

**CURRICULUM VITAE**

**Rajani Maiya, PhD**

**Current Title:** Assistant Professor

**Business Address:** Louisiana State University Health Sciences Center

Department of Physiology

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**Business Email Address:** rmaiya@lsuhsc.edu

**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-PresentMember,Research Society on Alcoholism

2004-Present Member, Society for Neuroscience

**Awards and Honors:**

2013Ramalingaswamy Re-entry Fellowship, Department of Biotechnology, Government of India (declined)

2007Travel award attend the XIth International Workshop on the Molecular and Cellular Biology of Plasminogen

Activation, Saltsjobaden, Sweden

2000-2003Fred Murphy Jones and Homer Lindsay Bruce Endowed Graduate Fellowship for Addiction Research, UT Austin

2001Research Society on Alcoholism Student Merit Award

1999-2000Institute for Cellular and Molecular Biology, UT Austin, Graduate Research Fellowship

1995-1997Department of Biotechnology Fellowship, Government of India

**TEACHING EXPERIENCE AND RESPONSIBILLITIES**

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

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

Medical students

2020 Viet Le (LSU Health Sciences Center)

Graduate students

2020 Chelsea Duplantis

2020 Daniyell Thomasson

2021 Ashlee E. Williams

2021 Tamara Morris

**Thesis and Dissertation Committees:**

2020- Jessica A. Cucinello-Ragland, Thesis Committee

2020- Nathan Sharfman, Thesis Committee

**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**

Jan 2019-Dec 2023

Role of the transcriptional regulator LMO4 in alcohol consumption and reward

National Institute on Alcohol Abuse and Alcoholism

Principal Investigator, 1R01AA027293

**Pending**

July 2021- June 2023

Molecular Signatures of Social Stress-Induced Escalation of Drinking

National Institute on Alcohol Abuse and Alcoholism

Principal Investigator, 1R21AA029500-01

**Journal Publications**

1) **Maiya R.,** Pomrenze, M.B., Tran, T., Beckham A., Tiwari, G.N., Mayfield, R.D., andMessing R.O.(2020)LMO4-dependent transcriptional networks regulate alcohol consumption and reward ***Molecular Psychiatry, Mar. 6,*** epub ahead of print

2)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*

3) 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

4**) Maiya, R.** and Messing, R.O. (2018) Killing the Bu Accumbal PKMblunts cocaine seeking and reward. ***Neuropsychopharmacology***, **44(3),** 463-464

5) **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. ***Neuropharmacolog*y**, **107,** 40-48

6) 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

7) **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

8) 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

9) **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

10) **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

# 11) 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

12) 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

13) **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

14) **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

15) 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 1 subunit of the GABAA receptors. **Journal of Neuroscience**, 26, 5673-5683

16) 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

17) 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

18) 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

19) 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

**Research Review Committees -**

**Scientific Presentations**

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

2) 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

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

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

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

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

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

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

9) 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, 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

**SERVICE ACTIVITIES**

2014-202 Member, UT Austin Institutional Biosafety Committee

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