

## CURRICULUM VITAE

January 2020

Sam A. Golden  
The University of Washington  
Department of Biological Structure  
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**Present position:** Assistant Professor  
Department of Biological Structure  
Center of Excellence in Neurobiology of Addiction, Pain, and Emotion (NAPE)  
University of Washington and School of Medicine

**Present funding:** Brain and Behavior Foundation NARSAD YI Award #27082 (2019-2020)  
NIDA Pathway to Independence Award 1K99DA045662-01 (2018-2023)

### Previous positions:

1999-2002. Student Researcher, Obesity/Metabolic Disease, Regeneron Pharmaceuticals, Tarrytown NY  
2003-2006. Undergraduate Researcher, Department of Neuroscience, Bates College, Lewiston ME  
2006-2009. Post-baccalaureate fellow, Neurobiology of Relapse Section, IRP/NIDA/NIH, Baltimore MD  
2009-2015. Graduate Student, Icahn School of Medicine at Mount Sinai, NYC NY  
2015-2018. Postdoctoral Fellow, National Institute on Drug Abuse, Baltimore MD 21224

### Education:

<u>School and location</u>	<u>Degree</u>	<u>Year</u>	<u>Field</u>
Bates College, Lewiston, ME	B.S	2006	Neuroscience (Honors)
Icahn School of Medicine at Mount Sinai (ISMMS), NYC NY	Ph.D.	2015	Neuroscience

### Major academic and scientific awards

2003. Dana Scholar (Bates)  
2004. Research Experience for Undergraduates Fellowship (CNUP)  
2006. Post-baccalaureate Intramural Research Training Award Fellowship (NIH)  
2013. Hausfeld Award in Neuroscience (ISMMS)  
2013. Outstanding Research Innovation at ISMMS  
2014. Postdoctoral Intramural Research Training Award Fellowship (NIH)  
2014. EBPS International Conference Travel Award (Israel)  
2015. Postdoctoral Research Associate (PRAT) Fellowship (NIH)  
2017. Dutch Society for Neuroscience Main Speaker Travel Award (Netherlands)  
2018. NIH Pathway to Independence Award  
2018. NARSAD Young Investigator Award  
2019. NVIDIA Accelerating Data Science GPU Award

### Other awards and honors

2002. Finalist, International Science and Engineering Fair (ISEF)  
2002. Finalist, United States Army Engineering and Science Award  
2002. Semi-finalist, Siemens-Westinghouse Science and Technology Competition  
2006. National Outdoor Leadership School Honors Graduate (Chilean Patagonia)  
2006. Honors in Neuroscience (Bates)  
2012. ISMMS Travel Award for Domestic Conference (SfN 2012)  
2013. ISMMS Travel Award for Domestic Conference (WCBR 2013)  
2014. ISMMS Travel Award for Domestic Conference (SfN 2014)

### Teaching and clinical experience

2003-2006. Emergency Medical Technician, Bates College and City of Lewiston ME  
2005-2006. Teaching assistant: Advanced Seminar in Neurobiology, Bates College, ME  
2012-2013. Teaching assistant: Molecular and Cellular Neurobiology, Icahn School of Medicine, NY  
2013-2014. Adjunct lecturer: Cells and Molecules, Sophie Davis School of Biomedical Education, CUNY  
2015. Summer Journal Club Leader, Neural mechanisms governing social behaviors, IRP/NIDA/NIH, MD  
2015-2018. NIH Summer Student Program Mentor (URM trainees)

## Publications and Citation Information (Google Scholar, January 2020)

Papers: **11** first/co-first author, **34** primary, **3** reviews, **2** protocols, **3** commentary, **1** textbook chapter, **1** pre-print

