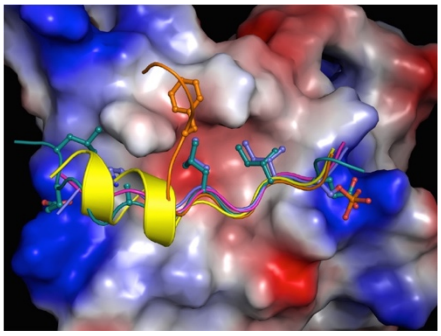
biochemistry.tamu.edu



"Structural basis for concerted recruitment and activation of IRF-3 by innate immune adaptor proteins". Dr. Pingwei Li and collaborators determined the mechanism by which critical players in the mammalian innate immune response recruit and activate an important immune system

transcription factor, IRF-3. Published in Proceedings of the National Academy of Sciences June 2, 2016.

Degree Information

The Department of Biochemistry and Biophysics is a key component of molecular life sciences research at Texas A&M University, one of the largest research universities in the USA. Our programs have grown in concert with the spectacular expansion of biological inquiry into the chemical basis of life.

Admissions

Our graduate students come from different undergraduate majors, including biology, molecular biology, biochemistry, and chemistry. All qualified applicants will be considered for admissions into our program. Coursework in the following subjects is recommended: Calculus, Organic Chemistry, Biochemistry, Molecular Genetics and Physical Chemistry.

To apply, visit https://biochemistry.tamu.edu/

1 Click on Academics and then on Graduate Programs
2 Go to Apply Texas to complete the University application
3 Complete application and send:
  Official transcripts
  3 letters of recommendation
  Official GRE scores
  Official TOEFL scores
    (for international applicants)

Graduate Training

Students in Biochemistry spend their first year in courses that provide a solid background in the fundamental principles of biochemistry and biophysics. Coursework includes structural biochemistry, thermodynamics, enzyme kinetics, molecular genetics, molecular biophysics, critical analysis and scientific values. Students also participate in seminars, local conferences, and other activities to develop strong critical-thinking skills.

AGRICULTURE & LIFE SCIENCES
TEXAS A&M UNIVERSITY

Graduate Studies in

Biochemistry PhD

Department of Biochemistry and Biophysics

During the first semester, students perform research rotations in three laboratories in Biochemistry. Students explore the diverse research areas in the department, and at the end of the first semester, choose a laboratory for their thesis work. Formal guidance during training is provided by a principal advisor and a thesis advisory committee comprised of faculty who evaluate the candidate's progress toward the Ph.D. degree. The second year of training includes a teaching assistantship and elective coursework to foster depth of knowledge and experience in specialized fields. In the third year, each student works with their advisor and thesis committee to take preliminary exams and defend a thesis research proposal. Subsequent years are spent in mentored research and professional development activities.

Training Environment

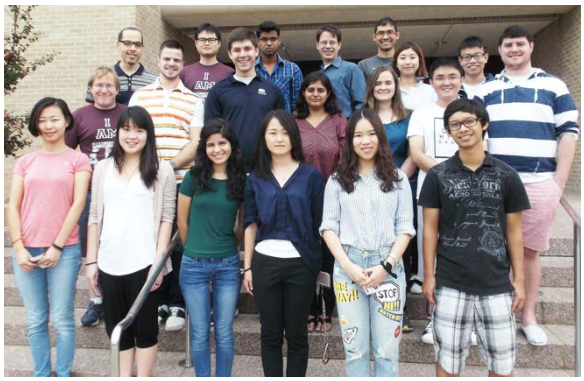
The department has a rich training environment with more than 40 faculty, 100 graduate students and numerous postdocs, research staff, and undergraduates. Students have access to laboratory equipment throughout the department and the university, including shared facilities and instruments to facilitate research pursuits. Computer support is extensive, with expert departmental and university IT staff as well as access to internet resources and library materials. In addition, Texas A&M University sponsors a variety of research and professional development workshops and programs to enrich the education and lives of graduate students on campus.

Faculty Research Areas

Biochemistry, Bioinformatics, Biophysics, Biotechnology, Cell Biology, Chemical Biology, Chromosome Biology, Computational Biology, Enzymology, Gene Regulation, Genetics & Molecular Biology, Glycobiology, Membranes, Microbiology, Plant Molecular Biology, Phage Biology, Protein Structure and Folding, Proteomics, RNA Biology and Structural Biology.

Financial Support

At Texas A&M University, graduate students are a vital component of research, teaching, and publication. We offer financial support in the form of a stipend for living expenses, tuition, fees, and health insurance benefits. Financial support enables students to engage full time in their research and scholarly activities.



The graduate class entering in 2016 (shown above with Senior Academic Advisor, Rafael Almanzar, top left) is a diverse group of young scientists.

Extensive Facilities

The Department maintains modern, state-of-the-art research facilities. The Biochemistry Building, a 166,000-square foot structure, with over 90,000 square feet of laboratory and office space, was opened in 1989. The first floor houses the new NMR center, departmental offices, lecture halls, a microcomputer center, and the Biochemistry stockroom. The second floor has research laboratories, modern teaching labs and prep rooms. The third and fourth floors contain 48 research laboratory modules occupied by different research groups, as well as specialty rooms for animal and plant tissue culture, biohazard isolation, the Center for Phage Technology, the Center for Protein Chemistry, and several conference rooms. Large equipment (centrifuges, environmental chambers, autoclaves, imagers and freezers) is clustered in common-use equipment areas. We are proud of our long-standing tradition of making all large equipment in the Department available to our entire research community.

Contact Information

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