# **Biological & Psychosocial Aspects of Stress Cross Cutting Theme Group**

**Description:** This theme area includes members from all four of our graduate programs, Clinical Science, Cognitive Science, Integrative Neuroscience, and Social & Health Psychology who study the determinants and effects of stress in human and animal models.

### Members:

Brenda Anderson https://www.stonybrook.edu/commcms/psychology/faculty/faculty\_profiles/banderson

Kristin Bernard https://www.stonybrook.edu/commcms/psychology/faculty/faculty\_bio\_pages/kbernard.html

Turhan Canli

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Marci Lobel

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Ryan Parsons

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### Patricia Whitaker

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## **Representative Publications and Conference Presentations:**

### Anderson Lab:

D.J. Kim, A.S. Lee, A.A. Yttredahl, R. Gómez-Rodríguez, B.J. Anderson (2017). Repeated threat (without direct harm) alters metabolic capacity in select regions that drive defensive behavior, *Neuroscience*, *353*,106-118

Kim, D.J., St. Louis, N., Molaro, R.A., Hudson, G.T., Chorley, R.C., and Anderson, B.J. (2017). Repeated unpredictable threats without harm impair spatial working memory in the Barnes maze, Neurobiology of Learning and Memory, *137*:92-100.

Kim, D.J. and Anderson, B. J. (2015). Repeated threat (without harm) in a living environment potentiates defensive behavior, Behavioral Brain Research, *279*: 31-40.

Tata, D.A. and Anderson, B.J. (2009). The effects of chronic glucocorticoid exposure on dendritic length, synapse numbers and glial volume in animal models: implications for hippocampal volume reductions in depression. Physiology and Behavior, *99(2)*, 186-193.

Tata, D.A., Marciano, V., and Anderson, B.J. (2006) Synapse loss from chronically elevated glucocorticoids: Relationship to neuropil volume, and cell number in hippocampal CA3, J. Comparative Neurology, *498*, 363-374.

Coburn-Litvak, P.S., Tata, D.A., Gorby, H.E., McCloskey, D.P., Richardson, G., and Anderson, B.J. (2004). Chronic corticosterone affects brain weight, and mitochondrial, but not glial volume fraction in area CA3, Neuroscience, *124*:429-436.

### Bernard lab:

Dagan, O., Asok, A., Steele, H., Steele, M., & Bernard, K. (in press). Attachment security moderates the link between adverse childhood experiences and cellular aging. *Development and Psychopathology*. doi: 10.1017/S0954579417001705.

Bernard, K., Frost, A., Bennett, C. B., & Lindhiem, O. (2017). Maltreatment and diurnal cortisol regulation: A meta-analysis. *Psychoneuroendocrinology*, *78*, 57-67. doi: 10.1016/j.psyneuen.2017.01.005.

Bernard, K., Zwerling, J., & Dozier, M. (2015). Effects of early adversity on young children's diurnal cortisol rhythms and externalizing behavior. *Developmental Psychobiology*, *57*, 935-947. doi: 10.1002/dev.21324.

Bernard, K., Dozier, M., Bick, J., & Gordon, M. K. (2015). Intervening to enhance cortisol regulation among children at risk for neglect: Results of a randomized clinical trial. *Development and Psychopathology*, *27*, 829-841.

Bernard, K., Hostinar, C., & Dozier, M. (2015). Intervention effects on diurnal cortisol rhythms of CPS-referred infants persist into early childhood: Preschool follow-up results of a randomized clinical trial. *JAMA Pediatrics*, *169*, 112-119. doi: 10.1001/jamapediatrics.2014.2369.

Bernard, K., Lind, T., & Dozier, M. (2014). Neurobiological consequences of neglect and abuse. In J. Korbin & R. Krugman (Eds.), *Handbook of child maltreatment* (pp. 205-223). New York: Springer.

Asok, A., Bernard, K., Roth, T., Rosen, J., & Dozier, M. (2013). Parental responsiveness moderates the association between early-life stress and reduced telomere length. *Development and Psychopathology, 25*, 577-585. doi: 10.1017/S0954579413000011

Bernard, K., Butzin-Dozier, Z., Rittenhouse, J., & Dozier, M. (2010). Young children living with neglecting birth parents show more blunted daytime patterns of cortisol production than children in foster care and comparison children. *Archives of Pediatrics and Adolescent Medicine, 164*, 438-443. doi: 10.1001/archpediatrics.2010.54.

