

## CURRICULUM VITAE

**Jamie Edgin, PhD**  
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### CHRONOLOGY OF EDUCATION

- 2003 PhD, University of Denver, Psychology and Developmental Cognitive Neuroscience; Dissertation: A neuropsychological model for the development of the cognitive profiles in intellectual disability syndromes: Evidence from Down syndrome and Williams syndrome; Advisors: Bruce Pennington & Carolyn Mervis
- 2001 MA, University of Denver, Psychology, MA thesis: The development of spatial cognition in autism; Advisor: Bruce Pennington
- 1998 BS, Carnegie Mellon University; Psychology with Honors; Advisor: Patricia Carpenter

### CHRONOLOGY OF EMPLOYMENT

Note: \*indicates employment as an undergraduate or graduate student

- 2018-present Associate Professor with Tenure, Cognition and Neural Systems Program, University of Arizona, Department of Psychology
- 2012- 2018 Assistant Professor, Cognition and Neural Systems Program, University of Arizona, Department of Psychology
- 2020-present Director, Cognition and Neural Systems Graduate Program, University of Arizona, Department of Psychology
- 2020-present Disability Policy Fellowship Director, Sonoran UCEDD
- 2016- 2020 Co-Director, Cognition and Neural Systems Graduate Program, University of Arizona, Department of Psychology
- 2016- present Affiliated Faculty, Frances McClelland Institute and Family Studies and Human Development, University of Arizona
- 2012- present Affiliated Faculty, Cognitive Science Graduate and Interdisciplinary Program, University of Arizona
- 2012- present Affiliated Faculty, Sonoran University Center for Excellence in Developmental Disabilities, University of Arizona
- 2009- present Adjunct Assistant Professor, Special Education/Rehabilitation and School Psychology, University of Arizona
- 2007-2012 Research Associate, University of Arizona, Department of Psychology, Tucson, AZ, Advisor: Lynn Nadel
- 2003-2006 Postdoctoral Research Fellow and Lecturer, University of Canterbury, Department of Psychology and Education, Christchurch, New Zealand, Advisor: Lianne Woodward
- \*1997-1998 Research Assistant, Eleanor Roosevelt Institute, Denver, CO
- \*1998-2003 Research Assistant, Developmental Neuropsychology Clinic, University of Denver, Denver, CO
- \*1996-1998 Research Assistant, Center for Cognitive Brain Imaging, Carnegie Mellon University

### HONORS & AWARDS

- 2022 Grand Marshal, Tucson Buddy Walk
- 2020 Arizona Psychological Society, Distinguished Contribution to Science
- 2019 Keynote Speaker, Honors College Convocation, University of Arizona
- 2018 Henry and Phyllis Koffler Award for Community Outreach, University of Arizona
- 2015 David Cox "Rising Star" Award, LuMind Foundation
- 2015 Psychonomics Society, Fellow
- 2014 Diane Lynn Anderson Memorial Award for Community Service, nominee
- 2008-2009 National Down Syndrome Society Charles Epstein Research Award

2009	March of Dimes Scholarship to attend the 50th Annual Short Course on Medical and Experimental Mammalian Genetics
2009	Theodore Tjossem Award, Gatlinburg Conference on Intellectual Disabilities
2007-2009	NIH Pediatric Loan Repayment Program
2000-2003	National Institutes of Health Predoctoral National Research Service Award
2002	Biology of Developmental Disabilities Fellow, Cold Spring Harbor Laboratories
1998-1999	Colorado Graduate Fellowship
1999	Andrew Carnegie Presidential Scholar
1997-1998	National Institute of Mental Health Undergraduate Research Fellowship
1998	Gretchen Goldsmith Lankford Award

## SERVICE/OUTREACH

### University

2022-present	Center for Sleep and Circadian Sciences, Executive Committee
2021-present	Organizer, UA autism collective (cross-college collaborative group for autism advocacy and research)
2021-present	Mentor for highschool summer interns in UA KEYS and PREP programs
2021-present	University Committee on Honorary Degrees
2021-present	Department Head Review Committee
2020	Search Committee, Speech, Language and Hearing Sciences Department Head
2020-present	Committee on Academic Freedom and Tenure (faculty conflict resolution and adjudication)
2019-present	Executive Committee of The Graduate Interdisciplinary Program in Cognitive Science
2019	Psychology Honors Program Director (fill-in for Mehl sabbatical)
2018	Keynote Speaker, Department of Psychology Outreach Salon
2016-present	Director, Graduate Program in Cognition and Neural Systems
2016	Faculty, "speed-geeking" with the Neuroscience/Cognitive Science undergraduate majors
2016	Co-organizer, Inaugural University of Arizona Sleep Conference (70 cross-college attendees)
2015	Judge, Mind, Brain, and Behavior Graduate Student Poster Session
2015	Arizona LEND program grant review panel, Banner University Medical Center
2015	School of Mind, Brain, and Behavior Science Café on Sleep
2013	Panelist, Graduate School Preparation Course, Department of Psychology
2013	Organizer, Campus wide grants workshop through the Thrasher Research Fund
2012-2013	Facilitator, Interprofessional Education and Practice Session on Developmental Disabilities at Banner University Medical Center
2013	College of Science Scitini, media outreach event with invited participation from early career faculty
2012-present	Faculty, Memory Group, University of Arizona (extracurricular reading group)
2012-present	Service on graduate student thesis and comprehensive exam committees

