

## CURRICULUM VITAE

**Martin Krššák, Ph.D.**

**Born** January 17, 1969; Martin, Slovakia

### Research Focus:

#### **Nuclear Magnetic Resonance:**

$^{13}\text{C}$ ,  $^{31}\text{P}$ ,  $^1\text{H}$  spectroscopy – muscle, liver, heart, brain – focus on glucose, lipid and energy metabolism

Dynamic contrast enhanced MRI, parameter selective MRI, molecular imaging

#### **Experience in Animal Experiments:**

MRI & MRS analysis of excised rat and swine tissue (1993-1996 Univ. of Vienna)

Seminar Anästhesie für Versuchstiere (Veterinäramt & Tierschutz Stadt Wien, 19.10.2005)

MRI Experiments on living mice (Boehringer Ingelheim Austria, 2004-2007)

MRI & MRS experiments on living mice, rats and rabbits (MUW, 2007 – present)

### Education

1987-92 Comenius University, School of Mathematics and Physics, Dept. of Biophysics and Chemical Physics, Bratislava, Slovakia  
June 1<sup>st</sup> 1992 Graduation as Master of Science (Magister)  
1995-2000 Ph.D. Study of Physics, University of Vienna, Austria  
May 10<sup>th</sup> 2000 Graduation as Ph.D. (Doktor der Naturwissenschaften)  
April 3<sup>rd</sup> 2012 Habilitation – Venia Docendi, Medical Physics, Medical University of Vienna, Austria

### Career

1993 - 96 University Assistant, Dpt. of Medical Physics, NMR Group, University of Vienna, Austria  
1996 - 97 Research Fellowship, Dpt. of Internal Medicine, School of Medicine, Yale University, New Haven, USA,  
1998 - 04 Research Fellowship, Dpt. of Internal Medicine III, University Vienna  
2004 - 07 PostDoc, MRI, Boehringer-Ingelheim Austria, Vienna  
2007 - 11 PostDoc, Medical University of Vienna, Dpts. Radiology; Internal Medicine III & Centre for Medical Physics and Biomedical Engineering  
2011 – 13 Assist. Prof., Medical University of Vienna, Dpt. Internal Medicine III  
2014 – Assoc. Prof., Medical University of Vienna, Dpt. Internal Medicine III

### Invited Lectures (5 most relevant)

1. “MR Spectroscopy of the Skeletal Muscle, Heart and Liver.” Lectures on MR: Clinical MRS, ESMRB, November 04.-06.2010, Vienna, A
2. “MR Spectroscopy of skeletal muscle: Lipids, Glucose and Exercise” May 09, 2011, Department of Kinesiology, Université de Montréal, Canada

3. "Metabolism of muscle, heart and liver by in vivo MRS", Oct 21, 2011, CIMB, EPFL, Lausanne, Switzerland
4. "MR Spectroscopy in Diabetes" Meeting of the EASD Study Group "Biomedical Imaging in Diabetes (DIAB-IMAGE) Meeting" September 22, 2013, Barcelona, Spain
5. "Multinuclear MRS of Liver" Lecture within Teaching Session of 30th Annual Meeting of ESMRMB, Oct 2-5, 2013, Toulouse, France

### **Stipends and Awards**

2013	Otto Kraup Award – Best postdoctoral lecture qualification thesis in Medical Sciences in Austria, Viennese Medical Association
2004	Poster award ISMRM
2002	Student stipend award ISMRM
1996	Cum Laude Abstract award – Eur. Soc. Magn. Reson. Med. Biol. (ESMRMB)
1992	Stipend – DAAD Deutsches Akademisches Austauschdienst

### **Lecturing, Workshop organization**

2001 - present	Lecture „Biomedical Applications of NMR“ School of Mathematics, Physics and Informatics, Comenius University, Bratislava, Slovakia
2008 - present	Annual organization "Workshop on MRI and MRS studies in Vienna, Tuebingen and Prague" co-operation with Prof. Klose (Tübingen, Germany) and Dr. Hajek (Prag, CZE)
2009 - 2014	faculty member and local organizer (2010) of "Lectures on MR: Clinical MR spectroscopy", European Society for Magnetic Resonance in Medicine and Biology
2012	Workshop Dynamic MR during exercise and MR compatible ergometers - new challenges? October 3rd, 2012, Lisbon

### **Journal Referee**

Magnetic Resonance in Medicine (2007-2015)  
 Magnetic Resonance Material in Physics, Biology and Medicine (2005-2015)  
 Diabetologia (2005-2011)  
 Diabetic Medicine (2006-2010)  
 NMR in Biomedicine (2014 – present)  
 European Radiology (2009)  
 Obesity (2008, 2012)  
 Suisse National Foundation (SNF), Slovak Academy of Sciences – Program VEGA (SVK), Czech Ministry of Science (CZ), National Research Centre (PL),

### **Funded projects**

1. "Myokardiale Lipid- und Glykogenspeicherung bei Patienten mit Prädiabetes- und Type 2 Diabetes ÖNB 2013 Projekt Nr. 15363 – 2013 - (€ 198,700,- PI)

2. „Effects of impaired glucose homeostasis on cardiac function and lipid metabolism. Magnetic Resonance Spectroscopy and Imaging Study” – Jubuläumsfond ÖNB 2009 Projekt Nr. 13249 – (€ 61.000,- PI)
3. „Assessment of fatty acid profiles in human tissue by in vivo multinuclear MR spectroscopy” WTZ-Mobility-Austrian Ministry of Science 2015-2016 (€ 6.000,- PI in cooperation with Dr. M. Dezortová, Charles University Prague)
4. „Nicht-Invasive Erfassung vom Eisengehalt im menschlichen Hirn“ - AKTION Österreich - Tschechische Republik 2010 56P22 – (€ 4.000,- PI in cooperation with Dr. M. Dezortova, Charles University Prague)
5. „MR-microimaging of amyloid plaques and MRS neurochemical alteration in animal model of vascular dementia” AKTION Austria - Slovakia Nr. 2010-10-15-9014 (€ 2.400,- PI in cooperation with Dr. S. Kasparova, Slovak Technical University, Bratislava)

**International Collaborators:**

Dr. M. Hájek, Dr. M. Dezortová Institute for Clinical and Experimental Medicine, Prague, CZ

Prof. U. Klose, Dpt Diagnostic and Interventionel Neuroradiology, University Tübingen, Germany

Prof. G.I. Shulman – Yale University, New Haven (USA)

Prof. M. Roden, German Diabetes Centre, Düsseldorf, Germany

Dr. S. Kasparová, Prof. T. Lipitaj - Slovak University of Technology, Bratislava, Slovakia

Dr. B. Ukropcová, Dr. J. Ukropec – Inst. Exp. Endocrinology, SAS, Bratislava (SVK)

Dr. R. Korinek, Dr. Z. Starcuk – Institute of Scientific Instruments, CzAS, Brno (CZ)