## Canli Lab:

D'Agostino, A.E., Kattan, D.A., and Canli, T. (2018). An fMRI Study of Loneliness in Younger and Older Adults. *Social Neuroscience*. DOI: 10.1080/17470919.2018.1445027. PMID: 29471719

Fogelman, N., and Canli, T. (2018). Early Life Stress and cortisol: A Meta-Analysis. *Hormones and Behavior*, 98, 63-76. DOI: 10.1016/j.yhbeh.2017.12.014. PMID: 29289660

Canli, T., Yu, L., Yu, X., Zhao, H., Fleischman, D., Wilson, R.S., De Jager, P.L., Bennett, D.A. (2018). Loneliness 5 years ante-mortem is associated with disease-related differential gene expression in postmortem dorsolateral prefrontal cortex. *Translational Psychiatry*, 8(1):2. DOI: 10.1038/s41398-017-0086-2.

T. Canli (2017). APA Science Brief: How loneliness can make you sick. http://www.apa.org/science/about/psa/2017/09/loneliness-sick.aspx

Canli, T., Wen, R., Wang, X., Mikhailik, A., Yu, L., Fleischman, D., Wilson, R.S., Bennett, D.A. (2016). Differential transcriptome expression in human nucleus accumbens as a function of loneliness. *Molecular Psychiatry*. DOI: 10.1038/mp.2016.186.

Fogelman, N., Mikhailik, A., Mueller-Alcazar, A., & Canli, T. (2016). Stressing over anxiety: A novel interaction of 5-HTTLPR genotype and anxiety-related phenotypes in older adults. *Psychoneuroendocrinology*, 71, 36-42. PMID: 27235638 PMCID: PMC4955748 [Available on 2017-09-01]; DOI: 10.1016/j.psyneuen.2016.05.012

Fogelman, N., and Canli, T. (2015). "Purpose in Life" as a psychosocial resource in healthy aging: An examination of cortisol baseline levels and response to the Trier Social Stress Test. *NPJ (Nature Partner Journal) Aging and Mechanisms of Disease* 09/2015; 1:15006. DOI: 10.1038/npjamd.2015.6.

## Lobel Lab:

Nicoloro-SantaBarbara, J., Rosenthal, L., Auerbach, M., Kocis, C., Busso, C., & Lobel, M. (2017). Patient-provider communication predicts lower distress and better self-care in pregnancy. *Social Science and Medicine, 190,* 133-140. https://doi.org/10.1016/j.socscimed.2017.08.011

Genoff-Garzon, M. C., Rubin, L. R., Lobel, M., Stelling, J., & Pastore, L. M. (2018). Review of patient decision-making factors and attitudes regarding preimplantation genetic testing. *Clinical Genetics*, *94* (*1*), 22-42. <u>https://doi.org/10.1111/cge.13174</u>

Araiza, A. M. & Lobel, M. (2018). Stress and eating: Definitions, findings, explanations, and implications. *Social and Personality Psychology Compass, e12378.* <u>https://doi.org/10.1111/spc3.12378</u>

Lobel, M. & Ibrahim, S. M. (2018). Emotions and mental health during pregnancy and postpartum. *Women's Reproductive Health, 5 (1),* 13-19. https://doi.org/10.1080/23293691.2018.1429378

Yusufov, M., Nicoloro-SantaBarbara, J., Grey, N. E., Moyer, A., & Lobel, M. (2018). Students in distress: Meta-analytic evaluation of stress reduction interventions for undergraduate and graduate students. *International Journal of Stress Management*. http://doi.org/10.1037/str0000099 Nicoloro-SantaBarbara, J., Busso, C., Moyer, A., & Lobel, M. (2018). Just relax and you'll get pregnant? Meta-Analysis examining women's emotional distress and the outcome of assisted reproductive technology. *Social Science and Medicine, 213,* 54-62. https://doi.org/10.1016/j.socscimed.2018.06.033

Cizmeli, C., Lobel, M., Saftlas, A., & Harland, K. (2018). Stability and change in types of intimate partner violence across pre-pregnancy, pregnancy, and the postpartum period. *Women's Reproductive Health*, *5* (3), 153-169. <u>https://doi.org/10.1080/23293691.2018.1490084</u>.

Preis, H., Lobel, M., & Benyamini, Y. (In press). Between expectancy and experience: Testing a model of childbirth satisfaction. *Psychology of Women Quarterly*. <u>https://doi.org/10.1177/0361684318779537</u>

Rosenthal, L. & Lobel, M. (In press). Gendered racism and the sexual and reproductive health of Black and Latina women. *Ethnicity and Health*. <u>10.1080/13557858.2018.1439896</u>

## London Lab

Dyar, C., & London, B. (2018). Longitudinal Examination of a Bisexual-Specific Minority Stress Process Among Bisexual Cisgender Women. *Psychology of Women Quarterly*, *4*2(3), 342–360. https://doi.org/10.1177/0361684318768233

Lytle, A., Dyar, C., Levy, S.R., & London, B. (2017). Contact with Bisexual Individuals Reduces Binegativity among Heterosexuals and Lesbian Women and Gay Men. *European Journal of Social Psychology*, 47(5), 580-599.

