

CURRICULUM VITAE**Malgorzata Marjanska****PROFESSIONAL ADDRESS**

Malgorzata Marjanska, Ph.D.
 Center for Magnetic Resonance Research (CMRR)
 University of Minnesota Medical School
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IDENTIFYING INFORMATION**Education**

Degree	Institution	Date Degree Granted
B.S.	Loyola University of Chicago Major: Chemistry Minor: Mathematics	1997
Ph.D.	University of California at Berkeley Major: Chemistry [Advisor: Alexander Pines]	2002
Postdoctoral appt.	University of Minnesota, Radiology [Advisor: Kamil Ugurbil]	2002-2004

Academic Appointments

University of Minnesota, Twin Cities campus, Department of Radiology	(2002-2019)
Associate Professor	2015-present
Assistant Professor	2013-2015
Research Associate/Assistant Professor without Salary	2004-2013
University of Minnesota, Twin Cities campus, Department of Biophysics	
Instructor of Record	Fall 2006
Lecturer	Fall 2003, Fall 2005

Current Membership and Offices in Professional Organizations

Molecular and Spectroscopy Educational Table Chair	2019-2020
AMPC Named Lecturer Subcommittee	2018-2019
Annual Program Committee Member (AMPC)	2017-2020
Secretary, MR Spectroscopy Study Group	2014-2015
Secretary-Elect, Dynamic NMR Spectroscopy Study Group	2013-2014
Member of International Society of Magnetic Resonance in Medicine	2003-present
Executive Committee, Experimental Nuclear Magnetic Resonance Conference	2018-2021

Other Professional Employment

University of California at Berkeley, Department of Chemistry	(1997-2002)
Graduate Student Instructor	Fall 1997, 1998, 1999
Graduate Research Assistant	1997-2002

June 19, 2019

Argonne National Laboratory Researcher	1/1997-7/1997
AT&T Bell Laboratories/Lucent Technologies Summer Fellow	Summer 1996
Loyola University of Chicago, Department of Chemistry Teaching Assistant	1995-1997
Research Assistant	1994-1995

HONORS AND AWARDS FOR RESEARCH WORK, TEACHING, PUBLIC ENGAGEMENT AND SERVICE

External Sources

- Distinguished Reviewer, Magnetic Resonance in Medicine (2018)
- International Conference on Alzheimer's Disease (ICAD) Travel Fellowship (2010)
- International Society for Magnetic Resonance in Medicine (ISMRM) New Entrant Stipend (2003)

RESEARCH AND SCHOLARSHIP

Grants and Contracts

External Sources

A. Principal Investigator or Program Director

Past

Investigator Status: Co-Principal Investigator

Name of PI: Stephanie Carlson, Mayo Clinic and Malgorzata Marjanska, Radiology

Grant Number: MNP 16.37

External Agency: Minnesota Partnership for Biotechnology and Medical Genomics

Project Title: ¹³C-Pyruvate Magnetic Resonance Spectroscopy for Pancreatic Cancer Diagnostic Imaging

Project Dates: 1/15/2016 – 3/31/2019

Investigator Status: Principal Investigator

External Agency: NIH

Grant Number: R21AG045606

Project Title: Probing the Intracellular Environment in Normal Aging Using Magnetic Resonance

Project Dates: 9/1/2015 – 4/30/2018

Investigator Status: Co-Principal Investigator

Name of PI: Clifford Jack, Jr., Mayo Clinic and Malgorzata Marjanska, Radiology

External Agency: Pfizer Inc.

Project Title: Pfizer/Rinat MRMI and MRS APP/PS1 Mouse Treatment Study Part 2

Project Dates: 2/9/2008-9/30/2008

Investigator Status: Co-Principal Investigator

Name of PI: Clifford Jack, Jr., Mayo Clinic and Malgorzata Marjanska, Radiology

External Agency: Pfizer Inc.

Project Title: Pfizer/Rinat MRMI and MRS APP/PS1 Mouse Treatment Study

Project Dates: 3/1/2007-2/29/2008

B. Co-Investigator

Current

Investigator Status: Co-Investigator, CMRR Site PI
Name of PI: Paul Croarkin, Mayo Clinic
Grant Number: R01MH113700
External Agency: NIH
Project Title: Glutamatergic and GABAergic Biomarkers in rTMS for Adolescent Depression
Project Dates: 8/17/2017-6/30/2022

Investigator Status: Co-Investigator
Name of PI: Melissa Terpstra and Silvia Mangia, Radiology
Grant Number: R01AG05591
External Agency: NIH
Project Title: Linking Connectomics to Biochemical Trajectories of Aging: How the Human Brain
Ages Differentially in Key Regions of the Default Mode Network
Project Dates: 9/15/2017-4/30/2022

Investigator Status: Co-Investigator
Name of PI: Scott Sponheim, Psychiatry
Grant Number: U01MH108150
External Agency: NIH
Project Title: Neuronal Disconnection and Errant Visual Perception in Psychotic Psychopathology
Project Dates: 8/5/2016-7/31/2020

Investigator Status: Co-Investigator (TRD 2 of 4)
Name of PI: Kamil Ugurbil and Gregory Metzger, Radiology
Grant Number: P41EB027061
External Agency: NIH
Project Title: Technology to Realize the Full Potential of UHF MRI
Project Dates: 1/1/2019 – 1/31/2024

Past

Investigator Status: Co-Investigator
Name of PI: Melissa Terpstra, Radiology
Grant Number: R01AG039396
External Agency: NIH
Project Title: Noninvasive Antioxidant Quantification in the Human Brain under Oxidative Stress
Project Dates: 9/1/2012 – 4/30/2018

Investigator Status: Co-Investigator (TRD 2 of 5)
Name of PI: Kamil Ugurbil, Radiology
Grant Number: P41EB015894
External Agency: NIH
Project Title: NMR Imaging and Spectroscopy
Project Dates: 6/1/2013 – 5/31/2018

Investigator Status: Co-Investigator (Core 4 of 5)
Name of PI: Kamil Ugurbil, Radiology
Grant Number: P41RR008079
External Agency: NIH
Project Title: NMR Imaging and Spectroscopy
Project Dates: 7/1/2008 – 6/30/2013

Investigator Status: Co-Investigator
Name of PI: Clifford R. Jack, Jr., Joseph F. Poduslo, Michael Garwood

External Agency: Minnesota Partnership for Biotechnology and Medical Genomics
Project Title: Validation of Magnetic Resonance Techniques as Measures of Therapeutic Efficacy for Drug Discovery in Alzheimer's Disease
Project Dates: 4/15/2007 – 4/14/2009

Investigator Status: Co-Investigator
Name of PI: Joseph F. Poduslo, Clifford R. Jack, Jr., Michael Garwood
External Agency: Minnesota Partnership for Biotechnology and Medical Genomics
Project Title: Development of Antibody Fragments as Contrast Agents for MR Imaging of Alzheimer's Disease Amyloid Plaques
Project Dates: 4/15/2007 – 4/14/2009

Investigator Status: Co-Investigator
Name of PI: Melissa Terpstra, Radiology
External Agency: NIH
Grant Number: R21AG029582
Project Title: Human Brain Antioxidant Levels Measured In Vivo as a Function of Age and Diet
Project Dates: 7/1/2007 – 6/30/2009

Investigator Status: Co-Investigator
Name of PI: Gulin Oz, Radiology
External Agency: DANA Foundation
Project Title: Non-invasive Quantitation of Biochemical Changes in the Human Substantia Nigra in Parkinson's Disease: A Window into Pathogenesis
Project Dates: 2/1/2007 – 1/31/2008

C. Collaborator (designation based on Canadian requirements for key personnel outside of Canada)

Past

Investigator Status: Collaborator
Name of PI: Georg Northoff, University of Ottawa
External Agency: Canadian Institute of Health Research (CIHR)
Project Title: Neural and Biochemical Correlates of the Subjective Effects of Aversion. A Combined fMRI-MRS
Project Dates: 10/1/2011 – 9/30/2016

Investigator Status: Collaborator
Name of PI: Hugo Theoret, University of Montreal
External Agency: CIHR
Project Title: Inhibition Corticale et Commotion Cérébrale: Une Étude en Spectroscopie par RM et SMT (Cortical Inhibition and Cerebral Concussion: A MR Spectroscopy and TMS Study)
Project Dates: 4/1/2009 – 3/31/2014

Investigator Status: Collaborator
External Agency: CIHR
Name of PI: Julien Doyon, University of Montreal
Project Title: Investigation of the Neuro-chemical Substrates of Consolidation and Reconsolidation of Motor Sequence Learning via Interference Paradigms
Project Dates: 1/1/2008 – 3/31/2013

D. Mentor**Current**

Investigator Status: Mentor

Name of the PI: Alecia Dager, Yale University

Grant Number: K01DA038207

External Agency: NIH

Project Title: Neurochemical and Functional Correlates of Memory in Emerging Adult Marijuana Users

Project Dates: 07/15/2015 – 06/30/2019

% Funded Salary Support: Not allowed

University Sources**Past**

Investigator Status: co-PI

Name of PI: Valerie Pierre, Malgorzata Marjanska, Henry Wong

External Agency: Clinical and Translational Science Institute (CTSI)

Project Title: Iron-Based Fluorine Contrast Agents

Project Dates: 11/1/2013-10/31/2014

Publications**Impact Analytics Grid - Manifold**

<i>h-index</i>	<i>h(fI)-index</i>	Total Publications	First/Last Author Publications	Total Citations	First/Last Author Citations
27	11	74	30	1972	537

* includes 4 erratum papers which are not included in the list below

Peer-Reviewed Publications

1. Branzoli F, Deelchand DK, Sanson M, Lehericy S, **Marjanska M**. In vivo ¹H MRS detection of cystathionine in human brain tumors. Magnetic Resonance in Medicine. 2019; doi: 10.1002/mrm.27810.
Dr. Marjanska acted as guarantor of integrity of entire study, co-developed study design, defined intellectual content, conducted literature research, conducted experimental studies, analyzed data, prepared manuscript, reviewed and edited manuscript.
Impact Factor: 4.082 in 2017 Sum of times cited: 0
2. Wilson M, Andronesi O, Barker PB, Bartha R, Bizzi A, Bolan PJ, Brindle KM, Choi IY, Cudalbu C, Dydak U, Emir UE, Gonzalez RG, Gruber S, Gruetter R, Gupta RK, Heerschap A, Henning A, Hetherington HP, Huppi PS, Hurd RE, Kantarci K, Kauppinen RA, Klomp DWJ, Kreis R, Kruiskamp MJ, Leach MO, Lin AP, Luijten PR, **Marjańska M**, Maudsley AA, Meyerhoff DJ, Mountford CE, Mullins PG, Murdoch JB, Nelson SJ, Noeske R, Öz G, Pan JW, Peet AC, Poptani H, Posse S, Ratai EM, Salibi N, Scheenen TWJ, Smith ICP, Soher BJ, Tkáč I, Vigneron DB, Howe FA. Methodological consensus on clinical proton MRS of the brain: Review and recommendations. Magnetic Resonance in Medicine. 2019;82:527.
Dr. Marjanska conducted literature research and prepared sections of the manuscript, reviewed and edited manuscript.
Impact Factor: 4.082 in 2017 Sum of times cited: 0

