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PROFESSIONAL CONTACT Research Computing Associate
Computational Brain Anatomy (CoBrA) Laboratory & Cerebral Imaging Center
Project Lead — Douglas Neuroinformatics Platform
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RESEARCH INTERESTS Structural neuroimaging. Image processing, classification, and registration. Pipeline design and optimization for standardized image processing. High performance computing. Statistical methods in Neuroimaging. Architectural design of data management databases for data capture and management.

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 MIT Press *Imaging Neuroscience* **2023**
Wiley *Human Brain Mapping* **2022, 2023**
Organization for Human Brain Mapping *Aperture Neuro* **2021**

Springer Nature <i>Anatomy and Embryology</i>	2021
Springer Nature <i>Brain Structure & Function</i>	2021
Elsevier <i>NeuroImage</i>	2021
Elsevier <i>Progress in Neuro-Psychopharmacology & Biological Psychiatry</i>	2020
PLOS ONE	2019
Nature <i>Scientific Data</i>	2018
Elsevier <i>Applied Surface Science</i>	2015
SPIE <i>Journal of Photonics For Energy</i>	2014

SERVICE	Centre de la Petite Enfance Funville , Verdun, QC, Canada <i>Board Member</i>	2019-05 – 2021-05
	Software Carpentry , Online <i>Maintainer and Developer shell-novice Lesson</i>	2014-11 – 2022-08
	McMaster University , Hamilton, ON, Canada <i>Ex-Officio Member - Engineering Physics Graduate Advisory Committee</i> <i>Engineering Physics Professorial Search Committee</i> <i>NanoGiga 2009, 14th Canadian Semiconductor Technology Conference</i> <i>Graduate Student Association — Phoenix Executive Committee</i>	2013-12 – 2014-08 2010-11 – 2011-01 2009-08 2009-09 – 2013-12
	Nano Ontario , ON, Canada <i>Board Member At-Large - Chair, Communications Committee</i>	2013-03 – 2015-01

BIBLIOMETRICS	Published Peer-Reviewed Articles : 92 (4 first author, 2 senior author) Abstracts in Conference Proceedings : 87 Invited Presentations : 11 h-index : 30 i10-index : 67
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PATENTS	S. M. Jovanovic, G. A. Devenyi , and J. S. Preston. <i>Arbitrarily thin ultra smooth film with built-in separation ability and method of forming the same</i> . 2014-02. URL: https://patentimages.storage.googleapis.com/74/37/22/79228e821a36e5/W02014026292A1.pdf .
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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. 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. 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. 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. 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. 2014-06. G. A. Devenyi and J. Ory. <i>Skills for Scientific Computing</i> . Software Carpentry Workshop, Statistical Computing Unit, Cornell University. 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. 2014-05. G. W. Wilson and G. A. Devenyi . <i>Skills for Scientific Computing</i> . Software Carpentry Workshop, Department of Physics & Astronomy, McMaster University. 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. 2013-05.
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- G. A. Devenyi.** *L^AT_EX for Preparation of Scientific Documents and Theses.* School of Graduate Studies, McMaster University. 2012-11.
- G. A. Devenyi.** *The Future of Photovoltaics: Next Generation Materials and Devices at McMaster University Engineering Physics.* IEEE Hamilton Chapter Monthly Meeting. 2012-05.
- CONTRIBUTED PUBLICATIONS
- M. Blūma, ..., **G. A. Devenyi**, ..., C. Babiloni et al. “Heterogeneity Of Local Volume Changes In Taups2app Mouse Model Of AD”. en. In: *Alzheimer’s Association International Conference.* Amsterdam, Netherlands. 2024-05.
- K. H. Binda, ..., **G. A. Devenyi**, ..., A. M. Landau et al. *Modulation of SV2A PET and microRNA regulation by Deep Brain Stimulation of the subthalamic nucleus in the unilateral 6-OHDA minipig model of Parkinson’s disease.* NEURORECEPTOR MAPPING (NRM) 2024. 2024-05.
- F. Abboud, ..., **G. A. Devenyi**, ..., M. Brossard-Racine et al. *Cortical Correlates of Executive Functions in Adolescents and Young Adults with a Congenital Heart Defect.* 8th World Congress of Pediatric Cardiology and Cardiac Surgery. 2023-08.
- S. Palmis, ..., **G. A. Devenyi**, ..., M. Brossard-Racine et al. *Cerebellar volumes are altered in youth born preterm or with congenital heart disease.* The Organization for Human Brain Mapping (OHBM) 2023 Annual Meeting. 2023-07.
- S. Palmis, ..., **G. A. Devenyi**, ..., M. Brossard-Racine et al. *Cerebellar volumes are associated with executive functioning in youth born preterm or with congenital heart disease.* Pediatric Academic Societies (PAS) 2023 Annual Meeting. 2023-07.
- D. Benrimoh, ..., **G. A. Devenyi**, ..., S. Ducharme et al. *Trans-Diagnostic Structural Imaging In Psychosis: A Comparison Across Schizophrenia, Frontotemporal Dementia, and Alzheimer’s Disease.* Organization For Human Brain Mapping 2022. 2022-06.
- N. Blostein, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. *Relationship Between Heritability And Latent Dimensions Of Behaviour In The Striatum, Thalamus And Globus Pallidus.* Society For Neuroscience 2021. 2021-11.
- G. A. Devenyi**, ..., M M Chakravarty et al. *Genes Correlated With Increases In Neuroanatomical Variability Through Evolution Are Implicated In Neuropsychiatric Disorders: A Comparative Chimpanzee-Human Neuroimaging And Transcriptomic Study.* Society for Neuroscience 2021. 2021-11.
- O. Parent, ..., **G. A. Devenyi**, M. M. Chakravarty et al. *Comparing Age Trajectories Of MRI Cortical Markers And Myelin: An Exploratory Study.* Society For Neuroscience. 2021-11.
- V. Valiquette, ..., **G. A. Devenyi**, M. Chakravarty et al. *Examining Litter Specific Variability In Mice And Its Impact On Neurodevelopmental Studies.* Society for Neuroscience 2021. 2021-11.
- M. Costantino, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. “Sex differences in cortical morphometry during ageing: Examining the interplay between lifestyle and reproductive factors”. en. In: *bioRxiv* (2021-10), p. 2021.10.14.464259. DOI: [10.1101/2021.10.14.464259](https://doi.org/10.1101/2021.10.14.464259).
