

CURRICULUM VITAE

**RAJPREET CHAHAL, PH.D.**



ORCID iD

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**EDUCATION AND PROFESSIONAL HISTORY**

**EDUCATION**

- 2019- Postdoctoral Researcher, Department of Psychology, Stanford University, Stanford, CA  
Advisor: Dr. Ian H. Gotlib
- 2015-2019 Ph.D., Human Development, Designated Emphasis in Translational Research,  
University of California, Davis, CA  
Dissertation: Brain Networks and Developmental Heterogeneity of Depression  
Symptoms in Adolescence: A Precision Mental Health Perspective  
Advisor: Dr. Amanda E. Guyer
- 2008-2012 B.S., Psychology, Emphasis in Biology, University of California, Davis, CA

**POSITIONS**

- 2021-present Klingenstein Third Generation Foundation Postdoctoral Fellow in Child & Adolescent  
Depression (Advisor: Ian H. Gotlib), Department of Psychology, Stanford University,  
Stanford, CA
- 2019-present Ruth L. Kirschstein National Research Service Award Postdoctoral Fellow (Advisor: Ian  
H. Gotlib), Department of Psychology, Stanford University, Stanford, CA
- 2019-present Early Career Director, Board of Directors, Association for Clinical and Translational  
Science
- 2017-2019 TL1 Pre-Doctoral Clinical Research Training Scholar, Clinical and Translational Science  
Center, University of California Davis Health System, Sacramento, CA
- 2015-2019 Graduate Student Researcher (Advisor: Amanda E. Guyer), Center for Mind and Brain,  
University of California, Davis, CA

- 2017-2018 Graduate Student Teaching Assistant, Department of Human Ecology, University of California, Davis, CA
- 2012-2015 Research Specialist (Supervisors: Beatriz Luna and Michael Hallquist), University of Pittsburgh Medical Center, Pittsburgh, PA
- 2011-2012 Research Assistant (Supervisor: Joy Geng), Center for Mind and Brain, University of California, Davis, CA

## SCHOLARSHIP

### GRANTS

*The Executive Control Network: Characterizing Neurodevelopmental Subgroups of Adolescents to Predict Resilience to Depression*

Klingenstein Third Generation Fellowship in Child & Adolescent Depression

Investigator: Rajpreet Chahal

Supervisor: Ian H. Gotlib

Amount awarded: \$60,000

06/01/2021-05/31/2023

*The Effects of Early Life Stress on the Development of Brain Networks: Predicting Risk for Depression and Suicidal Ideation in Adolescence*

National Institutes of Health National Research Service Award (NRSA: 1F32MH120975-01A1)

Investigator: Rajpreet Chahal

Supervisor: Ian H. Gotlib

Amount awarded: \$180,000

04/01/2020-03/31/2023

*Effective Connectivity Biotypes Predicting Adolescent Depression*

TL1 Predoctoral Clinical Training Program (UL1 TR001860 and linked award TL1 TR001861)

National Center for Advancing Translational Sciences

Investigator: Rajpreet Chahal

Amount awarded: \$60,000

06/01/2017-05/31/2019

*Complementary Human and Animal Model to Determine the Impact of Puberty on the Maturation of Callosal Projections*

Seed grant (MRP-17-454825)

University of California Office of the President

Investigators: Linda Wilbrecht, Amanda E. Guyer, Kristen Delevich, Rajpreet Chahal

Amount awarded: \$6,230

1/1/19-12/31/19

*Puberty and Affective NeuroDevelopment in Adolescence (PANDA) Study*

Seed grant (MRP-17-454825)

University of California Office of the President

Investigators: Amanda E. Guyer, Ron Dahl, Rajpreet Chahal, Roberta Shriber

Amount awarded: \$7,500

2/1/16-12/31/17

**AWARDS, HONORS, AND FELLOWSHIPS**

- 2021-23 Klingenstein Third Generation Foundation Fellowship in Child and Adolescent Depression
- 2020-23 National Research Service Award (NRSA F32MH120975), National Institutes of Health
- 2019 Christine Westall Travel Award, Human Development Graduate Group, University of California Davis
- 2019 Gold Ribbon Poster Award, Association for Clinical and Translational Science Meeting
- 2019 Burroughs Wellcome Fund Trainee Travel Award, Association for Clinical and Translational Science Meeting
- 2017-19 TL1 Pre-Doctoral Clinical Training Scholar Award, Clinical and Translational Science Center, University of California Davis Health System
- 2018 Michael S. Gazzaniga Best Trainee Poster Prize, Center for Mind and Brain, University of California Davis
- 2018 Burroughs Wellcome Fund Trainee Travel Award, Association for Clinical and Translational Science Meeting
- 2018 Blue Ribbon Poster Award, Association for Clinical and Translational Science Meeting
- 2017 Graduate Student Association Travel Award, University of California Davis
- 2016 Travel Award, Human Development Graduate Group, University of California Davis
- 2016 Graduate Student Mentor Fellowship, Summer Poverty Research Engagement Experience, Center for Poverty Research, University of California Davis

