

Curriculum Vitae

Bharathi Gadad, PhD

Assistant Professor, Behavioral Health
Department of Medical Education
University of Texas Rio Grande Valley
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Contact Information

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Education & Training

- Ph.D. in Biochemistry, University of Mysore, India,
- Masters in Biochemistry, University of Mysore, India
- Bachelor in Biochemistry, University of Mysore, India.

Work Experience

- 2019-2023 Assistant Professor, Department of Psychiatry Texas Tech University Health Science Center at El Paso, TX
- 2015-2019 Instructor, UT Southwestern Medical Center at Dallas, Dallas, TX, USA
- 2012-2015 Assistant Instructor, UT Southwestern Medical Center at Dallas, Dallas, TX, USA
- 2010-2012 Post-Doctoral Fellow, UT Southwestern Medical Center at Dallas, Dallas, TX, USA
- 2007-2010 Post-Doctoral Fellow, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA
- 2001-2007 Doctoral Student, Central Food Technological Research Institute, University of Mysore, Mysore, India

Professional Memberships

- o Society for Neuroscience (SFN)
- o Society for Biological Psychiatry (SOBP)
- o Anxiety and Depression Association of America (ADAA)

Honors & Awards

- Pfeil Foundation Investigator Recognition, Research Partner's Program, NARSAD, Brain Behavior Research Foundation (2021)
- Brain Behavior Research Foundation (BBRF) NARSAD Young Investigator Award (2020)
- American Society for Clinical Pharmacology (ASCP) New Investigator Award and Travel Award (2018)
- American College of Neuropsychopharmacology (ACNP)-ADAA Travel Award (2017)
- PCBC Scholarship Award, NHLBI, NIH for the Stem Cell and Gene Editing Workshop at Stanford University (2017)
- Allies Muskin Career Development Award (CDLP) Anxiety and Depression Association of America, and Honorary Poster Award (2016)
- Society for Biological Psychiatry Early Career Investigator Travel Award and Honorary Poster Award (2015)

Research Focus

My research focus is to understand the genetics and brain cell type signaling in major depression, suicide, addiction, and substance use disorders. My research focus is to disseminate the gender-based changes underlying major depression and suicide using “omics” approaches both at the brain cell type level.

Publications

1. Crowley JJ, Cappi C, Ochoa-Panaifo ME, Frederick RM, Kook M, Wiese AD, Rancourt D, Atkinson EG, Giusti-Rodriguez P, Anderberg JL; Latin American Trans-ancestry INitiative for OCD genomics (LATINO), Brazilian Obsessive-Compulsive Spectrum Disorder Working Group (GTTOC); Abramowitz JS, Adorno VR, Aguirre C, Alves GS, Alves GS, Ancalade N, Espinosa AAA, Arnold PD, Ayton DM, Barbosa IG, Castano LMB, Barrera CN, Prieto MB, Berardo MC, Berrones D, Best JR, Bigdeli TB, Burton CL, Callahan JL, Carneiro MCB, Cepeda SL, Chazelle E, Chire JM, Munoz MC, Quiroz PC, Cobite J, Comer JS, Costa DL, Crosbie J, Cruz VO, Dager G, Daza LF, de la Rosa-Gómez A, Del Río D, Delage FZ, Dreher CB, Fay L, Fazio T, Ferrão YA, Ferreira GM, Figueroa EG, Fontenelle LF, Forero DA, Fragoso DT, **Gadad BS**, Garrison SR, González A, Gonzalez LD, González MA, Gonzalez-Barrios P, Goodman W, Guintivano J, Gutfreund DG, Guzick AG, Halvorsen MW, Hovey JD, Janssen-Aguilar R, Jensen M, Reynolds AZJ, Lujambio JAJ, Khalfe N, Knutsen MA, Lack C, Lanzagorta N, Lima MO, Longhurst MO, Martinez DAL, Luna ES, Marques AH, Martinez M, de Los Angeles Matos M, Maye CE, McGuire JF, Menezes G, Minaya C, Miño T, Mithani SM, de Oca C...[See abstract for full author list](#) → medRxiv [Preprint]. 2023 Feb 26:2023.02.23.23286373. doi: 10.1101/2023.02.23.23286373.PMID: 37131804 [Latin American Trans-ancestry INitiative for OCD genomics \(LATINO\): Study Protocol.](#)