- M. Courson, ..., **G. Devenyi**, ..., S. M. Brambati et al. *Secondary Damage Of The Thalamus In Post-Stroke Aphasia: A New Player In Language Recovery Outcome.* Society For The Neurobiology Of Language. 2021-10.
- E. Guma, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. “Differential effects of early or late exposure to prenatal maternal immune activation on mouse embryonic neurodevelopment”. en. In: *bioRxiv* (2021-07), p. 2021.07.14.452084. DOI: [10.1101/2021.07.14.452084](https://doi.org/10.1101/2021.07.14.452084).
- R. A. I. Bethlehem et al. “Brain charts for the human lifespan”. en. In: *bioRxiv* (2021-06), p. 2021.06.08.447489. DOI: [10.1101/2021.06.08.447489](https://doi.org/10.1101/2021.06.08.447489).
- N. Blostein, **G. A. Devenyi**, ..., M. M. C. Armin Raznahan et al. *Subcortical Structure Areal Expansion In The Human Compared To The Chimpanzee And Heritability.* Organization For Human Brain Mapping. 2021-06.
- M. Costantino, ..., **G. Devenyi**, ..., M. M. C. Nicole Gervais et al. *Effects Of Pregnancy: Menopause And Lifestyle Risk Factors On Cortical Thickness In Healthy Ageing.* Organization For Human Brain Mapping. 2021-06.
- L. Cupo, ..., **G. A. Devenyi**, M. Mallar Chakravarty et al. *Characterization Of Early Maternal Immune Activation On Brain And Behavior During Adolescence And Early Adulthood In Mice.* Organization For Human Brain Mapping. 2021-06.
- A. Dai, **G. A. Devenyi**, ..., M. M. Chakravarty et al. *The Association Between Cortical Thickness and Dimensions of the Adolescent Psychosis Spectrum.* Organization For Human Brain Mapping. 2021-06.
- G. Desrosiers-Gregoire, **G. A. Devenyi**, and M. M. C. Joanes Grandjean. *Neural Source Modeling Prevents Removal Of Neural Activity During Confound Regression With fMRI.* Organization For Human Brain Mapping. 2021-06.
- H. Kalantar Hormozi, **G. A. Devenyi**, ..., M. Chakravarty et al. *Multivariate Analysis Of Cortical Morphometry Across Human Brain Development.* Organization for Human Brain Mapping 2021. 2021-06.

- H. Kalantar-Hormozi, **G. A. Devenyi**, ..., M. M. C. Armin Raznahan et al. *Multivariate Analysis Of Cortical Morphometry Across Human Brain Development*. Organization For Human Brain Mapping. 2021-06.
- R. Patel, ..., **G. A. Devenyi**, M. M. Chakravarty et al. *Individual Variability Of Microstructural-Functional Coupling In The Human Cortex*. Organization For Human Brain Mapping. 2021-06.
- S. D. Premasiri, ..., **G. A. Devenyi**, M. M. Chakravarty et al. *A Cascaded 3D U-Net Model For Fast Automatic Segmentation Of The Hippocampus*. Organization For Human Brain Mapping. 2021-06.
- S. Tullo, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. *Whole Brain Age-Related Patterns Of Atrophy, Microstructure, And Cognitive Decline*. Organization For Human Brain Mapping. 2021-06.
- R. Patel, ..., **G. A. Devenyi**, ..., S. Suri et al. "Individual variation in brain structural-cognition relationships in aging". en. In: *bioRxiv* (2021-02), p. 2021.02.19.431732. DOI: [10.1101/2021.02.19.431732](https://doi.org/10.1101/2021.02.19.431732).
- N. Bhagwat, ..., **G. A. Devenyi**, ..., J.-B. Poline et al. "Understanding the impact of preprocessing pipelines on neuroimaging cortical surface analyses". en. In: *GigaScience* 10.1 (2021-01). DOI: [10.1093/gigascience/giaa155](https://doi.org/10.1093/gigascience/giaa155).
- A. Bussy, ..., **G. A. Devenyi**, M. Chakravarty et al. "Volumetric, shape and microstructural alterations of the hippocampal subfields in healthy aging". en. In: *Alzheimer's & dementia: the journal of the Alzheimer's Association* 16.S4 (2020-12). DOI: [10.1002/alz.039589](https://doi.org/10.1002/alz.039589).
- M. Kirschner, ..., **G. A. Devenyi**, ..., B. Mišić et al. "Latent clinical-anatomical dimensions of schizophrenia". en. In: *Schizophrenia bulletin* 46.6 (2020-12), pp. 1426–1438. DOI: [10.1093/schbul/sbaa097](https://doi.org/10.1093/schbul/sbaa097).
- M. N. Skorska, **G. A. Devenyi**, ..., D. P. Vanderlaan et al. *Brain Cortical Thickness And Surface Area In Adolescents Who Experience Gender Dysphoria: A Preliminary Analysis*. The 47th Canadian Sex Research Forum Annual Conference. 2020-10.
- M. Blüma, ..., **G. A. Devenyi**, ..., C. Babiloni et al. "Lifetime brain structural trajectories in TAUPS2APP mouse model of Alzheimer's disease". In: 2020-07. URL: <https://alz.confex.com/alz/20amsterdam/meetingapp.cgi/Paper/45523>.
- E. Olafson, ..., **G. A. Devenyi**, ..., MRC AIMS Consortium et al. "Examining the boundary sharpness coefficient as an index of cortical microstructure and its relationship to age and sex in autism spectrum disorder". en. In: *bioRxiv* (2020-07), p. 2020.07.09.196212. DOI: [10.1101/2020.07.09.196212](https://doi.org/10.1101/2020.07.09.196212).
- N. Blostein, ..., **G. A. Devenyi**, M. M. C. Raihaan Patel et al. *The Modular Organization Of Heritability Across The Cortex*. Organization For Human Brain Mapping. 2020-06.
- N. Blostein, ..., **G. A. Devenyi**, M. M. Chakravarty et al. *Heritability Of Subcortical Structures Using A Twin And Non-Twin Sibling Design*. Organization For Human Brain Mapping. 2020-06.
- A. Bussy, ..., **G. A. Devenyi**, M. M. Chakravarty et al. *Impact Of Commonly Used Acquisition Sequences On Automated Hippocampal Subfield Volume Estimates*. Organization For Human Brain Mapping. 2020-06.
