



DIVISION OF RESEARCH
TEXAS A & M UNIVERSITY

Showcasing

some research in

Genomics and Bioinformatics

Texas A&M AgriLife Research



About ↓

Topics ↓

Units ↓

Corporate Relations ↓

News

Resources ↓

Contact ↓

Improving Life Through Science and Technology

Texas A&M AgriLife Research is the state's premier research agency in agriculture, natural resources, and the life sciences. We conduct hundreds of projects spanning many scientific disciplines to deliver life-sustaining and industry-changing impacts to citizens throughout Texas and around the world.

A member of The Texas A&M University System, AgriLife Research collaborates with the Texas A&M University College of Agriculture and Life Sciences, the Texas A&M AgriLife Extension Service, and many others to help fulfill the A&M System's land-grant mission of teaching, research, extension, and service.

TOPICS



Animals

Livestock Animal Health and Well-being Poultry Fish and Aquaculture



Crops and Plants

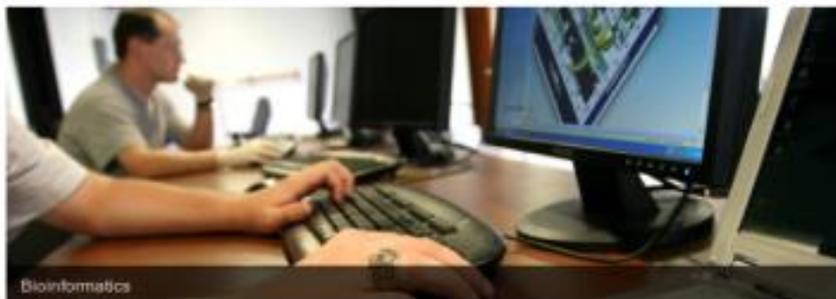
Bioenergy Commodity Crops Cropping Systems & Management Forage Grasses Turf Grasses Ornamental Plants Insects and Pest Management



Environment & Natural



Welcome



TEES-AgriLife Center for Bioinformatics and Genomic Systems Engineering (CBGSE)

NEW CENTER LOCATION

The TEES-AgriLife Center for Bioinformatics and Genomic Systems Engineering (CBGSE) functions in the general areas of bioinformatics, computational biology, and systems biology research. As a cooperative effort between AgriLife and TEES, it constitute both an active research group and a cross-institution graduate student training program focused on plant genomics.

Research

GENOMETV VIDEOS (NHGRI)



LATEST NEWS



Qian awarded USDA grant - [\(Link\)](#)

Dr. Xiaoning Qian, assistant professor in the Department of Electrical and Computer Engineering at Texas A&M University, was recently

awarded a grant from the USDA entitled, "Molecular



Institute for Plant Genomics & Biotechnology

[Home](#)[Norman E. Borlaug](#)[Faculty](#)[Staff Contacts](#)[Awards and Recognition](#)[Galleries](#)

[Plant pathologist finds connections between plant and human health](#)

Home

Mission

The mission of the Institute is to develop plant biotechnology, genomics, and related life science technologies and to foster technology utilization

RECENT POSTS

[American Association for the Advancement of Science Fellows](#)

RECENT COMMENTS

ARCHIVES

[April 2012](#)

CATEGORIES

[Uncategorized](#)

META

[Log in](#)

Genomics and Bioinformatics Services

Providing Genomics and Bioinformatics Services to the Texas A&M System, Texas, and the World

Who We Are



Texas A&M AgriLife **Genomics and Bioinformatics Service** was established thru a mission directive from [Dr. Craig Nessler](#), Director of [AgriLife Research](#) to radically improve genomic research across [AgriLife](#), [COALS](#), and the [Texas A&M University System](#), addressing a central and pressing need for access to the latest

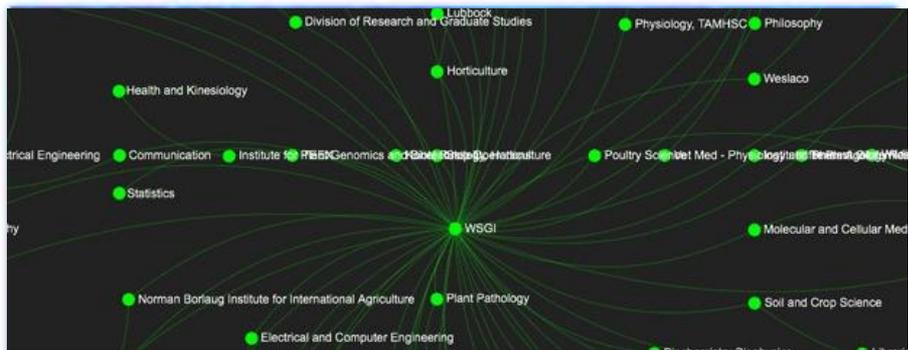
genomic technologies, and world-class laboratory and bioinformatics expertise. To meet this ambitious goal, AgriLife Research brought together a team of leading genomics, bioinformatics, molecular, and computational scientists to meet the next generation sequencing (NGS) and bioinformatics needs of the TAMU system and broader scientific community. The new AgriLife unit received start-up funds from [Texas Emerging Technology Fund](#) as part of a larger AgriLife ETF program.

