

**Lauren R. Borchers, Ph.D.**

Department of Psychology, Stanford University

Phone: 650-521-7654

Email: [lrborchers@gmail.com](mailto:lrborchers@gmail.com)

Google Scholar: <https://tinyurl.com/yybxj85o>

GitHub: <https://github.com/lrborchers>

Twitter: [@lr\\_borchers](https://twitter.com/lr_borchers)

**Education**

---

- 2018-2022     Stanford University, Stanford, CA  
                  Ph.D. in Psychology  
                  Emphasis in Affective Science; GPA: 4.1
- 2021            Stanford University, Stanford, CA  
                  M.A. in Psychology; GPA: 4.1
- 2012-2015     University of Colorado Boulder, Boulder, CO  
                  B.A. in Psychology with Distinction; GPA: 3.9

**Research Training**

---

- 2022-           Research Fellow  
                  Laboratory for Affective and Translational Neuroscience  
                  McLean Hospital / Harvard Medical School, Department of Psychiatry  
                  Mentor: Dr. Diego A. Pizzagalli
- Identifying neural predictors of treatment response in patients with Major  
                  Depressive Disorder.
- 2018-2022     Ph.D. Candidate  
                  Stanford Neurodevelopment, Affect, and Psychopathology Lab  
                  Stanford University, Department of Psychology  
                  Mentor: Dr. Ian H. Gotlib
- Examining trajectories of symptoms and reward circuitry from childhood to  
                  adolescence following exposure to early life stress.
- 2016-2018     Clinical Research Coordinator  
                  Developmental-Behavioral Pediatrics Lab  
                  Stanford School of Medicine, Developmental-Behavioral Pediatrics

Mentors: Dr. Heidi M. Feldman and Dr. Virginia A. Marchman

Investigating the neural and behavioral correlates of reading in children born preterm and full term.

2014-2015      Research Assistant  
Center for Health and Addiction: Neuroscience, Genes, and Environment Lab  
University of Colorado Boulder, Department of Psychology  
Mentors: Dr. Kent E. Hutchison and Dr. Angela D. Bryan

Examining the effects of cannabis on working memory, heart rate variability, and cortisol levels.

### Honors and Professional Memberships

---

2022            Society for Neuroscience Member  
2020            American Association for the Advancement of Science  
2019            Association for Women in Science  
2017            Society for the Neurobiology of Language  
2016            Phi Beta Kappa Society Member  
2013            National Society of Collegiate Scholars Member  
2013-2015    Psi Chi National Honor Society, University of Colorado Boulder Chapter  
(President, Vice President, Secretary and Historian, Media Relations Officer)  
2012-2015    University of Colorado Boulder Dean's List

### Publications

---

\* Equal author contribution

Under review

1. Gotlib, I.H., Miller, J.G., **Borchers, L.R.**, Coury, S.M., Costello, L.A., Garcia, J.M., & Ho, T.C. (under review). Effects of the COVID-19 Pandemic on Mental Health and Brain Maturation on Adolescents: Implications for Analyzing Longitudinal Data. *Biological Psychiatry: Global Open Science*.
2. Gifuini, A.J.\*, **Borchers, L.R.\***, Ho, T.C., Kirshenbaum, J.S., & Gotlib, I.H. (under review). Frontolimbic Connectivity Predicts Negative Affect Changes and Stress Reactivity in Adolescents During the COVID-19 Pandemic.
3. Hosoki, M.H., **Borchers, L.R.**, Marchman, V.A., Travis, K.E., & Feldman, H.M. (under review). Longitudinal Associations of Behavioral Problems and Text Reading Skills in School-Aged Children Born Term and Preterm. Preprint: <https://doi.org/10.1101/2021.10.30.21265689>

