

ABRAHAM NUNES

5909 Veterans' Memorial Lane, 8th Floor
Abbie J. Lane Memorial Building, QEII Health Sciences Centre
Halifax, NS, B3H 2E2, Canada
DALHOUSIE UNIVERSITY · NUNES@DAL.CA · WWW.ABRAHAMNUNES.COM

EDUCATION

- Sep 2017- **Doctor of Philosophy**
Faculty of Computer Science, Dalhousie University
Starting September 2017, I will be studying Computational Neuroscience under the supervision of Prof. Thomas Trappenberg.
- 2014-Present **Postgraduate Psychiatry (FRCPC)**
Dalhousie University
In July 2017, I will be enrolled in the Clinician Investigator Program.
- 2009-2014 **Doctor of Medicine**
University of Alberta, Edmonton, AB, Canada
Combined MD/MBA program
- 2009-2014 **Master of Business Administration**
University of Alberta, Edmonton, AB, Canada
Combined MD/MBA program
- 2005-2009 **Bachelor of Science (Hons.)**
University of Western Ontario, London, ON, Canada
Honours Thesis: Fatigue induced tremor in the tibialis anterior

ACADEMIC AND CLINICAL POSITIONS

- 2015-2017 **Research Student**
Faculty of Computer Science, Dalhousie University
Computational neuroscience and psychiatry (Supervisor: Dr. Thomas Trappenberg)
- 2014-Present **Resident Physician**
Department of Psychiatry, Dalhousie University

ADMINISTRATIVE AND VOLUNTEER POSITIONS

- 2014-2015 **Resident Representative**
Department of Psychiatry Strategic Planning Committee, Dalhousie University
Resident representative on committee reviewing the department of psychiatry's strategic plan for research
- 2014-2015 **Resident Resesarch Representative**

Department of Psychiatry, Dalhousie University

Represented the Dalhousie Psychiatry Residents' association on the departmental research committee

- 2016-2017 **CaRMS Interviewer**
Department of Psychiatry, Dalhousie University
Served as an interviewer for applicants to the Dalhousie Psychiatry residency program

AWARDS

- 2016 **Best Presentation Award, Psychiatry Resident**
Department of Psychiatry, Dalhousie University
Dalhousie Department of Psychiatry 26th Annual Research Day
- 2016 **Dr. Charles J. David Prize in Psychiatry**
Department of Psychiatry, Dalhousie University
"In recognition for outstanding display of compassion, sensitivity and a high degree of competence in patient care during PGY-2"
- 2016 **Clerks' Choice Award**
Department of Psychiatry, Dalhousie University
"In recognition of the outstanding teaching contributions by a Resident"
- 2015 **Horizon Health Network PGY-1 Resident of the Year**
Department of Psychiatry, Dalhousie University
"In recognition for exemplary academic and clinical attributes during core PGY-1 psychiatry rotations in Saint John, NB"
- 2014 **E. William Kuder Memorial Prize in Surgery**
Faculty of Medicine and Dentistry, University of Alberta
For highest standing during surgical rotations of medical training
- 2013 **Top 40 Under 40, Edmonton**
Avenue Magazine, Edmonton
[Link to Article](#)
- 2011 **Queen Elizabeth II Graduate Scholarship, Master's Level**
University of Alberta
- 2011 **Dr. A.R. Oakley Prize in Anatomy**
Division of Anatomy, University of Alberta
- 2011 **AIHS Summer Studentship**
Alberta Innovates, Health Solutions
For clinical outcomes and health economics research in Division of Cardiac Surgery, University of Alberta
- 2010 **Dr. Elliot Gelfand Award for Cardiovascular Research**
Division of Cardiac Surgery, University of Alberta
For research pertaining to clinical outcomes of mechanical circulatory support
- 2009 **CREATE Award for Biomedical Engineering**
Natural Science and Engineering Research Council of Canada

