## CURRICULUM VITAE OREGON HEALTH & SCIENCE UNIVERSITY

NAME Damien Fair,	PA-C, Ph.D.	DATE	08/15/2020	
PRESENT POSITION AND ADDRESS				
Academic Rank:	Professor			
Department/Division:	Pediatrics, School of Medicine			
Professional Address:	University of Minnesota Masonic Institute for the Developing Brain (MiDB, 717 Delaware St SE #333 Minneapolis, MN 55414	f.k.a. CNI	3D)	
E-Mail Address:	faird@umn.edu			
II. EDUCATION				
2003 – 2008	Ph.D. in Neuroscience Washington University School of Medicine St. Louis, MO			
1999-2001	Master of Medical Science Degree Yale University School of Medicine Physician Associate Program			
1994-1998	Bachelor of Science Degree Augustana College, Sioux Falls, SD Major: Biology Minor: Chemistry			
1993-1994	Minnesota Academy of Math and Science gradua St. Mary's University, Winona, MN	ate		
Medical Licensure:				

State of Connecticut Physician Assistant License # 001149, Dec 4, 2001

## **Certifications:**

- 2002 NIH Stroke Scale Certification
- 2001 National Commission on Certification of Physician Assistants Certificate #: 1052646 Issue Date: October 24, 2001
- 2000 Advanced Cardiac Life Support

## **III. PROFESSIONAL EXPERIENCE**

7/2020- present	University of Minnesota Redleaf Endowed Director, Masonic Institute for the Developing Brain Professor, Institute of Child Development, College of Education and Human Development Professor, Department of Pediatrics, Medical School
2018- present	<i>Nous Imaging Inc.,</i> Founder, Chief Scientific Officer
9/2014- 6/2020	Oregon Health & Science University Associate Professor, Behavioral Neuroscience and Psychiatry Associate Scientist, Advanced Imaging Research Center
8/2011- 9/2014	Oregon Health & Science University Assistant Professor, Behavioral Neuroscience and Psychiatry Assistant Scientist, Advanced Imaging Research Center
6/2008- 7/2011	Oregon Health & Science University Postdoctoral Research Scientist (Psychiatry/Behavioral Neuroscience Dept.)
2/2003- 9/2003	Yale University School of Medicine Clinical Instructor of Neurology Appointment
9/2001- 9/2003	Yale University School of Medicine/Yale New Haven Hospital Department of Neurology -Physician Associate (PA) – Research Scientist -PA – Study Coordinator/Sub-investigator -PA – Yale- New Haven Hospital Inpatient/Stroke Service -PA – Yale Neurovascular Clinic with Dr. Lawrence Brass, MD
9/1995- 12/1997	Augustana College Biology Department -Biology Lab Assistant with Dr. Debra Carlson Biology Lab Assistant with Dr. Croig Spansor

-Biology Lab Assistant with Dr. Craig Spencer

# **IV. SCHOLARSHIP**

My laboratory focuses on mechanisms and principles that underlie the developing brain. The majority of this work uses functional MRI and resting state functional connectivity MRI to assess typical and atypical populations. We work in both human and animal models using these non-invasive tools as a bridge between species. A second focus has become testing the feasibility of using various functional and structural MRI techniques in translational studies of developmental neuropsychiatric and neurologic disorders. We are exploring ways to better characterize individual patients with various pathologies to help guide future diagnostic, therapeutic and genetic studies.

## Grants and Contracts (Current):

NIH 1P50 MH100029 (Klin, PI; Shultz, Project Lead: Proj3) 07/01/2017-06/30/2022 Cycles of Social Contingency in Autism: Pivotal Transitions that Shape Infant Brain-Behavior Development in Human & Model Systems Role: Co-I 1P50 MH100029 (Klin, PI; Sanchez, Project Lead: Proj5) NIH 07/01/2017-06/30/2022 Cycles of Social Contingency: Pivotal Transitions that Shape Brain-Behavior Development in Monkeys Role: Co-I NIH (Subcontract from University of Oregon) 08/15/2019-05/31/2024 P50DA048756 (Fisher) Prevention Research Center: Parenting Among Women who are Opioid Users Role: Co-Core Lead DOD/CDMRP PT160162 (PI: Heinricher) 09/01/2017 - 08/31/2021Photosensitivity and pain in complex traumatic brain injury. Role: Co-I R01 MH096773 (MPI: Fair, Dosenbach) NIH/NIMH 4/01/2020-3/31/2025 Identification of outcome-based sub-populations using deep phenotyping and precision functional mapping across ADHD and ASD Role: PI R01 MH115357 (MPI: Fair, Nigg) NIH/NIMH 10/01/2017-9/31/2022 Brain Trajectories in ADHD Role: PI R34DA050291 (Fair & Graham) NIH 09/14/2019-03/31/2021 1/4 Investigation of opioid exposure and neurodevelopment (iOPEN) Role: MPI R44MH121276 (Deckard, Dosenbach, Fair) NIH/NIMH 04/01/2020-03/31/2024 Solving the MRI motion problem with Framewise Integrated Real-Time MRI Monitoring (FIRMM) software Role: Subcontract PI R44MH122066 (Deckard, Dosenbach, & Fair) NIH 09/11/2019-05/31/2023 Visual biofeedback to reduce head motion during MRI Role: MPI U01AA021691 (PI: Nagel) NIH 07/01/2017-06/30/2022 National Consortium on Alcohol and Neurodevelopment in Adolescence: OHSU Role: Co-I U01 DA041148 (MPI: Fair, Nagel, Feldstein-Ewing) NIH/NIDA 10/01/2020-9/31/2027 ABCD-USA Consortium: Research Project Role: PI

U24 DA041123 (Dale) NIH/NIDA ABCD-USA Consortium: Data Analysis and Informatics Center Role: Co-I

UG3 OD023349 (O'Connor) NIH 10/01/2016-9/31/2021 Environmental Influences on Child Health Outcomes (ECHO) Pediatric Cohorts Role: Co-I

# Grants and Contracts (Previous):

2019-2020	Principle Investigator, R25 MH120869-01, NIH/NIEH, <i>ABCD Workshop on Brain</i> Development in Relation to Mental Health
2016-2020	Principle Investigator, R01 MH105538, NIH/NIMH, <i>Intergenerational Effects of Maternal</i>
	Childhood Trauma on the Fetal Brain
2016-2020	Co-Investigator, R01 AA017664-06A1, NIH/NIAAA, Sex Differences in Alcohol-Related
	Neurotoxicity During Adolescence
2016-2020	Co-Investigator, P60 AA010760, NIH/NIDA, Behavioral Genomics of Alcohol
	Neuroadaptation
2015-2020	Co-Investigator, R01 MH107508, NIH/NIMH, Developmental exposure to maternal
	obesity-induced inflammation impacts offspring brain and negative valence behaviors
2015-2020	Principle Investigator, R01 MH105538, NIH/NIMH, Intergenerational Effects of Maternal
	Childhood Trauma on the Fetal Brain
2015-2020	Principle Investigator, NIDA, ABCD-USA Consortium: Research Project
2015-2020	Co-Investigator, NIDA, ABCD-USA Consortium: Data Analysis Center
2015-2020	Principal Investigator, DeStefano Family Foundation, Innovation Fund: Characterizing
	Heterogeneity in Psychiatric Populations
2018-2019	Principal Investigator, Bill and Melinda Gates Foundation, Using MRI imaging in the first 2
	years of life to predict behavioral outcomes in the First 5 Years of Life
2018-2019	Principal Investigator, Bill and Melinda Gates Foundation, Examining the Role of
	maternal inflammation on offspring brain and behavior
2018-2019	Co-Investigator, R03DA045327, NIDA, Peer processes in the social neuroscience of
	adolescent cannabis use
2014-2019	Principal Investigator, MH096773-03S1, Longitudinal assessment of imaging markers
	related to component dimensions of ADHD and ASD
2014-2019	Co-Investigator, R01 AG006457, NIA, Peripheral and Central Postural Disorders in the
2012-2019	Principal Investigator, R01 MH096773, NIMH, Characterizing mechanistic heterogeneity
	across ADHD and Autism
2013-2018	Co-Investigator, R01 MH099064, ADHD biotypes using genetic and imaging approaches
2016-2017	Principal Investigator, 2R56MH086654-06A1, NIMH, Longitudinal brain development and
0044 0047	clinical outcomes in ADHD from 7-17 years
2014-2017	Co-Investigator, 2014-07269-01-00, Impact of Natural Vitamin E and Supplemental
0040 0047	Lutein on Brain and Eye Development in Infant Primates
2012-2017	MacArthur Foundation, Site Principal Investigator, Neural and Behavioral Correlates of
	Age Differences in Psychological Capacities Relevant to Judgments of Criminal
2012-2017	Responsibility
2012-2017	Co-Investigator, P50 DA018165, Mechanism of Impulsive Choice in Methamphetamine Dependence
2012-2017	Co-Investigator, P50 DA018165, NIDA, Methamphetamine Abuse Research Center
2012-2017	סט ווועסטוקמנטו, דטט שהטדטדטט, דעושה, ועפנוומוווףוופנמווווופ האטטפ ונפטבמוטון טבוונכו

- 2015-2016 Principal Investigator, R01 MH086654 (Bridge), NIMH Longitudinal Imaging Study of ADHD Brain Development Elderly
- 2014-2016 Principal Investigator, Gates Foundation, Early markers to predict cognition and brain development
- 2012-2016 Co-investigator, Merit Award: VA11023492, Frontal Cortex and Gait Freezing in Parkinson's Disease: Rehabilitation Impact
- 2012-2016 Co-Investigator, U01 AA021691, NIAAA, The TEEN Study: The Impact of Adolescent Drinking on Connectivity in the Brain
- 2013-2015 Co-Investigator, R21MH099618, NIMH, Sex-specific trajectories of neurobiological maturation during adolescence
- 2012-2015 Co-Investigator, R01 MH091351, NIMH, Fetal Programming of Functional Connectivity in neonates and infants (administrative supplement)
- 2010-2015 Co-Investigator, R01 MH086654, NIMH, Longitudinal Imaging Study of ADHD Brain Development
- 2009-2014 Principal Investigator, K99/R00MH091238, NIMH, "*Functional Circuits as an endophenotype for ADHD in children*"
- 2011-2013 Site PI (multisite multiple PI award), McDonnell Foundation, "Communities and Criticality in Brain Networks Across Development and in ADHD"
- 2011-2012 Principal Investigator, Oregon Clinical and Translational Institute "Advancing the translational potential of resting-state functional MRI in non-human primates"
- 2010-2012 Co-Investigator, Simons Foundation Autism Research Initiative *"Functional Brain Networks and Autism subtypes"*
- 2010-2011 Principal Investigator, Oregon Clinical and Translational Institute (Autism) "Common and Distinct atypical brain function in autism and ADHD"
- 2009-2010 Principal Investigator, Oregon Clinical and Translational Institute (ADHD) "Using resting state functional connectivity MRI in young children and adolescents with ADHD"
- 2009-2010 Principal Investigator, Medical Research Foundation of Oregon *"Identifying a neurobiological correlate of ADHD using resting state functional connectivity MRI"*
- 2009-2010 Recipient, Research Supplements to Promote Diversity in Health-Related Research, (Nigg PI), NIH R01 3R01MH059105, *"Heterogeneity of Mechanism and Pathway in Child ADHD"*
- 2009-2010 National Academy of Sciences and Ford Foundation fellowship
- 2008-2010 UNCF/Merck post-doctoral science research fellowship
- 2005-2007 UNCF/Merck pre-doctoral science research fellowship
- 2003-2007 Washington University Chancellor's Fellowship

# **Clinical Trial Experience**

2002 Siblings with Ischemic Stroke Study (SWISS), ASPHS NIH NINDS NS-39987.

# Publications/Creative Work:

# Peer-reviewed

 Morin EL, Howell BR, Feczko E, Earl E, Pincus M, Reding K, Kovacs-Balint ZA, Meyer JS, Styner M, Fair DA, Sanchez MM. (2020). Developmental Outcomes of Early Adverse Care on Amygdala Functional Connectivity in Nonhuman Primates. <u>Dev and Psychopathology</u>. [Epub ahead of print].

