

Emily G. Jacobs

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RESEARCH DESCRIPTION

Steroid hormones regulate regions of the mammalian brain that support higher-order cognitive functions. My laboratory uses brain imaging, endocrine, and computational approaches to understand the extent to which endogenous and exogenous hormones influence the structural and functional architecture of the human brain. Major initiatives include the study of neuroendocrine aging during the midlife transition to menopause, pharmacological studies of gonadal hormone suppression, and dense-sampling studies across the menstrual cycle and pregnancy. For a complete description of current projects, see: <https://jacobs.psych.ucsb.edu>.

EDUCATION

- 2004-2010 **University of California, Berkeley**
Ph.D. in Neuroscience
- 2000-2004 **Smith College**
B.A. in Neuroscience, Phi Beta Kappa, Sigma Xi, cum laude
- 2003-2004 **Harvard College**
Visiting Undergraduate Students Program

APPOINTMENTS & EXPERIENCE

- 2021-present **Associate Professor, University of California, Santa Barbara**
Department of Psychological and Brain Sciences
Interdepartmental Graduate Program in Dynamical Neuroscience
Neuroscience Research Institute
Center for Feminist Futures
- 2021-present **Adjunct Senior Research Scientist, Sansum Diabetes Research Institute**
- 2015*-2021 **Assistant Professor, University of California, Santa Barbara**
**On-campus start 2016*
- 2013-2016 **Instructor in Psychiatry, Harvard Medical School**
Associate Scientist, Department of Medicine, Division of Women's Health,
Brigham & Women's Hospital
- 2012-2013 **Stuart T. Hauser CRTP Fellow, Harvard Medical School**
Clinical Research Training Program
- 2010-2012 **Robert Wood Johnson Foundation Health and Society Scholar**
University of California, San Francisco
- 2004-2010 **Helen Wills Neuroscience Institute, UC Berkeley**
Ph.D. Advisor: Mark D'Esposito, M.D.

Spring 2003

Institute of Cognitive Neuroscience, University College London

Mentor: Sarah-Jayne Blakemore, Ph.D.

2001-2003

Center for Developmental Cognitive Neuroscience, UMass Medical School

Mentor: Adele Diamond, Ph.D.

FUNDING

Current

2022-Present

“The UC Women’s Brain Initiative”

Noyce Initiative

\$2,200,000 multi-year award (*\$453,315 received; remainder pending*)

Role: PI

2022-2023

“The University of California Women’s Brain Initiative – Leveraging AI to Advance Women’s Health”

Noyce Initiative: UC Partnerships in Computational Transformation

\$202,134 18-month pilot award

Role: PI

2022-2023

“Aging in America: Leveraging the Frontiers of Aging Research to Promote Healthier Lives and Empowered Communities”

Critical Issues in American

\$25,000 1-year award

Role: PI with Co-PI’s Nicole Albada and Joel Rothman

2022

“Endocrine aging and dementia risk”

Remember When Trust

\$36,169 1-year award

Role: PI

2020-2025

“Impact of gonadal hormone suppression on regional and global brain architecture and cognition”

National Institutes of Health R01-AG063843

\$4,798,062, 5-year award

Role: PI (Co-PI: Matt Panizzon)

2020

“Impact of female reproductive history on Alzheimer’s disease risk”

California Department of Public Health 19-10612

\$157,365, 1-year award

Role: Co-I and Site PI, UCSB subaward: \$65,300

2020

“Organizational effects of sex steroid hormones on the maternal brain”

University of California, Santa Barbara Academic Senate Grant

\$13,905, 1-year award

Role: PI

2019-2020

“Identifying the impact of sex hormone suppression on brain morphology”

Hellman Family Fellows Fund

\$40,000, 1-year award

Role: PI

2019-2020 "Impact of hormone-based medication on human brain structure and function"
University of California, Santa Barbara Academic Senate Grant
\$20,000, 1-year award
Role: PI

2018-2020 "Sex differences in dopamine neurotransmission in the human brain: A molecular PET imaging study"
Brain and Behavior Research Foundation
\$70,000, 2-year award
Role: PI

2018-2022 "Investigating the impact of sex, menopausal status and +APOE4 on the neural correlates of episodic memory in healthy middle aged adults."
Canadian Institutes of Health Research (PI: Natasha Rajah)
Role: Consultant, 4-year award

2016-2021 "Cognitive Control in Anxiety: The Role of Ovarian Hormones"
National Institutes of Health R01 MH108511 (PI: Jason Moser)
Role: Consultant, 5-year award

Pending

Under Review "Sex hormones, spatial navigation, and the aging brain"
Role: PI, 5-year award
MPI: Elizabeth Chrastil, Co-I: Mary Hegarty
National Institutes of Health
\$4,974,865 5-year award

Previous

2018-2019 "Spatial navigation, sex hormones, and the aging brain"
California Nanosystems Institute Challenge Grant
\$50,000, 1-year award
Role: PI

2018-2019 "Impact of reproductive aging on spatial navigation"
University of California, Santa Barbara Academic Senate Grant
\$15,000, 1-year award
Role: PI

2018 "The role of sex hormones in the aging brain"
University of California Regents Junior Faculty Fellowship
\$7500, 1-year award
Role: PI

2013-2016 National Institutes of Health K12 HD051959 Career Development Award
Building Interdisciplinary Research Careers in Women's Health (BIRCWH)
\$300,000, 3-year award
Role: PI

2012 National Institutes of Health MH016259
NIH/Harvard Medical School Stuart T. Hauser CRTP Fellowship
\$88,680, 2-year award
Role: PI

2010-2012 Robert Wood Johnson Foundation Health and Society Fellowship
\$200,850, 2-year award
Role: PI

HONORS

2022 Science News Global SN 10: Ten Scientists to Watch
2019 Hellman Fellow
2017 Brain and Behavior Research Foundation NARSAD Young Investigator
2016 National Academy of Sciences "Frontiers of Science" Kavli Fellow
2013-2016 National Institutes of Health "BIRCWH" Women's Health Scholar
2014 Organization for the Study of Sex Differences Travel Award
2013 The American College of Neuropsychopharmacology Early Career Travel Award
2012 Harvard Medical School Stuart T. Hauser Clinical Research Fellow
2010-2012 Robert Wood Johnson Foundation Health and Society Scholar
2006-2009 National Science Foundation Graduate Research Fellow
2009 Elizabeth Roboz Einstein Fellow in Neuroscience, UC Berkeley
2006 Patricia Goldman-Rakic Fellow for Women in Neuroscience, UC Berkeley
2002, 2003 Howard Hughes Medical Institute Research Fellowship

PEER-REVIEWED PUBLICATIONS

+Trainees

1. Peterson N., Beltz A., Casto K., +Taylor C., **Jacobs E.G.**, Sundstrom-Poromaa, Pletzer B., (2023) On the neuroscience of hormonal contraception. *Nature Neuroscience*.
2. Greenwell S., Faskowitz J., +Pritschet L., Santander T. **Jacobs E.G.**, Betzel R. (2023) High-amplitude network co-fluctuations linked to variation in hormone concentration over menstrual cycle. *Network Neuroscience*.
3. Bernier R.A., Banks S.J., Panizzon M., Andrews M., **Jacobs E.G.**, Galasko D., Shepherd A.L., Akassoglou K., Sundermann E.E. (2021) The neuroinflammatory marker, sTNFR2, relates to worse cognition and Tau in women across the AD spectrum. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*.
4. +Pritschet L., +Taylor C., Santander T., **Jacobs E.G.** (2021) Applying dense-sampling methods to reveal dynamic endocrine modulation of the nervous system. *Current Opinions in Behavioral Science*. Special Issue on Deep Imaging, edited by: Caterina Gratton and Rodrigo Braga.
5. De Fillippe E., Uribe C., Avila-Varela D., Martinez-Molina N., +Pritschet L., Santander T., Kringelbach M, **Jacobs E.G.**, Deco G., Escrichs A. (2021) The menstrual cycle modulates whole-brain turbulent dynamics. *Frontiers in Human Neuroscience*.
6. +Yu S., Boone A., He C., Davis R., Hegarty M., Chrastil E., **Jacobs E.G.** (2021) Age related changes in spatial navigation are evident by midlife and differ by sex. *Psychological Science*. ***Featured Article, This Week in Psychological Science (TWiPS)**
7. Hegarty M., He C., Boone A., +Yu S., **Jacobs E.G.**, Chrastil, E. (2021) Understanding individual differences in wayfinding strategies. *Topics in Cognitive Science*.
8. +Taylor C., +Pritschet L., & **Jacobs E.G.** (2021) The scientific body of knowledge – whose body does it serve? A spotlight on oral contraceptives and women's health factors in neuroimaging. *Frontiers in*

