

Mathangi Janakiraman

Postdoctoral Scholar, Gastroenterology

 NIH Biosketch available Online

 Curriculum Vitae available Online

Bio

HONORS AND AWARDS

- Seed Grant Funding, Stanford Plant-Based Diet Initiative (PBDI) (July 24 2023)
- Magna Cum Laude - PhD thesis, Max Planck Institute for Biochemistry and Ludwig Maximilians University (July 2022)
- Best outgoing M. Tech (5yr integrated) student - 2017, SASTRA University (2017)
- Dean's merit scholarship (4 yrs) - I was among the top 2% of undergrads in the entire university, SASTRA University (2012-2016)

PROFESSIONAL EDUCATION

- Ph. D., Max Planck Institute for Biochemistry and Ludwig Maximilians University , Mucosal immunology, neuroimmunology (2022)
- M.Tech (5 yr integrated), SASTRA University , Biotechnology (2017)

STANFORD ADVISORS

- Laren Becker, Postdoctoral Research Mentor
- Laren Becker, Postdoctoral Faculty Sponsor

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

I study how the gut ecosystem, gut function, and neuroimmune interactions change during aging and in diseases like Alzheimer's. I investigate how dietary interventions, including fermented foods and ketones, modulate gut cells and physiology. My goal is to reveal mechanisms through which diet supports healthy aging and to advance dietary strategies for age-associated diseases.

Publications

PUBLICATIONS

- **Gpr37 modulates the severity of inflammation-induced GI dysmotility by regulating enteric reactive gliosis.** *iScience*
Robertson, K., Hahn, O., Tantry, A., Robinson, B. G., Faruk, A. T., Janakiraman, M., Namkoong, H., Kim, K., Ye, J., Bishop, E. S., Hall, R. A., Wyss-Coray, T., Becker, et al
2025; 28 (7): 112885
- **Altered Bone Morphogenetic Protein 2 Signaling Causes Age-Dependent Decline in Gut Motility Independent of Muscularis Macrophages.** *Gastro hep advances*
Bishop, E. S., Morley, L., Janakiraman, M., Vikram, A., Namkoong, H., Becker, L.
2025; 4 (7): 100673
- **An engineered Fc fusion protein that targets antigen-specific T cells and autoantibodies mitigates autoimmune disease.** *Journal of neuroinflammation*
Janakiraman, M., Leliavski, A., Varadarajulu, J., Jenne, D., Krishnamoorthy, G.
2023; 20 (1): 291

- **High salt diet does not impact the development of acute myeloid leukemia in mice.** *Cancer immunology, immunotherapy : CII*
Janakiraman, M., Salei, N., Krishnamoorthy, G.
2023; 72 (1): 265-273
- **A novel CD4 knockout mouse strain with a spontaneous frameshift mutation in the CD4 locus.** *PloS one*
Janakiraman, M., Na, S. Y., Krishnamoorthy, G.
2022; 17 (4): e0266589
- **Role of microglial and endothelial CD36 in post-ischemic inflammasome activation and interleukin-1 β -induced endothelial activation.** *Brain, behavior, and immunity*
Garcia-Bonilla, L., Sciortino, R., Shahanoor, Z., Racchumi, G., Janakiraman, M., Montaner, J., Zhou, P., Anrather, J., Iadecola, C.
2021; 95: 489-501
- **High-salt diet suppresses autoimmune demyelination by regulating the blood-brain barrier permeability** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Na, S., Janakiraman, M., Leliavski, A., Krishnamoorthy, G.
2021; 118 (12)
- **Emerging Role of Diet and Microbiota Interactions in Neuroinflammation.** *Frontiers in immunology*
Janakiraman, M., Krishnamoorthy, G.
2018; 9: 2067

PRESENTATIONS

- "Dietary supplementation with fermented food improves gut motility and promotes an anti-inflammatory phenotype" - Stanford PBDI Summit (11/1/2024)
- "Dietary supplementation with fermented food improves gut motility and promotes an anti-inflammatory phenotype" - Stanford DDRF (9/20/2024)
- "Dietary supplementation with fermented food improves gut motility and promotes an anti-inflammatory phenotype" - DDW (5/18/2024 - 5/21/2024)
- "Fermented food improves gut motility and alters MM phenotype" - Immunology symposium, Stanford University
- "Fermented food improves gut motility and alters macrophage phenotype" - NEUROGASTRO 2023 (August 30, 2023 - September 2, 2023)
- "Regional differences in the intestinal muscularis macrophages" - NEUROGASTRO 2023 (August 30, 2023 - September 2, 2023)