- Gustafsson HC, Sullivan EL, Battison EAJ, Holton KF, Graham AM, Karalunas SL, Fair DA, Loftis JM, Nigg JT. (2020). Evaluation of maternal inflammation as a marker of future offspring ADHD symptoms: A prospective investigation. Brain Behav Immun. [Epub ahead of print].
- 3. Satterthwaite TD, Feczko E, Kaczkurkin AN, **Fair DA**. (2020). Parsing Psychiatric Heterogeneity Through Common and Unique Circuit-Level Deficits. <u>Biol Psychiatry</u>. **88**(1):4-5.
- Boedhoe PSW, van Rooij D... Fair DA... van den Heuvel OA. (2020). Subcortical Brain Volume, Regional Cortical Thickness, and Cortical Surface Area Across Disorders: Findings From the ENIGMA ADHD, ASD, and OCD Working Groups. Am J Psychiatry. [Epub ahead of print].
- Rosenberg MD, Martinez SA, Rapuano KM, Conley MI, Cohen AO, Cornejo MD, Hagler DJ Jr, Meredith WJ, Anderson KM, Wager TD, Feczko E, Earl E, Fair DA, Barch DM, Watts R, Casey BJ. (2020). Behavioral and Neural Signatures of Working Memory in Childhood. J Neuroscience. 40(26):5090-5104.
- Hoogman M, van Rooij D... Fair D... Franke B. (2020). Consortium neuroscience of attention deficit/hyperactivity disorder and autism spectrum disorder: The ENIGMA adventure. <u>Hum Brain Mapp</u>. [Epub ahead of print].
- Gratton C, Dworetsky A, Coalson RS, Adeyemo B, Laumann TO, Wig GS, Kong TS, Gratton G, Fabiani M, Barch DM, Tranel D, Miranda-Dominguez O, Fair DA, Dosenbach NUF, Snyder AZ, Perlmutter JS, Petersen SE, Campbell MC. (2020). Removal of high frequency contamination from motion estimates in single-band fMRI saves data without biasing functional connectivity. <u>Neuroimage</u>. 217:116866.
- Godfrey JR, Pincus M, Kovacs-Balint Z, Feczko E, Earl E, Miranda-Dominguez O, Fair DA, Jones SR, Locke J, Sanchez MM, Wilson ME, Michopoulos V. (2020). Obesogenic diet-associated C-reactive protein predicts reduced central dopamine and corticostriatal functional connectivity in female rhesus monkeys. Brain Behav Immun. 88:166-173.
- Cordova M, Shada K, Demeter DV, Doyle O, Miranda-Dominguez O, Perrone A, Schifsky E, Graham A, Fombonne E, Langhorst B, Nigg J, Fair DA, Feczko E. (2020). Heterogeneity of executive function revealed by a functional random forest approach across ADHD and ASD. <u>Neuroimage Clin</u>. 26:102245.
- 10. Ramirez JSB, Graham AM,... **Fair DA**. (2020). Maternal interleukin-6 is associated with macaque offspring amygdala development and behavior. <u>Cereb Cortex</u>. 30(3): 1573-1585.

- 11. Cui Z, Li H, Xia CH, Larsen B, Adebimpe A, Baum GL, Cieslak M, Gur RE, Gur RC, Moore TM, Oathes DJ, Alexander-Bloch AF, Raznahan A, Roalf DR, Shinohara RT, Wolf DH, Davatzikos C, Bassett DS, Fair DA, Fan Y, Satterthwaite TD. (2020). Individual Variation in Functional Topography of Association Networks in Youth. <u>Neuron</u>. 106(2):340-353.
- 12. Reding KM, Grayson DS, Miranda-Dominguez O, Ray S, Wilson ME, Roufexis D, **Fair DA**, Sanchez MM. (2020). Effects of social subordination and oestradiol on resting-state amygdala functional connectivity in adult female rhesus monkeys. <u>J Neuroendocrinol</u>. 32(2): 312822.
- 13. Mooney MA, Bhatt P, Hermosillo RJM, Ryabinin P, Nikolas M, Faraone SV, **Fair DA**, Wilmot B, Nigg JT. (2020). Smaller total brain volume but not subcortical structure volume related to common genetic risk for ADHD. <u>Psychol Med</u>. 1-10.
- Hermosillo RJM, Mooney MA, Fezcko E, Earl E, Marr M, Sturgeon D, Perrone A, Miranda-Dominguez O, Faraone SV, Wilmot B, Nigg JT, Fair DA. (2020). Polygenic risk score-derived subcortical connectivity mediates attention-deficit/hyperactivity disorder diagnosis. <u>Biol Psychiatry</u> <u>Cogn Neurosci Neuroimaging</u>. 5(3):330-341.
- 15. **Fair DA**, Miranda-Dominguez O,... Dosenbach NUF. (2020). Correction of respiratory artifacts in MRI head motion estimates. <u>Neuroimage</u>. 208: 116400.
- 16. Nigg JT, Karalunas SL, Gustafsson HC, Bhatt P, Ryabinin P, Mooney MA, Faraone SV, Fair DA, Wilmot B. (2020). Evaluating chronic emotional dysregulation and irritability in relation to ADHD and depression genetic risk in children with ADHD. <u>J Child Psychol Psychiatry</u>. 61(2): 205-214.
- 17. Hagler DJ Jr, Hatton S,... **Fair DA**, ... Dale AM. (2019). Image processing and analysis methods for the Adolescent Brain Cognitive Development Study. <u>Neuroimage</u>. 202: 116091.
- 18. Hoogman M,...**Fair, DA,**... Franke B. (2019). Brain Imaging of the Cortex in ADHD: A Coordinated Analysis of Large-Scale Clinical and Population-Based Samples. <u>Am J Psychiatry</u>. 176(7): 531-42.
- Colon E, Ludwick A, Wilcox SL, Youssef AM, Danehy A, Fair DA, Lebel AA, Burstein R, Becerra L, Borsook D. (2019). Migraine in the Young Brain: Adolescents vs Young Adults. <u>Front Hum Neurosc</u>. 13: 87.
- Xu T, Sturgeon D, Ramirez JSB, Froudist-Walsh S, Margulies DS, Schroeder CE, Fair DA, Milham MP. (2019). Interindividual Variability of Functional Connectivity in Awake and Anesthetized Rhesus Macaque Monkeys. <u>Biol Psychiatry Cogn Neurosci Neuroimaging</u>. 4(6): 543-553.
- 21. Henry TR, Feczko E, Cordova M, Earl E, Williams S, Nigg JT, **Fair DA**, Gates KM. (2019) Comparing directed functional connectivity between groups with confirmatory subgrouping GIMME.

Neuroimage. 188: 642-653.

- Thomas E, Buss C, Rasmussen JM, Entringer S, Ramirez JSB, Marr M, Rudolph MD, Gilmore JH, Styner M, Wadhwa PD, Fair DA, Graham AM. (2019). Newborn Amygdala Connectivity and Emerging Fear. <u>Dev Cogn Neurosci.</u> 37: 100604.
- 23. Graham AM, Rasmussen JM, Entringer S, Ben Ward E, Rudolph MD, Gilmore JH, Styner M, Wadhwa PD, Fair DA, Buss C. (2019). Maternal Cortisol Concentrations During Pregnancy and Sex-Specific Associations With Neonatal Amygdala Connectivity and Emerging Internalizing Behaviors. <u>Biol Psychiatry</u>. 85(2): 172-181.
- 24. Postema MC, van Rooij D,... **Fair DA**,... Francks C. (2019). Altered structural brain asymmetry in autism spectrum disorder in a study of 54 datasets. <u>Nat Commun</u>. 10(1): 4958.
- Marek S, Tervo-Clemmens B,... Fair DA, Luna B, Dosenbach NUF. (2019). Identifying reproducible individual differences in childhood functional brain networks: An ABCD study. <u>Dev Cogn Neurosci</u>. 40: 100706.
- Karstens L, Asquith M, Davin S, Fair DA, Gregory WT, Wolfe AJ, Braun J, McWeeney S. (2019). Controlling for contaminants in low-biomass 16S rRNA gene sequencing experiments. mSystems. 4(4).
- 27. Kovacs-Balint Z, Feczko E, Pincus M, Earl E, Miranda-Dominguez O, Howell B, Morin E, Maltbie E, Li L, Steele J, Styner M, Bachevalier J, Fair D, Sanchez M. (2019). Early Developmental Trajectories of Functional Connectivity Along the Visual Pathways in Rhesus Monkeys. <u>Cerebral Cortex</u>. 29(8): 3514-3526.
- Rasmussen JM, Graham AM, Entringer S, Gilmore JH, Styner M, Fair DA, Wadhwa PD, Buss C. (2019). Maternal Interleukin-6 concentration during pregnancy is associated with variation in frontolimbic white matter and cognitive development in early life. <u>Neuroimage</u>. 185: 825-835.
- 29. Milham MP, Ai L,... Fair DA,... Schroeder CE. (2018) An Open Resource for Non-human Primate Imaging. <u>Neuron</u>. 100(1):61-74.e2.
- 30. Anandakumar J, Mills KL, Earl EA, Irwin L, Miranda-Dominguez O, Demeter DV, Walton-Weston A, Karalunas S, Nigg J, **Fair DA**. (2018). Individual differences in functional brain connectivity predict temporal discounting preference in the transition to adolescence. <u>Dev Cogn Neurosci</u>. 34: 101-113.
- 31. Mills B.D, Miranda-Dominguez, O., Mills, K., Earl, E., Cordova, M., Grieser-Painter, J., Karalunas, S.L., Nigg, J.T., Fair D.A. (2018) ADHD and Attentional Control: Impaired Segregation of Task Positive and Task Negative Brain Networks. <u>Network Neuroscience</u>.

