

Kumar Thurimella, MD PhD

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EDUCATION & TRAINING

Stanford Health Care

Stanford, CA

Internal Medicine Residency, ABIM Research Pathway (Short Track)

Jun 2026–Jun 2028

- Planned Rheumatology Fellowship, Stanford Health Care, Jul 2028–

University of Colorado, School of Medicine

Denver, CO

M.D.

Aug 2018–May 2026

- Clerkship Performance: Honors in 6/6 clerkships (Internal Medicine, OB/GYN, Pediatrics, Family Medicine, Psychiatry, and Surgery), Rheumatology, Oncology & Medicine Acting Internship; Elected to AOA

University of Cambridge

Cambridge, UK

Ph.D. in Biotechnology and Applied Statistics

Oct 2020–May 2024

- Advisors: Sergio Bacallado PhD (Cambridge), Ramnik J. Xavier MD, PhD (MGH/Broad Institute)
- Thesis: “Harnessing Deep Learning with Protein Language Models to Unveil Microbial Enzyme Function in Health and Disease”

University of Cambridge

Cambridge, UK

M.Phil. in Computational Biology (Biological Sciences), Advisor: Gosia Trynka PhD

Oct 2017–Aug 2018

University of Colorado, Boulder

Boulder, CO

B.S. in Applied Mathematics, *Magna Cum Laude*, Advisor: Rob Knight PhD

Aug 2009–Aug 2013

EXPERIENCE

Divergence Labs

Remote

Investment Fellow

Jan 2026–Present

- Evaluate opportunities to license or develop best in class medicines via analysis of disease mechanisms, therapeutic landscapes, and design feasibility

Uber Technologies

San Francisco, CA

Software Engineer II

Mar 2015–Aug 2017

- Engineered a recursive backtracking autoscheduler powering Applicant Tracking System (Python, Flask)

ThoughtWorks

San Francisco, CA

Junior Software Developer

Apr 2014–Mar 2015

- Shipped production web applications for enterprise clients across consulting engagements (Java, Spring)

FIRST & CO-FIRST AUTHOR PUBLICATIONS

- **K. Thurimella[†], E. Wu[†]**, C. Li, D. B. Graham, R. M. Owens, D. R. Plichta, C. L. Sokol, R. J. Xavier, and S. Bacallado, “Identifying microbial protease allergens through protein language model-guided homology”, *Cell Systems*, vol. 17, no. 3, 2026.
- **K. Thurimella**, A. M. Mohamed, C. Li, T. Vatanen, D. B. Graham, R. M. Owens, S. L. La Rosa, D. R. Plichta, S. Bacallado, and R. J. Xavier, “Protein language models uncover carbohydrate-active enzyme function in metagenomics”, *BMC Bioinformatics*, vol. 26, no. 285, Nov. 2025.
- **A. Xia[†], K. Thurimella[†]**, S. Bull, J. Waughtal, C. Chavez, S. Novins-Montague, J. Silvasstar, A. Salyers, M. P. Ho, and M. Lavieri, “Pilot randomized controlled trial: Increased engagement in cardiovascular health through ai-enabled tailored messaging”, *JMIR Cardio*, Jan. 2024, *Under Review*.

- **M. Shaffer[†]**, **K. Thurimella[†]**, J. D. Sterrett, and C. A. Lozupone, “Scnic: Sparse correlation network investigation for compositional data”, *Molecular Ecology Resources*, vol. 23, no. 1, pp. 312–325, Jan. 2023.

CONTRIBUTING AUTHOR PUBLICATIONS

- V. Stoeger, M. Strauss, **K. Thurimella**, ..., C. Gerner, and R. M. Owens, “Bioelectronic technology for nutritional research—a novel in vitro platform for a better understanding of human gut barrier absorption”, *Advanced Biology*, vol. 10, no. 2, e00409, Feb. 2026.
- Y.-M. Hung, Y.-S. Hyun, R. Cohen, M.-M. Pust, **K. Thurimella**, G. Pishchany, H. Lau, M. Stražar, R. J. Xavier, and D. B. Graham, “Commensal bacterial toxins elicit dynamic cd4 t cell responses that shift between tolerance and inflammation”, *Science Immunology*, 2025, *Under Review*.
- K. S. Jabbar, S. Priya, J. Xu, U. Das Adhikari, G. Pishchany, J. Johansen, **K. Thurimella**, ..., D. R. Plichta, D. S. Kwon, and R. J. Xavier, “Antiretroviral drugs modulate systemic inflammation through direct interactions with gut microbial strains”, *Nature Microbiology*, Oct. 2025.
- M. Kadoki, K. Nanki, D. Szamosvári, M. Stražar, **K. Thurimella**, ..., D. B. Graham, and R. J. Xavier, “Decoding host–environment chemosensory dialogues through intestinal G protein-coupled receptors”, *Cell Host & Microbe*, 2025, *Under Review*.
- C. Li, M. Stražar, A. M. T. Mohamed, ..., **K. Thurimella**, ..., D. R. Plichta, and R. J. Xavier, “Gut microbiome and metabolome profiling in framingham heart study reveals cholesterol-metabolizing bacteria linked with lower cardiovascular risk”, *Cell*, Mar. 2024.
- L. Wells, **K. Thurimella**, and S. Bacallado, “Regularised canonical correlation analysis: Graphical lasso, biplots and beyond”, *Journal of the American Statistical Association*, Oct. 2023, *Under Review*.
- M. Shaffer, **K. Thurimella**, K. Quinn, K. Doenges, X. Zhang, S. Bokatzian, N. Reisdorph, and C. A. Lozupone, “Amon: Annotation of metabolite origins via networks to integrate microbiome and metabolome data”, *BMC bioinformatics*, vol. 20, no. 1, pp. 1–11, Nov. 2019.

[†] denotes co-first authorship.

PRESENTATIONS

- K. Thurimella, E.C. Wu, C. Li, D.R. Plichta, C.L. Sokol, R.J. Xavier, S. Bacallado, Protein Language Model Guided Discovery of Microbial Protease Allergens (Oral), Gordon Research Conference 2026, Ventura
- K. Thurimella, C. Li, A.M. Mohamed, D.B. Graham, ..., C.L. Sokol, D.R. Plichta, S. Bacallado, R.J. Xavier, Identifying Putative Microbial Enzyme Candidates Linked with Allergy and Glycobiology through Protein Language Model-Guided Homology, Keystone Symposia Microbiota and Cancer Immunity 2024, Taipei
- K. Thurimella, M. Shaffer, C. Lozupone, Employing Metabolomics and Microbiome Data to Build Algorithm for Interrogating Host-Microbe Interactions (Oral), Western Medical Research Conference 2020, Carmel

SCHOLARSHIPS AND AWARDS

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| • Gordon Research Conference, Carl Storm Fellow (Full Registration & Accommodation) | 2025 |
| • Student Clinical Professionalism Award | 2025 |
| • Keystone Symposia Future of Science Scholarship | 2024 |
| • Gates Cambridge Scholarship | 2020–2024 |
| – Combining Maths and Medicine | |
| – CU Medical Student Wins \$250,000 Scholarship | |
| • Rotary International Scholarship | 2020–2024 |
| • Dr. Henry Christian Award, American Federation for Medical Research - Most Outstanding Abstract | 2019 |
| • Wellcome Trust Departmental Award Full Scholarship, University of Cambridge | 2017 |
| • Norlin Scholars Scholarship | 2011–2013 |
| • Engineering Merit Scholarship | 2009–2013 |