

# Kevin M Cook

Postdoctoral Fellow  
Children's National Hospital  
Developing Brain Institute  
111 Michigan Ave NW  
Washington, DC 200100

## Training & Education

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2020-Pres	<b>Postdoc in Clinical Pediatric Neuroscience</b> <i>Children's National – Washington, DC</i>
2016-2020	<b>PhD in Neuroscience</b> <i>Georgetown University – Washington, DC</i>
2010-2012	<b>MA in Clinical Psychology</b> <i>University of Hartford – West Hartford, CT</i>
2006-2010	<b>BA in Psychology</b> <i>Skidmore College – Saratoga Springs, NY</i>

## Research Positions

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2020-Pres	<b>Research Postdoctoral Fellow</b> <i>Children's National, Developing Brain Institute – Washington, DC</i> <i>Mentor: Catherine Limperopoulos PhD</i>
2016-2020	<b>Graduate Researcher</b> <i>Georgetown University, Dept of Psychology – Washington, DC</i> <i>Mentor: Chandan J. Vaidya PhD</i>
2012-2016	<b>Research Assistant</b> <i>Yale School of Medicine, Dept of Psychiatry – New Haven, CT</i> <i>Mentors: Bruce E. Wexler MD &amp; Silvia Corbera PhD</i>
2011-2012	<b>Graduate Research Assistant</b> <i>University of Hartford, Dept of Psychology – West Hartford, CT</i> <i>Mentor: Denise E. LaFramboise PhD</i>
2009-2011	<b>Undergraduate Research Assistant</b> <i>Skidmore College, Dept. of Psychology – Saratoga Springs, NY</i> <i>Mentor: Mark S. Rye PhD</i>
2009-2010	<b>Honors Bachelor Thesis Research</b> <i>Skidmore College, Dept. of Psychology – Saratoga Springs, NY</i> <i>Thesis Advisor: Clinton H. Cooper PhD</i>
2008-2010	<b>Undergraduate Research Assistant</b> <i>Skidmore College, Dept. of Social Work – Saratoga Springs, NY</i> <i>Mentor: Crystal D. Moore PhD</i>

## Teaching and Lecturer Positions

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Fall 2019	<b>Course Director</b> NSCI-425: Topics in Neuroscience: Disease, Research, and Treatment <i>Georgetown University, Dept of Neuroscience – Washington, DC</i>
Fall 2018	<b>Course Director</b>

- PHAR-588: Drugs Brain and Behavior I  
*Georgetown University, Dept of Pharmacology – Washington, DC*
- Spring 2018**     **Assistant Course Director**  
 PHAR-589: Drugs Brain and Behavior II  
*Georgetown University, Dept of Pharmacology – Washington, DC*
- Fall 2017**     **Teaching Practicum Student**  
 PHAR-588: Drugs Brain and Behavior I  
*Georgetown University, Dept of Pharmacology – Washington, DC*
- Fall 2011**     **Graduate Teaching Assistant**  
 PSY-372: Statistics for Psychology  
*University of Hartford, Dept of Psychology – West Hartford, CT*

## Workshops and Special Lectures

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- March 2022**     **Guest Lecture – Principal Component Analyses**  
*Machine Learning Workshop*  
*Developing Brain Institute, Children’s National – Washington DC*
- February 2022**     **Guest Lecture – Support Vector Machine Classifiers**  
*Machine Learning Workshop*  
*Developing Brain Institute, Children’s National – Washington DC*
- April 2021**     **Workshop Panelist – Successfully Presenting a Scientific Abstract**  
*Georgetown-Howard Universities Center for Clinical and Translational Science – Washington, DC*
- February 2021**     **Workshop Panelist – Careers in Academia**  
*Georgetown-Howard Universities Center for Clinical and Translational Science – Washington, DC*
- Spring 2020**     **Anatomy Lab Instructor**  
 PSCY-234: Cognitive Neuroscience  
*Georgetown University, Dept of Psychology – Washington, DC*
- Spring 2019**     **Anatomy Lab Instructor**  
 PSCY-234: Cognitive Neuroscience  
*Georgetown University, Dept of Psychology – Washington, DC*
- Spring 2018**     **Anatomy Lab Instructor**  
 PSCY-234: Cognitive Neuroscience  
*Georgetown University, Dept of Psychology – Washington, DC*
- July 2018**     **Guest Lecturer - Sensation and Perception**  
 NSCI-801: Experiences in Neuroscience  
*Georgetown University, Dept of Neuroscience – Washington, DC*

## Service and Professional Positions

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- 2018-2020**     **Graduate Teaching Mentor**  
*Georgetown University – Washington, DC*
- 2011-2012**     **Psychology Clinical Intern**  
*Community Renewal Team, Behavioral Health Unit – Hartford, CT*  
*Dual Diagnosis, Partial Hospitalization, and Intensive Outpatient Programs*

Mentor: Jack Ryan MA LADC

- 2011-2012**      **Graduate Student Association Representative**  
 University of Hartford, Dept of Psychology – West Hartford, CT
- 2010-2011**      **Graduate Assistant**  
 University of Hartford, Dept of Psychology – West Hartford, CT  
 Supervisor: Robert Leve Ph.D.

