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PROFESSIONAL
CONTACT Research Computing Associate
Computational Brain Anatomy (CoBrA) Laboratory
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RESEARCH
INTERESTS Structural neuroimaging. Image processing, classification, and registration. Pipeline design and optimization for standardized image processing. High performing computing.

EDUCATION **McMaster University**, Hamilton, ON, Canada
Doctor of Philosophy — Engineering Physics **2014-06**

- Thesis : An Investigation into the Role of Energy and Symmetry at Epitaxial Interfaces
- Adviser : Dr. John S. Preston

Bachelor of Engineering — Engineering Physics **2007-05**

- Awarded with Distinction

HONOURS AND
AWARDS Canadian Open Neuroscience Platform Research Scholar — \$50,000 **2019**
Nano Ontario Conference Best Poster **2011-10**
McMaster Materials Science & Engineering Graduate Conference Best Presentation Delivery **2010-09**
NSERC Postgraduate Scholarship D3 — \$63,000 **2009-2011**
Ontario Graduate Scholarship — Doctoral — \$15,000 — *Declined* **2009**
Ontario Graduate Scholarship — Masters — \$15,000 **2008**

TEACHING
EXPERIENCE **Douglas University Mental Health Institute, CIC**, Montreal, QC, Canada
Research Computing Associate – CIC Software Seminar Series **2014-08 – Present**
Software Carpentry, Online
Volunteer Instructor **2012-11 – Present**
McMaster University, Hamilton, ON, Canada
Instructor — MATLS 1M03, Introduction to Materials Science **2014-06 – 2014-08**
Instructor — ENG PHYS 2CE4, Computational Methods for Engineering Physics **2014-01 – 2014-04**
Teaching Assistant — ENG PHYS 3F04 Introduction to Solid State **2012-09 – 2012-12**
Teaching Assistant — ENG PHYS 4A06 Senior Undergraduate Thesis Project **2008-09 – 2012-05**
Teaching Assistant — ENG PHYS 4U04 Advanced Computer Laboratories **2008-09 – 2009-05**

RESEARCH
EXPERIENCE **McMaster University**, Hamilton, ON, Canada
Laboratory Manager **2009-05 – 2014-05**
Summer and Co-op Student Supervisor **2009-09 – 2014-05**

JOURNAL
REVIEWS PLOS ONE **2019**
Nature Scientific Data **2018**
Elsevier Applied Surface Science **2015**

