# Ted K. Turesky, Ph.D.

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EDUCATION		
2021 – Present	Post-Doctoral Fellowship, Developmental Cognitive Neuroscience Harvard Graduate School of Education Mentor: Nadine Gaab, Ph.D. Co-Mentor: Charles Nelson, PhD	
2017 – 2020	Post-Doctoral Fellowship, Developmental Cognitive Neuroscience Boston Children's Hospital/Harvard Medical School Mentor: Nadine Gaab, Ph.D. Co-Mentor: Charles Nelson, PhD	
2012 – 2017	Ph.D., Interdisciplinary Program in Neuroscience (IPN) Georgetown University, Washington, DC Mentor: Guinevere Eden, D.Phil.	
2004 – 2008	B.A., Physics Colorado College, Colorado Springs, CO	
HONORS AND FELLO	WSHIPS	
2021	Harvard Brain Initiative Transitions Award Harvard University	
2019	Harvard Brain Initiative Travel Award Harvard University	
2017	Karen Gale Exceptional Ph.D. Student Award in Science Georgetown University Graduate School of Arts and Sciences	
2017	Medical Center Graduate Student Organization Travel Grant Georgetown University Medical Center	
2015 – 2017	Neural Injury and Plasticity Pre-Doctoral Training Fellowship National Institute of Neurological Disorders and Stroke, NIH Thesis stipend, tuition, and research funds (T32, PI: Kathleen Maguire-Zeiss)	
2012 – 2013	Interdisciplinary Program in Neuroscience Pre-Doc Training Fellowship National Institute of Neurological Disorders and Stroke, NIH Pre-thesis stipend, and tuition (T32, PI: Karen Gale)	
2008	Transitions Fellowship for Study of Healthcare in Rural Malawi Colorado College	
2007,2008	Dean's List Colorado College	
RESEARCH EXPERIENCE		
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Post-Doctoral Fellow, Developmental Cognitive Neuroscience Harvard Graduate School of Education, Cambridge, MA
Boston Children's Hospital, Boston, MA
Project: How poverty affects brain development using s/f/dMRI

2012 – 2017	Ph.D. Candidate, Neuroscience Georgetown University, Washington, DC Dissertation: Functional neuroimaging studies of simple finger movements in healthy aging and development and in children with dyslexia
2010 – 2012	Research Assistant, Neuroscience Georgetown University, Washington, DC Project: Functional connectivity in patients with tinnitus
2008	Research Assistant, Solid State Physics Colorado College, Colorado Springs, CO Project: Using Auger Electron Spectroscopy to assess metal purity
2006	Research Assistant, Biochemistry ImmuCell Corporation, Portland, ME Project: USDA requalification of ImmuCell First Defense® Antibody Preparation

# LEADERSHIP EXPERIENCE

2015 – Present	Member, Board of Directors American Tinnitus Association, Washington, DC
2020 – Present	Chair, Diversity and Inclusion Task Force, Board of Directors American Tinnitus Association, Washington, DC
2018 – 2019	Vice-Chair, Board of Directors American Tinnitus Association, Washington, DC
2017 – 2019	Chair, Conference Outreach Committee, Board of Directors American Tinnitus Association, Washington, DC
2015 – 2016	Chair, Support Groups Committee, Board of Directors American Tinnitus Association, Washington, DC
2014 – 2017	Interim System Administrator and Webmaster Center for the Study of Learning, Georgetown University, Washington, DC
2010 – 2017	Tinnitus Support Group Founder and Facilitator Washington, DC
2014 – 2016	Student President IPN, Georgetown University, Washington, DC
2013 – 2014	Student Advisory Committee Representative IPN, Georgetown University, Washington, DC
2013 – 2014	Student Senator IPN, Georgetown University, Washington, DC
2012 – 2014	Student Secretary IPN, Georgetown University, Washington, DC

# TEACHING EXPERIENCE

Full Time Teaching	
2009 – 2010	Algebra I, Algebra II, and General Chemistry (9th-12th grade; 10-20 students/class) Hebron Academy, Hebron, ME
<u>Lectures</u>	
2018 – Present	Introduction to fMRI experimentation (annual) Boston Children's Hospital, Boston, MA

