

Guohua Yi
August 2025 - August 2026
Professor
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CONTACT INFORMATION

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TYLER, Texas 75708

DEGREES

2004 Ph.D., Microbiology/Virology, Wuhan University, Wuhan, China

ACADEMIC APPOINTMENTS

Professor, Department of Cellular & Molecular Biology, UT Tyler School of Medicine, Tyler, Texas, Tenure (if applicable): Not Tenured, 2025-09-01

Associate Professor, Department of Internal Medicine, UT Tyler School of Medicine, Tyler, Texas, Tenure (if applicable): Not Tenured, 2019-09-01, 2023-08-31

Associate Professor, Department of Cellular and Molecular Biology, UT Tyler School of Medicine, Tyler, Texas, Tenure (if applicable): Not Tenured, 2023-09-01, 2025-08-31

PROFESSIONAL MEMBERSHIPS

National

January 2022 - Ongoing

American Society of Microbiology, Regular membership [Responsibility: Member]

January 2017 - Ongoing

American Association of Immunologists (AAI), Regular membership [Responsibility: Member]

SERVICE ON COMMITTEES

Regional

February 2026 - Ongoing

WCG Clinical Texas Oncology IBC (Biosafety) Committee [Responsibility: Member]

National

July 2026 - July 2026

NIH study section panel: ZRG1 IIDC-G(02) [Responsibility: Member]

June 2026 - June 2026

NIH LII study section [Responsibility: Member]

March 2026 - March 2026

NIH Lung Infection and Immunity (LII) Study Section [Responsibility: Member]

January 2026 - January 2026

NIH BHI Study Section overflow panel: ZRG1-IIDB-N [Responsibility: Member]

August 2025 - August 2025

NIH Special Emphasis Panel: ZRG1 CN-Q (55) R [Responsibility: Member]

EDITORIAL/BOARD APPOINTMENTS AND RESPONSIBILITIES**July 2026 - Ongoing**

Scientific Reports Editorial Board, Editorial Board member

April 2026 - Ongoing

Vaccines, Guest editor

TEACHING ACTIVITIES

Title	Setting	Level of Learner	Number of Learners	Contact Hours	Type of Learning Activity	Teaching Methods	Start Month	End Month
IBMS6323: Immune Cell Biology & Human Immunology	Course, Elective	Doctoral/Master	4	6	Series	Lecture, Small Group (e.g.: Case-based discussion), Seminar/Journal Club/Grand Rounds	August 2026	Ongoing
Mentoring Ph.D. student	Course, Lab, Elective	Doctoral/Master	1		Series	Lecture, Laboratory, Small Group (e.g.: Case-based discussion), Seminar/Journal Club/Grand Rounds, One-to-one, Laboratory/Research Preceptor	September 2025	Ongoing
PhD course: IBMS 6310 Genetic Manipulation and Gene Editing	Course, Lab, Elective	Doctoral/Master	4		Series	Lecture, Laboratory, Small Group (e.g.: Case-based discussion), Seminar/Journal Club/Grand Rounds	August 2025	December 2025
Defenders and Invaders	Course	Doctoral/Master	40		Series	Lecture, Small Group (e.g.: Case-based discussion)	May 2024	Ongoing
BIOT 5221 Prot. Nucl. Acids	Course	Doctoral/Master	11		Series	Lecture	January 2024	Ongoing
BIOT 6311 Biotechnology I	Course, Lab	Doctoral/Master	10		Series	Lecture, Laboratory, Small Group (e.g.: Case-based discussion)	September 2023	Ongoing
BIOT 6334 Advanced Immunology	Course	Doctoral/Master	6		Series	Lecture	July 2023	Ongoing
BIOT 5132 Critical Reading II	Course	Doctoral/Master	10		Series	Lecture, Seminar/Journal Club/Grand Rounds	September 2022	Ongoing
Mentoring postdoctoral fellows	Lab	Fellow	9		Series	Lecture, Laboratory, Small Group (e.g.: Case-based discussion), Seminar/Journal Club/Grand Rounds, One-to-one, Laboratory/Research Preceptor	September 2019	Ongoing
Mentoring master students	Course, Lab	Doctoral/Master	5		Series	Lecture, Laboratory, Small Group (e.g.: Case-based discussion), Seminar/Journal Club/Grand Rounds, One-to-one, Laboratory/Research Preceptor	September 2019	Ongoing

