CURRICULUM VITAE
Rajani Maiya, PhD

Current Title: Assistant Professor

Business Address: Louisiana State University Health Sciences Center
Department of Physiology
1901 Perdido Street, #7159D, New Orleans, LA, 70112

Business Telephone: (504) 568-1614

Business Fax: (504) 568-6174

Business Email Address: rmaiya@lsuhsc.edu

Citizenship: India

Education:

1992-1995	B.Sc., Microbiology Bangalore University, Bangalore, India
1995-1997	M.Sc., Biotechnology M. S. University of Baroda, Baroda, India
1999-2004	Ph.D., Molecular Biology The University of Texas at Austin
2005-2008	Postdoctoral Fellow, The Rockefeller University Sidney Strickland, PI
2008-2013	Postdoctoral Fellow, The University of California at San Francisco, Ulrike Heberlein, PI

Academic, Professional, and Research Appointments:

May 18, 2020-Present	Tenure-Track Assistant Professor, Department of Physiology LSU Health Sciences Center, New Orleans, LA
2013-2020	Research Scientist, Department of Neuroscience, The University of Texas at Austin
1997-1999	Research Scientist, Astra Zeneca, Bangalore, India

Membership in Professional Organizations:

2000-Present	Member, Research Society on Alcoholism
2004-Present	Member, Society for Neuroscience
2020-Present	Member, American Physiological Society

Awards and Honors:

2023	Young investigator travel award to attend the 2023 Genes, Brain and Behavior meeting from the International Behavioral Neurogenetics Society
2013	Ramalingaswamy Re-entry Fellowship, Department of Biotechnology, Government of India (declined)
2007	Travel award attend the XIth International Workshop on the Molecular and Cellular Biology of Plasminogen Activation, Saltsjobaden, Sweden
2000-2003	Fred Murphy Jones and Homer Lindsay Bruce Endowed Graduate Fellowship for Addiction Research, UT Austin
2001	Research Society on Alcoholism Student Merit Award
1999-2000	Institute for Cellular and Molecular Biology, UT Austin, Graduate Research Fellowship
1995-1997	Department of Biotechnology Fellowship, Government of India

TEACHING EXPERIENCE AND RESPONSIBILLITIES

Spring 2023	Course Director, Dental Hygiene and Physiology
Spring 2022	Course Director, Dental Hygiene and Physiology
Fall 2020	Course Director, Special Topics in Neurophysiology: Physiological Control of Behavior
Spring 2020	Dental Hygiene and Physiology, 4 lecture hours
Spring 2016	Neurobiology of Addiction
Spring 2016	Psychopharmacology
Spring 2017	Hormones and Behavior

Undergraduate, Medical, or Graduate Students Trained (2013-Present):

Undergraduate Students

2022-present	Emily Garcia, Tulane University
2022-2023	Jordan Stein, Tulane University
2022-2023	Jason Min, Tulane University
2022	Cameron Gabriel, LSU Baron Rouge
2021-2022	Emily Blaze, Tulane University
2018-2020	Thi Tran, The University of Texas at Austin)
2018-2020	Victor Liau, The University of Texas at Austin)
2016-2018	Yesha Shah, The University of Texas at Austin)
2013-2014	Dev Gandhi, The University of Texas at Austin

Medical students

2020	Viet Le (LSU Health Sciences Center)

2022	Selby White (LSU Health Sciences Center)

Graduate students

2023	Katherine Copenhaver
2023	Linh Ha
2021	Jessica Landry
2020	Chelsea Duplantis
2020	Daniyell Thomasson

Postdoctoral Fellows

2021-2023	Franciely Paliarin

Thesis and Dissertation Committees:

2020-2022	Nathan Sharfman
2020-2023	Jessica A. Cucinello-Ragland
2022-2023	Taylor Templeton
2022-2026	Ben Cumings
2022-2025	Eden Gallegos
2022-2025	Taylor Fitzpatrick-Schmidt

Junior Faculty:

2020-	Elizabeth Avegno, PhD, K01 Co-sponsor

RESEARCH AND SCHOLARSHIP

Past funded grants and contracts

July 2016-July 2018
The Transcriptional Co-factor LMO4 and Ethanol Drinking
Co-Investigator, 1R21AA025244R21