3. Branzoli F, Pontoizeau C, Tchare L, Di Stefano AL, Kamoun A, Deelchand DK, Valabrègue R, Lehericy S, Sanson M, Ottolenghi C, **Marjanska M**. Cystathionine as a marker for 1p/19q codeleted gliomas by in vivo magnetic resonance spectroscopy. Neuro-Oncology. 2019;21:765.
Dr. Marjanska acted as guarantor of integrity of entire study, co-developed study design, defined intellectual content, conducted literature research, conducted experimental studies, analyzed data, prepared manuscript, reviewed and edited manuscript.
Impact Factor: 9.384 in 2017 Sum of times cited: 0
4. **Marjanska M**, McCarten JR, Hodges JS, Hemmy LS, Terpstra M. Distinctive neurochemistry in Alzheimer's disease via 7 T in vivo magnetic resonance spectroscopy. Journal of Alzheimer's Disease. 2019;68:559.
Dr. Marjanska acted as guarantor of integrity of entire study, co-developed study design, defined intellectual content, conducted literature research, conducted experimental studies, analyzed data, prepared manuscript, reviewed and edited manuscript.
Impact Factor: 3.476 in 2017 Sum of times cited: 0
5. Cheong I, Deelchand DK, Eberly LE, **Marjańska M**, Manousakis G, Guliani G, Walk D, Öz G. Neurochemical correlates of functional decline in amyotrophic lateral sclerosis. Journal of Neurology, Neurosurgery and Psychiatry. 2019;90:294.
Dr. Marjanska defined intellectual content, reviewed and edited manuscript.
Impact Factor: 7.144 in 2017 Sum of times cited: 0
6. **Marjańska M**, Shestov AA, Deelchand DK, Kittelson E, Henry PG. Brain metabolism under different anesthetic conditions using hyperpolarized [1-¹³C]pyruvate and [2-¹³C]pyruvate. NMR in Biomedicine. 2018;31:e4012.
Dr. Marjanska acted as guarantor of integrity of entire study, co-developed study design, defined intellectual content, conducted literature research, conducted experimental studies, analyzed data, prepared manuscript, reviewed and edited manuscript.
Impact Factor: 3.031 in 2017 Sum of times cited: 0
7. Rudler M, Weiss N, Perlberg V, Mallet M, Tripon S, Valabregue R, **Marjańska M**, Cluzel P, Galanaud D, Thabut D. Combined diffusion tensor imaging and magnetic resonance spectroscopy to predict neurological outcome before transjugular intrahepatic portosystemic shunt. Alimentary Pharmacology and Therapeutics. 2018;48:863-874.
Dr. Marjanska acted as co-guarantor of integrity of entire study, co-developed study design, defined intellectual content, reviewed and edited manuscript.
Impact Factor: 7.357 in 2017 Sum of times cited: 2
8. **Marjanska M**, Deelchand DK, Hodges JS, McCarten JR, Hemmy LS, Grant A, Terpstra M. Altered macromolecular pattern and content in the aging human brain. NMR in Biomedicine 2018;31:e3865
Dr. Marjanska acted as guarantor of integrity of entire study, co-developed study design, defined intellectual content, conducted literature research, conducted experimental studies, analyzed data, prepared manuscript, reviewed and edited manuscript.
Impact Factor: 3.031 in 2017 Sum of times cited: 2
9. Penheiter AR, Deelchand DK, Kittelson E, Damgard SE, Murphy SJ, O'Brien DR, Bamlet WR, Passow MR, Smyrk TC, Couch FJ, Vasmatzis G, Port JD, **Marjanska M**, Carlson SK. Identification of pyruvate-lactate signature in pancreatic intraductal papillary mucinous neoplasms. Pancreatology 2018;18:46.

Dr. Marjanska acted as co-guarantor of integrity of entire study, co-developed study design, defined intellectual content, conducted experimental studies, co-prepared manuscript, reviewed and edited manuscript.

Impact Factor: 2.763 in 2017

Sum of times cited: 1

10. Branzoli F, Di Stefano AL, Capelle L, Ottolenghi C, Valabrègue R, Deelchand DK, Bielle F, Villa C, Baussart B, Lehericy S, Sanson M, **Marjanska M**. Highly specific determination of IDH status using edited in vivo magnetic resonance spectroscopy. Neuro-Oncology 2018;20:907.

Dr. Marjanska acted as guarantor of integrity of entire study, co-developed study design, defined intellectual content, conducted experimental studies, analyzed data, co-prepared manuscript, reviewed and edited manuscript.

Impact Factor: 9.384 in 2017

Sum of times cited: 10

11. Deelchand DK, Auerbach EJ, **Marjanska M**. Apparent diffusion coefficients of the five major metabolites measured in the human brain in vivo at 3 T. Magnetic Resonance in Medicine 2018;79:2896.

Dr. Marjanska acted as guarantor of integrity of entire study, developed study design, defined intellectual content, reviewed and edited manuscript.

Impact Factor: 4.082 in 2017

Sum of times cited: 2

12. Deelchand DK, Auerbach EJ, Kobayashi N, **Marjanska M**. Transverse relaxation time constants of the five major metabolites in human brain measured in vivo using LASER and PRESS at 3 T. Magnetic Resonance in Medicine 2018;79:1260.

Dr. Marjanska acted as guarantor of integrity of entire study, developed study design, defined intellectual content, reviewed and edited manuscript.

Impact Factor: 4.082 in 2017

Sum of times cited: 1

13. **Marjanska M**, McCarten JR, Hodges J, Hemmy LS, Grant A, Deelchand DK, Terpstra M. Region-specific aging of the human brain as evidenced by neurochemical profiles measured noninvasively in the posterior cingulate cortex and the occipital lobe using ¹H magnetic resonance spectroscopy at 7 T. Neuroscience 2017;354:168-177.

Dr. Marjanska acted as guarantor of integrity of entire study, co-developed study design, defined intellectual content, conducted literature research, conducted experimental studies, analyzed data, prepared manuscript, reviewed and edited manuscript.

Impact Factor: 3.382 in 2017

Sum of times cited: 11

14. Cheong I, **Marjanska M**, Deelchand DK, Eberly LE, Walk D, Oz G. Ultra-high field proton MR spectroscopy in early-stage amyotrophic lateral sclerosis. Neurochemical Research 2017;42:1845.

Dr. Marjanska co-developed study design, defined intellectual content, conducted experimental studies, reviewed and edited manuscript.

Impact Factor: 2.772 in 2017

Sum of times cited: 5

15. Srivastava K, Weitz EA, Peterson KL, **Marjanska M**, Pierre VC. Fe- and Ln-DOTAm-F12 are effective paramagnetic fluorine contrast agents for MRI in water and blood. Inorganic Chemistry 2017;56:1546.

Dr. Marjanska contributed to intellectual content, data acquisition, analysis, reviewed and edited manuscript.

Impact Factor: 4.700 in 2017

Sum of times cited: 16

16. Tremblay S, Lafleur L-P, Proulx S, Beaulé V, Latulipe-Loiselle A, Doyon J, **Marjanska M**, Theoret H. The effects of bi-hemispheric M1-M1 transcranial direct current stimulation on

primary motor cortex neurophysiology and metabolite concentration. Restorative Neurology and Neuroscience 2016;24:587.

Dr. Marjanska contributed to intellectual content, data analysis, reviewed and edited manuscript.
Impact Factor: 2.101 in 2017 Sum of times cited: 5

17. Deelchand DK, **Marjanska M**, Hodges J, Terpstra M. Sensitivity and specificity of human brain glutathione concentrations measured using short echo time ¹H MRS at 7 T. NMR in Biomedicine 2016;29:600.

Dr. Marjanska co-developed study design, defined intellectual content, conducted experimental studies, reviewed and edited manuscript.
Impact Factor: 3.031 in 2017 Sum of times cited: 11

18. Andronesi OC, Loebel F, Bogner W, **Marjanska M**, Vander Heiden MG, Iafrate AJ, Dietrich J, Batchelore TT, Gerstner ER, Kaelin Jr. WG, Chi AS, Rosen BR, Cahill DP. Treatment response assessment in IDH-mutant glioma patients by non-invasive 3D functional spectroscopic mapping of 2-hydroxyglutarate. Clinical Cancer Research 2016;22:1632.

Dr. Marjanska contributed to intellectual content, data analysis, reviewed and edited manuscript.
Impact Factor: 10.199 in 2017 Sum of times cited: 55

19. Pardon MC, Yanez Lopez M, Yuchun D, **Marjanska M**, Piror M, Brignell C, Parhizkar S, Agostini A, Bai L, Auer DP, Faas HM. Magnetic resonance spectroscopy discriminates the response to microglial stimulation of wild type and Alzheimer's disease models. Scientific Reports 2016;6:19880.

Dr. Marjanska contributed to intellectual content, data analysis, reviewed and edited manuscript.
Impact Factor: 4.122 in 2017 Sum of times cited: 13

20. Duncan NW, Hayes DJ, Wiebking C, Tiret B, Pietruska K, Chen DQ, Rainville P, **Marjanska M**, Ayad O, Doyon J, Hodaie M, Northoff G. Negative childhood experiences alter a prefrontal-insular-motor cortical network in healthy adults: A preliminary multimodal rsfMRI-fMRI-MRS-dMRI study. Human Brain Mapping 2015, DOI: 10.1002/nhm.22941.

Dr. Marjanska contributed to intellectual content, data analysis, reviewed and edited manuscript.
Impact Factor: 4.927 in 2017 Sum of times cited: 22

21. Allaïli N, Valabrègue R, Auerbach EJ, Guillemot V, Yahia-Cherif L, Bardinet E, Jabourian M, Fossati P, Lehericy S, **Marjanska M**. Single voxel ¹H spectroscopy in the human hippocampus at 3 T using the LASER sequence: characterization of neurochemical profile and reproducibility. NMR in Biomedicine 2015;28:1209-1217.

Dr. Marjanska acted as guarantor of integrity of entire study, co-developed study design, defined intellectual content, conducted literature research, conducted experimental studies, co-prepared manuscript, reviewed and edited manuscript.
Impact Factor: 3.031 in 2017 Sum of times cited: 12

22. Powell N, Park J-Y, Valette J, Garwood M, **Marjanska M**. Gradient rotating outer volume excitation (GROOVE): A novel method for single-shot 2-D OVS. Magnetic Resonance in Medicine 2015;73:139-149.

