

# Yu Sun Chung, PhD

Curriculum Vitae

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Director of **Teen Experiences, Emotions & Neuroendocrinology (TEEN)** Laboratory

## Education

Ph.D., Cognitive Psychology, Washington University in St Louis	2014
M.A., Clinical Psychology, Korea University	2005
B.A., Psychology, Korea University	2003

## Professional Appointments

Assistant Professor of Psychology, Kean University, NJ	2024 - Current
Visiting Professor of Psychology, St Mary's College of Maryland, MD	2022 - 2024
Postdoctoral associate, Duke University, NC	2019 - 2021
Postdoctoral fellow, Olin Neuropsychiatry Research Center, CT	2015 - 2018
Clinical Researcher, Clinical Cognitive Neuroscience Center	2007 - 2008
Seoul National University College of Medicine	

## Research Experience

- Adolescent brain development implicated in cognitive control and reward processing
- Multimodal neuroimaging (e.g., fMRI, EEG/ERP), salivary hormone, and behavior methods
- Data science approaches and pedagogy using Adolescent Brain Cognitive Development Study®

## Publications

Peer-Reviewed Journal Articles: 11 first-authored publications

1. **Chung, YS**, van den Berg B, Roberts, KC, Bagdasarov, A, Woldorff MG, and Gaffrey MS (2025). Electrical brain activations during a probabilistic reward learning task are associated with behavior strategies in preadolescents. *Front. Hum. Neurosci.*, 19 2025, <https://doi.org/10.3389/fnhum.2025.1460584>
2. Sullivan, AJ, **Chung, YS**, Novotny S, Epperson CN, Kober H, Blumberg, HP, Gross JJ, Pearlson G, Stevens MC (2024). Estradiol Effects on an Emotional Interference Task in Adolescents with Current and Remitted Depression. *Hormones and Behavior*, 157, 1-9. <https://doi.org/10.1016/j.yhbeh.2023.105450>
3. Gertler, J, Novotny S, Poppe A, **Chung YS**, Gross JJ, Pearlson G, Stevens MC (2020). Neural correlates of non-specific skin conductance responses during resting state fMRI. *NeuroImage*, 214:116721
4. **Chung, YS**, Calhoun VD, and Stevens, MC (2020). Adolescent Sex Differences in Cortico-Subcortical Functional Connectivity During Response Inhibition. *Cognitive, Affective, & Behavioral Neuroscience*, 20(1), 1-18.
5. **Chung, YS**, Poppe, AB, Novotny, S, Epperson, CN, Kober, H, Granger, D.A., Blumberg H, Ochsner K, Gross J, Pearlson GD, and Stevens MC (2019). A Preliminary Study of Association

between Adolescent Estradiol Level and Dorsolateral Prefrontal Cortex Activity during Emotion Regulation. *Psychoneuroendocrinology*, 109, 104398.