2. Crowley JJ, Cappi C, Ochoa-Panaifo ME, Frederick RM, Kook M, Wiese AD, Rancourt D, Atkinson EG, Giusti-Rodriguez P, Anderberg JL; Latin American Trans-ancestry INitiative for OCD genomics; Brazilian Obsessive-Compulsive Spectrum Disorder Working Group; Abramowitz JS, Adorno VR, Aguirre C, Alves GS, Alves GS, Ancalade N, Arellano Espinosa AA, Arnold PD, Ayton DM, Barbosa IG, Castano LMB, Barrera CN, Berardo MC, Berrones D, Best JR, Bigdeli TB, Burton CL, Buxbaum JD, Callahan JL, Carneiro MCB, Cepeda SL, Chazelle E, Chire JM, Munoz MC, Quiroz PC, Cobite J, Comer JS, Costa DL, Crosbie J, Cruz VO, Dager G, Daza LF, de la Rosa-Gómez A, Del Río D, Delage FZ, Dreher CB, Fay L, Fazio T, Ferrão YA, Ferreira GM, Figueroa EG, Fontenelle LF, Forero DA, Fragoso DTH, **Gadad BS**, Garrison SR, González A, Gonzalez LD, González MA, Gonzalez-Barrios P, Goodman WK, Grice DE, Guintivano J, Gutfreund DG, Guzick AG, Halvorsen MW, Hovey JD, Huang H, Irreño-Sotomonte J, Janssen-Aguilar R, Jensen M, Jimenez Reynolds AZ, Lujambio JAJ, Khalfe N, Knutsen MA, Lack C, Lanzagorta N, Lima MO, Longhurst MO, Lozada Martinez DA, Luna ES, Marques AH, Martinez MS, de Los Angeles Matos M, Maye CE, McGuire JF, Me...[See abstract for full author list → Latin American Trans-ancestry INitiative for OCD genomics \(LATINO\): Study protocol](#). *Am J Med Genet B Neuropsychiatr Genet*. 2023 Nov 9:e32962. doi: 10.1002/ajmg.b.32962. Online ahead of print . PMID: 37946624.
3. Cruz B, Castañeda K, Aranda M, Hinojosa CA, Castro-Gutierrez R, Flores RJ, Spencer CT, Vozella V, Roberto M, **Gadad BS**, Roychowdhury S, O'Dell LE. [Alcohol self-administration and nicotine withdrawal alter biomarkers of stress and inflammation and prefrontal cortex changes in Gβ subunits](#). *Am J Drug Alcohol Abuse*. 2023 May 4;49(3):321-332. doi: 10.1080/00952990.2022.2121656. Epub 2022 Oct 7. PMID: 36206520
4. Vargas-Medrano J, Carcoba LM, Vidal Martinez G, Mulla ZD, Diaz V, Ruiz-Velasco A, Alvarez-Primo F, Colina G, Iñiguez SD, Thompson PM, O'Dell LE, **Gadad BS**. [Sex and diet-dependent gene alterations in human and rat brains with a history of nicotine exposure](#). *Front Psychiatry*. 2023 Feb 10;14:1104563. doi: 10.3389/fpsy.2023.1104563. 2023. PMID: 36846236.
5. Salcido A, Robles EH, Chaudhary K, Alvarado L, Iñiguez SD, Vargas-Medrano J, Diaz-Pacheco V, Villanos MT, **Gadad BS**, Martin SL [Association of ADHD and Obesity in Hispanic Children on the US-Mexico Border: A Retrospective Analysis](#). *Front Integr Neurosci*. 2022 Jan 5;15:749907. doi: 10.3389/fnint.2021.749907. eCollection 2021. PMID: 35069136
6. **Gadad BS**, Vargas-Medrano J, Ramos EI, Najera K, Fagan M, Forero A, Thompson PM. [Altered levels of interleukins and neurotrophic growth factors in mood disorders and suicidality: an analysis from periphery to central nervous system](#). *Transl Psychiatry*. 2021 Jun 2;11(1):341. doi: 10.1038/s41398-021-01452-1. PMID: 34078872 .
7. Umucu E, Lo CL, Lee B, Vargas-Medrano J, Diaz-Pacheco V, Misra K, Martin SL, Thompson PM, **Gadad BS**. [Is Gratitude Associated With Suicidal Ideation in Veterans With Mental](#)