- 32. Miranda-Dominguez O, Feczko E, Grayson DS, Wallum H, Nigg JT, **Fair DA.** (2018). Heritability of the Human Connectome: A connectoyping study. <u>Network Neuroscience</u>. 2(2): 175-199.
- Mills BD, Grayson D, Shunmugavel A, Miranda-Dominguez O, Earl E, Feczko E, Neve K, Fair DA. (2018). Correlated gene expression and anatomical communication support synchronized brain activity in the mouse functional connectome. J. Neurosci. 38(25):5774-5787.
- 34. Kong XZ, Mathias SR, Guadalupe T, Fair DA, ENIGMA Laterality Working Group, Glahn DC, Franke B, Crivello F, Tzourio-Mazoyer N, Fisher SE, Thompson PM, Francks C. (2018). Mapping cortical brain asymmetry in 17,141 healthy individuals worldwide via the ENIGMA Consortium. Proc Natl Acad Sci. 115(22): E5154-63.
- 35. Thompson JR, Gustafsson HC, DeCapo M, Takahashi DL, Bagley JL, Dean TA, Kievit P, **Fair DA**, Sullivan EL. (2018). Maternal Diet, Metabolic State, and Inflammatory Response Exert Unique and Long-Lasting Influences on Offspring Behavior in Non-Human Primates. <u>Front Endocrinol</u>. 9:161.
- 36. Alarcón G, Pfeifer JH, **Fair DA**, Nagel BJ. (2018) Adolescent Gender Differences in Cognitive Control Performance and Functional Connectivity Between Default Mode and Fronto-Parietal Networks Within a Self-Referential Context. <u>Front Behav Neurosci</u>. 12:73.
- 37. Xu T, Falchier A, Sullivan EL, Linn G, Ramirez JSB, Ross D, Feczko E, Opitz A, Bagley J, Sturgeon D, Earl E, Miranda-Domínguez O, Perrone A, Craddock RC, Schroeder CE, Colcombe S, Fair DA, Milham MP. (2018) Delineating the Macroscale Areal Organization of the Macaque Cortex In Vivo. <u>Cell Rep.</u> 23(2):429-441.
- Rudolph MD, Graham AM, Feczko E, Miranda-Dominguez O, Rasmussen JM, Nardos R, Entringer S, Wadhwa PD, Buss C, Fair DA. (2018). Maternal IL-6 during pregnancy can be estimated from newborn brain connectivity and predicts future working memory in offspring. <u>Nature Neuroscience</u>. 21(5):765-772.
- 39. Casey BJ, Cannonier T,... **Fair DA**, Dale AM. ABCD Imaging Acquisition Workgroup. (2018). The Adolescent Brain Cognitive Development (ABCD) study: Imaging acquisition across 21 sites. <u>Dev</u> <u>Cogn Neurosci.</u> 32: 43-54.
- Breiner K, Li A, Cohen AO, Steinberg L, Bonnie RJ, Scott ES, Taylor-Thompson K, Rudolph MD, Chein J, Richeson JA, Dellarco DV, Fair DA, Casey BJ, Galván A. (2018) Combined effects of peer presence, social cues, and rewards on cognitive control in adolescents. <u>Dev Psychobiol</u>. 60(3):292-302.
- 41. Gilat M, Ehgoetz Martens KA, Miranda-Domínguez O, Arpan I, Shine JM, Mancini M, **Fair DA**, Lewis SJG, Horak FB. (2018). Dysfunctional Limbic Circuitry Underlying Freezing of Gait in Parkinson's Disease. <u>Neuroscience</u>. 374:119-132.

- Greene DJ, Koller JM, Hampton JM, Wesevich V, Van AN, Nguyen AL, Hoyt CR, McIntyre L, Earl EA, Klein RL, Shimony JS, Petersen SE, Schlaggar BL, Fair DA, Dosenbach NUF. (2018) Behavioral interventions for reducing head motion during MRI scans in children. <u>Neuroimage</u>. 171:234-245.
- 43. Nigg JT, Gustafsson HC, Karalunas SL, Ryabinin P, McWeeney SK, Faraone SV, Mooney MA, Fair DA, Wilmot B. (2018) Working Memory and Vigilance as Multivariate Endophenotypes Related to Common Genetic Risk for Attention-Deficit/Hyperactivity Disorder. J Am Acad Child Adolesc Psychiatry. 57(3):175-182.
- 44. Feczko E, Balba NM, Miranda-Dominguez O, Cordova M, Karalunas SL, Irwin L, Demeter DV, Hill AP, Langhorst BH, Grieser Painter J, Van Santen J, Fombonne EJ, Nigg JT, Fair DA. (2018). Subtyping cognitive profiles in Autism Spectrum Disorder using a Functional Random Forest algorithm. <u>Neuroimage</u>. 172:674-688.
- 45. van Rooij D, Anagnostou E,... Fair DA,...Buitelaar JK. (2018). Cortical and Subcortical Brain Morphometry Differences Between Patients With Autism Spectrum Disorder and Healthy Individuals Across the Lifespan: Results From the ENIGMA ASD Working Group. Am J Psychiatry. 175(4): 359-369.
- 46. Mavigner M, Raper J... **Fair DA**... Chahroudi A. (2018). Postnatal Zika virus infection is associated with persistent abnormalities in brain structure, function, and behavior in infant macaques. <u>Sci</u> <u>Transl Med</u>. 10: 435.
- 47. Godfrey JR, Diaz MP, Pincus M, Kovacs-Balint Z, Feczko E, Earl E, Miranda-Dominguez O, Fair DA, Sanchez MM, Wilson ME, Michopoulos V. (2018) Diet matters: Glucocorticoid-related neuroadaptations associated with calorie intake in female rhesus monkeys. Psychoneuroendocrinology. 91: 169-178.
- Karalunas SL, Hawkey E, Gustafsson H, Miller M, Langhorst M, Cordova M, Fair DA, Nigg JT. (2018). Overlapping and Distinct Cognitive Impairments in Attention-Deficit/Hyperactivity and Autism Spectrum Disorder without Intellectual Disability. J Abnormal Child Psychol. 46(8): 1705-16.
- 49. Dosenbach NUF, Koller JM, Earl EA, Miranda-Dominguez O, Klein RL, Van AN, Snyder AZ, Nagel BJ, Nigg JT, Nguyen AL, Wesevich V, Greene DJ, **Fair DA.** (2017). Real-time motion analytics during brain MRI improve data quality and reduce costs. <u>Neuroimage.</u> 161: 80-93.
- 50. Cary RP, Ray S, Grayson D, Grieser-Painter J, Carpenter S, Maron L, Sporns O, Stevens AA, Nigg JT, **Fair DA.** (2017). Network structure among brain systems in adult ADHD is uniquely modified by stimulant administration. <u>Cerebral Cortex</u>. 27(8): 3970-9.

- 51. Graham AM, Rasmussen JM, Rudolph MD, Heim CM, Gilmore JH, Styner M, Potkin SG, Entringer S, Wadhwa PD, Fair DA, Buss C. (2017). Maternal Systemic Interleukin-6 During Pregnancy is Associated with Newborn Amygdala Phenotypes and Subsequent Behavior at 2years-of-age. <u>Biological Psychiatry</u>. 83(2):109-119.
- 52. Scheuer H, Alarcón G, Demeter DV, Earl E, **Fair DA**, Nagel BJ. (2017) Reduced fronto-amygdalar connectivity in adolescence is associated with increased depression symptoms over time. <u>Psychiatry Res</u>. 266: 35-41.
- 53. Di Martino A, O'Connor D,... Fair DA,... Milham MP (2017). Enhancing studies of the connectome in autism using the autism brain imaging data exchange II. <u>Sci Data</u>. 4: 170010.
- 54. Rudolph MD, Miranda-Domínguez O, Cohen AO, Breiner K, Steinberg L, Bonnie RJ, Scott ES, Taylor-Thompson K, Chein J, Fettich KC, Richeson JA, Dellarco DV, Galván A, Casey BJ, Fair DA. (2017) At Risk of Being Risky: The relationships of "brain age" under emotional states and risk preference. <u>Dev Cogn Neurosci</u>. 24: 93-106.
- 55. Coleman K, Robertson ND, Dissen GA, Neuringer MD, Martin LD, Carlson VCC, Kroenke C, **Fair DA**, Brambrink AM. (2017). Isoflurane anesthesia has long-term consequences on motor and behavioral development in infant rhesus macaques. <u>Anesthesiology</u>. 126(1): 74-84.
- 56. Gates K, Henry T, Steinley D, **Fair DA.** (2016) A Monte Carlo Evaluation of Weighted Community Detection Algorithms. <u>Frontiers in Neuroinformatics</u>. 10: 45.
- 57. Grayson DS, Biss-Moreau E, Machado CJ, Bennett J, Shen K, Grant K, **Fair DA**, Amaral DG. (2016). The rhesus monkey connectome predicts disrupted functional networks resulting from pharmacogenetic inactivation of the amygdala. <u>Neuron</u>. 91(2):453-66.
- 58. Mills BD, Pearce HL, Khan O, Jarrett BR, Fair DA, Lahvis GP. (2016) Prenatal domoic acid exposure disrupts mouse pro-social behavior and functional connectivity MRI. <u>Behav Brain Res</u>. 308:14-23.
- 59. Cohen AO, Breiner K, Steinberg L, Bonnie RJ, Scott ES, Taylor-Thompson KA, Rudolph MD, Chein J, Richeson JA, Heller AS, Silverman MR, Dellarco DV, Fair DA, Galvan A, Casey BJ. (2016). When is an Adolescent and Adult? Assessing Cognitive Control in Emotional and Nonemotional Contexts. Psychological Science. 27(4): 549-62.
- 60. Graham AM, Buss C, Rasmussen JM, Rudolph MD, Demeter DV, Gilmore JH, Styner M, Entringer S, Wadhwa PD, Fair DA. (2016). The implications of newborn amygdala connectivity for fear and cognitive development at 6-months of age. <u>Developmental Cognitive Neuroscience</u>. 18: 12-25.

- 61. Nardos R, Karstens L, Carpenter S, Aykes K, Krisky C, Stevens C, Gregory WT, Fair DA. (2016). Abnormal functional connectivity in women with urgency urinary incontinence: Can we predict disease presence and severity in individual women using Rs-fcMRI? <u>Neurourol Urodyn</u>. 35(5):564-73.
- 62. Karstens L, Asquith M, Davin S, Stauffer P, Fair DA, Gregory WT, Rosenbaum JT, McWeeney SK, Nardos R. (2016). Does the Urinary Microbiome Play a Role in Urgency Urinary Incontinence and Its Severity? <u>Front Cell Infect Microbiol</u>. 6:78.
- 63. Morrison AB, Rosenbaum GM, **Fair DA,** Chein JM. (2016) Variation in strategy use across measures of verbal working memory. <u>Mem Cogn.</u> 44(6):922-36.
- 64. Alarcón G, Cservenka A, Rudolph MD, **Fair DA**, Nagel BJ. (2015). Developmental sex differences in resting-state functional connectivity of amygdala sub-regions. <u>Neuroimage</u>. 115:235-44
- 65. Graham AM, Pfeifer JH, Fisher PA, Carpenter S, **Fair DA**. (2015). Early life stress is associated with default system integrity and emotionality during infancy. <u>J Child Psychology Psychiatry</u>. 56(11):1212-22.
- 66. Graham AM, **Fair DA.** (2015). Commentary: Developmental connectomics to advance our understanding of typical and atypical brain development a commentary on Vértes and Bullmore. J Child Psychology Psychiatry. 56(3):321–3.
- 67. Costa Dias TG, Iyer S, Carpenter SD, Cary RP, Wilson VB, Mitchel SH, Nigg JT, **Fair DA.** (2015). Characterizing the heterogeneity in children with and without ADHD based on reward system connectivity. <u>Developmental Cognitive Neuroscience</u>. 11:155-174.
- Faria V, Erpelding N, Lebel A, Johnson A, Wolff R, Fair DA, Burstein R, Becerra L, Borsook D. (2015). The migraine brain in transition: girls vs boys. <u>Pain</u>. 156(11):2212-21.
- Stafford JM, Jarrett BR, Miranda-Dominguez O, Mills BD, Cain N, Mihalas S, Lahvis GP, Lattal KM, Mitchell SH, David SV, Fryer JD, Nigg JT, Fair DA, (2014). Large-scale Topology and the Default Mode Network in the Mouse Connectome. <u>Proc Nat Acad Sci.</u> 111(52):18745-50.
- Miranda-Dominguez O, Mills BD, Carpenter SD, Grant KA, Kroenke CD, Nigg JT, Fair DA. (2014) Connectotyping: Model based fingerprinting of the functional connectome. <u>PLoS One</u>. 9(11):e111048.
- 71. Alarcon G, Cservenka A, **Fair DA**, Nagel BJ. (2014). Sex differences in the neural substrates of spatial working memory during adolescence are not mediated by endogenous testosterone. Brain Research. 1593:40-54.

