

# Yu Sun Chung, PhD

Curriculum Vitae

Email: ychung@kean.edu

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

## Education

Ph.D., Cognitive Psychology, Washington University in St Louis	2014
Cognitive, Computational & Systems Neuroscience Trainee	
Advisor: Drs. Deanna Barch & Todd Braver	
M.A., Clinical Psychology, Korea University	2005
B.A., Psychology, Korea University	2003

## Professional Appointments

Associate Editor, <i>Frontiers in Human Neuroscience</i>	2026 – Present
Assistant Professor of Psychology, Kean University, NJ	2024 - Present
Affiliated Faculty, Integrative Science and Technology	2025 - Present
Visiting Professor of Psychology, St Mary's College of Maryland, MD	2022 - 2024
Postdoctoral associate, Duke University, NC (Advisors: Marty Woldorff, Michael Gaffrey)	2019 - 2022
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 and Interest

- Adolescent brain development implicated in cognitive control and probabilistic reward learning
- Multimodal neuroimaging (e.g., fMRI, EEG/ERP), salivary hormone, and behavior methods
- Data science approaches and pedagogy using Adolescent Brain Cognitive Development Study®
- Biomarkers for adolescent depression (e.g., stress-induced inflammation marker, neural index of reward sensitivity)

## 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>).

#### Under Review

**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. Yang G\*, Li D\*, Kwak D, Ku B, **Chung, YS**. The relationship between urban exposures, frontal- limbic resting-state functional connectivity and child psychopathology using ABCD study.

2. **Chung, YS**, Li D\*, Yang G\*, Ali S\*, Shirtcliff, E., Kwak D. Association between air pollution, adrenarache, and frontal-limbic functional connectivity in preadolescents.

Working Project (Estimated duration for data collection: January - December 2026): \* Kean graduate student

1. **Chung, YS (PI)**, Joiner, D (co-PI), Hirpara, H\*. The impact of acute social stressors in virtual reality on reinforcement learning for adolescents.

## Funding Awards & Applications

### *Internal Funding*

#### President Research Fund

2025 - 2026

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: In Progress

(Amount: \$25,000)

### *External Funding*

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

04/26 – 03/27

(1S10GM164894-01)

Role: **Principal Investigator**

Title: *Mobile High-Density EEG System with Integrated Virtual Reality for Neuroscience Research and Education Capacity Building at Kean University*

Status: Competitive-Not Discussed

(Amount: \$113,214.82)

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

07/26 – 06/30

Role: **Researcher in the Thematic Affinity Research Groups**

Status: Under Advisory Council Review

(Amount: \$90,000)

#### NIH Support for Research Excellence-first Program (R16) (1R16GM159728-01A1)

07/26-06/30

Role: **Principal Investigator**

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

Status: Competitive-Not Discussed

(Amount: \$712,983)

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**

Early-Career Researcher Award, Kean University 2026

Students Partnering with Faculty 2025 - 2026  
Role: **Principal Investigator**  
co-PI: Dr. David Joiner, Kean University  
Project: *The Effectiveness of Virtual Reality Stressors in Immune Function and Reinforcement Learning*  
(Faculty Stipend: \$3,500, Student Stipend: \$7,000)

National Science Foundation's Build and Broaden Program 2024-2026

Role: Faculty Fellow

Title: *The Adolescent Neural Urbanome and Pubertal Development in the ABCD Study®*  
(Stipend: \$15,000)

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 2026) Fourth Annual Kean University End-of-Year Faculty Research Conference
2. Chung, YS (September 2025). International Society of Psychoneuroendocrinology, New Orleans, Louisiana.
3. Chung, YS (May 2025). Third Annual Kean University End-of-Year Faculty Research Conference
4. Chung, YS (April 2025) Kean Research Days
5. Chung, YS (October, 2021). 2021 Virtual Annual Meeting of the Society for Psychophysiological Research.
6. Chung, YS (April, 2019). Bowdoin College, Brunswick, Maine.

7. Chung, YS (April, 2019). Anxiety and Traumatic Stress Disorders Laboratory, McLean Hospital, Harvard Medical School, Belmont, MA.
8. Chung, YS (January, 2019). Psychological and Brain Sciences, University of Massachusetts, Amherst, MA.
9. Chung, YS (November, 2018). Shriver Academic Seminar, University of Massachusetts, Medical School, Worcester, MA.
10. Chung, YS (September, 2018). Developmental Biopsychiatry Research Program, McLean Hospital, Harvard Medical School, Belmont, MA.
11. Chung, YS (June, 2018). Clinical Neuroscience Laboratory, Martinos Center, Harvard Medical School, Boston, MA.
12. Chung, YS (May, 2015). Olin Neuropsychiatry Research Center, Hartford, CT.
13. Chung, YS (April, 2014). Laboratory of Neurocognitive Development, University of Pittsburgh Medical Center, Pittsburgh, PA.