Total papers: **44**

Total citations: ~**3650**; from first-author publications: ~**1000**

*h* factor: **28**; *i10*-index: **34**

Publications per journal (first or co-first author in bold, last author italicized): **Nature Neuroscience** (8), **Journal of Neuroscience** (9), **Neuropsychopharmacology** (5), **Nature Medicine** (2), PNAS (3), **Nature** (1), Neuron (1), **Biological Psychiatry** (1), **Nature Protocols** (1), Behavioral Pharmacology (1), British Journal Of Pharmacology (1), **Cold Spring Harbor Perspectives In Medicine** (1), Nature Communications (1), Current Protocols In Neuroscience (1), European Journal Of Neuroscience (1) Frontiers In Molecular Neuroscience (1), **Genes Brain And Behavior** (1), Neuropharmacology (1), Reviews In The Neurosciences (1), Biochemistry Pharmacology and Behavior (1), Molecular Psychiatry (1)

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## Original research reports

1. U.E. Ghitza\*, S.G. Nair\*, **S.A. Golden**, S.M. Gray, J.L. Uejima, J.M. Bossert, Y. Shaham. (2007). Peptide YY3-36 decreases reinstatement of high-fat food seeking during dieting in a rat relapse model. Journal of Neuroscience, 27(43): 11522-32.
2. S.G. Nair, **S.A. Golden**, Y. Shaham (2008). Differential effects of the hypocretin 1 receptor antagonist SB 334867 on high-fat food self-administration and reinstatement of food seeking in rats. British Journal of Pharmacology, 154(2):406-16.
3. C.L. Pickens, **S.A. Golden**, T. Adams-Deutsch, S.G. Nair, Y. Shaham Y. (2009). Long-lasting incubation of conditioned fear in rats. Biological Psychiatry, 65(10):881-6.
4. E. Koya, **S. A. Golden**, B.K. Harvey, D. Guez-Barber, A. Berkow, D. E. Simmons, J. M. Bossert, S.G. Nair, J. L. Uejima, M. T. Marin, T. B. Mitchell, D. Farquhar, S. Ghosh, B. J. Mattson, B.T. Hope. (2009). Targeted disruption of sparsely distributed cocaine-activated accumbens neurons prevents context-specific psychomotor sensitization. Nature Neuroscience, 12(8):1069-73.

*News/Views*: R. J. Smith and G. Aston-Jones. *Nat. Neuro.* 12, 965 - 966 (2009).

*F1000Prime*: M. Picciotto, July 2009. M. Mayford, September 2009. M. Heilig, October 2009.

5. M.T. Marin, A. Berkow, **S. A. Golden**, E. Koya, C. Planeta, B. T. Hope. (2009). Context-specific modulation of cocaine-induced locomotor sensitization and ERK and CREB phosphorylation in rat nucleus accumbens. European Journal of Neuroscience, 30(10):1931-40
6. D.J. Christoffel, **S.A. Golden**, A.J. Robinson, W.G. Janssen, H.F. Ahn, V. Krishnan, C.M. Reyes, M.H. Han, J.L. Ables, A.J. Eisch, D.M. Dietz, D. Ferguson, R.L. Neve, P. Greengard, Y. Kim, J.H. Morrison, S.J. Russo. (2011). IκB kinase regulates social defeat stress-induced synaptic and behavioral plasticity. Journal of Neuroscience, 5;31(1):314-21.

*F1000Prime*: Y. Shaham, F. Theberge and D. Calu, February 2011

7. D. Guez-Barber, S. Fanous, **S.A. Golden**, R. Schrama, E. Koya, A. Stern, J. Bossert, B. Harvey, M. Picciotto, B.T. Hope (2011). FACS identifies unique cocaine-induced gene regulation in selectively activated adult striatal neurons. Journal of Neuroscience, 31(11):4251-9.
8. D.J. Christoffel, **S.A. Golden**, M. Heshmati, A. Graham, S. Birnbaum, R.L. Neve, G.E. Hodes, S.J. Russo. (2012). Effects of Inhibitor of κB Kinase activity in the nucleus accumbens on emotional behavior. Neuropsychopharmacology, 37(12): 2615-23.
9. M. Kurita, T. Holloway, A. García-Bea, A. Kozlenkov, A. K Friedman, J.L. Moreno, M. Heshmati, **S.A. Golden**, P.J.

