The Leading Edge

BCDB Newsletter

Winter 2021

BCDB in the community



To bring attention to the incredible work of scientists from underrepresented populations, I have been writing articles titled "Untold Stories" for the organization Science ATL. These stories highlight accomplishments from members of the BIPOC and LBTGQ+ community, and they can be found on the Science ATL website! https://scienceatl.org/untold-science-stories/

Faculty Spotlight



Dr. Lawrence Boise has been at Emory since 2009 and in BCDB since 2010, and he has served as the contact PI for the BCDB Training Grant for the last seven years. His scientific passion has been understanding how cells stay alive by preventing a form of programmed cell death called apoptosis. In particular, he worked on a magical gene called BCL2 that prevented death by blocking apoptosis as a graduate student and postdoc and continues in his independent lab. His study allows the translation of the basic findings on cell dependencies for survival to clinical trials and develops tests for predicting responses to therapies that target these dependencies.



Dr. Shashank Shekhar joined Emory in 2020. He is a biophysicist interested in uncovering the molecular and physical mechanisms underlying complex cellular actin dynamics. Specifically, he is interested in studying how multicomponent protein ecosystems control actin dynamics and how mechanical forces influence the activities and effects of these proteins on actin filaments. His central hypothesis is that emergent actin dynamics in cells result from the simultaneous activity of multicomponent protein ecosystems and mechanical forces. His lab integrates quantitative multispectral single-molecule imaging and microfluidics-assisted total internal reflection fluorescence microscopy experiments that employ bottom-up reconstitution using purified proteins and mathematical modeling to address these questions.



Dr. Jitendra Thakur joined Emory in 2021. Her research focuses on the evolution of genetic and epigenetic components of centromeres and the role of RNA in chromatin organization in the area of genetics, cell, and developmental biology. Specifically, she is interested to understand the nature of the epigenetic processes involved in the nucleosomes assembly on both centromere and pericentric satellites, which are maintained indefinitely through cell division over the lifetime of an organism. She is also interested in understanding the structural organization of distinct chromatin domains in the nucleus and investigating chromatin-RNA interactions using the latest chromatin profiling techniques combined with cytological visualization.

Recent Accomplishments from BCDB Students

Congratulations to recent fellowship awardees:

- Tyshawn Ferrell, Graduate Education for Minorites
- Julia Tanquary, Achievement Rewards for College Scientists (ARCS), NSF Graduate Research Fellowships Program (GRFP)
- Colby Schweibenz, NIH NRSA F31
- Paul Zakutansky, NIH NRSA F31
- Christine Bowen, NIH NRSA F31

Congratulations to our recent doctoral graduates:

- Dr. Sabrina Lynn
- Dr. Samantha Schwartz
- Dr. Raven Peterson
- Dr. Stephanie Zimmer
- Dr. Raven Shah
- Dr. Izabela Suster
- Dr. Sean Kundinger
- Dr. Tyler Moser-Katz

Congratulations to our 2021 GDBBS Award Recipients:

- Dr. Samantha Schwartz, Lew Award for Best Paper and Lew Award for Best Overall Student
- Will McFadden, Lew Award for Best Overall First Year Student
- Maria Sterrett, BCDB Program Scholar

Get to know our first years

Note: Half of the first-year class is featured in this issue. The rest will be featured in the spring.



Hometown: Columbus, Ohio

Undergraduate institution: Albany State University Favorite thing about Atlanta: It's the fact that you can live in a dense city then travel 30 minutes

and be surround by dense forestry.

Fun fact: I am a poet with other 50 poems that I hope to publish in one book before I graduate.

Lydia Gutema

Hometown: Marietta, Georgia

Undergraduate institution: Johns Hopkins

University

Research Interests: I like looking at how proteins function in relation to their structure using structural or biochemical techniques.

Spirit animal: Pandas because they are clumsy.

Taylor Hailstock

Hometown: Laurel, Maryland

Undergraduate institution: Bowie State

Spirit animal: A flamingo! They're unique and

look pretty in pink!

Research Interests: Regenerative medicine and

stem cell applications

Ziben Zhou

Hometown: Changsha, China

Undergraduate institution: University of

Washington

Favorite thing about Atlanta: The fall!

Research Interests: Cancer Biology, Genomics,

Epigentics

Jose Miguel Castro

Hometown: Laredo, Tx

Undergraduate institution: Texas State University Why did you choose BCDB? Biochemistry and Industry background. Wanted to expand more in the field, there was a feeling of camaraderie and community when I interviewed.

Joey Buehler

Hometown: Peachtree City, Georgia Undergraduate institution: Georgia Tech Fun Fact: I have a passion for growing kombucha Why did you choose BCDB? I love the wide view of biology, the sweet people, and a great

environment.

Molly Little

Hometown: Warwick, New York

Undergraduate institution: George Washington University

Research Interests: Protein-protein interactions

and structural biology

Fun Fact: I can speak Irish/Gaelic conversationally

Laurvn Worley

Hometown: Clinton, North Carolina Undergraduate institution: Fayetteville State

University

Favorite thing about Atlanta? I really love that there is always something to do! From food to shopping to museums to outdoor events, Atlanta is a very lively and vibrant city.

Winter and spring activities around Atlanta

Activities

Garden Lights, Holiday Nights, Nov. 13-Jan. 15th

Atlanta Christkindl Market, Nov. 26th - Jan. 2nd.

Fernbank Winter Wonderland: **Celebrations & Traditions** Around the World, Nov. 20th -Jan. 8th

Celebrate Chinese New Year at the Atlanta Chinatown Mall, Early Feb.

Atlanta Jewish Film Festival, Feb. 16-27th

Harry Potter and the Goblet of Fire in Concert with the Atlanta Symphony Orchestra, Feb. 18-

Atlanta Dogwood Festival, April 8th -10th.

Shaky Knees Music Festival. April 30th.

Dining



BCDB favorite places to dine

Murphy's Restaurant

CHAI YO MODERN THAI

Antico Pizza

Bantam + Biddy (lots of gluten

A mano

La Pastorcita

Brew and Bird

Evergreen Butcher + Baker Aamar Indian Cuisine

Top spots to grab a drink

The Sippin' Santa tiki bar at Bon Ton in Midtown

Three Taverns Imaginarium

Thirty

Clairmont Hotel Rooftop Brick Store Pub

Ladybird Grove and Mess Hall Bar Vegan

Tiki Tango

New Realm Brewery

Acknowledgements

Thank you to our students and faculty for their support in putting together this newsletter

Congratulations to our new

Executive Committee:

Program Director: Dr. Christine Dunham Director of Graduate Studies: Dr. Anita

Corbett

Student Progress: Dr. Laura Finzi Rotations: Dr. Guy Benian

Diversity, Equity, and Inclusion: Dr.

Hyojung Choo

Admissions: Dr. Jennifer Kwong Curriculum: Dr. Homa Ghalei Exams: Dr. Andreas Fritz *Membership:* Dr. Graeme Conn Communications: Dr. Bo Liang Student Representatives: Sarah Strassler and Alejandro Oviedo

Congratulations to Dr. Mike Koval on a successful term as BCDB Director. Thank you to those who have previously served on BCDB Committee.

This newsletter was written and compiled by Dr. Bo Liang, Paul Zakutansky, and Hannah Hrncir.