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**Curriculum Vitae**

**Iveta Bernatova, PhD., DSc.**

**Work Address:**

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**Position**

2022 – current: Member of the Management Board of Centre of Experimental Medicine, v.v.i., Slovak Academy of Sciences, Bratislava, Dúbravská cesta 9, 84104 Bratislava, Slovakia

2019- Scientific Secretary, Institute of Normal and Pathological Physiology, Centre of Experimental Medicine, v.v.i., Slovak Academy of Sciences, Bratislava

2018-current: Head of the Department of Experimental Hypertension

2018-2019: Scientific Director, Institute of Normal and Pathological Physiology, CEM SAS

2015-2018: Vice-Director of the Institute of Normal and Pathological Physiology of Slovak Academy of Sciences, Bratislava, Slovakia

2010-2017: Head of the Laboratory of Neurohumoral Regulation of Haemodynamics, Institute of Normal and Pathological Physiology of Slovak Academy of Sciences

2013-2017: Head of the Scientific Board, Institute of Normal and Pathological Physiology of Slovak Academy of Sciences, Bratislava

2003-2009: Researcher, Department of Neuro-Cardiovascular Interactions, Institute of Normal and Pathological Physiology, Slovak Academy of Sciences, Bratislava

**Education and Training**

2001-2002: Postdoctoral study, Wright State University School of Medicine, Department of Pharmacology and Toxicology, Dayton, Ohio, USA,

1998-2000: Postdoctoral study, Department of Cardiovascular Physiology, Institute of Normal and Pathological Physiology, Slovak Academy of Sciences, Bratislava, Slovak Republic

1994-1997: PhD study, Slovak Academy of Sciences, Bratislava, Slovak Republic

1991-1994: Research Assistant, Department of Cardiovascular Physiology, Institute of Normal and Pathological Physiology, Slovak Academy of Sciences, Bratislava, Slovak Republic

1985-1991: University studies and graduation, Department of Biochemistry, Faculty of Natural Sciences, Comenius University, Bratislava, Slovak Republic

**researcher No.**

Orcid: 0000-0002-6120-706X

WoS: R-4553-2016

Scopus: 8506173900

**Professional experience**

**Research:**

Research is focused on the regulatory mechanisms of blood pressure in various experimental models of hypertension such as spontaneous hypertension, L-NAME-induced hypertension and stress-induced hypertension and the ways of prevention of high blood pressure. Special attention was paid to the role of nitric oxide and oxidative stress in regulation of blood pressure and modulation of vascular function. Significant part of my research is focused also on the role of chronic social stress in development of hypertension, and on mechanisms of adaptation to stress in rats with various genetic predispositions to high blood pressure. The effects of natural polyphenol isolated from cacao and red wine in prevention of hypertension and behavioral disorders were studied in genetic experimental models of human primary (pre)hypertension in normal and stress conditions. The most recent studies are focused on the research of magnetic forms of iron in cardiovascular diseases and role of NRF2 in regulation of iron metabolism in rats with normal and high blood pressure as well as on the effect of the acute and chronic stress in NRF2-mediated regulations.

**The most important research projects:**

* Bench to Bedside transition for Pharmacological regulation of NRF2 in non communicable diseases, CA20121, 10/20221-10/2025, member of the management committee
* Role of nuclear factor NRF2-mediated signalling in iron metabolism regulation during stress. VEGA 2/0157/21, 1/2021-12/2024, project leader
* Research of magnetic forms of iron in development of cardiovascular diseases and behavioural disorders, APVV-16-0263, 2017-2021, project leader
* Effect of ultrasmall superparamagnetic iron oxide nanoparticles on the cardiovascular system of rats with high blood pressure. VEGA 2/0160/17, 2017-2020, project leader
* Epicatechin in prevention of early development of primary hypertension: mechanisms of action in the cardiovascular and central nervous systems. VEGA 2/0084/14, project leader, duration 1/2014-12/2016.
* Stress-induced pressor responses: endothelial factors vs. central regulation of sympathetic tone, AV CR 16-18, project leader from SAS, 2016-2017.
* Gender differences in etiopathogenesis of social stress-related cardiovascular and behavioral disorders in individuals with predisposition to hypertension. Slovak Research and Development Agency, Slovakia, project leader, 2011-2014
* Social stress as a risk factor of early development of hypertension in predisposed individuals, Scientific Grant Agency of the Ministry of Education of Slovak Republic and the Slovak Academy of Sciences, VEGA/2/0084/10, Slovakia, project leader, 2010-2013
* Metabolic syndrome: inflammation in hypertension and effect of polyphenols, Inst Norm Pathol Physiol Bratislava, Slovakia and Univ of Buenos Aires, Argentina, SAS-CONICET, duration 6/2010 – 6/2012, participant
* Long-term low dose L-NAME treatment: Possibility to improve the vascular function in borderline hypertension?, Scientific Grant Agency of the Ministry of Education of Slovak Republic and the Slovak Academy of Sciences, VEGA 2/7064/27, Slovakia, project leader, 2007-2009
* Role of bioflavonoids in prevention of social stress-induced hypertension, Slovak Research and Development Agency, APVT- 51-018004, Slovakia, project leader (2005-2007)
* The interaction of stress and genetic factors in the etiology of high blood pressure and behavioral failure: the role of nitric oxide, Scientific Grant Agency of the Ministry of Education of Slovak Republic and the Slovak Academy of Sciences, Slovakia, project leader (2004-2006)
* Low level of chemical toxicity: Relevance to Chemical Agent Defence (Studies on Stress Responsivness), Department of Defence USA, DAMD17-00-C-0020 (2001-2002), participant
* Vascular Nitric Oxide Synthesis: Physiological and Pathophysiological Implication, PECO, BMH1-CT-92-1893, III. framework programme of EU (1994-1997), participant

**Research outputs:**

1. Peer-reviewed publications *in extenso*: 111
2. Chapters in monographies: 8
3. Citacions without self-citation (WoS): ~2000
4. H-index WoS: 27

**Memberships:**

* International Society for Heart Research
* Interamerican Society for Hypertension
* Slovak Physiological Society
* Slovak Society for Hypertension
* Slovak Physiological for Biochemistry and Molecular Biology

**Selected awards:**

* 2019 - award of the Slovak Physiological Society for the best publication in 2018
* 2018 - bronze medal of the Slovak Medical Society
* 2009 - award of the Slovak Physiological Society for a set of publications
* 2007 - Literary Fund Award for Scientific and Professional Literature in 2006 for the work "Mechanisms of blood pressure regulation and their disorders" (Bernátová, Kristek, Pecháňová, Torok)
* 2003 - Post Doctoral Scientist Award, American Society for Pharmacology and Experimental Therapeutics
* 2001 - John F. Perkins Memorial Fellowship Award, American Physiological Society
* 1997 - Award of the Slovak Hypertensiological Society for the best original work in the field of hypertension in 1997

Bratislava, August 10, 2022