9. de Lange AG., **Jacobs E.G.**, Galea LAM. (2021) The scientific body of knowledge – whose body does it serve? A spotlight on women’s brain health. Editorial in *Frontiers in Neuroendocrinology*. Special Issue “Beyond Sex Differences: A Spotlight on Women's Brain Health”
10. Gloe L, Kashy D, **Jacobs E.G.**, Klump K. Moser J. (2021) Examining the role of estradiol in the association between worry and working memory across the menstrual cycle. *Psychoneuroendocrinology*.
11. Mueller J., +Pritschet L., Santander T., Taylor C., Grafton S.T. ***Jacobs E.G.**, *Carlson J.M. (2021) Dynamic community detection reveals transient reorganization of functional brain network subcommunities across a female menstrual cycle. *Network Neuroscience*
*Co-senior authors
12. +Pritschet L., Santander T., +Taylor C., Layher E., +Yu S., Miller M.B., Grafton S.T., **Jacobs E.G.** (2020) Functional reorganization of brain networks across the human menstrual cycle. *NeuroImage* 220:117091 ***Cover Article**
13. +Taylor C., +Pritschet L., Olsen R., Layher E., Santander T., Grafton S.T., **Jacobs E.G.** (2020) Progesterone shapes medial temporal lobe volume across the human menstrual cycle. *NeuroImage* 220:117125 ***Editors’ Choice** Ref: Stevens, J. S. (2020). Brain structural changes in sync with the cycle. *Science Translational Medicine*, 12(553).
14. +Fitzgerald M., +Pritschet L., Santander T., Grafton S.T., **Jacobs E.G.** (2020) Cerebellar network organization across the human menstrual cycle. *Scientific Reports* 10:20732.
15. Casaletto K, Lindbergh C. et al. (2020) Sexual dimorphism of physical activity on cognitive aging: Role of immune functioning. *Brain, Behavior, and Immunity* 88: 699-710.
16. **Jacobs E.G.** (2020) Why neuroscience needs girls: Gender diversity drives scientific discovery. *Frontiers for Young Minds* 8:37 doi:10.3389/frym.2020.00037
17. Konishi K, Cherkerzian S, Aroner S, **Jacobs E.G.** et al. (2020) Impact of BDNF and sex on maintaining intact memory function in early midlife. *Neurobiology of Aging* 88:137-149.
18. +Taylor C., +Pritschet L., +Yu S., **Jacobs E.G.** (2019) Applying a women’s health lens to the study of the aging brain. *Frontiers in Human Neuroscience* doi: 10.3389/fnhum.2019.00224
19. Konishi K, Cherkerzian S, **Jacobs E.G.**, et al. (2019) Impact of adrenal hormones, reproductive aging, and major depression on memory decline in early midlife. *Brain Research* 1721(146303):1-14.
20. Seitz J, Kubicki M, **Jacobs E.G.**, et al. (2018) Impact of sex and reproductive status on memory circuitry structure and function in early midlife using structural covariance analysis. *Human Brain Mapping* 40(4): 1221-1233
21. **Jacobs E.G.** and Goldstein J.M. (2018) The Middle-Aged Brain: Biological sex and sex hormones shape memory circuitry. *Current Opinions in Behavioral Science* 23:84–91 doi:10.1016/j.cobeha.2018.03.009
22. **Jacobs E.G.**, Weiss B., Makris N., Whitfield-Gabrieli S., Buka S., Klibanski A., Goldstein J.M. (2017) Reorganization of functional networks in verbal working memory circuitry in early midlife: The impact of sex and menopausal status. *Cerebral Cortex* 27(5):2857-2870. PMID: 27178194.



23. Rentz D.M., Weiss B.K., **Jacobs E.G.**, Cherkerzian S, Klibanski A, Remington A, Aizley H, Goldstein J.M. (2017) Sex differences in episodic memory in early midlife: Impact of reproductive aging. *Menopause* 24(4):400-408.
 24. **Jacobs E.G.**, Weiss B., Makris N., Whitfield-Gabrieli S., Buka S., Klibanski A., Goldstein J.M. (2016) Impact of sex and menopausal status on episodic memory circuitry in early midlife. *The Journal of Neuroscience*. 36(39):10163-10173 PMID: PMC5039260 ***Featured Article**
 25. **Jacobs E.G.**, Holsen L., Lancaster K., Makris N., Whitfield-Gabrieli S., Remington A., Weiss B., Buka S., Klibanski A., Goldstein J.M. (2015) 17 β -Estradiol differentially regulates stress circuitry activity in healthy and depressed women. *Neuropsychopharmacology*. 40, 566-576. PMID: 25113601 PMID: PMC4289944
 26. Cohen J., Gallen C., **Jacobs E.G.**, Lee T., D'Esposito M. (2014) Quantifying the reconfiguration of intrinsic networks during working memory. *PLoS ONE*. 9(9): e106636. PMID: PMC4156328
 27. **Jacobs E.G.**, Epel ES, Lin J, Blackburn EH, Rasgon NL. (2014) Relationship between leukocyte telomere length, telomerase activity and hippocampal volume in early aging. *JAMA Neurology*. 71(7):921-923. PMID: PMC5287208
 28. **Jacobs E.G.**, Kroenke C, Lin J, Epel ES, Kenna HA, Blackburn EH, Rasgon NL. (2013) Accelerated cell aging in female APOE- ϵ 4 carriers: Implications for hormone therapy use. *PLoS ONE* 8(2): e54713. PMID: PMC3572118 ***Faculty of 1000 selection**
 29. John N., **Jacobs E.G.**, Mendoza-Denton R., Francis D.D. (2012) Wealth, health and the moderating role of implicit social class bias. *Annals of Behavioral Medicine* 45(2):173-179. PMID: 23229159
 30. **Jacobs E.G.**, D'Esposito M. (2011) Estrogen shapes dopamine-dependent cognitive function: Implications for women's health. *Journal of Neuroscience*. 31(14):5286-5293. PMID: PMC3089976 ***Featured Article**
 31. Cools R., Sheridan M., **Jacobs E.**, D'Esposito M. (2007). Impulsive personality predicts dopamine-dependent changes in frontostriatal activity during component processes of working memory. *Journal of Neuroscience*. 27(20):5506–5514 PMID: 1750757
 32. Wraga M., Helt M., **Jacobs E.**, & Sullivan K. (2007). Neural basis of stereotype-induced shifts in women's mental rotation performance. *Social, Cognitive, and Affective Neuroscience* 2(1):12-19 PMID: PMC2555429
 33. Wraga M., Duncan L., **Jacobs E.**, Helt M., & Church J. (2006). Stereotype susceptibility narrows the gender gap in imagined self-rotation performance. *Psychonomic Bulletin & Review* 13(5):813-9 PMID: 17328378
- In progress:*
34. *Taylor C., Furman D.J, Berry A.S., White R.L., Jagust W.J., D'Esposito M., **Jacobs, E.G.** Striatal dopamine synthesis and cognitive flexibility differ between hormonal contraceptive users and non-users (*In Review*)
 35. Louis C, **Jacobs E.G.**, D'Esposito M., Moser J. The interactive effect of estradiol and the catechol-o-methyltransferase gene on working memory performance: A replication and extension. (*In Review*).
 36. *Grotzinger H, *Pritschet L., Santander T., and **Jacobs, E.G.** Diurnal fluctuations in steroid hormones tied to variation in intrinsic functional connectivity in a densely sampled male (*In prep*)