Dr. Marjanska acted as guarantor of integrity of entire study, co-developed study design, defined intellectual content, conducted literature research, conducted experimental studies, co-prepared manuscript, reviewed and edited manuscript.
Impact Factor: 4.082 in 2017 Sum of times cited: 1

23. Deelchand DK, Henry P-G, **Marjanska M**. Effect of Carr-Purcell refocusing pulse trains on transverse relaxation times of metabolites in rat brain at 9.4 T. Magnetic Resonance in Medicine 2015;73:13-20.
Dr. Marjanska acted along with Dr. Deelchand as guarantor of integrity of entire study, co-developed study design, defined intellectual content, reviewed and edited manuscript.
Impact Factor: 4.082 in 2017 Sum of times cited: 11
24. Bogner W, Gagoski B, Hess AT, Bhat H, Tisdal MD, van der Kouwe AJW, Strasser B, **Marjanska M**, Trattinig S, Grant E, Rosen B, Andronesi OC. 3D GABA imaging with real-time motion correction, shim update and reacquisition of adiabatic spiral MRSI. NeuroImage 2014; 103:290-302.
Dr. Marjanska contributed to intellectual content, data analysis, reviewed and edited manuscript.
Impact Factor: 5.426 in 2017 Sum of times cited: 41
25. Tremblay S, Beaulè V, Proulx S, Lafleur L-P, Doyon J, **Marjanska M**, Thèoret H. The use of magnetic resonance spectroscopy as a tool for the measurement of bi-hemispheric transcranial electric stimulation effects on primary motor cortex metabolism. Journal of Visualized Experiments 2014, e51631, doi: 10.3791/51361.
Dr. Marjanska and Dr. Thèoret are corresponding authors. Dr. Marjanska acted together with Dr. Thèoret as guarantor of integrity of entire study, co-developed study designed, defined intellectual content, contributed to intellectual content, reviewed and edited manuscript.
Impact Factor: 1.184 in 2017 Sum of times cited: 4
26. Tremblay S, Beaulè V, Proulx S, Tremblay S, **Marjańska M**, Doyon J, Lassonde M, Theoret H. Multimodal assessment of primary motor cortex integrity following sport concussion in asymptomatic athletes. Clinical Neurophysiology 2014;125:1371-137.
Dr. Marjanska contributed to intellectual content, data analysis, reviewed and edited manuscript.
Impact Factor: 3.614 in 2017 Sum of times cited: 41
27. Oz G, Alger JR, Barker PB, Bartha R, Bizzi A, Boesch C, Bolan PJ, Brindle KM, Cudalbu C, Dincer A, Dydak U, Emiar U, Frahm J, Gonzalez RG, Gruber S, Gruetter R, Gupta RK, Heerschap A, Henning A, Hetherington HP, Howe FA, Huppi PS, Hurd RE, Kantarci K, Klomp DWJ, Kreis R, Kruiskamp MJ, Leach MO, Lin AP, Bruijten PR, **Marjanska M**, Maudsley AA, Meyerhoff DJ, Mountford CE, Nelson SJ, Ozduman K, Pamir MN, Pan JW, Peet AC, Poptani H, Posse S, Pouwels PJW, Ratai E-M, Ross BD, Scheenen TWJ, Schuster C, Shoer BJ, Tkac I, Vigneron DB, Kauppinen RA. Clinical Proton MR Spectroscopy in Central Nervous System Disorders. Radiology 2014;270:658-679.
Dr. Marjanska conducted literature research and prepared sections of the manuscript, reviewed and edited manuscript.
Impact Factor: 7.469 in 2017 Sum of times cited: 172
28. **Marjanska M**, Weigand SD, Preboske G, Wengenack TM, Chamberlain R, Curran GL, Poduslo JF, Garwood M, Kobayashi D, Lin JC, Jack Jr CR. Treatment effects in a transgenic mouse model of Alzheimer's disease: A magnetic resonance spectroscopy study after passive immunization. Neuroscience 2014;259:94-100.
Dr. Marjanska acted as guarantor of integrity of entire study, co-developed study design, defined intellectual content, conducted literature research, conducted experimental studies, analyzed data, prepared manuscript, reviewed and edited manuscript.
Impact Factor: 3.382 in 2017 Sum of times cited: 9

29. Wiebking C, Duncan NW, Tiret B, Hayes DJ, **Marjanska M**, Doyon J, Bajbouj M, Northoff G. GABA in the insula – a predictor of the neural response to interoceptive awareness. NeuroImage 2014;86:10-18.
Dr. Marjanska contributed to intellectual content, data analysis, reviewed and edited manuscript.
Impact Factor: 5.426 in 2017 Sum of times cited: 58
30. **Marjanska M**, Uzay EE, Deelchand DK, Terpstra M. Faster metabolite ¹H transverse relaxation in the elder human brain. PLoS One 2013;8:e77572.
Dr. Marjanska acted along Dr. Terpstra as guarantor of integrity of entire study, co-developed study concept and study design, contributed to intellectual content, data analysis, conducted literature research, prepared manuscript, reviewed, and edited manuscript.
Impact Factor: 2.766 in 2017 Sum of times cited: 17
31. Muetzel RL, **Marjanska M**, Collins PF, Petrosko M, Valabregue R, Auerbach EJ, Lim KO, Luciana M. In vivo ¹H magnetic resonance spectroscopy in young-adult daily marijuana users. NeuroImage Clinical 2013;2:581-589.
Dr. Marjanska and Muetzel contributed equally to this study. Dr. Marjanska along with Dr. Luciana acted as guarantor of integrity of entire study, co-developed study design, defined intellectual content, conducted experimental studies, contributed to data analysis, co-prepared manuscript, reviewed and edited manuscript.
Impact Factor: 3.869 in 2017 Sum of times cited: 10
32. Weitz EA, Lewandowski C, Smolensky ED, **Marjanska M**, Pierre V. A magnetoplasmonic imaging agent for copper(I) with dual response by MRI and dark field microscopy. ACS Nano 2013;7:5842-5849.
Dr. Marjanska conducted experimental studies, acquired data, analyzed data, reviewed and edited manuscript.
Impact Factor: 13.709 in 2017 Sum of times cited: 11
33. Duncan NW, Wiebking C, Tiret B, **Marjanska M**, Hayes DJ, Lyttleton O, Doyon J, Northoff G. Glutamate concentration in the medial prefrontal cortex predicts resting-state cortical-subcortical functional connectivity in humans. PLoS One 2013;8:e60312.
Dr. Marjanska contributed to intellectual content, data analysis, reviewed, and edited manuscript.
Impact Factor: 2.766 in 2017 Sum of times cited: 40
34. Tremblay S, Beaulé V, Proulx S, De Beaumont L, **Marjanska M**, Doyon J, Pascual-Leone A, Lassonde M, Théoret H. Relationship between transcranial magnetic stimulation measures of intracortical inhibition and spectroscopy measures of GABA and glutamate+glutamine. Journal of Neurophysiology 2013;109:1343-1349.
Dr. Marjanska contributed to intellectual content, data analysis, reviewed and edited manuscript.
Impact Factor: 2.502 in 2017 Sum of times cited: 44
35. **Marjańska M**, Lehericy S, Valabrègue R, Popa T, Worbe Y, Russo M, Auerbach EJ, Grabli D, Bonnet C, Gallea C, Coudert M, Yahia-Cherif L, Vidailhet M, Meunier C. Brain dynamic neurochemical changes in dystonic patients: A magnetic resonance spectroscopy study. Movement Disorders 2013;28:201-209.
Dr. Marjanska acted along Dr. Meunier as guarantor of integrity of entire study, co-developed study concept, co-developed study design, defined intellectual content, conducted literature research, prepared manuscript, reviewed and edited manuscript.
Impact Factor: 8.324 in 2017 Sum of times cited: 17

36. Smolensky E, Park H-Y, Zhou Y, **Marjanska M**, Botta M, Pierre VC. Scaling laws at the nano size: the effect of particle size and shape on the magnetism and relaxivity of iron oxide nanoparticle contrast agents. Journal of Materials Chemistry B 2013;22:2818-2828.
Dr. Marjanska conducted experimental studies, acquired data, analyzed data, reviewed and edited manuscript.
Impact Factor: 4.776 in 2017 Sum of times cited: 57
37. **Marjańska M**, Eberly LE, Adriany G, Verdoliva SN, Garwood M, Chow L. Influence of foot orientation on the appearance and quantification of ¹H magnetic resonance muscle spectra obtained from the soleus and the vastus lateralis. Magnetic Resonance in Medicine 2012;68:1731-1737.
Dr. Marjanska acted as guarantor of integrity of entire study, co-developed study design, defined intellectual content, conducted literature research, conducted experimental studies, acquired data, analyzed data, prepared manuscript, reviewed and edited manuscript.
Impact Factor: 4.082 in 2017 Sum of times cited: 8
38. **Marjańska M**, Teisseyre TZ, Halpern-Manners NW, Zhang Y, Iltis I, Bajaj V, Ugurbil K, Pines A, Henry P-G. Measurement of Arterial Input Function in Hyperpolarized ¹³C Studies. Applied Magnetic Resonance 2012;43:289-297.
Dr. Marjanska acted as guarantor of integrity of entire study, co-developed study concept, co-developed study design, defined intellectual content, conducted literature research, conducted experimental studies, acquired data, analyzed data, prepared manuscript, reviewed and edited manuscript.
Impact Factor: 0.835 in 2017 Sum of times cited: 6
39. Kan H, Aranee M, van Osch M, Deelchand D, Henry P-G, **Marjanska M**, van Buchem M, Webb A, Ronen I. Differences in apparent diffusion coefficients of neuronal metabolites between grey and white matter in the human brain measured at 7 T. Magnetic Resonance in Medicine 2012;67:1203-1209.
Dr. Marjanska contributed to data analysis, reviewed and edited manuscript.
Impact Factor: 4.082 in 2017 Sum of times cited: 28
40. Deelchand D, Henry P-G, Ugurbil K, **Marjańska M**. Measurement of transverse relaxation times of *J*-coupled metabolites in the human visual cortex at 4 T. Magnetic Resonance in Medicine 2012;67:891-897.
Dr. Marjanska along with Dr. Deelchand acted as guarantor of integrity of entire study, co-developed study concept, co-developed study design, co-defined intellectual content, conducted literature research, reviewed and edited manuscript.
Impact Factor: 4.082 in 2017 Sum of times cited: 14
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Dr. Marjanska acted as guarantor of integrity of entire study, co-developed study concept, co-developed study design, defined intellectual content, conducted literature research, conducted experimental studies, acquired data, analyzed data, prepared manuscript, reviewed and edited manuscript.

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Dr. Marjanska acted as guarantor of integrity of entire study, co-developed study design, defined intellectual content, conducted literature research, conducted experimental studies, acquired data, analyzed data, prepared manuscript, reviewed and edited manuscript.

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Dr. Marjanska along with Dr. Walls acted as guarantor of integrity of entire study, co-developed study design, defined intellectual content, conducted literature research, conducted experimental studies, acquired data, analyzed data, reviewed and edited manuscript.

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Dr. Marjanska conducted literature research, conducted experimental studies, acquired data, analyzed data, reviewed and edited manuscript.

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Dr. Marjanska conducted experimental studies, acquired data, and analyzed data.

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Non Peer-Reviewed Publications

1. Jack CR, **Marjanska M**, Wengenack TM, Reyes DA, Curran GL, Lin J, Preboske GM, Poduslo JF, Garwood M. Magnetic resonance imaging of Alzheimer's pathology in the brains of living transgenic mice: A new tool in Alzheimer's disease research. Neuroscientist 2007;13:38-48.

Dr. Marjanska contributed intellectual content, conducted experimental studies, acquired data, analyzed data, reviewed, and edited manuscript.

Impact Factor: 7.461 in 2017

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Chapters in Books

1. Henry P-G, Deelchand D, Iltis I, **Marjanska M**, Oz G, Shestov A, Valette J. In vivo ^{13}C NMR spectroscopy and metabolic modeling: methodology. In “Advances in Neurobiology.” Edited by Rolf Gruetter and In-Young Choi, Springer, 2012.
Dr. Marjanska contributed intellectual content, conducted experimental studies, and acquired data.
2. Ugurbil K, Adriany G, Akgün C, Andresen P, Chen W, Garwood M, Gruetter R, Henry P-G, **Marjanska M**, Moeller S, Van de Moortele P-F, Prüssmann K, Tkac I, Vaughan JT, Wiesinger F, Yacoub E, Zhu X-H. High magnetic fields for imaging cerebral morphology, function and biochemistry. In “Biomedical Magnetic Resonance: Ultra High Field Magnetic Resonance Imaging.” Edited by Robitaille PM and Berliner LJ. Volume 26. New York: Springer; 2006. p. 285-342.
Dr. Marjanska contributed intellectual content, conducted experimental studies, and acquired data.
3. **Marjanska M**, Havlin RH, Sakellariou D. Coherent averaging and correlation of Anisotropic Spin Interactions in Oriented Molecules. In “NMR of Ordered Liquids.” Edited by Elliot Burnell and Cornelis A. de Lange, Kluwer Scientific, 2003.
Dr. Marjanska conducted literature research, prepared section of chapter, reviewed and edited chapter.
4. Fitch A, Park S, Wang Y, **Marjanski M**, Joo P. Intelligent design of thin clay films: transport and tailoring. In “International Clay Conference.” Edited by A. Yamagishi and A. Aramata. 1997, Hokkaido University Press, Hokkaido, Japan.
Dr. Marjanska conducted experimental studies, and acquired data.
5. Fitch A, Wang Y, Park S, **Marjanski M**. Molecular basis for transport in nanoporous media: Utility of clay-modified electrodes. In “New Directions in Electroanalytical Chemistry.” Edited by Johna Leddy and Mark Wightman. The Electrochemical Society, Inc., Pennington: 1996.
Dr. Marjanska conducted experimental studies, and acquired data.