### Local/state

2019-present	State Working Group on Sexual Abuse in Individuals with Developmental and Intellectual Disabilities (outreach and policy brief produced)
2016	Sponsor, "Learning to Drive" World Premier at LOFT cinemas (a developmental disabilities advocacy film)
2016	Cyclovia (attendance >30,000), Outreach booth to promote good sleep habits for all children
2016-2018	State of Arizona Developmental Disabilities Planning Council Strategic Planning Committee
2015-2018	State of Arizona Developmental Disabilities Planning Council Information Dissemination Sub-committee
2014-2018	Appointed Member, State of Arizona Developmental Disabilities Planning Council; Arizona State Government Council established to provide advocacy on issues relevant to developmental disabilities
2014-present	Specialty Advisor, Tucson Council of the Arizona Autism Coalition

2014 Mentor, Career Program at Empire High School, Tucson, AZ  
 2012-present Tucson "Buddy Walk" for Down Syndrome: volunteer assistance and fundraising support

### **National/International**

2020 Grant reviewer, National Institutes of Health (NIH) Special Emphasis Subcommittee  
 2018 UK Sleep and Development Scientists Network, Member and Annual Meeting Organizer  
 2017-2020 Trisomy 21 Society Clinical Child Developmental Committee (International)  
 2018 Grant reviewer, National Science Foundation  
 2019-present Standing Committee Member, National Institutes of Health (NIH) Biobehavioral and Behavioral Sciences Subcommittee  
 2017 Grant reviewer, National Institutes of Health (NIH) Biobehavioral and Behavioral Sciences Subcommittee  
 2016 Grant reviewer, NIH Child Psychopathology and Developmental Disabilities study section  
 2017-present Executive board for the Gatlinburg Conference on Intellectual and Developmental Disorders  
 2017 Society for Research in Child Development bi-annual meeting, reviewer  
 2016-present National Down Syndrome Society clinical and scientific advisory board  
 2015-present National Institutes of Health working group on cognitive outcome measures for Down syndrome  
 2014-2015 Cognition in Fragile X Advisory Board, Novartis Pharmaceuticals  
 2014-present Early childhood assessment consultation, F. Hoffman-La Roche Ltd.  
 2014-2016 Scientific Oversight Committee for Clementis Down syndrome study, F. Hoffman-La Roche Ltd.  
 2016 International Conference on Infant Studies, reviewer  
 2013 Grant Reviewer, Alzheimer's Association  
 2013 Grant Reviewer, International Science Foundation (country omitted)

### **Editorial Appointments**

2018-2020 Senior Associate Editor, Research in Developmental Disabilities  
 2014-2017 Associate Editor, American Journal on Intellectual and Developmental Disabilities  
 2005-present Consulting Editor, Journal of Autism and Developmental Disorders

### **Ad Hoc Reviewer (selected list, approximately one manuscript per month)**

- Biological Psychiatry
- Cognitive Development
- Journal of Experimental Child Psychology
- Child Development
- Journal of Clinical Sleep Medicine
- Lancet
- Developmental Cognitive Neuroscience
- Developmental Science
- Journal of Autism and Developmental Disorders
- Journal of Child Psychology and Psychiatry and Allied Disciplines
- Journal of Developmental and Behavioral Pediatrics
- Child Neuropsychology
- Journal of the International Neuropsychological Society
- Hippocampus
- Scientific Reports
- Pediatrics
- Lancet Neurology
- Human Brain Mapping
- Current Biology

### **Departmental Committees**

2021-present Chair, Professional Development Committee  
 2018-2019 Faculty Executive Advisory Committee  
 2017-2020 Research Committee  
 2017-2019 Graduate Professional Development Committee

2016- present	Faculty Search Committees
2015	Psychology Department Strategic Planning Committee
2013-2015	Development Committee
2012-2016	Co-chair, Colloquium Committee

## PUBLICATIONS/CREATIVE ACTIVITY

\* indicates work performed as a graduate student

## PATENT

Edgin, J., & Clark, C. (2020). *U.S. Patent No. 10,667,740*. Washington, DC: U.S. Patent and Trademark Office.

## BOOKS, BOOK CHAPTERS, BRIEFS, AND COMMENTARIES (Student trainees underlined)

For a full list of publications, please see: <https://scholar.google.com/citations?user=6fnjIQA AAAJ&hl=en&oi=ao>

1. De La Rosa, J. S., Duncan, A.W., Parent-Johnson, W., Edgin, J., Edwards, N.M. (2022). *Sonoran UCEDD Evaluation Report: Implementation and Impact of Arizona's Abuse & Neglect Prevention Task Force Recommendations*. Tucson, AZ: Sonoran Center for Excellence in Disabilities, University of Arizona.
2. "Preventing Sexual Abuse in Arizona Schools", *Report of School Sexual Abuse Working Group*.
3. Hughes, K., & Edgin, J. (2021). Sleep to remember: Typical and atypical sleep and constraints on representational development. *Taking Development Seriously A Festschrift for Annette Karmiloff-Smith: Neuroconstructivism and the Multi-Disciplinary Approach to Understanding the Emergence of Mind*.
4. Sakhon, S & Edgin, J.O. (2020). Down syndrome: a neuroscience perspective. *Encyclopedia on Health Psychology*. Wiley.
5. Burack, J. Edgin, J., Abbeduto, L & Busciglio, J. (Eds.) (2021). *The Oxford Handbook of Down Syndrome and Development*. Oxford, UK: Oxford University Press.
6. Anand, P., Nyhuis, C., Pisani, L., & Edgin, J.O. (2021). Sleep, development, and Down syndrome. In Burack, J. Edgin, J., Abbeduto, L & Busciglio, J., Eds. *The Oxford Handbook of Down Syndrome and Development*. Oxford, UK: Oxford University Press.
7. Edgin, J.O. & Nadel, L. (2017). Hippocampus and development. *Neuroscience and Biobehavioral Psychology*.
8. Fernandez, F., & Edgin, J. O. (2016). Pharmacotherapy in Down's syndrome: which way forward?. *The Lancet Neurology*, 15(8), 776.
9. Edgin, J.O., & Fernandez, F. (2014). The truth about Down syndrome. *The New York Times*.
10. Edgin, J.O., Spanò, G. & Nadel, L. (2011). Advances in clinical endpoints for neurocognitive rehabilitation in Down syndrome. In J.A. Rondal, J. Perera, L. & Spiker, D. (Eds.) *Neurocognitive Rehabilitation of Down syndrome, The Early Years*. Cambridge University Press, Cambridge.
11. Woodward, L., Edgin, J.O. & Champion, P. (2005). The preterm infant: An example of early developmental risk. In Low, Jason & Jose (Eds.) *Lifespan Development: The New Zealand Context*. Auckland, Pearson.
12. \*Munakata Y., Edgin, J.O. & Stedron, J.M. (2003). The best is yet to come: The promise of models of developmental disorders: A commentary on Thomas and Karmiloff-Smith's "Are developmental disorders like cases of adult brain damage? Implications from connectionist modeling." *Behavioral and Brain Sciences*, 25, 765-766.