- M. Chapleau, ..., **G. A. Devenyi**, ..., S. M. Brambati et al. "Deformation-based shape analysis of the hippocampus in the semantic variant of primary progressive aphasia and Alzheimer's disease". en. In: *NeuroImage. Clinical* 27.102305 (2020-06), p. 102305. DOI: [10.1016/j.nicl.2020.102305](https://doi.org/10.1016/j.nicl.2020.102305).
- D. R. Gallino, **G. A. Devenyi**, and M. M. Chakravarty. *Acute fornix deep brain stimulation remodels brain and improves memory in Alzheimer's mouse model*. Organization For Human Brain Mapping. 2020-06.
- S. L. Jones, ..., **G. A. Devenyi**, ..., S. King et al. *Prenatal Stress Alters Hypothalamic-Pituitary-Gonadal Axis Structures In Adults: Project Ice Storm*. Organization For Human Brain Mapping 2020. 2020-06.
- S. McGillivray, ..., **G. A. Devenyi**, ..., C. Tardif et al. *Quantitative MRI of Social Isolation In Male And Female Mice*. Organization For Human Brain Mapping. 2020-06.
- E. Plitman, ..., **G. A. Devenyi**, M. M. Chakravarty et al. *Test-Retest Reliability Of Cortical Thickness And Structure Volume In Volumetric Navigator Sequences*. Organization For Human Brain Mapping. 2020-06.
- E. Guma, ..., **G. A. Devenyi**, ..., M. Chakravarty et al. "Altered Neurodevelopmental Trajectories in Mice Following First and Second Trimester Maternal Immune Activation". In: vol. 87. Elsevier, 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. Shafiei et al. "Clinical-Anatomical Phenotypes of Schizophrenia". In: *Biologicals: journal of the International Association of Biological Standardization* 87.9 (2020), S119–S120. DOI: [10.1016/j.biopsych.2020.02.325](https://doi.org/10.1016/j.biopsych.2020.02.325).
- 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. 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. 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. 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. 2019-05. URL: https://www.ismrm.org/19/program_files/DP10.htm.
- 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 Using MRI*. University Of Toronto Mississauga Graduate Research Colloquium. 2019-04.
- 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. 2019-03.
- N. Fotopoulos, **G. Devenyi**, ..., R. Joobar 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. 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. 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. 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 Using MRI*. Gender Development Research Conference. 2018-10.
- 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. 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. 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. 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. 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. 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. 2018-05.
- 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". en. In: *Schizophrenia bulletin* 44.suppl_1 (2018-04), S121–S121. DOI: [10.1093/schbul/sby016.298](https://doi.org/10.1093/schbul/sby016.298).
- 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. 2018-04.
- C. Makowski, ..., **G. Devenyi**, ..., M. Lepage et al. "T172. MULTIMODAL QUANTIFICATION OF MEMORY CIRCUIT MICROSTRUCTURE IN FIRST EPISODE PSYCHOSIS". en. In: *Schizophrenia bulletin* 44.suppl_1 (2018-04), S182–S182. DOI: [10.1093/schbul/sby016.448](https://doi.org/10.1093/schbul/sby016.448).
- C. Makowski, ..., **G. A. Devenyi**, ..., M. Lepage et al. *Multimodal Quantification of Memory Circuit Microstructure in First Episode Psychosis*. Schizophrenia International Research Society Conference. 2018-04.

- 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. 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. 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. 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. 2017-07.
- N. Fotopoulos, **G. A. Devenyi**, ..., R. Joober 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. 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. 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. 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. 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. 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. 2017-02.
- M. S. Kang, ..., **G. A. Devenyi**, ..., K. Blennow et al. "The structural atrophy is associated with CSF neurofilament light chain in a transgenic rat model of Alzheimer's disease". In: *JOURNAL OF CEREBRAL BLOOD FLOW AND METABOLISM*. Vol. 37. 2017, pp. 491–492.
- G. Ayranci, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. *Influence of amyloid burden on subcortical volume and morphometry*. Society for Neuroscience Conference. 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. 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. 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. 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. 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. 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. 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. 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. 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. 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. 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. 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. 2015-10.
- R. Patel, **G. A. Devenyi**, ..., M. M. Chakravarty et al. *Subcortical volume and morphology in Alzheimer's disease and mild cognitive impairment*. Society for Neuroscience Conference. 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>.
- S. Guimond, ..., **G. A. Devenyi**, ..., M. Keshavan et al. "Enlarged pituitary gland volume: a possible state rather than trait marker of psychotic disorders". en. In: *Psychological medicine* 54.8 (2024-06), pp. 1835–1843. DOI: [10.1017/S003329172300380X](https://doi.org/10.1017/S003329172300380X).
- N. H. Fotopoulos, ..., **G. A. Devenyi**, ..., R. Joobar et al. "Maternal smoking during pregnancy and cortical structure in children with attention-deficit/hyperactivity disorder". en. In: *Psychiatry research* 334.115791 (2024-04), p. 115791. DOI: [10.1016/j.psychres.2024.115791](https://doi.org/10.1016/j.psychres.2024.115791).
- N. C. W. Ho, ..., K. Dunlop et al. "Atypical brain aging and its association with working memory performance in major depressive disorder". en. In: *Biological psychiatry: cognitive neuroscience and neuroimaging* (2024-04). DOI: [10.1016/j.bpsc.2024.04.008](https://doi.org/10.1016/j.bpsc.2024.04.008).
- N. R. Livingston, ..., **G. A. Devenyi**, ..., G. Modinos et al. "Effects of diazepam on hippocampal blood flow in people at clinical high risk for psychosis". en. In: *Neuropsychopharmacology: official publication of the American College of Neuropsychopharmacology* (2024-04). DOI: [10.1038/s41386-024-01864-9](https://doi.org/10.1038/s41386-024-01864-9).
- C. Gaiser, ..., **G. A. Devenyi**, ..., R. L. Muetzel et al. "Population-wide cerebellar growth models of children and adolescents". en. In: *Nature communications* 15.1 (2024-03), p. 2351. DOI: [10.1038/s41467-024-46398-2](https://doi.org/10.1038/s41467-024-46398-2).
- R. Patel, ..., **G. A. Devenyi**, ..., S. Suri et al. "Inter- and intra-individual variation in brain structural-cognition relationships in aging". en. In: *Alzheimer's & dementia: the journal of the Alzheimer's Association* 19.S17 (2023-12). DOI: [10.1002/alz.074081](https://doi.org/10.1002/alz.074081).