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

1. Marchena, J.\* & **Chung, YS**. (May 2026). *Concurrent Associations between Salivary Hormones, Brain Network Organization, and Psychopathology in Adolescence*. e-poster presented at the Society of Biological Psychiatry, New York, USA.
2. **Chung, YS**, Bagdasarov, A, & Gaffrey, M. (May 2026). *Temporospatial Principal Components Analysis Reveals the Associations between Trait Positive Affect and Reward Positivity in Young Children*. Poster presented at the Society of Biological Psychiatry, New York, USA.
3. **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 presented at International Society of Psychoneuroendocrinology, New Orleans, Louisiana, USA.
4. **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 the Society of Biological Psychiatry, Toronto, Canada.
5. **Chung, YS**. (September 2024). *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.
6. Sullivan, A, **Chung, YS**, Novotny S, Epperson, CN, Kober, H, Gross J, Phillips, M, Blumberg, HP, Pearlson G, Stevens M (April 2022). *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.
7. Barratt, SM, Novonty S, **Chung, YS**, Kober H, Epperson CN, Phillips M, Oscher K, Gross J, Blumberg H, Pearlson G, Stevens MC (April 2022) *Estradiol effects of amygdala activity during emotion regulation in adolescent girls*. Poster presented at the Society of Biological Psychiatry, New Orleans, Louisiana, USA.
8. Camacho, NL, Bagdasarov, A, Caress, A, **Chung, YS**, and Gaffrey, MS. (September 2021). *Concurrent and longitudinal associations between early childhood reward responsivity and irritability*. Poster presented at the FLUX Virtual Congress.
9. **Chung, YS**, Poppe, AB, Novotny, S, Epperson, CN, Kober, H, Gross JJ, Pearlson GD, and Stevens MC (May 2018). *Estradiol modulation of female adolescent emotion regulation*. Poster presented at the Society of Biological Psychiatry, New York, USA.
10. Poppe, AB, Novotny, S, **Chung, YS**, Pearlson GD, Kober, H, Phillips M, Ochsner K, Gross J, Stevens MC (May 2018). *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.

11. Novotny, S, **Chung, YS**, Poppe, AB, Pearlson GD, Kober, H, Phillips M, Ochsner K, Gross J, Stevens MC (May 2018). *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.
12. **Chung, YS** and Stevens, MC (June 2017). *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.
13. **Chung, YS** and Stevens, MC (June 2017). *Adolescent sex differences in cortico- subcortical functional connectivity during inhibitory control.* Poster presented at the Organization for Human Brain Mapping, Vancouver, Canada.
14. **Chung, YS**, Hyatt, CJ and Stevens, MC (September 2016). *Cortical Folding Individual Differences Associated with Cognitive Ability in Adolescence.* Poster presented at the Annual Flux Congress, St. Louis, USA.
15. **Chung, YS** and Barch, DM (March 2015). *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.
16. **Chung, YS** and Barch, DM (April 2014). *The Temporal Dynamics of Motivated Cognitive Control: Relationships to Social Anhedonia.* Poster presented at the Cognitive Neuroscience Society, Boston, USA.
17. **Chung, YS** and Barch, DM (September 2013). *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.
18. **Chung, YS** and Barch, DM (October 2012). *Reward Context-Dependent and Cue- Driven Effects on Cognitive Control function In Schizophrenia.* Society for Research in Psychopathology, Ann Arbor, Michigan, USA.
19. **Chung, YS** and Barch, DM. (January 2012) *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.
20. **Chung, YS** and Barch, DM. (April 2011). *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.
21. **Chung, YS** and Barch, DM. (October 2010). *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.
- *Psychoneuroendocrinology and Virtual Reality* (across Psychology and Integrative Science and Technology) Via Research First Initiative (starting Spring 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.

## Mentoring Experience

### Independent Research

Spring 2026

Student: Jaslene De Jesus (Molecular Biology)

### Master Thesis Committee

May 2026

Student: Harsh Hirpara (Science & Tech Computational Sci & Engineering Opt, MS/BS)

Title: Applications of Virtual Reality in Life Sciences

### McNair Program

2025

Student: Aamillya Joseph

### NSF Build & Broad Undergraduate Student Fellow

2024 – 2026

Advisees: Dan Li, Shazab Ali, Guohao Yang, Jose Marchena, Aamillya Joseph

### 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 Service

Academic Standards & Policy Committee, College of Liberal Arts, Kean University

2025 -2028

### Cognitive Neuroscience Minor Program (in progress)

Spring 2026

#### **Approved New Courses:**

PSY 2500 Introduction to Cognitive Science

PSY 2903 Developmental Cognitive Neuroscience

PSY 3705 Lab Course in Cognitive Science

PSY3904 Psychoneuroendocrinology & Virtual Reality

## Community Service

### **Interactive STEM demonstration:**

Life Science Center, New Jersey	June, August 2026
Roselle Park High School, New Jersey	April 2026
Sustainability in Bloom, Kean University Skylands, New Jersey	April 2026
The STEAM Fair, Union High School, New Jersey	March 2026
Scientists Promoting Equity and Knowledge, Duke University, Member	2019-2021
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