6. **Chung, YS**, Hyatt, CJ, and Stevens, MC (2017). Adolescent Maturation of the Relationship Between Cortical Gyrification and Cognitive Ability. *NeuroImage*, 158, 31931.
7. **Chung, YS** and Barch, DM (2016). Frontal-Striatum Dysfunction During Reward Processing: Relationships to Amotivation in Schizophrenia. *Journal of Abnormal Psychology*, 125(3), 453-69.
8. **Chung, YS** and Barch, DM (2015). Anhedonia is Associated with Reduced Incentive Cue Related Activation in the Basal Ganglia. *Cognitive, Affective, & Behavioral Neuroscience*, 15(4), 749-67.
9. **Chung, YS**, Barch, DM, and Strube M. (2014). A Meta-Analysis of Mentalizing Impairments in Adults with Schizophrenia and Autism Spectrum Disorder. *Schizophrenia Bulletin*, 40(3), 602-16.
10. Mann, CL, Footer O, **Chung YS**, Driscoll LL, and Barch DM (2013). Spared and Impaired Aspects of Motivated Cognitive Control in Schizophrenia. *Journal of Abnormal Psychology*, 122(3), 745-55.
11. **Chung, YS** and Barch DM. (2011). The Effect of Emotional Context on Facial Ratings In Schizophrenia. *Schizophrenia Research*, 131(1-3), 235-41.
12. **Chung, YS**, Mathews J, and Barch DM. (2011) The Effect of Context Processing on Different Aspects of Social Cognition in Schizophrenia. *Schizophrenia Bulletin*, 37(5), 104856.
13. Shim, KG, Kang, DH, **Chung, YS**, Yoo, SY, Shin, NY and Kwon, JS. (2008). Social Functioning Deficits In Young People At Risk For Schizophrenia. *Australian and New Zealand Journal of Psychiatry*, 42(8), 678-85.
14. **Chung, YS**, Kang, DH, Shin, NY, Yoo, SY and Kwon, JS. (2008). Deficit of Theory of Mind In Individuals at Ultra-High-Risk for Schizophrenia. *Schizophrenia Research*, 99(1-3), 111118.
15. **Chung, YS** and Kwon, JH. (2008). The Efficacy of Bibliotherapy for Social Phobia. *Brief Treatment and Crisis Intervention*, 8(4), 390.

#### Preprint

1. Sørensen, L, **Chung, YS**, Khadka, S and Stevens, MC (Preprint). Moment-to- moment fluctuations of hemodynamic responses in posterior default mode networks differentially predict level of attentional lapses in adolescents with Attention-Deficit/Hyperactivity Disorder (medRxiv preprint doi: <https://doi.org/10.1101/2022.01.31.22270169>).
2. **Chung, YS**, Bagdasarov, A, Gaffrey, MS. Sex-specific association between emotion negativity and neural processing of reward feedback in young children (bioRxiv preprint doi: <https://doi.org/10.1101/2022.06.20.496831>).

#### In Preparation (Data collection completed): \* Kean students

1. **Chung, YS**, Li D\*, Yang G\*, Ali S\*, Shirtcliff, Kwak D. (In prep). Association between air pollution, adrenarche, and brain connectivity in preadolescents.
2. **Chung, YS**, Amir, Li D\*, Yang G\*, Ali S\*, Kwak D. (In prep). Urban stressors, brain connectivity and child psychopathology using a machine learning model.
2. **Chung, YS**. Pubertal estradiol and cognitive, emotional development, and psychopathology.

## Funding Awards & Applications

### *Internal Funding*

#### President Research Fund

2024 - 2025

Role: **Principal Investigator**

Status: In Progress

(Amount: \$10,000)

#### President's Global-Local Anchor Institution Research Grant

2025 – 2027

Role: Collaborator

*From campus to global citizenship: Dynamic identity development, holistic wellness, and sustainable psychosocial mechanisms in emerging adulthood*

Status: Under Review

(Amount: \$25,000)

### *External Funding*

#### NIGMS Instrumentation Grant Program for Resource-Limited Institutions

04/2026 –

03/2027

Role: **Principal Investigator**

Title: *Mobile High-Density EEG Equipment for Neuroscience Research and Education Capacity Building at Kean University*

Status: Submitted

(Amount: \$113,214.82)

#### NIH The Biomedical Research Environment & Sponsored Programs Administration Development

12/2025

Role: Researcher in the Thematic Affinity Research Groups

Status: Under Review

#### NIH Support for Research Excellence-first Program (R16)

07/25-06/29

Role: **Principal Investigator**

Title: *Beyond Reward Sensitivity: Mechanisms of Estradiol and Probabilistic Learning in Depression Risk for Girls*

(Amount: \$712,983)