2020	Diffusion image processing for infants workshop Boston Children's Hospital, Boston, MA
2020	Effects of poverty and associated biological and psychosocial hazards on brain structure and function in Bangladeshi infants Fetal-Neonatal Neuroimaging and Developmental Science Center Boston Children's Hospital, Boston, MA
2019	Imagining brain imaging Cape Elizabeth High School, Cape Elizabeth, ME
2019	Investigating the relationship between risk factors associated with poverty and brain structure and function Mind, Brain, and Education: Research Methods and Critical Topics Harvard University, Cambridge, MA
2019	Investigating the relationship between risk factors associated with poverty and brain structure and function Division of Developmental Medicine, Boston Children's Hospital, Boston, MA
2017	Introduction to the motor system Introduction to Neurophysiology Course, Georgetown University, Washington, DC
2016	Introduction to fMRI experimentation Oakwood School, Annandale, VA
2016	Introduction to the motor system IPN Drugs, Brain, and Behavior Course, Georgetown University, Washington, DC
2016	Introduction to fMRI experimentation Siena School, Silver Spring, MD
2014 – 2015	Introduction to the motor system IPN Summer Course, Georgetown University, Washington, DC
2014	Personality disorders Drugs, Brain, and Behavior Course, Georgetown University, Washington, DC
2009	Scientific basis of emotions: <i>Emotional Intelligence</i> by Dan Goleman University of Southern Maine, Lewiston-Auburn, ME
Research Supervised 2021	Response Inhibition in children growing up in extreme poverty Undergraduate student: Zoya Surani Harvard University, Cambridge, MA
2021	The relationship between maternal education and anatomical connectivity in U.S. and Bangladeshi children: a cross-cultural study (thesis) Undergraduate student: Angeliki Mougiou Brandeis University, Waltham, MA
2020	Home literacy environment and white matter structure in infancy Medical student: Joseph Sanfilippo Queens University, Kingston, ON, CAN
2019	Toddler language ability is associated with white matter structure and predicted by home environment in infancy Medical student: Joseph Sanfilippo Queens University, Kingston, ON, CAN

2018	Investigating the impact of socioeconomic status on the relationship between White Matter Pathways and Reading Outcomes (thesis) Undergraduate student: Chandler Torres Pagan Harvard University, Cambridge, MA
2018	Correlates of spelling & reading impairments in children: An sMRI study (thesis) Student: Emily Koenig Scripps College, Claremont, CA
Tutoring	
2014 – Present	Neuroimaging methods for students and research assistants Center for the Study of Learning, Georgetown University, Washington, DC GaabLab, Boston Children's Hospital, Boston, MA
2013 – 2017	Neuroanatomy lab (annual) IPN, Georgetown University, Washington, DC
2008	English LittleField Home Orphanage, Malawi
Other Teaching	
2014, 2016 – 2017	Mock grant study section Survivor Skills and Ethics Course, IPN, Georgetown University, Washington, DC
2013 – 2016	Brain awareness week (group guide) Georgetown University, Washington, DC
LABORATORY SKILLS	
Languages:	Matlab, Bash shell, HTML, Python, R
Tools:	AFQ, ANTS, Art, BrainVoyager, CONN, FreeSurfer, FSL, GingerALE, Jupyter Notebook, Marsbar, REX, SPM, scikit-learn, VBM
WORKSHOPS ATTENI	DED

2020	Python for Neuroimaging Harvard University, Cambridge, MA
2020	Python for Life Sciences Boston Children's Hospital, Boston, MA
2019	FIT'NG In: Establishing Best Practices for Infant Neuroimaging FLUX Meeting, New York, NY
2019	NeuroHackademy for Machine-Learning, Software Engineering, and Open Science University of Washington eScience Institute, Seattle, WA
2018	Infant Image Processing University of North Carolina, Chapel Hill, NC
2016	Introduction to FreeSurfer Georgetown University, Washington, DC
2015	Brain Connectivity (CONN toolkit) Methods Neurometrika, Philadelphia, PA