Texas A&M AgriLife
Director, Genomics and
Bioinformatics

The AgriLife unit is directed by [Dr. Charles D. Johnson](#), who was recruited from the biotech industry to develop a next generation sequencing and bioinformatics program at Texas

Search

[Welcome](#)[Who We Are](#)[News](#)[■ Research Highlights](#)[Bioinformatics](#)[Personnel](#)[Publications](#)[■ FAQ](#)[Contacts](#)



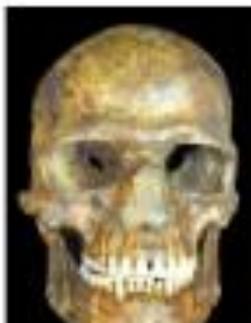
The WSGI brings together talented individuals conducting genomics research in diverse organisms, facilitates synergism, and maximizes efficient utilization of infrastructure. Click on the diagram to see the interactive network.



Origins of Early Man Questioned

A new study by an international team of researchers that includes a Texas A&M University anthropologist shows that the modern European and East Asian populations were firmly established by 36,000 years ago, and that Neanderthal and modern human interbreeding occurred much earlier, around 54,000 years ago.

The study was led by the Centre for GeoGenetics at the University of Copenhagen, in collaboration with scientists from several institutions, including Cambridge, UC Berkeley, Griffith, UC San Francisco, and Peter the Great Museum in Russia as well as Texas A&M.



Recent News

Texas A&M University Summer Bioinformatics Workshop



The workshop will be on Tuesdays and Thursdays between 10 AM and 2 PM.

Read more

Issues Forum: Jessica Wapner

Jessica Wapner will be the featured

Biochemistry & Biophysics

Department ↓

Research ↓

Graduate Program ↓

Undergraduate Programs ↓

Former Students ↓

Giving



James Sacchetti

Professor of Biochemistry and Biophysics and of Chemistry; Wolfe-Welch Chair in Science

ILSB / Room 2138A

sacchett@tamu.edu

979-862-7636

<http://www.sacclab.com>

B.A. St. Louis University (1980)

Ph.D. Washington University, St. Louis (1987)

Postdoc. Washington University, St. Louis (1987-89)

Professor. Albert Einstein College of Medicine

Joined Texas A&M in 1996

CONNECT WITH US



UPCOMING SEMINARS

NOV 12 Wed

4:10 pm Mark Fisher, Department of Bloch... @ BioBio 108

"Catching Transients to Determine Toxin Structures and Validate Protein Stabilizers"

Host: Hays Rye

Add

View Calendar

Crystallography / Drug Design

My lab uses X-ray crystallography to better understand the relationship between proteins and ligands. Tiny differences in the structure of a molecule can radically change the

