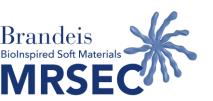
# Brandeis MRSEC

# Partnership with Waltham Public Schools: Science Pizza Talks

Director Anique Olivier-Mason, Ph.D.





# Waltham High School Pizza Talks





**Vivek Vimal**Brandeis PhD Student

**Marisa Maddox**WHS Biology teacher





# Pizza Talk Goals

- Introduce future scientists at WHS to materials science
- Showcase the diversity within the sciences
- Explore the various paths into science

Improve science communication skills among Brandeis

trainees



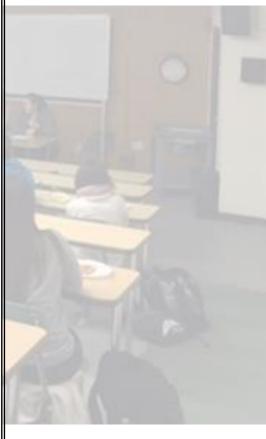




# #youngscientists











# '15-'16 Waltham Pizza Talks



## BRANDEIS MRSEC AND WHS SCIENCE PIZZA TALKS

#### — FRFF PI77A —

When: Tuesday, October 20th 2<sup>nd</sup> and 3<sup>rd</sup> Lunches Where: 3rd Floor Lecture Hall

Interested? Sign-up with Ms. Maddox, Rm 244



Ph.D. Candidate Laura Laranio will share with you the obstacles she overcame to get to where she is Ph.D. Candidate Laura Laranjo will share with you the obstacles she overcame to get to where she is now. She will talk about the challenges she faced as a miningiant student—with no fighlish background – and the fun experiences she had during her path into science. She will talk about her previous and current scientific research in DNA damage and how YOU can pursue research as a high school student or as an undergraduate student.

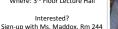
She is now a second year Ph.D. student in the Molecular & Cellular Riology program at Brandeis University Prior to Brandeis Laura worked at Northeastern University creating a biosensor canable Of measuring glucose levels in the perspiration system. At UMass Lowell, Laura analyzed lamprey brains and studied TAU protein, a protein associated with Alzheimer's disease. In her current lab, Laura uses E.c.oif and yeast in her research to study how human mutations are avoided. Cancer, muscular dystrophy, and bone-related diseases have been associated with one of the mutations she is investigating. Further down the road, Laura wants to become a college professor so she can keep motivating students to pursue science.



### BRANDEIS MRSEC AND WHS SCIENCE PIZZA TALKS

#### - FREE PIZZA -

When: Thursday, November 19th 2nd and 3rd Lunches Where: 3rd Floor Lecture Hall



Interested?

Ph.D. student Linnea Metcalf will share the story of her path into science. She will discuss the challenges of working in a male-dominated field and the exciting experiences that led her to a career in physics. She will talk about her work that aims to both answer the fundamental questions about the laws of physics and to have applications in the fields of technology, medicine and robotics. Most ntly, she will talk about how you can get involved in cutting-edge research

Brandeis, she studied at Johns Hopkins University, researching the structural properties of liquic crystals—the materials behind LCD televisions and other electronic displays. She is now working with scillating chemical networks as part of a larger project to create a chemically fueled robot that moves like a small fish. Her work is part of a field called soft robotics. In the future, Linnes plans to do research at either a university or a technology company.





## BRANDEIS MRSEC AND WHS SCIENCE PIZZA TALKS

#### - FRFF PI77Δ -

When: Tuesday, December 15th 2<sup>nd</sup> and 3<sup>rd</sup> Lunches Where: 3rd Floor Lecture Hall

Interested? Sign-up with Ms. Maddox, Rm 244



Ph.D. candidate Madelen Díaz will share her story how a first-generation Hispanic-American is now pursuing her dream of becoming a neuroscientist. She'll share how her experiences of growing up in Maiam influenced her decision to go to graduate school in Boston. She'll talk about previous and current neuroscience projects and how you can be involved as a high school student and

Madelen is currently a third year Ph.D. Neuroscience student in the Rosbash Lab at Brandeis University. Before graduate school, she attended Miami-Dade Honors College and transferred to the University of Miami with a full-research scholarship. Madelen began her research career as a college freshman in Miami Children's Hospital, where the goal was to more accurately predict where the source of epileptic seizures was originating from. She worked with actual patient data and a team of source or pieptips. Security was dignificantly joints. The works with actual patient used and a return clinicians, but because she was doing clinical research, a lot of the basic questions at the molecular level were left unanswered. Madelen is now working on the other end of the spectrum using the fruit fly as a model organism to investigate the inner mechanism of the biological clock. Madelen's ultimate goal is to become a neuroxicience professor and mentor students with a passion for science.