Current Funding

April 2023- April 2025
Molecular Signatures of Social Stress-Induced Escalation of Drinking
National Institute on Alcohol Abuse and Alcoholism
Principal Investigator, 1R21AA030652-01

Jan 2019-Dec 2023-NCE
Role of the transcriptional regulator LMO4 in alcohol consumption and reward
National Institute on Alcohol Abuse and Alcoholism
Principal Investigator, 1R01AA027293

Pending

July 2024- June 2029
Kappa Opioid Receptor Modulation of BLA Inputs to the BNST and
Social Stress-Escalated Drinking
National Institute on Alcohol Abuse and Alcoholism

Principal Investigator, R01AA031733

July 2024-June 2026
Chronic THC vapor inhalation effects on inflammatory pain outcomes
National Institute on Drug Abuse
MPI with Dr. Nicholas Gilpin, R21DA059711

Journal Publications

1) Paliarin, F., Duplantis, C., Jones, A.F., Cucinello-Ragland, J., Basavanhalli, S., Blaze, E., Doré, E., Neel A.I., Sun, H., Chen, R., Edwards, S., Gilpin, N.W., Messing, R.O, and **Maiya, R**., (2023) A Cre-driver line for genetic targeting of kappa opioid receptor expressing cells. ***eNeuro***, Jul 13; 10(7)

2) Souza-Smith, F.M., Molina, P.E., **Maiya, R.** (2023) Chronic alcohol feeding alters lymph and plasma proteome in a rodent model. ***Life Sci.*** Aug 15, 327:121818

3) Zhao, P., Mondal, S., Martin, C., DuPlissis, A., Chizari, S., Ma, K-Y., **Maiya, R.**, Messing, R.O., Jiang, N., Ben-Yaker, A. (2023) Femtosecond microdissection for isolation of *C. elegans* neurons for single-cell RNA sequencing. ***Nature Methods***, Apr 20(4): 590-599

4) Kelley, D.P., Albrechet-Souza, L., Cruise, S., **Maiya, R**., Destouni, A., Sakamuri, S.V.P., Duplooy, A., Hibicke, M., Nichols, C., Katakam, P.V.G., Gilpin, N.W., Francis, J. (2023) Conditioned place avoidance is associated with a distinct hippocampal phenotype, partly preserved pattern separation, and reduced reactive oxygen species production after stress ***Genes, Brain, and Behavior***, e12840

5) Pomrenze, M.B., Paliarin., and **Maiya, R**. (2022) Friend of the Devil: Negative Social Influences Driving Substance Use Disorders **Frontiers in Behavioral Neuroscience,** Feb 10;16, 836996

6) **Maiya R.,** Pomrenze, M.B., Tran, T., Beckham A., Tiwari, G.N., Mayfield, R.D., and Messing R.O. (2021) LMO4-dependent transcriptional networks regulate alcohol consumption and reward **Molecular Psychiatry,** Jun: 26(6), 2175-2186

7) Pomrenze. M.B., Giovanetti, S.M., **Maiya, R.,** and Messing. R.O. **(**2019**)** GABA and neuropeptides from CRF neurons of the rat central amygdala play distinct role in fear and anxiety ***Cell Reports****, 29(1), 13-21*

8) Pomrenze, M.B., Tovor-Diaz, J., Blasio, A.M., **Maiya, R.,** Lei, K., Gyawali, S., Morikawa, H., Hopf, F.W., and Messing, R.O. (2019) A corticotropin releasing factor network in the extended amygdala for anxiety **J. Neurosci.**, **39(6)**, 1030-1043

9) **Maiya, R.** and Messing, R.O. (2018) Killing the Buζζ: Accumbal PKMζ blunts cocaine seeking and reward. ***Neuropsychopharmacology***, **44(3),** 463-464

10) **Maiya, R.**, McMahon, T., Wang, D., Kanter, B., Gandhi, D., Chapman, H.L., Miller, J., Messing, R.O. (2016) Selective chemical genetic inhibition of protein kinase C epsilon reduces ethanol consumption in mice. ***Neuropharmacology***, **107,** 40-48

11) Pomrenze, M.B. , Millan, E.Z., Hopf, F.W., Keiflin, R., **Maiya, R.**, Blasio, A., Dadgar, J., Kharazia, V., De Guglielmo, G., Crawford, E., Janak, P.H., George, O., Rice, K.C., Messing, R.O. (2015) A Transgenic Rat for Investigating the Anatomy and Function of Corticotrophin Releasing Factor Circuits. ***Front. Neurosci.*****,** **9**, 487