- 72. Kang SS, Kurti A, **Fair DA**, Fryer JD. (2014). Dietary intervention rescues maternal obesity induced behavior deficits and neuroinflammation in offspring. J. Neuroinflammation. 11(1):156.
- 73. Ray S, Miller M, Karalunas S, Robertson CJ, Grayson D, Cary RP, Hawkey E, Painter JG, Kriz D, Fombonne E, Nigg JT, Fair DA. (2014). Structural and Functional Connectivity of the Human Brain in Autism Spectrum Disorders and Attention-Deficit/Hypteractivity Disorder: A Rich-Club Organization study. <u>Hum Brain Map</u>. 35(12):6032-48.
- 74. Hill AP, Zuckerman KE, Hagen AD, Kriz DJ, Duvall SW, Van Santen J, Nigg JT, Fair DA, Fombonne E. (2014). Aggressive behavioral problems in children with autism spectrum disorders: Prevalence and correlates in a large clinical sample. <u>Research in Autism Spectrum Disorders</u>. 8(9): 1121-1133.
- Fling BW, Cohen RG, Mancini M, Carpenter SD, Fair DA, Nutt JG, Horak FB. (2014). Functional reorganization of the locomotor network in Parkinsons patients with freezing of gait. PLoS One.17; 9(6).
- 76. Cservenka A, **Fair DA**, Nagel BJ. (2014). Emotional processing and brain activity in youth at risk for alcoholism. <u>Alcohol Clin Exp Res.</u> 38(7): 1912-23.
- Miranda-Dominguez O, Mills BD, Grayson D, Woodall A, Grant KA, Kroenke CD, Fair DA. (2014). Bridging the gap between the human and macaque connectome: a quantitative comparison of global interspecies structure-function relationships and network topology. J. Neurosci. 34(16):5552-63.
- Gates KM, Molenaar PC, Iyer SP, Nigg JT, Fair DA. (2014). Organizing heterogeneous samples using community detection of GIMME-derived resting state functional networks. <u>PLoS One</u>. 9(3):e91322.
- 79. Grayson DS, Ray S, Carpenter S, Iyer S, Costa Dias T, Stevens C, Nigg JT, **Fair DA.** (2014). Structural and Functional Rich-Club Organization of the Brain in Children and Adults. <u>PLoS One.</u> 9(2):e88297.
- 80. Grayson DS, Kroenke CD, Neuringer M, **Fair DA.** (2014). Dietary Omega-3 Fatty Acids Modulate Large-Scale Systems Organization in the Rhesus Macaque Brain. J. Neurosci. 34(6):2065-74.
- Cservenka A, Casimo K, Fair DA, Nagel BJ. (2014). Resting state functional connectivity of the nucleus accumbens in youth with a family history of alcoholism. <u>Psychiatry Research</u>: <u>Neuroimaging</u>. 221:210-219.
- 82. Nardos R, Gregory WT, Krisky C, Newell A, Nardos B, Schlaggar B, Fair DA. (2014). Examining mechanisms of brain control of bladder function with resting state functional connectivity MRI. <u>Neurourol Urodyn</u>. 33(5):493-501.

- Fling BW, Cohen RG, Mancini M, Nutt JG, Fair DA, Horak FB. (2013). Asymmetric pedunclulopontine network connectivity in parkinsonian patients with freezing gait. <u>Brain</u>. 136(Pt 8): 2405-18.
- 84. Di Martino A, Yan CG,... Fair DA,...Milham MP. (2014). The autism brain imaging data exchange: towards a large-scale evaluation of the intrinsic brain architecture in autism. <u>Mol Psychiatry</u>. 19(6):659-67.
- 85. Iyer S, Shafran I, Grayson DR, Gates K, Nigg JT, Fair DA. (2013). Inferring functional connectivity in MRI using Bayesian network structure learning with a modified PC algorithm. <u>Neuroimage</u>. 75:165-75.
- 86. Fair DA,... Milham MP. (2013). Distinct Neural Signatures Detected for ADHD Subtypes After Controlling for Micro-Movements in Resting State Functional Connectivity MRI Data. <u>Frontiers in</u> <u>Systems Neuroscience</u>. 6:80.
- 87. Purnell JQ, **Fair DA.** (2013) Fructose ingestion and cerebral, metabolic, and satiety responses. JAMA. 309(1): 85-6.
- 88. Nagel BJ, Herting MM, Maxwell EC, Bruno R, **Fair DA.** (2013) Hemispheric lateralization of verbal and spatial working memory during adolescence. Brain Cogn. 82(1):58-68.
- 89. Costa Dias TG, Wilson VB, Bathula DR, Iyer SP, Mills KL, Thurlow BL, Stevens CA, Musser ED, Carpenter SD, Grayson DS, Mitchell SH, Nigg JT, Fair DA. (2012). Reward circuit connectivity relates to delay discounting in children with attention-deficit/hyperactivity disorder. Eur Neuropsychopharmacol. 23(1):33-45.
- 90. Hagmann P, Grant PE, **Fair DA**. (2012). MR Connectomics: A conceptual framework for studying the developing brain. <u>Front Syst Neurosci</u>. 6(43).
- 91. **Fair DA**, Bathula D, Nikolas M, Nigg JT. (2012). Distinct neuropsychological subgroups in typically developing youth inform heterogeneity in ADHD. <u>Proc Nat Acad Sci.</u> 109(17):6769-74.
- 92. Mills KL, Bathula D, Costa Dias TG, Iyer SP, Fenesy MC, Musser ED, Stevens CA, Thurlow BL, Carpenter SD, Nagel BJ, Nigg JT, **Fair DA.** (2012). Altered Cortico-Striatal-Thalamic Connectivity in Relation to Spatial Working Memory Capacity in Children with ADHD. <u>Frontiers in Psychiatry</u>. 3:2.
- 93. Stevens AA, Tappon SC, Garg A, **Fair DA.** (2012). Functional brain network modularity captures inter- and intra-individual variation in working memory capacity. <u>PLoS One</u>. 7(1):e30468.
- 94. Shannon BJ, Raichle ME, Snyder AZ, **Fair DA**, Mills KL, Zhang D, Bache K, Calhoun VD, Nigg JT, Nagel BJ, Stevens AA, Kiehl KA. (2011). Premotor functional connectivity predicts impulsivity in juvenile offenders. <u>Proc Nat Acad Sci</u>. 108(27):11241-5.
- 95. Herting MM, **Fair DA**, Nagel BJ. (2011). Altered fronto-cerebellar connectivity in alcohol-naive youth with a family history of alcoholism. <u>Neuroimage</u>. 54(4): 2582-2589.

- 96. Nagel BJ, Bathula D, Herting M, Schmitt C, Kroenke CD, Fair DA, Nigg JT. (2011). Altered white matter microstructure in children with attention-deficit/hyperactivity disorder. <u>J Am Acad Child</u> <u>Adolesc Psychiatry</u>. 50(3):283-92.
- 97. Posner J, Maia TV, **Fair DA**, Peterson BS, Sonuga-Barke EJ, Nagel BJ. (2011). The attenuation of dysfunctional emotional processing with stimulant medication: An fMRI study of adolescents with ADHD. <u>Psychiatry Research: Neuroimaging.</u> 193(3):151-60.
- 98. Dosenbach NUF, Nardos B, Cohen AL, Fair DA, Power JD, Church JA, Nelson SM, Wig GS, Vogel AC, Lessov-Schlaggar CN, Barnes KA, Dubis JW, Feczko E, Coalson RS, Pruett JR, Barch DM, Petersen SE, Schlaggar BL. (2010). Prediction of individual brain maturity using fMRI. <u>Science</u>. 329(5997):1358-61.
- Fair DA, Posner J, Nagel BJ, Bathula D, Costa Dias TG, Mills KL, Blythe MS, Giwa A, Schmitt CF, Nigg JT. (2010). Atypical Default Network Connectivity in Youth with ADHD. <u>Biol Psychiatry</u>. 68(12): 1084-91.
- 100. **Fair DA**, Bathula D, Mills KL, Costa Dias TG, Blythe MS, Zhang D, Snyder AZ, Raichle ME, Stevens AA, Nigg JT, Nagel BJ. (2010) Maturing thalamocortical functional connectivity across development. Frontiers in Systems Neuroscience. 18;4:10.
- 101. Biswal BB, Mennes M,... **Fair DA**,... Milham MP. (2010). Towards discovery science of human brain function. <u>Proc Nat Acad Sci.</u> 107(10):4734-9.
- 102. **Fair DA,** Choi AH, Dosenbach YBL, Coalson RS, Miezin FM, Petersen SE, Schlaggar BL. (2009). The functional organization of trial-related activity in lexical processing after early left hemispheric brain lesions: An event-related fMRI study. <u>Brain and Language</u>. 114(2):135-46.
- Fair DA, Cohen AL, Powers JL, Dosenbach NUF, Church JA, Miezin FM, Schlaggar BL, Petersen SE. (2009). Functional Brain Networks Develop from a "Local to Distributed" Organization. PLoS Comp Bio. 5(5): e10000381.
- Church JA, Fair DA, Dosenbach NUF, Cohen AL, Miezin FM, Petersen SE, Schlaggar BL. (2009). Control Networks in Paediatric Tourette Syndrome Show Immature and Anomalous Patterns of Functional Connectivity. <u>Brain</u>. 132(1): 225-238.
- 105. **Fair DA**, Snyder AZ, Connor LT, Nardos B, Corbetta M. (2009). Task-evoked BOLD Responses Are Normal in Areas of Diaschisis After Stroke. <u>Neurorehabil Neural Repair</u>. 23(1):52-57.
- 106. Cohen AL, **Fair DA**, Dosenbach NUF, Miezin FM, Dierker D, Van Essen DC, Schlaggar BL, Petersen SE. (2008). Defining functional areas in individual human brains using resting functional connectivity MRI. <u>Neuroimage.</u> 41(1):45-57.
- 107. Fair DA, Cohen AL, Dosenbach NUF, Church JA, Miezin FM, Barch DM, Raichle ME, Petersen SE, Schlaggar BL. (2008). The maturing architecture of the brain's default network. <u>Proc Nat Acad Sci.</u> 105(10): 4028-32.
- 108. Becker DB, Schlaggar BL, Sachananandi N, Coalson RS, Lugar HM, **Fair DA**, Kirchner LE, Kanel AA. (2008). Functional neuroanatomy of lexical processing in children with cleft lip and

palate. Plastic and Reconstructive Surgery. 122(5):1371-82.

- 109. **Fair DA,** Dosenbach NUF, Church JA, Cohen AL, Miezin FM, Barch D, Petersen SE, Schlaggar BL. (2007). Development of distinct control networks through segregation and integration. <u>Proc Nat Acad Sci.</u> 104(33):13507-13512.
- 110. Dosenbach NUF, **Fair DA**, Miezin FM, Cohen AL, Wenger KK, Dosenbach RA, Fox MD, Snyder AZ, Vincent JL, Raichle ME, Schlaggar BL, Petersen SE. (2007). Distinct brain networks for adaptive and stable task control in humans. <u>Proc Nat Acad Sci</u>. 104(26):11073-11078.
- 111. **Fair DA**, Schlaggar BL, Cohen AL, Miezin FM, Dosenbach NUF, Wenger KK, Fox MD, Snyder AZ, Raichle ME, Petersen SE. (2007). A method for using blocked and event-related fMRI data to study "Resting State" functional connectivity. <u>Neuroimage</u>. 35(1):396-405.
- 112. **Fair DA,** Brown T, Petersen S, Schlaggar B. (2006). FMRI reveals novel functional neuroanatomy in a child with perinatal stroke. <u>Neurology</u>. 67(12):2246-2249.
- 113. **Fair DA,** Brown TT, Petersen SE, Schlaggar BL. (2006). A comparison of ANOVA & correlation methods for investigating cognitive development with fMRI. <u>Dev. Neuropsychology</u>. 30(1):531-546.