HOT PAPERS

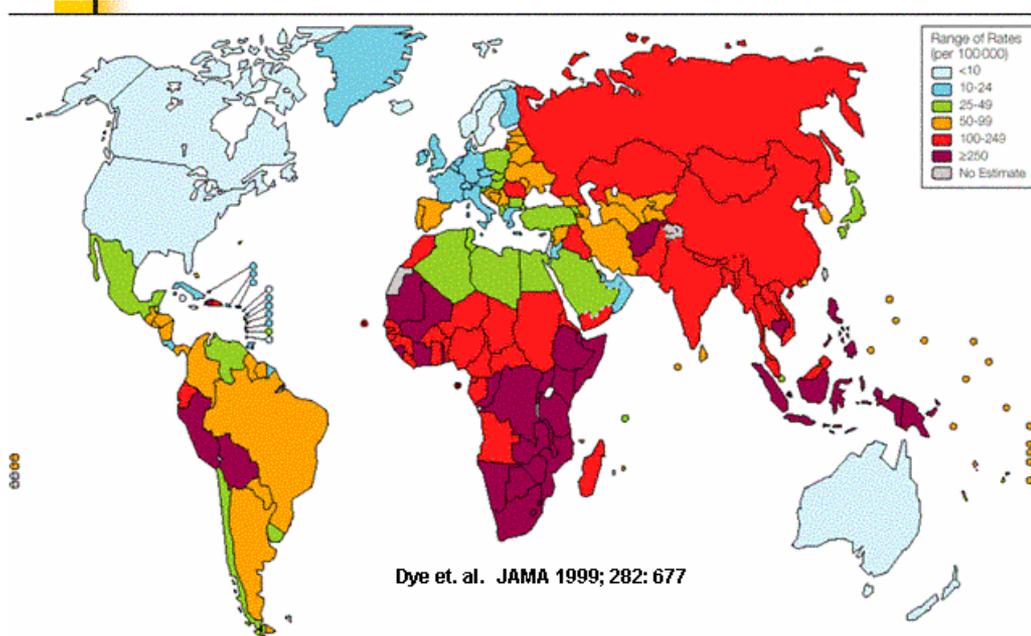


Tuberculosis

What is it?

Tuberculosis (TB) is an infectious disease caused by a bacterium. Approximately two billion people, one third of the Earth's population, are infected with TB, mostly in the third world although there has been a resurgence in the first world due largely to the spread of HIV/AIDS. There are approximately 8.5 million new active cases and 2 million deaths annually from TB. Most of these deaths are preventable with antibiotic treatment.

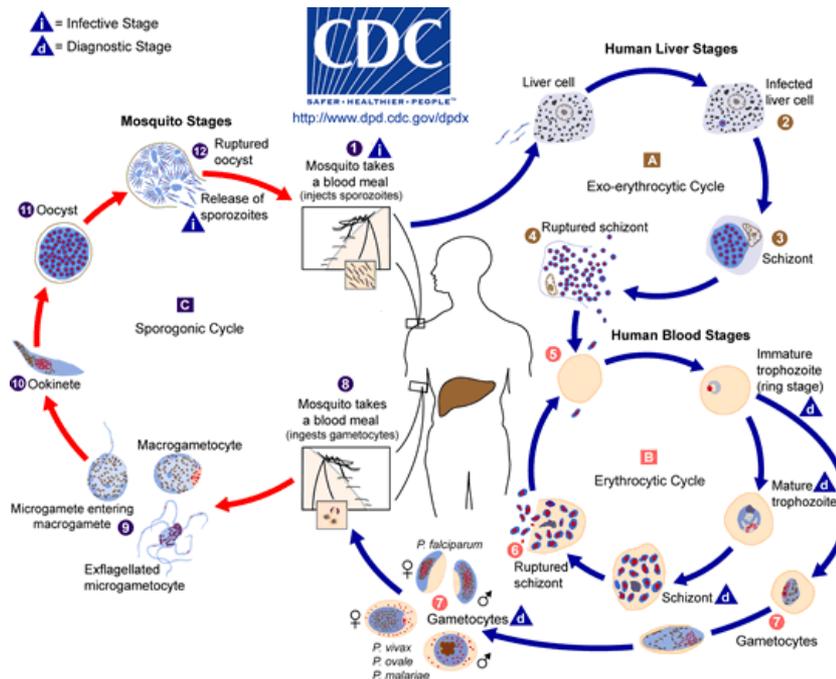
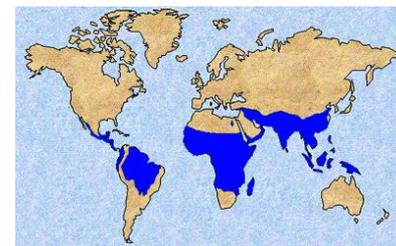
Global distribution of tuberculosis



Malaria

What is it?

Malaria is a widespread vector-borne disease caused by parasites in the Plasmodium family (specifically *Plasmodium falciparum*, *Plasmodium vivax*, *Plasmodium ovale*, and *Plasmodium malariae*) and transmitted by the bite of an infected female Anopheles mosquito. Each year between 300 and 500 million people are infected and more than one million people die, most of them children and pregnant women. Malaria is associated with tropical and subtropical climates because the warm temperature allows the Anopheles mosquito to grow year round.





[ABOUT IBT](#)

[RESEARCH](#)

[EDUCATION](#)

[FACULTY](#)

[CONTACT](#)

[GIVING](#)



[Howdy](#) · [Directory](#) · [Maps](#) · [Jobs](#) · [Email](#) · [IT](#)

RESEARCH CENTERS

- [Cancer & Stem Cell Biology](#)
- [Epigenetics & Disease Prevention](#)
- [Translational Cancer Research](#)
- [Translational Environmental Health Research](#)
- [Infectious & Inflammatory Diseases](#)

DEGREES OFFERED

- [Graduate Program in Medical Sciences](#)

Institute of Biosciences and Technology

Texas A&M Health Science Center – Houston Campus, Texas Medical Center

[Office of the Director](#)

[Research](#)

News

[New drug boosts immune system to protect against world's deadliest infectious diseases](#)

[Rising star in cancer research comes to Texas, continues work on life-saving therapies](#)

[New technology may offer safe alternatives to BPA](#)



**IBT Director - Cheryl
Lyn Walker, Ph.D.,
A.T.S., F. A. A. S**



Biomolecular NMR Laboratory



[Instrumentation](#)

[Schedule](#)

[Intranet](#)

[Links](#) ↓

[Contact](#)



Welcome

The Biomolecular NMR facility of the Department of Biochemistry and Biophysics is hosted in newly built NMR wing of the BioBio building located on the West Campus of Texas A&M University. The facility consists of four state of the art NMR spectrometers.