**PEER-REVIEWED PUBLICATIONS**

1. Miller, J., **Chahal, R.**, & Gotlib, I.H. (2022) Early Life Stress and Neurodevelopment in Adolescence: Implications for Risk and Adaptation. *Current Topics in Behavioral Neurosciences: Neuroscience of Social Stress*. [https://doi.org/ 10.1007/7854\\_2022\\_302](https://doi.org/10.1007/7854_2022_302)
2. **Chahal, R.**, Ho, T.C., Miller, J.G., Borchers, L., & Gotlib, I.H. (2022) Sex-Specific Vulnerability to Depressive Symptoms Across Adolescence and during the COVID-19 Pandemic: The Role of the Cingulum Bundle. *Journal of Child Psychology and Psychiatry Advances: Invited Manuscript for the Special Issue on Sex Differences*. <https://doi.org/10.1002/jcv2.12061>
3. **Chahal, R.**, Miller, J.G., Yuan, J.P., Buthmann, J.S., & Gotlib, I.H. (2022) An Exploration of Early Adversity and the Development of Brain Network Connectivity During Adolescence: Implications for Trajectories of Internalizing Symptoms. *Development and Psychopathology: Invited Manuscript for*

*the Special Issue on Dimensions of Early Experience and Adaptive and Maladaptive Development.*  
<https://doi.org/10.1017/S0954579421001814>

4. Mukherjee, P., Vilgis V., Rhoads, S., **Chahal, R.**, Fassbender, C., Leibenluft, E., Dixon, J.F., Pakyurek, M., van den Bos, W., Hinshaw, S.P., Guyer, A.E., Schweitzer, J.B. (2021) Associations of irritability with functional connectivity of amygdala and nucleus accumbens in adolescents and young adults with ADHD. *Journal of Attention Disorders*. <https://doi.org/10.1177/10870547211057074>
5. Miller, J., Ho, T.C., Kirshenbaum, J.S., **Chahal, R.**, Gifuni, A., & Gotlib, I.H. (2021) Parenting experiences, amygdala-subgenual anterior cingulate cortex connectivity, and depressive symptoms in adolescents during the COVID-19 pandemic: a longitudinal investigation. *Biological Psychiatry: Global Open Science*. <https://doi.org/10.1016/j.bpsgos.2021.07.005>
6. Kirshenbaum, J.S., **Chahal, R.**, Ho, T.C., King, L.S., Gifuni, A.J., Mastrovito, D., Coury, S.M., Weisenburger, R.L., & Gotlib, I.H. (2021) Correlates and Predictors of the Severity of Suicidal Ideation in Adolescence: An Examination of Brain Connectomics and Psychosocial Characteristics. *Journal of Child Psychology and Psychiatry*. <https://doi.org/10.1111/jcpp.13512>
7. Borchers, L.R., Bruckert, L., **Chahal, R.**, Mastrovito, D., Ho, T.C., Gotlib, I.H. (2021) White matter microstructural properties of the cerebellar peduncles predict change in internalizing symptoms in adolescent girls. *The Cerebellum*. <https://doi.org/10.1007/s12311-021-01307-x>
8. Venticinque, J.S., **Chahal, R.**, Beard, S.J., Schriber, R.A., Hastings, P.D., & Guyer, A.E. (2021) Neural responses to implicit forms of social influence in young adults. *Social Neuroscience*. <https://doi.org/10.1080/17470919.2021.1911843>
9. Miller, J.G., **Chahal, R.**, Kirshenbaum, J.S., Ho, T.C., Gifuni, A.J., & Gotlib, I.H. (2021) Heart rate variability moderates the effects of COVID-19-related stress and family adversity on emotional problems in adolescents: testing models of differential susceptibility and diathesis stress. *Development and Psychopathology*. <https://doi.org/10.1017/S095457942100033X>.
10. Gotlib, I.H., Borchers, L.R., **Chahal, R.**, Gifuni, A.J., Ho, T.C. (2021) Early life stress predicts depressive symptoms in adolescents during the COVID-19 pandemic: The mediating role of perceived stress. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2020.603748>
11. **Chahal, R.**, Kirshenbaum, J.S., Ho, T., Mastrovito, D., & Gotlib, I.H. (2021) Greater age-related changes in white matter morphometry following early life stress: associations with internalizing problems in adolescence. *Developmental Cognitive Neuroscience: Special Issue on Childhood Adversity and Neurodevelopment*. <https://doi.org/10.1016/j.dcn.2020.100899>
12. **Chahal, R.**, Delevich, K., Kirshenbaum, J.S., Borchers, L., Ho, T., & Gotlib, I.H. (2021) Sex Differences in pubertal associations with fronto-accumbal white matter morphometry: implications for understanding sensitivity to reward and punishment. *Neuroimage*. <https://doi.org/10.1016/j.neuroimage.2020.117598>
13. **Chahal, R.**, Kirshenbaum, J.S., Miller, J.G., Ho, T., & Gotlib, I.H. (2021) Higher executive control network coherence buffers against puberty-related increases in internalizing symptoms during the COVID-19 pandemic. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*. <https://doi.org/10.1016/j.bpsc.2020.08.010>