Status: Early Expiration of the Funding | Pending Council Review

#### Graduate Grant Award sponsored by the Charles Lafitte Foundation Program

2021

Role: Project Lead

Title: *Effects of Pubertal Development on Feedback-based Reward Learning*

Status: Completed

#### R01 MH102854-02 / PA-14-077

2016-2018

Role: Co-Author/Postdoctoral Fellow

Title *Neural Architecture of Emotion Regulation, Adolescent Development and Depression*

Status: Completed

## Awards & Honors

<u>Six hours of Released Time for Research</u>	2025-2026
<u>Students Partnering with Faculty</u> Role: <b>Principal Investigator</b> co-PI: Dr. David Joiner, Kean University Project: <i>The Effectiveness of Virtual Reality Stressors in Immune Function and Reinforcement Learning</i> (Stipend: \$3,500)	2025 -2026
<u>National Science Foundation's Build and Broaden Program</u> Role: Faculty Fellow Title: <i>The Adolescent Neural Urbanome and Pubertal Development in the ABCD Study®</i> (Stipend: \$15,000)	2024-2026
Dissertation Fellowship, Washington University in St. Louis	2013-2014
Travel Award, Society for Research in Psychopathology	2012
Travel Award, Conference on Executive Function at the NIMH Behavioral Science Center	2012
McDonnell International Scholarship, Washington University in St. Louis	2008-2013
Cognitive, Computational & Systems Neuroscience Trainee	
McDonnell Centre for Systems Neuroscience, Washington University in St. Louis	2008-2010
Honors Scholarship, Korea University, Seoul, South Korea 2004,2002	

## Invited & Symposium Talk:

1. Chung, YS (May, 2025). Third Annual Kean University End-of-Year Faculty Research Conference
2. Chung, YS (April, 2025) Kean Research Days
3. Chung, YS (October, 2021). 2021 Virtual Annual Meeting of the Society for Psychophysiological Research.
4. Chung, YS (April, 2019). Bowdoin College, Brunswick, Maine.
5. Chung, YS (April, 2019). Anxiety and Traumatic Stress Disorders Laboratory, McLean Hospital, Harvard Medical School, Belmont, MA.
6. Chung, YS (January, 2019). Psychological and Brain Sciences, University of Massachusetts, Amherst, MA.
7. Chung, YS (November, 2018). Shriver Academic Seminar, University of Massachusetts, Medical School, Worcester, MA.
8. Chung, YS (September, 2018). Developmental Biopsychiatry Research Program, McLean Hospital, Harvard Medical School, Belmont, MA.
9. Chung, YS (June, 2018). Clinical Neuroscience Laboratory, Martinos Center, Harvard Medical School, Boston, MA.
10. Chung, YS (May, 2015). Olin Neuropsychiatry Research Center, Hartford, CT.
11. Chung, YS (April, 2014). Laboratory of Neurocognitive Development, University of Pittsburgh Medical Center, Pittsburgh, PA.

