M.Sc. thesis work (2010) I studied “The Current Source Density analysis of the Sensory Cortex” in the group of Comparative Psychophysiology of the Research Centre for Natural Science of the Hungarian Academy of Sciences (supervisor István Ulbert, PhD, DSc).

In the beginning of my PhD studies I worked as a junior research fellow of the Hungarian Academy of Sciences (2010-2013), in the field of creating a simultaneous fMRI-EEG system, but the doctoral thesis of my work (as a research assisstant (KTIA\_NAP\_13)) in the end is about “Combined two-photon imaging, electrophysiological, and anatomical investigation of the human neocortex in vitro”.

**Research skills/techniques**

* Animalexperiments, and preparation skills (Semmelweis Unuversity - Experimental animals - animal studies course (No.23./2010))
* Acute, and chronically implanted electrode techniques
* Human in vitro slice preparation techique
* Human in vitro experiment texnique
* Rodent and Human histologycal techniques
* Transmission electronmicroskopy technique
* 2-photon microscopy
  + Ca2+ imaging
  + Uncaging
* Brain signal processing and analysis techniques
* fMRI and analysis
* Mid-level programming skill in: C++, Java, Matlab, LabWiev

**Conferences**

2013, Society for Neuroscience, 43nd Annual Meeting, 2013. San Diego, USA

Hungarian Neuroscience Fellowship Conference, 2011, 2013, 2015

Ibro Workshop 2012, 2014

2014th Congress of the Hungarian Neurosurgery Fellowship, 2014. Budapest Hungary

8th FENS Forum of European Neuroscience, 2012. Barcelona, Spain

9th FENS Forum of European Neuroscience, 2014. Milan, Italy

Neuronus 2014 IBRO & IRUN Neuroscience Forum, 2014. Krakow, Poland

Kálmán Erika Doctoral Conference, Budapest, Hungary

31st International Epilepsy Congress, 2015, Istanbul, Turkey

From Medicine to Bionics 2nd European Ph.D. Conference 2014

# Selected Publications

**Bálint Péter Kerekes**, Kinga Tóth, Attila Kaszás, Balázs Chiovini, Zoltán Szadai, Gergely Szalay, Dénes Pálfi, Attila Bagó, Klaudia Spitzer, Balázs Rózsa, István Ulbert, Lucia Wittner; *Combined two-photon imaging, electrophysiological, and anatomical investigation of the human neocortex in vitro*. Neurophotonics 1:(1) pp. 111. (2014)

Balázs Dombovári, Richárd Fiáth, **Bálint Péter Kerekes**, Emília Tóth, Lúcia Wittner, Domonkos Horváth, Karsten Seidl, Stanislav Herwik, Tom Torfs, Oliver Paul, Patrick Ruther, Herc Neves and István Ulbert\*; *In vivo validation of the electronic depth control probes*. Biomed Tech, 2013, DOI 10.1515/bmt-2012-0102

Grand L, Pongrácz A, Vázsonyi E, Márton G, Gubán D, Fiáth R, **Kerekes B P**, Karmos G, Ulbert I, Battistig G, A novel multisite silicon probe for high quality laminar neural recordings. Sensors and actuators A: Physical 166:(1) pp. 1421. (2011)

Torfs T, Aarts A A A, Erismis M A, Aslam J, Yazicioglu R F, Seidl K, Herwik S, Ulbert I, Dombovari B, Fiáth R, **Kerekes B P**, Puers R, Paul O, Ruther P, Van Hoof C, Neves H P; *Two-dimensional multichannel neural probes with electronic depth control* IEEE Transactions on biomedical circuits and systems 5:(5) pp. 403412. (2011)

**Languages**

English (intermediate), German (basic)

**Other Activities**

* + TÁMOP teaching material development
    - György Karmos, Balázs Dombovári, István Ulbert, Bálint Péter Kerekes, Richárd Csercsa, Richárd Fiáth, Ákos Kusnyerik, Domonkos Horváth

Neural Interfaces and Prostheses In: Bércesné Novák Ágnes (szerk.)*Complex Development of Teaching Materials for Molekular Bionics BSc and Infobionics MSc = Molekuláris bionika és infobionika szakok tananyagának komplex fejlesztése konzorciumi keretben.* Budapest: Pázmány Egyetem, ePress, 2011. pp. 35-36. (ISBN:978-963-308-048-1)

* + - György Karmos , Richárd Csercsa, Balázs Dombovári, Richárd Fiáth, Domonkos Horváth, Bálint Péter Kerekes, Ákos Kusnyerik, Ulbert István *Neural Interfaces and Prostheses* Budapest: Pázmány Péter Katolikus Egyetem; Semmelweis Egyetem; Dialóg Campus Kiadó-Nordex Kft, 2011. 605 p. (ISBN:978-963-308-042-9)
  + PPCU Faculty of Information Technology and Bionics , Animátor közösség, president (2008-2011), member of the board (2008-2012), member (2008- )
  + Semmelweis University, Instruktor Öntevékeny Csoport, member (2010- )
  + Morning Star Ranch Ministry, Board of Trustees member (2010- )