## Publications

- Cook K.M.**, Asis-Cruz J.D., Lopez C., Quistorff J., Kapse K., Andersen N., Vezina G., Limperopoulos C. (2022). *Robust sex differences in functional brain connectivity are present in utero*. Cerebral Cortex, <https://doi.org/10.1093/cercor/bhac218>
- Kim J-H., Asis-Cruz J.D., **Cook K.M.**, Limperopoulos, C. (2022). *Gestational age-related changes in the fetal functional connectome: in utero evidence for the global signal*. Cerebral Cortex, <https://doi.org/10.1093/cercor/bhac209>
- Asis-Cruz J.D., Krishnamurthy D., Jose C., **Cook K.M.**, Limperopoulos C. (2022). *FetalGAN: Automated Segmentation of Fetal Functional Brain MRI using Deep Generative Adversarial Learning and Multi-Scale 3D U-Net*. Frontiers in Neuroscience, 16, <https://doi.org/10.3389/fnins.2022.887634>
- Cook K.M.**, You X., Cherry C.B.J, Merchant J.M., Skapek, M., Powers, M., Pugliese C.E. Kenworthy L., Vaidya C.J. (2021). *Neural correlates of schema-dependent episodic memory and association with behavioral flexibility in autism spectrum disorders and typical development*. Journal of Neurodevelopmental Disorders, 13(35). <https://doi.org/10.1186/s11689-021-09388-9>
- Rye, M. S., Fleri, A. M., Moore, C. D., Worthington, E. L., Wade, N. G., Sandage, S. J., & **Cook, K. M.** (2012). *Evaluation of an Intervention Designed to Help Divorced Parents Forgive Their Ex-Spouse*. Journal of Divorce & Remarriage, 53(3), 231–245. <https://doi.org/10.1080/10502556.2012.663275>
- Moore, C. D., & **Cook, K. M.** (2011). *Promoting and Measuring Family Caregiver Self-Efficacy in Caregiver-Physician Interactions*. Social Work in Health Care, 50(10), 801–814. <https://doi.org/10.1080/00981389.2011.580835>

## Platforms & Oral Presentations

- Cook K.M.**, Asis-Cruz J.D., Kim J.H., Spoehr E., Myers M., Basu S.K., Andescavage N., du Plessis A., Limperopoulos C. (2023, May). *Preterm Pain in the NICU Is Associated with Atypical Functional Brain Connectivity and Developmental Deficits at 18-Months*. Platform presentation at the 2023 Pediatric Academic Societies Meeting, Washington, DC
- Damera S.R., Asis-Cruz J.D., **Cook K.M.**, Kapse K.J., Spoehr E., Basu S.K., Andescavage N., Limperopoulos C. (2023, May). *Regional Homogeneity as a Marker of Sensory Cortex Dysmaturity in Premature Infants* Platform presentation at the 2023 Pediatric Academic Societies Meeting, Washington, DC
- Cook K.M.**, De Asis-Cruz J., Sitrin C., Barnett S., Krishnamurthy D., Kapse K., Andescavage N., Quistorff J., Lopez C., Limperopoulos C. (2022, April). *Relative neighborhood disadvantage is associated with increased functional network segregation in fetal brains*. Platform presentation at the 2022 Pediatric Academic Societies Meeting, Denver, CO
- Cook K.M.**, De Asis-Cruz J., Kim J.H., Kapse K., Andescavage N., Basu S., Kapse K., du Plessis A., Limperopoulos C. (2022, April). *Early exposure to the extra-uterine environment in premature infants is associated with altered functional brain connectivity compared to in-utero age-matched fetuses*. Platform presentation at the 2022 Pediatric Academic Societies Meeting, Denver, CO

