

# Curriculum Vitae

## Alex Cole Birdsill

## **CONTACT INFORMATION**

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## **EDUCATION**

Ph.D. in Clinical Psychology  
*The University of Texas at Austin*  
Advisor: Andreana Haley, Ph.D. anticipated 2019

Bachelors of Science May 2009  
Molecular and Cellular Biology; Psychology  
*University of Arizona, Tucson*

## **RESEARCH AND WORK EXPERIENCE**

**Research Specialist** Jan 2012 – July 2013  
*Alzheimer's Disease Research Center, University of Wisconsin - Madison*

- The role of cardiovascular and metabolic risk factors in normal and pathological brain aging. (Supervisor: B. Bendlin, Ph.D.)

**Volunteer** Mar 2010 – Oct 2011  
*United States Peace Corps, Morocco*  
• Community Health Education

Pathology Technician Aug 2009 – Mar 2010  
*Banner Sun Health Research Institute*  
• Factors affecting the molecular quality of postmortem brain tissue. (Supervisor: Thomas E. P. Dill)

Research Assistant Jan 2006 – May 2009  
*Cognitive and Neuroimaging Lab, University of Arizona*  
• Neuroimaging and risk factors in Alzheimer’s disease (Supervisor: Lee Ryan, Ph.D.)

## PUBLICATIONS

Beach, T.G., Adler, C.H., Sue, L.I., Serrano, G., Shill, H.A., Walker, D.G., Lue, L., Roher, A.E., Dugger, B.N., Maarouf, C., **Birdsill, A.C.**, Intorcia, A., Saxon-Labelle, M., Pullen, J., Scroggins, A., Filon, J., Scott, S., Hoffman, B., Garcia, A., Caviness, J.N., Hentz, J.G., Driver-Dunckley, E., Jacobson, S.A., Davis, K.J., Belden, C.M., Long, K.E., Malek-Ahmadi, M., Powell, J.J., Gale, L.D., Nicholson, L.R., Caselli, R.J., Woodruff, B.K., Rapscak, S.Z., Ahern, G.L., Shi, J., Burke, A.D., Reiman, E.M., Sabbagh, M.N. (in press). Arizona Study of Aging and Neurodegenerative Disorders and Brain and Body Donation Program. *Neuropathology*, doi: 10.1111/neup.12189

Willette, A. A., Johnson, S. C., **Birdsill, A. C.**, Sager, M. A., Christian, B., Baker, L. D., Craft, S., Oh, J., Statz, E., Hermann, B. P., Jonaitis, E. M., Koscik, R. L., La Rue, A., Asthana, S., Bendlin, B. B. (in press). Insulin resistance predicts brain amyloid deposition in late middle-aged adults. *Alzheimer's & Dementia*, doi: 10.1016/j.jalz.2014.03.011

Adluru, N., Destiche, D. J., Lu, S. Y. F., Doran, S. T., **Birdsill, A. C.**, Melah, K. E., Okonkwo, O. C., Alexander, A. L., Dowling, N. M., Johnson, S. C., Sager, M. A., Bendlin, B. B. (2014). White matter microstructure in late middle-age: Effects of apolipoprotein E4 and parental family history of Alzheimer's disease. *NeuroImage: Clinical*, 4, 730-742.

Racine, A. M., Adluru, N., Alexander, A. L., Christian, B. T., Okonkwo, O. C., Oh, J., Cleary, C. A., **Birdsill, A.**, Hillmer, A. T., Murali, D., Barnhart, T. E., Gallagher, C. L., Carlsson, C. M., Rowley, H. A., Dowling, N. M., Asthana, M. A., Sager, M. A., Bendlin, B. B., Johnson, S. C. (2014). Associations between white matter microstructure and amyloid burden in preclinical Alzheimer's disease: A multimodal imaging investigation. *NeuroImage: Clinical*, 4, 604-614.

**Birdsill, A.C.**, Koscik, R., McMullen, E., Johnson, S. C., Okonkwo, O.C., Hermann, B. P., LaRue, A., Sager, M. A., Bendlin, B. B. (2014). Regional white matter hyperintensities: aging, Alzheimer's disease risk, and cognitive function. *Neurobiology of aging*, 35(4), 769-776.

Okonkwo, O.C., Xu, G., Oh, J. M., Maritza, D., Carlsson, C. M., Gallagher, C. L., **Birdsill, A. C.**, Palotti, M., Wharton, W., Hermann, B. P., LaRue, A., Bendlin, B. B., Rowley, H. A., Asthana, S., Sager, M. A., Johnson, S. C. (2014) Cerebral blood flow is diminished in asymptomatic middle-aged adults with maternal history of Alzheimer's disease. *Cerebral Cortex*, 24 (4), 978-988.