- V. Valiquette, ..., **G. A. Devenyi**, M. M. Chakravarty et al. "Examining litter specific variability in mice and its impact on neurodevelopmental studies". en. In: *NeuroImage* 269.119888 (2023-04), p. 119888. DOI: [10.1016/j.neuroimage.2023.119888](https://doi.org/10.1016/j.neuroimage.2023.119888).
- H. Kalantar-Hormozi, ..., **G. A. Devenyi**, M. M. Chakravarty et al. "A cross-sectional and longitudinal study of human brain development: The integration of cortical thickness, surface area, gyrification index, and cortical curvature into a unified analytical framework". en. In: *NeuroImage* 268.119885 (2023-03), p. 119885. DOI: [10.1016/j.neuroimage.2023.119885](https://doi.org/10.1016/j.neuroimage.2023.119885).
- R. A. I. Bethlehem et al. "Publisher Correction: Brain charts for the human lifespan". en. In: *Nature* 610.7931 (2022-10), E6. DOI: [10.1038/s41586-022-05300-0](https://doi.org/10.1038/s41586-022-05300-0).
- P. Ravanfar, ..., **G. A. Devenyi**, ..., C. Pantelis et al. "In vivo 7-Tesla MRI investigation of brain iron and its metabolic correlates in chronic schizophrenia". en. In: *Schizophrenia (Heidelberg, Germany)* 8.1 (2022-10), p. 86. DOI: [10.1038/s41537-022-00293-1](https://doi.org/10.1038/s41537-022-00293-1).
- R. Patel, ..., **G. A. Devenyi**, ..., S. Suri et al. "Inter- and intra-individual variation in brain structural-cognition relationships in aging". en. In: *NeuroImage* 257.119254 (2022-08), p. 119254. DOI: [10.1016/j.neuroimage.2022.119254](https://doi.org/10.1016/j.neuroimage.2022.119254).
- R. A. I. Bethlehem et al. "Brain charts for the human lifespan". en. In: *Nature* 604.7906 (2022-04), pp. 525–533. DOI: [10.1038/s41586-022-04554-y](https://doi.org/10.1038/s41586-022-04554-y).
- C. F. Fowler, ..., **G. A. Devenyi**, ..., J. Near et al. "Neurochemical and cognitive changes precede structural abnormalities in the TgF344-AD rat model". en. In: *Brain communications* 4.2 (2022-03), fcac072. DOI: [10.1093/braincomms/fcac072](https://doi.org/10.1093/braincomms/fcac072).
- C. Fowler, ..., **G. A. Devenyi**, ..., J. Near et al. "Longitudinal characterization of neuroanatomical changes in the Fischer 344 rat brain during normal aging and between sexes". en. In: *Neurobiology of aging* 109 (2022-01), pp. 216–228. DOI: [10.1016/j.neurobiolaging.2021.10.003](https://doi.org/10.1016/j.neurobiolaging.2021.10.003).
- R. Ochi, ..., **G. A. Devenyi**, ..., S. Nakajima et al. "Investigating structural subdivisions of the anterior cingulate cortex in schizophrenia, with implications for treatment resistance and glutamatergic levels". en. In: *Journal of psychiatry & neuroscience: JPN* 47.1 (2022-01), E1–E10. DOI: [10.1503/jpn.210113](https://doi.org/10.1503/jpn.210113).
- A. Bussy, ..., **G. A. Devenyi**, ..., S. Ducharme et al. "Cerebellar and subcortical atrophy contribute to psychiatric symptoms in frontotemporal dementia". en. In: *bioRxiv* (2021-11), p. 2021.11.12.468429. DOI: [10.1101/2021.11.12.468429](https://doi.org/10.1101/2021.11.12.468429).

- A. Bussy, ..., **G. A. Devenyi**, M. M. Chakravarty et al. "Hippocampal shape across the healthy lifespan and its relationship with cognition". en. In: *Neurobiology of aging* 106 (2021-10), pp. 153–168. DOI: [10.1016/j.neurobiolaging.2021.03.018](https://doi.org/10.1016/j.neurobiolaging.2021.03.018).
- M. Costantino, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. "Sex differences in cortical morphometry during ageing: Examining the interplay between lifestyle and reproductive factors". en. In: *bioRxiv* (2021-10), p. 2021.10.14.464259. DOI: [10.1101/2021.10.14.464259](https://doi.org/10.1101/2021.10.14.464259).
- J. Germann, ..., **G. A. Devenyi** et al. "Involvement of the habenula in the pathophysiology of autism spectrum disorder". en. In: *Scientific reports* 11.1 (2021-10), p. 21168. DOI: [10.1038/s41598-021-00603-0](https://doi.org/10.1038/s41598-021-00603-0).
- S. Guimond, ..., **G. A. Devenyi**, ..., M. Keshavan et al. "A diagnosis and Biotype comparison across the psychosis spectrum: Investigating volume and shape amygdala-hippocampal differences from the B-SNIP study". en. In: *Schizophrenia bulletin* 47.6 (2021-10), pp. 1706–1717. DOI: [10.1093/schbul/sbab071](https://doi.org/10.1093/schbul/sbab071).
- E. Guma, ..., **G. A. Devenyi**, M. M. Chakravarty et al. "Subtle alterations in neonatal neurodevelopment following early or late exposure to prenatal maternal immune activation in mice". en. In: *NeuroImage. Clinical* 32.102868 (2021-10), p. 102868. DOI: [10.1016/j.nicl.2021.102868](https://doi.org/10.1016/j.nicl.2021.102868).
- M. S. Kang, ..., **G. A. Devenyi**, ..., Alzheimer's Disease Neuroimaging Initiative et al. "Amyloid-beta modulates the association between neurofilament light chain and brain atrophy in Alzheimer's disease". en. In: *Molecular psychiatry* 26.10 (2021-10), pp. 5989–6001. DOI: [10.1038/s41380-020-0818-1](https://doi.org/10.1038/s41380-020-0818-1).
- E. Guma, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. "Early or late gestational exposure to maternal immune activation alters neurodevelopmental trajectories in mice: An integrated neuroimaging, behavioral, and transcriptional study". en. In: *Biological psychiatry* 90.5 (2021-09), pp. 328–341. DOI: [10.1016/j.biopsych.2021.03.017](https://doi.org/10.1016/j.biopsych.2021.03.017).