#### **PEER-REVIEWED PUBLICATIONS**

- 2021 Zuk J, Yu X, Sanfilippo J, Figuccio MJ, Dunstan J, Carruthers C, Sideridis G, **Turesky TK**, Gagoski B, Grant PE, Gaab N, White matter in infancy is prospectively associated with language outcome in kindergarten, *Developmental Cognitive Neuroscience* 50, 100973.
- 2020 **Turesky TK**, Vanderauwera J, Gaab ND, Imaging the rapidly developing brain: Current challenges for MRI studies in the first five years of life, *Developmental Cognitive Neuroscience* 47, 1-14.
- 2020 Ahtam B, **Turesky TK**, Zollei L, Standish J, Grant PE, Gaab N, Im K, Intergenerational Transmission of Cortical Sulcal Patterns, *Cerebral Cortex* 00, 1-10.
- 2020 Turesky EF, Smith C, **Turesky TK**, Virtual team leadership: trust building and conflict management, *Organizational Management Journal* 17(4/5), 185-206.
- 2020 **Turesky TK**, Xie W, Kumar S, Sliva DD, Gagoski B, Vaughn J, Zöllei L, Haque R, Kakon SH, Islam N, Petri WA, Nelson CA, Gaab N, Relating anthropometric indicators and brain structure in 2-month-old Bangladeshi infants growing up in poverty: a pilot study, *NeuroImage* 210, 1-10.
- 2019 **Turesky TK**, Jensen S, Kumar S, Yu X, Wang Y, Zollei L, Boyd E, Sanfilippo J, Sliva D, Haque R, Kakon SH, Islam N, Petri WA, Gagoski B, Nelson CA, Gaab N, The relationship between poverty and resting-state functional connectivity in 2-month old Bangladeshi infants: a feasibility and pilot study, *Developmental Science* e12841.
- 2019 Gaab N, **Turesky TK**, Sanfilippino J, Early identification of children at-risk for developmental dyslexia and reading impairments: neurobiology, screening, evidence-based response to screening, and the use of educational technology (chapter in book). Washington JA, Compton DL, McCardle P (Ed.). <u>Dyslexia</u>, 44-56.
- 2017 **Turesky TK**, Olulade OA, Luetje MM, Eden GF, An fMRI study of the motor system in children and young adults. *Human Brain Mapping* 39(8), 3203-15.
- 2016 **Turesky TK**, Turkeltaub PE, and Eden GF, An activation likelihood estimation meta-analysis study of simple motor movements in older and young adults, *Frontiers in Aging Neuroscience* 8, 238.
- 2016 Leaver AM\*, **Turesky TK\***, Seydell-Greenwald A, Morgan S, Kim HJ, and Rauschecker JP, Intrinsic network activity in tinnitus investigated using functional MRI, *Human Brain Mapping* 37(8), 2717-35. \**equal contributions*.
- 2014 Seydell-Greenwald A, Raven E, Leaver AM, **Turesky TK**, and Rauschecker JP, Diffusion imaging of auditory and auditory-limbic connectivity in tinnitus preliminary evidence and methodological challenges, *Neural Plasticity* 2014, 1-16.
- 2012 Seydell-Greenwald A, Leaver AM, **Turesky TK**, Morgan S, Kim HJ and Rauschecker JP, Functional MRI evidence for a role of ventral prefrontal cortex in tinnitus, *Brain Research* 1485, 22-39.
- 2012 Leaver AM, Seydell-Greenwald A, **Turesky TK**, Morgan S, Kim HJ and Rauschecker JP, Corticolimbic morphology separates tinnitus from tinnitus distress, *Frontiers in Systems Neuroscience* 6, 21.

#### MANUSCRIPTS UNDER REVIEW / IN PREPARATION

2021 **Turesky TK**, Shama T, Kakon SH, Haque R, Islam N, Someshwar A, Petri WA, Nelson CA, Gaab N, Brain morphometry and diminished physical growth in Bangladeshi children growing up in extreme poverty: a longitudinal study (preprint: https://www.biorxiv.org/content/10.1101/2021.02.24.432797v1).