Press releases for this paper:

- A. COVID-19's mental toll on teens. *Stanford News* (September 2020). <https://news.stanford.edu/2020/09/22/covid-19s-mental-toll-teens/#>
- B. Teen Brains and COVID-19. *Stay Tuned by NBC News* (October 2020). Video available by request.
- C. Anxiety in the COVID-19 Winter. Live broadcast on *News Nation: WGN America* (October 2020). Video available upon request.
- D. Brain connectivity predicts resilience to COVID-related stress. Elsevier Press Releases (October 2020). <https://www.elsevier.com/about/press-releases/research-and-journals/brain-connectivity-predicts-resilience-to-covid-related-stress>
- E. Stanford Study: Help for Teens With Depression and Anxiety During Covid. *Grown & Flown* (October 2020). <https://grownandflown.com/stanford-study-teen-depression-anxiety-covid/>
- F. Study ties teens' COVID-19 resilience to their ability to navigate life. *SCOPE by Stanford Medicine* (October 2020). <https://scopeblog.stanford.edu/2020/10/02/study-ties-teens-covid-19-resilience-to-their-ability-to-navigate-life/>
14. **Chahal, R.**, Weissman, D.G., Hallquist, M.N., Robins, R.W., Hastings, P.D., & Guyer, A.E. (2020). Neural connectivity biotypes: Associations with internalizing problems throughout adolescence. *Psychological Medicine*. <https://doi.org/10.1017/S003329172000149X>
15. **Chahal, R.**, Gotlib, I.H., & Guyer, A.E. (2020). Brain networks and the heterogeneity of adolescent depression: A precision mental health perspective. *Journal of Child Psychology and Psychiatry*. <https://doi.org/10.1111/jcpp.13250>
- Press releases for this paper:
- A. Young people's 'neural fingerprints' might permit a precision-medicine approach to depression. *The Association for Child and Adolescent Mental Health* (September, 2020). <https://www.acamh.org/research-digest/young-peoples-neural-fingerprints-might-permit-a-precision-medicine-approach-to-depression/>
16. **Chahal, R.**, Weissman, D., Marek, S., Rhoads, S., Hipwell, A.E., Forbes, E.E., Keenan, K., & Guyer, A.E. (2020). Girls' brain structural connectivity in late adolescence relates to history of depression symptoms. *Journal of Child Psychology and Psychiatry*. <https://doi.org/10.1111/jcpp.13184>
17. **Chahal, R.**, Vilgis, V., Grimm, K.J., Hipwell, A.E., Forbes, E.E., Keenan, K., & Guyer, A.E. (2018). Girls' pubertal development is associated with white matter microstructure in late adolescence. *Neuroimage*, 181, 659-669. <https://doi.org/10.1016/j.neuroimage.2018.07.050>
18. Hawes, S.W., **Chahal, R.**, Hallquist, M.N., Paulsen, D.J., Geier, C.F., & Luna, B. (2017). Modulation of reward-related neural activation on sensation seeking across development. *Neuroimage*, 147, 763-771. <https://doi.org/10.1016/j.neuroimage.2016.12.020>
19. Luna, B., Marek, S., Larsen, B., Tervo-Clemmens, B., & **Chahal, R.** (2015). An integrative model of the maturation of cognitive control. *Annual Review of Neuroscience*, 38, 151-170. <https://doi.org/10.1146/annurev-neuro-071714-034054>