\* denotes equal authorship

Kennedy, N. Takahashi, D.M. Dietz, G. Mocci, A.M. Gabilondo, J. Hanks, A. Umali, L.F. Callado, A.L. Gallitano, R.L. Neve, L. Shen, J.D. Buxbaum, M. Han, E.J. Nestler, J. Meana, S.J. Russo, J. González-Maeso. (2012). HDAC2 regulates atypical antipsychotic responses through the modulation of mGlu2 promoter activity. Nature Neuroscience, 15(9):1245-54.

*News/Views*: SE Hyman. *Nat. Neuro.* 15(9): 1180-1 (2012).

10. E. Koya, F.C. Cruz, R. Ator, **S.A. Golden**, A.F. Hoffman, C.R. Lupica, B.T. Hope. (2012). Silent synapses in selectively activated nucleus accumbens neurons following cocaine sensitization. Nature Neuroscience, 15(11): 1556-62.
11. **S.A. Golden**, D.J. Christoffel, M. Heshmati, G.E. Hodes, J. Magida, K. Davis, M.E. Cahill, C. Dias, E. Ribeiro, J.L. Ables, P.J. Kennedy, A.J. Robison, J. Gonzalez-Maeso, R.L. Neve, G. Turecki, S. Ghose, C.A. Tamminga, S.J. Russo. (2013). Epigenetic regulation of RAC1 induces synaptic remodeling in stress disorders and depression. Nature Medicine, 19, 337-344.

*News/Views*: R. S. Duman. *Nat. Med.* 19, 267–268 (2013).

*Editor's Choice*: W. Wong. *Sci. Signal.* 6, ec71 (2013).

*In Brief*: S. Lewis. *Nat. Rev. Neuro.* 14, 226 (2013).

*F1000Prime*: M. Heilig, May 2013

12. X. Wang, M.E. Cahill, C. Werner, D. Christoffel, **S.A. Golden**, Z. Xie, J. Loweth, M. Marinelli, S. Russo, P. Penzes, M. Wolf. (2013). Kalirin-7 mediates cocaine-induced AMPA receptor and spine plasticity, enabling incentive sensitization. Journal of Neuroscience, 33(27):11012-22.
13. A.J. Robison, V. Vialou, H.S. Sun, B. Labonte, **S.A. Golden**, C. Dias, G. Turecki, C. Tamminga, S.J. Russo, M. Mazei-Robison, E.J. Nestler. (2014). Fluoxetine Epigenetically Alters the CaMKII $\alpha$  Promoter in Nucleus Accumbens to Regulate  $\Delta$ FosB Binding and Antidepressant Effects. Neuropsychopharmacology, 2014 Apr;39(5):1178-86.
14. J.J. Walsh, A.K. Friedman, H. Sun, E.A. Heller, S.M. Ku, B. Juarez, V.L. Burnham, M.S. Mazei-Robison, D. Ferguson, **S.A. Golden**, J.W. Koo, D. Chaudhury, D.J. Christoffel, L. Pomeranz, J.M. Friedman, S.J. Russo, E.J. Nestler, M.H. (2014). Stress and CRF gate neural activation of BDNF in the mesolimbic reward pathway. Nature Neuroscience, 2014 Jan;17(1):27-9.
15. E.A. Heller, H.M. Cates, C.J. Peña, H. Sun, N. Shao, J. Feng, **S.A. Golden**, J.P. Herman, J.J. Walsh, M. Mazei-Robison, D. Ferguson<sup>1</sup>, S. Knight, M.A. Gerber, C. Nievera, M.H. Han, S.J. Russo, C.S. Tamminga, R.L. Neve, L. Shen, H.S. Zhang, F. Zhang, E.J. Nestler. (2014). Locus-specific epigenetic remodeling controls addiction- and depression-related behaviors. Nature Neuroscience, 2014 Dec;17(12):1720-7.
16. G.E. Hodes, M. Pfau, M. Leboeuf, **S.A. Golden**, D.J. Christoffel, D. Bregman, N. Rebusi, M. Heshmati, H. Aleyasin, B.L. Warren, B. Lebonite, S. Horn, K.A. Lapidus, V. Stelzhammer, E.H. Wong, S. Bahn, V. Krishnan, C.A. Bolanos-Guzman, J.W. Murrough, M. Merad, S.J. Russo. (2014). Individual differences in the peripheral immune system promote resilience versus susceptibility to social stress. PNAS, 111(45):16136-41.
17. \*D.J. Christoffel, \***S.A. Golden**, J.J. Walsh, K.G. Guise, M. Heshmati, A.K. Friedman, A. Dey, M. Smith, N. Rebusi, M. Pfau, J.L. Ables, H. Aleyasin, L.A. Khibnik, G.E. Hodes, G.A. Ben-Dor, K. Deisseroth, M.L. Shapiro, R.C. Malenka, I. Ibanez-Tallon, M.H. Han, S.J. Russo. (2015). Excitatory transmission at thalamo-striatal synapses mediates susceptibility to social stress. Nature Neuroscience, Jul;18(7):962-4.
18. \*R.J. Donahue, \*S.M. Landino, **S.A. Golden**, F.I. Carroll, S.J. Russo, W.A. Carlezon. (2015). Effects of acute and chronic social defeat stress are differentially mediated by the dynorphin/kappa-opioid receptor system. Behavioral Pharmacology, 2015 Oct;26(7 Spec No):654-63.
19. H. Sun, D.M. Domez-Werno, K.N. Scobie, N.Y. Shao, C. Dias, J. Rabkin, J.W. Koo, I. Maze, C.J. Pena, E. Korb, R.C. Bagot, M. Cahill, E. Mouzon, E.A. Heller, H. Cates, **S.A. Golden**, S.J. Russo, S. Andrews, R. Neve, P.J. Kennedy, D.M. Dietz, C.D. Allis, P. Varga-Weisz, C. Tamminga, L. Shen, E.J. Nestler. ACF chromatin remodeling complex mediates stress-induced depressive-like behavior through nucleosome repositioning and transcriptional regulation. Nature Medicine, 2015 Oct;21(10):1146-53.
20. G.E. Hodes, M.L. Pfau, I. Purushothaman, H.F. Ahn, **S.A. Golden**, D.J. Christoffel, J. Magida, A. Brancato, A. Takahashi, M.E. Flanigan, C. Ménard, H. Aleyasin, J.W. Koo, Z.S. Lorsch, J. Feng, M. Heshmati, M. Wang, G. Turecki,