37. *Taylor C, *Pritschet L., Santander T., Layher E., Grotzinger H., Chrastil E., and **Jacobs, E.G.** Structural and functional brain changes observed over the course of a human pregnancy (*In prep*)
38. *Pritschet L. and **Jacobs, E.G.** MRI Deep Phenotyping (*In prep for Encyclopedia of Human Brain, 2nd Edition*)
39. Gallen C., Hwang K., Chen A., **Jacobs, E.G.**, Lee T., D'Esposito M. Influence of selective attention on modular brain network organization during working memory (*In prep*)
40. Wolcott NS, Redman WT, **Jacobs EG**, Goard MJ. Hormonal modulation of CA1 neuron morphological dynamics in vivo. (*In prep*)

DISTINGUISHED / KEYNOTE LECTURES

- “Dynamic endocrine modulation of the nervous system” 29th Keynote Lecture Annual meeting of the **Organization for Human Brain Mapping** (2023, July) Host: Mallar Chakravarty
- “The New Science of Women’s Brain Health” **Brain Health Presents** Distinguished Lecture Series (2023, April) Host: Jennifer Zientz
- “Applying dense-sampling methods to reveal dynamic endocrine modulation of the nervous system” Distinguished Lecture Series **Buck Institute** (2023, January) Host: Jennifer Garrison
- “The brain as an endocrine organ” Exploring the Mind Distinguished Lecture Series **University of California, Davis Center for Mind and Brain** (2021, March) Host: George (Ron) Mangun, Ph.D.
- “Interrogating the role of sex hormones in the human brain” Keynote Speaker Larry L. Hillblom Foundation Brain Aging Symposium **University of California, San Francisco** (2020, September) Host: Joel Kramer, M.D.
- “Sex steroids and the aging brain – Applying a women’s health lens to cognitive neuroscience” Keynote Speaker Science and Gender Equality Symposium (“SAGE 2.0”) UKE, **Hamburg, Germany** (2018, March). Host: Sina Trautmann-Lengsfeld, Ph.D.

INVITED LECTURES

- “Applying dense-sampling methods to reveal dynamic endocrine modulation of the nervous system” **Whistler Scientific Workshop on Brain Functional Organization** (2023, February) Host: Tod Constable
- “Applying dense-sampling methods to reveal dynamic endocrine modulation of the nervous system” **University of Toronto Neurology Grand Rounds** (2022, November) Host: Gillian Einstein
- “Interrogating the role of sex hormones in the human brain” **University of Illinois Neuroscience Seminar Series** (2022, September) Host: Sepideh Sadaghiani
- “Applying dense-sampling methods to reveal dynamic endocrine modulation of the nervous system” **1st International Reproductive Aging Conference** (2022, June) Host: Jennifer Garrison
- “Interrogating the role of sex hormones in the human brain” **International Association for Premenstrual Disorders** (2022, May) Host: Tory Eisenlohr-Moul

- “Interrogating the role of sex hormones in the human brain” **University of California, Riverside** *Cognition and Cognitive Neuroscience Area* (2022, March) Host: Ilana Bennett
- “Interrogating the role of sex hormones in the human brain” **Medical College of Georgia, Department of Neurology** (2022, January) Host: Xin-Yun Lu, Ph.D.
- “The scientific body of knowledge – whose body does it serve?” **UCSB Library Pacific View Speaker Series** (2021, October) Host: Alex Regan
- “Interrogating the role of sex hormones in the human brain” **National University of Singapore, Centre for Sleep & Cognition** (2021, June) Host: Thomas Yeo, Ph.D.
- “Sex hormones shape the structural and functional architecture of the human brain” Grand Rounds **University of California, San Francisco** *Memory and Aging Center* (2021, May) Host: Bruce Miller, M.D.
- “Dense sampling approaches to illuminating sex hormones’ impact on the functional architecture of the human brain” Annual Meeting of the **Social and Affective Neuroscience Society** (2021, April) Host: Kyle Ratner, Ph.D.
- “Interrogating the role of sex hormones in the human brain” Women’s Health Brain Cluster, “Menopause Fireside Chat” Lecture Series, **University of British Columbia**, (2021, April) Host: Liisa Galea, Ph.D.
- “Interrogating the role of sex hormones in the human brain” **Feindel Brain and Mind Lecture Series** **Montreal Neurological Institute, Montreal, Canada** (2021, February) Host: Nathan Spreng, Ph.D.
- “Interrogating the role of sex hormones in the human brain” **UT Austin** (2021, February) Host: Jessica Church-Lang, Ph.D.
- “Interrogating the role of sex hormones in the human brain” Institute of Neuroscience **Texas A&M** (2020, September) Host: Jessica Bernard, Ph.D.
- “Sex hormones influence the functional architecture of the human brain” Women’s Brain Health Symposium. **University of British Columbia**, Vancouver, Canada. (2020, May) Host: Liisa Galea
*postponed to 2021 due to COVID-19
- “Interrogating the role of sex hormones in the human brain” Department of Psychology, **University of California, Los Angeles** (2020, January) Host: Patricia Cheng, Ph.D.
- “The role of sex hormones in the aging brain” University of California and Nanyang Technological University of Singapore Joint Workshop on Healthy Aging. (2019, December) **University of California, Los Angeles** Invited by UC Provost Michael T. Brown
- “Sex steroids and the aging brain” Douglas Brain Imaging Center Lecture Series, Department of Psychiatry, McGill University, **Montreal, Canada** (2019, September) Host: Maria Natasha Rajah, Ph.D.
- “Gender diversity drives scientific discovery” Groundbreaking Research and Innovative Technology (GRIT) Lecture Series, **University of California, Santa Barbara** (2019, June). Host: Lina Kim, Ph.D.
- “The neuroendocrine basis of cognitive aging” Clinical Psychophysiology Group, Department of Psychology, **Michigan State University** (2019, May). Host: Jason Moser

