2022 Biomedical Engineering
Publications, Conferences and Book Chapters

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Ballentine G, Friedman SF**, Bzdok D**., "Trips and Neurotransmitters: Discovering Principled Patterns across 6,850 Hallucinogenic Experiences", *Sci Adv*. 2022 Mar 18;8(11):eabl6989. doi: 10.1126/sciadv.abl6989

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Presentation/Conferences

Bzdok, D. *"*Social Bias in Machine Learning"*,* Panel discussion, *Organization for Human Brain Mapping 2022*, Glasgow, Scotland, June 2022 (invited speaker)

Bzdok, D. "Contributions to the prediction odyssey in imaging neuroscience"*, Seminar, Intelligent Imaging Center*, UCSF, San Francisco, USA, April 2022 (invited speaker)

Bzdok, D. "Canonical correlation analysis to derive principled brain patterns of conscious awareness", *Seminar, Models, Inference & Algorithms (MIA) seminar series,* Broad Institute, Harvard/MIT, Boston, USA, February 2022 (invited speaker)

Bzdok, D. "Psychedelic drugs and big-data analytics: A mechanistic approach to health care innovation?"*,* Plenary lecture, *COMPASS Pathways,* May 2022 (Keynote speaker)

Bzdok, D. "Leveraging machine-learning paradigms for single-subject prediction"*, McGill-UESTC Neuro-BME Research Brainstorming, Canada/China*, December 2022.

Bzdok, D. "The neuroscience of social isolation through the big-data lens"*, NIMH Conte Centre Colloquium*, Harvard University, USA, November 2022.

Bzdok, D. "Leveraging machine-learning paradigms towards single-subject prediction", *Precision Psychiatry Seminar Series*, MGH, Harvard University, USA, October 2022.

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Bzdok, D. "Early thoughts on population diversity and how to get a handle on it"*, Biostatistics Working Group, ABCD consortium*, June 2022.

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Bzdok, D. "Population neuroscience investigations into social isolation", *Association of Neurology*, University of Copenhagen, Denmark, April 2022.

Bzdok, D. "Psychedelics as a mechanistic window into human consciousness?", *Department of Psychiatry and Behavioural Sciences, Center for Psychedelics & Consciousness Research*, The Johns Hopkins University School of Medicine, US, April 2022.

Bzdok, D. "Contributions to prediction odyssey in imaging neuroscience", *Department PNB Colloquium, Department of Psychology*, McMaster University, Canada 2022.

Bzdok, D. "The concept of intelligence: Cognitive, biological, and AI perspectives", *The Space Odyssey 12.400*, MIT, Boston, US, February 2022.

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Chaxiong, P., C. Burrows, K. N. Botteron, S. R. Dager, A. M. Estes, H. C. Hazlett, R. T. Schultz, L. Zwaigenbaum, J. Piven, J. Wolff, J. Piven, H. C. Hazlett, C. Chappell, M. Shen, M. Swanson, S. Dager, A. Estes, D. Shaw, T. S. John, K. Botteron, J. Constantino, R. Schultz, J. Pandey, A. Estes, J. Elison, J. Wolff, M. Styner, G. Gerig, R. McKinstry, J. Pruett, A. C. Evans, **D. L. Collins**, V. Fonov, L. MacIntyre, S. Das, H. Gu, K. Truong, H. Volk, D. Fallin, M. Shen and I. Network, "Relations of Restricted and Repetitive Behaviors to Social Skills in Toddlers with Autism." *Journal of Autism and Developmental Disorders*, 2022 Apr;52(4):1423-1434. doi: 10.1007/s10803-021-05014-8

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Collins, D. Louis., "Quantitative structural MRI Methods and applications in Epilepsy", *6th International Training Course on NeuroImaging of Epilepsy*, Montréal, Canada, April 2022 (invited speaker)

Collins, D. Louis., "A recent history of image-guided surgery in the NIST lab in the Montréal Neurological Institute", *Quebec Bioimaging Network*, Canada, 2022. (keynote speaker)

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Segmentation of structures for state determination Patent No. 11, 335, 015. (2022) Simultaneous segmentation and grading of structures for state determination Patent No. CA 2, 752, 370. (2022)

Systems and Methods of Clinical State Prediction utilizing Medical Image Data Patent No. (UA2008/0101665A1) (2011)

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Haidar A., "JDRF-funded research at McGill University", JDRF research update, Winnipeg, Canada, virtual, April 30, 2022 (Invited speaker)

Haidar A., Quebec 2022 EFFERVESCENCE Stars Award, Montreal, Canada, May 11, 2022 (Award winner)

Cohen E., Tsoukas M., Von Oettingen J. E., Yale J-F., Garfield N., Vallis M., Gouchie Provencher N., Jafar A., Ghanbari M., Palisaitis E., Rutkowski J., Legault L., **Haidar A.**, "A Randomized Controlled Trial to Alleviate Carbohydrate Counting in Type 1 Diabetes with Automated Fiasp and Pramlintide Closed-Loop Delivery", *82nd American Diabetes Association Conference (ADA)*, New Orleans, USA, June 3 -7, 2022 (Oral poster presentation)

Pasqua M-R., Jafar A., Kobayati A., Tsoukas M., **Haidar A.**, "The effect of low-dose empagliflozin on glucose control in suboptimally controlled adults with type 1 diabetes on a closed-loop insulin delivery system", *82nd American Diabetes Association Conference (ADA)*, New Orleans, USA, June 3 -7, 2022 (Oral poster presentation)

Haidar A., "Towards Fully Automated Glucose Management: Insulin Delivery Algorithms, Better and Smarter Insulins, Second (and Third) Hormones, and Adjunctive Drugs", *Diabetes*

Technology Webinar, American Diabetes Association, virtual, October 5, 2022 (Invited speaker)

Haidar A., "Fully automated insulin and pramlintide delivery system", *22nd Annual Diabetes Technology Meeting, Diabetes Technology Society*, virtual, November 2-4, 2022 (Invited speaker)

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R. Martel, M. L. Shen, P. DeCorwin-Martin, L. O. F. de Araujo, **D. Juncker**, "Extracellular Vesicle Antibody Microarray for Multiplexed Inner and Outer Protein Analysis", *ACS Sensors*, 2022 Dec 23;7(12):3817-3828. doi: 10.1021/acssensors.2c01750

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D. Juncker, *2nd Annual AMR Symposium*, 2022, McGill University, June 20, 2022 (Invited speaker)

D. Juncker, *CRBS Bench-to-Business*, Start-up Edition, McGill University, October 7, 2022 (invited speaker)

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