Welcome to the Department of Biochemistry and Molecular Biophysics

Washington University in St. Louis
School of Medicine

Friday, December 2nd
Thursday

Tea Time for Faculty, Staff, Postdocs and Students
Every Tuesday and Thursday
Coffee, tea and cookies will be served.
3:00-4:00 pm, Biochemistry Break Room, 201 McDonnell Sciences Building

Farmer’s Market
Every Thursday
10:00 am - 2:00 pm, either inside the lobby of the McDonnell Pediatric Research Building, or just outside it
October Publication


**A novel FRET-based screen in high-throughput format to identify inhibitors of malarial and human glucose transporters.**

Don’t let your important files and data go up in flames!

If you are not putting your important files on our servers (such as BMBCore), then it is possible that they are NOT getting backed up!

Make sure that your computer is running a backup program!

Want to make sure your computer is backed up? We provide several backup solutions. Just send an email: support@biochem.wustl.edu
* Current handsets will be replaced with Voice over IP (VoIP) phones. (The new phones will have all the same features as the old phones but will be connected through the data network.)

* This project is expected to be finished by July 2017. (More info will be provided as the project moves forward.)

* This project does not affect faxes, emergency lines or elevator phones, and you will keep your current phone number.

For more info: https://voip.med.wustl.edu
You and Your Family are invited to

The BMB Holiday Party

Saturday, December 17th, 2016

Enjoy the Wild Lights in the Zoo, food, activities and a special appearance by Santa...

6:30 – 10:30 pm

McDonnell Center at River Camp
Saint Louis Zoo
Chris A. Brosey, Chris Ho, Winnie Z. Long, Sukrit Singh, Kathryn Burnett, Greg L. Hura, Jay C. Nix, Gregory R. Bowman, Tom Ellenberger, and John A. Tainer

Defining NADH-Driven Allostery Regulating Apoptosis-Inducing Factor

Structure (2016)
Dr. Michael Greenberg has been chosen to receive the Undergraduate Research Mentor of the Year Award.

Dr. Greenberg received the award at the Fall Undergraduate Research Symposium on Sat. Oct. 29th.

Read more at biochem.wustl.edu/news
Biophysical Evenings

Tao Ju, Ph.D.
Dept. Computer Science and Engineering

"Protein Modeling from Cryo-EM Density Maps Using Geometric Skeletons"

Tuesday, December 13th, 2016 - 5:30 pm
Holden Auditorium, FLTC
Medical School Campus

Food served afterwards

**Anti-virulence C-mannoisdes as antibiotic-sparing, oral therapeutics for urinary tract infections.**

Greg Bowman has received a two year subcontract from the National Institute of Allergy and Infectious Diseases.

This project is a subcontract with Drs. Gaya Amarsinghe (Washington University) and Christopher Basler (Georgia State University) for his project entitled “Therapeutics Targeting Filoviral Interferon-Antagonist and Replication Functions”.

Congratulations to Greg Bowman!
RECYCLE
WASTE SORTING GUIDE: 2-STREAM

- METAL & GLASS
- PLASTICS (NO #6 OR BAGS)
- PAPER, CARTONS & CARDBOARD
- FOOD CONTAMINATES RECYCLING

LANDFILL

- FOOD/LIQUIDS TO-GO BOXES
- PLASTIC UTENSILS
- PLASTIC #6 PAPER CUPS STYROFOAM
- SNACK WRAPPERS SOFT PLASTICS & BAGS

QUESTIONS? SUSTAINABILITY.WUSTL.EDU

Department of Biochemistry and Molecular Biophysics
Washington University in St. Louis • School of Medicine
Jonathan P. Staley, Ph.D.
University of Chicago

“The Function and Mechanism of DEAH box ATPases at the Catalytic Stage of Splicing”
Tuesday, December 6th, 2016 - 10:30 am
Biochemistry Seminar Room, 264 McDonnell Sciences
Host: Kathleen Hall
(Refreshments Provided)
TEA TIME

for Faculty, Staff, Postdocs & Students

Tuesdays & Thursdays
3:00-4:00 pm

Biochemistry Break Room
201 McDonnell Science

Coffee, tea and cookies are served.
The Greenberg Lab focuses on the generation and transduction of forces by molecular motors, with an emphasis on human disease. The lab uses an array of biochemical, biophysical, and cell biological techniques to probe the function and regulation of these motors over a range of scales that extends from single molecules to tissues. Currently, the lab is studying the molecular basis of heart failure.”
Please keep your lab locked if no one is in the lab when you leave.