## PEER REVIEWED JOURNAL ARTICLES (Student trainees underlined)

### SLEEP AND MEMORY

1. Luongo, A., Lukowski, A., Protho, T., Van Vorce, H., Pisani, L., & Edgin, J. (2021). Sleep's role in memory consolidation: What can we learn from atypical development?. In *Advances in Child Development and Behavior* (Vol. 60, pp. 229-260). JAI.

2. Knobbe, K., Partha, M., Seckeler, M. D., Klewer, S., Hsu, C. H., Edgin, J., ... & Combs, D. (2021). Association Between Sleep Disturbances With Neurodevelopmental Problems and Decreased Health-Related Quality of Life in Children With Fontan Circulation. *Journal of the American Heart Association*, *10*(21), e021749.
3. Combs, D., Edgin, J. O., Klewer, S., Barber, B. J., Morgan, W. J., Hsu, C. H., ... & Parthasarathy, S. (2020). OSA and neurocognitive impairment in children with congenital heart disease. *Chest*, *158*(3), 1208-1217.
4. Spanò, G., Weber, F. D., Pizzamiglio, G., McCormick, C., Miller, T. D., Rosenthal, C. R., ... & Maguire, E. A. (2020). Sleeping with hippocampal damage. *Current Biology*, *30*(3), 523-529.
5. Spanò, G., Pizzamiglio, G., McCormick, C., Clark, I. A., De Felice, S., Miller, T. D., ... & Maguire, E. A. (2020). Dreaming with hippocampal damage. *Elife*, *9*, e56211.
6. Edgin, J. O., Liu, Y., Hughes, K., Spanò, G., & Clark, C. A. (2019). The “eyes have it,” but when in development?: The importance of a developmental perspective in our understanding of behavioral memory formation and the hippocampus. *Hippocampus*.
7. Combs, D., Goodwin, J. L., Quan, S. F., Morgan, W. J., Hsu, C. H., Edgin, J. O., & Parthasarathy, S. (2019). Mother Knows Best? Comparing Child Report and Parent Report of Sleep Parameters With Polysomnography. *Journal of Clinical Sleep Medicine*, *15*(01), 111-117.
8. Sakhon, S., Edwards, K., Luongo, A., Murphy, M., & Edgin, J. (2018). Small Sets of Novel Words Are Fully Retained After 1-Week in Typically Developing Children and Down Syndrome: A Fast Mapping Study. *Journal of the International Neuropsychological Society*, *24*(9), 955-965.
9. Spanò, G., Gómez, R. L., Demara, B. I., Alt, M., Cowen, S. L., & Edgin, J. O. (2018). REM sleep in naps differentially relates to memory consolidation in typical preschoolers and children with Down syndrome. *Proceedings of the National Academy of Sciences*, *115*(46), 11844-11849.
10. Spanò, G., Intraub, H., & Edgin, J. O. (2017). Testing the “Boundaries” of boundary extension: Anticipatory scene representation across development and disorder. *Hippocampus*.
11. Clark, C.A.C., Fernandez, F., Sakhon, S., Spanò, G., & Edgin, J. O. (2017). The medial temporal memory system in Down syndrome: Translating animal models of hippocampal compromise. *Hippocampus*.
12. Fernandez, F., Nyhuis, C. C., Anand, P., Demara, B. I., Ruby, N. F., Spanò, G., ... & Edgin, J. O. (2017). Young children with Down syndrome show normal development of circadian rhythms, but poor sleep efficiency: a cross-sectional study across the first 60 months of life. *Sleep Medicine*, *33*, 134-144.
13. Gómez, R. L., & Edgin, J. O. (2016). The extended trajectory of hippocampal development: Implications for early memory development and disorder. *Developmental cognitive neuroscience*, *18*, 57-69.
14. Spanò, G., Peterson, M. A., Nadel, L., Rhoads, C., & Edgin, J. O. (2016). Seeing can be remembering: Interactions between memory and perception in typical and atypical development. *Clinical Psychological Science*, *4*(2), 254-271.
15. Van Hoogmoed, A. H., Nadel, L., Spanò, G., & Edgin, J. O. (2016). ERP correlates of object recognition memory in Down syndrome: Do active and passive tasks measure the same thing?. *Neuropsychologia*, *82*, 39-53.
16. Spanò, G., & Edgin, J. O. (2016). Everyday memory in individuals with Down syndrome: Validation of the Observer Memory Questionnaire–Parent Form. *Child Neuropsychology*, 1-13.
17. Gómez, R. L., & Edgin, J. O. (2015). Sleep as a window into early neural development: Shifts in sleep-dependent learning effects across early childhood. *Child development perspectives*, *9*(3), 183-189.
18. Edgin, J. O., Tooley, U., Demara, B., Nyhuis, C., Anand, P., & Spanò, G. (2015). Sleep disturbance and expressive language development in preschool-age children with Down Syndrome. *Child development*, *86*(6), 1984-1998.
19. Edgin, J. O., Clark, C. A. C., Massand, E., & Karmiloff-Smith, A. D. (2015). Building an adaptive brain across development: targets for neurorehabilitation must begin in infancy. *Frontiers in behavioral neuroscience*, *9*, 232.
20. Breslin, J., Spanò, G., Bootzin, R., Anand, P., Nadel, L. & Edgin, J.O. (2014). Obstructive sleep apnea and cognition in Down syndrome, *Developmental Medicine and Child Neurology*, *56* (7), 657-664.
21. Edgin, J. O., Spanò, G., Kawa, K., & Nadel, L. (2014). Remembering things without context: development matters. *Child development*, *85*(4), 1491-1502.
22. Fernandez, F. & Edgin, J.O. (2013). Poor sleep as a precursor to cognitive decline in Down syndrome: A hypothesis. *Journal of Alzheimer's Disease and Parkinsonism*, *3*, 124. *Special Issue on Down syndrome*.