- [Illness and Student Veterans With PTSD Symptoms?](#) J Nerv Ment Dis. 2022 Jan 1;210(1):26-31. doi: 10.1097/NMD.0000000000001406.PMID: 34417422
8. Brown J, Everett C, Barragan JA, Vargas-Medrano J, **Gadad BS**, Nichols F, Cervantes JL. Arch Med Res. 2022 [Multiple Sclerosis-associated Bacterial Ligand 654](#). Feb;53(2):157-162. doi: 10.1016/j.arcmed.2021.11.002. PMID: 34895764.
 9. Diaz-Pacheco V, Vargas-Medrano J, Tran E, Nicolas M, Price D, Patel R, Tonarelli S, **Gadad BS**. [Prognosis and Diagnostic Biomarkers of Mild Traumatic Brain Injury: Current Status and Future Prospects](#). J Alzheimers Dis. 2022;86(3):943-959. PMID: 35147534 Review.
 10. **Gadad BS**, Jha MK, Czysz A, Furman JL, Mayes TL, Emslie MP, Trivedi MH. [Peripheral biomarkers of major depression and antidepressant treatment response: Current knowledge and future outlooks](#). J Affect Disord. 2018 Jun;233:3-14. doi: 10.1016/j.jad.2017.07.001. Epub 2017 Jul 5. PMID: 28709695
 11. Nami M, **Gadad BS**, Chong L, Ghumman U, Misra A, Gadad SS, Kumar D, Perry G, Abraham SJK, Rao KS. [The Interrelation of Neurological and Psychological Symptoms of COVID-19: Risks and Remedies](#). J Clin Med. 2020 Aug 13;9(8):2624. doi: 10.3390/jcm9082624. PMID: 32823540
 12. Vargas-Medrano J, Diaz-Pacheco V, Castaneda C, Miranda-Arango M, Longhurst MO, Martin SL, Ghumman U, Mangadu T, Chheda S, Thompson PM, **Gadad BS**. [Brain Psychological and neurobiological aspects of suicide in adolescents: Current outlooks](#). Behav Immun Health. 2020 Aug;7:100124. doi: 10.1016/j.bbih.2020.100124. Epub 2020 Aug 5. PMID: 32835300
 13. Sierra-Fonseca JA, Rodriguez M, Themann A, Lira O, Flores-Ramirez FJ, Vargas-Medrano J, **Gadad BS**, Iñiguez SD. [Autophagy Induction and Accumulation of Phosphorylated Tau in the Hippocampus and Prefrontal Cortex of Adult C57BL/6 Mice Subjected to Adolescent Fluoxetine Treatment](#). J Alzheimers Dis. 2021;83(4):1691-1702. doi: 10.3233/JAD-210475. PMID: 34420960
 14. Liu JJ, Wei YB, Strawbridge R, Bao Y, Chang S, Shi L, Que J, **Gadad BS**, Trivedi MH, Kelsoe JR, Lu L. Mol Psychiatry [Peripheral cytokine levels and response to antidepressant treatment in depression: a systematic review and meta-analysis](#). 2020 Feb;25(2):339-350. doi: 10.1038/s41380-019-0474-5. PMID: 31427752.
 15. Jha MK, Cai L, Minhajuddin A, Fatt CC, Furman JL, **Gadad BS**, Mason BL, Greer TL, Hughes JL, Xiao G, Emslie G, Kennard B, Mayes T, Trivedi MH [Dysfunctional adaptive immune response in adolescents and young adults with suicide behavior](#). Psychoneuroendocrinology. 2020 Jan;111:104487. doi: 10.1016/j.psyneuen.2019.104487. Epub 2019 Oct 25. PMID: 31756521.