1. **Chahal, R.**, Ho, T.C., Kirshenbaum, J.S., Miller, J.G., & Gotlib, I.H. (R&R) Neural subgroups based on executive control and default mode networks predict longitudinal changes in internalizing and externalizing symptoms during puberty. *Clinical Psychological Science*.
2. **Chahal, R.**, Ho, T.C., Miller, J.G., & Gotlib, I.H. (in review) Exploring Sex Differences in Trajectories of Pubertal Development and Mental Health Following Early Adversity. *Invited for Frontiers in Psychiatry: Special Issue on Pathways of Risk, Resilience, and Recovery: Impact of Stress and Trauma on Women and Girls*.
3. Yuan, J.P., Ho, T.C., **Chahal, R.**, Colich, N.L., Rosenberg-Hassen, Y., & Gotlib, I.H. (in review) Inflammation is Associated with Neural Activation to Positive Emotional Faces in Adolescents. *Brain, Behavior, and Immunity*.
4. Buthmann, J., Miller, J., **Chahal, R.**, Berens, A., & Gotlib, I.H. (in review) Early life stress, parental control, and stress reactivity predict emotional and behavioral problems in adolescence. *Developmental Psychobiology*.
5. Mastrovito, D.\*, **Chahal, R.\***, Kirshenbaum, J.S., Ho, T.C., Colich, N., & Gotlib, I.H. (in review) Developmental trajectories of brain functional connectivity over adolescence: Elucidating associations with age, pubertal stage, and hormones. *Developmental Cognitive Neuroscience* \*co-first authors.
6. Eckstrand, K., Lindenmuth, M., **Chahal, R.**, Guyer, A.E., Hipwell, A.E., Keenan, K., & Forbes, E.E. (in review) Adolescents' left dorsolateral prefrontal cortex activation during reward anticipation is associated with pubertal tempo and predicts risky sexual behaviors. *Psychological Science*.

#### **MANUSCRIPTS UNDER PREPARATION**

1. **Chahal, R.**, Borchers, L., Kirshenbaum, J.S., Ryu, J., & Gotlib, I.H. (in prep) Reward-related brain activation, resting-state functional connectivity, and white matter morphology link early life stress and internalizing symptoms in adolescence.
2. **Chahal, R.**, Vilgis, V., Hipwell, A.E., Forbes, E.E., Keenan, K., & Guyer, A.E. (in prep) Early and late pubertal timing: Similarities and differences in brain structural network connectivity in girls.
3. **Chahal, R.**, Marek, S., Vilgis, V., Weissman, D., Hastings, P.D., Robins, R.W., & Guyer, A.E. (in prep) Neural connectivity mechanisms linking off-time pubertal development and depression risk in adolescence.

#### **PROFESSIONAL PRESENTATIONS**

1. **Chahal, R.**, Ho, T.C., Kirshenbaum, J., Miller, J., Liu, S., & Gotlib, I.H. (May 2021). Neural subgroups based on directed functional networks reflect psychopathology risk and resilience. Invited flash talk presented at the 2021 meeting for *The Association for Psychological Science* (\*virtual format due to COVID-19).