23. Breslin, J.H., Edgin, J.O., Bootzin, R.R., Goodwin, J.L. & Nadel, L. (2011). Parental report of sleep problems in Down syndrome, *Journal of Intellectual Disability Research*, 55 (11), 1086-1091.
24. Woodward, L. J., Edgin, J.O., Thompson, D. & Inder, T.E. (2005). Object working memory deficits predicted by early brain injury and development in the preterm infant. *Brain*, 128 (11), 2578-2587.

#### DEVELOPMENTAL DISORDERS

25. Hoffmann, A., Thurman, A. J., Sterling, A., Kover, S. T., Finestack, L., Berry-Kravis, E., ... & Abbeduto, L. (2022). Analysis of a Repetitive Language Coding System: Comparisons between Fragile X Syndrome, Autism, and Down Syndrome. *Brain Sciences*, 12(5), 575.
26. Fidler, D. J., Prince, M. A., Van Deusen, K., Esbensen, A. J., Thurman, A. J., Abbeduto, L., ... & Daunhauer, L. A. (2022). Latent profiles of autism symptoms in children and adolescents with Down syndrome. *Journal of Intellectual Disability Research*, 66(3), 265-281.
27. Arias-Trejo, N., Angulo-Chavira, A. Q., Demara, B., Figueroa, C., & Edgin, J. (2021). The influence of sleep on language production modalities in preschool children with Down syndrome. *Journal of Sleep Research*, 30(3), e13120.
28. Thurman, A. J., Edgin, J. O., Sherman, S. L., Sterling, A., McDuffie, A., Berry-Kravis, E., ... & Abbeduto, L. (2021). Spoken language outcome measures for treatment studies in Down syndrome: Feasibility, practice effects, test-retest reliability, and construct validity of variables generated from expressive language sampling. *Journal of neurodevelopmental disorders*, 13(1), 1-17.
29. Dimachkie Nunnally, A., Nguyen, V., Anglo, C., Sterling, A., Edgin, J., Sherman, S., ... & Thurman, A. J. (2021). Symptoms of autism spectrum disorder in individuals with down syndrome. *Brain sciences*, 11(10), 1278.
30. Lovos, A., Bottrill, K., Sakhon, S., Nyhuis, C., Egleson, E., Luongo, A., ... & Edgin, J. (2021). Circadian sleep-activity rhythm across ages in down syndrome. *Brain sciences*, 11(11), 1403.
31. Abbeduto, L., Berry-Kravis, E., Sterling, A., Sherman, S., Edgin, J. O., McDuffie, A., ... & Thurman, A. J. (2020). Expressive language sampling as a source of outcome measures for treatment studies in fragile X syndrome: Feasibility, practice effects, test-retest reliability, and construct validity. *Journal of neurodevelopmental disorders*, 12(1), 1-23.
32. Spiridigliozzi, G. A., Goeldner, C., Edgin, J., Hart, S. J., Noeldeke, J., Squassante, L., ... & Liogier d'Ardhuy, X. (2019). Adaptive behavior in adolescents and adults with Down syndrome: Results from a 6-month longitudinal study. *American Journal of Medical Genetics Part A*, 179(1), 85-93.
33. Rosser, T. C., Edgin, J. O., Capone, G. T., Hamilton, D. R., Allen, E. G., Dooley, K. J., ... & Channell, M. M. (2018). Associations Between Medical History, Cognition, and Behavior in Youth With Down Syndrome: A Report From the Down Syndrome Cognition Project. *American journal on intellectual and developmental disabilities*, 123(6), 514-528.
34. Clark, C. A., Liu, Y., Wright, N. L. A., Bedrick, A., & Edgin, J. O. (2017). Functional neural bases of numerosity judgments in healthy adults born preterm. *Brain and cognition*, 118, 90-99.
35. Rofail, D., Froggatt, D., de la Torre, R., Edgin, J., Kishnani, P., Touraine, R., ... & D'Ardhuy, X. L. (2017). Health-Related Quality of Life in Individuals with Down Syndrome: Results from a Non-Interventional Longitudinal Multi-National Study. *Advances in therapy*, 34(8), 2058-2069.
36. Edgin, J. O., Anand, P., Rosser, T., Pierpont, E. I., Figueroa, C., Hamilton, D., . . . Sherman, S. (2017). The Arizona Cognitive Test Battery for Down Syndrome: Test-retest reliability and practice effects. *American Journal on Intellectual and Developmental Disabilities*.
37. Esbensen, A.J., Hooper, S.R., Fidler, D., Hartley, S., Edgin, J., d'Ardhuy, X. L., . . . Urv, Tiina. (2017). Outcome measures for clinical trials in Down Syndrome. *American Journal on Intellectual and Developmental Disabilities*.
38. Sabbagh, M., & Edgin, J. (2016). Clinical assessment of cognitive decline in adults with Down syndrome. *Current Alzheimer Research*, 13(1), 30-34.
39. Delabar, J. M., Allinquant, B., Bianchi, D., Blumenthal, T., Dekker, A., Edgin, J., ... & Guedj, F. (2016). Changing paradigms in down syndrome: the first international conference of the trisomy 21 research society. *Molecular Syndromology*, 7(5), 251-261.
40. Liogier d'Ardhuy, X., Edgin, J. O., Bouis, C., de Sola, S., Goeldner, C., Kishnani, P., ... & Spiridigliozzi, G. (2015). Assessment of cognitive scales to examine memory, executive function and language in individuals with down syndrome: implications of a 6-month observational study. *Frontiers in behavioral neuroscience*, 9, 300.

