

Department of Neurology

Department Highlights

BIDMC Earns National Recognition for from the American Heart Association



We're proud to share that **Beth Israel Deaconess Medical Center** has been recognized by the American Heart Association (AHA) with the **2025 Get With The Guidelines®-Stroke Gold Plus Award** — including distinctions on the **Target: Stroke Honor Roll Elite, Advanced Therapy**, and **Target: Type 2 Diabetes Honor Roll**.

This award reflects our team's exceptional commitment to evidence-based care and improved outcomes for patients with stroke and related conditions. It's based on our 2023–2024 performance data and brings national recognition to BIDMC, including a feature in the *U.S. News & World Report* "Best Hospitals" issue and recognition at the 2026 International Stroke Conference.

Congratulations to all who contributed to this outstanding achievement in stroke care!

Stroke Center Receives Recertification



We are pleased to share that Beth Israel Deaconess Medical Center has been recertified as a Comprehensive Stroke Center by The Joint Commission. This prestigious designation reflects our continued commitment to delivering the highest standards of stroke care, quality, and safety for our patients, workforce, and community.

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Expanding Access to Inpatient Neurology at Anna Jaques Hospital

We're excited to launch a new TeleNeurology partnership between HMFP neurologists at BIDMC and Anna Jaques Hospital. This collaboration addresses a growing need for inpatient neurology care at AJH—expanding services beyond TeleStroke to include expert non-emergent neurology consults.



Neuro ICU Expanding to Support Growing Patient Needs

The Neuro ICU is expanding to an adjacent pod on Rosenberg 7, increasing capacity from 8 to 12 beds (6 per unit) with plans to grow to 16 beds by early 2026. This expansion will improve care for neurology and neurosurgery patients currently boarded elsewhere, ensuring timely, specialized treatment for complex cases.



New Seizure Emergency Tool Released by the Epilepsy + Data Science Lab

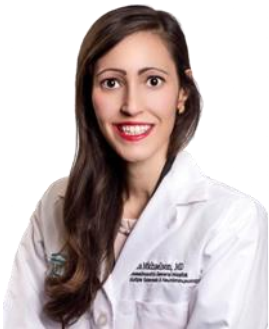
The Epilepsy + Data Science Lab at Harvard Medical School and Beth Israel Deaconess Medical Center, led by **Daniel Goldenholz, MD, PhD, FAES**, has launched the first version of the **Seizure Emergency SafeSteps Platform**—an open-source toolkit designed to help caregivers respond quickly during a seizure emergency. The platform includes 3D-printable keychains and other tools that offer concise, country-specific guidance and are easy to carry every day.

[Learn more here.](#)

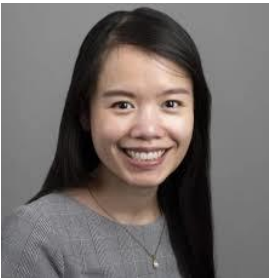
[Find 3D printing files here.](#)

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Nara Michaelson, MD, and Rikka Azuma, MD, have signed on to help support MS/Neuro-immunology and general neurology, joining faculty in summer.



Recent Clinical Fellow graduate and Resident Alumni, **Stephanie Vu, MD**, will be joining faculty officially in Neuro-hospital, tele-neurology and stroke in summer.



BIDMC Shapiro Education Week Recognizes Barrette, Kohiyama and Hovaguimian

Congratulations to **Ryan Barrette, MD, and Dr. Mayumi Kohiyama, MD**, recipients of this year's Resident as Teacher Award in Neurology! Selected based on exceptional teaching talent and enthusiastic feedback from the HMS Class of 2024–25, this award recognizes their dedication to medical education and their impact on student learning.



Alex Hovaguimian, MD, was also recognized with the 2025 American Academy of Neurology Clerkship Director Innovation Award. This award acknowledges Hovaguimian's commitment to continual improvement of the education and mentorship of our trainees.