2. **Chahal, R.**, Borchers, L., Kirshenbaum, J.S., Ryu, J., & Gotlib, I.H. (April 2021). Reward-related brain activation, resting-state functional connectivity, and white matter morphology link early life stress and internalizing symptoms in adolescence. Symposium paper presented at the 2021 meeting for *The Society of Biological Psychiatry* (\*virtual format due to COVID-19).
3. Lopez, V., Kirshenbaum, J., **Chahal, R.**, Coury, S., Segarra, J., Manber, R., Simon, E., & Gotlib, I.H. (April 2021). Resting-state functional connectivity and objective vs. subjective sleep quality in adolescence: a preliminary investigation. Poster presented at the 2021 meeting for *The Society for Research in Child Development*.
4. **Chahal, R.** (March 2021). Developing an early career niche in a growing translational science habitat. Talk presented as part of the 2021 *Association for Clinical and Translational Science Annual Scholar Retreat* (chair: **Chahal, R.**).
5. **Chahal, R.**, Miller, J.G., Gotlib, I.H. (March 2021). Neural and environmental predictors of symptoms of psychopathology in adolescents during the COVID-19 pandemic. Paper presented in the Developmental Invited Symposium: Impacts of COVID-19 at the 2021 meeting for the *Eastern Psychological Association* (\*virtual format due to COVID-19).
6. **Chahal, R.** (March 2021). Invited interview for University of Oregon's Translational Science of Adolescence course.
7. **Chahal, R.** (October, 2020). Early Life Stress Differentially Affects White Matter Tracts in Males and Females During Early Puberty: Associations with Internalizing and Externalizing Problems. Symposium paper presented at the 2020 meeting for *The American Academy of Child and Adolescent Psychiatry* (\*virtual format due to COVID-19).
8. **Chahal, R.**, Kirshenbaum, J.S., Miller, J.G., Ho, T., & Gotlib, I.H. (September 2020). Higher executive control network coherence buffers against puberty-related increases in internalizing symptoms during the COVID-19 pandemic. Invited flash talk and poster presented at the 2020 *Annual Flux Congress Meeting* (\*virtual format due to COVID-19).
9. Kirshenbaum, J.S., **Chahal, R.**, Ho, T.C., King, L., Gifuni, A., Mastrovito, D., Coury, S., Eisenburger, R., & Gotlib, I.H. (September 2020). Brain connectomics in early adolescence predict suicidal ideation severity in later adolescence. Poster presented at the 2020 *Annual Flux Congress Meeting* (\*virtual format due to COVID-19).
10. Kelman, A.E., Walker, J.C., Weisenburger, R.L., Kulla, A., Kirshenbaum, J.S., **Chahal, R.**, Ho, T.C., & Gotlib, I.H. (September 2020). Sensitivity to early life stress predicts change in amygdala-ventromedial prefrontal cortex functional connectivity across adolescence: A longitudinal investigation. Poster presented at the 2020 *Annual Flux Congress Meeting* (\*virtual format due to COVID-19).
11. Miller, J.G., Dennis, E.L., Ho, T.C., **Chahal, R.**, Gotlib, I.H. (September 2020). Stress in Early and Late Childhood Interact to Predict Structural Brain Development in Adolescence: Evidence for the Mismatch Stress Hypothesis. Poster presented at the 2020 *Annual Flux Congress Meeting* (\*virtual format due to COVID-19).
12. Venticinque, J., **Chahal, R.**, Beard, S.J., Guyer, A.E. (September 2020). Maternal Relationship Quality and Conflict Predicts Neural Response to Peer Influence in Adolescence. Poster presented at the 2020 *Annual Flux Congress Meeting* (\*virtual format due to COVID-19).

13. **Chahal, R.** (April, 2020). COVID-19: How Researchers Can Turn Crisis into Opportunity. Invited moderated panel discussion at the 2020 annual meeting for *The Association for Clinical and Translational Science* (\*virtual format due to COVID-19).
14. **Chahal, R.,** Marek, S., Weissman, D., Vilgis, V., Hastings, P., Robins, R., Keenan, K., Forbes, E., Hipwell, A.E., Guyer, A.E. (September, 2019). A multisample, multi-method study of connectivity mechanisms linking pubertal development and depression in adolescence. Symposium paper presented at the 2019 meeting for *The Society for Research in Psychopathology*, Buffalo, New York.
15. **Chahal, R.,** Marek, S., Weissman, D., Vilgis, V., Hastings, P., Robins, R., Keenan, K., Forbes, E., Hipwell, A.E., Guyer, A.E. (August, 2019). A multisample, multi-method study of connectivity mechanisms linking pubertal development and depression in adolescence. Poster presented at the 2019 *Annual Flux Congress Meeting*, New York City, New York.
16. Venticinque, J., **Chahal, R.,** Beard, S., Guyer, A.E. (August, 2019). *Neural Correlates of Social Influence on Preferences in Adolescence*. Poster to be presented at the 2019 Annual Flux Congress, New York City, New York.
17. **Chahal, R.** (July 2019). Functional connectivity mechanisms linking off-time pubertal development and depression in adolescence. Invited talk at the *Annual Bay Area Affective Science Meeting*, San Francisco State University, San Francisco, CA
18. **Chahal, R.** (June 2019). Functional connectivity mechanisms linking off-time pubertal development and depression in adolescence. Poster presentation at the *Annual Meeting of the Organization for Human Brain Mapping*, Rome, Italy.
19. **Chahal, R.,** Marek, S., Weissman, D., Hastings, P., Robins, R., Conger, R., & Guyer, A.E. (May 2019). Neural connectivity mechanisms linking off-time pubertal development and depression risk in adolescence. Poster presented at the *Annual Mind and Brain Poster Day at the Center for Mind and Brain*, Davis, California.
20. **Chahal, R.** (May 2019). Using neural connectivity biomarkers to predict internalizing symptomatology in adolescence. Paper presented at the *Annual Clinical and Translational Science Center Training Program Scholar Symposium*, Sacramento, California.
21. **Chahal, R.,** Vilgis, V., Hipwell, A.E., Forbes, E.E., Keenan, K., & Guyer, A.E. (March 2019). Early and late pubertal timing: Similarities and differences in brain structural network connectivity in girls. Poster presented at the *Biennial Meeting of the Society for Research in Child Development*, Baltimore, MD.
22. Eckstrand, K., Lindenmuth, M., **Chahal, R.,** Guyer, A.E., Hipwell, A.E., Keenan, K., Forbes, E. (March 2019). High-risk adolescent girls' neural response to reward varies with pubertal tempo and predicts risky sexual behavior. In J. Jarcho (chair), Neurocognitive mechanisms of reward processing and social dysfunction across childhood and adolescence. Symposium paper presented at the *Biennial Meeting of the Society for Research in Child Development*, Baltimore, MD.
23. Beard, S., **Chahal, R.,** Weissman, D., Robins, R., Hastings, P., Guyer, A.E. (March 2019). Neural response to social exclusion, depressive symptoms, and substance use in Mexican-origin adolescents.