And take your keys with you!

Please remember to take your gloves off when leaving the lab.
Robb Welty and Dr. Kathleen Hall

*Nucleobases Undergo Dynamic Rearrangements during RNA Tertiary Folding.*

Michael Kinch's book,

**A Prescription for Change:**

**The Looming Crisis in Drug Development**

Is now available from Amazon, Barnes & Noble, and other book sellers.

**EGFR oligomerization organizes kinase-active dimers into competent signalling platforms.**

Nat Commun. 7:13307 (2016)
BMB Support

Computer not working?  
Not getting email on your smartphone?

We are here to help with the many computing issues that may pop up in your day-to-day operations.

Support email: support@biochem.wustl.edu

Support website: BiochemSupport.wustl.edu

Just send us an email or visit our website and click on *Request Support* to get help!
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The Burgers Lab studies DNA replication and DNA damage response in eukaryotic cells. Using yeast as a model organism, the lab integrates the biochemical analysis of DNA-protein interactions in purified model systems with the genetic analysis of targeted yeast mutants. Specific areas of interest are lagging strand DNA replication and Okazaki fragment maturation, damage induced mutagenesis, and DNA damage cell cycle checkpoints.

Right: DNA replication fork and Okazaki fragment maturation
<table>
<thead>
<tr>
<th>Holiday</th>
<th>Day</th>
<th>Date Observed at WU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor Day</td>
<td>Monday</td>
<td>September 5, 2016</td>
</tr>
<tr>
<td>Thanksgiving Day</td>
<td>Thursday</td>
<td>November 24, 2016</td>
</tr>
<tr>
<td>Day after Thanksgiving</td>
<td>Friday</td>
<td>November 25, 2016</td>
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<tr>
<td><strong>Christmas Day</strong></td>
<td><strong>Sunday</strong></td>
<td><strong>Monday, December 26, 2016</strong></td>
</tr>
<tr>
<td>New Year’s Day</td>
<td>Sunday</td>
<td>Monday, January 2, 2017</td>
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Greenberg M.J., Shuman H., and Ostap E.M.

*Measuring the Kinetic and Mechanical Properties of Non-processive Myosins Using Optical Tweezers.*

Congratulations to Drake Jensen for being named the 2016 Gary K. Ackers Fellow

Mr. Jensen received his B.A. in Chemistry and B.S. in Biology from Southern Illinois University Edwardsville in 2013. During this time, he began pursuing research in equilibrium and kinetic studies of Calmodulin target recognition. After graduation he continued research in the same lab and graduated in 2015 with a M.S. in Chemistry. He joined the Division of Biological and Biomedical Sciences at Washington University the same year as part of the Computational & Molecular Biophysics program.

Visit biochem.wustl.edu/news to read more!
October Publication

Kathryn M. Hart, Chris M. W. Ho, Supratik Dutta, Michael L. Gross & Gregory R. Bowman

Modelling proteins’ hidden conformations to predict antibiotic resistance

Nature Communications 7, Article number: 12965 (2016)
Greg Bowman has been chosen to receive a 2016 Packard Fellowship for Science and Engineering in support of his research entitled “Energy-landscape engineering: exploiting proteins uncharted conformations”.

Read more at biochem.wustl.edu/news
Research in the Lohman Lab focuses on obtaining a molecular understanding of the mechanisms of protein-nucleic acid interactions involved in DNA metabolism, in particular, DNA motor proteins (helicases/translocases) and single stranded DNA binding proteins. Thermodynamic, kinetic, structural and single molecule approaches are used to probe these interactions at the molecular level.

Right: SSB
Are you paid monthly?

Please remember that your time report is due by the 5th of each month.
The Galburt Lab studies the detailed molecular mechanisms of transcription initiation across the three domains of life. The lab specializes in using single-molecule and ensemble biophysical techniques including optical and magnetic trapping and fluorescence to monitor initiation in real-time. These techniques allow for the quantification of the rates and magnitudes of conformational transitions in RNA polymerase, its associated transcription initiation factors, and the promoter DNA template that ultimately underlie gene expression and its regulation.
BMB SCIENCE FRIDAYS

a forum for new data, new ideas and works in progress

Science Fridays and Happy Hour: EVERY FRIDAY, starting at 4PM.