41. Lee, N. R., Anand, P., Will, E., Adeyemi, E. I., Clasen, L. S., Blumenthal, J. D., ... & Edgin, J. O. (2015). Everyday executive functions in Down syndrome from early childhood to young adulthood: evidence for both unique and shared characteristics compared to youth with sex chromosome trisomy (XXX and XXY). *Frontiers in behavioral neuroscience*, 9, 264.
42. Anderson, J. S., Treiman, S. M., Ferguson, M. A., Nielsen, J. A., Edgin, J. O., Dai, L., ... & Korenberg, J. R. (2015). Violence: heightened brain attentional network response is selectively muted in Down syndrome. *Journal of neurodevelopmental disorders*, 7(1), 15.
43. Mason, G. M., Spanó, G., & Edgin, J. (2015). Symptoms of Attention-Deficit/Hyperactivity disorder in Down syndrome: Effects of the dopamine receptor D4 gene. *American journal on intellectual and developmental disabilities*, 120(1), 58-71
44. Anderson, J.S., Nielsen, J.A., Ferguson, M.A., Burbach, M.C., Cox, E.T., Dai, L., Gerig, G., Edgin, J.O. & Korenberg, J.R. (2013). Abnormal brain synchrony in Down syndrome. *NeuroImage: Clinical*, 2, 703-715.
45. Edgin, J.O. (2013). Cognition in Down syndrome: A developmental cognitive neuroscience perspective. *WIREs Cognitive Science*, 4, 307-317.
46. Chen, C., Spanò, G. & Edgin, J.O. (2013). The impact of sleep disruption on executive function in Down syndrome. *Research in Developmental Disabilities*, 34 (6), 2033-2039.
47. Edgin, J.O., Mason, G.M., Spanò, G., Fernández, A. & Nadel, L. (2012). Human and mouse model cognitive phenotypes in Down syndrome: Implications for assessment. *Progress in Brain Research*, 197, 123-151.
48. Edgin, J.O., Kumar, A., Spanò, G. & Nadel L. (2011). Neuropsychological effects of second language exposure in children with Down syndrome, *Journal of Intellectual Disability Research*, 55 (3), 351-356.
49. Edgin, J.O., Mason, G., Allman, M., Capone, G., DeLeon, I., Maslen, C., Reeves, R.H., Sherman, S. & Nadel L. (2010). Development and validation of the Arizona Cognitive Test Battery for Down syndrome. *Journal of Neurodevelopmental Disorders*, 2 (3), 149-164.
50. Edgin, J.O., Inder, T.E., Anderson, P., Hood, K.M., Clark, C.A.C. & Woodward, L.J. (2008). Executive functioning in preschool children born very preterm: Relationship with early white matter pathology. *Journal of the International Neuropsychological Society*, 14 (1), 90-101.
51. Foster-Cohen, S., Edgin, J.O., Champion, P. & Woodward, L. (2007). Early language development in children born very premature. *Journal of Child Language*, 34, 655-675
52. \*Edgin, J.O., Pennington, B.F. & Mervis, C.B. (2010). Neuropsychological components of intellectual disability: The role of immediate, working and associative memory, *Journal of Intellectual Disability Research*, 54 (5), 406-417.
53. \*Edgin, J.O. & Pennington, B. F. (2005). Spatial cognition in autism spectrum disorders: superior, impaired, or just intact? *Journal of Autism and Developmental Disorders*, 35 (6), 729-745.
54. \*Pennington, B.F., Moon, J., Edgin, J., Stedron, J. & Nadel, L. (2003). The neuropsychology of Down syndrome: Evidence of hippocampal dysfunction. *Child Development*, 74 (1), 75-93.
55. \*Willcutt, E.G., Pennington, B.F., Boada, R., Oglie (Edgin), J.S., Tunick, R.A., Chhabildas, N.A. & Olson, R.K. (2001). A comparison of the cognitive deficits in reading disability and attention-deficit/hyperactivity disorder. *Journal of Abnormal Psychology*, 110 (1), 157-172.