- Kim J.H., De Asis-Cruz J., **Cook K.M.**, Kapse K., Andersen N., Quistorff J., Lopez C., A., Limperopoulos C. (2022, April). *Gestational age-related changes in the fetal functional connectome: in utero evidence for the global signal*. Platform presentation at the 2022 Pediatric Academic Societies Meeting, Denver, CO
- Cook K.M.**, De Asis-Cruz J., Lopez, C., Quistorff, J., Kapse, K., Andresen, N., Vezina, G., Limperopoulos, C. (2021, May). *In utero MRI differentiates male and female human fetal brain functional connectivity*. Platform presentation at the 2021 Pediatric Academic Societies Meeting, Virtual.
- Cook K.M.**, Cherry C.B.J, Merchant J.M., You X., Skapek, M., Powers, M., Pugliese C.E., Kenworthy L., Vaidya C.J. (2020, April). *Children with autism spectrum disorder do not engage brain regions responsible for flexible thought in the same manner as typically developing children*. Platform presentation at the 2020 Association for Clinical and Translational Science, Washington, DC.

## Conference Posters

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- Christoffel K., Govindan R., Asis-Cruz J.D., **Cook K.M.**, Andescavage N., Basu S.K., du Plessis A., Limperopoulos C. (2022) *Heart rate variability at term is associated with CAN connectivity in premature neonates*. Poster presented at the 2022 Child Neurology Society Meeting, Cincinnati, OH.
- Christoffel K., Asis-Cruz J.D., du Plessis A.J., Limperopoulos C., Govindan R.B., **Cook K.M.** (2022, April). *Heart Rate Variability at Term is Associated with Central Autonomic Network Connectivity in Premature Neonates*. Poster presented to the 2022 Pediatric Academic Societies Meeting, Denver, CO.
- Cook K.M.**, Asis-Cruz J.D., Kim J.H., Andescavage N., Basu S.K., du Plessis A.J., Limperopoulos C. (2021, November). *Functional connectivity at term equivalent age predicts frequency of neonatal intensive care unit procedures in infants born very preterm using machine learning*. Poster presented for the 2021 Society for Neuroscience Meeting, Chicago, IL.
- Cook K.M.\***, Sitrin C.\*, Asis-Cruz J.D., Barnett S.D., Krishnamurthy D., Limperopoulos C. (2021, November). *Maternal education is associated with functional segregation of the fetal connectome*. Poster presented for the 2021 Society for Neuroscience Meeting, Chicago, IL. \*Co-first authors
- Asis-Cruz J.D., **Cook K.M.**, Kim J.H., Limperopoulos, C. (2021, September). *Disrupted resting state functional connectivity in clinically high-risk fetuses*. Abstract presented at the 2021 Flux Congress, Virtual.
- Cook K.M.**, You X., Vaidya C.J. (2021, May). *Atypical Hippocampal Network Connectivity Implicating Social, Executive, Attention, and Memory Function in Autism Spectrum Disorder*. Poster accepted for the 2020 International Society for Autism Research, Virtual
- Cook K.M.**, Cherry C.B.J, Merchant J.M., You X., Skapek, M., Powers, M., Pugliese C.E, Kenworthy L., Vaidya C.J. (2020, June). *Neural correlates of schema-dependent encoding in children with autism spectrum disorders: The role of behavioral flexibility*. Poster presented for the 2020 International Society for Autism Research, Virtual.
- Cook K.M.**, Cherry C.B.J, Merchant J.M., You X., Skapek, M., Powers, M., Pugliese C.E., Kenworthy L., Vaidya C.J. (2020, May). *Neural correlates of schema-dependent encoding in children with autism spectrum disorders: The role of behavioral flexibility*. Poster presented at the 2020 Cognitive Neuroscience Society meeting, Virtual.
- Cook K.M.**, Cherry C.B.J, Merchant J.M., You X., Skapek, M., Powers, M., Pugliese C.E., Kenworthy L., Vaidya C.J. (2019, October). *Differing patterns of activation for schema memory in autism spectrum disorder*. Poster presented at the 2019 Georgetown University Medical Center Student Research Day, Washington, DC.