# Reviews

- 114. Nigg JT, Karalunas SL, Feczko E, **Fair DA**. (2020). Toward a Revised Nosology for Attention-Deficit/Hyperactivity Disorder Heterogeneity. Review. <u>Biol Psychiatry Cogn Neurosci Neuroimaging</u>. [Epub ahead of print].
- Feczko E, Miranda-Dominguez O, Marr M, Graham AM, Nigg JT, Fair DA. (2019). The Heterogeneity Problem: Approaches to Identify Psychiatric Subtypes. Review. <u>Trends Cogn Sci</u>. 23(7):584-601.
- 116. Fair, DA. (2018). The Big Reveal: Precision Mapping Shines a Gigantic Floodlight on the Cerbellum. Review. <u>Neuron</u>. 100(4):773-776.
- 117. Karalunas SL, Gustafsson HC, **Fair D**, Musser ED, Nigg JT. (2019) Do we need an irritable subtype of ADHD? Replication and extension of a promising temperament profile approach to ADHD subtyping. Review. <u>Psychol Assess</u>. 31(2):236-247.
- 118. Karstens L, Asquith M, Caruso V, Rosenbaum JT, Fair DA, Braun J, Gregory WT, Nardos R, McWeeney SK. (2018). Community profiling of the urinary microbiota: considerations for lowbiomass samples. Review. <u>Nature Rev Urol.</u> 15(12): 735-749.
- 119. Grayson DS, **Fair DA.** (2017). Development of large-scale functional networks from birth to adulthood: A guide to the neuroimaging literature. Review. <u>Neuroimage</u>. 160: 15-31.

- 120. Buss C, Entringer S, Moog NK, Toepfer P, Fair DA, Simhan HN, Heim CM, Wadhwa PD. (2017). Intergenerational Transmission of Maternal Childhood Maltreatment Exposure: Implications for Fetal Brain Development. Review. J Am Acad Child Adolesc Psychiatry. 56(5):373-382.
- 121. Graham AM, Pfeifer JH, Fisher PA, Lin W, Gao W, **Fair DA.** (2014). The Potential of Infant fMRI Research and the Study of Early Life Stress as a Promising Exemplar. Review. <u>Developmental</u> <u>Cognitive Neuroscience</u>. 12C:12-39.
- 122. Martino AD, Fair DA, Kelly C, Satterthwaite TD, Castellanos FX, Thomason ME, Craddock RC, Luna B, Leventhal BL, Zuo X, Milham MP. (2014). Unraveling the Miswired Connectome: A Developmental Perspective. Review. <u>Neuron</u>. 83(6): 1335-53.
- 123. Mathews M, **Fair DA.** (2014). Research Review: Functional brain connectivity and child psychopathology: overview and methodological considerations for investigators new to the field. Review. J. Child Psychology and Psychiatry. 56(4): 400-14.
- 124. Matthews M, Nigg JT, **Fair DA**. (2014). Attention Deficit Hyperactivity Disorder. Review. <u>Curr Top</u> <u>Behav Neurosci.</u> 16:235-66.
- 125. Hagmann P, Grant PE, **Fair DA.** (2012). MR Connectomics: A Conceptual Framework for Studying The Developing Brain. Review. <u>Frontiers in Systems Neuroscience</u>. 6:43.
- 126. Power JD, **Fair DA**, Schlaggar BL, Petersen SE. (2010). The Development of Human Functional Brain Networks. Review. <u>Neuron</u>. 67(5): 735-748.
- 127. Dosenbach NUF, **Fair DA**, Cohen AL, Schlaggar BL, Petersen SE. (2008). A dual-networks architecture of top down control. Review. <u>Trends in Cognitive Neuroscience</u>. 12(3): 99-105.
- 128. **Fair DA,** Story D. (2004). Acute Ischemic Stroke: Evaluation and Treatment. Review. <u>Clinician</u> <u>Reviews</u>. 14(10):41-49.

# Chapters

- 129. **Fair DA**, Dosenbach NUF, Petersen SE, Schlaggar BL. (2010). Resting state studies on the development of control systems. In Posner MI, (ed) <u>Cognitive Neuroscience of Attention. Second Edition</u>. New York. Guilford Press.
- 130. **Fair DA,** Schlaggar BL. (2010). CNS Plasticity and Brain Development. In Borsook D, (ed) Imaging and Drug Development. New York. Springer.
- 131. **Fair DA,** Schlaggar BL. (2009). Brain Development. In Benson JB, Marshall MH. (eds) Language, Memory, and Cognition in Infancy and Early Childhood. Oxford: Elsevier Science Publishing.

132. **Fair DA**, Schlaggar BL. (2008). Brain Development. In <u>Encyclopedia of Infant and Early</u> <u>Childhood Development (pp. 211-225).</u> Oxford: Elsevier Science Publishing.

## Invited Lectures, Conference Presentations or Professorships:

- 2002 Invited lecture, Neurology Nursing staff, Yale University School of Medicine
- 2002 Invited lecture, Cardiothoracic surgery, Yale University School of Medicine
- 2002 Invited lecture series, Department of Neurology, Yale University School of Medicine
- 2003 Invited lecture series, Yale Physician Associate Program, Yale University School of Medicine
- 2006 Invited lecture, John Merck Fund Summer Institute on Biology of Developmental Disabilities. Princeton University
- 2007 Invited lecture, ADHD Neuroscience Network (ANNet) and the Resting State Network (RSN1) joint meeting. NYU / Nathan Kline Institute for Psychiatric Research
- 2008 Invited lecture, Workshop on Connectivity in the Resting Brain. Otto von Guericke University, Center for Behavioral Brain Sciences, Magdeburg, Germany
- 2009 Invited lecture, Magnetic Resonance Research Center, Yale University School of Medicine
- 2009 Invited lecture, Psychology Department, University of Oregon
- 2010 Grand Grounds, Child Study Center, NYU School of Medicine
- 2010 Invited lecture, NIMH prevention workshop: Integrating Neuroscience, Developmental Psychopathology, and Preventive Interventions: Critical Questions for the Next Generation of Transformative Research
- 2010 Symposium: Connectivity in the developing brain, Human Brain Mapping, Barcelona
- 2010 Invited lecture, Scientific meeting on resting-state functional connectivity, Medical College of Wisconsin
- 2010 Invited lecture, NIMH Early Experience, Stress and Neurobehavioral Development Center meeting, University of Minnesota
- 2010 Invited lecture, University of Pittsburgh University, Translational Neuroscience Program Seminar Series
- 2011 Keynote address, 11th Annual OHSU Multicultural Health, Science & Engineering Career Conference
- 2011 Invited lecture, NIMH, Workshop on the Maturation of Functional Brain Networks
- 2011 Invited lecture, Research in Autism Conference, Oregon Health & Science University
- 2011 Invited lecture, Chancellor's Graduate Fellowship 20th Anniversary, Washington University, St. Louis
- 2011 Symposium: *Developmental Changes in Cognitive Control Networks,* Society for Research in Child Development, Montreal
- 2011 Keynote, Eunethydis European Conference on ADHD, Budapest
- 2011 Invited lecture, NIMH, Meeting of the National Advisory Mental Health Council
- 2011 Invited lecture, Brain Connectivity Workshop, Montreal
- 2011 Invited lecture, Advanced fMRI Educational Course, Organization of Human Brain Mapping, Quebec City
- 2011 Invited lecture, NIMH Early Experience, Stress and Neurobehavioral Development Center meeting, University of Oregon
- 2011 Symposium: ACNP Annual Meeting, "Assessing Brain Developmental Trajectories from Infancy to Adulthood"
- 2011 Invited Lecture: Congressional Neuroscience Caucus Briefing "The Growing Brain: From Birth to Adolescence What Makes it Work Right and What Can Go Wrong"

- 2012 Invited lecture, Oregon Health & Science University School of Medicine, 2nd Year lecture "Functional Brain Imaging Studies," Portland
- 2012 Invited lecture, Eunethydis International Conference "Sharpening the cutting edge of ADHD science and practice," Barcelona
- 2012 Invited lecture, Pennsylvania State University, Human Imaging, Social, Life and Engineering Sciences Imaging Center
- 2012 Invited lecture, University of Maryland Neuroimaging Center, Summer Institute Faculty
- 2012 Invited lecture, Oregon Health & Science University, Neuroscience Graduate Program retreat
- 2012 Invited lecture (scheduled), NIMH Early Experience, Stress and Neurobehavioral Development Center meeting, University of Washington
- 2013 Invited lecture, Medical College of Wisconsin, Graduate School of Biomedical Scientists
- 2013 Symposium: American Society of Neuroradiology "Cognitive Disorders in Children"
- 2013 Invited lecture, University of Maryland Neuroscience program
- 2013 Invited lecture, NIAAA/NIDA, Workshop on Building the Next Generation of Integrative Approaches for Understanding Comorbid Alcohol, Drug Abuse, and Attention Disorders
- 2013 Invited lecture, World Congress on Brain, Behavior and Emotions, Sao Paulo, Brazil
- 2013 Invited lecture, Oregon Health & Science University, Portland International Neuroscience Symposium
- 2013 Invited lecture, Weill Cornell Medical College, Sackler Institute for Developmental Psychobiology
- 2013 Invited lecture, University of Pittsburgh, FLUX Congress, The international congress for integrative developmental cognitive neuroscience.
- 2013 Symposium: Society for Neuroscience, "The human connectome in health and disease"
- 2014 Invited lecture, National Science Teachers Association. "New Technologies: What They Can Teach Us About Childhood Brain Disorders"
- 2014 Symposium: Society of Biological Psychiatry, "Using Graph Theory to Inform Heterogeneity in Typical Development and in ADHD."
- 2014 Educational Panel Discussant: International Meeting for Autism Research. "Infant Brain Development."
- 2014 Invited lecture, University of California Los Angeles, Dept. of Psychiatry and Behavioral Sciences
- 2014 Invited lecture, American Psychological Association, "Using Graph Theory and Functional Connectivity to Inform Heterogeneity in Typical Development and in ADHD."
- 2014 Invited lecture, Vole Conference, "Large-scale Topology and the Default Mode Network in the Mouse Connectome"
- 2014 Invited lecture, MATRR Conference, "Using resting state functional MRI to characterize neurophysiology of the nonhuman primate brain"
- 2014 Symposium: ACNP Annual Meeting, "Using Graph Theory to inform heterogeneity in typical and atypical development"
- 2014 Invited lecture, Portland State University, "Using Graph Theory to inform heterogeneity in typical and atypical development"
- 2015 Grand Rounds, University of Vermont, "Using functional imaging and graph theory to characterize typical and atypical brain development."
- 2015 Invited lecture, Utrecht University, "Connectotyping: Model based fingerprinting of the functional connectome."
- 2015 Invited lecture, World Federation of ADHD, Glaskow, " Connectotyping: A new way of examining functional connectivity in typical and atypical developing populations."
- 2015 Invited lecture, Congressional Briefing, The science of educating special needs children. "Heterogeneity in typical development and in ADHD."