Software and Technology Development

Co-developed implementation of multiple spectroscopy sequences (STEAM, short-echo time PRESS, MEGA-PRESS, LASER, diffusion-weighted PRESS, STEAM and semi-LASER, FASTMAP) for Siemens MRI scanners distributed to other institutions as Spectroscopy Package under C2P agreement with 186 agreements fully executed.

Presentations

Invited Oral Presentations at International Professional Meetings, Conferences, etc.

1. *Spectral Fitting Challenge (final?) Results*, MRS Workshop 2018, Metabolic Imaging, University Medical Centre Utrecht, Utrecht, The Netherlands, October 3-5, 2018
2. *Magnetic Resonance Spectroscopy to Study Human Brain*. Maastricht University, Maastricht, The Netherlands, October 1, 2018
3. *Magnetic Resonance Spectroscopy to Study Brain and its Metabolism*. Weizmann Institute of Science, Rehovot, Israel, January 18, 2018.
4. *Magnetic Resonance Spectroscopy to Study Brain and its Metabolism*. Zhejiang University, Hangzhou, China, November 22, 2017.

5. *Exploring Metabolism with Hyperpolarized and Conventional MRS*, 18th Kuopio Bio-NMR Workshop “MRI of Brain Plasticity” and ISMRM Nordic Chapter Meeting, Kuopio, Finland, June 8-9, 2017.
6. *Magnetic Resonance Spectroscopy Applications in Animals and Humans*, National Institute for Quantum and Radiological Science and Technology, Chiba, Japan, February 7, 2017
7. *Magnetic Resonance Spectroscopy: Methods and Applications*, Advanced ¹H MR Spectroscopy Siemens Workshop, Tokyo, Japan, February 3, 2017
8. *Fitting Challenge, Results, Discussion, and ...* ISMRM Workshop on: MR Spectroscopy: From Current Best Practice to Latest Frontiers, Lake Constance, Germany, August 14 - 17, 2016
9. *Human Brain Antioxidants During Aging*, NEUROSPIN, France, October 8, 2014.
10. *Human Brain Antioxidants During Aging*, Centre for NeuroImaging Research, Pitie-Salpetriere Hospital, Paris, France, October 6, 2014.
11. *Application of Magnetic Resonance Spectroscopy to Study Brain*, Department of Psychology and Neuroscience, Maastricht University, Netherlands, September 25, 2014.
12. *Magnetic Resonance Spectroscopy: Techniques and Applications*, Department of Psychology, University of Montreal, Canada, April 11, 2014
13. *Hyperpolarized ¹³C Spectroscopy in Rat Brain*, 3rd International Meeting on Dynamic Nuclear Polarization, Lausanne, Switzerland, September 7-10, 2011
14. *Methodology of MRS in Transgenic Mouse Models*, 18th Annual International Society for Magnetic Resonance Research in Medicine Meeting, Stockholm, May 1-7, 2010
15. *Magnetic Resonance Imaging and Spectroscopy for Understanding Alzheimer’s Disease*, Centre for NeuroImaging Research, Pitie-Salpetriere Hospital, Paris, France, July 16, 2007
16. *Magnetic Resonance Imaging and Spectroscopy for Understanding Alzheimer’s Disease*, NEUROSPIN, France, July 11, 2007
17. *Monitoring Disease Progression in Transgenic Mouse Models of Alzheimer’s Disease with MRS*, 23rd Annual Meeting of European Society for Magnetic Resonance in Medicine and Biology, Warszawa, Poland, September 21-23, 2006
18. *Selective Excitation in Strongly Coupled Systems*, 85th Chemical Society of Canada Conference and Exhibition, Vancouver, Canada, June, 2002

Invited Oral Presentations at National Professional Meetings, Conferences, etc.

1. *Exploring Metabolism with Hyperpolarized and Conventional Magnetic Resonance Spectroscopy*, 2018 Southeastern Magnetic Resonance Conference, Clemson University, Clemson, South Carolina, October 26-28, 2018
2. *Altered Neurochemical Profile in the Healthy Elderly Brain Measured via 7 T ¹H MRS*, Translational and Molecular Imaging Institute, Icahn School of Medicine at Mount, Sinai, New York, NY, February 26, 2016
3. *Magnetic Resonance Spectroscopy at High and Ultra-high Field: Techniques and Applications to Study Brain*, Translational and Molecular Imaging Institute, Icahn School of Medicine at Mount, Sinai, New York, NY, September 18, 2015
4. *Hyperpolarized ¹³C Spectroscopy in Rat Brain at 9.4 T and Localized ¹H Spectroscopy in Human Brain at 7 T*, Martinos Center, Massachusetts General Hospital, Boston, MA, March 14, 2012
5. *¹H Spectroscopy Techniques and Applications at High Field*, McLean Hospital, Belmont, MA, March 13, 2012.
6. *Hyperpolarized ¹³C Spectroscopy in Rat Brain*, University of New Mexico School of Medicine, Albuquerque, NM, December 3, 2010
7. *Hyperpolarized ¹³C Spectroscopy in Rat Brain*, University of New Mexico, Department of Physics, Albuquerque, NM, December 2, 2010

8. *Measurement of Intramyocellular Lipid – Challenges and Opportunities*, Mayo CTSA NMR Spectroscopy Workshop, Rochester, MN, October 28, 2008
9. *NMR Spectroscopy for Understanding Alzheimer's Disease*, University of California at Berkeley, Alexander Pines' laboratory, Berkeley, CA, August 4, 2006
10. *NMR Spectroscopy for Understanding Alzheimer's Disease*, Symposium and Training XIV: New Frontiers in Metabolic Imaging, Southwestern Medical Center, Dallas, TX, April 20, 2006
11. *Uncovering Hidden In Vivo Resonances using Magnetic Resonance Spectroscopy*, Department of Chemistry, Southern Illinois University at Carbondale, Carbondale, IL, August 31, 2005
12. *Uncovering Hidden In Vivo Resonances Using Editing Based on Localized TOCSY*, New York Structural Biology Center, New York, NY, October 18, 2004
13. *NMR Applications of Dipolar Couplings in Liquid Crystalline Solvents*, Graduate Research Conference, University of California at Berkeley, Berkeley, CA January 21, 1999

Invited Oral Presentations at Local Professional Meetings, Conferences, etc.

1. *Studying In Vivo Real Time Metabolism with Hyperpolarized MRS*, 9th Biennial Minnesota Workshop on High and Ultra-high Field MR Imaging, October 12, 2013.
2. *NMR vs. MRI*, Valerie Pierre's Group, Department of Chemistry, University of Minnesota, November 5, 2012
3. *Magnetic Resonance Imaging and Spectroscopy for Understanding Alzheimer's Disease*, Medtronic, September 28, 2010
4. *Localized Spectroscopy in Different Regions of Human Brain at High Magnetic Field*, 6th Biennial Minnesota Workshop on High Field MR Imaging and Spectroscopy and MR Imaging of Brain Function, October 4-7, 2007
5. *High Tech, High Touch*, Center for Magnetic Resonance Research, June 27, 2007
6. *Progression of Alzheimer's Disease in Transgenic Mouse Models Monitored with ¹H MRS*, VA Medical Center, Minneapolis, February 3, 2006
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Peer-Reviewed Oral Presentations at International Professional Meetings, Conferences, etc.

(* = student co-author)

1. Branzoli F, Pontoizeau C, Di Stefano AL, Deelchand DK, Valabregue R, Lehericy S, Sanon M, Ottolenghi C, **Marjanska M**. Cystathionine as a marker for 1p/19q codeleted gliomas by in vivo magnetic resonance spectroscopy. Proceedings of the 27th Annual International Society of Magnetic Resonance in Medicine Meeting, Montreal, Canada, May 11– 16, 2019
2. Branzoli F, Deelchand DK, Di Stefano AL, Sanon M, Lehericy S, **Marjanska M**. In vivo cystathionine detection in gliomas by edited ¹H magnetic resonance spectroscopy. Proceedings of the 27th Annual International Society of Magnetic Resonance in Medicine Meeting, Montreal, Canada, May 11– 16, 2019
3. Bolan P, **Marjanska M**, Kelly A, Ryder J. A novel analysis strategy for assessing liver lipid composition with magnetic resonance spectroscopy. Proceedings of the 26th Annual International Society of Magnetic Resonance in Medicine Meeting, Paris, France, June 16 – 21, 2018

4. Genovese G, Yahia Cherif L, **Marjanska M**, Auerbach E, Valabreque R, Ronen I, Lehericy S, Branzoli F. Reproducibility and clinical feasibility of diffusion-weighted MRS using sLASER and STEAM in the human brain in vivo at 3 T. Proceedings of the 26th Annual International Society of Magnetic Resonance in Medicine Meeting, Paris, France, June 16 – 21, 2018
5. Deelchand DK, Auerbach EJ, **Marjanska M**. Apparent diffusion coefficients of the five major metabolites in the human brain at 3 T. Proceedings of the 25th Annual International Society of Magnetic Resonance in Medicine Meeting, Honolulu, April 22 – 27, 2017
6. **Marjanska M**, McCarten JR, Deelchand DK, RJ, Hemmy LS, Terpstra M. Influence of age-specific macromolecular pattern on MRS quantifications. International Society of Magnetic Resonance in Medicine Meeting Workshop on: MR Spectroscopy: From Current Best Practice to Latest Frontiers, Lake Constance, Germany, August 14 - 17, 2016
7. **Marjanska M**, Terpstra M. Lower glutathione (GSH) concentration in the posterior cingulate cortex of healthy human elders measured at 7 T. Proceedings of the 22nd Annual International Society of Magnetic Resonance in Medicine Meeting Meeting, Milan, Italy, May 10-16, 2014
8. Allaili N*, Valagregue R, **Marjanska M**, Delaveau P, Bardinet E, Jabourian M, Laredo J, Fossati P, Lehericy S. Hippocampal Choline Level predicts symptomatic improvement with agomelatine in major depressive disorder: a 3 Tesla single voxel spectroscopy study. Proceedings of the 21st Annual International Society of Magnetic Resonance in Medicine Meeting Meeting, Salt Lake City, April 20-26, 2013, 737
9. Goerke U, **Marjanska M**, Vollmers M, Iltis I, Henry P-G, Ugurbil K. fMRI using a hyperpolarized tracer molecule. Proceedings of the 18th Annual International Society of Magnetic Resonance in Medicine Meeting Meeting, Stockholm, May 1-7, 2010, 124
10. Oz G, Clark HB, Nelson C, Koski D, Henry P-G, **Marjanska M**, Deelchand D, Orr HT. Longitudinal assessment of neurodegeneration in a spinocerebellar ataxia type 1 (SCA1) mouse model by ¹H MRS at 9.4 tesla: Correlation with histopathology. Proceedings of the 17th Annual International Society of Magnetic Resonance in Medicine Meeting Meeting, Honolulu, April 18-24, 2009, 541
11. Emir U, **Marjanska M**, Deelchand D, Henry P-G, Tkac I, Terpstra M. Simultaneous quantitation of T_2 and concentration of vitamin C and GSH in the human brain in vivo using multiple echo time double editing with MEGA-PRESS at 4 and 7 T. Proceedings of the 17th Annual International Society of Magnetic Resonance in Medicine Meeting Meeting, Honolulu, April 18-24, 2009, 235
12. **Marjanska M**, Gilles EJ, Chamberlain R, Reyes DA, Wengenack TM, Garwood M, Jack CR, Poduslo JF. Novel method for in vitro evaluation of amyloid plaque binding contrast agents in Alzheimer's disease. Proceedings of the 16th Annual International Society of Magnetic Resonance in Medicine Meeting Meeting, Toronto, Canada, May 3-9, 2008, 254
13. Metzger GJ, **Marjanska M**, Henry P-G. Quantification of prostate spectra at 3T using LCModel with a simulated basis set. Proceedings of the 15th Annual International Society of Magnetic Resonance in Medicine Meeting Meeting, Berlin, Germany, May 21-25, 2007, 802
14. Du F, Zhang Y, Henry P-G, **Marjanska M**, Zhu X-H, Chen W. *In vivo* brain ¹H-MRS of sodium pentobarbital: Potential contaminations to the cerebral metabolites quantification. Proceedings of the 15th Annual International Society of Magnetic Resonance in Medicine Meeting Meeting, Berlin, Germany, May 21-25, 2007, 198
15. Valette J, Boumezbeum F, **Marjanska M**, Ugurbil K, Lebon V, Henry P-G. Non-linear effects of strong coupling in ¹³C edited ¹H NMR spectra obtained without decoupling. Proceedings of the