- “Sex and menopausal status shape early changes in episodic memory function” Talk presented in celebration of the 25th Anniversary of the Office of Research on Women’s Health (ORWH) and BIRCIWH Annual meeting, Natcher Conference Center, **National Institutes of Health** (2016, May). Introduced by: Jill Goldstein, Ph.D., Host: Lisa Begg, Dr.P.H. and Janine Clayton, M.D.
- “Role of estrogen in regulating stress circuitry” Kavli Summer Institute in Cognitive Neuroscience, Topic: “The Stressed Brain” **University of California, Santa Barbara** (2016, June). Host: Barry Giesbrecht, Ph.D.
- “Interrogating the role of sex steroid hormones in memory circuitry” 15th Annual Integrative Center for Learning and Memory Symposium, **University of California, Los Angeles** (2016, May). Hosts: Alcino Silva, Ph.D., Michael Fanselow, Ph.D., David Glanzman, Ph.D.
- “Reorganization of functional networks in memory circuitry in early midlife: The role of sex and menopausal status”. Annual Neurosciences Interdisciplinary Retreat, **BWH Institute for Neurosciences**, (2015, November). Host: Anu Swaminathan, PhD., c/o Brigham Research Institute Executive Committee
- “Fetal origins of the aging of memory circuitry”. Robert Wood Johnson Foundation Health and Society Seminar Series, **Harvard T.H. Chan School of Public Health**, (2015, November). Host: Lisa Berkman, Ph.D.
- “Interrogating the role of sex steroid hormones in memory circuitry” Department of Psychology, **Columbia University**, (2015, May). Host: Sarah Woolley, Ph.D.
- “Interrogating the role of sex steroid hormones in memory circuitry” Department of Psychological and Brain Sciences, **University of California, Santa Barbara**, (2015, April). Host: Miguel Eckstein, Ph.D.
- “Interrogating the role of sex steroid hormones in memory circuitry” Department of Psychology, **University of Michigan**, (2015, March). Host: Martin Sarter, Ph.D.
- “Relationship between reproductive senescence and the aging of memory circuitry” Department of Medicine, Division of Women’s Health Cross-disciplinary Women’s Health Seminar Series, **Brigham and Women’s Hospital** (2015, January). Host: Tamarra James-Todd, Ph.D.
- “Use of functional MRI to investigate the role of gonadal hormones in brain function” Men’s Health: Aging and Metabolism Unit, Division of Endocrinology, **Harvard Medical School** (2014, November). Host: Shehzad Basaria, M.D.
- “Use of PET imaging and functional MRI and to investigate the role of gonadal hormones in brain function” BRI Functional and Molecular Neuroimaging Salon, **Brigham and Women’s Hospital** (2014, September). Host: Emily Stern, M.D.
- “Early chromosomal and neural markers of aging in mid-life men and women: A lifespan perspective” Center for Depression, Anxiety and Stress Research, **McLean Hospital** (2014, June). Host: Diego Pizzagalli, Ph.D.
- “Chromosomal and neural markers of aging in mid-life men and women: A lifespan perspective” Psychiatric Genetics and Translational Research Seminar, **Massachusetts General Hospital** (2014, May). Host: Jordan Smoller, M.D., Sc.D.
- “Chromosomal and neural markers of aging in mid-life men and women: A lifespan perspective” Research Initiatives Seminar, **Brigham and Women’s Hospital** (2014, January). Host: Hadine Joffe, M.D., M.Sc.
- “Estrogen’s role in shaping prefrontal cortical function” Neuroscience Seminar Series, **UCSF Center for Neurobiology and Department of Psychiatry** (2012, November). Host: Dhakshin Ramanathan, M.D., Ph.D.

- “Estrogen use and telomere attrition in post-menopausal women” Building Interdisciplinary Research Careers in Women’s Health (BIRCWH) Seminar, **UCSF School of Medicine** (2012, September). Hosts: Monica Gandhi, M.D. and Ruth Greenblatt, M.D.
- “Pharmacoendocrinology and the brain: Why estrogen’s influence on neurochemistry matters for women’s health.” **Massachusetts Neuropsychological Society**, Boston, MA. (2011, November). Host: Mary Coakley-Welch, Ph.D.
- “Estrogen and the Brain.” Seminar given at the **30th Annual Renaissance Weekend**, Charleston, SC. (2010, December) Host: Ambassador Philip Lader, J.D., Ph.D. and Linda Lader, M.Div.
- “Individual differences in cognition.” **Google Tech Talk**, Mountainview, CA. (2010, May) Host: Peter Jin Hong
- “A women's health approach to frontal lobe function.” **Smith College**, Northampton, MA. (2009, September) Host: Mary Harrington, Ph.D.

CONFERENCE PRESENTATIONS

+Trainees

2022

1. **SfN Professional Development Workshop** (November 2022) “Why and how to account for sex and gender in brain and behavioral research” with talks by **Emily Jacobs** (UCSB) Annaliese Beery (Berkeley), Margaret McCarthy (Maryland), Lise Elliot (Chicago Med.) & Sarah Richardson (Harvard). Talk and panel discussion held in conjunction with the 50th Annual Meeting of the Society for Neuroscience. Washington D.C. *carried forward from 2021 due to COVID-19
2. Bekir S., Santander T., +Pritshet L., **Jacobs EG**, Miller M. (May 2022) Progesterone-Mediated Interhemispheric Decoupling Hypothesis Revisited using Dense Sampling and Intrinsic Functional Connectivity. Poster presented at Cognitive Neuroscience Society, San Francisco, CA
3. +Pritshet L. Applying dense sampling methods to reveal endocrine modulation of the central nervous system. **Talk** presented at the Organization for the Study of Sex Differences (Marina del Rey, CA)
4. +Taylor C. Differences in dopamine synthesis and task switching performance between hormonal contraceptive users and non-users. **Talk** presented at the Organization for the Study of Sex Differences (Marina del Rey, CA)
5. +Grotzinger H., +Pritshet L., Santander T., **Jacobs EG** (May 2022) Diurnal fluctuations in testosterone tied to variation in intrinsic functional connectivity in a densely sample male (New Orleans, LA) and the Organization for the Study of Sex Differences (Marina del Rey, CA)
6. +Murata E., +Pritshet L., **Jacobs EG** (May 2022) Impact of reproductive stage on working memory. Poster presented at the Society for Biological Psychiatry (New Orleans, LA) and the Organization for the Study of Sex Differences (Marina del Rey, CA)
7. **Symposium** “Insights into human cognition from precision fMRI of individuals” Talk: Applying dense-sampling methods to reveal dynamic endocrine modulation of the nervous system **Cognitive Neuroscience Society** (2022, April) San Francisco, CA
8. Wu E., Olafson E., Dhamala E., +Pritshet L., Santander T., **Jacobs EG**, Kuceyeski A. (June 2022) Estradiol and progesterone relate to brain state dynamics. Poster presented at the Organization of Human Brain Mapping.
9. Saelzer U., et al., (April 2022) Acceleration of age-related cognitive change following the menopause transition. Poster presented at the Cognitive Aging Conference, Atlanta, GA

2021

10. Konishi K., **Jacobs E.G.**, Smith B., et al. (December 2021) Association between telomere length and early midlife memory function: Impact of sex, reproductive aging, and cardiovascular disease. National Institutes of Health Annual BIRCWH Women's Health Conference
11. ⁺Taylor C. & **Jacobs E.G.** (November, 2021) "Differences in dopamine synthesis and task switching performance between hormonal contraceptive users and non-users" Poster presented at the 50th Annual Meeting of the Society for Neuroscience, Chicago, IL.
12. ⁺Murata E. & **Jacobs E.G.** (November, 2021) "Impact of Reproductive Stage on Working Memory Circuitry" Poster presented at the 50th Annual Meeting of the Society for Neuroscience, Chicago, IL.
13. ⁺Grotzinger H., ⁺Pritschet L., Santander T. & **Jacobs E.G.** (November, 2021) "Diurnal fluctuations in testosterone tied to variation in intrinsic functional connectivity in a densely sample male" Poster presented at the 50th Annual Meeting of the Society for Neuroscience, Chicago, IL.
14. Greenwell S., Faskowitz J., ⁺Pritschet L., Santander T. **Jacobs E.G.**, Betzel R. (November, 2021) "High-amplitude network co-fluctuations linked to variation in hormone concentration over menstrual cycle." Poster to be presented at the 50th Annual Meeting of the Society for Neuroscience, Chicago, IL.
15. Sundermann E., **Jacobs E.G.**, Sealzer U., Banks S., Shadyab A., ⁺Taylor C., Panizzon M. (TBD) Age at menopause relates to later-life hippocampal volume in an APOE4-specific manner. Alzheimer's Association International Conference *virtual conference due to COVID-19
16. Konishi K., **Jacobs E.G.**, Smith B., et al. (Spring 2021) Association between telomere length and early midlife memory function: Impact of sex, reproductive aging, and cardiovascular disease. Organization for the Study of Sex Differences *virtual conference due to COVID-19
17. Wu E., Dhamala E., ⁺Pritshet L., Santander T., **Jacobs EG**, Kuceyeski A. (May 2021) Increased estradiol and progesterone are largely associated with increased segregation of the brain's functional connectivity network. Poster presented at the Organization of Human Brain Mapping *virtual conference due to COVID-19
18. Cai C., Dhamala E., ⁺Pritshet L., Santander T., **Jacobs EG**, Kuceyeski A. (May 2021) Intrinsic fluctuations in estradiol and progesterone are not related to moment-to-moment changes in functional co-activations. Poster presented at the Organization of Human Brain Mapping *virtual conference due to COVID-19