SERVICE	Centre de la Petite Enfance Funville , Verdun, QC, Canada <i>Board Member</i>	2019-05 – Present
	Software Carpentry , Online <i>Maintainer and Developer</i>	2012-11 – Present
	McMaster University , Hamilton, ON, Canada <i>Ex-Officio Member - Engineering Physics Graduate Advisory Committee</i>	2013-12 – 2014-08
	<i>Engineering Physics Professorial Search Committee</i>	2010-11 – 2011-01
	<i>NanoGiga 2009, 14th Canadian Semiconductor Technology Conference</i>	2009-08
	<i>Graduate Student Association – Phoenix Executive Committee</i>	2009-09 – 2013-12
	Nano Ontario , ON, Canada <i>Board Member At-Large - Chair, Communications Committee</i>	2013-03 – 2015-01
	Center for Inquiry , Toronto, ON, Canada <i>Committee for the Advancement of Scientific Skepticism</i>	2010-10 – 2012-08
BIBLIOMETRICS	Published Peer-Reviewed Articles : 52 (4 first author, 2 senior author)	
	Abstracts in Conference Proceedings : 50	
	Invited Presentations : 11	
	h-index : 15 i10-index : 21	
PATENTS	S. M. Jovanovic, G. A. Devenyi , and J. S. Preston. “Arbitrarily thin ultra smooth film with built-in separation ability and method of forming the same”. 2014026292:A1. 2014-02. URL: https://patentimages.storage.googleapis.com/74/37/22/79228e821a36e5/W02014026292A1.pdf .	
INVITED PRESENTATIONS	J. Near and G. A. Devenyi . <i>MRS Simulation & Preprocessing Using the FID-A Toolkit</i> . MR Spectroscopy Study Group, ISMRM Virtual Meetings. Online, 2017-07. URL: https://www.ismr.org/virtual-meetings/virtual-meetings-archive/ .	
	G. A. Devenyi and R. Schwartz. <i>Skills for Scientific Computing</i> . Software Carpentry Workshop, BIO5 Institute & iPlant Collaborative, Arizona State University. Tempe, AZ, USA, 2015-05. URL: https://rachelss.github.io/2015-04-18-ASU/ .	
	G. A. Devenyi , ..., I. Kozlov et al. <i>Skills for Scientific Computing</i> . Software Carpentry Workshop, Department of Physics, McGill University. Montreal, QC, CA, 2015-01. URL: https://igor-kozlov.github.io/2015-01-10-mcgill/ .	
	J. D. Blischak, ..., G. A. Devenyi et al. <i>Skills for Scientific Computing</i> . Software Carpentry Workshop, Faculty of Medicine, University de Montreal. Saint-Hyacinthe, QC, Canada, 2014-11. URL: https://dhaine.github.io/2014-11-06-fmv/ .	
	G. A. Devenyi . <i>L^AT_EX for Preparation of Scientific Documents and Theses</i> . Department of Electrical and Computer Engineering, McMaster University. Hamilton, ON, Canada, 2014-06.	
	G. A. Devenyi and J. Ory. <i>Skills for Scientific Computing</i> . Software Carpentry Workshop, Statistical Computing Unit, Cornell University. Ithaca, NY, USA, 2014-06. URL: https://gdevenyi.github.io/2014-06-04-cornell/ .	
	G. A. Devenyi . <i>L^AT_EX for Preparation of Scientific Documents and Theses</i> . Department of Medical Physics, McMaster University. Hamilton, ON, Canada, 2014-05.	
	G. W. Wilson and G. A. Devenyi . <i>Skills for Scientific Computing</i> . Software Carpentry Workshop, Department of Physics & Astronomy, McMaster University. Hamilton, ON, Canada, 2014-05. URL: https://gdevenyi.github.io/2014-05-05-mcmaster/ .	
	G. A. Devenyi . <i>L^AT_EX for Preparation of Scientific Documents and Theses</i> . School of Graduate Studies, McMaster University. Hamilton, ON, Canada, 2013-05.	
	G. A. Devenyi . <i>L^AT_EX for Preparation of Scientific Documents and Theses</i> . School of Graduate Studies, McMaster University. Hamilton, ON, Canada, 2012-11.	
	G. A. Devenyi . <i>The Future of Photovoltaics: Next Generation Materials and Devices at McMaster University Engineering Physics</i> . IEEE Hamilton Chapter Monthly Meeting. Hamilton, ON, Canada, 2012-05.	