Willette, A. A., Coe, C. L., **Birdsill, A. C.**, Bendlin, B. B., Colman, R. J., Alexander, A. L., Allison, D. B., Weindruch, R. H., Johnson, S. C. (2013) Interleukin-8 and interleukin-10, brain volume and microstructure, and the influence of calorie restriction in old rhesus macaques. *AGE*, 35 (6), 2215-2227.

**Birdsill, A. C.**, Carlsson, C. M., Willette, A. A., Okonkwo, O.C., Johnson, S. C., Xu, G., Oh, J. M., Gallagher, C. L., Koscik, R. L., Jonaitis, E. M., Hermann, B. P., LaRue, A., Rowley, H. A., Asthana, S., Sager, M. A., Bendlin, B. B. (2013) Low cerebral blood flow is associated with lower memory function in metabolic syndrome. *Obesity*, 21(7), 1313-1320.

Willette, A. A., Xu, G., Johnson, S. C., **Birdsill, A. C.**, Jonaitis, E. M., Sager, M. A., Hermann, B. P., LaRue, A., Asthana, S., Bendlin, B. B. (2012) Insulin resistance, brain atrophy, and cognitive performance in late middle-aged adults. *Diabetes Care*, 36(2), 443-449.

Bendlin, B. B., Carlsson, C. M., Johnson, S. C., Zetterberg, H., Blennow, K., Willette, A. A., Okonkwo, O.C., Sodhi, A., Ries, M L., **Birdsill, A. C.**, Alexander, A. L., Rowley, H. A., Puglielli, L., Asthana, S., Sager, M. A. (2012). CSF T-Tau/Abeta42 predicts white matter microstructure in healthy adults at risk for Alzheimer's disease. *PLoS ONE*, 7(6), e37720.

**Birdsill, A. C.**, Walker, D. G., Lue, L., Sue, L. I., Beach, T. G. (2010). Postmortem interval effect on RNA and gene expression in human brain tissue. *Cell and Tissue Banking*, 12(4), 311-318.

Walther, K., **Birdsill, A.C.**, Glisky, E.L., Ryan, L. (2010). Structural brain differences and cognitive functioning related to body mass index in older females. *Human Brain Mapping*, 31, 1052-64.

## **CONFERENCE TALKS**

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**Birdsill, A.C.**, Gonzales, M. M., Eagan, D. E., Kaur, S., Hertzing, W. J., Haley, A. P. (November 2014) Obesity-related differences in regional white matter microstructure in midlife. Annual Meeting of the Society for Neuroscience. Washington, D.C.

**Birdsill, A.C.**, Koscik, R., McMullen, E., Johnson, S. C., Okonkwo, O.C., Hermann, B. P., LaRue, A., Sager, M. A., Bendlin, B. B. (June 2013) White matter lesion burden and cognitive function: a voxel-wise analysis in late middle age. 19<sup>th</sup> Annual Meeting of the Organization for Human Brain Mapping. Seattle, WA.

## **CONFERENCE POSTERS**

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**Birdsill, A.C.**, Carlsson, C. M., Oh, J., Davenport-Sis, N., Koscik, R., McMullen, E., Xu, G., Hermann, B. P., Rowley, H. A., LaRue, A., Asthana, S., Johnson, S. C., Sager, M. A., Bendlin, B. B. (October 2012). Cerebral perfusion deficits related to metabolic syndrome mediate memory performance. Society for Neuroscience annual meeting. New Orleans, LA.

**Birdsill A.C.**, Walker DG, Lue LF, Beach TG, Sue LI, Beach TG. (May 2010). RNA quality and gene expression in human brain tissue: effects of postmortem interval and freeze-thaw cycles. Arizona Alzheimer's Consortium Annual Meeting. Phoenix, AZ.

**Birdsill, A.C.**, Walther, K., Ryan, L. (October 2008). Obesity, Regional Brain Volumes and Cognitive Function in Older Women. University of Arizona Graduate and Professional Student Council Student Showcase. Tucson, AZ.

**Birdsill, A.C.**, Walther, K., Ryan, L. (February 2008). Cerebral differences related to obesity measured by MRI. University of Arizona Honors College Undergraduate Research Forum. Tucson, AZ.

### **AWARDS & HONORS**

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- National Science Foundation Graduate Research Fellowship (2014-2019)
- Winner for outstanding poster at the University of Wisconsin School of Medicine and Public Health, Department of Medicine Research Day, (2012).
- First place original research project in undergraduate division of health sciences and honorable mention for the President's Award for "Obesity, Regional Brain Volumes and Cognitive Function in Older Women," The University of Arizona Graduate and Professional Student Council Student Showcase, (2008).
- University of Arizona Honors College Undergraduate Research Grant recipient, (2007).
- University of Arizona Wildcat Excellence Scholarship (2005 – 2009).

### **SERVICE**

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- Member of the University of Arizona Honors College Undergraduate Research Grant Review Committee, (2008 & 2009).

### **PROFESSIONAL MEMBERSHIPS**

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Society for Neuroscience (2012-present)

The Organization for Human Brain Mapping (2013-present)