2020

19. Panizzon M., Sundermann E., **Jacobs E.G.** et al. (July 2020) "Lifetime endogenous estrogen exposure in women influences risk of dementia" Alzheimer's Association International Conference. Amsterdam, Netherlands *virtual conference due to COVID-19
20. ⁺Pritschet L., **Jacobs E.G.** (2020, May) "Functional reorganization of brain networks across the human menstrual cycle" University of British Columbia Women's Brain Health Symposium. Vancouver, Canada *postponed to Fall 2020 due to COVID-19
21. ⁺Taylor C., **Jacobs E.G.** (2020, May) "Progesterone shapes medial temporal lobe volume across the human menstrual cycle" University of British Columbia Women's Brain Health Symposium. Vancouver, Canada *virtual talk due to COVID-19 ***Recipient of the Women's Brain Health Young Investigator Prize**
22. ⁺Taylor C., **Jacobs E.G.** (2020, May) "Progesterone shapes medial temporal lobe volume across the human menstrual cycle" 13th Annual Meeting of the Organization for the Study of Sex Differences. Marina del Rey, CA *presentation postponed to 2021 due to COVID-19 ***Recipient of the OSSD Travel Award**
23. ⁺Pritschet L., **Jacobs E.G.** (2020, May) "The scientific body of knowledge-Whose body does it serve? A spotlight on human neuroscience" 13th Annual Meeting of the Organization for the Study of Sex Differences. Marina del Rey, CA *presentation postponed to 2021 due to COVID-19 ***Recipient of the NIH/Office of Research on Women's Health Science Policy Award**

24. ⁺Pritschet L., **Jacobs E.G.** (2020, May) "Functional reorganization of brain networks across the human menstrual cycle" 13th Annual Meeting of the Organization for the Study of Sex Differences. Marina del Rey, CA *postponed due to COVID-19
25. ⁺Yu S., **Jacobs E.G.** (2020, May) "Sex differences and age-related changes in spatial navigation" 13th Annual Meeting of the Organization for the Study of Sex Differences. Marina del Rey, CA *postponed due to COVID-19
26. Sundermann E., Panizzon M., **Jacobs E.G.** et al. (2020, February) "CSF inflammatory markers relate to poorer cognition in women but not men across the aging-MCI-AD continuum" 48th Annual Meeting of the International Neuropsychological Society

2019

27. Konishi J, Cherkerzian S, **Jacobs E.G.**, et al. (December, 2019) "Prenatal stress exposure modulates resting state functional connectivity in adulthood". Poster presented at the 58th Annual Meeting of the American College of Neuropsychopharmacology
28. ⁺Pritschet L., Santander T., ⁺Taylor C... **Jacobs E.G.** (June, 2019) "Estradiol shapes resting state functional connectivity strength over a complete reproductive cycle" Poster presented at the Organization of Human Brain Mapping, Rome, Italy.
29. ⁺Taylor C.T., ⁺Pritschet L., Santander T... **Jacobs E.G.** (June, 2019) "Human hippocampal subfield volume variability across one complete reproductive cycle" Poster presented at the Organization of Human Brain Mapping, Rome, Italy.
30. Layher E., ⁺Pritschet L., Santander T., ⁺Taylor C., ⁺Yu S., Grafton S., **Jacobs E.G.**, Miller M. (June, 2019) "Within-subject fMRI analyses of the successful retrieval effect in recognition memory" Poster presented at the Organization of Human Brain Mapping, Rome, Italy.

2018

31. **Jacobs E.G.** (October, 2018) "The middle-aged brain: Interrogating the role of sex hormones in memory circuitry" *Symposium and Talk* presented at the Society for Psychophysiological Research, Quebec City, Canada
32. **Jacobs E.G.** (May, 2018) "Sex Hormones and the Aging Brain" *Symposium and Talk* presented at the Association for Psychological Science, San Francisco, CA
33. Konishi J, Cherkerzian S, **Jacobs E.G.**, et al. (December, 2018) "Steroid hormones, reproductive aging and major depression: Sex differences in memory decline in early midlife. Poster presented at the 57th Annual Meeting of the American College of Neuropsychopharmacology
34. ⁺Taylor C. & **Jacobs E.G.** (November, 2018) "The impact of oral hormonal contraceptives on the central nervous system – a population approach" Poster presented at the 48th Annual Meeting of the Society for Neuroscience, San Diego, CA.
35. ⁺Pritschet L. & **Jacobs E.G.** (November, 2018) "Reproductive aging shapes top-down, goal-directed modulation of visual attention" Poster presented at the 48th Annual Meeting of the Society for Neuroscience, San Diego, CA.
36. **Jacobs E.G.** (October, 2018) "The middle aged brain – the role of sex hormones in memory circuitry" *Symposium and Talk* given at the 58th Annual Meeting of the Society for Psychophysiological Research, Quebec City, Canada
37. ⁺Taylor C. & **Jacobs E.G.** (May, 2018) "Determining the impact of oral hormonal contraceptives on the central nervous system" Poster presented at the 12th Annual Meeting of the Organization for the Study of Sex Differences, Atlanta, CA. **Florence T. Haseltine Award for outstanding poster by a new investigator*
38. **Jacobs E.G.** (May, 2018) "Sex steroids and the aging brain" *Symposium and Talk* given at the 30th Annual Convention of the Association for Psychological Science, San Francisco, CA.

2017

39. Konishi K., **Jacobs E.G.**, Cherkerzian S., Weiss B.K, Rentz D. M. et al. (December, 2017) Impact of BDNF and sex on maintaining intact memory function in early midlife. Abstract, 56th Annual Meeting of the American College of Neuropsychopharmacology, Palm Springs, CA.
40. “The Kavli Symposium on Sex Steroids and the Brain” Co-hosted by the Kavli Foundation and the UCSB Brain Initiative, featuring **Gurly Distinguished Lectures** by Profs. John Morrison (UC Davis), Roberta Brinton (U. of Arizona) and Emily Jacobs (UCSB). Moderated by Prof. Ken Kosik. Marine Science Auditorium, June, 2017

2016

41. **Jacobs E.G.**, Makris N., Kubicki M., Shenton M., DeVivo I., Goldstein J.M. (December, 2016) Leukocyte telomere length is associated with widespread grey and white matter deficits in early aging: Impact of sex and menopausal status. Abstract, 55th Annual Meeting of the American College of Neuropsychopharmacology, Hollywood, FL.
42. **Jacobs E.G.***, Goldstein J.M.*, Morrison J., Frick K. (May, 2016) “Early cellular, synaptic, and circuit-level biomarkers of sex differences in memory decline” **Symposium and Talk** given at the Organization for the Study of Sex Differences (Society for Women’s Health Research), Philadelphia, PA. ***Co-Chair**
43. **Jacobs E.G.**, Weiss B., Whitfield-Gabrieli S., Klibanski A., Goldstein J.M. (June 2016) Impact of sex and menopausal status on episodic memory circuitry in early midlife. Poster presented at the NIH Office of Research on Women’s Health (ORWH), Bethesda, MD. ***Featured as “top three posters”**

2015

44. **Jacobs E.G.**, Weiss B., Rentz D., Whitfield-Gabrieli S., Remington A., Aizley H., Klibanski A., Goldstein J.M. (December, 2015) Depletion of sex steroid hormones in mid-life alters hippocampal activity during verbal memory encoding: A population-based fMRI study of sex differences in memory decline. Poster presented at the 54th Annual Meeting of the American College of Neuropsychopharmacology, Hollywood, FL. ***Selected as top 5% of posters, recorded as ‘voice poster’**
45. Gallen C.L., Hwang K., Chen A.J., **Jacobs E.G.**, Lee T.R., D’Esposito M. (October, 2015) Influence of selective attention on brain network reconfiguration during working memory. Poster presented at the 45th Annual Meeting of the Society for Neuroscience, Chicago, IL.
46. **Jacobs E.G.**, Weiss B., Whitfield-Gabrieli S., Remington A., Aizley H., Goldstein J.M. (October, 2015) Reproductive aging modulates working memory-related neural activity in women: Implications for sex differences in memory circuitry aging. Poster presented at Brigham and Women’s Hospital’s “Discover Brigham” Research Symposium.
47. Zhu A., Pasternak O., Lyall A., Makris N., **Jacobs E.G.**, Weiss B., Shenton M.E., Goldstein J.M., Kubicki M. (April, 2015) Impact of sex on white matter integrity in aging of the memory circuitry. Poster presented at Harvard Medical School’s Annual Myself Research Day, Boston, MA.