- E. Guma, ..., **G. A. Devenyi**, ..., M. Chakravarty et al. "Altered Neurodevelopmental Trajectories in Mice Following First and Second Trimester Maternal Immune Activation". In: *Biological psychiatry* 87.9 (2020-05), S141. DOI: [10.1016/j.biopsych.2020.02.375](https://doi.org/10.1016/j.biopsych.2020.02.375).
- S. L. Jones, ..., **G. A. Devenyi**, ..., S. King et al. "Prenatal Maternal Stress Alters the Structural Integrity of the Hypothalamic-Pituitary-Gonadal Axis 20 Years After Exposure: Project ICE Storm". In: *Biological psychiatry* 87.9 (2020-05), S324. DOI: [10.1016/j.biopsych.2020.02.833](https://doi.org/10.1016/j.biopsych.2020.02.833).
- M. Kirschner, ..., **G. A. Devenyi**, ..., B. Misić et al. "Clinical-Anatomical Phenotypes of Schizophrenia". In: *Biological psychiatry* 87.9 (2020-05), S119–S120. DOI: [10.1016/j.biopsych.2020.02.325](https://doi.org/10.1016/j.biopsych.2020.02.325).
- S. L. Jones, ..., **G. A. Devenyi**, ..., S. King et al. *Prenatal maternal stress alters the structural integrity of the hypothalamic pituitary gonadal axis 20 years after exposure: Project Ice Storm*. Society of Biological Psychiatry's 75th Annual Scientific Program and Convention. New York, New York, USA, 2020-04.
- C. Anastassiadis, ..., **G. A. Devenyi**, ..., M. Mallar Chakravarty et al. *The effect of high-fat diet and exercise on neuroanatomy in a mouse model of Alzheimer's disease*. Canadian College of Neuropsychopharmacology 2019 Conference. Montreal, Quebec, Canada, 2019-06. URL: <https://ccnp.ca/Meeting/Program>.
- A. Buckthought, **G. Devenyi**, ..., M. Brossard-Racine et al. *Cerebellar anatomical alterations in youth with complex congenital heart disorder*. International Society for Magnetic Resonance in Medicine 2019 Conference. Montreal, Quebec, Canada, 2019-05. URL: https://www.ismrm.org/19/program_files/DP12.htm.
- G. Desrosiers-Grégoire, ..., **G. A. Devenyi**, M. Mallar Chakravarty et al. *Comparison of the BOLD-evoked response to hypercapnic challenge in mice anesthetized under isoflurane and dexmedetomidine*. International Society for Magnetic Resonance in Medicine 2019 Conference. Montreal, Quebec, Canada, 2019-05. URL: https://www.ismrm.org/19/program_files/DP11.htm.
- D. Goerzen, ..., **G. Devenyi**, ..., J. Near et al. *An MRI-Derived Neuroanatomical Atlas of the Fischer 344 Rat Brain*. International Society for Magnetic Resonance in Medicine 2019 Conference. Montreal, Quebec, Canada, 2019-05. URL: https://www.ismrm.org/19/program_files/DP10.htm.
- C. Anastassiadis, ..., **G. A. Devenyi**, ..., M. Mallar Chakravarty et al. *Can exercise and diet rescue the effects of obesity on Alzheimer's disease-like pathology in a mouse model?* 2019 Rotman Research Institute Conference. Toronto, Ontario, Canada, 2019-03.
