

Curriculum Vitae

Timothy Lipuma

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Education

Doctoral Student, Clinical Psychology Indiana University-Purdue University Indianapolis (IUPUI)	Fall 2022 - Ongoing
MSc, Anatomy and Neuroscience University College Cork	Spring 2023
NIH PREP Scholar Virginia Tech	Summer 2020-2021
Bachelor of Science, Clinical Nutrition University of California, Davis	Spring 2019

Peer-Reviewed Publications

- Schuling, M. D., Shell, A. L., Callahan, C. M., Nurnberger, J. I., Jr, MacDonald, K. L., Considine, R. V., Wu, W., Hirsh, A. T., Crawford, C. A., Williams, M. K., **Lipuma, T. C.**, Gupta, S. K., Kovacs, R. J., Rollman, B. L., & Stewart, J. C. Effect of depression treatment on health behaviors and cardiovascular risk factors in primary care patients with depression and elevated cardiovascular risk: data from the eIMPACT trial. *Psychological medicine*, (2024), doi: <https://doi.org/10.1017/S0033291724001429>
- Boscaini, S., Leigh, S. J., Lavelle, A., García-Cabrero, R., **Lipuma, T.**, Clarke, G., Schellekens, H., & Cryan, J. F. Microbiota and body weight control: Weight watchers within?. *Molecular metabolism* (2022), doi: <https://doi.org/10.1016/j.molmet.2021.101427>
- Rainville, J.R., **Lipuma, T.**, & Hodes, G.E. Translating the transcriptome: Sex differences in the mechanisms of depression and stress revisited. *Biological Psychiatry* (2021), doi: <https://doi.org/10.1016/j.biopsych.2021.02.003>
- Lis, D., Jordan, M., **Lipuma, T.**, Smith, T., Schaal, K., & Baar, K. Effects of collagen and vitamin C supplementation on lower limb rate of force development. *International Journal of Sport Nutrition and Exercise Metabolism* (2021), doi: <https://doi.org/10.1123/ijsnem.2020-0313>

Grants

- A college student's guide to the brain: Practical and evidence-based tools from neuroscience and psychology**
Multi PI grant: Lipuma, Rainville, Diana
Awarded, funding time course: July 2022 - July 2023
\$1000.00
Virginia Tech Center for Excellence in Teaching and Learning
Role: Principal investigator
The aims of this educational investigation are: (1) characterize undergraduate familiarity and utilization of evidence-based learning techniques, and; (2) determine the impact of a structured education intervention that covers evidence-based learning techniques.
- A probiotic strategy for antipsychotic-induced metabolic dysfunction**
Multi-PI grant: Cryan, Clark, O'Connor, Pierce, Schellekens
Awarded, prospective funding time course: October 2022 - October 2025
€369,913.00
Health Research Board (HRB), Ireland
Role: Contributed to grant under supervision of Dr. Schellekens
The aims of this patient-focused investigation are: (1) determine if concomitant administration of antipsychotic with a novel probiotic can ameliorate antipsychotic-induced metabolic dysfunction and weight gain; (2) determine if this concomitant treatment improves antipsychotic adherence; (3) explore if concomitant treatment improves measures of depression, anxiety, psychotic symptoms, self-esteem, body-image, and quality of life, and; (4) determine how shifts in the gut microbiota correlate with these outcomes.

Poster Presentations

- Lipuma, T.C.**, Williams, M.K., Schuling, M.S., Crawford, C.A., Jones, Z.M., MacDonald, K.L.,

Stewart, J.C., & Considine, R.V. (2025, March). *Associations of depression-related appetite symptoms with cardiometabolic biomarkers in primary care patients with depression*. Poster to be presented at the 82nd annual meeting of the Society for Biopsychosocial Science and Medicine, Seattle, WA.

2. **Lipuma, T.**, Schuiling, M.D., Williams, M.K., Crawford, C.A., Jones, Z.M., Considine, R.V., & Stewart, J.S. (2023). *Associations of Somatic Depressive Symptoms with Inflammation Biomarkers in Primary Care Patients with Depression*. Citation Poster presented at the 2023 Annual Scientific Meeting of the American Psychosomatic Society, San Juan, Puerto Rico.
3. **Lipuma, T.**, Dewhirst, A.G., Booth, J.R., Hong, K., Grandinetti, K.M., Marenick, C.M., Storey, N.L., Telep, N.M., Tsyglakova, M., Rainville, J., and Hodes, G. E. *Naturalistic sleep observation during variable stress in mice*. Poster presented at: 1. Central Virginia Society for Neuroscience; 27 March 2021; Online; 2. Organization for the Study of Sex Differences; 2 May 2021; Online; 3. Mid-Atlantic PREP & IMSD Research Symposium; 18 May 2021; Online