2014

48. **Jacobs E.G.**, Weiss B., Whitfield-Gabrieli S., Klibanski A., Goldstein J.M. (December, 2014) Reproductive aging modulates working memory-related neural activity in women. **Talk** and poster presented at the 53rd Annual Meeting of the American College of Neuropsychopharmacology, Phoenix, AZ. **Featured presentation in the “Hot Topics” Symposium.**
49. **Jacobs E.G.**, Weiss B., Whitfield-Gabrieli S., Klibanski A., Goldstein J.M. (November, 2014) The depletion of sex steroid hormones during the menopausal transition is related to altered prefrontal and hippocampal signaling during working memory and memory encoding. **Talk** presented at the 44th Annual Meeting of the Society for Neuroscience, Washington, DC.

50. **Jacobs E.G.**, Weiss B., Whitfield-Gabrieli S., Klibanski A., Goldstein J.M. (November, 2014) Reproductive aging is associated with altered prefrontal and hippocampal signaling during working memory. Poster presented at the National Institutes of Health 11th Anniversary ORWH Interdisciplinary Women's Health Research Symposium, Washington, DC. *Published in Journal of Women's Health, 23(10):849-877.*
51. **Jacobs E.G.**, Weiss B., Whitfield-Gabrieli S., Klibanski A., Goldstein J.M. (September, 2014) Reproductive aging modulates working memory-related neural activity in women. Harvard Medical School and Brigham and Women's Hospital Annual Women in Medicine and Science Symposium, Boston, MA.
52. **Jacobs E.G.**, Whitfield-Gabrieli S., Weiss B., Klibanski A., Goldstein J.M. (August, 2014) The depletion of sex steroid hormones during the menopausal transition is related to altered prefrontal cortex signaling during working memory. **Talk** given at the 44th Annual Meeting of the International Society of Psychoneuroendocrinology, Montreal, Canada. **Featured presentation in the "Young Investigators" symposium.**
53. **Jacobs E.G.**, Whitfield-Gabrieli S., Weiss B., Klibanski A., Goldstein J.M. (April, 2014) The depletion of sex steroid hormones during the menopausal transition is related to altered prefrontal cortex signaling during working memory. Poster presented at the Organization for the Study of Sex Differences (Society for Women's Health Research), Minneapolis, MN.
54. **Jacobs E.G.**, Weiss B., Whitfield-Gabrieli S., Klibanski A., Goldstein J.M. (March, 2014) Reproductive aging is associated with altered prefrontal and hippocampal signaling during verbal encoding and working memory: Initial characterization of a 50-year follow-up study of a prenatal cohort. Poster presented at the 21st Annual Meeting of the Cognitive Neuroscience Society, Boston, MA.

2013

55. **Jacobs E.G.**, Holsen L.M., Lancaster K., Remington A., Buka S., Whitfield-Gabrieli S., Klibanski A., Goldstein J.M. (December, 2013) Gonadal hormone regulation of stress circuitry activity in healthy women is disrupted in Major Depressive Disorder. Poster presented at the 52nd Annual Meeting of the American College of Neuropsychopharmacology, Hollywood, FL.
56. **Jacobs E.G.** (September, 2013) Sex-specific chromosomal and neural markers of aging in mid-life men and women: A lifespan perspective. Abstract included in the Harvard Medical School and Brigham and Women's Hospital Annual Women in Medicine and Science Symposium, Boston, MA.

2012

57. **Jacobs E.G.**, Laguerta E., Dang L., Jagust W., Weinberger D., D'Esposito M. (2012, October) Estradiol and COMT alter striatal dopamine release and working memory function in women: Direct evidence from [11C]-raclopride PET and fMRI imaging. Poster presented at the 42nd Annual Meeting of the Society for Neuroscience, New Orleans, LA.
58. **Jacobs E.G.**, Laguerta E., Dang L., Jagust W., D'Esposito M. (2012, May) Estradiol and COMT alter striatal dopamine release in women. Poster presented at the 67th Annual Meeting of the Society for Biological Psychiatry, Philadelphia, PA.
59. **Jacobs E.G.** (2012, April) Behavioral and hormonal interventions buffer against accelerated cell aging in at-risk women. **Talk** given at the 10th Annual Meeting of the Robert Wood Johnson Foundation, Princeton, NJ.

2011

60. **Jacobs E.G.** (2011, November) *Symposium* – Cognitive and behavioural dysfunction in ageing: Role of sex hormones; with Pauline Maki, Ph.D., Paul Newhouse, M.D. and Julie Dumas, Ph.D. **Talk** given at the 11th Annual International College of Geriatric Psychopharmacology Meeting, Irvine, CA.
61. **Jacobs E.G.** (2011, May) From parity in science to improvements in health. **Talk** given at the 9th Annual Meeting of the Robert Wood Johnson Foundation, Bethesda, MD.

62. LeWinn, K., **Jacobs E.G**, Boyce, T.W., D'Esposito, M (2011, March). **Symposium** – Childhood socioeconomic disadvantage and mental health: Psychological, physiological and neurobiological mechanisms. Society for Research in Child Development Biennial Meeting, Montreal, Canada.
63. John, N., **Jacobs E.G**, Mendoza-Denton, R., Francis, D.D. (2011, January). Subjective social status predicts immune function in a young adult cohort. Poster presented at the Annual Meeting of the Society of Personality and Social Psychology, San Antonio, Texas.

2010

64. **Jacobs E.G**, D'Esposito, M (2010, November). Estrogen alters top-down modulation of sensory processing. Poster presented at the 40th Annual Society for Neuroscience Meeting, San Diego, CA.
65. Vytlačil, J., **Jacobs E.G**, D'Esposito, M (2010, November). Estrogen and COMT polymorphisms interact to affect resting state connectivity with dopaminergic midbrain regions. Poster presented at the 40th Annual Society for Neuroscience Meeting, San Diego, CA.
66. Cohen, J., **Jacobs E.G**, D'Esposito, M (2010, November). The connectivity of intrinsic, task-independent networks during working memory. Poster presented at the 40th Annual Society for Neuroscience Meeting, San Diego, CA.