- 2015 Invited lecture, Oregon Health & Science University. Neurofutures. "Resting-state functional connectivity as a bridge between human and animal models.
- 2015 Invited lecture, Flux Congress, Leiden. "Connectotyping: A new way of examining functional connectivity heritability."
- 2015 Grand Rounds, Oregon Health & Science University. "The importance of characterizing heterogeneity in typical development and in ADHD for clinical practice."
- 2016 Grand Rounds, Washington University, St. Louis. "Connectotyping: characterizing heritability of the human connectome."
- 2016 Invited lecture, University of California Los Angeles, "Connectotyping: a unique way to characterize the human connectome in health and disease."
- 2016 Education symposium, Organization of Human Brain Mapping, "Applications of community detection to characterize brain systems in health and disease"
- 2016 Invited lecture, Weill Cornell Medical College, Sackler Institute for Developmental Psychobiology "Heterogeneity in populations and a phenotype of risky behavior in youth."
- 2016 Invited lecture, University of California San Diego, ABCD Train the Trainer
- 2016 Invited lecture, Washington University St. Louis, "The importance of characterizing heterogeneity in developing populations."
- 2016 Invited lecture, The Society for Research and Child Development, Tampa, Florida. "A Phenotype of risky behavior in youth and the effect of race on face perception."
- 2016 Invited lecture, Weill Cornell Medical College, "A Journey toward improved characterization of findings in neuroscience through translation."
- 2016 Invited lecture, The Macarthur Foundation, "A Phenotype of Risky Behavior in Youth."
- 2016 Invited lecture, American College of Neuropsychopharmacology (ACNP), Florida, "At Risk of Being Risky: The Relationship Between "Brain Age" Under Emotional States and Risk Preference"
- 2016 Invited lecture, American College of Neuropsychopharmacology (ACNP), Florida, "Tracing the Routes of Externalizing Behaviors to Newborn Amygdala Connectivity and Prenatal Influences"
- 2016 Symposium ACNP, "At Risk of Being Risky: Translational Studies Related to The Relationship Between "Brain Age" Under Emotional States and Risk Preference"
- 2017 Invited lecture, National Institute of Drug Abuse (NIDA), "Prenatal Influences on Brain Development"
- 2017 Invited lecture, National Institute of Drug Abuse (NIDA), "A Journey toward improved characterization of findings in neuroscience through translation."
- 2017 Invited lecture, Keystone Symposia, New Mexico "Considerations for examining typical and atypical development of the functional connectome."
- 2017 Invited Lecture, Abbott Nutrition Cognition Summit 2017, University of Illinois, "Brain Nutrients and Advanced Imaging Data"
- 2017 Symposium, Cognitive Neuroscience Society, "At Risk of Being Risky: The Relationship Between "Brain Age" Under Emotional States and Risk Preference"
- 2017 Grand Rounds, University of California SanFrancisco, "Using Graph Theory to Inform Heterogeneity in Typical and Atypical Development."
- 2017 Keynote Lecture, Society for Research in Child Development, "Approaches to characterizing heterogeneity in typical and atypical brain development"
- 2017 Symposium, The International Society for Magnetic Resonance in Medicine, "Functional Assessment Using Functional Connectivity MRI"
- 2017 Invited lecture, University of Pennsylvania, "Early influences on brain trajectories of the functional connectome"

- 2017 Invited lecture, Science of Change meeting on mechanisms of change for addictive behaviors, Boston, MA, "Translational Approaches to Predicting Substance use in Youth."
- 2017 Invited lecture, World Congress on ADHD, Vancouver, B.C. "ADHD in the era of the connectome: How Psychostimulants Modify Network Structure Among Brain Systems"
- 2017 Invited lecture, Marquam Hill Lecture Series, OHSU, "Inside the Developing Brain"
- 2017 Keynote Lecture, Human Brain Mapping, Vancouver B.C. "Early influences on the developmental trajectory of the functional connectome"
- 2017 Invited Lecture, University of Utah, "Using Graph Theory to Inform Heterogeneity in Typical and Atypical Development."
- 2017 Invited Lecture, Young Investigator Award, "Heterogeneity in the Developing Brain"
- 2017 Invited Lecture, Washington University Neuroscience Research Conference 2017, The Developing Brain: New Directions in Science, Policy, and Law. "Maternal Stress Biology and its relationship with brain behavior and development"
- 2017 Tedx Talk, Tedx Mount Hood, Roosevelt High School. "Does the brain rest? New advances into the study of brain development."
- 2017 Invited Lecture, International Conference on Human Brain Development, Nanning, China, "Translational Studies of Maternal Systemic Inflammation during Pregnancy and Its Impacts on Offspring Brain and Behaviors"
- 2017 Invited Lecture, University of Minnesota, "Using Graph Theory and Neuroimaging to Inform Heterogeneity in Typical and Atypical Development."
- 2017 Symposium: ACNP Annual Meeting, "An early examination of functional connectivity data from the Adolescent Brain and Cognitive Development Study (ABCD)"
- 2017 Invited Lecture, Society for Neuroscience, "Examining the Development of the Functional Connectome with Non-invasive Neuroimaging."
- 2017 Invited Lecture, Gates Foundation, "Prenatal Factors Impacting Brain and Behavior in Offspring."
- 2018 Invited Lecture, Sackler Winter Conference, "Opportunities to Examine Population Heterogeneity using Big Data: Examples from the ABCD study."
- 2018 Invited Lecture, Harvard University, "A Phenotype of Risky Behavior in Youth and the Effect of Race on Face Perception."
- 2018 Invited Lecture, National Institutes of Health, NIDDK, "Predictive Modeling in Neuroimaging: What Can We Apply to Research of Benign Urologic Conditions?"
- 2018 Invited Lecture, Cognitive Neuroscience Society, "Graph Theory as a Translational Bridge to Understand Cognitive and Emotional Development."
- 2018 Invited Lecture, Indiana University, "Maternal Stress Biology and Its Relationship with Brain and Behavioral Development."
- 2018 Keynote Lecture, Gatlinburg Conference, "Using Graph Theory to Inform Heterogeneity in Typical and Atypical Brain Development."
- 2018 Keynote Lecture, Flux Satellite Big Data, Little Brains "Opportunities to Examine Population Heterogeneity using Big Data: Examples from the ABCD study."
- 2018 Keynote Lecture, Washington University, "Maternal Stress Biology and Its Relationship with Brain and Behavioral Development."
- 2018 Keynote Lecture, University of Alabama at Birmingham, Neural Conference, "Using Graph Theory to Inform Heterogeneity in Typical and Atypical Brain Development."
- 2018 Invited Lecture, The Gates Foundation, "The Functional Random Forest as a means to examine heterogeneous longitudinal trajectories."
- 2018 Invited Lecture, The Gates Foundation, " A few considerations and exemplars for infant MRI processing."

- 2018 Invited Lecture, Oregon Health & Science University, "New insights regarding typical and atypical brain development in humans using functional neuroimaging."
- 2018 Invited Lecture, Washington University, "The Heterogeneity Problem: An approach for parsing the variance in cognitive neuroscience and psychiatric research.
- 2018 Invited Lecture, University of Michigan, "New approaches to inform heterogeneity in typical and atypical development."
- 2018 Keynote Lecture, International Society for Developmental Psychobiology, San Diego, Translational studies of maternal stress and inflammation during pregnancy and its impact on offspring brain and behavior."
- 2018 Invited Lecture, NIDA, Frontiers in Addiction Research, "Heterogeneity in Maternal Stress Trajectories Relates to Offspring Brain and Behavioral Outcomes."
- 2018 Invited Lecture, Washington University, Translational studies of maternal inflammation during pregnancy and its impacts on offspring brain and behavior."
- 2018 Invited Lecture, National Scientific Council on the Developing Child, "New tools to help characterize heterogeneity in samples and application of these tools in studies of developmental programming."
- 2018 Invited Lecture, ACNP, The influence of prenatal stress trajectories during pregnancy on offspring brain and behavior."
- 2019 Invited Lecture, Sackler Winter Conference, "Effects of maternal high fat diet and inflammation on offspring brain and behavior."
- 2019 Invited Lecture, Johns Hopkins/Kennedy Krieger, "Translational studies of maternal inflammation during pregnancy and its impacts on offspring brain and behavior."
- 2019 Invited Lecture, Johns Hopkins/Kennedy Krieger, "The Heterogeneity Problem: New approaches toward parsing the variance in mental health research."
- 2019 Symposium, Human Brain Mapping, "New approaches to examining persnolized network organization in studies of brain development: An ABCD study"
- 2019 Invited Lecture, ABCD workshop/Hackathon, "An Introduction to ABCD imaging resources."
- 2019 Invited Lecture, ABCD workshop, Society for Neurosciences, "New resources and analyses with ABCD data."
- 2019 Invited Lecture, ABCD Annual Meeting, San Diego, "New resources and analyses with ABCD data."
- 2020 Invited Lecture, University of Wisconsin, "Translational studies of maternal inflammation during pregnancy and its impacts on offspring brain and behavior."
- 2020 Invited Lecture, University of Wisconsin, "The Heterogeneity Problem: New approaches toward parsing the variance in mental health research."
- 2020 Invited Moderator, National Academies of Sciences, "Workshop on Brain Health Across the Lifespan."

# V. SERVICE

#### Membership in Professional Societies: Granting Agency Review Work

- 2011 Radiologic Society of North America Ad Hoc Review Seed 06 (RSD 1206)
- 2012 NIMH Study Section: RDoC ZMH1 ERB-S-04 SRO: Rebecca Garcia
- 2012 NIMH Study Section: Special Emphasis ZMH1 ERB-L-06 SRO: Megan Kinnane
- 2012 NIMH Study Section: CPDD ad hoc 2013/01 SRO: Jane Doussard-Roosevelt
- 2012 MERCK/UNCF Study Section: Postdoc Fellowship Review
- 2013 NIMH Study Section: Special Emphasis ZMH1 ERB-L-03 SRO: Megan Kinnane

2013	NIMH Study Section: RDoC ZMH1 ERB-S-04 SRO: Rebecca Garcia
2013	CSR Study Section: Special Emphasis ZRG1-BBB P-X-03 SRO: Serena Chu
2013	NIMH Study Section: Special Empahsis ZMH1 ERB-L-02 SRO: Megan Kinnane
2014	NIMH Study Section: Special Emphasis ZMH1-ERB-X-01 SRO: David Armstrong
2014	NIMH Study Section: BRAINS initiative ZMH1-ERB-C-09 SRO: Vinod Charles
2014-2017	CSR Study Section: Standing Member CPDD: Jane Doussard-Roosevelt
2015	NIMH Study Section: BRAINS initiative ZMH1-ERB-C-09 SRO: Vinod Charles
2016	NIMH Study Section: RDoC ZMH1 ERB-L-03 SRO: Rebecca Garcia
2016	NIMH Study Section: BRAINS initiative ZMH1-ERB-C-09 SRO: Vinod Charles
2017	NIMH Study Section: K99/R00 ZMH1-ERB-X-04 SRO: David Armstrong
2017	NIMH Study Section: BRAINS initiative ZMH1-ERB-C-03 SRO: Vinod Charles
2018	NIMH Study Section: K99/R00 ZMH1-ERB-X-04
2018	NIMH Study Section: K99/R00 ZMH1-ERB-X-04
2019	Circle of Giving

# Editorial and Ad Hoc Review Activities:

Proceedings of the National Academy of Sciences, Science Translational Medicine PLoS Biology, Nature Comm, Nature Neuroscience, Nature, Science, JAMA psychiatry, Molecular Psychiatry, Journal of Neuroscience, Archives of General Psychiatry, PLoS Computational Biology, PLoS One, Cerebral Cortex, Biological Psychiatry, Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, Neuroimage, Brain and Language, Human Brain Mapping, Journal of Child Psychology and Psychiatry, Journal of the American Academy of Child and Adolescent Psychiatry, Frontiers Psychiatry, Frontiers Neuroscience, The American Journal of Psychiatry, Trends in Cognitive Sciences, Brain, Journal of Neuroscience Methods, Neuropsychologia, Brain Connectivity, Developmental Science, Journal of Cognitive Neuroscience