\* denotes equal authorship

R. Neve, B. Zhang, L. Shen, E.J. Nestler, S.J. Russo. (2015). Sex Differences in Nucleus Accumbens Transcriptome Profiles Associated with Susceptibility versus Resilience to Subchronic Variable Stress. Journal of Neuroscience. 2015 Dec 16;35(50):16362-76.

21. M. Heshmati, **S.A. Golden**, M.L. Pfau, D.J. Christoffel, E.L. Seeley, M.E. Cahill, L.A. Khibnik, S.J. Russo. (2015). Mefloquine in the nucleus accumbens promotes social avoidance and anxiety-like behavior in mice. Neuropharmacology. 2016 Feb, 101:351-7.

22. M.L. Pfau, I. Purushothaman, J. Feng, **S.A. Golden**, H. Aleyasin, Z.S. Lorsch, H.M. Cates, M.E. Flanigan, C. Menard, M. Heshmati, Z. Wang, A. Ma'ayan, L. Shen, G.E. Hodes, S.J. Russo. (2016). Integrative Analysis of Sex-Specific microRNA Networks Following Stress in Mouse Nucleus Accumbens. Frontiers in Molecular Neuroscience. 2016 Dec 23;9:144.

23. **S.A. Golden**, M. Heshmati, M. Flanigan, D.J. Christoffel, K. Guise, M.L. Pfau, H. Aleyasin, C. Menard, H. Zhang, G.E. Hodes, D. Bregman, L. Khibnik, J. Tai, N. Rebusi, B. Krawitz, D. Chaudhury, J.J. Walsh, M.H. Han, M.L. Shapiro, S.J. Russo. (2016). Basal forebrain projections to the lateral habenula modulate aggression reward. Nature. 2016 Jun 30;534(7609):688-92.

*Scientific American*: G. Stix, June 2016

*F1000Prime*: K. Miczek, August 2016.