CURRICULUM DEVELOPMENT

Curriculum Name/Topic	Your Role and Degree of Responsibility	Curriculum Length	Level of Learner	Number of Learners	Start Month	End Month
IBMS6323 "Immune cell biology & human immunology"	Developer	Elective	Doctoral/Master	4	August 2026	Ongoing
IBMS 7310 Genetic Manipulation	Developer	Elective	Doctoral/Master	3	April 2024	Ongoing
Defenders and Invaders (MD Program)	Consultant	Course/Clerkship	Doctoral/Master	40	April 2023	Ongoing

ADVISING/MENTORING/COACHING

Name of Individual	Level of Training	Purpose/Objective	Mentoring/Advising Activities	Start Month	End Month
Leticia Guzman Ruiz	Fellow or Post-Doc	Career advancement of individual	Formal, Student career advising/coaching, Research mentor/advisor/coach	January 2026	Ongoing
Narendra Kumar Gonepudi	Doctoral	Development of individual	Informal, Formal	October 2025	November 2025
Andy Omeje	Doctoral	Scholarly work	Formal, Student career advising/coaching, Research mentor/advisor/coach, Educational mentor/advisor/coach	September 2025	Ongoing
Esther Chicou	Graduate	Development of individual	Informal, Formal	August 2025	Ongoing
Sitaramaraju Adduri	Fellow or Post-Doc	Career advancement of individual	Formal, Student career advising/coaching, Research mentor/advisor/coach	April 2025	Ongoing
Rajesh Mani	Fellow or Post-Doc	Career advancement of individual	Formal, Student career advising/coaching, Research mentor/advisor/coach	January 2025	Ongoing
Mounika Duggineni	Graduate	Scholarly work	Formal, Student career advising/coaching, Research mentor/advisor/coach, Educational mentor/advisor/coach	November 2024	Ongoing
Omoyeni Adejare	Graduate	Scholarly work	Formal, Student career advising/coaching, Research mentor/advisor/coach, Educational mentor/advisor/coach	January 2024	Ongoing
Gaurav Singh	Doctoral	Career advancement of individual	Informal, Research mentor/advisor/coach	December 2023	Ongoing
Jose Alejandro Bohorquez Farzon	Fellow or Post-Doc	Career advancement of individual	Formal, Student career advising/coaching, Research mentor/advisor/coach	October 2022	Ongoing

GRANTS

Completed

Federal

Novel CRISPR-Cas9 protein delivery to T cells in vivo by targeting CD7, Funded by NIH Office of The Director and NIAID (August 20, 2019 - July 31, 2024), awarded August 20, 2019 (**\$2,065,311.00**), Completed, August 2025, PI Guohua Yi (50%) [Type of Grant: Research]

Funded - In Progress

Federal

Sirtuin -Dependent Regulation of Tuberculosis and HIV Interactions in Macrophages Funded by NIH/NIAID (Funded) (August 1, 2024 - July 31, 2029), awarded July 29, 2024 (**\$1,721,911.00**), Funded - In Progress, August 2025, CoPI Guohua Yi (25%) [Type of Grant: Research]

Submitted - Not Funded

Federal

Immunogenicity and Immunometabolic Reprogramming by circRNA-Based Vaccine targeting HIV and Mtb Coinfection, Funded by NIH/NIAID (December 1, 2026 - November 30, 2031), Submitted - Not Funded, May 2026, PI Guohua Yi (25%) [Type of Grant: Research]

Converging Models in Diverging Responses to TB - Integrating Human, Animal, and cell-based models to understand Tuberculosis Endotypes, Funded by NIH/NIAID (July 1, 2026 - June 30, 2031), Submitted - Not Funded, November 2025, CoInvestigator Guohua Yi (2.5%) [Type of Grant: Research]

Novel Bovine Adenovirus Vector-Based Multi-Antigen TB Vaccine, Funded by NIH/NIAID (August 1, 2026 - July 31, 2031), Submitted - Not Funded, October 2025, CoInvestigator Guohua Yi (25%) [Type of Grant: Research]

