Primary Faculty

- Manuel Ascano: RNA post-transcriptional gene regulation & innate immunity
- Breann Brown: Structural biology & protein assembly
- Richard Caprioli: Mass spectrometry in biological & clinical research
- Bruce Carter: Neural development; apoptosis
- Walter Chazin: Structural biology
- James Dewar: DNA replication
- David Cortez: Genome maintenance & molecular cancer biology
- Martin Egli: Structural biology
- Lourdes Estrada: Cancer biology, mathematical modeling of cancer progression
- Steve Fesik: Cancer drug discovery, fragment-based methods
- Fred Guengerich: Cytochrome p450, DNA polymerases, enzyme mechanisms
- Scott Hiebert: Molecular genetics of cancer
- Emily Hodges: Epigenetics & gene regulation
- Carlos F. Lopez: Molecular cancer cell biology, modeling, simulation, computation
- Houra Merrikh: DNA replication, mutagenesis, & evolution
- Larry Marnett: Cytoskeleton: DNA damage-dependent mutagenesis
- Yi Ran: mRNPs nuclear export, structural biology
- Chuck Sanders: Membrane proteins & disease
- Kevin Schey: Proteomics, imaging mass spectrometry, ocular disease
- John York: Cellular Signaling

Research Areas

- Signal Transduction
- Cell Cycle Control
- Cryo-EM
- Molecular Toxicology
- Cancer Biology
- Structural Biology
- Enzymology
- RNA Metabolism
- DNA repair/repllication
- Oxidative Metabolism
- Mass Spectrometry
- Neurobiology
- Chromatin Biology
- Phospholipid Metabolism
- Spectroscopy

Vanderbilt Leaders in Biochemistry

- Vanderbilt-Ingram Cancer Center
  - Director: Jennifer Pietenpol
  - Director of Basic Sciences: Scott Hiebert
- Center for Mass Spectrometry
  - Director: Richard Caprioli
- Center for Proteomics Core: Kevin Schey
- Center for Structural Biology
  - Director: Walter Chazin
- Vanderbilt University Administration
  - Dean of Basic Research: Larry Marnett
  - Associate Dean of Research: Chuck Sanders
- Vanderbilt University Biochemistry Undergraduate Program
  - BCB Program Director: Brian Bachmann
- Academy for Excellence in Education: Director Neil Osheroff
- Quantitative Systems Biology Center: Director Vito Quaranta

Training

- Chair: John York
- Director of Graduate Studies: Manuel Ascano, Jr.
- Main office located 6th floor Light Hall; Laboratories located in LH, RRB, PRB, & MRBii
- Active Biochemistry Student Association with VU Club status & fun monthly activities
- Rewarding incentive prizes for outstanding work: Cunningham for Ph.D’s, Coniglio for MD’s, Chytil for Grad Student Travel, Karpay for Grad Student, several Armstrong awards, plus poster/talk recognition at retreat
- Required courses: Scientific communication (BCHM 8327)
- Electives offered in molecular structure and function, cell and molecular biology, cellular signaling and genetics, X-ray crystallography, NMR spectroscopy, proteomics and mass spectrometry, molecular cancer biology, toxicology and carcinogenesis
- Qualifying Exam in spring of 2nd year (first Biochemistry year)
- Hiring exciting new faculty, top prospects in National search, as teachers and Investigators
- Great opportunities for a variety of lab rotations and experience
- Biochemistry is currently training 35 students and approximately 39 post-doctoral fellows

Strong contingent of secondary faculty available to train Biochemistry students, including: Ray Blind, Tina Iverson, D. Borden Lacy, Billy Hudson, Kimryn Rathmell, Ron Emeson, Lauren Parker Jackson, Craig Lindley, and more. Learn more at: https://medschool.vanderbilt.edu/biochemistry/