- E. Plitman, ..., **G. A. Devenyi**, M. M. Chakravarty et al. "The impact of the Siemens Tim Trio to Prisma upgrade and the addition of volumetric navigators on cortical thickness, structure volume, and 1H-MRS indices: An MRI reliability study with implications for longitudinal study designs". en. In: *NeuroImage* 238.118172 (2021-09), p. 118172. DOI: [10.1016/j.neuroimage.2021.118172](https://doi.org/10.1016/j.neuroimage.2021.118172).
- E. Guma, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. "Differential effects of early or late exposure to prenatal maternal immune activation on mouse embryonic neurodevelopment". en. In: *bioRxiv* (2021-07), p. 2021.07.14.452084. DOI: [10.1101/2021.07.14.452084](https://doi.org/10.1101/2021.07.14.452084).
- R. A. I. Bethlehem et al. "Brain charts for the human lifespan". en. In: *bioRxiv* (2021-06), p. 2021.06.08.447489. DOI: [10.1101/2021.06.08.447489](https://doi.org/10.1101/2021.06.08.447489).
- A. Bussy, ..., **G. A. Devenyi**, ..., Alzheimer's Disease Neuroimaging Initiative et al. "Hippocampal subfield volumes across the healthy lifespan and the effects of MR sequence on estimates". en. In: *NeuroImage* 233.117931 (2021-06), p. 117931. DOI: [10.1016/j.neuroimage.2021.117931](https://doi.org/10.1016/j.neuroimage.2021.117931).
- F. V. Gouveia, ..., **G. A. Devenyi**, ..., R. C. R. Martinez et al. "Bilateral amygdala radio-frequency ablation for refractory aggressive behavior alters local cortical thickness to a pattern found in non-refractory patients". en. In: *Frontiers in human neuroscience* 15 (2021-06), p. 653631. DOI: [10.3389/fnhum.2021.653631](https://doi.org/10.3389/fnhum.2021.653631).
- E. Olafson, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. "Examining the boundary sharpness coefficient as an index of cortical microstructure in autism spectrum disorder". en. In: *Cerebral cortex (New York, N.Y.: 1991)* 31.7 (2021-06), pp. 3338–3352. DOI: [10.1093/cercor/bhab015](https://doi.org/10.1093/cercor/bhab015).
- N. H. Fotopoulos, **G. A. Devenyi**, ..., R. Joobar et al. "Cumulative exposure to ADHD medication is inversely related to hippocampus subregional volume in children". en. In: *NeuroImage. Clinical* 31.102695 (2021-05), p. 102695. DOI: [10.1016/j.nicl.2021.102695](https://doi.org/10.1016/j.nicl.2021.102695).
- 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. In: *Neurobiology of aging* 101 (2021-05), pp. 109–122. DOI: [10.1016/j.neurobiolaging.2020.12.012](https://doi.org/10.1016/j.neurobiolaging.2020.12.012).
- N. J. Tustison, ..., **G. A. Devenyi**, ..., B. B. Avants et al. "The ANTsX ecosystem for quantitative biological and medical imaging". en. In: *Scientific reports* 11.1 (2021-04), p. 9068. DOI: [10.1038/s41598-021-87564-6](https://doi.org/10.1038/s41598-021-87564-6).
- R. Patel, ..., **G. A. Devenyi**, ..., S. Suri et al. "Individual variation in brain structural-cognition relationships in aging". en. In: *bioRxiv* (2021-02), p. 2021.02.19.431732. DOI: [10.1101/2021.02.19.431732](https://doi.org/10.1101/2021.02.19.431732).
- N. Bhagwat, ..., **G. A. Devenyi**, ..., J.-B. Poline et al. "Understanding the impact of preprocessing pipelines on neuroimaging cortical surface analyses". en. In: *GigaScience* 10.1 (2021-01). DOI: [10.1093/gigascience/giaa155](https://doi.org/10.1093/gigascience/giaa155).
- F. V. Gouveia, ..., **G. Devenyi**, ..., R. C. R. Martinez et al. "Longitudinal changes after amygdala surgery for intractable aggressive behavior: Clinical, imaging genetics, and deformation-based morphometry study-A case series: Clinical, imaging genetics, and deformation-based morphometry study-A case series". en. In: *Neurosurgery* 88.2 (2021-01), E158–E169. DOI: [10.1093/neuros/nyaa378](https://doi.org/10.1093/neuros/nyaa378).
- L. A. Trujillo-Villarreal, ..., **G. A. Devenyi**, ..., E. E. Garza-Villarreal et al. "Maternal cafeteria diet exposure primes depression-like behavior in the offspring evoking lower brain volume related to changes in synaptic

- terminals and gliosis”. en. In: *Translational psychiatry* 11.1 (2021-01), p. 53. DOI: [10.1038/s41398-020-01157-x](https://doi.org/10.1038/s41398-020-01157-x).
- M. Kirschner, ..., **G. A. Devenyi**, ..., B. Mišić et al. “Latent clinical-anatomical dimensions of schizophrenia”. en. In: *Schizophrenia bulletin* 46.6 (2020-12), pp. 1426–1438. DOI: [10.1093/schbul/sbaa097](https://doi.org/10.1093/schbul/sbaa097).
- J. Snytte, ..., **G. A. Devenyi**, ..., M. N. Rajah et al. “The ratio of posterior-anterior medial temporal lobe volumes predicts source memory performance in healthy young adults”. en. In: *Hippocampus* 30.11 (2020-11), pp. 1209–1227. DOI: [10.1002/hipo.23251](https://doi.org/10.1002/hipo.23251).
- M. Ranjan, ..., **G. A. Devenyi**, ..., M. Hodaie et al. “Tractography-based targeting of the ventral intermediate nucleus: accuracy and clinical utility in MRgFUS thalamotomy”. en. In: *Journal of neurosurgery* 133.4 (2020-10), pp. 1002–1009. DOI: [10.3171/2019.6.jns19612](https://doi.org/10.3171/2019.6.jns19612).
- J. Germann, ..., **G. A. Devenyi** et al. “Fully automated habenula segmentation provides robust and reliable volume estimation across large magnetic resonance imaging datasets, suggesting intriguing developmental trajectories in psychiatric disease”. en. In: *Biological psychiatry: cognitive neuroscience and neuroimaging* 5.9 (2020-09), pp. 923–929. DOI: [10.1016/j.bpsc.2020.01.004](https://doi.org/10.1016/j.bpsc.2020.01.004).