## **MEDIA**

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|------|---|
| 2019 | <i>American Psychological Society Observer</i> , Featured Psychologist  |
| 2018 | <i>US News and World Report</i> , Naps Don't Help Down Syndrome Kids Learn: Study   |
| 2017 | <i>News Release, Office of Arizona Governor Ducey</i> , Capitol Goes Blue for Down Syndrome Research                            |
| 2016 | <i>NPR (91.5 KJZZ, Phoenix Affiliate) Interview</i> , Arizona Researchers Developing New Tool To Measure Memory In Younger Kids |
| 2016 | <i>UA News</i> , Psychologist Creates Tool for Measuring Memory   |

- 2016 *UK Telegraph*, Down's syndrome "can be treated with green tea"
- 2016 *Scientist Magazine*, Learning with the lights out
- 2016 *Arizona Daily Star Science Supplement*, Profile of lab honors student Shivani Misra
- 2014 *UA News*, What sleeping babies can tell us
- 2014 *New York Times*, The Truth about Down syndrome
- 2014 *Medical News Today*, Down syndrome: What is the current focus of research?
- 2012 *Arizona Daily Star Science Supplement*, Down Syndrome and Sleep
- 2012 *Washington Post*, Down Syndrome Researchers see Hope for a Pill to Boost Patients' Mental Abilities
- 2012 *UA News*, UA Established as International Center for Down Syndrome Research
- 2012 *UA News*, Sleep Disruption in Toddlers with Down Syndrome May Affect Behavior

## **SCHOLARLY PRESENTATIONS (limited to tenure track, student trainees underlined)**

### **Invited Symposia and Colloquium**

- 2022 Memory Disorders Research Society Conference, Philadelphia, PA
- 2022 INCLUDE project workshop, NIH
- 2022 The Up of Down: Conference on the Progress of Down Syndrome Research, NY, NY, "The role of sleep for cognitive development in Down syndrome"
- 2021 Wiley Invited Speaker Series, University of Wisconsin Madison
- 2021 University of Arizona "School closures: Learning and mental health impacts"
- 2020 National Institutes of Health, Clinical Trials Meeting talk on Cognitive Development and Sleep
- 2019 National Institutes of Health, INCLUDE initiative Meeting on Cognitive Development and Sleep
- 2019 UNAM University Colloquium, Mexico City
- 2019 University of York, Sleep Scientists Network Meeting
- 2018 UCL Department of Education, Sleep Scientists Meeting
- 2018 UCL Functional Imaging Laboratory Memory Group Meeting, London, UK
- 2018 Birkbeck College, Symposium honoring life and work of Annette Karmiloff-Smith, UK
- 2018 Sackler Winter Conference in Developmental Psychobiology, talk for a session on "Memory Development," Hawaii
- 2017 Festschrift talk for Dr. Lynn Nadel, University of Arizona, Tucson, AZ
- 2017 Spring Hippocampal Conference, talk for "Fixing memory: interventions that target the hippocampus", Taormina, Sicily
- 2017 Down Syndrome Guild of Kansas City, "Sleep and Learning in Down syndrome", invited workshop, Kansas City, Kansas.
- 2016 Festschrift talk for Dr. Bruce Pennington, University of Denver, Denver, CO
- 2016 Birkbeck College, University College London keynote address, "Sleep: The beloved teacher?", London, UK
- 2016 APS co-sponsored integrative science symposium, 24<sup>th</sup> Biennial Meeting of the International Society for the Study of Behavioural Development, "Sleep as a window into the developing brain", Vilnius, Lithuania
- 2016 Neuroscience Data Blitz, "Sleep and memory consolidation in Down syndrome", University of Arizona, Tucson, AZ
- 2016 Cognitive Science Brown Bag Colloquium, "Sleep: The beloved teacher?" University of Arizona, Tucson, AZ
- 2016 F. Hoffman- La Roche Ltd., Clinical Science Team, Webinar Presentation on my research to teams across two countries
- 2015 Down Syndrome Research Foundation, "Sleep and learning in Down Syndrome", invited workshop, Vancouver, Canada



- 2015 “We may sleep to speak: Sleep and learning in Down syndrome”: Universidad Nacional Autónoma de México, colloquium, Mexico City, Mexico
- 2015 University of Arizona Department of OBGYN Grand Rounds, Tucson, AZ
- 2015 Inaugural meeting of the Trisomy 21 Research Society “We sleep to speak: Sleep, memory, and language in Down syndrome”, Paris, France
- 2015 Down Syndrome Medical Interest Group meeting, “We sleep to speak: Sleep, memory, and language in Down syndrome”, Phoenix, AZ
- 2015 School of Mind, Brain, and Behavior Science Café, “To Sleep, Perchance To Learn – How Sleep Influences Developmental Disorders”, Tucson, AZ
- 2014 Bill and Melinda Gates Foundation, Grand Challenges Annual Meeting, “Sleep quality as a marker of neural development”, Seattle, Washington
- 2014 Universidad Nacional Autónoma de México, Congress on Intellectual Disabilities, “Sleep and cognition in Down syndrome”, Acapulco, México
- 2014 Center of Excellence in Neuroscience colloquium, “Rethinking memory in developmental disabilities: The case of Down syndrome”, Texas Tech, El Paso
- 2014 Wellcome Trust workshop on Alzheimer's disease in Down syndrome: From molecules to cognition, “Rethinking the memory profile in Down syndrome”, Cambridge, UK
- 2013 NIH-sponsored Workshop on Advancing Treatments in Alzheimer's disease in Individuals with Down syndrome, “Assessing cognitive aging and decline in Down syndrome: Lessons learned from the validation of the Arizona Cognitive Test Battery”, Washington, DC
- 2012 Down Syndrome Medical Interest Group meeting, “Cognitive neuroscience approaches to memory impairment in Down syndrome”, Washington, DC