- 2021 **Turesky TK**, Luetje M, Eden GF, An fMRI study of finger movements in children with and without dyslexia (under review at *Cerebral Cortex Communications*).
- 2021 **Turesky TK**, Alkire DR, Andriola DL, and Eden GF, A comparison of resting-state and task-state functional connectivity in children.
- 2021 **Turesky TK**, Sanfilippo J, Zuk J, Lee M, Dunstan J, Carruthers C, Yu X, Gaab N, Home literacy environment shapes white matter in infancy.
- 2021 Sury D\*, **Turesky TK\***, Yu X, Gaab N, Longitudinal changes in brain activation underlying reading fluency. *\*equal contributions.*

### CONFERENCE POSTERS AND PRESENTATIONS

- Zuk J, Davison K, Garrisi K, Lee A, Vanderauwera J, **Turesky TK**, Dunstan J, Gagoski B, Grant PE, Gaab N, White matter in infancy is prospectively associated with subsequent decoding abilities at school age, *Cognitive Neuroscience Society* (virtual; accepted).
- 2021 Ravi N, Zuk J, Garrisi K, Lee A, Vanderauwera J, **Turesky TK**, Dunstan J, Davison K, Grant PE, Gaab N, Examining Relationships Between the Music Environment and White Matter Organization in Infancy, *Cognitive Neuroscience Society* (virtual; accepted).
- 2021 Sanfilippo J, **Turesky TK**, Zuk J, Vanderauwera J, Yu X, Lee A, Garrisi K, Dunstan J, Carruthers C, Gaab N, Home literacy environment mediates the relationship between socioeconomic status and white matter structure in infants, *Cognitive Neuroscience Society* (virtual; accepted).
- 2020 Zuk J, Sanfilippo J, Vanderauwera J, **Turesky TK**, Lee A, Dunstan J, Gagoski B, Grant PE, Gaab N, Evaluating contributions of home literacy environment and white matter organization to emerging language abilities: a longitudinal investigation from infancy to toddlerhood, *Society for the Scientific Study of Reading Annual Meeting* (Newport Beach, CA; virtual).
- 2020 **Turesky TK**, Gagoski B, Haque R, Kakon SH, Islam N, Petri WA, Nelson CA, Gaab N, Frequency characteristics of resting-state BOLD signal in 2-month-old Bangladeshi infants growing up in poverty, *Cognitive Neuroscience Society* (Boston, MA; virtual).
- 2020 King C, Vanderauwera J, Zuk J, **Turesky TK**, Raschle N, Gaab N, Structural neural correlates of reading development in children with early language delay. *Cognitive Neuroscience Society* (Boston, MA; virtual).
- 2020 Lee AM, Vanderauwera J, **Turesky TK**, Sanfilippo J, Zuk J, Grant PE, Gaab N, Investigating Relationships between Home Literacy Environment, Early Language Skills and White Matter Organization from Infancy to Toddlerhood. *Cognitive Neuroscience Society* (Boston, MA; virtual).
- 2020 Vanderauwera J, Zuk J, **Turesky TK**, Lee AM, Dunstan J, Gaab N, Inter- and intrahemispheric white matter organization in relation to language skills in infancy. *Cognitive Neuroscience Society* (Boston, MA; accepted).
- 2020 Zuk J, Vanderauwera J, Lee AM, Gonzalez M, Dunstan J, **Turesky TK**, Rubez D, Yu X, Grant PE, Gaab N, Evaluating predispositions for music training: white matter in infancy relates to music aptitude abilities in preschool. *Cognitive Neuroscience Society* (Boston, MA; virtual).
- 2019 Sanfilippo J, **Turesky TK**, Zuk J, Yu X, Dunstan J, Carruthers C, Gaab N, Toddler language ability is associated with white matter structure and predicted by home environment in infancy, *Queen's University School of Medicine Research Showcase* (Kingston, ON, CAN).
- 2019 **Turesky TK**, Xie W, Kumar S, Sliva DD, Gagoski B, Vaughn J, Zöllei L, Haque R, Kakon SH, Islam N, Petri WA, Nelson CA, Gaab N, Relating stunting, underweight, and wasting to brain structure in 2-month-old Bangladeshi infants growing up in poverty: a pilot study, *FLUX Conference* (New York, NY).