- F. V. Gouveia, ..., **G. A. Devenyi**, ..., R. C. R. Martinez et al. “Refractoriness of aggressive behaviour to pharmacological treatment: cortical thickness analysis in autism spectrum disorder”. en. In: *BJPsych open* 6.5 (2020-08), e85. DOI: [10.1192/bjo.2020.71](https://doi.org/10.1192/bjo.2020.71).
- E. Olafson, ..., **G. A. Devenyi**, ..., MRC AIMS Consortium et al. “Examining the boundary sharpness coefficient as an index of cortical microstructure and its relationship to age and sex in autism spectrum disorder”. en. In: *bioRxiv* (2020-07), p. 2020.07.09.196212. DOI: [10.1101/2020.07.09.196212](https://doi.org/10.1101/2020.07.09.196212).
- M. Chapleau, ..., **G. A. Devenyi**, ..., S. M. Brambati et al. “Deformation-based shape analysis of the hippocampus in the semantic variant of primary progressive aphasia and Alzheimer’s disease”. en. In: *NeuroImage. Clinical* 27.102305 (2020-06), p. 102305. DOI: [10.1016/j.nicl.2020.102305](https://doi.org/10.1016/j.nicl.2020.102305).
- 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”. en. 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).
- D. Goerzen, ..., **G. A. Devenyi**, ..., J. Near et al. “An MRI-derived neuroanatomical atlas of the Fischer 344 rat brain”. en. In: *Scientific reports* 10.1 (2020-04), p. 6952. DOI: [10.1038/s41598-020-63965-x](https://doi.org/10.1038/s41598-020-63965-x).
- G. Shafiei, ..., **G. A. Devenyi**, ..., B. Mišić et al. “Spatial patterning of tissue volume loss in schizophrenia reflects brain network architecture”. en. In: *Biological psychiatry* 87.8 (2020-04), pp. 727–735. DOI: [10.1016/j.biopsych.2019.09.031](https://doi.org/10.1016/j.biopsych.2019.09.031).
- 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* 707.135556 (2020-03), p. 135556. DOI: [10.1016/j.scitotenv.2019.135556](https://doi.org/10.1016/j.scitotenv.2019.135556).
- S. A. Bedford, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. “Large-scale analyses of the relationship between sex, age and intelligence quotient heterogeneity and cortical morphometry in autism spectrum disorder”. en. In: *Molecular psychiatry* 25.3 (2020-03), pp. 614–628. DOI: [10.1038/s41380-019-0420-6](https://doi.org/10.1038/s41380-019-0420-6).
- R. Patel, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. “Investigating microstructural variation in the human hippocampus using non-negative matrix factorization”. en. In: *NeuroImage* 207.116348 (2020-02), p. 116348. DOI: [10.1016/j.neuroimage.2019.116348](https://doi.org/10.1016/j.neuroimage.2019.116348).
- A. Talpalaru, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. “Identifying schizophrenia subgroups using clustering and supervised learning”. en. In: *Schizophrenia research* 214 (2019-12), pp. 51–59. DOI: [10.1016/j.schres.2019.05.044](https://doi.org/10.1016/j.schres.2019.05.044).
- S. Tullo, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. “MR-based age-related effects on the striatum, globus pallidus, and thalamus in healthy individuals across the adult lifespan”. en. In: *Human brain mapping* 40.18 (2019-12), pp. 5269–5288. DOI: [10.1002/hbm.24771](https://doi.org/10.1002/hbm.24771).
- J. L. Winterburn, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. “Can we accurately classify schizophrenia patients from healthy controls using magnetic resonance imaging and machine learning? A multi-method and multi-dataset study”. en. In: *Schizophrenia research* 214 (2019-12), pp. 3–10. DOI: [10.1016/j.schres.2017.11.038](https://doi.org/10.1016/j.schres.2017.11.038).
- D. Gallino, **G. A. Devenyi**, ..., M. M. Chakravarty et al. “Longitudinal assessment of the neuroanatomical consequences of deep brain stimulation: Application of fornical DBS in an Alzheimer’s mouse model”. en. In: *Brain research* 1715 (2019-07), pp. 213–223. DOI: [10.1016/j.brainres.2019.03.030](https://doi.org/10.1016/j.brainres.2019.03.030).
- E. Guma, ..., **G. A. Devenyi**, ..., B. Giros et al. “Role of D3 dopamine receptors in modulating neuroanatomical changes in response to antipsychotic administration”. en. In: *Scientific reports* 9.1 (2019-05), p. 7850. DOI: [10.1038/s41598-019-43955-4](https://doi.org/10.1038/s41598-019-43955-4).
- G. Shafiei, ..., **G. A. Devenyi**, ..., B. Mišić et al. “Spatial patterning of tissue volume loss in schizophrenia reflects brain network architecture”. en. In: *bioRxiv* (2019-05), p. 626168. DOI: [10.1101/626168](https://doi.org/10.1101/626168).

- S. Stojanovski, ..., **G. A. Devenyi**, ..., A. L. Wheeler et al. "Polygenic risk and neural substrates of attention-deficit/hyperactivity disorder symptoms in youths with a history of mild traumatic brain injury". en. In: *Biological psychiatry* 85.5 (2019-03), pp. 408–416. DOI: [10.1016/j.biopsych.2018.06.024](https://doi.org/10.1016/j.biopsych.2018.06.024).
- F. V. Gouveia, ..., **G. A. Devenyi**, ..., R. C. R. Martinez et al. "Clinical, imaging genetics and deformation based morphometry study of longitudinal changes after surgery for intractable aggressive behaviour". en. In: *bioRxiv* (2019-02), p. 548826. DOI: [10.1101/548826](https://doi.org/10.1101/548826).
- C. P. E. Rollins, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. "Contributions of a high-fat diet to Alzheimer's disease-related decline: A longitudinal behavioural and structural neuroimaging study in mouse models". en. In: *NeuroImage. Clinical* 21.101606 (2019), p. 101606. DOI: [10.1016/j.nicl.2018.11.016](https://doi.org/10.1016/j.nicl.2018.11.016).
- A. Boutet, ..., **G. A. Devenyi**, ..., A. M. Lozano et al. "Focused ultrasound thalamotomy location determines clinical benefits in patients with essential tremor". en. In: *Brain: a journal of neurology* 141.12 (2018-12), pp. 3405–3414. DOI: [10.1093/brain/awy278](https://doi.org/10.1093/brain/awy278).