Poster presented at the *Biennial Meeting of the Society for Research in Child Development*, Baltimore, MD.

24. **Chahal, R.** (March 2019). Neural connectivity mechanisms linking off-time pubertal development and depression risk in adolescence. Invited talk and poster at the *Annual Meeting of the Association for Clinical and Translational Science*, Washington, D.C. \*Burroughs Wellcome Fund Travel Award & Gold Ribbon Poster Award recipient.
25. **Chahal, R.** (February 2019). Connectivity-based subgroups: Associations with internalizing symptoms in adolescence. Invited talk UC Davis Clinical and Translational Science Center External Advisory Board Meeting at University of California Davis Health System, Sacramento, CA.
26. **Chahal, R.** (February 2019). fMRI data preprocessing: The “what” and “why”. Training workshop and talk presented at the *Center for Mind and Brain*, University of California Davis, CA.
27. **Chahal, R.** (August 2018). Multimodal approaches for developmental neuroscience research of adolescence. Invited talk at the *University of California Consortium on the Developmental Science of Adolescence Annual Summer Institute*, Los Angeles, CA.
28. **Chahal, R.** (July 2018). Using neural connectivity biomarkers to predict internalizing symptomatology in adolescence. Invited talk at the *First Annual Bay Area Affective Science Meeting*, Stanford University, Palo Alto, CA.
29. **Chahal, R.,** Weissman, D., Hastings, P., Robins, R., Conger, R., & Guyer, A.E. (June 2018). Using neural connectivity biomarkers to predict internalizing symptomatology in adolescence. Poster presented at the *Annual Meeting of the Organization for Human Brain Mapping*, Singapore.
30. **Chahal, R.,** Weissman, D., Hastings, P., Robins, R., Conger, R., & Guyer, A.E. (May 2018). Using neural connectivity biomarkers to predict internalizing symptomatology in adolescence. Poster presented at the *Annual Mind and Brain Poster Day at the Center for Mind and Brain*, Davis, California. \*Michael Gazzaniga Best Trainee Poster Prize winner.
31. **Chahal, R.** (May 2018). Using neural connectivity biomarkers to predict internalizing symptomatology in adolescence. Paper presented at the *Annual Clinical and Translational Science Center Training Program Scholar Symposium*, Sacramento, California.
32. **Chahal, R.,** Weissman, D., Hastings, P., Robins, R., Conger, R., & Guyer, A.E. (April 2018). Using neural connectivity biomarkers to predict depressive symptomatology in adolescence. Poster presented at the *Annual Meeting of the Association of Clinical and Translational Science*, Washington, D.C. \*Blue Ribbon Poster Award and the Burroughs Wellcome Fund Award recipient.
33. Guyer, A. E., **Chahal, R.\***, Hipwell, A. E., Keenan, K., & Forbes, E. E. (December, 2017). Risk for depression in adolescent girls: Associations with brain network architecture. Poster presented at the *Annual meeting of the American College of Neuropsychopharmacology*, Palm Springs, California.
34. **Chahal, R.,** Weissman, D., Hastings, P., Conger, R., & Guyer, A.E. (October, 2017). Using neural connectivity biomarkers to predict depressive symptomatology in adolescence. Talk given at the *University of California Davis Imaging Research Center Conference*, Sacramento, California.

