



Timothy Moran, Ph.D.

Titles & Department

Professor of Psychiatry and Behavioral Sciences

Specialization Area

Obesity and eating disorders.

Unmet Need

Identification of gastrointestinal peptides that control appetite for eating disorders.

Summary of Research & Work

Dr. Moran's research is focused on understanding the roles of various neural signaling pathways and gut peptides that control eating. More specifically, his group is interested in how these molecules go awry in various disease states of obesity and eating disorders and whether they normalize after therapeutic intervention. These physiological predictors can lead to biomarkers and/or pharmacotherapies development for eating disorders.

Value Proposition

- Track gut peptides before and after weight treatment.
- Physiological predictors and biomarkers of obesity and eating disorders.
- Regulation of food intake.
- Well-powered longitudinal and cross-sectional studies on individual differences.
- Design of clinically relevant studies.
- Mathematical models for predicting rat calorie intake.

Recent Publications

- Bhasin H, O'Brien SC, Corder ZA, Aston SA, Tamashiro K, Moran TH. Activity-based anorexia in adolescent female rats causes changes in brain mitochondrial dynamics. *Physiol Behav.* 2023;261:114072.
- Chawla, A., Corder, Z.A., Boersma, G. and Moran, T.H.: Cognitive impairment and gene expression alterations in a rodent model of binge eating disorder. *Physiology and Behavior*, 180: 78-90, 2017
- Beheshti, R., Treesukosol, Y., Igusa, T. and Moran, T.H.: A predictive model of rats' calorie intake as a function of diet energy density. *American Journal of Physiology*, 315: R256-R266, 2018

Awards & Honors

- 2013 Hoebel Creativity Award, Society for the Study of Ingestive Behavior, 2013
- Adolf Meyer Fellowship, 1984
- Paul R. McHugh Professorship in Motivated Behaviors, 2002

– Fellow, Obesity Society, 2008