Welcome to the Department of Biochemistry and Molecular Biophysics

Washington University in St. Louis
School of Medicine

https://biochem.wustl.edu
1) Go to biochem.wustl.edu

2) Click Media and Newsletters

3) Click Display TV Announcements
Heteroarylamide smoothened inhibitors: Discovery of N-[2,4-dimethyl-5-(1-methylimidazol-4-yl)phenyl]-4-(2-pyridylmethoxy)benzamide (AZD8542) and N-[5-(1H-imidazol-2-yl)-2,4-dimethyl-phenyl]-4-(2-pyridylmethoxy)benzamide (AZD7254).
Happy Hour!
January 10th, 2020

Hosted by the Robertson Lab
4:30 PM this Friday in the breakroom

Leave 2019 behind and join us for happy hour to enjoy food and drinks

(Featuring Gus’s Pretzels)
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

See more research: [biochem.wustl.edu/spotlight](http://biochem.wustl.edu/spotlight)
Singh S.P., Soranno A., Sparks M.A., & Galletto R.

Branched unwinding mechanism of the Pif1 family of DNA helicases.

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: BMBSupport.wustl.edu

Just send us an email or visit our website and click on *Request Support* to get help!
The role of the Polζ-Rev1 complex in DNA interstrand crosslink repair

Rachel Bezalel-Buch
(Burgers Lab)

Friday, January 10th, 2020
4:00 pm – 264 McDonnell Sciences
Host: Robertson Lab
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.

See more research: [biochem.wustl.edu/spotlight](http://biochem.wustl.edu/spotlight)
TEA TIME

for Faculty, Staff, Postdocs & Students

Tuesdays & Thursdays
3:00-4:00 pm

Biochemistry Break Room
201 McDonnell Sciences Building

Coffee, tea and cookies are served.
Natalie Niemi, Ph.D.
University of Wisconsin-Madison

“Post-translational regulation of mitochondrial metabolism”

Tuesday, January 14th, 2020
10:30 am
Biochemistry Seminar Room
264 McDonnell Sciences Building
Host: John Cooper
(Refreshments provided)
The **Bowman Lab** seeks to understand the distribution of different structures a protein adopts and how this ensemble determines a protein’s function. Examples of ongoing research projects include 1) understanding how mutations in the enzyme beta-lactamase change its specificity without changing the protein’s crystal structure, 2) designing allosteric drugs, and 3) developing algorithms for quickly building models of the different structures a protein adopts.

See more research: [biochem.wustl.edu/spotlight](http://biochem.wustl.edu/spotlight)
HAVING ISSUES AT WORK?  WE’RE HERE TO HELP.

Contact any of the following for help

Jayma Mikes, Business Manager, jmikes@wustl.edu, 314-362-0262
John Cooper, Department Head, jcooper11@gmail.com, 314-362-3964
Jessica Kennedy – Title IX Director, jwkennedy@wustl.edu, 314-935-3118
Jessica Kuchta-Miller – Staff/Postdoc/Graduate Student Ombuds, 314-379-8110
Karen O’Malley – Medical Student Ombuds, 314-660-2089
Jim Fehr – Faculty Ombuds, 314-660-2089
BMB ID Self-Service

Your BMB ID is used for network files shares, remote VPN access, and BMB WiFi.

You can now change your BMB ID password, reset it if you have forgotten it, or even recover your BMB ID if you don't remember what it is!

Just visit:

bmbid.wustl.edu
The Tetraspanin CD53 Regulates Early B Cell Development by Promoting IL-7R Signaling.

Don't Forget!

Please keep your lab locked if no one is in there when you leave.

Don’t forget your keys!

Please remember to take OFF your gloves when leaving the lab.
Amy Gladfelter, Ph.D.
Dept. of Biology
UNC Chapel Hill

“How cytosol is patterned in time and space”

Tuesday, January 14th, 2020 - 5:30 pm
Holden Auditorium, FLTC
Medical School Campus

Food served afterwards in McDonnell Sciences Room 264
Are your files backed up?

