



## **Curriculum Vitae - Veronika KRALJ-IGLIČ**

Researcher unique identifiers ORCID 0000-0002-7496-2005

### **EDUCATION**

1993: PhD in Physics, Faculty of Physics/University of Ljubljana/Slovenia

1989: Master in Biophysics, Faculty of Physics/University of Ljubljana/Slovenia

### **CURRENT POSITION**

-2012 - Full Professor and Head of the Laboratory of the Clinical Biophysics, Faculty of Health Sciences, University of Ljubljana, Slovenia

-2010 - present: Coordinator of the interdisciplinary doctoral study Bioengineering in Health Sciences at the University of Ljubljana (UL), Doctoral School "Biosciences" of the University of Ljubljana

### **FELLOWSHIPS AND AWARDS**

2018, 2020 and 2024: 10 most significant scientific achievements of University of Ljubljana

2022-2019: Visiting Scientist at National Research Council, Naples, Italy (9 months)

2021: National (Zois) Award of Republic of Slovenia for significant achievements in science

2020: Faculty award for scientific achievements/Faculty of Health Sciences/University of Ljubljana/Slovenia

2018, 2020: Nomination for l'Oreal/UNESCO award for women in science in the field of mathematics, physics and computer science by the Rector of the University of Ljubljana

2017: Faculty award for scientific achievements/Faculty of Health Sciences/University of Ljubljana/Slovenia

### **PI OF PROJECTS (selected)**

#### ***Slovenian Research Agency (ARIS):***

-J3-3066: Optimization of autologous blood plasma rich with platelets and extracellular vesicles for treatment of postoperative wounds in otorhinolaryngology (ongoing)

-J5-7098: Assessment of blood parameters and extracellular vesicles for optimization of sport results (end 2018)

-J3-4108: Microvesicles as risk factors for secondary thromboembolic events (end 2014)

-J3-2120: Clinical significance of mediated interactions between membrane structures (end 2012)

-J3-9219: Mediated interactions between membranous structures (end 2009)

#### ***EU grants:***

-IMIPEB - EUREKA EUREKA-project/ID/6260: Isolation of Microvesicles from peripheral blood (end 2014)

- H2020 Ves4US-216332: Microalgae-derived extracellular vesicles from a natural source for tailor-made nanomaterials, PI of the Slovenian part of the EU grant (end 2022)

- HORIZON-FarmEVs-101131175: Plant EV farming- FarmEVs, PI of the Slovenian part of the EU grant (end 2028)

### **SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS**

1997 - Teaching and supervision of graduate and PhD students at the Faculty of Medicine, Faculty of Electrical Engineering, Faculty of Health Sciences, University of Ljubljana; Comenius University in Bratislava/Slovakia, Technical University in Prague/Czech Republic, Medical Faculty in Rijeka, Croatia. *Supervisor of 19 PhD students, Co-supervisor of 14 PhD students, Supervisor of 5 Master students, co-supervisor of 5 master students. Supervisor and mentor of PhD student Eva Ogorevc who was awarded l'Oreal/UNESCO award for women in science for her PhD.*

### **TEACHING ACTIVITIES**

2008 – 2011: Biophysics for students of Veterinary Medicine – University of Ljubljana/ Slovenia <http://www.lkbf.si/biophysics-and-biomechanics>

2008 – 2011: Biomechanics of hip for Students of Medicine – University of Ljubljana/Slovenia

2011 – present: Physics of matter for students of Electrical Engineering – University of Ljubljana <http://www.lkbf.si/physics-of-matter>

2012 – 2024: Biomechanics of joints for Students of Medicine – University of Ljubljana/Slovenia <http://www.lkbf.si/biomechanics-of-joints>

2012 – present: Biophysics for Students of Health Sciences – University of Ljubljana

2016 – present: Biophysics of membranes for postgraduate students – Doctoral School of the University of Ljubljana

### **Family Background**

Veronika Kralj Iglič was born in Ljubljana to mother Veronika Zupanič Kralj and father Niko Kralj. She represents the third consecutive generation of professors in her family at the University of Ljubljana (UL). She is from an artistic family. Her father, Niko Kralj, was an architect and designer and professor at the Faculty of Architecture UL, while her mother, Veronika Zupanič Kralj, was a piano teacher and her uncle Davorin Zupanič was a conductor.

### **Youth and Education**

Veronika Kralj Iglič attended primary school in Ljubljana and Tel Aviv (Israel). At the same time, she completed the lower level in music school at the Ljubljana Institute for Music and Ballet Education, majoring in piano. She also completed the lower level in classical ballet and concert flute. Then she attended Conservatory (secondary music school), majoring in piano. In her youth, she competed in figure skating. Four years she was a member of the Yugoslav national team and two times the Slovenian senior national champion. She completed her high school education (Gymnasium) in Ljubljana through private examinations in two years, and subsequently enrolled in physics studies at the UL, where she obtained her BSc, MSc, and PhD degrees. During her undergraduate studies, she and her future husband, Aleš Iglič, received the Student Prešeren Award for research work at the Faculty of Medicine UL.

## Research and Academic Work

Following her doctorate, she remained employed at the UL, initially at the Institute of Biophysics at the Faculty of Medicine. She currently heads the Laboratory of Clinical Biophysics at the UL Faculty of Health Sciences. She was elected to the rank of Full Professor of Biophysics at the UL. She lectures on various subjects in the fields of biophysics, biomechanics, and physics at the Faculty of Health Sciences, the Faculty of Medicine, and the Faculty of Electrical Engineering, all within the UL. She serves as the coordinator for the "Bioengineering in Health" doctoral studies within the interdisciplinary Biosciences doctoral programme at the UL. To date, she has supervised or co-supervised around 33 doctoral dissertations both in Slovenia and abroad. Among other roles, she has been a visiting researcher at the CNR in Naples (Italy) several times, and has led an EU (Eureka) project as well as several Slovenian Research Agency (ARIS) projects.

Together with A. Iglič, Veronika Kralj Iglič developed a statistical mechanical description of biological systems. This model incorporates the electric double layer and the orientational ordering of system components, providing an explanation for the stability of various membrane nanostructures. Through theoretical, experimental, and clinical studies, they highlighted the importance of the intercellular communication system involving membrane nanotubes and extracellular vesicles, which have recently attracted significant interest as vectors for inflammation, infection, and metastasis. They have developed methods for the clinical application of organic and inorganic nanostructures. They investigated the interactions of membrane structures with inorganic nanostructured surfaces, such as titanium dioxide nanotubes and nanopores. In the field of extracellular vesicles, Veronika Kralj-Iglič is active in the International Society for Extracellular Vesicles (ISEV), where she also serves on the editorial board of the ISEV journal, *Journal of Extracellular Biology*.

Together with her colleagues, she has published her achievements in numerous highly acclaimed international scientific articles and monographs, making a significant contribution to the development of young researchers in the field of biosciences. In 2021, she and her husband received the National Award of Republic of Slovenia for significant achievements in nanoscience of inorganic and organic nanostructures. She has around 13.700 WoS/Scopus (June 2026) pure citations.