- N. Fotopoulos, **G. Devenyi**, ..., R. Joober et al. "SA3 - REDUCED CORTICAL THICKNESS IN CHILDREN WITH ADHD: ROLE OF NET16 AND MATERNAL SMOKING DURING PREGNANCY". In: *European neuropsychopharmacology: the journal of the European College of Neuropsychopharmacology* 29 (2019-01), S823–S824. DOI: [10.1016/j.euroneuro.2017.08.075](https://doi.org/10.1016/j.euroneuro.2017.08.075).
- S. L. Jones, ..., **G. A. Devenyi**, ..., S. King et al. *Prenatal maternal stress affects the structural integrity of the hypothalamic pituitary gonadal axis in males and females: Project Ice Storm*. en. Canadian National Perinatal Research Meeting. Mont-Tremblant, Quebec, 2019.
- C. Anastassiadis, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. *Mitigating the effects of adult obesity with exercise and dietary treatment in a mouse model of Alzheimer's disease*. Society for Neuroscience. San Diego, CA, USA, 2018-11.
- E. Guma, ..., **G. A. Devenyi**, M. M. Chakravarty et al. *Mapping of postnatal neurodevelopment in response to early and late prenatal maternal immune activation in mice*. Society for Neuroscience. San Diego, CA, USA, 2018-11.
- M. N. Skorska, ..., **G. A. Devenyi**, ..., D. P. VanderLaan et al. *Surface area and cortical volume in adolescents who experience gender dysphoria: A preliminary analysis of the relation to sexual orientation*. Canadian Sex Research Forum. Toronto, ON, Canada, 2018-10.
- G. Desrosiers-Gregoire, ..., **G. A. Devenyi**, M. M. Chakravarty et al. *Investigating brain functional connectivity in mouse models of neuropsychiatric disorders using fMRI*. McGill Integrated Program in Neuroscience Retreat. Montreal, QC, Canada, 2018-09.
- M. N. Skorska, ..., **G. A. Devenyi**, ..., D. P. VanderLaan et al. *Surface area and cortical volume in adolescents who experience gender dysphoria: A preliminary analysis of the relation to sexual orientation*. International Academy of Sex Research Meeting. Madrid, Spain, 2018-07.
- J.-A. Bertrand, **G. A. Devenyi**, ..., S. Richard-Devantoy et al. *Thalamic surface alteration in elderly depressed patients at-risk for suicide*. Society for Biological Psychiatry. New York, NY, USA, 2018-05.
- J.-A. Bertrand, **G. A. Devenyi**, ..., S. Richard-Devantoy et al. "T125. Thalamic Shape Differences in Elderly Depressed Patients At-Risk for Suicide". In: *Biological psychiatry* 83.9, Supplement (2018-05), S176–S177. DOI: [10.1016/j.biopsych.2018.02.461](https://doi.org/10.1016/j.biopsych.2018.02.461).
- C. J. Steele, ..., **G. A. Devenyi**, M. M. Chakravarty et al. *Quantifying cortico-cerebellar structural covariance*. International Society for Magnetic Resonance in Medicine. Paris, France, 2018-05.
- S. Tullo, **G. A. Devenyi**, ..., M. M. Chakravarty et al. *MR-based age- and sex-related effects on the striatum, globus pallidus and thalamus in healthy individuals across the adult lifespan*. Canadian Neuroscience Conference. Montreal, QC, Canada, 2018-05.

