

Angela Tam

Education

- 2013–2018 **Ph.D. in Neuroscience**, *McGill University*, Montreal, Canada.
Advisors: Pierre Bellec & John Breitner
Thesis: Predicting Alzheimer's dementia from heterogeneous patterns of neurodegeneration and functional connectivity
Keywords: neuroimaging, brain networks, machine learning, prediction, biomarker development, neurodegenerative disease
- 2011–2013 **M.Sc. in Neuroscience**, *Queen's University*, Kingston, Canada.
Advisor: Angeles Garcia
Thesis: Neuroimaging attentional control in the Stroop task
Keywords: cognition, neuroimaging, aging
- 2007–2011 **B.Sc. in Psychology, Magna Cum Laude**, *University of Ottawa*, Ottawa, Canada.
Advisor: Patrick Davidson
Thesis: The effects of aging and sleep quality on location and distance-based processes in memory for when something happened

Experience

Research

- 2018–present **Postdoctoral Fellow**, *National University of Singapore*, Singapore.
Advisor: B.T. Thomas Yeo
Project: Prediction of cognition and psychiatric symptoms using multimodal neuroimaging
- 2011 **Research Assistant**, *Douglas Hospital Research Centre*, Montreal, Canada.
Supervisor: M. Natasha Rajah
- 2009–2010 **Research Assistant**, *Ottawa Hospital*, Ottawa, Canada.
Supervisor: Natasha Ballen

Consulting

- 2019–present **Clinical Lead**, *perceiv.ai*.
<https://perceiv.ai/>

Teaching

Mentoring.

Jianzhong Chen, Ph.D. student at National University of Singapore (2018–present)

- 2018 **Instructor**, *Montreal Brainhack School*, Montreal, Canada.
<https://brainhackmtl.github.io/school2018/>
- 2016 **Teaching Assistant**, *Université de Montréal*, Montreal, Canada.

Clinical

- 2011–2013 **Psychometrist**, *Hotel Dieu Hospital*, Kingston, Canada.

Science Communication

- 2017 **Podcaster**, *Broad Science*, Montreal, Canada.
<https://www.broadscience.org/>
- 2012–2013 **Neuroscience Outreach Volunteer**, *Queen's University*, Kingston, Canada.
- ## University Services
- 2016–2017 **Student Council Program Representative**, *McGill Post-Graduate Student Society*, Montreal, Canada.
- 2014–2017 **Internal Affairs Event Coordinator**, *McGill Post-Graduate Student Society*, Montreal, Canada.
- 2014–2015 **Student Representative on the Working Group to Review Regulation on Conduct in Research**, *McGill University*, Montreal, Canada.

Professional Services

Peer Reviewer.

NeuroImage (Elsevier): 3x

Clinical Neurophysiology (Elsevier) 1x

PLoS ONE (PLOS): 1x

Brain Informatics (SpringerOpen): 1x

Publons profile: <https://publons.com/researcher/317335/angela-tam/>

- 2016 **Poster Judge**, *Douglas Hospital Research Centre's Undergraduate Expo*, Montreal, Canada.

Awards

- 2018 **Alzheimer's Association International Conference Travel Fellowship**.
- 2017 **Graduate Research Enhancement and Travel Award**, *McGill University*, Montreal, Canada.
- 2017 **Research in Aging Bursary \$7000**, *Centre de recherche de l'institut universitaire de gériatrie de Montréal*, Montreal, Canada.
- 2016 **Hendlisz Award for Best Student Paper Finalist**, *Douglas Hospital Research Centre*, Montreal, Canada.
- 2015 **International Training Programme on Ageing Fellowship**, *Joint fellowship funded by the Canadian Institutes of Health Research: Institute of Aging & Centre for Ageing Research and Development in Ireland*.
- 2015 **Doctoral Award \$60,000**, *Fonds de recherche du Québec – Santé*, Quebec, Canada, (declined).
- 2014 **Alzheimer's Association International Conference Travel Fellowship**.
- 2014 **Graduate Research Enhancement and Travel Award**, *McGill University*, Montreal, Canada.
- 2013 **Grad Excellence Award in Neurology & Neurosurgery**, *Integrated Program in Neuroscience, McGill University*, Montreal, Canada.
- 2012 **Ontario Graduate Scholarship \$15,000**, *Ministry of Training, Colleges and Universities*, Canada.

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- 2012 **Centre for Neuroscience Award for Excellence**, *Centre for Neuroscience Studies, Queen's University*, Kingston, Canada.
- 2012 **Honourable Hugh F. Gibson Memorial Award**, *Centre for Neuroscience Studies, Queen's University*, Kingston, Canada.
- 2011 **Honourable Hugh F. Gibson Memorial Award**, *Centre for Neuroscience Studies, Queen's University*, Kingston, Canada.
- 2011 **Queen's Graduate Award**, *Queen's University*, Kingston, Canada.
- 2011 **Best Presentation**, *Psychology Undergraduate Thesis Conference*, University of Guelph, Guelph, Canada.
- 2007 **Immersion Study Scholarship**, *University of Ottawa*, Ottawa, Canada.
- 2007 **Admission Scholarship \$10,000**, *University of Ottawa*, Ottawa, Canada.