Pre-2010

67. **Jacobs E.**, D'Esposito, M (2009, October). Estrogen shapes dopamine-dependent cognitive processes in prefrontal cortex. Poster presented at the 39th Annual Society for Neuroscience Meeting, Chicago, IL.
68. **Jacobs E.**, D'Esposito, M (2009, June). *Symposium* – Individual differences in cognition: How a person's hormonal state and genetic background impacts prefrontal cortical function. **Talk** given at the 15th Annual meeting of the Organization for Human Brain Mapping, San Francisco, CA.
69. **Jacobs E.**, D'Esposito, M (2009, June). Individual differences in cognition: How a person's hormonal state and genetic background impacts prefrontal cortical function. Poster presented at the 15th Annual meeting of the Organization for Human Brain Mapping, San Francisco, CA.
70. Song, S., Turner, G., **Jacobs, E.**, Nycum, T., D'Esposito, M., Chen, A. (2009, June). Attention reduces variability of goal-relevant perceptual representations within visual association cortex. Poster presented at the 15th Annual meeting of the Organization for Human Brain Mapping, San Francisco, CA.
71. **Jacobs, E.**, Cools, R., D'Esposito, M. (2009, January). Individual differences in cognition: The role of COMT genotype and estrogen in frontal lobe function. Poster presented at the 5th International Imaging Genetics Conference, Irvine, CA.
72. **Jacobs, E.** (2008, August). Genetic and hormonal influences on prefrontal cortical function. **Talk** given at the 5th Annual Bay Area Memory Meeting, Davis, CA.
73. **Jacobs, E.**, Cools, R., D'Esposito, M. (2008, April). Genetic and hormonal influences on prefrontal cortical function. Poster presented at the 15th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA.
74. **Jacobs, E.**, D'Esposito, M. (2008, April). Women's health from a genetic and endocrine perspective. **Talk** given at the Annual Stanford-Berkeley Cognitive Psychology Symposium, Stanford, CA.
75. Wraga, M., Helt, M., Duncan, L.E, & **Jacobs, E.** (2006, November). Altering test instructions to improve women's spatial cognition performance. Poster presented at the 47th Annual Meeting of the Psychonomic Society, Houston, TX.
76. Wraga, M., **Jacobs, E.**, Sullivan, K., & Uykai, E. (2006, April). Neural substrates of two classes of egocentric mental transformations. Poster presented at the 13th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA.

77. **Jacobs, E.**, Duncan, L.E., Helt, M., & Wraga, M. (2005, January). Stereotype threat, gender, and mental rotation performance. Poster presented at the Sixth Annual Meeting of the Society for Personality and Social Psychology, New Orleans, LA.
78. Helt, M., **Jacobs, E.**, Sullivan, K., & Wraga, M. (2005, January). fMRI study of women's enhanced spatial cognition performance via positive stereotype. Poster presented at the Sixth Annual Meeting of the Society for Personality and Social Psychology, New Orleans, LA.
79. Cools, R., **Jacobs, E.**, Altamirano, L., Sheridan, M., Kelley, E., D'Esposito, M. (2005, November). Dopamine D2 receptor stimulation potentiates BOLD activity in the striatum during attentional switching in visual working memory. Poster presented at the Society for Neuroscience Conference, Washington D.C.
80. **Jacobs, E.**, Wraga, M., Duncan, L., & Church, J. (2004, April). Neural correlates of enhanced spatial cognition performance in men. Presented on Capital Hill for the Council on Undergraduate Research, Washington DC.
81. Wraga, M., **Jacobs, E.**, Duncan, L., & Church, J. (2004, April). fMRI study of men's enhanced spatial cognition performance during stereotype threat. Poster presented at the 11th Annual Meeting on the Cognitive Neuroscience Society, San Francisco, CA.
82. Wraga, M., Helt, M., Duncan, L., **Jacobs, E.** (2004, January). Limits to improving women's spatial cognition performance within a positive stereotype context. Poster presented at the Society for Personality and Social Psychology Meeting, New Orleans, LA

TEACHING

- **University of California, Santa Barbara** Psychological & Brain Sciences 137: Behavioral Endocrinology, 2018-present
*Featured as “Lecture Experience” course for prospective UCSB students and families.
- **University of California, Santa Barbara** Psychological & Brain Sciences 160/163: Special Topics in Hormones and Cognition, 2017-present
*Featured as “Lecture Experience” course for prospective UCSB students and families.
- **University of California, Santa Barbara** Psychological & Brain Sciences 594: Graduate Seminar, Hormones and Cognition, 2017, 2020
- **University of California, Santa Barbara** Psychological & Brain Sciences 594: Graduate Seminar, Cognitive Neuroscience, 2022
- **University of California, Santa Barbara** Psychological & Brain Sciences 196: Junior Honors Seminar, 2020
- **University of California, Santa Barbara** Psychological & Brain Sciences 123: Cognitive Neuroscience, 2021
- **University of California, San Francisco, School of Medicine** Lecturer, Essential Core Social and Behavioral Science Course (2010) (Themes: *Race and Bias in Medicine; Biopsychosocial Model in Medicine*)
- **University of California, Berkeley** Public Health 39G: *Unnatural Causes...Is Inequality Making Us Sick?* Co-taught with Darlene Francis and Kat Saxton. (2009, 2010)
- **Mentoring – Current Trainees**

Caitlin Taylor, Ph.D.

Postdoctoral fellow in the Jacobs Lab (2017- present)

*Daryl & Marguerite Errett Discovery Award in Biomedical Research (2021-22)

*2020 Univ. British Columbia Women's Brain Health Young Investigator Award

*2020 OSSD Travel Award

*Harvey L. Karp Discovery Award Fellow (2019-2020)

*UCSB SAGE Junior Fellow (2018-2020)
*2018 Florence T. Haseltine Prize by OSSD

Laura Pritschet, B.A. PhD student in the Jacobs Lab (2017- present)
*2022-2027 NIH F99/K00 Award
*2021-2023 NIH NRSA F31 Award (AG074634)
*2021 Graduate Division Dissertation Fellowship
*2021 UC President's Lindau Nobel Laureate Meetings Fellow
*2020 National Institute of Health ORWH Science Policy Award
*2020 University of British Columbia Women's Brain Health Trainee Award
*Proceedings of the National Academy of Sciences Journal Club Panelist

Shuying Yu, B.A. PhD student in the Jacobs Lab (2018-present)
*UCSB Eugene Cota-Robles University Diversity Fellow (2018-2023)
*UCSB Crossroads Fellow (2018-2019)
*2019 National Science Foundation GRFP Honorable Mention
*2018 National Science Foundation GRFP Honorable Mention

Hannah Grotzinger, B.A. PhD student in the Jacobs Lab (2020-present)
Previously research technician at MIT (John Gabrieli Lab)
*2022 Richard E. Mayer Award for Outstanding Research Contribution in Psychology

Elle Murata, B.A. PhD student in the Jacobs Lab (2020-present)
Previously research technician at Harvard Medical School/Brigham and Women's Hospital
*2022 Al and Marjorie Nasser Graduate Student Memorial Scholar

Undergraduate Honors Students: Morgan Fitzgerald^{**+λψ}, Maggie Hayes*, Courtney Kenyon^{**+λ}, Aidan Galati^{**}, Elisabeth Rinder
*Distinction in the Major
+Exceptional Academic Performance Award
λMorgan Award for Research Promise in Psychological & Brain Sciences
ψUniversity Award of Distinction (awarded to 25 of >7,000 graduating seniors)

Dissertation Committees: Alexander Boone (UCSB), Viktoriya Babenko (UCSB), Dipanjana Das (UCSB), Elvisha Dhamala (Weill Cornell School of Medical Sciences), Courtney Louis (Michigan State University), Evan Layher (UCSB), Chelsea Lonergan (UCSB Communication), Mari Purpura (UCSB), Magdalena Martinez Garcia (Spain)

Rotation Students: Adele Meyers, Electrical & Computer Engineering (UCSB)

Previous Undergraduate Trainees (sample)

Courtney Kenyon, B.A. M.D. student at *University of Utah College of Medicine.*
Julia Woods, B.A. M.D. student at *University of Wisconsin School of Medicine.*
Mustafa Shakir, B.A. M.D. student at *UC Davis School of Medicine.*
Naomi Warren, B.A. Neuroscience laboratory technician at *Texas A&M.*
Blair Weiss, M.A. PhD student at *Widener University.*
Julia Longenecker, M.A. PhD student at *University of Minnesota.*
Elaine LaGuerta, B.A. Completed her graduate degree at *UC Berkeley.*
Katie Cheng, B.A. Research technician at *Stanford University.*
Jared Torre, M.A. PhD at *UCLA* with an *NSF Graduate Research Fellowship.*
Erin Thompson, M.A. Completed her graduate degree at *University College London.*