12) **Maiya, R.**, Mangieri, R.A., Morrisett, R.A., Heberlein, U., Messing, R.O. (2015) A Selective

Role for *Lmo4* in Cue-Reward Learning. ***J. Neurosci.,* 35(26),** 9638-47

13) Savarese, A., Zou, M.E., Kharazia, V., **Maiya, R.**, Lasek, A.W. (2014) Increased behavioral responses to ethanol in *Lmo3* knockout mice. ***Genes, Brains, and Behavior,* 13(8),** 777-83

14) **Maiya, R.***, Lee, S.*, Berger, K.*, Kong, E., Slawson, J.B., Griffith, L.C., Margolis, B., and Heberlein, U. (2012) *DlgS97*, A neuronal isoform of "discs large" is necessary for ethanol tolerance***. PLoS ONE*., 7(11)**, e48967

15) **Maiya, R**., Kharazia, V., Lasek, A.W., and Heberlein, U. (2012) LMO4 in the basolateral complex of the amygdala modulates fear learning. ***PLoS ONE.,* 7(4)**, e34559

16) Zhou, Y.*, **Maiya, R.*,** Norris, E.H., Kreek, M.J., and Strickland, S. (2010) Involvement of tissue plasminogen activator in stress responsivity and anxiety-like behavior during acute cocaine withdrawal. ***Stress***, 13(6), 481-90

17) Skrzypiec, A., **Maiya, R.**, Chen, Z., Pawlak, R., and Strickland, S. (2009) Plasmin-mediated degradation of laminin γ-1 is critical for neurodegeneration after ethanol withdrawal. ***Biological Psychiatry,* 66(8)**: 785-94

18) Maiya, R., Zhou, Y., Norris, E.H., Kreek, M.J., and Strickland, S. (2009) Tissue plasminogen activator regulates the cellular and behavioral response to cocaine. ***Proceedings of the National Academy of Sciences****, USA* 106(6): 1983-8

19) **Maiya, R.**, Linse, K.D., Ponomarev, I., Harris, R.A., and Mayfield, R.D. (2007) Defining the dopamine transporter proteome by convergent biochemical and *in silico* approaches. ***Genes, Brain, and Behavior,* 6***,*** 97-106

20) Ponomarev I., **Maiya, R.,** Harnett, M.T., Schafer, G.L., Ryabinin, A.E., Blednov, Y.A., Morikawa, H., Boehm II, S.L., Homanics, G.E., Berman, A., Lodowski, K.H., Bergeson, S.E., and Harris, R.A. (2006) Transcriptional signatures of altered inhibition in mice lacking the α1 subunit of the GABAA receptors. **Journal of Neuroscience**, 26, 5673-5683

21) Diaz, L.M., **Maiya, R.**, Sullivan, M.A., Han, Y., Walton, H.A., Boehm, S.L. 2nd, Bergeson, S.E., Mayfield, R.D., and Morrisett, R.A. (2004). Sindbis viral-mediated expression of eGFP-dopamine D1 receptors in situ with real-time two-photon microscopic detection. ***Journal of Neuroscience Methods***, **139**, 25-31

22) **Maiya, R.,** Buck, K.J., Harris, R.A., and Mayfield, R.D. (2002) Ethanol sensitive sites on the human dopamine transporter. *Journal of Biological Chem*istry, 34, 30724-30729

23) Mayfield, R.D., **Maiya, R.**, Keller, D., and Zahniser, N.R. (2001) Ethanol potentiates the function of the human dopamine transporter expressed in Xenopus oocytes. ***Journal of Neurochemistry***, **79**, 1070-1079

24) Mascia, M.P., **Maiya, R.**, Borghese, C., Lobo, I., Hara, K., Yamakura, T., Gong, H., and Beckstead, M.J. (2001) Does acetaldehyde mediate ethanol action in the CNS? ***Alcoholism: Clinical and Experimental Research,* 25**, 1570-5

* denotes equal contribution

Book Chapters

1) **Maiya, R**., and Messing, R.O. (2014) Peripheral Systems: Neuropathy in ***Pfferbaum and Sullivan: Alcohol and the Nervous System (Handook of Clinical Neurology)***, **125**, 513-25