35. **Chahal, R.**, Keenan, K., Forbes, E.E., Hipwell, A.E., & Guyer, A.E. (September, 2017). Depressive symptomatology and brain network architecture in adolescent girls. Poster presented at the *Annual Meeting of the The Flux Congress*, Portland, Oregon.
36. **Chahal, R.** (August, 2017). Social sensitivity: Understanding the roles of puberty and neural development. Invited talk at the *University of California Consortium on the Developmental Science of Adolescence Annual Summer Institute*, Los Angeles, CA.
37. **Chahal, R.**, Rhoads, S., Marek, S., Keenan, K., Forbes, E.E., Hipwell, A.E., & Guyer, A.E. (June, 2017). Brain network architectural development is associated with pubertal timing and tempo. Poster presented at the *Annual Meeting of the Organization for Human Brain Mapping*, Vancouver, Canada.
38. **Chahal, R.** (April, 2017). Childhood economic disparity and alterations in white matter integrity in late adolescence. In E. Forbes (chair), *Developmental psychopathology and the brain: Impact of challenging early social contexts on brain structure and function*. Symposium paper presented at the *Biennial Meeting of the Society for Research in Child Development*, Austin, Texas.
39. **Chahal, R.**, Vilgis, V., Grimm, K. J., Keenan, K., Forbes, E. E., Hipwell, A. E., & Guyer, A. E., (March, 2017). Pubertal timing and tempo: effects on white matter maturation. Poster presented at the *Tenth Annual Meeting of the Social & Affective Neuroscience Society*, Los Angeles, CA.
40. **Chahal, R.** (November, 2016). Neurobiological changes in puberty and implications of timing. Invited talk at the *UC Consortium on the Developmental Science of Adolescence Puberty Workshop*, Davis, CA.
41. **Chahal, R.** (November, 2016). Associations between early pubertal maturation and brain development. Paper presented at *Developmental Brown Bag*, University of California, Davis, CA.
42. **Chahal, R.**, Vilgis, V., Grimm, K. J., Keenan, K., Forbes, E. E., Hipwell, A. E., & Guyer, A. E. (September, 2016). Pubertal timing is associated with white matter tract development in late adolescence. Poster presented at the *4<sup>th</sup> Annual Meeting of the Flux Congress*, St. Louis, Missouri.
43. **Chahal, R.** (August, 2016). Neural indices of social influence as measured by the SIT: implications for puberty. Invited talk at the *University of California Consortium on the Developmental Science of Adolescence Annual Summer Institute*, Los Angeles, CA.
44. **Chahal, R.**, & Hallquist, M.N., (2014, June). Deficits in inhibitory control are associated with traits of personality dysfunction. Poster presented at the *Annual Western Psychiatric Institute and Clinic Research Conference*, Pittsburgh, PA.
45. **Chahal, R.**, Foran, W., Ponting, A., & Luna, B., (2013, June). Incentive influence on cognitive control in development. Poster presented at the *Annual Western Psychiatric Institute and Clinic Research Conference*, Pittsburgh, PA.
46. **Chahal, R.**, Stankevich, B., & Geng, J., (2012, June). Prioritization of attention based on reward. Poster presented at the *Annual University of California Davis Undergraduate Research Conference*, Davis, CA.

## RESEARCH EXPERIENCE

- 2019- F32 and Klingenstein Postdoctoral Scholar, Department of Psychology, Stanford University, Stanford, CA.  
PI: Ian H. Gotlib, Ph.D.
- Examining the effects of early life stress on the development of large-scale structural and functional brain circuits to understand when and in whom neurobiological alterations arise and confer risk for depression and suicidal ideation. The goal of this research is to guide person-centered approaches to detect vulnerability for and predict the course of depression.
- 2017-2019 TL1 Pre-Doctoral Clinical Training Scholar, Clinical Translational Science Center, University of California Davis Health, Sacramento, CA.
- NIH funded clinical training scholar in neurodevelopmental translational research. Collected and analyzed data related to using neural biomarkers in predicting depressive symptoms from adolescence to young adulthood.
- 2015-2019 Graduate Student Researcher, *Teen Experiences, Emotions, & Neurodevelopment Lab*, University of California, Davis, CA.  
PI: Amanda E. Guyer, Ph.D.
- Conducted behavioral, psychophysiological, and neuroimaging studies of mood, anxiety, risk-taking, and cognitive control in children, adolescents, and young adults. Processed and analyzed longitudinal datasets to examine interactions between pubertal maturation and brain development. Examined neurobiological risk for depression using diffusion tensor imaging, structural and functional imaging, and resting-state functional MRI.
- Dissertation work:** Examined topographical signatures in white matter tracts as they reflect the history of depressive symptoms in adolescent girls, and patterns of functional connectivity, revealed by neural biotyping, as they forecast future internalizing symptoms in at-risk adolescents
- 2012-2015 Research Specialist, *Laboratory of Neurocognitive Development*, University of Pittsburgh, PA.  
PI: Beatriz Luna, Ph.D.
- Coordinated recruitment efforts and collected data for multiple longitudinal studies investigating cognitive development in typically-developing and at-risk children, adolescents, and adults. Aided in implementation of imaging protocols. Trained research assistants in neuroimaging acquisition, tested subjects on behavioral and imaging protocols using eye-tracking, fMRI, MEG, and PET. Collected, coded, scripted, and analyzed data in R, Matlab, AFNI, and FSL. Examined neural influences on incentive processing and inhibitory control leading to one second-author manuscript and two posters. Contributed to a review of literature on cognitive control development, leading to co-authorship of a theory/review paper.
- 2013-2015 Research Specialist, *Laboratory for Developmental Personality Neuroscience*, University of Pittsburgh, PA.