- S. Guimond, ..., **G. A. Devenyi**, ..., M. Keshavan et al. *Pituitary gland volume differences in individuals with psychosis: Results from the bipolar-schizophrenia network on intermediate phenotypes (B-SNIP) study*. Schizophrenia International Research Society Conference. Florence, Italy, 2018-04.
- S. Guimond, ..., **G. A. Devenyi**, ..., M. S. Keshavan et al. "T22. PITUITARY GLAND VOLUME DIFFERENCES IN INDIVIDUALS WITH PSYCHOSIS: RESULTS FROM THE BIPOLAR-SCHIZOPHRENIA NETWORK ON INTERMEDIATE PHENOTYPES (B-SNIP) STUDY". In: *Schizophrenia bulletin* 44.suppl_1 (2018-04), S121-S121. DOI: [10.1093/schbul/sby016.298](https://doi.org/10.1093/schbul/sby016.298).
- C. Makowski, ..., **G. A. Devenyi**, ..., M. Lepage et al. *Multimodal Quantification of Memory Circuit Microstructure in First Episode Psychosis*. Schizophrenia International Research Society Conference. Florence, Italy, 2018-04.
- C. Makowski, ..., **G. A. Devenyi**, ..., M. Lepage et al. "T172. MULTIMODAL QUANTIFICATION OF MEMORY CIRCUIT MICROSTRUCTURE IN FIRST EPISODE PSYCHOSIS". In: *Schizophrenia bulletin* 44.suppl_1 (2018-04), S182-S182. DOI: [10.1093/schbul/sby016.448](https://doi.org/10.1093/schbul/sby016.448).
- Guadagno, Angela, Kan, ..., **G. A. Devenyi**, ..., C.-D. Walker et al. *Resting-state functional connectivity of the basolateral amygdala is altered in preweaning rats subjected to chronic early life stress*. Society for Neuroscience Conference. Washington, DC, USA, 2017-11.
- S. Tullo, **G. A. Devenyi**, ..., M. M. Chakravarty et al. *MR-based age-and sex-related effects on the striatum, globus pallidus and thalamus in healthy individuals across the adult lifespan*. Society for Neuroscience. Washington, DC, USA, 2017-11.
- S. Bedford, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. *A cross-sectional neuroimaging prospective mega-analysis identifying sex-dependent atypical cortical thickness in autism spectrum disorders*. Canadian College of Neuropsychopharmacology Conference. Kingston, ON, Canada, 2017-07.
- C. L. Tardif, ..., **G. A. Devenyi**, ..., PREVENT-AD Research Group et al. *Hippocampal T1-weighted and FLAIR contrast is associated with CSF biomarkers in asymptomatic individuals with parental history of Alzheimer's disease*. International Society of Magnetic Resonance in Medicine Conference. Honolulu, Hawaii, USA, 2017-07.
- N. Fotopoulos, **G. A. Devenyi**, ..., R. Joobar et al. *Investigating the effects of maternal smoking during pregnancy on brain structure in children with Attention deficit-hyperactivity disorder (ADHD)*. Canadian College of Neuropsychopharmacology Conference. Kingston, ON, Canada, 2017-06.
- S. Bedford, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. *Large-scale (N=1830) analysis of sex-dependent atypical cortical thickness in autism spectrum disorder*. Society for Biological Psychiatry Conference. San Diego, CA, USA, 2017-05.
- D. Gallino, **G. A. Devenyi**, ..., M. M. Chakravarty et al. *High-frequency deep brain stimulation of the fornix improves memory consolidation and causes network-level neuroanatomical remodeling in an Alzheimer's mouse model*. Canadian Association for Neuroscience Conference. Montreal, QC, Canada, 2017-05.
- M. S. Kang, ..., **G. A. Devenyi**, ..., P. Rosa-Neto et al. *Increased level of CSF neurofilament light chain is associated with structural changes in transgenic rat model of Alzheimer's disease*. Brain PET Conference. Berlin, Germany, 2017-04.
- P. F. Hill, ..., **G. A. Devenyi**, ..., R. A. Diana et al. *Functional dissociation and specialization of dentate gyrus and CA3 hippocampal subfields during episodic future thinking*. Cognitive Neuroscience Society Conference. San Francisco, CA, USA, 2017-03.
- K. McKee, ..., **G. A. Devenyi**, ..., S. King et al. *Cerebellar volume mediates the association between prenatal maternal stress and motor performance in adolescent boys: Project Ice Storm*. Canadian National Perinatal Research Meeting. Montebello, QC, Canada, 2017-02.
- G. Ayranci, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. *Influence of amyloid burden on subcortical volume and morphometry*. Society for Neuroscience Conference. San Diego, CA, USA, 2016-11.
- D. Gallino, **G. A. Devenyi**, ..., M. M. Chakravarty et al. *High-frequency deep brain stimulation of the fornix improves memory formation and causes network-level neuroanatomical remodeling in an Alzheimer's mouse model*. Society for Neuroscience Conference. San Diego, CA, USA, 2016-11.
- E. Guma, **G. A. Devenyi**, ..., M. M. Chakravarty et al. *Sex differences in a population with familial high-risk for psychosis: analysis of neuroanatomical and symptom sexual dimorphism*. Society for Neuroscience Conference. San Diego, CA, USA, 2016-11.
- C. J. Steele, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. *A quantification of normative grey-matter structural variability, covariance, and heritability in the human cerebellum*. Society for Neuroscience Conference. San Diego, CA, USA, 2016-11.
- C. L. Tardif, **G. A. Devenyi**, ..., PREVENT-AD Research Group et al. *Hippocampus and subfield volumes are associated with β -amyloid and phospho-tau in asymptomatic individuals with familial history for Alzheimer's disease*. Society for Neuroscience Conference. San Diego, CA, USA, 2016-11.