PRESENTLY FUNDED PROJECTS

- 2016 **Instrumental Control in Binge-Eating Disorder and Bulimia Nervosa**
NSHA Research Fund (\$ 4,995); Dalhousie Psychiatry Resident Research Fund (\$ 2,500)
Using reinforcement learning models to study the balance of goal-directed and habitual control in patients with bulimia nervosa and binge-eating disorder

PUBLICATIONS

Peer-Reviewed

- Nunes A**, MacArthur RGG, Kim D, Singh G, Buchholz H, Chatterley P, Klarenbach SW. A Systematic Review of the Cost-Effectiveness of Long-Term Mechanical Circulatory Support. *Value in Health* (In Press)
- Nunes A**, Hajek T, and Alda M. Early and delayed treatment of bipolar disorder (Letter). *British Journal of Psychiatry* 2014;205(5):411
- Jonker ID, **Nunes A**, Elhenawy AM, Das D, and MacArthur RG. Double aortic arch presenting in an adult with dysphagia. *Journal of Cardiac Surgery* 2013;28(6):670-1
- Nunes A**, Buchholz H, Sinnadurai S, and MacArthur RG. Long-term mechanical circulatory support of an adult patient with Down Syndrome. *Annals of Thoracic Surgery* 2012;93:1305-07
- Nielsen CA, Deegan EG, Hung ASL, and **Nunes A**. Potential effects of sleep deprivation on sensorimotor integration during quiet stance in young adults. *WURJ* 2010;1

Preprints

- Nunes A**. How to Assess Speech, Language, and Thought Form. *Figshare* 2016
<https://dx.doi.org/10.6084/m9.figshare.3039766.v1> (A tutorial for psychiatry clerkship students)

Software

- Nunes A**, Rudiuk A, & Trappenberg, TP. Fitr: A Toolbox for Computational Psychiatry. 2016; [doi:10.5281/zenodo.495735](https://doi.org/10.5281/zenodo.495735).
[[View the GitHub Repository](#)]
- Nunes A**. Paradigms: A Compilation of Behavioural Tasks in Python. 2016; [[View the GitHub Repository](#)]

PRESENTATIONS

Peer-Reviewed Meetings

- 2017 Of meals, models, and habits: A review of reinforcement learning studies in eating disorders
Nunes A, Trappenberg TP, and Keshen AR
Canadian Psychiatric Association Meeting 2017 (Accepted)
- 2017 Fitr: An Accessible Toolbox for Computational Psychiatry