Dyar, C., Feinstein, B., Eaton, N., & London, B. (2016). The Mediating Roles of Rejection Sensitivity and Proximal Stress in the Relationship between Discrimination and Internalizing Psychopathology among Sexual Minority Women. *Archives of Sexual Behavior*. Doi: 10.1007/s10508-016-0869-1.

Feinstein, B., Dyar, C., & London, B. (2016). Are Outness and Community Involvement Risk or Protective Factors for Alcohol and Drug Abuse among Sexual Minority Women? *Archives of Sexual Behavior, 46(5), 1411-1423.* Doi: 10.1007/s10508-016-0790-7.

Clark, S., Dyar, C., Maung-Gaona, N., & London, B. (2016). Psychosocial Pathways to STEM Engagement among Graduate Students in the Life Sciences. *CBE--Life Sciences Education (LSE), 15(3),* pii: ar45. doi: 10.1187/cbe.16-01-0036.

Rosenthal, L., Levy, S.R., London, B., & Lewis, M.A. (2016). Polyculturalism among undergraduates at diverse universities: Associations through intergroup anxiety with academic and alcohol outcomes, 16(1), 193-226. *Analyses of Social Issues and Public Policy*. DOI: 10.1111/asap.12121

Dyar, C., Feinstein, B.A., Eaton, N.R., & London, B. (2016). Development and initial validation of the sexual minority women rejection sensitivity scale, 40(1), 120-137. *Psychology of Women Quarterly.* DOI: 10.1177/0361684315608843

Dyar, C., Feinstein, B.A., & London, B. (2014). Dimensions of sexual identity and minority stress among bisexual women: The role of partner gender. *Psychology of Sexual Orientation and Gender Diversity*, *1*(4), 441-451. doi:10.1037/sgd0000063

Ahlqvist, S., London, B., & Rosenthal, L. (2013). Unstable identity compatibility: How gender rejection sensitivity undermines the success of women in science, technology, engineering, and mathematics fields. *Psychological Science*, 24(9), 1644-1652. doi: 10.1177/0956797613476048

London, B., Downey, G., Romero-Canyas, R.,Rattan, A., & Tyson, D. (2012). Gender Rejection Sensitivity and academic self-silencing in women. *Journal of Personality and Social Psychology*, *102* (5), 961-979. DOI: 10.1037/a0026615.

London, B., Rosenthal, L., & Gonzalez, A. (2011) Assessing the role of gender rejection sensitivity, identity and support on the academic engagement of women in non-traditional fields using experience sampling methods. *Journal of Social Issues, 67 (3),* 510-530. DOI: 10.1111/j.1540-4560.2011.01712.x.

London, B., Downey, G., Bonica, C., & Paltin, I. (2007). Social causes and consequences of rejection sensitivity in adolescents. *Journal of Research on Adolescence, 17(3),* 481-506. DOI: 10.1111/j.1532-7795.2007.00531.x.

### Moyer Lab

Nicoloro-SantaBarbara, J., Busso, C., & Moyer, A., & Lobel, M. (2018). Just relax and you'll get pregnant? Meta-analysis examining women's emotional distress and the outcome of assisted reproductive technology. *Social Science and Medicine*, *213*, 54-62.

Yusufov, M., Nicoloro-SantaBarbara, J., Grey, N. E., Moyer, A., & Lobel, M. (2018). Metaanalytic evaluation of stress reduction interventions for undergraduates and graduate students. *International Journal of Stress Management*. Advance online publication. <u>http://dx.doi.org/10.1037/str0000099</u>

Schneider, S., Moyer, A., Knapp, S. K., Sohl, S. J., Cannella, D., & Targhetta, V. (2010). Preintervention distress moderates the efficacy of psychosocial treatment for cancer patients: A meta-analysis. *Journal of Behavioral Medicine*, *33*, 1-14.

Hamilton, J. G., Lobel, M., & Moyer, A. (2009). Emotional distress following genetic testing for hereditary breast and ovarian cancer: A meta-analytic review. *Health Psychology, 28,* 510-518.

Stroud, C. B., Davila, J., & Moyer, A. (2008). The relationship between stress and depression in first onsets versus recurrences: A meta-analytic review. *Journal of Abnormal Psychology*, *117*, 206-213.

Tuman, M., & Moyer, A. (2017, March). *The efficacy of internet-based interventions for stress management: A meta-analysis.* Poster presented at the annual scientific sessions of the Society of Behavioral Medicine, San Diego, CA.

