

Curriculum Vitae

Personal

Name: **Dr. Erika Koltai**
Date of birth: July 12, 1983.
Place of birth: Sopron, Hungary
E-mail address: koltai.erika@tf.hu

Education

2011 PhD degree
Semmelweis University, Budapest
The effect of IGF-1 and regular exercise on molecular mechanisms of aging: role of sirtuins

2006-2009 Semmelweis University, School of Doctoral Studies
PhD student in the Institute of Sport Sciences

2002-2006 Semmelweis University, Budapest
Faculty of Physical Education and Sport Sciences,
MSc in Human kinesiology

1998-2002 István Széchenyi Grammar School, Sopron

Jobs

2014- Senior research fellow
University of Physical Education, Research Center for Molecular Exercise Science

2011-2013 Research fellow
Semmelweis University, Faculty of Physical Education and Sport Sciences, Institute of Sport Sciences

2011-2013 Scientific Secretary
Semmelweis University, Faculty of Physical Education and Sport Sciences, Scientific Secretariat

2009-2011 Research assistant
Semmelweis University, Faculty of Physical Education and Sport Sciences, Institute of Sport Sciences

Language skill

Intermediate examination in German
Conversational knowledge in English
Hungarian, mother language

Research area

Exercise, aging, sirtuins, IGF-1, oxidative stress, muscle hypertrophy, nitrogen oxide, free radicals, satellite cells, mitochondria, microbiome

Research supervision

PhD supervisor program
Investigation of the molecular context of exercise and aging in the skeletal muscle and brain
University of Physical education, Doctoral School of Sport Sciences
Number of PhD students: 2

Completed PhD supervision

2014. Pampakas Polydoros
Somatic and motor development of Cypriot elementary schoolboys

Presentations

- December 1, 2004. Semmelweis University Home Congress of Sport Sciences for Students, Budapest
- March 22-23, 2005. National Congress of Sport Sciences for Students, Nyíregyháza
- October 25-26, 2005. 5th National Congress of Sport Sciences – poster presentation, Budapest
- February 16, 2006. Semmelweis University Home Congress of Sport Sciences for Students, Budapest
- April 21-22, 2006. International Congress of Sport Sciences for Students, Budapest
- July 5-8, 2006. Congress of ECSS, Lausanne, Switzerland
- November 16, 2006. Semmelweis University Home Congress of Sciences for Students, Budapest, Hungary
- April 11-12, 2007. National Congress of Sport Sciences for Students PhD. Section, Eger, Hungary
- May 30-June 2, 2007 Congress of ACSM, New Orleans, USA
- July 11-14, 2007. 12th annual Congress of the ECSS, Yväs kylä, Finland
- April 10-11, 2008. Semmelweis University, PhD Scientific Days, Budapest, Hungary
- April 25-26, 2008. International Congress of Sport Sciences for Students, Budapest, Hungary
- May 9-10, 2008. Worth of health – Scientific Symposia, Győr, Hungary
- July 9-12, 2008. 13th annual Congress of the ECSS, Estoril, Portugal
- July 26-29, 2008. 7th World Congress on Aging and Physical Activity, Tsukuba, Japan
- Aug 30-sept 5, 2008. SFRR-E Free Radical Summer School, Spetses, Greece
- March 30-31, 2009. Semmelweis University, PhD Scientific Days, Budapest, Hungary
- April 16-18, 2009. National Congress of Sport Sciences for Students PhD. Section, Sopron, Hungary
- May 27-29, 2009. 7th National Congress in Sport Sciences, Budapest
- June 24-27, 2009. 14th annual Congress of the ECSS, Oslo, Norway
- Aug 26-29, 2009. SFRR-Europe Meeting, Rome, Italy
- June 23-26, 2010. 15th annual Congress of the ECSS, Antalya, Turkey
- Sept 12-15, 2010. SFRR – Europe Meeting, Oslo, Norway
- Oct 28-29, 2010. International Congress in Sport Science, Pécs, Hungary
- May 18-20, 2011. 8th National Congress in Sport Sciences, Győr, Hungary
- June 15-17, 2011. 4th Symposium, Nutrition, Oxygen Biology and Medicine, Paris, France
- Oct 17-18, 2012. 4th World Congress on targeting Mitochondria, Berlin, Germany
- June 26-29, 2013. 18th annual Congress of the ECSS, Barcelona, Spain
- Sept 1-4, 2015. Redox biology meets nutrition, SFRR-E Meeting 2015, Stuttgart, Germany
- June 8-11, 2016. Annual Meeting of SFRR-E 2016, Budapest, Hungary
- June 6-9, 2016. 21th annual Congress of the ECSS, Vienna, Austria
- Nov 16-19, 2016. 23rd Annual Meeting of the Society for Redox Biology and Medicine, Joint meeting with the Society for Free Radical Research International, San Francisco, USA
- July 5-8, 2017. 22nd annual Congress of the ECSS, Essen, Germany
- May 9-10, 2018. International Congress for Sport and Innovation, Budapest, Hungary