PI: Michael N. Hallquist, Ph.D.

Coordinated study investigating neurodevelopmental origins of emotion dysregulation and impulsivity in Borderline Personality Disorder. Conducted structural clinical interviews using SCID and SIDP in children, adolescents, and adults. Assisted in design and carried out behavioral and neuroimaging data collection. Analyzed behavioral data linking cognitive performance and traits of personality dysfunction leading to a poster. Mentored undergraduate trainee in a study examining resting-state functional connectivity and personality traits.

2011-2012 Research Assistant, *Integrated Attention Lab*, University of California, Davis, CA.

PI: Joy Geng, Ph.D.

Recruited participants and administered eye-tracking studies exploring incentive influences on attentional control in young adults. Analyzed behavioral data and presented poster on findings.

2011-2012 Research Assistant, *Longitudinal Methods Lab*, University of California, Davis, CA.

PI: Kevin J. Grimm, Ph.D.

Coded longitudinal data in study examining longitudinal growth of cognition and emotion from early childhood to adulthood.

**CLINICAL EXPERIENCE**

July 2018-present Observer in Neurosurgery, Department of Neurological Surgery, University of California Davis Health, Sacramento, CA

June 2018 Rotating Trainee, Comprehensive Cancer Center, University of California Davis Health, Sacramento, CA

2012-2015 Clinical Interviewer, Western Psychiatric Institute and Clinic, University of Pittsburgh Medical Center, Pittsburgh, PA

**TECHNICAL TRAINING**

**NEUROIMAGING**

Acquisition, Processing, and Analysis of structural, diffusion, and functional (task and resting-state) MRI, MEG, PET

Neuroimaging Software: AFNI, FSL, SPM, GraphVar, Gephi, CONN, FreeSurfer, LONI, MRtrix, ANTs, fMRIPrep

Electrocardiogram and impedance cardiography: Biolab and Acknowledge software

**STATISTICAL SOFTWARE AND PROGRAMMING ENVIRONMENTS**

R/R Studio          Matlab          SPSS          E-Prime          Lisrel

SAS                      SQL                      Python                      Bash                      Nilearn

## **SERVICE**

### **PROFESSIONAL ACTIVITIES**

2020-2021	Expert Advisor, AP Capstone Research, Leland High School, San Jose CA
2020-	Chair, Scholar Special Interest Group, Association for Clinical and Translational Science
2019-	Early Career Director, Board of Directors, Association for Clinical and Translational Science
2018-2019	National TL1 Trainees Committee, National Center for Advancing Translational Science
2016, Fall	Student Representative, Human Development Faculty Search Committee, University of California, Davis

### **TEACHING EXPERIENCE**

2021, Spring	Guest Lecturer, <i>Developmental Psychopathology</i> (HDE 100B), University of California, Davis
2019, January	Organizer and Lecturer, <i>Neuroimaging Data Processing Workshop</i> , University of California, Davis
2018, Summer	Organizer and Lecturer, <i>Puberty Workshop: Analyzing Longitudinal Data</i> , University of California, Davis
2017, Spring	Teaching Assistant & Guest Lecturer, <i>Adolescent Development</i> (HDE 100B), University of California, Davis

### **JOURNAL REVIEWING**

Neuroimage  
 Biological Psychiatry  
 Psychological Medicine  
 Child Development  
 Social Cognitive and Affective Neuroscience  
 Developmental Cognitive Neuroscience  
 Biological Psychiatry: Cognitive Neuroscience and Neuroimaging  
 International Journal of Developmental Neuroscience  
 Frontiers in Human Neuroscience  
 British Journal of Psychiatry  
 Clinical Psychological Science  
 Child Development Perspectives

### **PROFESSIONAL AFFILIATIONS**

2020-present	American Academy of Child and Adolescent Psychiatry
2018-present	Society for Research in Psychopathology
2017-present	Association for Clinical and Translational Science
2016-present	Society for Research in Child Development
2016-present	Organization for Human Brain Mapping
2015-present	Flux Congress