2) **Maiya, R.,** and Mayfield, R.D. (2004) Dopamine Transporter Network and Pathways in ***International Reviews in Neurobiology*** (Lisa Neuholdt ed), **61**, 79-93

Selected Abstracts

1) **Maiya, R.,** Heberlein, U., Messing, R.O. LMO4 in the basolateral amygdala modulates selective aspects of cue-reward learning, Annual Pavlovian Society Meeting, Austin, TX., Nov 26-29, 2013

2) **Maiya, R.,** Heberlein, U., Messing, R.O. A selective role for LMO4 in the basolateral amygdala in cue-reward learning, Society for Neuroscience, Washington DC, Nov 15-19, 2014

3) **Maiya, R.,** Mangieri, R.M., Chapman, H.L., Morrisett, R.M., and Messing, R.O. A role for the transcriptional regulator LMO4 in limiting alcohol consumption, Research Society on Alcoholism Meeting, New Orleans, La., June 25-29, 2016

4) **Maiya, R.,** McMahon, T., Wang, D., Kanter, B., Gandhi, D., Chapman. H.L., Miller, J., and Messing, R.O. Selective chemical genetic inhibition of protein kinase C epsilon reduces ethanol consumption in mice, Research Society on Alcoholism Meeting, New Orleans, LA., June 25-29, 2016

5) **Maiya, R.,** Pomrenze, M.B., Beckham, A., and Messing, R.O. Role of the transcriptional regulator LMO4 in excessive alcohol consumption, Research Society on Alcoholism Meeting, Denver, Co., June 24-28, 2016

6) **Maiya, R.,** Mangieri, R.M., Pomrenze, M.B., Morrisett, R.M., and Messing, R.O. A role for the transcriptional regulator LMO4 in motivated behaviors, Neurobiology of Drug Addiction, Gordon Research Conference, Hong Kong, July 16-21, 2017

7) Shah, Y., **Maiya, R.,** Wu, D., Giovanetti, S.M., Wang, J., and Messing, R.O. Identification of novel substrates of protein kinase c epsilon using a chemical genetic strategy, Society for Neuroscience, Washington DC, Nov 11-15, 2017

8) **Maiya, R.,** Beckham, A., Mangieri, R., Tiwari, G. N., Farris, S.P., Pomrenze, M.B., Morrisett, R.A., Mayfield, R.D., and Messing, R.O. Role of the transcriptional regulator LMO4 in excessive alcohol consumption, Society for Neuroscience, Washington DC, Nov 11-15, 2017

9) **Maiya, R.,** Beckham, A., Mangieri, R., Tiwari, G. N., Farris, S.P., Pomrenze, M.B., Morrisett, R.A., Mayfield, R.D., and Messing, R.O. Differential regulation of excessive alcohol consumption by the transcriptional regulator LMO4, Alcohol and the Central Nervous System, Gordon Research Conference, Galveston, TX., March 4-9, 2018

10) **Maiya, R.,** Beckham, A., Mangieri, R., Tiwari, G. N., Farris, S.P., Pomrenze, M.B., Morrisett, R.A., Mayfield, R.D., and Messing, R.O. Differential regulation of excessive alcohol consumption by the transcriptional regulator LMO4, The 20th Annual Genes, Brain, and Behavior meeting, Rochester, MN, May 17-21, 2018

11) C. Duplantis, F. Paliarin, S. Basavanahalli, E. Blaze, and **R. Maiya** Interrogating the role of BLA kappa opioid receptors in social-stress escalated drinking, Research Society on Alcohol Meeting, Orlando, FL., June 25-29, 2022

12) E. Blaze, S. Basavanahalli, R.D. Mayfield, and **R. Maiya** Cell type-agnostic approach to investigate the neural mechanisms of social stress-induced escalation of alcohol consumption. Research Society on Alcohol Meeting, Orlando, FL., June 25-29, 2022.

13) C. Duplantis, F. Paliarin, S. Basavanahalli, E. Blaze, and **R. Maiya.** Interrogating the role of BLA kappa opioid receptors in social-stress escalated drinking Alcohol and the Central Nervous System, Gordon Research Conference, Oxnard, CA, October 23-28, 2022.