- Cook K.M.**, Cherry C.B.J, Merchant J.M., You X., Skapek, M., Powers, M., Kenworthy L., Vaidya C.J. (2019, April). *Pre-existing knowledge and autism spectrum disorder: Differences in brain activation for a schema driven subsequent memory task*. Poster presented at the 2019 Association for Clinical and Translational Science, Washington, DC.
- Brocke S., **Cook K.M.**, Rabany L., Corbera S., Pelphrey K., Bell M., & Assaf M. (2016, May). *Investigating Symptom Overlap Between Individuals with High-Functioning Autism Spectrum Disorder and Schizophrenia*. Poster presented at the 2016 International Meeting For Autism Research, Baltimore, MD.
- Brocke S., **Cook K.M.**, Winters C., Corbera S., Pearlson G., Pelphrey K., Bell M., & Assaf M. (2015, May). *Characterizing social cognitive deficits in high-functioning autism spectrum disorders and schizophrenia*. Poster presented at the 2015 International Meeting For Autism Research, Salt Lake City, UT.
- Corbera S., **Cook K.M.**, Brocke S., Dunn S., Wexler B., & Assaf, M. (2014, May). *The relationship between functional deficits and empathy for emotional pain in schizophrenia*. Poster presented at the 69<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, New York, NY.
- Corbera S., **Cook K.M.**, Brocke S., Dunn S., Assaf M., & Wexler, B. (2014, April). *Empathy to emotional pain in schizophrenia*. Poster presented at the 21<sup>st</sup> Annual Meeting of the Cognitive Neuroscience Society, Boston, MA.
- Farrell J. E., Rye M. S., **Cook K. M.**; & Woofield, M. (2011, August). *Forgiveness, mood, and attachment style*. Poster presented at the 119<sup>th</sup> Annual Meeting of the American Psychological Association, Washington DC.
- Lanham M.E., Rye M.S., Fleri A.M., **Cook K.M.**, Shaikh S. & Krasner S. (2010, August). *The relationship between gratitude, burnout, and job satisfaction*. Poster presented at the 118<sup>th</sup> Annual Meeting of the American Psychological Association, San Diego, CA.
- Cook K.M.** (2010, May). *Computer-Mediated communication and emotional intelligence*. Poster presented at the annual Skidmore College Academic Festival, Saratoga Springs, NY.
- Cook K. M.** & Stern K. (2009, May). *Promoting clear communication between older people and their doctors: The health care partner program*. Colloquium presented at the annual Skidmore College Academic Festival, Saratoga Springs, NY.

## Mentorship

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- 2021-2022** Chloe Sitrin - Summer Research Intern  
University of Michigan  
Project: Effects of socioeconomic status on in utero brain development
- 2020-2021** Paloma Casanova - Senior Capstone Project  
Fort Worth Country Day High School  
Project: Cognitive development in individuals with autism spectrum disorder

## Awards and Honors

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- Apr 2020** Gold Ribbon Presentation, Association for Clinical and Transitional Science 2020
- Mar 2020** Google Cloud Platform Research Predoctoral Pilot Award
- Dec 2019** Travel Award, International Society for Autism Research 2020
- Oct 2019** 2<sup>nd</sup> Place Poster, Georgetown Student Research Day 2019
- Apr 2019** Blue Ribbon Poster, Association for Clinical and Transitional Science 2019

## Grants & Funding

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<b>Dec 2020 - Dec 2023</b>	<b>T32 Postdoctoral Fellowship</b> <b>NIH/NICHD T32 HD098066-01A1</b> <i>Clinical Pediatric Research Training for the Fetal-Neonatal Brain</i> Role: Postdoctoral Fellow The goal of this program is to train postdoctoral fellows on research methodologies to understand the in vivo developing brain and equip the next generation of clinician-scientists with multidisciplinary skills, novel methods trainings, and rigorous research approaches.	<b>\$162,500</b>
<b>Oct 2018 - Oct 2020</b>	<b>TL1 Predoctoral Fellowship</b> <b>NIH/NCATS TR001431</b> <i>Georgetown-Howard Universities Center for Clinical and Translational Science</i> Role: Predoctoral Fellow The goal of this program is to train predoctoral students and postdoctoral fellows to become a critical link between preclinical and clinical research. In addition to funding their training, the program emphasis cross discipline training, skill building workshops, and continued responsible conduct of research education.	<b>\$68,000</b>
<b>Apr 2018 - Dec 2018</b>	<b>MRI Pilot Award</b> <b>Georgetown Center for Functional and Molecular Imaging</b> <i>Schema memory in children with autism spectrum disorder</i> Role: PI Award from the functional imaging core at Georgetown constituting 30 scan hours for novel projects in the early stages of research that have significant promise to be high impact research.	<b>\$16,650</b>

## Grant Reviewer

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**2020** Georgetown-Howard Universities Center for Clinical and Translational Science Pilot Award (June)

## Professional Affiliation

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<b>Affiliated 2021</b>	Society for Neuroscience
<b>Affiliated 2018</b>	Association for Clinical and Translational Science
<b>Affiliated 2015</b>	International Society for Autism Research
<b>Affiliated 2014</b>	Cognitive Neuroscience Society
	LPC/LMHC License Eligible