16. Czysz AH, South C, **Gadad BS**, Arning E, Soyombo A, Bottiglieri T, Trivedi MH. [Can targeted metabolomics predict depression recovery? Results from the CO-MED trial](#). *Transl Psychiatry*. 2019 Jan 16;9(1):11. doi: 10.1038/s41398-018-0349-6. PMID: 30664617.
17. Mason BL, Minhajuddin A, Czysz AH, Jha MK, **Gadad BS**, Mayes TL, Trivedi MH. [Fibroblast growth factor 21 \(FGF21\) is increased in MDD and interacts with body mass index \(BMI\) to affect depression trajectory](#). *Transl Psychiatry*. 2022 Jan 11;12(1):16. doi: 10.1038/s41398-021-01679-y. PMID: 35017468
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20. Brown J, Everett C, Barragan JA, Vargas-Medrano J, **Gadad BS**, Nichols F, Cervantes JL. [Erratum to "Multiple Sclerosis-associated Bacterial Ligand 654" \[Archives of Medical Research 53/2\(February 2022\) 157-162/ARCMED_2021_2713\]](#). *Arch Med Res*. 2023 Apr;54(3):275. doi: 10.1016/j.arcmed.2022.04.004. Epub 2022 May 20. PMID: 35606246
21. **Gadad BS**, Jha MK, Grannemann BD, Mayes TL, Trivedi MH. [Proteomics profiling reveals inflammatory biomarkers of antidepressant treatment response: Findings from the CO-MED trial](#). *J Psychiatr Res*. 2017 Nov;94:1-6. doi: 10.1016/j.jpsychires.2017.05.012. Epub 2017 May 26. PMID: 28628884
22. Jha MK, Minhajuddin A, **Gadad BS**, Greer T, Grannemann B, Soyombo A, Mayes TL, Rush AJ, Trivedi MH. [Can C-reactive protein inform antidepressant medication selection in depressed outpatients? Findings from the CO-MED trial](#). *Psychoneuroendocrinology*. 2017 Apr;78:105-113. doi: 10.1016/j.psyneuen.2017.01.023. Epub 2017 Jan 24. PMID: 28187400
23. Trivedi MH, Chin Fatt CR, Jha MK, Cooper CM, Trombello JM, Mason BL, Hughes J, **Gadad BS**, Czysz AH, Toll RT, Fuller AK, Sethuram S, Mayes TL, Minhajuddin A, Carmody T, Greer TL. [Comprehensive phenotyping of depression disease trajectory and risk: Rationale and design of Texas Resilience Against Depression study \(T-RAD\)](#). *J Psychiatr Res*. 2020 Mar;122:22-32. doi: 10.1016/j.jpsychires.2019.12.004. Epub 2019 Dec 10. PMID: 31918350
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25. Jha MK, Minhajuddin A, **Gadad BS**, Trivedi MH. [Platelet-Derived Growth Factor as an Antidepressant Treatment Selection Biomarker: Higher Levels Selectively Predict Better Outcomes with Bupropion-SSRI Combination](#). Int J Neuropsychopharmacol. 2017 Nov 1;20(11):919-927. doi: 10.1093/ijnp/pyx060.PMID: 29016822.
26. Jha MK, Minhajuddin A, **Gadad BS**, Chin Fatt C, Trivedi MH. [Higher S100B Levels Predict Persistently Elevated Anhedonia with Escitalopram Monotherapy Versus Antidepressant Combinations: Findings from CO-MED Trial](#). Pharmaceuticals (Basel). 2019 Dec 17;12(4):184. doi: 10.3390/ph12040184.PMID: 31861074
27. **Gadad BS**, Li W, Yazdani U, Grady S, Johnson T, Hammond J, Gunn H, Curtis B, English C, Yutuc V, Ferrier C, Sackett GP, Marti CN, Young K, Hewitson L, German DC. [Administration of thimerosal-containing vaccines to infant rhesus macaques does not result in autism-like behavior or neuropathology](#). Proc Natl Acad Sci U S A. 2015 Oct 6;112(40):12498-503. doi: 10.1073/pnas.1500968112. Epub 2015 Sep 28.PMID: 26417083