- D. Vatcher, ..., **G. A. Devenyi**, ..., M. Brossard-Racine et al. *Subcortical Volumes and Psychosocial Outcomes in Young Adults with Congenital Heart Disease*. McGill Medicine Student Research Day. Montreal, QC, CA, 2016-11.
- S. Patel, ..., **G. A. Devenyi**, ..., J. Knight et al. *Heritability of hippocampal subfield volumes using a twin and non-twin sibling design*. Organization for Human Brain Mapping Meeting. Geneva, Switzerland, 2016-06.
- C. J. Steele, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. *Variability and heritability of cerebellar lobules*. Organization for Human Brain Mapping Meeting. Geneva, Switzerland, 2016-06.
- N. Fotopoulos, **G. A. Devenyi**, ..., R. Joober et al. "Structural Brain Imaging (MRI) Case-Control Study of Cortical Thickness and Surface area in Children Affected with Attention Deficit Hyperactivity Disorder (ADHD)". In: *GENETIC EPIDEMIOLOGY*. Vol. 40. 2016, pp. 636–636.
- A. Bedford, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. *Left lateralized sexual dimorphism in cortical thickness in autism*. Society for Neuroscience Conference. Chicago, IL, USA, 2015-10.
- G. A. Devenyi**, ..., M. M. Chakravarty et al. *Structural trajectories of healthy aging in cortical thickness and subcortical morphometry*. Society for Neuroscience 2015. Chicago, IL, USA, 2015-10.
- D. Gallino, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. *Deep brain stimulation in mice using magnetic resonance imaging-compatible carbon electrodes*. Society for Neuroscience 2015. Chicago, IL, USA, 2015-10.
- E. Guma, ..., **G. A. Devenyi**, ..., B. Giros et al. *Brain volume changes following chronic antipsychotic treatment in animal models: MRI and histological study*. Society for Neuroscience Conference. Chicago, IL, USA, 2015-10.
- V. Kong, ..., **G. A. Devenyi**, M. M. Chakravarty et al. *Heterogeneity in neuroanatomical differences in relation to amyloid burden in mild cognitive impairment*. Society for Neuroscience Conference. Chicago, IL, USA, 2015-10.
- R. Patel, **G. Devenyi**, ..., M. M. Chakravarty et al. *Subcortical volume and morphology in Alzheimer's disease and mild cognitive impairment*. Society for Neuroscience Conference. Chicago, IL, USA, 2015-10.
- C. Miki, **G. A. Devenyi**, ..., J. S. Preston et al. "Transfer of Epitaxial Thin Films to Carrier Substrates". In: *APS Meeting Abstracts*. Vol. 2014. 2014-03, p. D53.010. URL: <https://ui.adsabs.harvard.edu/abs/2014APS..MARD53010M>.
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- C. F. Fowler, ..., **G. A. Devenyi**, J. Near et al. "Longitudinal Quantification of Metabolites and Macromolecules Reveals Age- and Sex-Related Changes in the Healthy Fischer 344 Rat Brain". en. 2020-05.
- E. Plitman, ..., **G. A. Devenyi**, ..., M. Chakravarty et al. "Using Non-Negative Matrix Factorization to Examine Treatment Resistance and Response in Patients With Schizophrenia: A Multimodal Imaging Study". In: *Biological psychiatry* 87.9 (2020-05), S350. DOI: [10.1016/j.biopsych.2020.02.899](https://doi.org/10.1016/j.biopsych.2020.02.899).
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- S. Amuno, ..., **G. A. Devenyi** et al. "Altered neurotransmission and neuroimaging biomarkers of chronic arsenic poisoning in wild muskrats (*Ondatra zibethicus*) and red squirrels (*Tamiasciurus hudsonicus*) breeding near the City of Yellowknife, Northwest Territories (Canada)". en. In: *The Science of the total environment* 707 (2020-03), p. 135556. DOI: [10.1016/j.scitotenv.2019.135556](https://doi.org/10.1016/j.scitotenv.2019.135556).
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