14) S. White, A. Zaparte, E. Doré, C. Gabriel, F. Paliarin, S. Basavanhalli, D.A. Welsh, **R. Maiya.** Characterizing rodent diet influences on alcohol consumption. Research Society on Alcohol Meeting, Bellevue, WA., June 24-28, 2023.

Scientific Presentations

1) Transcriptional Signatures of Social Stress-Escalated Alcohol Consumption, **The Paraventricular Thalamus as Mediator for Adaptations to Stress and Drug Use, Minisymposium, Society for Neuroscience, Washington, D.C.,** November 12, 2023

2) Transcriptional Signatures of Social Stress-Escalated Alcohol Consumption, **Advanced Genomic Strategies to Understand Alcohol Use Disorder symposium, Research Society on Alcohol, Bellevue, WA,** June 28, 2023

3) Transcriptional Signatures of Social Stress-Escalated Alcohol Consumption, **Outstanding travel award symposium, Genes, Brain, and Behavior Meeting**, **Galway, Ireland**, May 25, 2023,

4) Molecular and Circuit Mechanisms Linking Social Stress and Addiction, **Department of Neuroscience Seminar Series**, **Brown University, Providence, RI**, March 30, 2023**.**

5) Neural Ensembles of Social Stress Escalated Alcohol Consumption, **Gordon Research Conference** on Alcohol and the Central Nervous system, October 23-28, 2022, **Oxnard, CA**

6) Transcriptional Regulation of Motivated Behaviors, **Tulane Brain Institute, New Orleans, LA,** April 28, 2021

7) Transcriptional Regulation of Motivated Behaviors by LMO4, **Department of Psychiatry, University of Illinois, Chicago, IL,** April 22, 2021

8) Transcriptional Regulation of Motivated Behaviors, **Department of Neuroscience and Experimental Therapeutics, Albany Medical College, Albany, NY,** October 30-31, 2019

9) Transcriptional Regulation of Motivated Behaviors, **Janelia Milestone Symposium on Molecular and Neural Mechanisms of Reward and Addiction**, **Howard Hughes Medical Institute, Ashburn, Virginia**, October 6-7, 2019

10) Transcriptional Regulation of Motivated Behavior by LMO4, Invited Seminar, Department of Pharmacology, Toxicology, and Neuroscience, **Louisiana State University Health Sciences Center**, **Shreveport**, **LA**, October 1, 2019

11) Transcriptional Regulation of Motivated Behavior by LMO4, Invited Seminar, Department of Physiology, **Louisiana State University Health Sciences Center**, **New Orleans**, September 17, 2019

12) Transcriptional regulation of motivated behaviors by LMO4, Invited Seminar, Department of Psychiatry, **University of Alabama, Birmingham**, **AL**, June 17, 2019

13) The transcription cofactor Lmo4 is a novel regulator of kappa opioid receptor expression and alcohol consumption, **Kappa Therapeutics Conference**, University of Washington, **Seattle, WA**, March 28-30, 2019

14) Regulation of alcohol consumption and reward by the transcriptional regulator LMO4, **7th Annual Waggoner Center Advance,** The University of Texas at Austin, **Austin, TX**, March 23, 2018

15) Regulation of motivated behaviors by the transcription cofactor LMO4, **Invited speaker, Behavioral Neuroscience Seminar Series, Department of Psychology**, The University of Texas at Austin, **Austin, TX**, February 28, 2018

16) Tissue plasminogen activator modulates the cellular and behavioral response to cocaine **XIth International Workshop on the Molecular and Cellular Biology of Plasminogen Activation,** Var Gard Saltsjobaden, **Stockholm, Sweden**, June 16-20, 2007

Editorial posts and activities

Reviewer

2013-Present	Neuropharmacology
2013-Present	Addiction Biology
2013-Present	Neuropsychopharmacology
2013-Present	Alcohol
2014-Present	Alcoholism: Clinical and Experimental Research
2014-Present	Journal of Neurochemistry
2021-Present	Psychopharmacology
2023-Present	Epigenetics
2023-Present	Science Advances

SERVICE ACTIVITIES

2023-2024	Member, Research Society on Alcohol Program committee
2014-2020	Member, UT Austin Institutional Biosafety Committee
2021	Reviewer, ZAA1 Study section, NIAAA
2021-2023	IDP/Biomedical Sciences Graduate Admissions Committee
2022-Present	International Travel Committee