Oral Presentations

Invited Talks

1. *How Model United Nations Made me a Political Scientist: Lessons on Conflict, Justice, and Health Inequalities*. (2023, May). Alumni Presenter for American River College Model United Nations, Online.
2. *Practical, Evidence-based Tools from Neuroscience and Psychology to Succeed in College*. (2021, October) Presenter for pilot education intervention at Virginia Tech, Online.
3. *What is Neuroscience?* (2021, June). Presenter for Virginia Tech's Summer Science Un-Camp program, Online.
4. *Navigating Academia/University: For Transfers, by Transfers*. (2020, August). Alumni Presenter for UC Davis Aggie Transfers Scholars Weekend, Online.

Submitted Talks

1. *Mixed Asian Heritage: A Multiplicity of Identities or "I'm Confused. Are You Amerasian, Cablanasian, Eurasian, Hapa, or Multi-Asian?"* (2016, June). Workshop panelist at the National Conference on Race and Ethnicity (NCORE), San Francisco, CA.

Science Communication

1. Khan, K., Crebbin-Coates, M., **Lipuma, T.**, Robinson, B., Jones, A.M., and Scherr, R.E. Nutrition & health info sheets for consumers - energy drinks. *Department of Nutrition, University of California, Davis* (2019). <https://nutrition.ucdavis.edu/outreach/nutr-health-info-sheets/consumer-energy-drinks>
2. Crebbin-Coates, M., Khan, K., and **Lipuma, T.** Fat around the middle may be influenced by the types of food we eat. *Nutrition Perspectives* (2019). https://nutrition.ucdavis.edu/sites/g/files/dgvnsk426/files/inline-files/2_mar_apr_2019.pdf
3. **Lipuma, T.** Take this class: CHEM 420: Organic chemistry. *American River Current* (2016). <https://www.arcurrent.com/scene/2016/04/25/photo-gallery-organic-chemistry-lab/>

Research Experience

Clinical Psychology PhD Student | Fall 2022 - ongoing

Advisor: Dr. Jesse Stewart

- Preparing first-year project manuscript of a secondary analysis of clinical trial data examining associations of depression-related appetite symptoms with biomarkers of cardiometabolic disease risk.
- Undergoing clinical trial research assistant training, including: REDcap database programming, participant screening and recruitment, data scoring, cleaning, management and analysis, grant and manuscript writing.
- Mentoring 4th year undergraduate in capstone research project.

Anatomy and Neuroscience Msc Student | Summer 2021 - Fall 2022

Advisors: Dr. Harriet Schellekens, Dr. Jane English

- Completed *in vivo* and discovery metabolomics study investigating therapeutic potential of a probiotic in ameliorating antipsychotic-induced weight gain and metabolic dysfunction, used

findings for empirical MSc by Research thesis.

- Assisted in design of human-based, double-blind, placebo-controlled, randomized investigation of the effects of a probiotic on antipsychotic-induced weight gain, cardiometabolic health and psychological outcomes.
- Developed grant writing through several independent and multi-PI collaborative grants, learned to create Gantt charts, CONSORT diagrams, perform power calculations, write background literature reviews, contingency plans, and ethics documents.
- Mentored 4th year undergraduate in final year research project and thesis.

Virginia Tech NIH PREP Scholar | June 2020 - June 2021

Advisor: Dr. Georgia Hodes

- Completed rotation projects in three laboratories, including troubleshooting Qualtrics surveys for parental assessment of child development (Dr. Martha Ann Bell), coding and digitization of psychological surveys related to COVID-19 and mental health (Dr. Pearl Chiu), and a systematic analysis of genes common in mice and humans for psychiatric and neurological conditions (Dr. Georgia Hodes).
- Managed research projects in translational models of depression, investigating the effects of stress on sleep, immune signaling, weight, in addition to an investigation on the relationship between the brain-gut-microbiome axis and the blood-brain-barrier.
- Underwent professional and graduate student development consisting of: coursework in research methods, grant writing, research ethics, graduate journal clubs, leading undergraduate journal clubs, junior research mentorship, training in PRISMA meta-analysis methodologies, storytelling for scientists.

UC Davis Nutrition Intern | February 2018 - June 2020

Advisors: Dr. Keith Baar and Dr. Dana Lis

- Served as team lead for a clinical trial investigating the effect of cocoa epicatechins on the rate of force development, managing all aspects of the trial for the cohort.
- Built skills necessary for clinical investigations through involvement in six clinical trials, scientific writing through manuscript editing, and scientific presentation through poster preparation
- Coordinated recruitment and screening of interns for both research and nutrition projects, mentored more than 10 interns for clinical trials over two years.