- A. Guadagno, ..., **G. A. Devenyi**, ..., C.-D. Walker et al. "Reduced resting-state functional connectivity of the basolateral amygdala to the medial prefrontal cortex in preweaning rats exposed to chronic early-life stress". en. In: *Brain structure & function* 223.8 (2018-11), pp. 3711–3729. DOI: [10.1007/s00429-018-1720-3](https://doi.org/10.1007/s00429-018-1720-3).
- D. Hoops, ..., **G. A. Devenyi**, ..., J. S. Keogh et al. "A 3D MRI-based atlas of a lizard brain: HOOPSet al". en. In: *The Journal of comparative neurology* 526.16 (2018-11), pp. 2511–2547. DOI: [10.1002/cne.24480](https://doi.org/10.1002/cne.24480).
- S. M. Jovanovic, **G. A. Devenyi**, ..., J. S. Preston et al. "Epitaxial thin film transfer for flexible devices from reusable substrates". en. In: *Materials research express* 6.2 (2018-11), p. 025913. DOI: [10.1088/2053-1591/aaf264](https://doi.org/10.1088/2053-1591/aaf264).
- S. M. Sengupta, ..., **G. A. Devenyi**, ..., R. Joobar et al. "Dissecting genetic cross-talk between ADHD and other neurodevelopmental disorders: Evidence from behavioural, pharmacological and brain imaging investigations". en. In: *Psychiatry research* 269 (2018-11), pp. 652–657. DOI: [10.1016/j.psychres.2018.08.080](https://doi.org/10.1016/j.psychres.2018.08.080).
- P. Shaw, ..., **G. A. Devenyi**, ..., T. White et al. "A multicohort, longitudinal study of cerebellar development in attention deficit hyperactivity disorder". en. In: *Journal of child psychology and psychiatry, and allied disciplines* 59.10 (2018-10). in press, pp. 1114–1123. DOI: [10.1111/jcpp.12920](https://doi.org/10.1111/jcpp.12920).
- V. Kong, **G. A. Devenyi**, ..., M. M. Chakravarty et al. "Early-in-life neuroanatomical and behavioural trajectories in a triple transgenic model of Alzheimer's disease". en. In: *Brain structure & function* 223.7 (2018-09), pp. 3365–3382. DOI: [10.1007/s00429-018-1691-4](https://doi.org/10.1007/s00429-018-1691-4).
- E. Guma, ..., **G. A. Devenyi**, ..., B. Giros et al. "Regional brain volume changes following chronic antipsychotic administration are mediated by the dopamine D2 receptor". en. In: *NeuroImage* 176 (2018-08), pp. 226–238. DOI: [10.1016/j.neuroimage.2018.04.054](https://doi.org/10.1016/j.neuroimage.2018.04.054).
- S. Tullo, **G. A. Devenyi**, ..., M. M. Chakravarty et al. "Warping an atlas derived from serial histology to 5 high-resolution MRIs". en. In: *Scientific data* 5 (2018-06), p. 180107. DOI: [10.1038/sdata.2018.107](https://doi.org/10.1038/sdata.2018.107).
- R. S. C. Amaral, ..., **G. A. Devenyi**, ..., Alzheimer's Disease Neuroimaging Initiative et al. "Manual segmentation of the fornix, fimbria, and alveus on high-resolution 3T MRI: Application via fully-automated mapping of the human memory circuit white and grey matter in healthy and pathological aging". en. In: *NeuroImage* 170 (2018-04), pp. 132–150. DOI: [10.1016/j.neuroimage.2016.10.027](https://doi.org/10.1016/j.neuroimage.2016.10.027).
- E. A. Garza-Villarreal, ..., **G. A. Devenyi**, J. J. Gonzalez-Olvera et al. "Patterns of reduced cortical thickness and striatum pathological morphology in cocaine addiction". en. In: *bioRxiv* (2018-04), p. 306068. DOI: [10.1101/306068](https://doi.org/10.1101/306068).
- C. Makowski, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. "Evaluating accuracy of striatal, pallidal, and thalamic segmentation methods: Comparing automated approaches to manual delineation". en. In: *NeuroImage* 170 (2018-04), pp. 182–198. DOI: [10.1016/j.neuroimage.2017.02.069](https://doi.org/10.1016/j.neuroimage.2017.02.069).
- G. A. Devenyi**, ..., G. Wilson et al. "Ten simple rules for collaborative lesson development". en. In: *PLoS computational biology* 14.3 (2018-03), e1005963. DOI: [10.1371/journal.pcbi.1005963](https://doi.org/10.1371/journal.pcbi.1005963).
- C. L. Tardif, **G. A. Devenyi**, ..., PREVENT-AD Research Group et al. "Regionally specific changes in the hippocampal circuitry accompany progression of cerebrospinal fluid biomarkers in preclinical Alzheimer's disease". en. In: *Human brain mapping* 39.2 (2018-02), pp. 971–984. DOI: [10.1002/hbm.23897](https://doi.org/10.1002/hbm.23897).
- E. Guma, **G. A. Devenyi**, ..., M. Pruessner et al. "Neuroanatomical and symptomatic sex differences in individuals at clinical high risk for psychosis". en. In: *Frontiers in psychiatry* 8 (2017-12), p. 291. DOI: [10.3389/fpsy.2017.00291](https://doi.org/10.3389/fpsy.2017.00291).
- C. Laidi, ..., G. Devenyi, ..., J. Houenou et al. "Cerebellum and attention to the eyes in autism". In: *European neuropsychopharmacology: the journal of the European College of Neuropsychopharmacology* 27 (2017-10), S605–S606. DOI: [10.1016/s0924-977x\(17\)31152-5](https://doi.org/10.1016/s0924-977x(17)31152-5).
- C. Laidi, ..., **G. A. Devenyi**, ..., J. Houenou et al. "Cerebellar anatomical alterations and attention to eyes in autism". en. In: *Scientific reports* 7.1 (2017-09), p. 12008. DOI: [10.1038/s41598-017-11883-w](https://doi.org/10.1038/s41598-017-11883-w).

- S. Patel, ..., **G. A. Devenyi**, ..., M. M. Chakravarty et al. “Heritability of hippocampal subfield volumes using a twin and non-twin siblings design”. en. In: *Human brain mapping* 38.9 (2017-09), pp. 4337–4352. DOI: [10.1002/hbm.23654](https://doi.org/10.1002/hbm.23654).