- **Turesky TK**, Figuccio M, Yu X, Gonzalez M, Wang Y, Gaab N, Investigating the relationship between brain substrates of phonological processing and white matter properties in preschoolers, *New England Research on Dyslexia Society Conference* (Cambridge, MA).
- 2019 Sury D, **Turesky TK**, Yu X, Gaab N Longitudinal changes in neural activation underlying reading fluency during elementary school, *New England Research on Dyslexia Society Conference* (Cambridge, MA).
- 2018 Koenig E, **Turesky TK**, Gaab N, Neural correlates of spelling and reading impairments in children: a structural MRI study, *Scripps Undergraduate Research Symposium* (Claremont, CA).
- **Turesky TK**, Jensen S, Kumar S, Yu X, Wang Y, Zollei L, Boyd E, Sanfilippo J, Sliva D, Gagoski B, Haque R, Kakon SH, Islam N, Petri WA, Nelson CA, Gaab N, The relationship between poverty and resting-state functional connectivity in 2-month old Bangladeshi infants, *FLUX Conference* (Berlin, Germany).
- **Turesky TK**, Alkire DR, Andriola DL, Luetje M, Eden GF, A comparison of true and pseudo resting-state functional connectivity data in children, *Organization for Human Brain Mapping Conference* (Vancouver, British Columbia).
- **Turesky TK**, Olulade OA, Eden GF, An fMRI and fcMRI study of the motor system in children with and without dyslexia, *Society for Neuroscience Meeting* (San Diego, CA).
- **Turesky TK**, The role of the tinnitus support group, *Maryland Academy of Audiology Conference* (Annapolis, MD).
- **Turesky, TK**, Turkeltaub PE, and Eden GF, An ALE meta-analysis of simple motor movements in young and old adults, *Organization for Human Brain Mapping Conference* (Honolulu, HI).
- **Turesky TK**, Olulade OA, Luetje MM, Eden GF, An fMRI study on motor control in the developing brain, *Society for Neuroscience Meeting* (Washington, DC).
- **Turesky TK**, Leaver AM, Seydell-Greenwald A, Rauschecker JP, Auditory-limbic network in tinnitus revealed by resting-state functional connectivity MRI, *Tinnitus Research Initiative Conference* (Auckland, New Zealand).
- **Turesky TK**, Leaver AM, Seydell-Greenwald A, Rauschecker JP, Resting-state functional connectivity reveals auditory-limbic network in tinnitus, *Advances and Perspectives in Auditory Neurophysiology Meeting* (New Orleans, LA).

#### NON-PEER-REVIEWED PUBLICATIONS

- **Turesky TK**, It's all about support, *Tinnitus Today Magazine*, American Tinnitus Association, Portland, OR.
- 2016 Fuller K, Sherlock L, Dillard J, **Turesky TK**, "ATA Support Group Leader Guide," American Tinnitus Association. https://www.ata.org.
- **Turesky TK**, "Sound and pain related to tinnitus and hyperacusis may have separate pathways from ear to the brain," American Tinnitus Association. https://www.ata.org.
- **Turesky TK**, "Two types of tinnitus in the brain," American Tinnitus Association. https://www.ata.org.
- **Turesky TK**, "Hyperacusis is related to damage to nerve cells in the inner ear," American Tinnitus Association. https://www.ata.org.
- **Turesky TK**, Zhang J, "New objective assessment tool to measure tinnitus," American Tinnitus Association. https://www.ata.org.
- **Turesky TK**, Presidential Address, *IPN Newsletter*, Georgetown University, Washington, DC.

# AD HOC REVIEWER

Developmental Cognitive Neuroscience Developmental Science Human Brain Mapping Neural Plasticity Scientific Reports Scientific Studies of Reading

## **PROFESSIONAL SOCIETIES**

American Tinnitus Association Cognitive Neuroscience Society Flux: The Society for Developmental Cognitive Neuroscience Organization for Human Brain Mapping Society for Neuroscience