*Wall Street Journal*: R. Sapolsky, February 2017

24. **S.A. Golden\***, H. Aleyasin\*, R. Heins, M. Flanigan, M. Heshmati, A. Takahashi, S.J. Russo, Y. Shaham. (2017). Persistent conditioned place preference to aggression experience in adult male sexually-experienced CD-1 mice. Genes Brain and Behavior. 2017 Jan;16(1):44-55

25. **S.A. Golden**, C. Heins, M. Venniro, D. Caprioli, M. Zhang, D.H. Epstein, Y. Shaham. (2017). Compulsive Addiction-like Aggressive Behavior in Mice. Biological Psychiatry. 2017 Aug 15;82(4):239-248.

*F1000Prime*: M. Heilig, May 2017; H. De Wit, November 2017.

*Biological Psychiatry Early Career Investigator Commentary*: N. Venables, August 2017

26. C. Menard, M.L. Pfau, G.E. Hodes, V. Kana, V.X. Wang, S. Bouchard, A. Takahashi, M.E. Flanigan, H. Aleyasin, K.B. LeClair, W.G. Janssen, B. Labonté, E.M. Parise, Z.S. Lorsch, **S.A. Golden**, M. Heshmati, C. Tamminga, G. Turecki, M. Campbell, Z. Fayad, C. Ying Tang, M. Merad, S.J. Russo. (2017). Social stress induces neurovascular pathology promoting depression. Nature Neuroscience. 2017 Dec;20(12):1752-1760.

27. R. Chandra\*, M. Engeln\*, C. Schiefer, M.H. Patton, J.A. Martin, C.T. Werner, L.M. Riggs, T.C. Francis, M. McGlincy, B.B. Evans, H. Nam, S. Das, K. Girven, P. Konkalmatt, A.M. Gancarz, **S.A. Golden**, S. Iniguez, S.J. Russo, G. Turecki, B.N. Mathur, M. Creed, D.M. Dietz, M.K. Lobo. (2017). Drp1 mitochondrial fission in D1 neurons mediates behavioral and cellular plasticity during early cocaine abstinence. Neuron. 2017 Dec 20;96(6):1327-1341.

28. J. Wang, G.E. Hodes, H. Zhang, S. Zhang, W. Zhao, **S.A. Golden**, W. Bi, C. Menard, V. Kana, M. Leboeuf, M. Xie, D. Bregman, M. Pfau, M. Flanigan, A. Esteban-Fernandez, S. Yemul, A. Sharma, L. Ho, R. Dixon, M. Merad, M.H. Han, S.J. Russo, G. Pasinetti. (2018). Epigenetic modulation of inflammation and synaptic plasticity promotes resilience against stress in mice. Nature Communications. Feb 2;9(1):477.

29. M. Heshmati, H. Aleyasin, C. Menard, D.J. Christoffel, M.E. Flanigan, M.L. Pfau, G.E. Hodes, A.E. Lepack, L.K. Bicks, A. Takahashi, R. Chandra, G. Turecki, M.K. Lobo, I. Maze, **S.A. Golden**, S.J. Russo. (2018). Cell-type specific role for nucleus accumbens neurologin-2 in depression and stress susceptibility. PNAS. Jan 30;115(5):1111-1116.

30. H. Aleyasin, M.E. Flanigan, **S.A. Golden**, A. Takahashi, C. Menard, M.L. Pfau, J. Multer, J. Pina, K.A. McCabe, N. Bhatti, G.E. Hodes, M. Heshmati, R.L. Neve, E.J. Nestler, E.A. Heller, S.J. Russo. (2018). Cell-Type-Specific Role of  $\Delta$ FosB in Nucleus Accumbens In Modulating Intermale Aggression. Journal of Neuroscience. Jun 27;38(26):5913-5924.

31. M. Venniro, M. Zhang, D. Caprioli, J.K. Hoots, **S.A. Golden**, C. Heins, M. Morales, D.H. Epstein, Y. Shaham. (2018) Volitional social interaction prevents drug addiction in rat models. Nature Neuroscience. Nov;21(11):1520-1529.

