

CURRICULUM VITAE

Martin Krššák, Ph.D.

Born: January 17, 1969; Martin, Slovakia

Division of Endocrinology and Metabolism, Department of Internal Medicine III,
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Research Focus, Track record and experience

In vivo Magnetic Resonance Spectroscopy and Imaging: ^{13}C , ^{31}P , ^1H spectroscopy – muscle, liver, heart, brain – focus on glucose, lipid and energy metabolism

Fat/Water MRI, Dynamic contrast enhanced MRI, parameter selective MRI, molecular imaging,

Development and implementation of MR based methods, experimental protocols and biomarkers for translation research in diabetes, diffuse liver disease and oncology.

Broad experience with different MR systems (clinical, whole body experimental, animal) and field strength (1.5, 3, 7 & 9.4 T)

Education

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| 1987-92 | Comenius University, School of Mathematics and Physics, Dept. of Biophysics and Chemical Physics, Bratislava, Slovakia (01.06.1992 Graduation M.Sc.) |
| 1995-2000 | Ph.D. Study of Physics, University of Vienna, Austria (10.05.2000 Graduation Ph.D.) |
| 03.04.2012 | Habilitation – Venia Docendi, Medical Physics, Medical University of Vienna, Austria |

Career

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| 1993 - 96 | University Assistant, Dpt. of Medical Physics, University of Vienna, Austria |
| 1996 - 97 | Research Fellowship, Dpt. of Internal Medicine, School of Medicine, Yale University, New Haven, USA, |
| 1998 - 2004 | 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 |

Stipends and Awards

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| 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 Organisation, Student supervision

- 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” transformed to “Czech-Austrian Workshop on Magnetic Resonance Imaging and Spectroscopy” *in* co-operation with Prof. Klose (Tübingen, Germany) and Dr. Hájek, Dr. Jiráček (Prag, CZE)
- 2009 - 2017 faculty member and local organizer (2010) of Lectures on MR: “Clinical MR spectroscopy” & “MR Safety”, 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
- 2000 – present Thesis supervision Ph.D. (4), M.Sc. (6), Bc. (3), co-supervision of Ph.D. Thesis (3)

Organizational duties

Leading and Coordinating the Group “Substrate Metabolism” @ Division of Endocrinology and Metabolism, Department of Internal Medicine III, MUW – joined with Prof. M. Krebs – members: Y. Winhofer, P. Wolf, S. Smajis, D. Jankovic, P. Fellingner, H. Beiglböck

Leading and Coordinating the Group “Metabolic MRS of Liver and Skeletal muscle” @ High Field MR Centre, Department of Biomedical Imaging and Image guided Therapy, MUW – members and alumni: M. Chmelik, L. Valkovic, M. Gajdosik, L. Pflieger, M. Tusek-Jelenc, R. Klepochova, I. Just-Kukurova, M. Kipfelsberger, P. Krumpolec, D. Bencikova,

Funded Projects

1. “Preventing Aging by Exercise. Non-invasive MR based detection of metabolic and structural adaptation to exercise in the muscle and brain.” FWF-KLI-1122B, 2023-27 (€ 400 000)
2. “Tracking Nutrient Metabolism and Cellular Partitioning by Multimodal Molecular Imaging” WWTF, LS19-46, 2020-2023 (€ 699 000)
3. “Non-invasive markers of muscular metabolic flexibility.” FWF-KLI-904B, 2021-25 (€ 400 000)
4. “Christian Doppler Laboratory for Clinical Molecular Imaging – MOLIMA - CD10277101” 2018 – 2021 – PI – Prof. S. Trattnig; (Co-PI for Part: “Comprehensive Liver Evaluation” € 300 000,-)
5. “Myokardiale Lipid- und Glykogenspeicherung bei Patienten mit Prädiabetes- und Type 2 Diabetes ÖNB 2013; Nr. 15363 – 2013 - (€ 198 700,-)
6. „Effects of impaired glucose homeostasis on cardiac function and lipid metabolism. Magnetic Resonance Spectroscopy and Imaging Study” –ÖNB 2009; Nr. 13249 – (€ 61 000,-)
7. “Improvement in liver disease diagnosis using advanced quantitative methods of magnetic resonance” (WTZ-Mobility-Austrian Ministry of Science CZ 09/2018) (€ 6 000,- PI in cooperation with Dr. M. Dezortová, Charles University Prague)
8. „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)

National and International Collaborators

Dr. T. Scherer, Prof. C. Fürnsinn , Prof. M. Krebs, Substrate Metabolism, Dpt. of Internal Medicine III, MUW,

Prof. Dr. A. Kautzky-Willer – Gender medicine group, Dpt. of Internal Medicine III, MUW,

Prof. Dr. S. Trattnig, Prof. Dr. T. Helbich – Dpt. of Biomed Imaging and Image guided Therapy, MUW

Prof. Dr. M. Trauner – Div. of Gastroenterology and Hepatology, Dpt. of Internal Medicine III, MUW

Prof. D. König, Prof. K.H. Wagner – Dpt. of Nutrition, University of Vienna

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

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)

Publication summary: 155 peer reviewed publications, 16 reviews, 9 books/book chapters, > 8000 citations (without self-citations), h-index= 44 (as of 09.2024, Web of Science), 0 patents