Publications

1. **Tam, A.**, Dansereau, C., Iturria-Medina, Y., Urchs, S., Orban, P., Sharmarke, H., *et al.* A highly predictive signature of cognition and brain atrophy for progression to Alzheimer's dementia. *GigaScience* **8** (2019).
2. Vogel, J. W., Vachon-Preseu, E., Binette, A. P., **Tam, A.**, Orban, P., Joie, R. L., *et al.* Brain properties predict proximity to symptom onset in sporadic Alzheimer's disease. *Brain* **141**, 1871–1883 (2018).
3. Badhwar, A., **Tam, A.**, Dansereau, C., Orban, P., Hoffstaedter, F. & Bellec, P. Resting-state network dysfunction in Alzheimer's disease: A systematic review and meta-analysis. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring* **8**, 73–85 (2017).
4. Dansereau, C., **Tam, A.**, Badhwar, A., Urchs, S., Orban, P., Rosa-Neto, P. & Bellec, P. A brain signature highly predictive of future progression to Alzheimer's dementia. *arXiv preprint arXiv:1712.08058* (2017).
5. Orban, P., **Tam, A.**, Urchs, S., Savard, M., Madjar, C., Badhwar, A., *et al.* Subtypes of functional brain connectivity as early markers of neurodegeneration in Alzheimer's disease. *bioRxiv*, 195164 (2017).
6. Reginold, W., Itorralba, J., **Tam, A.**, Luedke, A. C., Fernandez-Ruiz, J., Reginold, J., Islam, O. & Garcia, A. Correlating quantitative tractography at 3T MRI and cognitive tests in healthy older adults. *Brain Imaging and Behavior* **10**, 1223–1230 (2016).
7. **Tam, A.**, Dansereau, C., Badhwar, A., Orban, P., Belleville, S., Chertkow, H., *et al.* A dataset of multiresolution functional brain parcellations in an elderly population with no or mild cognitive impairment. *Data in Brief* **9**, 1122–1129 (2016).
8. Orban, P., Madjar, C., Savard, M., Dansereau, C., **Tam, A.**, Das, S., *et al.* Test-retest resting-state fMRI in healthy elderly persons with a family history of Alzheimer's disease. *Scientific Data* **2**, 1–11 (2015).
9. Reginold, W., Luedke, A. C., **Tam, A.**, Itorralba, J., Fernandez-Ruiz, J., Reginold, J., Islam, O. & Garcia, A. Cognitive Function and 3-Tesla Magnetic Resonance Imaging Tractography of White Matter Hyperintensities in Elderly Persons. *Dementia and geriatric cognitive disorders extra* **5**, 387–394 (2015).

10. **Tam, A.**, Dansereau, C., Badhwar, A., Orban, P., Belleville, S., Chertkow, H., *et al.* Common Effects of Amnesic Mild Cognitive Impairment on Resting-State Connectivity Across Four Independent Studies. *Frontiers in Aging Neuroscience* **7**, 2214–2266 (2015).
11. **Tam, A.**, Luedke, A. C., Walsh, J. J., Fernandez-Ruiz, J. & Garcia, A. Effects of reaction time variability and age on brain activity during Stroop task performance. *Brain Imaging and Behavior* **9**, 609–618 (2015).
12. *Ruthirakuhan, M., *Luedke, A. C., ***Tam, A.**, Goel, A., Kurji, A. & Garcia, A. Use of physical and intellectual activities and socialization in the management of cognitive decline of aging and in dementia: A review. *Journal of Aging Research* **2012** (2012).

* Authors contributed equally.

Conference Presentations

Oral Presentations

- 2016 **Common effects of amnesic mild cognitive impairment on resting-state connectivity across four independent studies.**
Conference: Douglas Hospital Research Centre Best Student Paper Competition
Location: Montreal, Canada
- 2015 **Consistent inter-protocol differences in resting-state functional connectomes between normal aging and mild cognitive impairment.**
Conference: International Training Programme on Ageing
Location: Dublin, Ireland
- 2011 **The effects of aging and sleep quality on location and distance-based processes in memory for when something happened.**
Conference: Psychology Undergraduate Thesis Conference
Location: Guelph, Canada