Other Local NMR Labs/Groups:

- [Center for Chemical Characterization and Analysis \(CCCA\)](#) in the Chemistry Department
- [Dr. Christian Hilty's NMR Research Group](#) in the Chemistry Department.
- [Dr. Tatyana Igumenova's NMR Research Group](#) in the Biochemistry & Biophysics Department.
- [Dr. Steven Wright's NMR Imaging Research Group](#) in the Electrical and Computer Engineering Department.
- [Dr. Joseph Ross's Condensed Matter Research Group](#) in the Physics and Astronomy Department.
- [Magnetic Resonance Imaging](#) in Veterinary Medicine.
- [Vegetable and Fruit Improvement Center](#) in the Horticultural Science Department.



Biochemistry & Biophysics

Department ↓

Research ↓

Graduate Program ↓

Undergraduate Programs ↓

Former Students ↓

Giving



Tatyana Igumenova

Associate Professor

NMR / Room N118A

tigumenova@tamu.edu

979-845-6312

<http://coda.tamu.edu/Igumenova/>



Ph.D. Columbia University, 2003

Postdoc. University of Pennsylvania, 2003-2005

Postdoc. Columbia University, 2005-2007

Joined Texas A&M in 2008

CONNECT WITH US



UPCOMING SEMINARS



4:10 pm Francisco (Paco) Barona-Gomez, C...
@ BioBio 108
:"Integrative biology of enzyme
promiscuity"
Host: Paul Straight

Add

View Calendar →

Protein Dynamics and NMR

The importance of Nuclear Magnetic Resonance (NMR) methods in structural biology is illustrated by the rapidly growing number of three-dimensional NMR structures in the Protein Data Bank. While well-folded soluble proteins make up the majority of these

HOT PAPERS

1. Cockrell, A, McCormick, SP, Moore, MJ,



Biochemistry & Biophysics

Department ↓

Research ↓

Graduate Program ↓

Undergraduate Programs ↓

Former Students ↓

Giving



Ry Young

Professor of Biochemistry & Biophysics; Sadie Hatfield
Professor of Agriculture

BioBio / Room 311A

ryland@tamu.edu

979-845-2087

<http://young.tamu.edu> 

A.B. Rice University (1968)

Ph.D. University of Texas, Dallas (1975)

Postdoc. Harvard Medical School (1975-78)

Joined Texas A&M in 1978

The Molecules and Mechanisms of
Bacteriophage Lysis
Phage lysis

CONNECT WITH US



UPCOMING SEMINARS

NOV
19
Wed

4:10 pm Francisco (Paco) Barona-Gomez, C...
@ BioBio 108
:"Integrative biology of enzyme
promiscuity"
Host: Paul Straight

 Add ▾

[View Calendar →](#)

HOT PAPERS

1. Karamyshev, AL, Patrick, AE, Karamysheva, ZN,





Home » [Molecular & Cellular Medicine](#) » [Faculty](#) » [Vyta A. Bankaitis](#)



Vyta A. Bankaitis

Professor, E.L. Wehner-Welch Foundation Chair in Chemistry

Department of Molecular and Cellular Medicine
108 Reynolds Medical Bldg.
College Station, TX 77843-1114

Phone: 979-862-3188

Fax: 979-847-9481

vytas@tamhsc.edu

[Dr. Bankaitis' Lab](#) 

Education and Post-Graduate Training

Edinboro University, Edinboro, PA; B.S.; 1978; Biology

Clemson University, Clemson, SC; M.S.; 1980 Microbiology

University of North Carolina, Chapel Hill, NC; Ph.D.; 1984;
Microbiology

California Institute of Technology, Pasadena, CA Postdoctoral;
1986; Cell Biology

Positions and Honors

Honors

Recipient of an NCAA Postgraduate Fellowship - A national award presented to 6 outstanding student-athletes, 1978.

Recipient of the President's Award for the outstanding student research presentation; regional meeting for the Southeastern and South Carolina branches of the American Society for Microbiology, November, 1979.

Recipient of a Predoctoral Fellowship of the Humphrey Foundation - awarded to outstanding incoming graduate