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16. Henry P-G, **Marjanska M**, Gruetter R, Ugurbil K. Effect of strong scalar coupling in Proton-Observed Carbon-Edited NMR spectroscopy. Proceedings of the 13th Annual International Society of Magnetic Resonance in Medicine Meeting, Miami Beach, USA, May 7-13, 2005, 57
17. **Marjanska M**, Henry P-G, Gruetter R, Garwood M, Ugurbil K. A new method for proton detected carbon edited spectroscopy using LASER. Proceedings of the 12th Annual International Society of Magnetic Resonance in Medicine Meeting, Kyoto, Japan, May 15-21, 2004, 679
18. **Marjanska M**, Henry P-G, Bolan PJ, Gruetter R, Ugurbil K, Garwood M. Uncovering hidden *in vivo* resonances using 1D-TOCSY-LASER spectroscopy. Proceedings of the 12th Annual International Society of Magnetic Resonance in Medicine Meeting, Kyoto, Japan, May 15-21, 2004, 681
19. Cunningham CH, **Marjanska M**, Chen AP, Xu D, Pauly JM, Sailasuta N, Hurd RE, Kurhanewicz J, Garwood M, Vigneron DB. Sequence design incorporating the LASER technique for prostate MRSI and high field. Proceedings of the 12th Annual International Society of Magnetic Resonance in Medicine Meeting, Kyoto, Japan, May 15-21, 2004, 682

Peer-Reviewed Oral Presentations at National Professional Meetings, Conferences, etc.

1. Book GA, Dager A, **Marjanska M**, Pearlson G. Measuring frequency drift in MR spectroscopy on a 3 T MRI. Proceedings of the 103th Annual RSNA Meeting, Chicago, November 26 – December 6, 2017
2. Terpstra M, McCarten JR, Hodges J, Hemmy LS, Grant A, Deelchand DK, **Marjanska M**. Noninvasively measured human brain glutathione and ascorbate concentrations in healthy aging and in Alzheimer’s disease. 23rd Annual Meeting of the Society for Redox Biology and Medicine, San Francisco, November 16 – 19, 2016
3. Allaili N*, Valagregue R, **Marjanska M**, Delaveau P, Bardin E, Jabourian M, Laredo J, Lehericy S, Fossati P. Hippocampal Choline Level predicts symptomatic improvement with agomelatine in major depressive disorder: a 3 Tesla single voxel spectroscopy study. Society of Biological Psychiatry, 68th Annual Scientific Convention, San Francisco, May 16 - 18, 2013
4. Deelchand DK, **Marjanska M**, Ugurbil K, Henry P-G. Measurement of T_2 of *J*-coupled metabolites in the human brain. ISMRM Workshop on Data Processing for MR Spectroscopy and Imaging, Warrenton, Virginia, November 11-13, 2006
5. **Marjanska M**, Curran GL, Wengenack TM, Poduslo JF, Jack CR, Ugurbil K, Garwood M. Progression of Alzheimer’s Disease in a transgenic mouse model monitored with proton MRS. Society of Neuroscience, Washington D.C., November 12-16, 2005
6. **Marjanska M**, Henry P-G, Bolan PJ, Gruetter R, Ugurbil K, Garwood M. Uncovering hidden *in vivo* resonances using 1D-TOCSY-LASER spectroscopy. 45th Experimental Nuclear Magnetic Resonance Conference, Asilomar, USA, April 18-23, 2004
7. **Marjanska M**, Henry P-G, Bolan PJ, Gruetter R, Ugurbil K, Garwood M. Uncovering hidden *in vivo* resonances using 1D-TOCSY-LASER spectroscopy. 45th Experimental Nuclear Magnetic Resonance Conference, Asilomar, USA, April 18-23, 2004

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1. Mirau PA, **Marjanski M**. NMR Characterization of self-assembling polymer films. 7th Annual Argonne Symposium for Undergraduates in Science, Engineering and Mathematics, November 2, 1996
2. **Marjanski M**, Mirau P. NMR Characterization of self-assembling polymer films. Summer Research Program Seminar, Murray Hill, August 6, 1996

Peer-Reviewed Poster Presentations at International Professional Meetings, Conferences, etc.

1. Droby A, Podranski K, Flysher L, Petracca M, Xu J, Fabian M, **Marjanska M**, Inglese M. The relationship between functional connectivity in motor areas and gamma-aminobutyric acid (GABA) levels in progressive MS: a combined ¹H-MRS – resting state fMRI study. 34th Congress on the European Committee for Treatment and Research in Multiple Sclerosis, Berlin, Germany, October 10-12, 2018, Multiple Sclerosis Journal 2018;24:413
2. Nichelli L, Di Stefano AL, Valabregue R, Capelle L, Lehericy S, Sanson M, **Marjanska M**, Branzoli F. Detection and monitoring of 2-hydroxyglutarate in a heterogenous population with IDH-mutated gliomas: clinical applicability and perspectives. 41st Annual Meeting of European Society of Neuroradiology, Rotterdam, The Netherlands, September 19 – 23, 2018
3. Deelchand D, McCarten J, Hemmy L, Auerbach EJ, **Marjanska M**. Shorter apparent T_2 relaxation times of metabolites in the older human brain. Proceedings of the 26th Annual International Society of Magnetic Resonance in Medicine Meeting, Paris, France, June 16 – 21, 2018
4. Deelchand D, McCarten J, Hemmy L, Auerbach EJ, **Marjanska M**. High apparent diffusion coefficients in the older human brain. Proceedings of the 26th Annual International Society of Magnetic Resonance in Medicine Meeting, Paris, France, June 16 – 21, 2018
5. **Marjanska M**, McCarten J, Hemmy L, Terpstra M., Higher vitamin C concentration in patients with Alzheimer's disease. Proceedings of the 26th Annual International Society of Magnetic Resonance in Medicine Meeting, Paris, France, June 16 – 21, 2018
6. Cheong I, **Marjanska M**, Deelchand DK, Eberly LE, Walk D, Oz G. High and ultra-high field ¹H MR spectroscopy in early amyotrophic lateral sclerosis. Proceedings of the 25th Annual International Society of Magnetic Resonance in Medicine Meeting, Honolulu, April 22 – 27, 2017
7. Deelchand D, Auerbach EJ, **Marjanska M**. Properties of localization by adiabatic refocusing (LASER) sequence. Proceedings of the 25th Annual International Society of Magnetic Resonance in Medicine Meeting, Honolulu, April 22 – 27, 2017
8. Deelchand DK, Auerbach EJ, **Marjanska M**. T_2 relaxation times of metabolites measured with LASER and PRESS at 3 T. Proceedings of the 25th Annual International Society of Magnetic Resonance in Medicine Meeting, Honolulu, April 22 – 27, 2017
9. **Marjanska M**, Deelchand DK, Terpstra M. Influence of broader spectral linewidths generated in vivo on metabolite quantification. Proceedings of the 25th Annual International Society of Magnetic Resonance in Medicine Meeting, Honolulu, April 22 – 27, 2017
10. **Marjanska M**, McCarten JR, Deelchand DK, Hemmy LS, Terpstra M. Effect of age-specific macromolecular pattern on MRS quantification. Proceedings of the 25th Annual International Society of Magnetic Resonance in Medicine Meeting, Honolulu, April 22 – 27, 2017

11. Di Stefano AL, Branzoli F, Ottolenghi C, Capelle L, Mokhart K, Villa CM, Baussart B, Giry M, Rahimian A, **Marjanska M**, Valabregue R, Lehericy S, Sanson M. Diagnostic value of 2-hydroxyglutarate detection by ¹H spectroscopy before surgery in patients with glioma: correlations with tumor phenotype and tissue dosage. 12th Annual Meeting of European Association of Neuro-Oncology, Mannheim/Heidelberg, October 12 – 16, 2016
12. Deelchand D, Edward J. Auerbach, **Marjanska M**. Properties of localization by adiabatic selective refocusing (LASER) sequence. ISMRM Workshop on: MR Spectroscopy: From Current Best Practice to Latest Frontiers, Lake Constance, Germany, August 14 - 17, 2016
13. Melissa T, Deelchand D, **Marjanska M**. Influence of broader spectral linewidths generated in vivo on metabolite quantification. ISMRM Workshop on: MR Spectroscopy: From Current Best Practice to Latest Frontiers, Lake Constance, Germany, August 14 - 17, 2016
14. **Marjanska M**, McCarten RJ, Hemmy LS, Deelchand DK, Terpstra M. Altered neurochemical profile in the healthy elderly measured via 7 T ¹H MRS. Proceedings of the 24th Annual International Society of Magnetic Resonance in Medicine Meeting, Singapore, May 7 – 13, 2016
15. Branzoli F, Di Stefano AL, **Marjanska M**, Valabregue R, Lehericy S, Sanson M. Diagnostic value of 2-hydroxyglutarate detection by ¹H MR spectroscopy in patients with glioma. Proceedings of the 24th Annual International Society of Magnetic Resonance in Medicine Meeting, Singapore, May 7 – 13, 2016
16. Cheong I, Pisharady P, **Marjanska M**, Ferment V, Rolandelli S, Lenglet C, Oz Gulin, Walk D. Assessment of neurodegeneration in ALS using diffusion MRI and ultra-high field MRS. 26th International Symposium on ALS/MND, December 11 – 13, 2015
17. **Marjanska M**, McCarten RJ, Hemmy LS, Deelchand DK, Terpstra M. Altered macromolecular pattern in aging brain. Proceedings of the 23rd Annual International Society of Magnetic Resonance in Medicine Meeting, Toronto, Canada, May 30 – June 5, 2015
18. **Marjanska M**, McCarten RJ, Hemmy LS, Terpstra M. Altered antioxidant profile in the healthy elderly occipital and posterior cingulate cortices measured via 7 T ¹H MRS. Proceedings of the 23rd Annual International Society of Magnetic Resonance in Medicine Meeting, Toronto, Canada, May 30 – June 5, 2015
19. Cheong I, **Marjanska M**, Lenglet C, Rolandelli S, Guliani G, Oz G, Walk D. High and ultra-high field MR Spectroscopy in ALS. 25th International Symposium on ALS/MND, Brussels, Belgium, December 5 – 7, 2014.
20. Cahill DP, Loebel F, Bogner W, **Marjanska M**, Gerstner E, Batchelor T, Rosen DR, Chi A, Andronesi OC. Monitoring of treatment response in IDH-mutant gliomas with in-vivo 3D magnetic resonance spectroscopy imaging. 11th Annual European Association of Neuro-Oncology Meeting, Turin, Italy, October 9 – 12, 2014
21. Deelchand DK, **Marjanska M**, Terpstra M. Sensitivity and specificity to quantify changes in human brain glutathione and ascorbate concentrations using short echo-time ¹H MRS at 3 T and 7 T. Proceedings of the 22nd Annual International Society of Magnetic Resonance in Medicine Meeting, Milan, Italy, May 10-16, 2014
22. Andronesi OC, Loebel F, Bogner W, **Marjanska M**, Gerstner E, Chi A, Batchelor TT, Cahill DP, Rosen BR. 3D MR spectroscopic imaging of 2-hydroxyglutarate in patients with mutant IDH1 glioma. Proceedings of the 22nd Annual International Society of Magnetic Resonance in Medicine Meeting, Milan, Italy, May 10-16, 2014
23. Andronesi OC, Bogner W, Hess A, Tisdall DM, Wighton P, Bhat H, Deelchand D, **Marjanska M**, van der Kouwe A, Rosen BR. Improved GABA editing at 3 T with real-time motion