Poster Presentations

- 2019 **Pre-screening machine learning model for beta-amyloid positive enrichment.**
Dansereau, C., Tam, A., Rosa-Neto, P., Gauthier, S., Bellec, P.
Conference: Alzheimer's Association International Conference
Location: Los Angeles, USA
- 2018 **A highly predictive signature of cognition and brain atrophy for progression to Alzheimer's dementia.**
Tam, A., Dansereau, C., Iturria-Medina, Y., Urchs, S., Orban, P., Breitner, J., and Bellec, P.
Conference: Canadian Consortium on Neurodegeneration in Aging
Location: Montreal, Canada
- 2018 **A signature of brain atrophy is highly predictive of progression to Alzheimer's dementia and cognitive decline.**
Tam, A., Dansereau, C., Iturria-Medina, Y., Urchs, S., Orban, P., Breitner, J., and Bellec, P.
Conference: Alzheimer's Association International Conference
Location: Chicago, USA

- 2017 **Multimodal identification of a brain biotype highly predictive of future progression to Alzheimer's dementia.**
 Dansereau, C., Tam, A., Badhwar, A., Urchs, S., Orban, P., Rosa-Neto, P., Bellec, P.
 Conference: Alzheimer's Association International Conference
 Location: London, UK
- 2016 **Resting-state network dysfunction in Alzheimer's disease: A systematic review and meta-analysis.**
 Badhwar, A., Tam, A., Dansereau, C., Orban, P., Toro, R., Bellec, P.
 Conference: Alzheimer's Association International Conference
 Location: Toronto, Canada
- 2016 **Regional gray matter volume and default mode network connectivity are associated with age relative to parental symptom onset in sporadic Alzheimer's disease.**
 Vogel, J.W., Orban, P., Pichet Binette, A., La Joie, R., Savard, M., Tam, A., Breitner, J.C.S., Bellec, P., Villeneuve, S., PREVENT-AD Research Group
 Conference: Alzheimer's Association International Conference
 Location: Toronto, Canada
- 2015 **Functional brain network subtypes are associated with Alzheimer's disease biomarkers in an aging, high-risk, cognitively normal cohort: The Prevent-AD study.**
 Orban, P., Urchs, S., Savard, S., Madjar, C., Tam, A., Theroux, L., Evans, A.C., Rosa-Neto, P., Collins, D.L., Poirier, J., Breitner, J.C.S., Bellec, P., PREVENT-AD Research Group
 Conference: Alzheimer's Association International Conference
 Location: Washington D.C., USA
- 2015 **Multisite study of robust resting-state fMRI differences in normal aging & mild cognitive impairment.**
 Tam, A., Dansereau, C., Badhwar, A., Orban, P., Belleville, S., Chertkow, H., Dagher, A., Hanganu, A., Monchi, O., Rosa-Neto, P., Shmuel, A., Breitner, J., Bellec, P.
 Conference: Human Brain Mapping
 Location: Honolulu, USA
- 2014 **Connectome-wide analysis of differences between normal aging, mild cognitive impairment, and dementia of the Alzheimer's type using resting-state fmri connectivity.**
 Tam, A., Dansereau, C., Badhwar, A., Orban, P., Belleville, S., Chertkow, H., Dagher, A., Hanganu, A., Monchi, O., Rosa-Neto, P., Shmuel, A., Breitner, J., Bellec, P.
 Conference: Alzheimer's Association International Conference
 Location: Copenhagen, Denmark
- 2014 **Resting-state fMRI connectivity differences between normal aging, mild cognitive impairment and dementia of the Alzheimer's type.**
 Tam, A., Dansereau, C., Badhwar, A., Orban, P., Belleville, S., Chertkow, H., Dagher, A., Hanganu, A., Monchi, O., Rosa-Neto, P., Shmuel, A., Breitner, J., Bellec, P.
 Conference: Canadian Alzheimer's Disease Research Symposium
 Location: Quebec City, Canada
- 2013 **fMRI study of attentional lapses across aging.**
 Tam, A., Luedke, A.C., Walsh, J.J., Fernandez-Ruiz, J., Garcia, A.
 Conference: Canadian Conference on Dementia
 Location: Vancouver, Canada

- 2012 **An fMRI study of attention modulation in the elderly.**
Tam, A., Luedke, A.C., Walsh, J.J., Fernandez-Ruiz, J., Garcia, A.
Conference: Society for Neuroscience
Location: New Orleans, USA
- 2012 **Selective attention in the elderly: An fMRI study.**
Tam, A., Luedke, A.C., Walsh, J.J., Fernandez-Ruiz, J., Garcia, A.
Conference: Canadian Society for Brain, Behaviour and Cognitive Science
Location: Kingston, Canada
- 2012 **Neural substrates underlying selective attention in a Stroop Task.**
Tam, A., Luedke, A.C., Fernandez-Ruiz, J., Garcia, A.
Conference: Canadian Society for Brain, Behaviour and Cognitive Science
Location: Kingston, Canada