Marziliano, M., Tuman, M., & Moyer, A. (2016, October). *The relationship between post-traumatic stress and post-traumatic growth in cancer patients and survivors: A systematic review and meta-analysis.* Paper presented at the 18th International Psycho Oncology Society Congress, Dublin, Ireland.

### Parsons Lab:

Lee, J., Russo, A. S., & Parsons, R. G. (2018). Facilitation of fear learning by prior and subsequent fear conditioning. Behavioural brain research, 347, 61-68. doi:10.1016/j.bbr.2018.03.008

Parsons, R. G. (2018). Behavioral and neural mechanisms by which prior experience impacts subsequent learning. Neurobiology of learning and memory, 154, 22-29. doi:10.1016/j.nlm.2017.11.008

Voulo, M. E., & Parsons, R. G. (2017). Response-specific sex difference in the retention of fear extinction. Learning & memory, 24, 245-251. doi:10.1101/lm.045641.117

Russo, A. S., & Parsons, R. G. (2017). Acoustic startle response in rats predicts inter-individual variation in fear extinction. Neurobiology of learning and memory, 139, 157-164. doi:10.1016/j.nlm.2017.01.008

Barfield, E. T., Gerber, K. J., Zimmermann, K. S., Ressler, K. J., Parsons, R. G., & Gourley, S. L. (2017). Regulation of actions and habits by ventral hippocampal trkB and adolescent corticosteroid exposure. PLoS Biol, 15, e2003000. doi:10.1371/journal.pbio.2003000

Parsons, R. G., & Ressler, K. J. (2013). Implications of memory modulation for post-traumatic stress and fear disorders. Nature neuroscience, 16, 146-153. doi:10.1038/nn.3296

### Scott Lab:

Neupert, S. D., Neubauer, A. B., Scott, S. B., Hyun, J., & Sliwinski, M. J. (2018). Back to the future: Examining age differences in processes before stressor exposure. *Journals of Gerontology: Psychological Sciences*. Advance online publication. https://doi.org/10.1093/geronb/gby074.

Scott, S. B., Kim, J., Smyth, J. M., Almeida, D. A., & Sliwinski, M. J. (2018). Additive effects of forecasted and reported stressors on negative affect. *Journals of Gerontology: Psychological Sciences*. Advance online publication. https://doi.org/10.1093/geronb/gby068

Scott, S. B., Munoz, E. D., Mogle, J. A., Gamaldo, A. A., Smyth, J. S., Almeida, D. M., & Sliwinski, M. J. (2018). Psychosocial neighborhood context prolongs emotional responses to everyday stressors. *Social Science & Medicine, 200*, 262-270. https://doi.org/10.1016/j.socscimed.2017.11.010

Smyth, J. S., Sliwinski, M. J., Zawadzki, M., Scott, S. B., Conroy, D., Lanza, S., Stawski, R., Stoney, C. M., Buxton, O., Kim, J., Marcusson-Clavertz, D., Sciamanna, C., Green, P. M., Nielsen, L., & Almeida, D. M. (2018). Everyday stress response targets in the science of behavior change. *Behavioral Research and Therapy, 101,* 20-29. https://doi.org/10.1016/j.brat.2017.09.009 Scott, S. B., Ram, N., Smyth, J. S., Almeida, D. M., & Sliwinski, M. J. (2017). Age differences in negative emotional responses to daily stressors depend on time since event. *Developmental Psychology*, *53*, 177-190. doi: 10.1037/dev0000257 PMC5198895.

Scott, S. B., Sliwinski, M. J., Mogle, J. A., & Almeida, D. M. (2014). Age, stress, and emotional complexity: Results from two studies of daily experiences. *Psychology and Aging, 29,* 577-587. doi:10.1037/a0037282.

Nater, U. M., Hoppmann, C. A., & Scott, S. B. (2013). Diurnal profiles of salivary alpha amylase and cortisol change across the adult lifespan: A time-sampling approach. *Psychoneuroendocrinology, 38,* 3167-3171. http://dx.doi.org/10.1016/j.psyneuen.2013.09.008.

Scott, S. B., Bergeman, C. S., Jackson, B. J., & Pitzer, L. (2013). Understanding global perceptions of stress in adulthood through tree-based exploratory data mining. In J. J. McArdle & G. Rischard (Eds.), *Contemporary issues in exploratory data mining* (pp. 371-404). New York, NY: Routledge.

Scott, S. B., Poulin, M. J., & Silver, R. C. (2012). A lifespan perspective on terrorism: Age differences in trajectories of response to the September 11, 2001 attacks. *Developmental Psychology, 49,* 986-998. doi: 10.1037/a0028916.