### **Selected Conference Posters: \* Kean Students**

1. **Chung, YS.** Ali S\*, Li D\*, Yang G\*, Kwak D. (September, 2025). *Urban Stress, Frontal-Limbic Brain Connectivity, and Psychotic-Like Experiences in Preadolescents*. Poster will be presented at International Society of Psychoneuroendocrinology, New Orleans, Louisiana, USA.
2. **Chung, YS.** Ali S\*, Li D\*, Yang G\*, Kwak D. (May, 2025). *The Relationship between air pollution exposure, adrenarche, and brain connectivity in preadolescents using ABCD Study*. Poster presented at Society of Biological Psychiatry, Toronto, Canada.
3. **Chung, YS.** (2024, September). *The Association Between Adrenarche Timing and Emotional Brain Function in Preadolescents from the Adolescent Brain Cognitive Development Study®*. Poster presented at the FLUX Congress, Baltimore, USA.
4. Sullivan, A, **Chung, YS**, Novotny S, Epperson, CN, Kober, H, Gross J, Phillips, M, Blumberg, HP, Pearlson G, Stevens M (2022, April). *Estradiol Effects on an Emotional Interference Task in Adolescents With Current and Remitted Major Depression*. Poster presented at the Society of Biological Psychiatry, New Orleans, Louisiana, USA.
5. Barratt, SM, Novonty S, **Chung, YS**, Kober H, Epperson CN, Phillips M, Oscher K, Gross J, Blumberg H, Pearlson G, Stevens MC (2022, April) *Estradiol effects of amygdala activity during emotion regulation in adolescent girls*. Poster presented at the Society of Biological Psychiatry, New Orleans, Louisiana, USA.
6. Camacho, NL, Bagdasarov, A, Caress, A, **Chung, YS**, and Gaffrey, MS. (2021, September). Concurrent and longitudinal associations between early childhood reward responsivity and irritability. Poster presented at the FLUX Virtual Congress.
7. **Chung, YS**, Poppe, AB, Novotny, S, Epperson, CN, Kober, H, Gross JJ, Pearlson GD, and Stevens MC (2018, May). *Estradiol modulation of female adolescent emotion regulation*. Poster presented at the Society of Biological Psychiatry, New York, USA.
8. Poppe, AB, Novotny, S, **Chung, YS**, Pearlson GD, Kober, H, Phillips M, Ochsner K, Gross J, Stevens MC (2018, May). *Evidence for common and unique brain structures underlying emotion regulation with different strategies and valence: A developmental study*. Poster presented at the Society of Biological Psychiatry, New York, USA.
9. Novotny, S, **Chung, YS**, Poppe, AB, Pearlson GD, Kober, H, Phillips M, Ochsner K, Gross J, Stevens MC (2018, May). *Individual differences in executive functioning, emotion regulation traits, and their neural correlates during successful cognitive reappraisal* (2018, May). Poster presented at the Society of Biological Psychiatry, New York, USA.
10. **Chung, YS** and Stevens, MC (2017, June). *Inhibitory control-related network functional connectivity associations with dimensional symptom severity in adolescents with Attention Deficit Hyperactivity Disorder*. Poster presented at the Organization for Human Brain Mapping, Vancouver, Canada.
11. **Chung, YS** and Stevens, MC (2017, June). *Adolescent sex differences in cortico- subcortical functional connectivity during inhibitory control*. Poster presented at the Organization for Human Brain Mapping, Vancouver, Canada.
12. **Chung, YS**, Hyatt, CJ and Stevens, MC (2016, September). *Cortical Folding Individual Differences Associated with Cognitive Ability in Adolescence*. Poster presented at the Annual Flux Congress, St. Louis, USA.
13. **Chung, YS** and Barch, DM (2015, March). *Sustained and Transient Reward Effect on Cognitive Control in Schizophrenia: The Relevance of Negative Symptoms*. Poster presented at the Cognitive Neuroscience Society, San Francisco, USA.

14. **Chung, YS** and Barch, DM (2014, April). *The Temporal Dynamics of Motivated Cognitive Control: Relationships to Social Anhedonia*. Poster presented at the Cognitive Neuroscience Society, Boston, USA.
15. **Chung, YS** and Barch, DM (2013, Sep). *Sustained and Transient Reward Effects on Cognitive Control in Schizophrenia: a Mixed State-item fMRI study*. Poster presented at the Society for Research in Psychopathology, Oakland, California, USA.
16. **Chung, YS** and Barch, DM (2012, Oct). *Reward Context-Dependent and Cue- Driven Effects on Cognitive Control function In Schizophrenia*. Society for Research in Psychopathology, Ann Arbor, Michigan, USA.
17. **Chung, YS** and Barch, DM. (2012, Jan) *Mentalizing Impairments Between Schizophrenia and Autism Spectrum Disorders: A Meta-Analytic Review*. Poster presented at the NIMH Behavioral Science Center: Determinants of Executive Function & Dysfunction conference, Boulder, Colorado, USA.
18. **Chung, YS** and Barch, DM. (2011, April). *The Effect of Emotional Context and Attention on the Dimensional Rating of Faces*. Poster presented at the International Congress on Schizophrenia Research, Colorado Springs, Colorado, USA.
19. **Chung, YS** and Barch, DM. (2010, October). *The Effect of Strategic Manipulation on Facial Emotion Perception in Schizophrenia*. Poster presented at the Society for Research in Psychopathology, Seattle, USA.