Novel humanized mouse model for evaluating influenza vaccination and immunotherapy, Funded by NIH/NIAID (August 1, 2026 - July 31, 2031), Submitted - Not Funded, October 2025, CoInvestigator Guohua Yi (25%) [Type of Grant: Research]

A novel trained immunity-inducing bovine adenovirus vectored vaccine for tuberculosis, Funded by NIH/NIAID (August 1, 2026 - July 31, 2031), Submitted - Not Funded, October 2025, CoInvestigator Guohua Yi (25%) [Type of Grant: Research]

Engineered Bacteriophages for Targeted Tuberculosis Therapy, Funded by Office of NIH Director (July 1, 2026 - June 30, 2031), Submitted - Not Funded, September 2025, PI Guohua Yi (25%) [Type of Grant: Research]

Novel mRNA-based peptide vaccines against HIV-TB coinfection, Funded by NIH/NIAID (April 1, 2026 - March 31, 2031), Submitted - Not Funded, September 2025, PI Guohua Yi (25%) [Type of Grant: Research]

Submitted for Review

Federal

Metabolites, latent tuberculosis, and HIV infection, Funded by NIH/NIAID (December 1, 2026 - November 30, 2031) **\$1,113,885.00**, Submitted for Review, August 2026, CoPI Guohua Yi (25%) [Type of Grant: Research]

Spatial Immunometabolic Mapping of HIV/Mtb Coinfection in Human Lung Funded by NIH/NIAID (April 1, 2027 - March 31, 2032), Submitted for Review, June 2026, PI Guohua Yi (25%) [Type of Grant: Research]

SCHOLARLY CONTRIBUTIONS AND CREATIVE PRODUCTIONS

Journal Article

Completed/Published

Non-peer Reviewed

1. Yi, G., Duggineni, M., Adduri, S., Mani, R., Ruiz, L. G., Omeje, A., Gonepudi, N. K., Kleam, J. K., Kumaraswamy, M., & Dennehy, J. J. (2026). **Genomic Characterization and Therapeutic Potential of the Lytic Bacteriophage Curly against Klebsiella pneumoniae in Human Innate Immune Cells and a Murine Pneumonia Model.** *BioRxiv*.

Additional Activities

2. Singh, V. K., Mishra, A., Truong, K., Bohorquez, J. A. A., Sharma, S., Khan, A., Bracher, F., Zhang, K., Endsley, J. J., Endsley, M., Rice, A. P., Kimata, J. T., Yi, G., & Jagannath, C. (2026). Sirtuin2 blockade inhibits replication of human immunodeficiency virus-1 and Mycobacterium tuberculosis in macrophages and humanized mice. *Molecular Therapy: The Journal of the American Society of Gene Therapy* 34(6), 3535-3547.

PROFESSIONAL DEVELOPMENT

May 2026 - May 2026

NIH TB Consortium Meeting, NIH/NIAID, Bethesda, Description: This NIH TB Consortium Meeting invited all PIs funded under the RFA-AI-23-029 to exchange ideas and report research progress.

October 2025 - October 2025

ASM Texas Branch Symposium, ASM Texas Branch, Tyler, Texas, Description: Oral Presentation: Sirtuin Modulation Regulates HIV Replication and Host Cell Responses in Macrophages and CD4⁺ T Cells

ASM Texas Branch 2025 Symposium, ASM Texas Branch, Tyler, Texas, Description: Oral presentation: Evaluating Bacteriophage Therapy Against *Klebsiella pneumoniae* in Innate Immune Cells

ASM Texas Branch 2025 Symposium, ASM Texas Branch, Tyler, Texas, Description: Poster presentation: Spatial transcriptomic analysis of HIV and tuberculosis coinfection in a humanized mouse model reveals specific transcription patterns, immune responses and early morphological alteration signaling

PROFESSIONAL COMMUNITY SERVICE

February 2025 - Ongoing

KLTV, Outreach activity: Interviewed by KLTV to introduce to the public how UTHSCT researchers are developing diagnostic and vaccine against COVID-19.