32. **S.A. Golden**, M. Jin, C. Heins, M. Venniro, M. Michaelides, Y Shaham. (2019). Nucleus accumbens Drd1-expressing neurons control aggression self-administration and aggression seeking in mice. Journal of Neuroscience. Mar 27;39(13):2482-2496.
33. K.A. Dudek, L. Dion-Albert, M. Lebel, K. LeClair, S. Labrecque, E. Tuck, C.F. Perez, **SA. Golden**, C. Tamminga, G. Turecki, N. Mechawar, S.J. Russo, C. Menard1. (2020). Molecular adaptations of the blood-brain barrier promote stress resilience vs depression. Proceedings of the National Academy of Science USA, in press.
34. B. Labonté, K. Abdallah, G. Maussion, V. Yerko, J. Yang, T. Bittar, F. Quessy, **S.A. Golden**, L. Navarro, D. Checknita, C. Gigek, J.P. Lopez, R.L. Neve, S.J. Russo, R.E. Tremblay, G. Côté, M.J. Meaney, N. Mechawar, E.J. Nestler & G. Turecki. (2020). Regulation of impulsive and aggressive behaviours by a novel lncRNA. Molecular Psychiatry, in press.

### Review articles, protocol papers, textbook chapters and commentaries

1. **S.A. Golden**, H.E. Covington, O. Berton, S.J. Russo. (2011). A standardized protocol for repeated social defeat stress in mice. Nature Protocols, 6(8): 1183-91.
2. D.J. Christoffel, **S.A. Golden**, S.J. Russo. (2011). Structural and synaptic plasticity in stress-related disorders. Reviews in Neuroscience, 22(5): 535-49.
3. **S.A. Golden**, S.J. Russo. (2012). Mechanisms of psychostimulant-induced structural plasticity. Cold Spring Harbor Perspectives in Medicine, 2(10).
4. C.L. Pickens, **S.A. Golden**, S.G. Nair. (2013). Incubation of fear. Current Protocols in Neuroscience, 4:6.27.1-6.27.11.
5. M. Flanigan, H. Aleyasin, A. Takahashi, **S.A. Golden**, S.J. Russo (2017). An emerging role for the lateral habenula in aggressive behavior. In revision at Biochemistry Pharmacology and Behavior, May 9. pii: S0091-3057(17)30021-7.
6. **S.A. Golden**, A. Takahashi. (2018). Combinatorial Psycho-Pharmacological Approaches for the Treatment of Abnormal Aggression. Neuropsychopharmacology. 2018 Jan;43(2):233-234.
7. **S.A. Golden**, Y. Shaham. (2018). Aggression addiction and relapse: a new frontier in psychiatry. Neuropsychopharmacology. 2018 Jan;43(1):224-225.
8. **S.A. Golden**, M. Jin, Y. Shaham. (2019). Animal models of (or for) aggression reward, addiction, and relapse: behavior and circuits. Journal of Neuroscience. May 22;39(21):3996-4008.
9. M. Venniro, **S.A. Golden**. (2020). Taking action: empathy and social interaction in rats. Neuropsychopharmacology, in press.

### Pre-print manuscripts

1. M. Jin, J.D. Nguyen, S.J. Weber, C.A. Mejias-Aponte, R. Madangopal, **S.A. Golden**. (2019). SMART: An open source extension of WholeBrain for iDISCO+ LSFM intact mouse brain registration and segmentation. bioRxiv 727529; doi: <https://doi.org/10.1101/727529>.

### Submitted manuscripts

1. N.L. Goodwin, S.R.O. Nilsson, **S.A. Golden**. (2020). Rage Against the Machine: Advancing the study of aggression ethology via machine learning. Psychopharmacology, in review.