If you are not keeping your files on a network file server, running a local backup client, or utilizing cloud storage, then it is possible that your files are not backed up!

Want to make sure your data is backed up? We provide several backup solutions.

BMBSupport.wustl.edu/backups

box  OneDrive  Retrospect  CODE42
BMB SCIENCE FRIDAYS

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

Science Fridays and Happy Hour: EVERY FRIDAY, starting at 4PM.
Happy Hour!
January 10th, 2020

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4:30 PM this Friday in the breakroom

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November 4th, 2019 – Research by Dr. Carl Frieden appeared on the Alzforum site in the article “Can an ApoE Mutation Halt Alzheimer’s Disease?” One of Dr. Frieden’s previous publications was also cited by the article.

You can visit biochem.wustl.edu/news for a link to the article!
The **Galburt Lab** strives to understand the physical mechanisms of transcription initiation and other important DNA-protein interactions. More specifically, we use a variety of single-molecule and ensemble biophysical techniques including both optical and magnetic tweezers and fluorescent microscopy to investigate how the assembly of initiation complexes on gene promoters leads to DNA unwinding and transcription. Our work is currently focused on the mechanisms of basal transcription initiation in Eukaryotes and on factor-regulated transcription in Mycobacterium tuberculosis.

See more research: [biochem.wustl.edu/spotlight](http://biochem.wustl.edu/spotlight)
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<tr>
<th>Holiday</th>
<th>Day</th>
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<tr>
<td>New Year's Eve</td>
<td>Tuesday</td>
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<td>Labor Day</td>
<td>Monday</td>
<td>September 7(^{th}), 2020</td>
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The role of the Polζ-Rev1 complex in DNA interstrand crosslink repair

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Do you need assistance with your writing process?

Are you working on a manuscript for publication, grant, personal statement, or other writing piece?

**The Writing Center** staff are available to help you out! This is a free service provided to all students, faculty, staff, and postdocs.

Visit [writingcenter.wustl.edu](http://writingcenter.wustl.edu) for more information!
Farmer’s Market

Inside the McDonnell Pediatric Research Building
or
Outside on the Plaza
(weather permitting)

Every Thursday!
10:00 am - 2:00 pm
Are you paid **monthly**?

Please remember that your **time report** is **due by the 5th of each month**.
The Greenberg Lab focuses on how cytoskeletal motors function in both health and disease. Currently, the lab is studying mutations that cause familial cardiomyopathies, the leading cause of sudden cardiac death in people under 30 years old. The lab uses an array of biochemical, biophysical, and cell biological techniques to decipher how these mutations affect heart contraction from the level of single molecules to the level of engineered tissues. Insights into the disease pathogenesis will guide efforts to develop novel therapies.

See more research: biochem.wustl.edu/spotlight
Natalie Niemi, Ph.D.
University of Wisconsin-Madison

“Post-translational regulation of mitochondrial metabolism”

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(Refreshments provided)
The Mutation R94C InTNNT2-encoded Troponin T Predisposes to Restrictive Cardiomyopathy and Pediatric Sudden Death Through Impaired Thin Filament Relaxation Resulting in Myocardial Diastolic Dysfunction

Cryo-EM Structure of Nucleotide-Bound Tel1ATM Unravels the Molecular Basis of Inhibition and Structural Rationale for Disease-Associated Mutations.

Biophysical Evenings

Amy Gladfelter, Ph.D.
Dept. of Biology
UNC Chapel Hill

"How cytosol is patterned in time and space"

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The Cooper Lab is interested in how the actin filaments in cells assemble and how that assembly controls cell shape and movement. One focus is an actin-binding protein called "capping protein," which caps one end of the actin filament. Capping protein is in turn regulated by intrinsically disordered regions of the CARMIL family of proteins, which exhibit positive linkage in their binding interactions.

See more research: biochem.wustl.edu/spotlight