SERVICE

University & Departmental Service *(representative)*

- Director, Ann S. Bowers UC Center for Women's Brain Health (starting 2023; *pending*)
- Interim Director, UCSB Brain Imaging Center (Fall 2021)
- Co-Director, SAGE Center for the Study of the Mind Junior Fellows Program (2018-2021) (Director, Michael Gazzaniga)
- Advisory Committee, UCSB Neuroscience Research Institute (2017-present)
- Member, UCSB Center for Longevity and Aging (2017-present)
- Member, UCSB Center for Feminist Futures (2022-present)
- Advisory Committee, UCSB Benioff Ocean Initiative
- Faculty Representative, Coalition for National Science Funding's science advocacy work in D.C.; meetings with offices of Sens. Kamala Harris, Diane Feinstein, Reps. Nancy Pelosi, Julia Brownley and Salud Carbajal to advocate for sustained federal funding for women's health research
- PI and Co-Lead Faculty, UCSB Graduate Division Crossroads Fellowship: "Sex Hormones, Aging, & Spatial Navigation" (2018-2020)
- UCSB Career Development Awards Committee (2022)
- Member, Shared Lab Policies Committee (2018-present)
- Member, Faculty Legislature (2021-present)
- Selection Committee, UCSB Harvey L. Karp Discovery Award (2020)
- Selection Committee, UCSB Errett Fisher Fellowship (2019)

Reviewer

Annals of the New York Academy of Sciences • American Journal of Neuroradiology • Archives of Neurology • Behavioral Brain Research • Biological Psychiatry • Cerebral Cortex • Frontiers in Neuroscience • The French National Research Agency (L'Agence Nationale de la Recherche) • Hormones and Behavior • JAMA Neurology • Journal of Alzheimer's Disease • Journal of Cognitive Neuroscience • Journal of Neuroscience • Molecular Psychiatry • Neurobiology of Aging • NeuroImage • Neuropsychologia • Neuropsychopharmacology • Nature Human Behavior • Nature Neuroscience • Neuroscience • Neuroscience and Biobehavioral Reviews • Physiology and Behavior • Proceedings of the National Academy of Sciences • Psychiatry Research • Psychoneuroendocrinology • Psychopharmacology • Trends in Cognitive Science • Annals of the New York Academy of Sciences • NIH Special Emphasis Panel/Scientific Review Group for U54 "Specialized Centers of Research Excellence on Sex Differences" • NIH Special Emphasis Panel/Scientific Review Group "Mood and Psychosis Symptoms During the Menopausal Transition" • NIH Special Emphasis Panel/Scientific Review Group "Building Interdisciplinary Careers in Women's Health K12 Award"

Editorial

Proceedings of the National Academy of Sciences, Guest Editor (2018-present)
Frontiers in Neuroendocrinology, Elsevier Press, Guest Editor Special Issue on Women's Brain Health (2020)

Membership

2005 – present	Society for Neuroscience
2005 – present	Cognitive Neuroscience Society
2009 – present	Organization for Human Brain Mapping
2012 – present	Organization for the Study of Sex Differences

Public Service *(sample)*

- Partner with **Girls, Inc. of Greater Santa Barbara** to host after-school K-12 lab demos; community lectures on gender diversity in science in collaboration with the UCSB Dept. of Education; faculty science mentor for the Curieosity Project Youth Summit
- Partner with K-12 groups (Goleta Union School District, Knox School, Laguna Blanca, National Charity League) to advance girls' representation in STEM, work featured in the book "**STEMinists: The Lifework of 12 Women Scientists and Engineers**"
- Guest Lecturer at the **National Youth Science Camp**, West Virginia. Host: Andrew Blackwood, Executive Director of the National Youth Science Foundation
- Science outreach for **Voice-in-Sports**, a company dedicated to accelerating the voice of female athletes. Efforts include engaging female athletes on exercise/brain science. Host: Stefanie Strack, CEO
- Host science demos at **MOXI: The Wolf Museum of Exploration and Innovation** for hands-on educational workshops on the brain for adults and children
- Advisor for the national competition **National History Day**. Advised on website dedicated to the 1993 NIH Revitalization Act, drawing attention to women's underrepresentation in STEM.
- Hosted screening of **Picture A Scientist**, a documentary that amplifies the voices of women and people of color in academia. In partnership with the UCSB Carsey-Wolf Center and the Pollock Theatre, the film was screened for the Santa Barbara community with a moderated Q&A with the filmmakers. ([link](#))
- Member of the **Goleta Union School District** Social Justice and Equity Task Force chaired by Superintendent Donna Lewis. Term 2020-2023.
- Scientific Advisory Board, **51 Foundation** (2022-present) ([link](#))
- UC-HCBU Summer Program. Partnership with Morehouse College for an 8-week summer undergraduate research internship (2023)

Media (sample)

Scientific American Mind, "Is estrogen the new ritalin?" by Erik Vance. (2010, May) ([link](#))

Berkeley Science Review, "Hot flashes with a chance of brainstorms" by Ginger Jui. (2010, November) ([link](#))

Smith Quarterly, "Estrogen and memory" by Christina Barber-Just. (2010, September) ([link](#))

Robert Wood Johnson Foundation, "Gender bias in research ignores estrogen's effect on the brain" by Sheree Crute (2011, April) ([link](#))

Daily Californian, "Study highlights male bias in animal studies" by Claire Perlman (2011, April) ([link](#))

California Magazine, "Counting the days" by Anne Pinckard (2011, June) ([link](#))

Robert Wood Johnson Foundation, "HRT may protect against Alzheimer's in high-risk women" by Sheree Crute (2013, February) ([link](#))

Stanford School of Medicine, "Accelerated biological aging evident in women with Alzheimer's risk factor" by Bruce Goldman (2013, February) ([link](#))

Science Daily, "Accelerated biological aging, seen in women with Alzheimer's risk factor, blocked by hormone therapy" Associated Press (2013, February) ([link](#))

Scientific American Mind, "Estrogen's role in impulsive behavior" by Diana Kwon. (2014, May) ([link](#))

UCSF School of Medicine, "Cells' protective DNA linked to size of brain region vital for memory" by Jeff Norris. (2014, July) ([link](#))

National Public Radio and **Public Radio International**, "Gender bias in health research leads to unintended consequences" In conversation with John Hockenberry on *The Takeaway*. (2014, September) ([link](#))

Harvard Gazette, “Changes in memory tied to menopausal status” by Haley Bridger (2016, September) ([link](#))

CBS News, “Menopause “brain fog” is real, study finds” by Amy Norton (2016, October) ([link](#))

The Dana Foundation, “Hormonal contraception linked to increased risk of depression” by Kayt Sukel (2016, November) ([link](#))

The Dana Foundation, “Sorting out the links between menopause and memory decline” by Kayt Sukel (2016, November) ([link](#))

The Dana Foundation, “Incorporating sex influences into today’s brain research” by Kayt Sukel (2017, January) ([link](#))

National Public Radio and KCLU, “Girls on south coast learn about careers in science and engineering in unusual way” by Debra Greene (2017, June) ([link](#))

The New York Times, “The Gender War, 2018 Edition” by Thomas Edsall (2018, October) ([link](#))

TEDx Talk, “Gender diversity drives scientific discovery” (2019, January) ([link](#))

The New York Times, “White Riot” by Thomas Edsall (2021, January) ([link](#))

This is Your Brain, podcast with Dr. Phil Steig, Chief of Neurosurgery at Weill-Cornell School of Medicine. Interview on women’s brain health (2021, January)

University of California, “How sexism hinders brain research” by Tom Jacobs (2021, October) ([link](#))

Netflix, Filmed Netflix limited series *Principles of Pleasure* featuring lab’s research on women’s brain health (Released March 2022) ([link](#)) Advised on educational resources to accompany the series: principlesofpleasure.org

BBC, “28-ish Days Later” series featuring lab’s research on women’s brain health (Released March 2022) ([link](#))
*Named one of the best podcasts of the year by the Guardian

Science News, “How do sex hormones sculpt the brain? This scientist wants to find out” (September 2022) ([link](#))

UC Santa Barbara Magazine, “Women First” (November 2022) ([link](#))