YASHASWINI R BHAT

PhD Candidate

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Research Experience

Metabolic Kitchen and Children's Eating Behavior Laboratory (Oct 2022 - present)

PhD Student

Using supervised learning algorithms and data science approaches to identify neural, behavioral, and cognitive phenotypes associated with childhood obesity.

Preclinical neuroscience and obesity lab, Dept of Nutr Sc (2020-Oct 2022)

PhD Student

Functional MRI and preclinical neuroscience projects in rodent models of obesity to understand the role of various neuropeptides and neural pathways in obesity

Institute for Diabetes, Obesity, and Metabolism, UPenn (2018-2020)

Master's student research

Preclinical research and gut microbiome research on NAD+ cell metabolism in rodent models for obesity and aging

Education

2020-present

Pennsylvania State University

PhD student, Nutritional Sciences

- Adult obesity
- Research methods and applied statistics
- Comparative neuroanatomy, Systems neuroscience
- Regression methods

2018-2020

University of Pennsylvania

Master of Biotechnology

- Biostatistics and R programming
- Management and Economics of Pharmaceutical and Biotech Industries
- Engineering Biotechnology
- **Master's independent study: Effect of gut microbiome on the beneficial role of NAD precursors**

2014-2018

RV College of Engineering,India

Bachelor of Engg, Biotechnology

- Biochemistry, molecular biology
- Genomics and proteomics
- Genetic Engineering
- Plant and animal biotechnology

Publications

- Chellappa K, McReynolds MR, Lu W, Zeng X, Makarov M, Hayat F, Mukherjee S, <u>Bhat YR</u>, Lingala SR, Shima RT, et al. NAD precursors cycle between host tissues and the gut microbiome. Cell Metabolism 2022;34:1947-1959.e5.
- McReynolds MR, Chellappa K, Chiles E, Jankowski C, Shen Y, Chen L, Descamps HC, Mukherjee S, <u>Bhat YR</u>, Lingala SR, et al. NAD+ flux is maintained in aged mice despite lower tissue concentrations. Cell Systems 2021;12:1160-1172.e4.
- Asker M, Krieger J, Liles A, Tinsley IC, Borner T, Maric I, Doebley S, Furst CD, Börchers S, Longo F, <u>Yashaswini R. Bhat</u> et al. Peripherally restricted oxytocin is sufficient to reduce food intake and motivation, while CNS entry is required for locomotor and taste avoidance effects. Diabetes Obesity Metabolism 2023;25:856–77

Abstracts

- Eating in the Absence of Hunger (EAH) remains stable in middle childhood (7–9-year-olds), <u>Yashaswini R Bhat</u>, Kathleen L Keller; submitted to Graduate Exhibition, Penn State, 2023; 3rd prize
- Eating in the Absence of Hunger (EAH) remains stable and predicts gains in adiposity in middle childhood, <u>Yashaswini R Bhat</u>, Barbara J Rolls, Kathleen L Keller; submitted to SSIB, 2023, Portland,OR
- Incorporating eating behaviors into machine learning algorithms to predict pediatric obesity, <u>Yashaswini R Bhat</u>, Kathleen L Keller; submitted to Obesity Week, The Obesity Society, 2023, Dallas, TX; Selected for Early Career Lightning Talk

Awards and Recognition

- Fund for Excellence in Graduate Recruitment, Penn State, 2020-21; $5000 to recruit top quality graduate students
- Robert Graham Endowed Grad Fellowship, Penn State, 2020-21; Funds to attract incoming students of high caliber; $1000x2 semesters
- Ruth L. Pike Fellow, Dept of Nutritional Sciences, Penn State, 2021-22 and 2022-23; $1000 each time for academic excellence

Programming languages

Python, R, MATLAB

Machine Learning & Deep Learning Frameworks

- Data Analysis: Matplotlib, Seaborn, Pandas, NumPy, SciPy, Plotly, GGPlot2
- Machine Learning & Deep Learning Frameworks: Scikit-learn, Keras, TensorFlow
- Data analysis and statistics softwares: IBM SPSS, Prism (GraphPad)

Certifications

Data Science and Machine Learning Bootcamp (12/22)

Python for Computer Vision with OpenCV and Deep Learning(8/23

Miscellaneous

Diversity liaison for Nutritional Graduate Student Association (NGSA)