### Invited lectures/panels

1. Epigenetic regulation of synaptic remodeling in depression (Nano-symposium speaker). Society for Neuroscience 42<sup>nd</sup> Annual Meeting, October 2012, New Orleans LA USA

2. Epigenetic regulation of synaptic remodeling in depression (Symposium speaker). 46th Annual Winter Conference on Brain Research (WCBR), January 2013, Breckenridge, CO USA
3. Epigenetic mechanisms of synaptic remodeling in depression (Symposium speaker). Society of Biological Psychiatry - 68<sup>th</sup> Annual Meeting, May 2013, San Francisco, CA USA
4. Epigenetic regulation of synaptic remodeling in stress disorders (Mini-symposium speaker). Society for Neuroscience 43<sup>th</sup> Annual Meeting, November 2013, San Diego CA USA
5. Ventral striatal projections to the lateral habenula modulate aggression reward. EBPS International Conference Travel Award Presenter (Israel). May 2015, Rehovet, Israel.
6. The role of the ventral striatum in encoding operant behavior for natural rewards: food and aggression (Symposium speaker). Monitoring Molecules in Neuroscience 2016, June 2016, Gothenburg, Sweden.
7. Compulsive addiction-like aggressive behavior in mice (Main speaker). Dutch Society for Neuroscience 2017. June 2017, Lunteren, Netherlands.
8. Compulsive addiction-like aggressive behavior in mice. Department of Anatomy & Neurosciences at VU University medical center (VUmc). June 2017, Amsterdam, Netherlands.
9. Compulsive addiction-like aggressive behavior in mice. Department of Behavioral Neuroscience, Universiteit Utrecht. June 2017, Utrecht, Netherlands.
10. Compulsive addiction-like aggressive behavior in mice. Center for Compulsive Behavior. October 2017, Bethesda, MD, USA.
11. Learning to Aggress: Neural Underpinnings of Aggressive Behaviour (Symposium speaker). Winter Conference on Neural Plasticity 2018. January 2018, Curacao, Caribbean.
12. Learning to Aggress: Behavioral and circuit mechanisms of aggression reward. Department of Biological Structure at The University of Washington. May 2018, Seattle, WA, USA.
13. Learning to Aggress: Behavioral and circuit mechanisms of aggression reward. Center of Excellence on the Neurobiology of Pain, Addiction and emotion (NAPE) at The University of Washington. May 2018, Seattle, WA, USA.
14. Appetitive Aspects of Aggression (Symposium speaker). World Meeting of the International Society for Research on Aggression 2018. July 2018, Paris, France.
15. Connectomics of appetitive aggression. The Institut du Cerveau et de la Moelle épinière. July 2018, Paris, France.
16. Violence and substance use disorders (Plenary speaker). Swedish Association for Addiction Medicine Annual Meeting 2018. August 2018, Gothenburg, Sweden.
17. Learning to Aggress: Behavioral and circuit mechanisms of aggression reward. Center on Social and Affective Neuroscience at Linköping University. August 2018, Linköping, Sweden.
18. Connectomics of appetitive aggression. Department of Biological Structure Annual Retreat 2018. September 2018, Seattle, WA, USA.
19. Social motivation across the lifespan (Mini-symposium speaker). Society for Neuroscience 46<sup>th</sup> Annual Meeting, November 2018, San Diego, CA USA.
20. Question and Answers from a Neuroscientist. An Evening with Neuroscience 2019. April 2019, Seattle, WA, USA.
21. Resilience: mechanisms from pre-clinical animal models. 2<sup>nd</sup> International Spring School on Resilience Research. May 2019, Castle Etelsen (Bremen), Germany.
22. Aggression reward and motivation in mice. NeuroFutures2019. July 2019, Portland, Oregon, USA.

23. Neuropharmacology and Neurogenetics of Aggression as Reward. 2019 Biennial Meeting of the European Behavioral Pharmacology Society. August 2019, Braga-Porto, Portugal.
24. A debate on the utility of the social defeat stress as a model for depression-related behaviors. The 5<sup>th</sup> International Symposium on Resilience Research. September 2019 (upcoming), Mainz, Germany.
25. Effects of Cocaine Use (Chair). 2019 Society for Neuroscience Meeting. October 2019, Chicago, IL, USA.
26. The Spectrum of Social Behavior and Its Underlying Mechanisms. 2020 Winter Conference on Brain Research. January 2020 (upcoming), Big Sky, MO, USA.
27. Gordon Research Seminar on Addiction (Chair). Gordon Research Conference on the Neurobiology of Drug Addiction 2020. July 2020 (upcoming), Lowery, ME, USA.