**Chaired Symposia and Submitted Talks (selected list since 2012, posters omitted)**

- 2017 31st Annual Meeting of the Associated Professional Sleep Societies. “To nap or not to nap?: Sleep-dependent memory consolidation in typically and atypically developing preschoolers” (Speaker, first author Spanò), Boston, MA.
- 2017 The 50th Annual Gatlinburg Conference on Intellectual and Developmental Disorders. “Expressive language sampling as an outcome measure for clinical trials” (Speaker: Abbeduto, co-author), San Antonio, TX.
- 2015 International Convention of Psychological Science, symposium on “Understanding cognitive development through the lens of intellectual disability syndromes: Studies of attention, memory, and numerical Cognition” (Chair & Speaker), Amsterdam, the Netherlands
- 2014 International Conference on Infant Studies, symposium on “Understanding infant cognition through the lens of atypical development: Studies of attention, memory, and numerical cognition” (Chair & Speaker), Berlin, Germany
- 2013 Biennial Conference of Society for Research in Child Development, symposium on “Memory for objects in spatial context: Developmental change examined with ERP, MRI and in atypical development” (Chair & Speaker), Seattle, WA
- 2016 International Conference on Memory, "Sleep and memory consolidation in toddlers with Down syndrome" (Speaker, first author Spanò), Budapest, Hungary
- 2016 International Conference on Memory, "Mechanisms of word-learning in typical and atypical development" (Speaker: Sakhon, co-author), Budapest, Hungary
- 2016 International Conference on Memory, "Development of relational memory in middle childhood: Evidence from eye movements" (Speaker: Liu, co-author), Budapest, Hungary
- 2016 International Conference on Memory, "Memory binding in late childhood: eyetracking and neuroimaging studies of typical and atypical development" (Speaker), Budapest, Hungary
- 2015 7th Quadrennial Congress of the World Sleep Federation, “Defining the relations between sleep and the cognitive phenotypes of individuals with Down syndrome: a lifespan developmental perspective” (Speaker: Spanò, co-author)
- 2015 Biennial Conference of Society for Research in Child Development, symposium on “A new approach to memory development” (Speaker), Philadelphia, PA
- 2014 Psychonomic Society meeting, symposium on “New ideas about memory development” (Speaker), Long Beach, California

- 2013 Biennial Conference of Society for Research in Child Development, symposium on “The role of sleep in learning and memory in typical and atypical development” (Speaker), Seattle, WA
- 2013 27th Annual Meeting of the Associated Professional Sleep Societies, “Sleep spindle activity in Down syndrome: Effects of obstructive sleep apnea and cognitive correlates” (Speaker: G. Spanò, co-author), Baltimore, MD
- 2013 Workshop on Cognition in Down Syndrome Molecular, Cellular and Behavioral Features and the Promise of Pharmacotherapies, “Age effects on executive function in a multi-site sample of youth with Down syndrome” (co-author, Speaker: N.R. Lee), Washington, DC
- 2013 Emory University STEM Research and Career Symposium, “Sleep, cognition, and behavior in toddlers with Down syndrome” (co-author, Speaker: U. Tooley), Atlanta, GA

**Interdepartmental Talks/Workshops**

- 2020 Professional Roles Seminar, Sonoran UCEDD
- 2020 Talk for UA Women in STEM group
- 2018 “Sleep and learning in Down syndrome” Behavioral Sleep Medicine Seminar, Banner University Medical Center
- 2017 “Sleep and learning in Down syndrome” Talk for Psychiatry Residents, Banner University Medical Center
- 2016 “Sleep and learning in Down syndrome” Faculty data blitz for the Inaugural UA Sleep Conference
- 2015 “Sleep and learning in Down syndrome” Sleep lecture series, Pulmonary Research Conference, Banner University Medical Center
- 2015 Family and Community Medicine Sonoran UCEDD interdisciplinary trainee seminar (FCM 696A)
- 2014 Speech Language and Hearing Sciences “Social Communication for Young Adults”, workshop on diagnostic assessment in autism (SLHS 299)
- 2014 Family and Community Medicine Sonoran UCEDD interdisciplinary trainee seminar (FCM 696A)
- 2013 NIH Minority Access to Research Careers Program Colloquium (BIOC 395A)
- 2013 Family and Community Medicine Sonoran UCEDD interdisciplinary trainee seminar (FCM 696A)
- 2013 Speech Language and Hearing Sciences “Social Communication for Young Adults”, workshop on diagnostic assessment in autism (SLHS 299)
- 2013 Family Studies and Human Development: Problems in Child & Adolescent Development, seminar on intellectual disabilities (427C)

**GRANTS**

**Federal and International**

- 2022-2024 DETERMINING CAPACITY AND INFORMING DOWN SYNDROME ASSENT STRATEGIES (DECIDAS)  
*NIH-NICHD R21, Co-I (PI: Combs), \$422,125, 5% effort*
- 2022-2025 MEDICATIONS FOR OBSTRUCTIVE SLEEP APNEA TO IMPROVE COGNITION IN CHILDREN WITH DOWN SYNDROME (MOSAIC DS)  
*NIH-NHLBI R33, Co-I (PI: Combs), \$670,575, 10% effort*
- 2022-2024 BUILDING CAPACITY TO INCLUDE PEOPLE WITH IDD IN HEALTH-RELATED RESEARCH  
*Patient-Centered Outcomes Research Institute (P-CORI), co-I, PI: Shirai. Y), \$250,000, 3% effort*
- 2016-2023 MEMORY MEASURES FOR CLINICAL TRIALS IN DOWN SYNDROME AND FRAGILE X SYNDROME  
*NIH/NICHD R01, PI, \$2,980,267, 20% effort*
- 2019-2023 MEMORY MEASURES FOR CLINICAL TRIALS IN DOWN SYNDROME AND FRAGILE X SYNDROME  
*NIH/NICHD COMPETITIVE SUPPLEMENTAL R01, PI, \$506,640 10.4% effort*
- 2016-2023 MEMORY MEASURES FOR CLINICAL TRIALS IN DOWN SYNDROME AND FRAGILE X SYNDROME

*NIH/NICHD diversity supplement for Annalysa Lovos, PI, \$56,000, 0% effort*

2019-2023 fNIRS as an outcome measure of the prefrontal hemodynamic response in Down syndrome  
*NIH/NICHD R21, MPI, \$61,252, (PI: Raitano-Lee), 10.4% effort*