2022

4. Chahal, R., Ho, T.C., Miller, J.G., **Borchers, L.R.**, & Gotlib, I.H. (2022). Sex-Specific Vulnerability and Resilience to Depressive Symptoms Across Adolescence and during the COVID-19 Pandemic: The Role of the Cingulum Bundle. *Journal of Child Psychology & Psychiatry Advances*. doi: <https://doi.org/10.1002/jcv2.12061>
5. Hosoki, M.H., Bruckert, L., **Borchers, L.R.**, Marchman, V.A., Travis, K.E., & Feldman H.M. (2022). Associations of Behavioral Problems and White Matter Properties of the Cerebellar Peduncles in Boys and Girls Born Full Term and Preterm. *The Cerebellum*. doi: <https://doi.org/10.1007/s12311-022-01375-7>

2021

6. **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 Symptoms of Psychopathology in Adolescent Girls. *The Cerebellum*. doi: <https://doi.org/10.1007/s12311-021-01307-x>

2020

7. Gotlib, I.H., **Borchers, L.R.**, Chahal, R., Gifuini, A.J., & Ho, T.C. (2020). Early Life Stress Predicts Depressive Symptoms in Adolescents During the COVID-19 Pandemic: The Mediating Role of Perceived Stress. *Frontiers in Psychology*. doi: <http://dx.doi.org/10.2139/ssrn.3606441>
8. **Borchers, L.R.**, Dennis, E.L., King, L.S., Humphreys, K.L., & Gotlib, I.H. (2020). Prenatal and Postnatal Depressive Symptoms, Infant White Matter, and Toddler Behavioral Problems. *Journal of Affective Disorders*. doi: <https://doi.org/10.1016/j.jad.2020.12.075>
9. Chahal, R., Delevich, K., Kirshenbaum, J.S., **Borchers, L.R.**, Ho, T.C. & Gotlib, I.H. (2020). Sex Differences in Pubertal Associations with Fronto-Accumbal White Matter Morphometry: Implications for Understanding Sensitivity to Reward and Punishment. *Neuroimage*. doi: <https://doi.org/10.1016/j.neuroimage.2020.117598>

2019

10. Bruckert, L., Shpanskaya, K., McKenna, E.S., **Borchers, L.R.**, Yablonski, M., Blecher, T., Ben-Shachar, M., Travis, K.E., Feldman, H.M., & Yeom, K.W. (2019). Age-Dependent Characteristics of the Cerebellar Peduncles from Infancy through Adolescence. *The Cerebellum*. doi: <https://doi.org/10.1007/s12311-018-1003-9>

11. Bruckert, L., **Borchers, L.R.**, Dodson, C.K., Marchman, V.A., Travis, K.E., Ben-Shachar, M., & Feldman, H.M. (2019). White Matter Plasticity in Reading-Related Pathways Differs in Children Born Preterm and at Term: A Longitudinal Analysis. *Frontiers in Human Neuroscience*. doi: <https://doi.org/10.3389/fnhum.2019.00139>
12. Dennis, E.L., Singh, A., Corbin, C.K., Jahanshad, N., Ho, T.C., King, L.S., **Borchers L.R.**, Humphreys, K.L., Thompson, P.M., & Gotlib I.H. (2019). Associations Between Maternal Depression and Infant Fronto-Limbic Connectivity. *2019 IEEE 16th International Symposium on Biomedical Imaging*. doi: [10.1109/ISBI.2019.8759513](https://doi.org/10.1109/ISBI.2019.8759513)
13. **Borchers, L.R.**, Bruckert, L., Dodson, C.K., Travis, K.E., Marchman, V.A., Ben-Shachar, M., & Feldman, H.M. (2019). Microstructural Properties of White Matter Pathways in Relation to Subsequent Reading Abilities in Children: A Longitudinal Analysis. *Brain Structure and Function*. doi: <https://doi.org/10.1007/s00429-018-1813-z>
14. **Borchers, L.R.**, Bruckert, L., Travis, K.E., Dodson, C.K., Loe, I.M., Marchman, V.A., & Feldman, H.M. (2019). Predicting text reading skills at age 8 years in children born preterm and at term. *Early Human Development*. doi: <https://doi.org/10.1016/j.earlhumdev.2019.01.012>

2018

15. Dodson, C.K., Travis, K.E., **Borchers, L.R.**, Marchman, V.A., Ben-Shachar, M., & Feldman, H.M. (2018). White Matter Properties Associated with Pre-Reading Skills in 6-Year-Old Children Born Preterm and at Term. *Developmental Medicine & Child Neurology*. doi: <https://doi.org/10.1111/dmcn.13783>