- correction, shim update and reacquisition of MEGA-LASER. Proceedings of the 22nd Annual International Society of Magnetic Resonance in Medicine Meeting, Milan, Italy, May 10-16, 2014
24. Beaulieu V, Tremblay S, de Beaumont L, Doyon J, **Marjanska M**, Lassonde M, Theoret H. Long-term investigation of primary motor cortex metabolism in concussed athletes. Human Brain Mapping, Beijing, China, June 10-14, 2012
 25. Tremblay S, Beaulieu V, de Beaumont L, Doyon J, **Marjanska M**, Lassone M, Theoret H. On the relationship between TMS-derived measures of GABA_B synaptic activity and ¹H MRS measure of glutamate and GABA in primary motor cortex. Human Brain Mapping, Beijing, China, June 10-14, 2012
 26. Emir UE, **Marjanska M**, Deelchand D, Terpstra M. Metabolite ¹H transverse relaxation rates measured in the healthy young versus elderly human brain at 4 T. Proceedings of the 20th Annual International Society of Magnetic Resonance in Medicine Meeting, Melbourne, May 5-11, 2012, 1820
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 31. Dydak U, Xu JS, **Marjanska M**, Posse S. 3D GABA spectroscopic imaging using MEGA-PEPSI. Proceedings of 19th Annual International Society of Magnetic Resonance in Medicine Meeting, Montreal, May 7-13, 2011, 1428
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 37. Allaïli N*, **Marjanska M**, Auerbach EJ, Bardinet E, Fossati P, Valabrègue R, Lehericy S. Single voxel ¹H spectroscopy in the human hippocampus at 3 T using LASER: A reproducibility study. Proceedings of the 18th Annual International Society of Magnetic Resonance in Medicine Meeting, Stockholm, May 1-7, 2010, 939
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 39. Iltis I, Deelchand DK, **Marjanska M**, Adriany G, Vollmers M, Ugurbil K, Henry P-G. [1-¹³C]lactate signal derived from hyperpolarized [1-¹³C]pyruvate originates from the brain, not from the blood. Proceedings of the 18th Annual International Society of Magnetic Resonance in Medicine Meeting, Stockholm, May 1-7, 2010, 1021
 40. Kan HE, van Osch MJP, Versluis MR, Techawiboonwong A, Deelchand DK, Henry P-G, **Marjanska M**, van Buchem MA, Webb AG, Ronen I. Assessment of trace ADCs of several metabolites in grey and white matter in the human brain at 7T. Proceedings of the 18th Annual International Society of Magnetic Resonance in Medicine Meeting, Stockholm, May 1-7, 2010, 1653
 41. Chamberlain R, **Marjanska M**, Preboske G, Kotilinek L, Wengenack TM, Poduslo JF, Ashe KH, Garwood M, Jack CR. MR Biomarkers of neurodegeneration in a transgenic mouse model of Alzheimer's disease. Proceedings of the 18th Annual International Society of Magnetic Resonance in Medicine Meeting, Stockholm, May 1-7, 2010, 2362
 42. Chupin M, Lehericy S, Hasboun D, Colliot O, Goerke U, **Marjanska M**, Ugurbil K, Van de Moortele P-F. Segmenting the subregions of the human hippocampus at 7 Tesla. 15th Annual Human Brain Mapping Meeting, San Francisco, June 18-23, 2009
 43. Meunier S, Valabregue R, **Marjanska M**, Worbe Y, Russo M, Popa T, Auerbach EJ, Grabli D, Degos B, Sangla S, Bonnet C, Vidailhet M, Lehericy S. Metabolic abnormalities in human primary dystonia: A magnetic resonance spectroscopy study. Movement Disorder Society's 13th International Congress of Parkinson's Disease and Movement Disorders, Paris, June 7-11, 2009
 44. Chamberlain R, Weigand SD, **Marjanska M**, Reyes DA, Wengenack TM, Preboske G, Snyder A, Curran GL, O'Brien C, Poduslo JF, Garwood M, Jack, CR. Early detection of amyloid plaques in a transgenic mouse model of Alzheimer's disease. Proceedings of the 17th Annual International Society of Magnetic Resonance in Medicine Meeting, Honolulu, April 18-24, 2009, 1092
 45. Chupin M, Lehericy S, Hasboun D, Colliot O, Goerke U, **Marjanska M**, Ugurbil K, Van de Moortele P-F. Three-dimensional Segmentation of the Internal Structures of the Human Hippocampus at 7 Tesla. Proceedings of the 17th Annual International Society of Magnetic Resonance in Medicine Meeting, Honolulu, April 18-24, 2009, 49.
 46. Du F, **Marjanska M**, Zhu X-H, Kumar A, Seaquist E, Ugurbil K, Chen W. Study of tricarboxylic acid cycle flux changes in human visual cortex during two-hemifield visual stimulation with different stimulus frequency using in vivo ¹H-(¹³C) MRS and fMRI. Proceedings of the 17th Annual International Society of Magnetic Resonance in Medicine Meeting, Honolulu, April 18-24, 2009, 1639

47. Iltis I, Deelchand D, Nelson C, Henry P-G, **Marjanska M**. Localized spectroscopy in the rat brain following hyperpolarized [2-¹³C]pyruvate injection. Proceedings of the 17th Annual International Society of Magnetic Resonance in Medicine Meeting, Honolulu, April 18-24, 2009, 2429
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50. **Marjanska M**, Chow L, Adriany G, Seaquist E, Garwood M. Influence of foot orientation on the appearance of ¹H muscle spectra obtained from soleus and vastus lateralis. Proceedings of the 17th Annual International Society of Magnetic Resonance in Medicine Meeting, Honolulu, April 18-24, 2009, 1910
51. **Marjanska M**, Auerbach EJ, Van de Moortele P-F, Adriany G, Garwood M. Single voxel spectroscopy in different regions of human brain at 7 T. Proceedings of the 17th Annual International Society of Magnetic Resonance in Medicine Meeting, Honolulu, April 18-24, 2009, 2343
52. Wu X, Powell N, **Marjanska M**, Garwood M, Ugurbil K, Van de Moortele P-F. A Flexible design algorithm for single-shot 2D circular/elliptical OVS RF pulses. Proceedings of the 17th Annual International Society of Magnetic Resonance in Medicine Meeting, Honolulu, April 18-24, 2009, 4503
53. Chamberlain R, Reyes DA, Curran GL, **Marjanska M**, Wengenack TM, Poduslo JF, Garwood M, Jack, CR. Comparison of amyloid plaque contrast generated by T2-, T2*-, and susceptibility-weighted imaging methods in transgenic mice. International Conference on Alzheimer's Disease, Chicago, July 26-31, 2008
54. Iltis I, Deelchand DK, **Marjanska M**, Nelson C, Ugurbil K, Henry P-G. First studies with hyperpolarized [2-¹³C]pyruvate in the rat brain. Proceedings of the 16th Annual International Society of Magnetic Resonance in Medicine Meeting, Toronto, Canada, May 3-9, 2008, 1748
55. Deelchand DK, Iltis I, **Marjanska M**, Nelson C, Ugurbil K, Henry P-G. Localized detection of hyperpolarized [1-¹³C]pyruvate and its metabolic products in rat brain. Proceedings of the 16th Annual International Society of Magnetic Resonance in Medicine Meeting, Toronto, Canada, May 3-9, 2008, 3196
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59. **Marjanska M**, Henry P-G, Auerbach EJ, Daniel Franc D, Mueller B, Ugurbil K, Lim KO. Reproducibility of *in vivo* GABA quantification in anterior cingulate at 3 Tesla. Proceedings of

the 15th Annual International Society of Magnetic Resonance in Medicine Meeting, Berlin, Germany, May 21-25, 2007, 1398

60. Terpstra M, **Marjanska M**, Henry P-G, Tkac I. Negligible dehydroascorbate and GSSG signal contributions to human brain ¹H NMR spectra *in vivo*. Proceedings of the 15th Annual International Society of Magnetic Resonance in Medicine Meeting, Berlin, Germany, May 21-25, 2007, 1360
61. **Marjanska M**, Curran GL, Wengenack TM, Bliss RL, Poduslo JF, Jack CR, Ugurbil K, Garwood M. Alterations in the neurochemical profiles of aged transgenic mouse models of Alzheimer's disease. 10th International Conference on Alzheimer's Disease and Related Disorders, Madrid, Spain, July 15-20, 2006
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64. Mangia S, Tkac I, Gruetter R, Van De Moortele P-F, **Marjanska M**, Giove F, Bianciardi M, Di Salle F, Garreffa G, Maraviglia B, Ugurbil K, Function NMR spectroscopy of the human brain at 7 T: An event related study. Proceedings of the 13th Annual International Society of Magnetic Resonance in Medicine Meeting, Miami Beach, USA, May 7-13, 2005, 1548
65. Dobre MC*, **Marjanska M**, Ugurbil K. Blood T₁ measurement at high magnetic field strengths. Proceedings of the 13th Annual International Society of Magnetic Resonance in Medicine Meeting, Miami Beach, USA, May 7-13, 2005, 1162
66. **Marjanska M**, Curran GL, Wengenack TM, Poduslo JF, Jack CR, Garwood M, Ugurbil K. Proton magnetic resonance spectroscopy in Alzheimer mouse model. Proceedings of the 13th Annual International Society of Magnetic Resonance in Medicine Meeting, Miami Beach, USA, May 7-13, 2005, 1036
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68. **Marjanska M**, Walls JD, Sakellariou D, Castiglione F, Pines A. Selective excitation in strongly coupled systems. 14th Conference of the International Society of Magnetic Resonance, Rhodes, Greece, August, 2001
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Peer-Reviewed Poster Presentations at National Professional Meetings, Conferences, etc.