2019-2022 Early risk for ADHD symptoms in young children with Down syndrome  
*NIH/NICHD R21, co-I (PI: Fidler), \$21,790, 5% effort*

## **State**

2022-2023 Refugee Resettlement Services for Arizonans with Disability, ADDPC grant

2021-2022 Program Evaluation for Sexual Abuse Prevention, AHCCS contract

## **Completed grants**

2017-2019 Enhancement Grant to study sleep and memory in patients with hippocampal amnesia  
*Wellcome Trust, Collaborator (PI: Maguire), 154,640.00 £, 0% effort*

2013-2018 Expressive language sampling as an outcome measure  
*NIH/NICHD RO1, Co-I and PI of Subcontract (PI: Abbeduto), \$595,927, 10.4% effort*

2014-2018 Brain development, sleep, and learning in Down syndrome  
*Lumind Research Down Syndrome Foundation, PI (co-Is: Clark, Cowen), \$695,000, 16.6% effort*

2018-2020 How does sleep alter cognitive development in atypical populations  
*Jerome LeJeune Foundation, PI (co-Is: Hughes), \$49,199, 5% effort*

2016 Sleep and circadian function as biomarkers of Alzheimer's Disease risk in Down syndrome.  
*Arizona Alzheimer's Research Consortium, PI (co-PI Fernandez), \$13,000, 1% effort*

2015-2016 Proof of concept funding for a memory assessment for preschool-aged children and special populations  
*Tech Launch Arizona, PI, \$75,000, no faculty salary*

2015-2017 Sleep and cognition in toddlers with Down syndrome  
*Fondation Jérôme Lejeune, co-I with my student Spano (PI), \$54,000, 3% effort*

2015-2016 Pre-clinical cognitive measurement validation study for school age children with Down syndrome (BP29589)  
*F. Hoffman-La Roche Ltd., contract PI (PI, co-I: Sydney Rice), \$96,145, 6% effort*

2015-2016 Sleep quality as a marker of neural development  
*Bill and Melinda Gates Foundation, PI, \$100,000, 3.8% effort*

2014 Request to establish the "Molly Lawson graduate fellowship in Down syndrome research"  
*Molly Lawson Foundation, PI, \$18,000, 0% effort*

2014 Florbetapir PET, and MRI in Down syndrome Individuals with and without Alzheimer's Dementia  
*Arizona Alzheimer's Research Consortium, co-PI (co-PIs Sabbagh, Chen & Reiman), \$10,000, 8% effort*

2014 APOE Genotype, sleep apnea, and cognitive development in Down syndrome  
*Arizona Alzheimer's Research Consortium, PI, \$10,000, 6% effort*

2012-2014 High-density EEG biomarkers of memory dysfunction in Down syndrome  
*Fondation Jérôme Lejeune, Co-I (PI: Nadel), \$46,503, 5% effort*

2014-2015 The Down syndrome phenotype project  
*Lumind Foundation, PI of Subcontract (PIs: Reeves and Sherman), funding since 2009, \$42,000, 8% effort*

2011-2014 Sleep disturbance, cognition, and behavior in Down syndrome  
*Thrasher Research Fund, Co-I (PI: Nadel, with Co-I Bootzin), \$352,330, 8% effort*

2008-2014 Neuropsychology of Down syndrome  
*Down syndrome Research and Treatment Foundation, co-I (PI Nadel), \$1,018,719, 8-50% effort*

2012-2013 Pre-clinical cognitive measurement validation study for Down syndrome (BP25612)  
*F. Hoffman-La Roche Ltd., contract PI (co-Is: Rice and Nadel), \$41,959, 6% effort*

## **Courses Taught and Educational Instruction**

2022	History and Systems of Psychology, graduate level
2022	Certificate in Inclusive STEM teaching
2020-present	Director of Disability Policy Fellowship Course, Sonoran UCEDD, graduate and undergraduate level
2019	Honors Proseminar
2010- present	Developmental Cognitive Neuroscience of Developmental Disorders
2016-present	Sleep and Sleep Disorders
2012- present	Single Semesters of Lifespan Development, Memory Development (graduate), Memory and Cognition, Developmental Psychology
2000-2002	Developmental Cognitive Neuroscience

**TRAINEES** (list excludes names of ~150 undergraduate, highschool, and international interns)

## **Graduate Students**

Alison Luongo, MA, PhD, Clinical Psychology, expected 2024

Annalysa Lovos, MA, PhD, Cognition and Neural Systems, expected 2024

Payal Anand, PhD, 2018, Family Studies, Current Position: Postdoc, University of Arizona

Stella Sakhon, PhD, 2018, Cognition and Neural Systems, Current Position: Lecturer (Statistics)

Goffredrina Spanò, PhD, 2017, Cognition and Neural Systems, University College London, Research Fellow

## **Postdoctoral Fellows**

Anne Van Hoogmoed, PhD, Current Position: Assistant Professor (tenure track) Radboud University, Nijmegen

Caron Clark, PhD, Assistant Professor, University of Nebraska, Lincoln

Katharine Hughes, PhD, Lecturer, Goldsmiths University of London

## **REFERENCES**

1. Erica McFadden, former Arizona Developmental Disabilities Planning Council Director (colleague on policy projects)
2. Len Abbeduto, Director, MIND Institute (research collaborator for 10 years)
3. Debbie Fidler, Professor, Colorado State University Fort Collins (long-time collaborator)
4. Bruce Pennington, University of Denver (graduate advisor)
5. Matthias Mehl, Professor in Psychology Department and Director of Social Psychology program (aware of my administrative and collegial nature through committees and as concurrent directors of graduate programs)