Course

Aug 30-sept 5, 2008. SFRR-E Free Radical Summer School, Spetses, Greece

Work experience

Oct 22-Dec 22, 2007. Juntendo University, Institute of Health and Sports Science & Medicine, Chiba, Japan

Feb 22-Apr 21, 2012. Juntendo University, Institute of Health and Sports Science & Medicine, Chiba, Japan

Publications

https://vm.mtmt.hu//search/slist.php?nwi=1&initied=1&ty_on=1&url_on=1&cite_type=2&orderby=3D1a&location=mtmt&stn=1&AuthorID=10022305

Independent citations: 1309

Prices and memberships**Prices**

2005/06. Fellowship granted by the Republic

2006. Semmelweis University „Good student-good sportswoman” price
1st place

2006. Scientific application for student of the Dean of Semmelweis
University Faculty of Physical Education and Sport Sciences – 1st place

2008. FEBS Youth Travel Fund (YTF) Grant

2009. YIA, Best poster award, SFRR-Europe Meeting, Rome, Italy

2012. Bolyai Fellow, Hungarian Academy of Science

2017. Researcher Fellowship of New National Excellence Program

April 14, 2020. Budapest

Erika Koltai, PhD

List of publications

- 1 Radak Z, Ihasz F, Koltai E, Goto S, Taylor AW, Boldogh I
The redox-associated adaptive response of brain to physical exercise
FREE RADICAL RESEARCH 48:(1) pp. 84-92. (2014)
- 2 Radak Z, Silye G, Bartha C, Jakus J, Stefanovits-Banyai E, Atalay M, Marton O, Koltai E
The effects of cocoa supplementation, caloric restriction, and regular exercise, on oxidative stress markers of brain and memory in the rat model
FOOD AND CHEMICAL TOXICOLOGY 61: pp. 36-41. (2013)
- 3 Radak Z, Koltai E, Taylor AW, Higuchi M, Kumagai S, Ohno H, Goto S, Boldogh I
Redox-regulating sirtuins in aging, caloric restriction, and exercise
FREE RADICAL BIOLOGY AND MEDICINE 58: pp. 87-97. (2013)
- 4 Radak Z, Zhao Z, Koltai E, Ohno H, Atalay M
Oxygen Consumption and Usage During Physical Exercise: The Balance Between Oxidative Stress and ROS-Dependent Adaptive Signaling.
ANTIOXIDANTS AND REDOX SIGNALING 18:(10) pp. 1208-1246. (2013)
- 5 Hart N, Sarga L, Csende Z, Koltai E, Koch LG, Britton SL, Davies KJA, Kouretas D, Wessner B, Radak Z
Resveratrol enhances exercise training responses in rats selectively bred for high running performance
FOOD AND CHEMICAL TOXICOLOGY 61: pp. 53-59. (2013)
- 6 Marosi K, Bori Z, Hart N, Sarga L, Koltai E, Radak Z, Nyakas C
Long-term exercise treatment reduces oxidative stress in the hippocampus of aging rats
NEUROSCIENCE 226: pp. 21-28. (2012)
- 7 Koltai E, Hart N, Taylor AW, Goto S, Ngo JK, Davies KJ, Radak Z
Age-associated Declines in Mitochondrial Biogenesis and Protein Quality Control Factors are Minimized by Exercise Training