1. Dager A, **Marjanska M**, Mason G, Tice M, Ragland J, Silveri M, Book G, Meagher C, Hawkins K, Assaf M, Stevens M, Pearlson G. Hippocampal neurochemistry, fMRI response, and memory dysfunction in emerging adult marijuana users. 57th Annual American College of Neuropsychopharmacology Meeting, Hollywood, Florida, December 9 -13, 2018
2. Dager A, **Marjanska M**, Mason G, Tice M, Ragland J, Krug K, Silveri M, Book G, Meagher C, Assaf M, Stevens M, Pearlson G. Investigation of neurochemistry and fMRI response during

- nonverbal memory in emerging adult marijuana users. 73rd Annual American Society of Biological Psychiatry, New York, May 10 - 12, 2018
3. Cheong I, Oz G, Marjanska M, Walk D. Longitudinal 7 tesla MR spectroscopy in ALS: Clinical Correlations. 70th Annual Meeting of the American Academy of Neurology, Los Angeles, CA, April 21 – 27, 2018.
Neurology, 2018;90:P4.451
 4. Penheiter A, Erdogan S, Deelchand D, Kittelson E, Couch F, Vasmatzis G, Peterson G, Smyrk T, **Marjanska M**, Carlson S. Hyperpolarized 1-[¹³C]-pyruvate magnetic resonance spectroscopic imaging for intraductal papillary mucinous neoplasms of the pancreas. GI/Pancreatic SPORE Meeting, October 6 -7, 2016
 5. Penheiter AR, Mishra PK, Couch FJ, Macura SI, Port JD, **Marjanska M**, Bender CE, Carlson SK. Feasibility of hyperpolarized ¹³C-pyruvate magnetic resonance spectroscopy of pancreatic cancer diagnostic imaging. Annual Radiological Society of North America Meeting, Chicago, November 29 – December 4, 2015
 6. **Marjanska M**, McCarten RJ, Hemmy LS, Deelchand DK, Terpstra M. Altered antioxidant profile in the healthy elderly occipital and posterior cingulate cortices measured via 7 T ¹H MRS. 56th Experimental Nuclear Magnetic Resonance Conference, Asilomar, April 19-24, 2015
 7. Andronesi OC, Loebel F, Bogner W, **Marjanska M**, Dietrich J, Batchelore TT, Gerstner ER, Chi AS, Cahill DP, Rosen BR. Non-invasive monitoring of treatment response in IDH-mutant glioma patients by 3D functional spectroscopic mapping of 2-hydroxyglutarate. American Academy of Neurology 67th Annual Meeting, Washington DC, April 18 – 25, 2015.
 8. Cahill DP, Loebel F, Bogner W, **Marjanska M**, Gerstner E, Batchelor T, Rosen DR, Chi A, Andronesi OC. Monitoring of treatment response in IDH-mutant gliomas with in-vivo 3D magnetic resonance spectroscopy imaging. Annual Radiological Society of North America Meeting, Chicago, November 30 – December 5, 2014
 9. Andronesi OC, Loebel F, Bogner W, **Marjanska M**, Gerstner E, Chi A, Batchelor T, Cahill D, Rosen B. Longitudinal 3D MR spectroscopic imaging of 2-hydroxyglutarate in patients with mutant IDH1 glioma. MICCAI Workshop on Imaging Genetics, MIT, September 14, 2014.
 10. **Marjanska M**, Henry P-G. In vivo time courses of brain TCA cycle intermediate observed using hyperpolarized magnetic resonance. 54th Experimental Nuclear Magnetic Resonance Conference, Asilomar, April 14-19, 2013
 11. Andronesi OC, Borra RJH, Jennings DL, Gerstner ER, **Marjanska M**, Rosen BR, Batchelor TT, Sorensen AG. Longitudinal MR spectroscopic imaging in a cohort of newly diagnosed glioblastoma patients receiving adjuvant antiangiogenic therapy. Annual Meeting of Radiological Society of North America, Chicago, November 25-30, 2012
 12. Houry A, Klimes-Dougan B, **Marjanska M**, Lim KO, Cullen K. Brain metabolite levels in the anterior cingulate cortex in adolescents with major depressive disorder. 67th Annual Society of Biological Psychiatry, Philadelphia, PA, May 3-5, 2012
 13. Schallmo M-P, Sponheim SR, **Marjanska M**, Olman CA. Schizophrenia affects contextual modulation during contour detection. Society of Neuroscience, Washington D.C., November 12-16, 2011
 14. Houry A, Reigstad K, Schimunek C, Klimes-Dougan B, **Marjanska M**, Lim KO, Cullen K. Magnetic Resonance Spectroscopy and depression in adolescent girls. Society of Biological Psychiatry 66th Annual Meeting, San Francisco, May 12-14, 2011

15. **Marjanska M**, Iltis I, Deelchand D, Garwood M, Henry P-G. Spatial origin of hyperpolarized ^{13}C signals in the rat brain. 50th Experimental Nuclear Magnetic Resonance Conference, Asilomar, March 29 – April 3, 2009
16. **Marjanska M**, Deelchand DK, Iltis I, Nelson C, Ugurbil K, Henry P-G. Detection of hyperpolarized $[1-^{13}\text{C}]$ pyruvate and $[2-^{13}\text{C}]$ pyruvate and their metabolic products in the rat brain *in vivo*. 49th Experimental Nuclear Magnetic Resonance Conference, Asilomar, USA, March 9-14, 2008
17. Terpstra M, **Marjanska M**, Henry P-G, Rao R, Tkac I. Antioxidant profile quantified noninvasively in designated human and animal brain regions using *in vivo* ^1H magnetic resonance spectroscopy. Gordon Research Conference, Oxidative Stress and Disease, Ventura, California, March 11-16, 2007
18. Chaffee KE, Saha I, **Marjanska M**, Goodson BM. Adiabatic Hartmann-Hahn cross-polarization in cryptophane inclusion complexes oriented with liquid crystals. 47th Experimental Nuclear Magnetic Resonance Conference, Asilomar, USA, April 23-28, 2006
19. **Marjanska M**, Curran GL, Wengenack TM, Poduslo JF, Jack CR, Garwood M, Ugurbil K. Proton magnetic resonance spectroscopy in Alzheimer mouse model. Alzheimer's Association International Conference on Prevention of Dementia: Early Diagnosis and Intervention, Washington D.C., June 18-21, 2005
20. Chaffee KE, Saha I, **Marjanska M**, Goodson BM. Studies of cryptophane/Xe and cryptophane/ CHCl_3 inclusion complexes oriented with liquid crystals. 46th Experimental Nuclear Magnetic Resonance Conference, Providence, USA, April 10-15, 2005
21. **Marjanska M**, Goodson BM, Castiglione F, Pines A. NMR studies of inclusion complexes oriented in liquid-crystalline solvents. 43th Experimental Nuclear Magnetic Resonance Conference, Asilomar, USA, April 14-19, 2002
22. **Marjanska M**, Castiglione F, Walls JD, Kubinec M, Chuang I, Pines, A. NMR quantum computing with liquid crystals. 41th Experimental Nuclear Magnetic Resonance Conference, Asilomar, USA, April 9-14, 2000

Peer-Reviewed Poster Presentations at Local Professional Meetings, Conferences, etc.

1. Cheong I, Deelchand DK, Eberly LE, **Marjanska M**, Walk D, Oz G. Longitudinal ^1H MR spectroscopy in amyotrophic lateral sclerosis at 7 tesla. Proceedings of the 11th Biannual Minnesota Workshop, Minneapolis, October 5 – 7, 2017

TEACHING AND CURRICULUM DEVELOPMENT

Course/Lecture List

- MPHY 8147: *Advanced Magnetic Resonance Imaging and Spectroscopy*, Spring 2019.
- *Theoretical Benefits of Ultrahigh Field MR in Spectroscopy*, Lecture in UHF Spectroscopy: Addressing Challenges and Achieving Gains Educational Course, ISMRM Workshop on Ultrahigh Field Magnetic Resonance: Technological Advances, Translational Research Promises and Clinical Applications, Dubrovnik, Croatia, March 31 – April 2, 2019.
- *Introduction to Nuclear Magnetic Resonance Spectroscopy*, Zhejiang University, Hangzhou, China, November 22, 2017
- *Introduction to Spectroscopy, Editing Sequences for Siemens Platform, Data Acquisition (Siemens 7 T)*, MRS Training at the 11th Biennial Minnesota High Field Workshop, University of Minnesota, October 3-4, 2017.

- *MRS: Magnetic Resonance Spectroscopy*, ECMED and SynaNet Courses, University of Eastern Finland, Kuopio, Finland, June 7, 2017.
- *Introduction to Spectroscopy, Single Voxel Pulse Sequences, Data Acquisition (Siemens 7 T)*, MRS Training at the 10th Biennial Minnesota High Field Workshop, University of Minnesota, September 29-30, 2015.
- MPHYS 8147 – *Advanced Physics of MRI* (Instructor: Michael Garwood). Guest lecturer, *Dynamic Nuclear Polarization*, April 14, 2014.
- *Single Voxel Pulse Sequences, Data Acquisition (Siemens 7 T), Hot topics: Hyperpolarized ¹³C*, Spectroscopy Hands-On Training at the 9th Biennial Minnesota High Field Workshop, University of Minnesota, October 9-10, 2013.
- *NMR vs. MRI*, Valerie Pierre's Group, Department of Chemistry, University of Minnesota, November 5, 2012
- *Introduction to Spectroscopy, GABA Detection and Quantification, Body Spectroscopy: Muscle*, Spectroscopy Hands-On Training at the 8th Biennial Minnesota High Field Workshop, University of Minnesota, October 12-13, 2011.
- CHEM 1905 – *Freshman Seminar* (Instructor: Valerie Pierre). Guest lecture, *Introduction to Magnetic Resonance Imaging*, October 3, 6, 2011.
- *Methodology of MRS in Transgenic Mouse Models*, 18th Annual International Society for Magnetic Resonance Research in Medicine Meeting, Stockholm, May 1-7, 2010
- *Introduction to Spectroscopy, Spectra Quality*, Spectroscopy Hands-On Training at the 7th Biennial Minnesota High Field Workshop, University of Minnesota, October 6-8, 2009.
- BPHY 8293 – Instructor of Record – *Advanced Topics in Biomedical Magnetic Resonance Imaging and Spectroscopy*, Fall 2006.
- BPHY 8147 / PSY 8960 – *Advanced Physics of MRI*, Fall 2005.
- BPHY 8293 – Directed Studies in MR Research, Fall 2003.

Collaborative Curriculum Development

- MPHYS 8147: *Advanced Magnetic Resonance and Spectroscopy*, Spring 2019.
- *Advanced MRS Weekend Course*, International Society of Magnetic Resonance in Medicine Meeting, Sydney, Australia, April 18-23, 2020.
- *Deep Learning in MRS(I) Sunrise Course*, International Society of Magnetic Resonance in Medicine Meeting, Sydney, Australia, April 18-23, 2020.
- *Body MRS – Cancer Sunrise Course*, International Society of Magnetic Resonance in Medicine Meeting, Sydney, Australia, April 18-23, 2020.
- *Body MRS – Non-Cancer Sunrise Course* International Society of Magnetic Resonance in Medicine Meeting, Sydney, Australia, April 18-23, 2020.
- *Hyperpolarized ¹³C Metabolic Imaging for Clinical Research Combined Educational and Scientific Session*, International Society of Magnetic Resonance in Medicine Meeting, Sydney, Australia, April 18-23, 2020.
- *UHF Spectroscopy: Addressing Challenges and Achieving Gains Educational Course*, ISMRM Workshop on Ultrahigh Field Magnetic Resonance: Technological Advances, Translational Research Promises and Clinical Applications, Dubrovnik, Croatia, March 31 – April 2, 2019.
- *Basic Spectroscopy Weekend Course*, International Society of Magnetic Resonance in Medicine Meeting, Montreal, Canada, May 11-16, 2019.

