



UMass Chan Medical School Hosts 19th Annual Central Massachusetts Brain Bee



Forty-two high school students from twelve Central Massachusetts high schools competed in the 19th annual Brain Bee, held March 29, 2025 in the New Education and Research Building on the UMass Chan Medical School campus in Worcester.

Students receiving the top ten scores on a written exam proceeded to compete in the Oral elimination rounds of the Bee. From these ten Finalists, it took 15 rounds of questions to identify the champion, Shamini Biju, who received the 'Andrew Sheridan Young Neuroscientist Award.' The win qualifies Shamini to compete in the [2025 USA National Brain Bee](#), May 3-4, 2025, at the Rutgers University Robert Wood Johnson Medical School in New Jersey.



Aadith Maganti finished second, and Parnitha Karapakula finished third. All three top finishers attend Shrewsbury High School. Caroline Charland of TEC Connections Academy and Charlee Miller of Grafton High School tied for fourth place. Fengdi Deng of Cushing Academy and Aneesha Pathangay of Hopkinton High School tied for sixth place. Shukkla Vaagmi of Hopkinton High School, Sanjit Pasala of Grafton High School, and Machika Macharla of Westborough High School finished in positions 8, 9 and 10, respectively. Several of the 2025 Finalists had participated in previous Central Massachusetts Brain Bee, including several who had reached previous Finals.



The oral portion of the Brain Bee was especially exciting. Students were eliminated when they accumulated three incorrect answers. It took 9 rounds of questions to knock out 7 of the Finalists. Of those remaining, Shamini had one strike while Aadith and Parnitha had clean slates. Despite this handicap, Shamini held on through 6 additional questions to come out on top.

In addition to the competition, the Bee included educational activities for the competitors, teachers and families in attendance. The Keynote Address was by Rachael Sirianni, PhD, "Engineering in medicine: taking research ideas from bench to bedside and back again" Professor and Vice Chair of Research, Department of Neurological Surgery at UMass Chan Med School.

Three current UMass Chan Graduate Program in Neuroscience students delivered short talks and poster presentations:

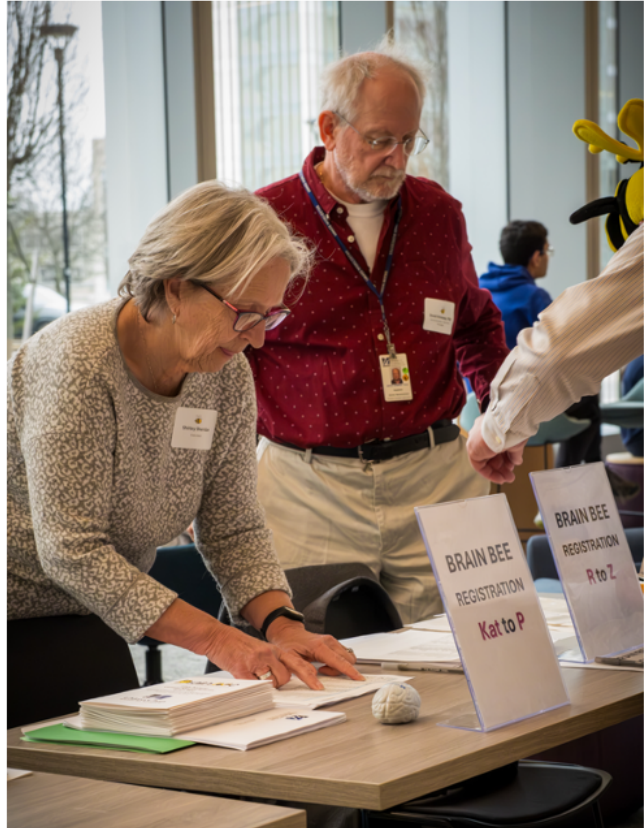
Megan Fowler-Magaw (Bosco Lab, Department of Neurology) presented “Stressed out cells: how protein behavior during cellular stress contributes to neurodegeneration”,

Timmy Le (Martin Lab, Department of Neurobiology discussed “Techniques Used in Understanding the Physiology of Alcohol Addiction,” and

Jonathan Jung (Bosco Lab, Department of Neurology) talked about his project “Clogged garbage disposal: Understanding how microglia can contribute to neurodegeneration.”



Avery Mizrahi, a Harvard undergraduate and previous Brain Bee participant (elsewhere) described how to pursue research opportunities while in high school. Rebecca Ahn, the 2024 Central Massachusetts Brain Bee winner, told the audience about her experience attending the USA National Brain Bee at which she placed 4th.



Reprising their roles from previous Brain Bees, the Master of Ceremonies was Sheldon Benjamin, MD (Professor Emeritus of Psychiatry and Neurology), and the Organizer and Volunteer Coordinator was David Weaver, PhD (Professor of Neurobiology).





In addition to the speakers, volunteers played essential roles at the registration desk, as ushers, written test proctors and graders. The Oral Round Judges (David Cochran, MD, PhD and Kasturi Biswas, PhD), scorekeepers (Megan Fowler-Magaw & Avery Mizrahi), patient actors (Sydney Fischer, Avery Mizrahi, and Rebecca Ahn) and photographers (David Kennedy, PhD, Timmy Le, and Maria Montiel, PhD) all played essential roles. Other volunteers included Samuel Bond, Robert Neagu, Kennedy O'Hara, Auralyd Padilla MD, Rowan Phillips, Yarimel Rosado, Allison Sanchez, Gina Savella MD, and Sean Simonini. Michael and Shirley Sheridan once again oversaw the registration process and provided important support, joined this year by Michael's brother Patrick.

The twelve high schools represented were Acton Boxborough Regional High (1), Cushing Academy (1), Grafton High School (11), Hopkinton High School (7), North High School (1), Saint John's High School (1), Shrewsbury High School (13), South High Community School (1), Tahanto Regional High School (1), TEC Connections Academy (1), Westborough High School (2), and Worcester Technical High School (2).



Thanks are also due to members of the UMass Chan facilities team, including Shane Mitchell and Kelly (Public Safety), Jose Dones (Environmental and Building Services), and Matt Tracy and the AV Team.

Due to a freeze on discretionary spending at UMass Chan imposed in response to uncertainty about federal funding for research, the 2025 Central Massachusetts Brain Bee was sponsored by Sheldon Benjamin, MD (Professor Emeritus of Psychiatry), David Weaver, PhD (Professor of Neurobiology), and Michael and Shirley Sheridan of Southborough.



To be added to our mailing list to receive information about future Brain Bees, please complete the form here: <https://forms.gle/TqY5zRCV2bir77Uw9>

Resources for preparing for the 2026 Brain Bee include *Brain Facts* (2018), available to download for free <https://www.brainfacts.org/the-brain-facts-book> . Other resources will be linked to this page in Fall 2025.

Questions? CentralMassBrainBee@umassmed.edu

Related UMass Chan news:

[Local high school students compete in Central Mass. Brain Bee at UMass Chan](#)

[UMass Chan to host 18th annual Brain Bee competition for local high school students](#)

[Nashoba Regional High junior wins local Brain Bee](#)