#### Invited Academic/Government Lectures

- 2005 Center for Neuroscience, University of Pittsburgh, PA USA
- 2006 NIDA Intramural Research Program, MD USA
- 2012. Dept. of Neuroscience and Physiology, New York University, NY USA
- 2013. Dept. of Psychiatry, Yale University, CT USA  
Dept. of Neuroscience, The Scripps Research Institute, FL USA
- 2014-2017. NIDA Intramural Research Program, MD USA
- 2017. NIGMS PRAT Invited Speakers Series, Washington DC USA
- 2017. Dept. of Behavioral Neuroscience, Universiteit Utrecht, Utrecht, Netherlands
- 2017. Dept. of Behavioral Neuroscience, VU University, Amsterdam, Netherlands
- 2017. Center for Compulsive Behavior, NIH, Bethesda MD USA
- 2018. Dept. of Biological Structure, University of Washington, Seattle WA USA
- 2018. NAPE Center, University of Washington, Seattle WA USA
- 2018. The Institut du Cerveau et de la Moelle épinière, Paris, France
- 2019. Graduate Program in Neuroscience, Michigan State University, Lansing MI USA
- 2019. Computational Neuroscience Center, University of Washington, Seattle WA USA

#### **Student Training**

- 2019- Dissertation Committee, Rhiana Simon, Stuber Lab, University of Washington
- 2019- Dissertation Committee, Christian Pedersen, Bruchas Lab, University of Washington

##### A. Fellows and Post-Doctoral Fellows in Laboratory

- 2019- Simon Nilsson, PhD, Post-doctoral Fellow (transitioning to Acting Instructor)
- 2019- Eric Szlyeni, PhD, Post-doctoral Fellow (NIDA T32 DA 007278)

##### B. Graduate Students

- 2019- Nastacia Goodwin, BS, Graduate Program in Neuroscience, University of Washington, Seattle, WA (NIDA T32 5T32NS099578-04)
- 2019- Roel Vrooman, BS, University of Washington VISIT Program (2<sup>nd</sup> year Master Student, University of Utrecht, Netherlands)

##### C. Post-baccalaureate Students

- 2015-2017 Connor Heins, BS, currently enrolled in Max Plank University PhD Program
- 2017-2019 Michelle Jin, BS, enrolled in Columbia University MSTP Program
- 2019- Liana Bloom, BA
- 2019- Briana Smith, BS

##### D. Undergraduate Students

- 2018 Joseph Nygen, Rice University
- 2019- Sophia Hwang, University of Washington
- 2019- Cindy Xu, University of Washington
- 2019- Annette Mercedes, University of Washington
- 2019- Mahathi Allepally, University of Washington

## Professional activities

Ad-hoc reviewer - Scientific journals: The Journal of Neuroscience, Biological Psychiatry, Neuropsychopharmacology, Neuropharmacology, Psychopharmacology, Experimental Neurology, Nature Protocols, Addiction Biology, Genes Brain and Behavior, Cell Reports, Nature Communications, Brain and Behavior, PLOS, Frontiers, eNeuro, eLife

Ad-hoc reviewer - Grant agencies: French National Funding Agency for Research (ANR)

## Professional organizations

2006-	Member, Sigma Xi
2009-	Member, Society for Neuroscience
2014-	Member, European Behavioral Pharmacology Society
2016-	Member, International Society on Aggression Research
2018-	Member, Animal Behavior Society

## Research funding

### A. Current

2019-2021	Sponsor: NIH/NIDA NIDA 4R00DA045662-02 Title: Connectomics of relapse to aggression seeking Total Costs: \$747,000 Role: PI
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2019-2020	Sponsor: Brain and Behavior Foundation NARSAD YI Award #27082 Title: Connectomics of PTSD-escalated aggression Total Costs: \$75,000 Role: PI
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### B. Past

2018	Sponsor: NIH/NIDA 1K99DA045662-01 Title: Connectomics of relapse to aggression seeking Total Costs: \$0 (IRP funding) Role: PI
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2015-2018	Sponsor: NIH/NIDA FI2GM117583-01 Title: Role of the nucleus accumbens in regulating aggression reward Total Costs: \$0 (IRP funding) Role: PI
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