- Hyperpolarized MR Spectroscopic Weekend Course, International Society of Magnetic Resonance in Medicine Meeting, Montreal, Canada, May 11-16, 2019.
- Multinuclear Imaging and Spectroscopy: Hyperpolarized ^{13}C Use in Clinical Research and Trials Sunrise Course, International Society of Magnetic Resonance in Medicine Meeting, Montreal, Canada, May 11-16, 2019.
- Cutting-Edge MR Spectroscopy Imaging Weekday Course, International Society of Magnetic Resonance in Medicine Meeting, Montreal, Canada, May 11-16, 2019.
- Multinuclear Imaging and Spectroscopy: Exploration of Fluorine-19 and Oxygen-17 Sunrise Course, International Society of Magnetic Resonance in Medicine Meeting, Montreal, Canada, May 11-16, 2019.
- Spectroscopy Training, the 11th Biennial Minnesota High Field Workshop, 2017.
- Spectroscopy Hands-On Training, the 10th Biennial Minnesota High Field Workshop, 2015.
- Spectroscopy Hands-On Training, the 9th Biennial Minnesota High Field Workshop, 2013.
- Spectroscopy Hands-On Training, the 8th Biennial Minnesota High Field Workshop, 2011.
- Spectroscopy Hands-On Training, the 7th Biennial Minnesota High Field Workshop, 2009.
- BPHY 8293 – Instructor of Record – *Advanced Topics in Biomedical Magnetic Resonance Imaging and Spectroscopy*, Fall 2006.
- BPHY 8147 / PSY 8960 – *Advanced Physics of MRI*, Fall 2005.
- BPHY 8293 – Directed Studies in MR Research, Fall 2003.

Other Educational Activities

- Instructor: CHEM 4094W Directed Studies, Spring 2017
- Taught processing of edited spectroscopy data, Hugo Theoret's Group, University of Montreal, Montreal, April 9 – 11, 2014
- Trained MR technicians and graduate students on how to acquire edited spectroscopy data, Institut universitaire de Gériatrie de Montréal, Montreal, Canada, March 18 – 20, 2009
- Trained MR technicians and graduate students on how to acquire edited spectroscopy data, Centre de neuro-imagerie de recherché, Pitié Salpêtrière Hospital, Paris, France, July 16 – 19, 2007
- Taught Varian programming, Boyd Goodson's Group, Southern Illinois University at Carbondale, Carbondale, IL, August 31 – September 2, 2005.

ADVISING AND MENTORING

Undergraduate Student Activities

Undergraduate Student Advisees

Akshay Patke, Directed Studies, Department of Chemistry, 2017
Kaili Ranta, lab participation, 2011
James Boyum, lab participation, 2006

Graduate Student Activities

Master's Theses Directed

Máté Debreczeni, Evaluation of the intracellular environment in the motor cortex of subjects with amyotrophic lateral sclerosis, Feb – June, 2016

Master's Student Advisees

Sebastien Proulx, University of Montreal, 2009-2012

Brice Tiret, University of Montreal, 2009-2010

Doctoral Students Advised

Michael-Paul Schallmo, Neuroscience Department, 2010-2012
Najib Allaili, Neuroscience Department, CENIR, Paris, 2008-2013
Daniel Franc, M.D.-Ph.D., 2006-2008
Angela Styczynski Snyder, Biomedical Engineering Department, 2006-2009
Mircea Cristian Dobre, M.D.-Ph.D., 2004-2006

Doctoral Committees Served on

Alfredo Luibomir Lopez Kolkovsky, Paris, June 8, 2015

Post-doctoral Fellows Supervised

Caroline Demro, Postdoctoral Associate, Psychiatry, 2018-
Francesca Branzoli, MR Physicist, ICM, Paris, 2013-2016
Romain Valabregue, INSERM Research Engineer, CENIR, Paris, 2007-2013
Uzay E Emir, Postdoctoral Associate, Radiology, 2008
Isabelle Iltis, Postdoctoral Associate, Radiology, 2005-2008
Dinesh Deelchand, Postdoctoral Associate, Radiology, 2004-2007

Other Mentoring Activities

Michael-Paul Schallmo, Assistant Professor, Psychiatry, 2018-
Alecia Dager, Assistant Professor, Yale University, 2016-
Timothy Lano, Research Assistant, 2016-2018
Dan Keefe, Research Assistant, 2013-2015
Ryan Muetzel, Assistant Scientist, 2010-2011
Alaa Houry, Research Coordinator, 2009-2013
Caroline Schimunek, Research Coordinator, 2009-2012
Angela Polk, Laboratory Technician, 2009-2010
Carolyn Hurst, Registered Technologist, Institut universitaire de Gériatrie de Montréal, 2009
Paul Robinson, Research Assistant, 2008-2010
Vincent Perlberg, Research Engineer, Pitié Salpêtrière Hopital, Paris, 2007-2010
Lisa Chow, Assistant Professor, Division of Endocrinology, 2007-2010
Nathaniel Powell, Application Programmer, 2006-2013
Bryon Mueller, Information Technician, 2005-2007

Visiting Scholars Hosted

Francesca Branzoli, Ph.D., Pitié Salpêtrière Hopital, Paris, August 2015
Alan Leung, Medtronic, 2011
Thomas Z. Teisseyre, University of California at Berkeley, 2009-2011
Nick Halpern-Manners, University of California at Berkeley, 2009-2011
Najib Allaili M.D., CENIR, Paris, 2009
Romain Valabregue Ph.D., INSERM Research Engineer, CENIR, Paris, 2009
Vincent Perlberg Ph.D., Pitié Salpêtrière Hopital, Paris, 2008
Vikram S. Bajaj Ph.D., University of California at Berkeley, 2007-2011
Louis S. Bouchard Ph.D., University of California at Berkeley, 2007, 2008
David Michalak Ph.D., University of California at Berkeley, 2007, 2008
Elad Harel, University of California at Berkeley, 2007, 2008

Damien Galanaud M.D., Pitié Salpêtrière Hospital, Paris, 2006-2013

PROFFESIONAL SERVICE AND PUBLIC OUTREACH

Journal Reviewer Experience

Ad hoc reviewer, *Magnetic Resonance in Medicine*
Ad hoc reviewer, *NMR in Biomedicine*
Ad hoc reviewer, *Journal of Alzheimer's Disease*
Ad hoc reviewer, *NeuroImage*
Ad hoc reviewer, *Journal of Magnetic Resonance*
Ad hoc reviewer, *Journal of Magnetic Resonance Imaging*
Ad hoc reviewer, *MAGMA*
Ad hoc reviewer, *Neurobiology of Aging*
Ad hoc reviewer, *PLoS ONE*
Ad hoc reviewer, *Science*
Ad hoc reviewer, *Brain Cognition*
Ad hoc reviewer, *Magnetic Resonance Imaging*
Ad hoc reviewer, *Current Medical Imaging Reviews*
Ad hoc reviewer, *Analytical Biochemistry*
Ad hoc reviewer, *Journal of Cerebral Metabolism and Blood Flow*

Review panels for external funding agencies, foundations, etc.

NIH, Bioengineering Research Partnership Panel, Sep. 2018

Grant Reviewer Experience

Netherlands Organisation for Scientific Research, 2017
National Science Foundation, CAREER proposals, 2016
Human Frontier Science Program, 2014

Conference Abstract Reviewer Experience

ISMRM Annual Meeting, 2018
ISMRM Annual Meeting, 2017
ISMRM Annual Meeting, 2016
ISMRM Annual Meeting, 2015
ISMRM Annual Meeting, 2012

Consulting Positions

Icahn School of Medicine at Mount Sinai, NY, 03/2014-03/2015

Organization of conferences, workshops, panels, symposia

- 12th Biennial Minnesota High Field Workshop Planning Committee, 2019
- ISMRM Workshop on Ultrahigh Field Magnetic Resonance: Technological Advances, Translational Research Promises and Clinical Applications, Dubrovnik, Croatia, March 31 – April 2, 2019.
- 11th Biennial Minnesota High Field Workshop Planning Committee, 2017
- Fitting Challenge, Engaged the MRS community in fitting of sample datasets to compare fitting packages and identify problems and improvements that could be made to make fitting more accurate and reproducible, 2016
- ISMRM Workshop on MR Spectroscopy: From Current Best Practice to Latest Frontiers, Lake Constance, Germany, August 14-17, 2016

- 10th Biennial Minnesota High Field Workshop Planning Committee, 2015
- 9th Biennial Minnesota High Field Workshop Planning Committee, 2013
- 8th Biennial Minnesota High Field Workshop Planning Committee, 2011
- 7th Biennial Minnesota High Field Workshop Planning Committee, 2009
- 6th Biennial Minnesota High Field Workshop Planning Committee, 2007

Scientific Session Moderator

- 11th Biennial Minnesota High Field Workshop, Power Poster Session, 2017
- 25th Annual ISMRM Meeting, “Functional and Diffusion MRS”, 2017
- 10th Biennial Minnesota High Field Workshop, Poster Session, 2015
- 8th Biennial Minnesota High Field Workshop, “X-Nuclei MRS. Is the SNR High Enough to make it Finally Useful?”, 2011
- 18th Annual ISMRM Meeting, “Spectroscopy Methodology for Improved Metabolite Detection”, 2010
- 7th Biennial Minnesota High Field Workshop, Poster Session, 2009
- 17th Annual ISMRM Meeting, “MRS Methodology”, 2009
- 5th Biennial Minnesota High Field Workshop, “Novel Techniques”, 2005

Committee memberships

- Molecular and Spectroscopy Educational Table Chair, AMPC, 2019-2020
- Executive Committee, Experimental Nuclear Magnetic Resonance Conference (ENC), 2018 – 2021
- AMPC Named Lecturer Subcommittee, 2018-2019
- Annual Program Committee (AMPC), International Society of Magnetic Resonance in Medicine ISMRM, 2017 – 2020
- Secretary (elected), ISMRM Dynamic Spectroscopy Study Group, 2013-2015

Service to the University/Medical School/Department

University of Minnesota

- Member, CMRR Safety Committee, 07/2014 – present
- Leader, Agilent Users’ Meeting at CMRR, 2011 - 2017
- Organizer, CMRR Seminar Series, 2006 - 2017
- Member, Center for Magnetic Resonance Research Biennial Minnesota High Field Workshop Planning Committee, 2007-2019
- Establisher and Curator, CMRR Library, 2004 - 2016

Community Outreach Activities

- Newbie Reception at International Society of Magnetic Resonance in Medicine Meeting, Montreal, Canada, May 11 – 16, 2019
- Newbie Reception at International Society of Magnetic Resonance in Medicine Meeting, Paris, France, June 16 – 21, 2018
- Science Fair Judge, Anoka-Hennepin STEM Fair, Anoka School District, 2008
- Teacher, Camp for kids, Bethel Church, Princeton, MN, 2007