- M. S. Kang, ..., **G. Devenyi**, ..., P. Rosa-Neto et al. “[IC-P-048]: ELEVATED CSF LEVELS OF NEUROFILAMENT LIGHT CHAIN IS ASSOCIATED WITH GRAY MATTER NEURODEGENERATION IN BOTH HUMANS AND TRANSGENIC RAT MODEL OF ALZHEIMER’S DISEASE”. en. In: *Alzheimer’s & dementia: the journal of the Alzheimer’s Association* 13.7S_Part_1 (2017-07), P41–P41. DOI: [10.1016/j.jalz.2017.06.2320](https://doi.org/10.1016/j.jalz.2017.06.2320).
- E. A. Garza-Villarreal, ..., **G. A. Devenyi**, ..., J. J. Gonzalez-Olvera et al. “The effect of crack cocaine addiction and age on the microstructure and morphology of the human striatum and thalamus using shape analysis and fast diffusion kurtosis imaging”. en. In: *Translational psychiatry* 7.5 (2017-05), e1122. DOI: [10.1038/tp.2017.92](https://doi.org/10.1038/tp.2017.92).
- K. J. Gorgolewski, ..., **G. A. Devenyi**, ..., R. A. Poldrack et al. “BIDS apps: Improving ease of use, accessibility, and reproducibility of neuroimaging data analysis methods”. en. In: *PLoS computational biology* 13.3 (2017-03). Ed. by D. Schneidman, e1005209. DOI: [10.1371/journal.pcbi.1005209](https://doi.org/10.1371/journal.pcbi.1005209).
- R. Simpson, **G. A. Devenyi**, ..., J. Near et al. “Advanced processing and simulation of MRS data using the FID appliance (FID-A)-An open source, MATLAB-based toolkit”. en. In: *Magnetic resonance in medicine* 77.1 (2017-01), pp. 23–33. DOI: [10.1002/mrm.26091](https://doi.org/10.1002/mrm.26091).
- M. Chakravarty, ..., **G. A. Devenyi**, M. T. Park et al. “Interpreting disease heterogeneity in Alzheimer’s and Parkinson’s disease”. In: *Alzheimer’s & dementia: the journal of the Alzheimer’s Association* 12.7 (2016-07), P327–P328. DOI: [10.1016/j.jalz.2016.06.601](https://doi.org/10.1016/j.jalz.2016.06.601).
- G. Wilson, ..., **G. A. Devenyi**, ..., J. von der Linden et al. *shell-novice: Version 5.3*. 2015-05. DOI: [10.5281/ZENODO.17723](https://doi.org/10.5281/ZENODO.17723).
- K. Meinander, ..., **G. A. Devenyi**, J. S. Preston et al. “Purified water etching of native oxides on heteroepitaxial CdTe thin films”. en. In: *Journal of physics D: Applied physics* 47.49 (2014-12), p. 495304. DOI: [10.1088/0022-3727/47/49/495304](https://doi.org/10.1088/0022-3727/47/49/495304).
- S. M. Jovanovic, **G. A. Devenyi**, ..., J. S. Preston et al. “Optical characterization of epitaxial single crystal CdTe thin films on Al₂O₃ (0001) substrates”. en. In: *Thin solid films* 570.PartA (2014-11), pp. 155–158. DOI: [10.1016/j.tsf.2014.09.027](https://doi.org/10.1016/j.tsf.2014.09.027).
- M. D. Minnick, **G. A. Devenyi**, and R. N. Kleiman. “Optimum reactive ion etching of x-cut quartz using SF₆ and Ar”. en. In: *Journal of micromechanics and microengineering: structures, devices, and systems* 23.11 (2013-11), p. 117002. DOI: [10.1088/0960-1317/23/11/117002](https://doi.org/10.1088/0960-1317/23/11/117002).
- S. Y. Woo, **G. A. Devenyi**, ..., G. A. Botton et al. “Tilted epitaxy on (211)-oriented substrates”. en. In: *Applied physics letters* 102.13 (2013-04), p. 132103. DOI: [10.1063/1.4799278](https://doi.org/10.1063/1.4799278).
- A. P. Yuen, ..., **G. A. Devenyi**, ..., J. S. Preston et al. “Photovoltaic properties of M-phthalocyanine/fullerene organic solar cells”. en. In: *Solar energy (Phoenix, Ariz.)* 86.6 (2012-06), pp. 1683–1688. DOI: [10.1016/j.solener.2012.03.019](https://doi.org/10.1016/j.solener.2012.03.019).
- A. Sundar, ..., **G. A. Devenyi**, ..., S. Neretina et al. “Manipulating the size distribution of supported gold nanostructures”. en. In: *Applied physics letters* 100.1 (2012-01), p. 013111. DOI: [10.1063/1.3675569](https://doi.org/10.1063/1.3675569).
- G. A. Devenyi**, ..., J. S. Preston et al. “The role of vicinal silicon surfaces in the formation of epitaxial twins during the growth of III-V thin films”. en. In: *Journal of applied physics* 110.12 (2011-12), p. 124316. DOI: [10.1063/1.3671022](https://doi.org/10.1063/1.3671022).
- G. A. Devenyi**, ..., J. S. Preston et al. “Epitaxially driven formation of intricate supported gold nanostructures on a lattice-matched oxide substrate”. en. In: *Nano letters* 9.12 (2009-12), pp. 4258–4263. DOI: [10.1021/nl902491g](https://doi.org/10.1021/nl902491g).
- S. Neretina, ..., **G. A. Devenyi**, ..., P. Mascher et al. “Atypical grain growth for (211) CdTe films deposited on surface reconstructed (100) SrTiO₃ substrates”. en. In: *Applied surface science* 255.11 (2009-03), pp. 5674–5681. DOI: [10.1016/j.apsusc.2008.12.050](https://doi.org/10.1016/j.apsusc.2008.12.050).
- S. Neretina, ..., **G. A. Devenyi**, ..., P. Mascher et al. “The role of substrate surface alteration in the fabrication of vertically aligned CdTe nanowires”. en. In: *Nanotechnology* 19.18 (2008-05), p. 185601. DOI: [10.1088/0957-4484/19/18/185601](https://doi.org/10.1088/0957-4484/19/18/185601).