AMERICAN JOURNAL OF PHYSIOLOGY-REGULATORY INTEGRATIVE AND COMPARATIVE PHYSIOLOGY 303:(2) pp. R127-R134. (2012)
- 8 Bori Zoltan, Zhao Zhongfu, Koltai Erika, Fatouros Ioannis G, Jamurtas Athanasios Z, Douroudos Ioannis I, Terzis Gerasimos, Chatzinikolaou Athanasios, Sovatzidis Apostolos, Draganidis Dimitrios, Boldogh Istvan, Radak Zsolt
The effects of aging, physical training, and a single bout of exercise on mitochondrial protein expression in human skeletal muscle
EXPERIMENTAL GERONTOLOGY 47:(6) pp. 417-424. (2012)
- 9 Radak Z, Bori Z, Koltai E, Fatouros IG, Jamurtas AZ, Douroudos II, Terzis G, Nikolaidis MG, Chatzinikolaou A, Sovatzidis A, Kumagai S, Naito H, Boldogh I
Age-dependent changes in 8-oxoguanine-DNA glycosylase activity are modulated by adaptive responses to physical exercise in human skeletal muscle
FREE RADICAL BIOLOGY AND MEDICINE 51:(2) pp. 417-423. (2011)
- 10 Radak Z, Zhao Z, Goto S, Koltai E
Age-associated neurodegeneration and oxidative damage to lipids, proteins and DNA
MOLECULAR ASPECTS OF MEDICINE 32:(4-6) pp. 305-315. (2011)
- 11 Koltai E, Zhao Z, Lacza Z, Cselenyak A, Vacz G, Nyakas C, Boldogh I, Ichinoseki-Sekine N, Radak Z
Combined exercise and insulin-like growth factor-1 supplementation induces neurogenesis in old rats, but do not attenuate age-associated DNA damage.
REJUVENATION RESEARCH 14:(6) pp. 585-596. (2011)
- 12 Koltai E, Radák Zs

- A rendszeres testedzés hatása az öregedés molekuláris folyamataira a vázizomban: A sirtuinok szerepe
KALOKAGATHIA 49:(2-4) pp. 27-41. (2011)
- 13 Radak Z, Hart N, Sarga L, Koltai E, Atalay M, Ohno H, Boldogh I
Exercise plays a preventive role against Alzheimer's disease.
JOURNAL OF ALZHEIMERS DISEASE 20:(3) pp. 777-783. (2010)
- 14 Marton O, Koltai E, Nyakas C, Bakonyi T, Zenteno-Savin T, Kumagai S, Goto S, Radak Z
Aging and exercise affect the level of protein acetylation and SIRT1 activity in cerebellum of male rats
BIOGERONTOLOGY 11:(6) pp. 679-686. (2010)
- 15 Koltai E, Szabo Z, Atalay M, Boldogh I, Naito H, Goto S, Nyakas C, Radak Z
Exercise alters SIRT1, SIRT6, NAD and NAMPT levels in skeletal muscle of aged rats
MECHANISMS OF AGEING AND DEVELOPMENT 131:(1) pp. 21-28. (2010)
- 16 Radak Z, Koltai E, Hart N, Szabo Z
The role of reactive oxygen and nitrogen species in skeletal muscle
In: Magalhaes J, Ascensao A (szerk.)
Muscle Plasticity: Advances in Biochemical and Physiological Research
Kerala: Research Signpost Kerala, 2009. pp. 37-46.
- 17 Radak Z, Chung H Y, Koltai E, Taylor A W, Goto S
Exercise, oxidative stress and hormesis
AGEING RESEARCH REVIEWS 7:(1) pp. 34-42. (2008)