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29. Berrocal R, Vasquez V, Rao Krs S, **Gadad BS**, Rao KS [\$\alpha\$ -Synuclein Misfolding Versus Aggregation Relevance to Parkinson's Disease: Critical Assessment and Modeling](#). J Mol Neurobiol. 2015;51(3):1417-31. doi: 10.1007/s12035-014-8818-2. Epub 2014 Aug 20.PMID: 25139280
30. Sonsalla PK, Coleman C, Wong LY, Harris SL, Richardson JR, **Gadad BS**, Li W, German DC. [The angiotensin converting enzyme inhibitor captopril protects nigrostriatal dopamine neurons in animal models of parkinsonism](#). Exp Neurol. 2013 Dec;250:376-83. doi: 10.1016/j.expneurol.2013.10.014. Epub 2013 Oct 30.PMID: 24184050
31. Zaman S, Yazdani U, Deng Y, Li W, **Gadad BS**, Hynan L, Karp D, Roatch N, Schutte C, Nathan Marti C, Hewitson L, German DC [A Search for Blood Biomarkers for Autism: Peptoids](#). Sci Rep. 2016 Jan 14;6:19164. doi: 10.1038/srep19164.PMID: 26764136
32. **Gadad BS**, Daher JP, Hutchinson EK, Brayton CF, Dawson TM, Pletnikov MV, Watson J. [Effect of fenbendazole on three behavioral tests in male C57BL/6N mice](#). J Am Assoc Lab Anim Sci. 2010 Nov;49(6):821-5.PMID: 21205447
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35. Ko HS, Lee Y, Shin JH, Karuppagounder SS, **Gadad BS**, Koleske AJ, Pletnikova O, Troncoso JC, Dawson VL, Dawson TM [Phosphorylation by the c-Abl protein tyrosine kinase inhibits parkin's ubiquitination and protective function](#). Proc Natl Acad Sci U S A. 2010 Sep 21;107(38):16691-6. doi: 10.1073/pnas.1006083107. Epub 2010 Sep 7.PMID: 20823226
36. Sonsalla PK, Wong LY, Harris SL, Richardson JR, Khobahy I, Li W, **Gadad BS**, German DC. [Delayed caffeine treatment prevents nigral dopamine neuron loss in a progressive rat model of Parkinson's disease](#). Exp Neurol. 2012 Apr;234(2):482-7. doi: 10.1016/j.expneurol.2012.01.022. PMID: 22309831.
37. Vasudevaraju P, **Bharathi**, Garruto RM, Sambamurti K, Rao KS [Role of DNA dynamics in Alzheimer's disease](#). Brain Res Rev. 2008 Jun;58(1):136-48. doi: 10.1016/j.brainresrev.2008.01.001. PMID: 18342372 Review.
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41. **Bharathi**, Shamasundar NM, Sathyanarayana Rao TS, Dhanunjaya Naidu M, Ravid R, Rao KS. [A new insight on Al-maltolate-treated aged rabbit as Alzheimer's animal model](#). Brain Res Rev. 2006 Sep;52(2):275-92. doi: 10.1016/j.brainresrev.2006.04.003. PMID: 16782202 Review
42. **Bharathi**, Indi SS, Rao KS. [Copper- and iron-induced differential fibril formation in alpha-synuclein: TEM study](#). Neurosci Lett. 2007 Sep 7;424(2):78-82. doi: 10.1016/j.neulet.2007.06.052. PMID: 17714865
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45. Vasudevaraju P, **Bharathi**, T J, Shamasundar NM, Subba Rao K, Balaraj BM, Ksj R, T S SR. [New evidence on iron, copper accumulation and zinc depletion and its correlation with DNA integrity in aging human brain regions](#). Indian J Psychiatry. 2010 Apr;52(2):140-4. doi: 10.4103/0019-5545.64590.PMID: 20838501
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