### BRANDEIS MRSEC AND WHS SCIENCE PIZZA TALKS

#### - FREE PIZZA -

When: Tuesday, January 12th 2<sup>nd</sup> and 3<sup>rd</sup> Lunches Where: 3rd Floor Lecture Hall

Interested? Sign-up with Ms. Maddox, Rm 244



Ph.D. candidate Bernard Hishamunda will share the story of his journey from Rwanda, a small country in East Africa, to studying soft matter physics at Brandeis University. Throughout his training, he has pursued his joint interests in business and science: first as a business owner while pursuing his physic bashelor's degree and now, as he takes finance classes and participates in consulting ventures while pursuing his physics doctorate.

During this talk, he will describe what drew him to science and how his current work relates to cuttin edge science and business applications. As an undergraduate, he studied applied physics, created by the comment of the





## SCIENCE PIZZA TALKS

A Brandeis undergraduate research scientist panel with Julia Schiantarelli and Omar Scruggs





#### - FREE PIZZA -When: Tuesday, February 23rd 1st and 2nd Lunches Where: 3rd Floor Lecture Hall

Sign-up with Ms. Maddox, Rm 244



## SCIENCE PIZZA TALKS

#### - FREE PIZZA -

When: Thursday, March 10th 2<sup>nd</sup> and 3<sup>rd</sup> Lunches Where: 3rd Floor Lecture Hall

Interested? Sign-up with Ms. Maddox, Rm 244



Ph.D. Candidate Veronica Flores will share her story of how she for talk about the "ups and downs" she's experienced in science as a first-generation college graduate is talk about the "ups and downs" she's experienced in science as a first-generation college graduate is a thin minigrant parents from Central America. Veronica will speak about why she thinks mentors hip or a huge key to success and how her high school mentors helped her to reach once unimaginable goals!

Veronica will share how her work with birds, rodents, monkeys, and humans helped her find what questions in science are the most fascinating to her. As an undergraduate, she studied how song birds remember, make, and learn their songs that they pass on for generations. After colleges, he switched to study humans and monkeys to investigate how the brain is affected by diabetes. Currently at Brandeis, Veronica uses rats to explore how each taste experience helps form our food preference Even now as a student herself, she is a mentor to ten undergraduates at Brandeis and helps them fin their way in STEM. In the future, Veronica would love to be a college professor to mentor and sur future students find what science research excites them.



## SCIENCE PIZZA TALKS

#### - FREE PIZZA -

When: Thursday, April 14th 1st and 2nd Lunches Where: 3rd Floor Lecture Hall

Interested? Sign-up with Ms. Maddox, Rm 244



Andrew Balchunas, a Ph.D. candidate in Physics at Brandeis University, will discuss what excites him Addition and interest and inter explored astrophysics as an undergraduate, but he decided to pursue other physics research when he

Andrew is fascinated by materials that cannot be classified strictly as a solid, liquid, or gas. It turns out that these materials have interactions between individual particles, on a molecular scale, that bring about interesting effects at larger scales. He will discuss how these materials work and why companies



# Praise and Press for the Series

## Waltham High School program brings working scientists to students

























By Bill Whelan wwhelan@wickedlocal.com @wvwhelan

Posted Jan. 14, 2016 at 9:54 AM

"His energy and passion is extremely motivating and interesting and he's funny."

"It's personal, helps people understand why to get into science."

"I liked how she made her life relatable to ours and how everyone can contribute to science."





# The Pizza Series: the MRSEC-WHS Partnership Backbone

Heather Metallides, Waltham Science Head:

"Due to this collaboration, I believe our students will be able to connect what they are learning in the classroom to the real world."









# Efforts to Measure Impact

- "Tickets to leave" student feedback
- Informal discussions with WHS teachers and Brandeis scientists
- Requests for field trips and invitations to expand programs







# Acknowledgements

# **Brandeis University**

- Prof. Seth Fraden
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- Vivek Vimal

# **Waltham High School**

- Marisa Maddox
- Heather Metallides