## Teaching Experience

- *Experimental Psychology*: focuses on the systematic methods used in conducting and evaluating psychological research, primarily through the Adolescent Brain Cognitive Development Study (i.e., the largest long-term child development study in the USA)
- *Lifespan Development Psychology*: covers how biological, sociological, and historical changes influence psychological development, along with reviewing and applying various developmental concepts and theories by discussing scientific journal articles
- *Physiological Psychology*: explores the biological basis of behavior and mental processes
- *Functional Neuropsychology*: covers review of neurological variation and disorders associated with behavioral dysfunction or a typical development by discussing EEG vs. fMRI methods
- *Introduction to Event-Related Potentials (ERPs)* (starting 2026): **A project-based learning course** that covers basic concepts of ERP data preprocessing, along with class discussions centered on ERP studies.
- *Human-Computer Interaction from Psychology and Computer Science Perspective* (co-teaching across WKU and KU) (starting 2026): **A project-based learning course**, which covers how to develop Virtual Reality scenes using Unity game engine and measure physiological responses and saliva-based stress and immune markers. At the end of semester, students from WKU and KU present their project findings online.

## Mentoring Experience

### McNair Program

2025

Student: Aamillya Joseph

### NSF Build & Broad Undergraduate Student Fellow

2024 – 2026

Advisees: Dan Li, Shazab Ali, Guohao Yang

Undergraduate Senior Thesis Mentoring, St Mary's College of Maryland 2023- 2024 Advisees: Anna Eaton, Lily Mellendick, Macyn Poag, Kia'ra Ruffin, Catherine Triebwasser

Undergraduate Student Research Mentoring, St Mary's College of Maryland 2022  
Fall Advisees: Angelica Hernandez, Christina Rutherford, Elise Kinyanjui

Undergraduate Student Research Mentoring, Duke University, NC 2019-2020  
Advisees: Athena Tsai, Ainsley Buck, Jasalyn Bennekin, Kyle Shutkind, Michael Greenstein, Sonia He, Sydney Albert

## **Professional Activities & Services**

University and Community Service  
Academic Standards & Policy Committee, College of Liberal Arts, Kean University 2025 - 2028

2019-2021  
Scientists Promoting Equity and Knowledge, Duke University, Member

Duke University Brain Awareness Week 2019-2020

BrainDance Awards Celebration, Olin Neuropsychiatry Research Center, Tour guide 2017-2018  
SciFest/Amazing Brain Carnival Volunteer, St. Louis Science Center, Volunteer 2009-2013

### Ad hoc Journal Reviewer for Eleven Peer-Reviewed Journals

*Australian and New Zealand Journal of Psychiatry | Brain Connectivity | Brain Imaging and Behavior | Cognition and Emotion | Developmental Cognitive Neuroscience | Journal of Psychiatric Research | Neuroscience and Biobehavioral Reviews | Psychoneuroendocrinology | Peer Journal | Schizophrenia Bulletin | Schizophrenia Research*

### Professional Memberships:

Cognitive Neuroscience Society | Flux: Society for Developmental Cognitive Neurosci | Human Brain Mapping | Society of Biological Psychiatry | Society for Research in Psychopathology | Society for Psychophysiological Research | International Society of Psychoneuroendocrinology

### Additional Professional Training

Brain Electrical Source Analysis Workshop 2019  
Brain Vision Analyzer Workshop at Florida State 2019  
HCP Course 2016: Exploring the Human Connectome 2016  
The Mind Research Network: fMRI Image Acquisition and Analyses 2014