# Editing

Chief Editor – Frontiers Systems Neuroscience Research topic "Collaborative efforts aimed at utilizing neuroimaging to classify subjects with ADHD and other developmental neuropsychiatric disorders"

Associate Editor – Network Neuroscience

Editorial Board - Biological Psychiatry and Biological Psychiatry: Cognitive Neuroscience and Neuroimaging

Editor Special Edition – Translational Neuropsychiatry (Biological Psychiatry)

Editor Special Edition – Special Edition for the Flux Society (Developmental Cognitive Neuroscience)

Editor Special Edition – Approaches to characterizing population heterogeneity (Biological Psychiatry)

# **Data Sharing**

- 2010 1000 Connectome project contributor
- 2011-2012 ADHD-200 contributor, competition organizer, and chief editor of frontiers special edition
- 2012 Autism Brain Imaging Data Exchange (ABIDE) contributor

- 2015 Autism Brain Imaging Data Exchange (ABIDE) contributor
- 2015-pres Enhancing Neuro Imaging Genetics Through Meta Analyses (ENIGMA) Contributor
- 2012-pres NDAR Contributor
- 2017-pres PRIME Contributor

## **Committees:**

2020-pres Child Mind Institute in New York: Scientific Research Council 2018-pres Flux: The International Congress for Integrative Developmental Cognitive Neuroscience – Board (Treasurer) Society for Neuroscience (SFN): Program Committee 2018-pres 2018-pres **Biological Psychiatry Program Committee** BIRCWH K12 Internal Advisory Committee 2017-pres 2017-pres Society for Neuroscience (SFN): BrainFacts.org Editorial Board Society for Neuroscience (SFN): Next Generation and Science Educator 2016-pres Awards Selection Committee 2017 Society for Neuroscience (SFN): Meet-the-Expert Series 2017 OHSU Behavioral Neurosci. (BEHN) Recruitment Committee NIMH Council Workgroup – RDoC Cognitive Systems Domain subgroup 2016 2016 Institutional Pediatric Review Committee 2015-pres. **OHSU Diversity Advisory Council** 2016-2018. Flux: The International Congress for Integrative Developmental Cognitive Neuroscience – local organizing committee 2015-2016. Flux: The International Congress for Integrative Developmental Cognitive Neuroscience – Program Chair 2015 OHSU: Ponce Puerto Rico student/postdoc Research Focus Group 2015-2016 OHSU: URM recruitment day planning committee 2015-2016 OHSU: Search committee for the Vollum Director Society for Neuroscience (SFN): Workforce and Training Working Group 2014-2016. Society for Neuroscience (SFN): Press Planning Committee 2014-2016. OHSU Behavioral Neurosci. (BEHN) Admissions & Advisory Committee 2014-pres. 2014-pres. OHSU Behavioral Neurosci. (BEHN) Recruitment Committee - Chair 2014 OHSU: Dean Richardson's faculty committee on stabilization and transition planning in research OHSU: Search committee for the Associate Vice President for Basic 2014 Research 2013-pres. OHSU Neuroscience Graduate Program (NGP) Admissions Committee 2013-2014. Flux: The International Congress for Integrative Developmental Cognitive Neuroscience – organizing committee OHSU Research Road Map Task Force 4 committee 2013-pres **OHSU SOM Faculty Council Committee** 2012-pres Society for Neuroscience (SFN): Public Education and Communication 2013-2016 Committee 2012 Collaborative Research Leadership Group

2011-pres.	OHSU Human Research/OCTRI Internal Advisory Board
2004-2007	Washington University Neuroscience department retreat committee
2006-2007	Association of Black Biomedical Graduate Students
2002	Yale School of Medicine Physician Associate Program Admissions
	Committee.
2003	Yale School of Medicine Physician Associate Program Accreditation
	Committee.

## **Community Service:**

## Science Education:

- 2016 Society for Neuroscience Webinar: Promoting Awareness and Knowledge to Enhance Scientific Rigor in Neuroscience; Best practices in postexperimental data analysis
- 2017 Editor Society for Neuroscience, BrainFacts.org

2007-pres. Student Interns and Youth Engaged and Science Program (see below)

- Funmi Giwa undergraduate summer intern (2010) Equity program
- Emily Siegel high school intern observer/shadow (2012)
- Louise Baruel Johansen international graduate student rotator (2013)
- Nancy Arellano undergrad summer student (2013)
- Rakiyah Johnson undergrad summer student (2013)
- Amen Mengistu high School summer student (2013)
- Andrea Nunez undergrad summer student (2013) Equity program
- Sewit Tes high school summer student (2014) CELS program
- Evan Roche undergraduate summer student (2014) CELS program
- Jennifer Zhu undergraduate summer student (2014) Equity program
- Laura Ewens international graduate student rotator (2014)
- Benjamin Wills undergraduate summer student (2014)
- Arya Pathak high school summer student (2014)
- Alicia Kirkland undergraduate summer intern (2015) CELS program
- Jose Medina-Hernandez high school summer intern (2015) CELS program
- Mariamu Osumah undergraduate summer intern (2015) Equity program
- Jeya Anandakumar high school intern (2015-2016)
- Rebekah Alexander undergraduate intern (2015-2016) EXITO program
- Miya Walker undergraduate intern (2015-2016) EXITO program
- Emma Schifsky undergraduate summer intern (2016) CELS program
- Demontre Rich high school summer intern (2016) CELS program
- Iliana Javier undergraduate summer intern (2016) Equity program
- Dylan Nelson High school summer intern (2016) PSI program
- Valeria Vazquez-Trejo Undergraduate intern (2016-2017) EXITO program
- Muhammed Bah Undergraduate intern (2017-2018) EXITO program
- Jonathan Uriarte-Lopez Undergraduate intern (2017-2018) EXITO program
- Vasudev Raguram high school summer intern (2017)

## 2012 - pres. Youth Engaged in Science (YES) Initiative

- A multi-faceted program organized through the Fair laboratory aimed at exposing underrepresented middle and high school students to scientific research and related careers. YES aims to increase excitement about science through education, mentorship, and hands-on experience. The program educates families about the importance of community participation in biomedical research and seeks to increase enrollment in our current clinical studies.

# Fair Neuroimaging Lab tours, science education seminars, and outreach events for disadvantaged youth and families

- Summer Academy to Inspire Learning (SAIL) @ OHSU Lab Tour, 7/10/12
- Sabin SUN School Lab Tour, 11/30/12
- EMBODI & Delta GEMs Lab Tour, 2/2/13
- Reynolds MS Brain in a Box, 2/5/13
- On Track OHSU! w/ Jefferson HS, 2/20/13
- OHSU Health, Science & Engineering Career Conference, 2/22/13
- On Track OHSU! w/ Woodburn HS, 2/25/13
- Lab Shadow Day, 3/8/13
- OMSI Brain Fair 2013, 3/9/13
- Grant HS Workshop on Alcohol & Athletic Performance, 3/11/13
- King School Brain in a Box, 3/18/13
- ADHD/Autism Community Info Session @ Highland Christian Center, 5/22/13
- Summer Academy to Inspire Learning (SAIL) @ OHSU 2013, 7/16-7/18/13
- Sabin SUN School "Braaains!!!" Lab Tour, 8/8/13
- Ockley Green School Brain in a Box, 10/24/13
- SUN School "Braaains!!!" Harrison Park MS Lab Tour, 12/2/13
- SUN School "Braaains!!!" Jason Lee MS Lab Tour, 12/11/13
- North Marion Middle School OHSU Lab Tours, 12/4 & 12/12/13
- OMSI Brain Fair 2014, 3/15/14
- Bridges to Success Lego Robotics Team Lab Tour, 3/26/14
- St. Andrew Nativity School Curriculum Fair, 4/3/14
- Summer Academy to Inspire Learning (SAIL) @ OHSU 2014, 6/24-6/26/14
- Rosemary Anderson High School ADHD Workshop, 10/31/14
- PARC/YES Outreach First Class Clackamas Teens, 11/5/14
- PNCA Senses, Brain & Body Class Visit, 4/7 & 4/9/15
- Roosevelt High School Lab Tour, 4/25/15
- SAIL @ OHSU 2015 (3-day), 7/21-7/23/15
- PNCA Senses, Brain & Body Class Visit, 3/2/16
- OMSI Brain Fair 2016, 3/12/16
- Brain in a Box at Highland Park Middle School, 4/21 & 4/27/16 (~5 URM)
- Career advising outreach at Roosevelt High school, 5/11/16 (~20 URM)
- Outreach at Jefferson High school with NW NOGGIN, 5/12/16 (~25 URM)
- Outreach at Skyview High school with NW NOGGIN, 5/24-5/27/16 (~25 URM)

- SAIL @ OHSU 2016 7/18-7/21/16 (~30 URM)
- South Portland Health and Safety Fair, 8/3/2016 (~5 URM educators)
- Brain in a Box outreach at Roosevelt High School, 10/3/16 (15 URM)
- NW NOGGIN @ Portland Art Museum, 10/11/16
- Mini Med School @ OHSU, 11/5/16 (~30 URM out of 120+ students)
- Neuroimaging tour @ OHSU for PNW College of Art, 2/28/17 (~5 URM, 20 students)
- OMSI Brain Fair 2017, 3/11/17 (~50 URM out of 1000+ attendees)
- Northwest Youth Career Expo, 3/14/17 (~30 URM)
- Teacher Workshop Resource Fair @ OHSU, 3/18/17 (~5 URM)
- Brain in a Box at Highland Park Middle School, 4/14/17 (~5 URM)
- Career Fair @ Reynolds Middle School, 4/20/17 (~15 URM)
- Outreach at Franklin High school with NW NOGGIN, 4/25/17 (~15 URM)
- Take your child to work day @ OHSU (~10 URM students 4/27/17)
- Brain in a Box outreach at Holy Cross Catholic School, 5/5 & 5/19/17 (5 URM)
- Jefferson High School Science Fair, 5/17/17 (~30 URM)
- BUILD EXITO mentor panel, 6/24/17
- SAIL @ OHSU 2017, 7/17-21/17 (~30 URM)
- Brain in a Box outreach at Mt. Tabor Middle School, 9/29 and 10/6/17 (5 URM)
- NW NOGGIN Fest Talk @ Alberta Rose Theatre 10/11/17 (~50 URM students)
- Society for Neurosciecne, 11/14/17 (~200 URM)
- NW NOGGIN Talk @ Velo Cult, 1/24/18 (~25 URM)
- Present for students from Partnership for Scientific Inquiry, 2/27/18 (~4 URM)
- OMSI Brain Fair 2018, 3/10/18 (~100 URM, 1000+ attendees total)
- Northwest Youth Career Expo, 3/13/18 (~30 URM)
- Research presentation for students at Catlin Gable School, 3/16/18 (3 URM)
- Career Fair @ Reynolds Middle School, 4/12/18 (~15 URM)
- Career panel for ~25 students from Benson Highschool, 5/10/2018 (~15 URM)
- Jefferson High School Health Fair, 5/23/2018 (~30 URM)
- Beaumont high school (Spanish immersion class), 6/12/18 (~25 URM)
- BUILD/EXITO mentor panel, 6/23/18 (~30 URM students)
- Maclaren Youth Correctional Facitlity with NWNOGGIN, 7/3/18 (~40 URM)
- ABCD Family night @ OHSU, 3/11/19
- OMSI Brain Fair 2016, 3/16/19
- NW Youth Expo, 3/19/19
- Teacher Workshop Resource Fair at OHSU, 4/6/19
- Educational outreach tour at OHSU, First Class Clackamas Teens, 4/10/19
- Society for Neuroscience Oregon Chapter, 4/12-4/13/19
- Brain in a Box outreach at St. Thomas More Catholic School, 5/7 and 5/14/19
- Brain Awareness Lecture Series, 5/6, 5/13 and 5/20/19
- Jefferson High School Health Fair, 5/16/19
- Educational tour @ OHSU, Oregon State University Psyched Out Club, 5/17/19
- Brain in a Box outreach @ Forest Grove High School, 5/29/19
- Educational tour @ OHSU, Evergreen Middle School AVID club, 6/7/19 (~40 URM)
- Educational tour @ OHSU, American Somali Soccer Team, 7/1/19
- Educational tour @ OHSU, Si Se Puede Summer Camp, 7/18/19
- Educational tour @ OHSU and West campus, OHSU Summer Interns, 7/25/19