#### Awards and Funding

---

2022	Bio-X Star Mentor Award, Stanford University
2021	Recipient of Diversity Innovation Fund on behalf of Paths to Ph.D. Role: Writer, amount awarded: \$1,000
2019	Norman Anderson Fund Role: Writer, amount awarded: \$2,000
2017	Center for Cognitive and Neurobiological Imaging, Evaluating White Matter in Preschool Children Role: Writer, amount awarded: \$5,000

#### Conference Talks (first author)

---

2022	Symposium, Society for Research in Child Development in Salt Lake City, UT Decreasing Nucleus Accumbens Activation Mediates the Relation Between Perceived Maternal Criticism in Childhood and Symptoms of Psychopathology in Adolescence
2022	Symposium, Society for Neuroscience in San Diego, CA

Childhood Deprivation Predicts Increasing Activity of the Anterior Insula in Adolescent Girls: A Longitudinal Study

- 2022 Oral Presentation, Society of Biological Psychiatry in New Orleans, LA  
Trajectories of Depressive Symptoms and Reward Circuitry in Adolescence Following Early Life Stress: A Longitudinal Assessment
- 2021 Symposium, Society of Biological Psychiatry (virtual)  
Reward-Related Brain Activation, Functional Connectivity, and White Matter Morphology Link Early Life Stress and Internalizing Symptoms in Adolescence
- 2020 Oral Presentation, Society of Biological Psychiatry (virtual)  
The Effects of Maternal Depression on Infant White Matter Organization and Social-Emotional Development: A Longitudinal Study
- 2017 Oral Presentation, Western Society for Pediatric Research in Carmel, CA  
Developmental Differences in the Early Stages of Learning to Read in Children Born Preterm and Full Term

### Poster Presentations

---

# Mentee co-author

1. **Borchers, L.R.**, Leong, J.K., Mortazavi, L., & Gotlib, I.H. (2022). Trajectories of Nucleus Accumbens and Anterior Insula Activity Across Adolescence. Submitted for poster presentation at the Society for Neuroscience in San Diego, CA.
2. Costello, L.A., Buthmann, J., **Borchers, L.R.**, Dennis, E.L., Ho, T.C., & Gotlib, I.H. (2022). Quality of Maternal Caregiving Moderates the Association of Maternal Stress with Infant White Matter Cingulum Microstructure. Poster presentation at Flux in Paris, France.
3. Graber, A.E.<sup>#</sup>, **Borchers, L.R.**<sup>\*</sup>, Chahal, R, Coury, S.M., Humphreys, K.L., & Gotlib, I.H. (2022). Punishment Sensitivity and Risk-Taking Following ELS: Implications for Understanding the Development of Depressive Symptoms. Poster presentation at the Society of Biological Psychiatry, virtual.
4. Bruckert, L., Lerma-Usabiaga, G., **Borchers, L.R.**, Marchman, V.A., Travis, K.E., & Feldman H.M. (2021). Predicting growth in reading skills from change in white matter properties in children born preterm and full term. Oral presentation at the Pediatric Academic Societies, virtual.
5. Graber, A.E.<sup>#</sup>, **Borchers, L.R.**, King, L.S., Humphreys, K.L., & Gotlib, I.H. (2020). Prospective Associations of Mothers' Perinatal Depressive Symptoms and Life Stress with Their Toddlers' Emerging Psychopathology. Poster presentation at the Society for Research in Child Development Biennial Meeting, virtual.