- Nunes A** & Trappenberg TP
Canadian Psychiatric Association Meeting 2017 (Accepted)
- 2017 The Prognosis of Treated Neurosyphilitic Psychosis: A Review of the Literature
Nunes A, Manning A, & Zhou C
Canadian Psychiatric Association Meeting 2017 (Accepted)
- 2016 Of meals, models, and habits in the brain: A review of reinforcement learning studies in eating disorders
Nunes A, Trappenberg TP, Helson TJ, and Keshen AR
Dalhousie Department of Psychiatry Research Day; Halifax, NS, October 2016
- 2016 Modeling psychosis: The computational nature of hallucination and delusion
Nunes A & Trappenberg TP
Atlantic Provinces Psychiatric Association Conference; St. John, NB, June 2016
- 2015 Reinforcement Learning in a Nutshell ([PDF](#))
Nunes A, and Trappenberg, T
Dalhousie Department of Psychiatry Research Day; Halifax, NS, 2015
- 2012 Systematic Review of the Cost-Effectiveness of Mechanical Circulatory Support
Nunes A, Wiebe N, Chatterley P, MacArthur RG, and Klarenbach SW
Canadian Cardiovascular Congress; Toronto, ON, 2012
- 2012 Cost of Long-Term Mechanical Circulatory Support at Large Canadian Transplantation Centre
Nunes A, MacArthur RG, and Klarenbach SW
Canadian Cardiovascular Congress; Toronto, ON, 2012
- 2012 Double Aortic Arch Presenting in an Adult with Dysphagia
Jonker ID, **Nunes A**, Elhenawy AM, Das D, and MacArthur RG
Canadian Cardiovascular Congress; Toronto, ON, 2012
- 2012 Use of Recombinant Factor VIIa for Refractory Haemorrhage in Patients Receiving Mechanical Circulatory Support
Nunes A, Hruczkowski J, Nahirniak S, and MacArthur RG
Canadian Cardiovascular Congress; Toronto, ON, 2012
- 2012 Edmonton Experience with Venovenous Extracorporeal Membrane Oxygenation in Critically Ill Adults with Severe Respiratory Failure
Nunes A, Hruczkowski J, MacArthur RG, and Singh G
Canadian Cardiovascular Congress; Toronto, ON, 2012
- 2012 First Canadian Report of Destination Therapy With the HeartWare HVAS in a Biventricular Configuration
Nunes A, Hruczkowski J, Das D, and MacArthur RG
Canadian Cardiovascular Congress; Toronto, ON, 2012
- 2011 Clinical Outcomes of Long-Term Mechanical Circulatory Support at a Large Canadian Transplantation Centre
Nunes A, Buchholz H, Sinnadurai S, Mullen JC, Singh G, Meyer SR, Wang S, Modry DL, and MacArthur RG
Canadian Cardiovascular Congress; Vancouver, BC, 2011
- 2011 Bridge to Decision Using Short Term Ventricular Assist Device For Critically Ill Moribund Patients
Mutsuga M, **Nunes A**, Sinnadurai S, Meyer S, MacArthur RG, Mullen J, Rebeyka I, Ross D, and Buchholz H
Canadian Cardiovascular Congress; Vancouver, BC, 2011

2011 A Protocol for the Assessment of Heart Mate II Patients' Fitness to Drive
Nunes A, Sinnadurai S, MacArthur RG, and Buchholz H
Canadian Cardiovascular Congress; Toronto, ON, 2011

Other Slide Sets

2015 Genome-Wide Association Studies in Psychiatry
Department of Psychiatry Journal Club Series
Slides available at my website ([LINK](#))

2014 The Neuroendocrinology of Psychopathy
Department of Psychiatry Journal Club Series
Slides available at my website ([LINK](#))

ADDITIONAL WORKS

- 2014-Present **Psychiatry: Questions & Answers**
Updated drafts available at my website ([LINK](#))
A flash-card format book I am slowly writing while studying, available for free as it is developed
- 2015 **A Brief Guide to Writing a Simple Research Proposal**
Published on my Website ([LINK](#))
A template guide for Dalhousie Psychiatry residents' research proposals
- 2015 **Web Developer**
CBTHalifax.ca
Designed and deployed a website for my wife's psychology practice
- 2014-2015 **Scholarly project requirement development**
Department of Psychiatry, Dalhousie University
Worked with psychiatry residency program director and research director to revise the requirements for residents' mandatory scholarly project

TEACHING EXPERIENCE

I am involved in the teaching of medical students whilst they rotate through various psychiatry services, as well as during on-call shifts. I have also delivered lectures for the psychiatry core rotation seminar series. Intermittently, I have taught sessions in Dalhousie's clinical skills course, focusing on psychiatric interviewing.

TECHNICAL SKILLS

Scientific Computing: Python, R, MATLAB, Mathematica, \LaTeX , GPU computing
Web/Mobile Development: JavaScript, PHP, HTML5, CSS, Objective-C

INTERESTS

Clinical: Neuropsychiatry, Neuromodulation, Psychopharmacology
Research: Computational psychiatry, Reinforcement learning, Basal ganglia, Model-based control
Other: Theory of complex systems, Machine learning, How to teach neuroscience in psychiatry

MEMBERSHIPS

- Canadian Psychiatric Association
- Doctors Nova Scotia
- Maritime Resident Doctors

REFERENCES

Available upon request.