Research Internship, University College Dublin | Fall 2018

Advisor: Dr. Aifric O'Sullivan

- Became the first UC Davis clinical nutrition undergraduate to do a research internship at University College Dublin through the University of California Education Abroad Program (UCEAP).
- Completed a literature review on the gut-brain-microbiome axis and presented conclusions to the lab group, covering mechanisms and future directions for the field.
- Shadowed a longitudinal neurodevelopmental twin study investigating the role of the microbiome on cognition, as well as a study investigating novel food-delivery systems for Vitamin D.

Relevant Employment

Science Success Center Instructional Assistant (IA) | American River College | Fall 2019 - Spring 2020 (IA) , Fall 2015 - Spring 2016 (Student Tutor)

- Taught metacognitive and behavioral study strategies to promote college success.
- Developed student curricula for academic success based on evidence-based strategies from neuroscience and psychology.

Dusty Baker Center Instructional Assistant | American River College | Spring 2020

- Tutored student-athletes in statistics, psychology, and nutrition.
- Focused on retention of students at risk for academic dismissal.

Undergraduate Admissions Student Outreach Ambassador | UC Davis | Fall 2017 - Summer 2019

- Provided outreach and peer mentorship to prospective university transfers.
- Gave talks on undergraduate research, study skills, imposter syndrome, and financial aid.
- Built Qualtrics surveys for program assessment and university impact reports.

Beacon Tutor | American River College | Spring 2015 - Spring 2016

- Tutored introductory, general, and organic chemistry.
- Facilitated group study sessions of 2-16 students, encouraging peer teaching, self assessment, and development of study skills.

Leadership and Organizations

Virginia Tech

Neuroscience Postdoctoral Graduate Student Association | October 2020 - December 2022

- Assisted in drafting of a science outreach grant funded by the National Science Policy Network.
- Leading funded project on building COVID-19 vaccine confidence by producing outreach media.
- Contributed to development of staff and faculty focused educational materials related to institutional diversity, equity, and mental health support. .

UC Davis

Recognizing Illness Very Early and Responding (RIVER) Intern | May 2017 - January 2019

- Underwent peer and professional-led training in practices related to preventative health, including motivational interviewing, boosting health literacy, health equity, and developing healthcare provider best practices/approaches.
- Collaborated on building nutrition education materials for low-income elementary schools.

Performance Nutrition Intern | February 2018 - January 2020

- Gave nutrition talks to division I UC Davis athletes centered around evidence-based strategies and dispelling nutrition myths.
- Led cooking sessions with student athletes, communicating the role of dietary omega-3s in brain health.

American River College

American River Current | January 2016 - May 2016

- Served as Staff Writer and Opinion Editor.
- Supervised editorials, guided opinion pieces in unbiased manner, ensured properly sourced and accurate reporting.
- Authored and published local science pieces in an accessible journalistic form.

American River College Life is Worth the Walk Club | January 2013 - May 2016

- Founding President of organization.
- Coordinated with local organizations on mental health initiatives and events.
- Met with California legislators to promote expansion of mental health services.

American River College Model United Nations | December 2012 - May 2015

- As 1st Committee Chair, authored an issue book on nuclear disarmament for 2014 Model United Nations of the Far West conference.
- Established two high school Model United Nations conferences, provided training to students.

Research Certifications

- 2023 CITI Biomedical Research
- 2021 University College Dublin Training on Experimental Animal Use, Regulations, and Procedures
- 2021 NIH/NSF Responsible Conduct of Research
- 2020 Virginia Tech-Specific American Association for Laboratory and Animal Science Training
- 2020 CITI Good Clinical Practice Course for NIH funded Clinical Trials
- 2020 CITI Social & Behavioral Research
- 2018 NIH Protecting Human Research Participants

Honors and Awards

- 2023 Ford Foundation Fellowship Honorable Mention
- 2022 IUPUI Graduate and Professional Education Grant
- 2022 Indiana University-Purdue University Indianapolis Diversity Fellow
- 2021 Organization for the Study of Sex Differences NIH-Sponsored Travel Award
- 2018 University of California Education Abroad Promise Award Scholarship
- 2018 Winter Quarter Dean's List for The College of Agricultural and Environmental Sciences
- 2016 Alyce Mae Fiedler Beacon Tutor Scholarship
- 2016 Bayer Employee & Recreations Council Scholarship