- Camp ELSO Summer Day Camp at OHSU, 7/31/19
- Society for Neuroscience Conference with NW Noggin, 10/17-10/21/19
- Brain Workshop for Girls in STEM Club @ Groner Middle School, 11/19/19
- Brain Workshop for Girls in STEM Club @ South Meadow School, 12/10/19
  - 2014 pres. OHSU President's Fellowship for Diversity and Inclusion in Research (Director)

- A new OHSU initiative started out of the Fair Lab that aims an increasing the number of underrepresented postdocs and junior faculty at OHSU. The goal of the program is to assist in growing a diverse scientific workforce here at OHSU by focusing on improving the overall pipeline, creating a national network, and recruiting diverse talent. We have been able to generate funding to support recruitment, stipends, and research dollars for candidates while independent grants are being submitted. Thirteen fellows have been enrolled in the program.

- 2012 pres. Diversity in Science Speakers Bureau (Speaker)
   An initiative under the Association of Underrepresented Minority Fellows aimed at facilitating interactions between African American scientists and the next generation minority scientists via speaking events at academic institutions.
- 2010-pres. Summer Equity Student Program (lecturer and mentor)
   Lecture and Summer research project mentoring for minority undergraduates pursuing research careers in association with the Oregon Health and Science Diversity Office.
- 2009-2010 OHSU Functional Neuroimaging Seminar (Director)
  - Monthly seminar centered on conveying issues regarding neuroimaging methodology, including: technical principles, acquisition options, sources of artifact, experimental design, software tools, and analytical techniques.

## **Community Involvement:**

- 2010-2013. Upstream Public Health Board chair
  - Upstream Public Health is a non-profit organization that researches and identifies innovative ways to improve the public's health and decrease health disparities.
- 2012-pres. Cultural Competency Workgroup (member/contributor)
  - A local advisory group through the Oregon Health Authority: Addictions and Mental Health Division aimed at informing policy to reduce health disparities in underserved populations.
- 2007 ABBGS/Ethiopian Medical Book Drive (co-organizer)

	- In association with the Association of Black Biomedical Graduate Students, this effort organized a book drive and celebration that generated more than 500 books and \$2000 for the medical schools in Ethiopia.
1999-2001	<ul> <li>SNMA/BLHO (member/contributor)</li> <li>A student minority affairs organization used to gather funding and set up activities for the minority populations in the New Haven area.</li> </ul>
1999	Douglas House Volunteer - An effort aimed at providing medical care for troubled teens without adequate resources.
1999	Habitat for Humanity (volunteer) - An effort to assist with developing homes for families with insufficient housing
1998	Volunteer Tutor/Big Brother - An effort to tutor and assist elementary children with problems in school and at home.
1994	<i>Park and Recreation Director</i> - An organization aimed to work with children, ages 5-14, for organized daily activities, trips, and recreation.
1990-1998	Camp Counselor - Supervised Winona Cotter High School Basketball Camps, Augustana College Basketball Camps, YMCA camps, and professional B.J. Armstrong camps. The effort included directed and organized daily activities while interacting and educating children of every age group.

## **VI. TEACHING**

## Teaching

- 2012 Oregon Health & Science University School of Medicine, 2nd Year lecture "Functional Brain Imaging Studies,"
- 2013 Oregon Health & Science University School of Medicine, Behavioral Neuroscience Department (BEHN 607), Issues in Behavioral Neuroscience seminar, "Quantitative MRI applications in neuroscience"
- 2013 Oregon Health & Science University School of Medicine, Behavioral Neuroscience Department, RCR Bioethics, Lecture: Environmental and Societal Impacts of Scientific Research

- 2014 Oregon Health & Science University School of Medicine, Behavioral Neuroscience Department, Neuroanatomy course, Lecture: Frontal Cortex: Psychiatric/impulsivity/decision making
- 2014 NIH Workshop for early stage research investigators: Lessons learned for a successful research career.
- 2014 Monthly Functional Neuroimaging Journal Club present
- 2015 Portland State University. Exito Program, Lecture: Functional Imaging and Brain Development.
- 2015 Oregon Health & Science University School of Medicine, Psychiatry Department, PGY3 Seminar: Functional Imaging to study Mental Health disorders.
- 2015 Oregon Health & Science University Neuroscience Graduate Program Bootcamp: MRI
- 2016 Oregon Health & Science University School of Medicine, Behavioral Neuroscience (BEHN) Department Nanocourse: Functional MRI.
- 2016 Oregon Health & Science University Neuroscience Graduate Program (NGP) Bootcamp: MRI
- 2017 Oregon Health & Science University, Psychiatry Department, PGY-3 Seminar
- 2017 Oregon Health & Science University, Cell, Development, & Cancer Biology CONJ665 (Development, Differentiation, and Disease). Brain Development and Autism
- 2017 Society for Neuroscience, Washington D.C., Meet-the-Expert Series, "Examining the Development of the Functional Connectome with Non-Invasive Neuroimaging"
- 2018 Oregon Health & Science University Neuroscience Graduate Program (NGP) Bootcamp: MRI
- 2018 Oregon Health & Science University, Cell, Development, & Cancer Biology CONJ665 (Development, Differentiation, and Disease). Brain Development and Autism
- 2018 Oregon Health & Science University, NEUS 627/BEHN 640 Human Imaging and Brain Networks Discovered with Modern MRI

## Mentoring/Advising students and postdoctoral fellows

- 2009-2011 Kathryn Mills (undergraduate)
- 2009-2012 Taciana Costa Dias, M.D. (Postdoc. Fellow)
- 2010-2012 David Grayson (undergraduate)
- 2011-2012 Chaitra Badve, M.D. (Postdoc. Fellow)
- 2010-2013 Anita Cservenka (Co-mentor for NRSA Predoc. Fellowship Grant)
- 2011-2013 Alice Graham (Co-mentor for NRSA Predoc. Fellowship Grant)
- 2012-2016 Oscar Miranda Dominguez, Ph.D. (Postdoc. Fellow)
- 2012-2013 Gabriela Alarcon (2nd year project, Co-mentor)
- 2012-2013 Jacob Brockman (PSU graduate fellow)
- 2012-2014 Sarah Karalunas (Co-mentor for NRSA Postdoc. Fellowship Grant)
- 2012-2016 Marguerite Matthews, Ph.D. (Postdoc. Fellow)
- 2013-2014 Louise Baruël Johansen (visiting graduate student)
- 2013-2015 Mahnoosh Nik-Ahd (Medical Student)
- 2014-2015 Laura Evans (visiting graduate student)
- 2014-2016 Lisa Karstens (Postdoc. Fellow)
- 2015-2016 Kathryn Mills (Postdoc. Fellow)
- 2013-2016 Gabriela Alarcon (Thesis Committee/BEHN)
- 2016-2017 Nadir Balba (Graduate Student)
- 2015-2017 David Grayson (Graduate Student)
- 2016 Marie Wang (Postdoc. Fellow)
- 2013-2016 Megan McClintick (Thesis Committee/BEHN Chair)
- 2016-2017 Brandon Keibler (Thesis Committee Bioinformatics)
- 2013-2018 Brian Mills (graduate student)
- 2013-2018 Heather McConnell (Thesis Committee/NGP)
- 2013-2018 Alice Graham, Ph.D. (Postdoc. Fellow)
- 2014-2019 Bene Ramirez (graduate Student)
- 2015-2018 Anandakumar Shunmugavel (Postdoc. Fellow)
- 2015-pres Binyam Nardos (Postdoc. Fellow)
- 2016-pres Elina Thomas (Graduate Student)
- 2016-pres Eric Feczko (Postdoc. Fellow)
- 2016-pres Elyse Louise Morin (Thesis Committee Emory)
- 2016-pres Robert Hermosillo (Postdoc. Fellow)
- 2017-pres Sam Papadakis (graduate student, NGP)
- 2017-pres Mollie Marr (graduate student, MD/PhD)
- 2018-pres AJ Mitchel (graduate student, BEHN)
- 2019-pres Anita Randolph (Postdoc. Fellow)
- 2019-pres Lucille Moore (Postdoc. Fellow)

# Honors and Awards for Education

- 1998 Heritage Scholarship Award
- 1998 Clara Lea Olson Award
- 2000 House of Delegates Representative (AAPA National Conference)
- 2001 Stephanie Erin Anderson Memorial Award
- 2001 Thelma and Harvey Young Scholarship
- 2003 Chancellor's Fellowship

- 2004 UNCF/Merck pre-doctoral science research fellowship
- 2008 Olin Fellowship for Outstanding Biomedical Research
- 2008 UNCF/Merck post-doctoral science research fellowship
- 2009 Ford Foundation post-doctoral diversity fellowship
- 2009 NIH Pediatric Research Loan Repayment Program
- 2010 EUNETHYDIS Young Investigator Award
- 2010 Society for Neuroscience Scholar Program Fellow
- 2010 Oregon Clinical and Translational Research Institute Young Investigator Award
- 2011 NIH Pediatric Research Loan Repayment Program
- 2012 Festival of lights investigator award
- 2013 Alpha Omega Alpha Medical Honor Society
- 2013 Quad-L Early Career Research Award
- 2013 Network Scholar of The MacArthur Foundation Research Network on Law and Neuroscience
- 2013 Society for Neuroscience Public Education and Communication Committee member
- 2013 Presidential Early Career Award for Scientists and Engineers (PECASE) Issued by President Barack Obama and the White House.
- 2017 Diversity, Equity and Inclusion Champion Award
- 2017 Flux Congress: Young investigator Award
- 2018 Wiley Distinguished Speaker Award ISDP
- 2019 The 2019 Augustana University Alumni Achievement Award

## **VII. ENTREPRENEURSHIP**

#### 2018 Nous Imaging Inc.

Nous Imaging Inc. was founded in 2018 by researchers Drs. Damien Fair, his colleague Dr. Nico Dosenbach, and medtech investor Hans Schoepflin. The company is grounded in software based IP (called FIRMM), built at OHSU and Washington University in St. Louis, that aims to improve motion related artifacts in MRI. Its original use case was to 'salvage' MRI scans for typical and atypically developing children who have propensity to move in MRI. The software is now being marketed to be used for all MRI scans including in clinical settings. A FIRMM related intellectual property licensing agreement with Washington University and OHSU was negotiated concurrent with Nous Imaging inception. *Any potential conflict of interest with Dr. Fair's academic record and work with Nous imaging Inc. has been reviewed and is being managed by OHSU.*