6. Graber, A.E.<sup>#</sup>, **Borchers, L.R.**, King, L.S., Humphreys, K.L., & Gotlib, I.H. (2020). Associations Between Maternal Childhood Trauma and Offspring White Matter Organization. Poster presentation at Stanford Psych Summer, Stanford, CA.
7. **Borchers, L.R.**, Bruckert, L., Mastrovito, D., King, L.S., Ho, T.C., & Gotlib, I.H. (2019). Rumination Mediates Associations Between White Matter of the Cerebellar Peduncles and Depression in Adolescence. Poster presentation at the Society of Biological Psychiatry Meeting in Chicago, IL.
8. **Borchers, L.R.**, Bruckert, L., Travis, K.E., Ben-Shachar, M., & Feldman, H.M. (2018). Can Microstructural Properties of Cerebellar Pathways Improve Prediction of Reading Skills in Children? Poster presentation at the Pediatric Research Retreat, Stanford, CA.
9. Bruckert, L., **Borchers, L.R.**, Travis, K.E., Ben-Shachar, M., Feldman, H.M., & Yeom, K.W. (2018). Tracking the Development of Cerebellar White Matter from Infancy to Age 8 Years. Poster presentation at the Pediatric Research Retreat Stanford, CA.
10. **Borchers, L.R.**, Nguyen, T.H., Bruckert, L., Travis, K.E., Ben-Shachar, M., McCandliss, B.D., & Feldman, H.M. (2017). Developmental Change in Cerebellar White Matter Pathways is Associated with Reading Proficiency in Children. Poster presented at the 2017 Society for the Neurobiology of Language, Baltimore, MD.
11. **Borchers, L.R.**, Marchman, V.A., Travis, K.E., Dodson, C.K., Kovachy, V.N., Ben-Shachar, M., & Feldman, H.M. (2017). White Matter Properties at 6 Years Improve Prediction of Reading Skills at Age 8 Years. Poster presentation at the Pediatric Academic Societies, San Francisco, CA.
12. Loe, I.M., **Borchers, L.R.**, Marchman, V.A., & Feldman, H.M. (2017). Contributions of Executive Function to Behavior Symptoms in 6-Year-Old Preterm and Full Term Children. Poster presentation at the Pediatric Academic Societies, San Francisco, CA.
13. Dodson, C.K., Travis, K.E., **Borchers, L.R.**, Marchman, V.A., Ben-Shachar, M., & Feldman, H.M. (2017). White Matter Properties of 6-Year-Old Readers and Pre-Readers born Preterm and Full Term. Oral presentation at the Pediatric Academic Societies, San Francisco, CA.

### Coursework (selected)

---

Computational Neuroimaging (A+)  
Human Neuroimaging Methods (A+)  
Methodology of Research in Behavioral Sciences (A+)  
Experimental Methods (A)  
Statistical Methods for Behavioral and Social Sciences (A)  
Understanding Depression (A+)  
Affective Science (A)

### Software

---

R

AFNI  
FSL  
MATLAB  
Automated Fiber Quantification  
SPM  
FreeSurfer  
Python

## Teaching and Mentoring

---

### Course Assistant

Winter 2022	Understanding Depression (Dr. Ian Gotlib, ~20 students)
Autumn 2021	Introduction to Clinical Psychology: A Neuroscience Perspective (Dr. Ian Gotlib, ~150 students)
Winter 2021	Introduction to Clinical Psychology: A Neuroscience Perspective (Dr. Ian Gotlib, ~150 students; section instructor)
Spring 2020	Psych One (Dr. Jamil Zaki, ~150 students; section instructor)
Winter 2020	Longevity (Dr. Laura Carstensen, ~100 students; section instructor)
Fall 2019	Psych One (Dr. James Gross, ~150 students; section instructor)

### Mentoring

Honors thesis advisor for Abigail Graber, B.A. Stanford University, Psychology Major  
Title: Punishment Sensitivity and Risk-Taking Following Early Life Stress: Implications for Understanding the Development of Depressive Symptoms  
Funding: Stanford Psych (awarded 2019), Bio-X (awarded 2021)

Mahnoor Hyat, Francesca Querdasi, Johanna Walker, Rachel Weisenberger, Giana Teresi  
(Publications, Presentations, and/or Graduate School Applications)

## Academic Service

---

Department of Psychology, Stanford University

2019-2022	Diversity Committee (Member)
2019-2021	Paths to Ph.D. (Organizer)
2018-2019	Affective Science Seminar (Organizer)
2019-2020	Class Representative
2019-2020	Wellness Information Network for Graduate Students Representative

## References

---

Contact information for references available upon request.