They were honored during the BIDMC Shapiro Education Week Teaching Awards Ceremony on Monday, June 2. Congratulations and thank you for your outstanding contributions to our educational mission!

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Rutkove Talks Muscle Loss and Spaceflight on NASA's Curious Universe

Seward Rutkove, MD, was recently featured on NASA's Curious Universe podcast to talk about a fascinating study where volunteers lie in bed for 60 days to help scientists understand how space travel affects the body. He shared how his team at BIDMC is using innovative tools to track muscle and nerve changes—and help develop ways to protect astronauts on long missions.



Listen [here](#).

Saper Featured in ANA 150th Anniversary Video

In honor of the American Neurological Association's 150th anniversary, **Clif Saper, MD, PhD, Chief Emeritus**, was invited to reflect on his tenure as Editor-in-Chief of Annals of Neurology in a special commemorative video. Dr. Saper was Editor-in-Chief from 2014-2021, and currently serves as the Treasurer of the ANA.



Dr. Saper shares insights on landmark scientific advances, editorial milestones, and the evolving landscape of neurology during his leadership.

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Congratulations to Our 2025 Resident and Fellow Graduates!

We are proud to celebrate the graduation of our outstanding 2025 residents and fellows. Their dedication, compassion, and excellence have enriched our department and inspired those around them. We look forward to all they'll accomplish as they move into the next phase of their careers.

Special thanks to **Dr. Penny Greenstein, Dr. Aimee Boegle, Sasha Smith, and Billy Kanellopoulos** for their leadership and mentorship, and for guiding both our current graduates and the future classes of Neurology trainees.

The future of Neurology is in great hands!



Resident Graduates 2025

Front row: Penny Greenstein (Program Director), Matt McGuinness, Ushna Khan, Nicole Cesanek, Aimee Boegle (Associate Program Director)
Back row: Ailing Yang, Ryan Barrette, Stephen Trudeau, Andres Eras



Fellow Graduates 2025

From left to right: James Devanney, Jose Ricardo Lopez Castellanos, Stephanie Vu, Joseph Ditrapani, Joyce Mbiziwo-Tiapo, Saagar Seth, Selene Jamall, Hillary Mullan, Kehan Zhao, Rikka Azuma, Noor Mahmoud, Shravan Sivakumar

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Research Spotlight



NIH Sleep Grant Renewed for Another 5 Years

The NIH P01 grant from the National Heart, Lung, and Blood Institute on “Mechanisms of Sleep and Sleep Apnea” has been renewed for another five years, providing \$1,765,000 annually in direct costs to support this important research. Led by **Clif Saper, MD, PhD, Chief Emeritus**, the renewal reflects the team’s longstanding leadership and continued impact in the field of sleep neuroscience.

nature

We are pleased to share a groundbreaking publication from our department in *Nature*, titled: “**Preoptic EP3R neurons constitute a two-way switch for fever and torpor.**”

Led by Drs. **Natalia Machado, Clif Saper** and colleagues, this study identifies a distinct population of MnPO neurons expressing the prostaglandin EP3 receptor that act as a central thermoregulatory switch—capable of driving both fever and hypothermia (torpor). These findings provide critical insights into survival physiology and metabolic regulation. Publication in *Nature* reflects the exceptional rigor, innovation, and scientific leadership of our Neurology faculty. Congratulations to the entire team on this remarkable achievement.

[Read the article ›](#)

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Clinical Trial Highlights



Introducing CORTEX: A New Identity for Neurology Research at BIDMC

The BIDMC neurology clinical research team formerly known as **P.A.I.N.T.** has a new name: **CORTEX** — *Clinical Research Trials Excellence in Neurology*.

- **CORTEX** brings together expert neurologists, research coordinators, and nurses to conduct cutting-edge, patient-centered clinical trials in neurodegenerative diseases, including Alzheimer's, Parkinson's, and Huntington's.
- The new name reflects the program's expanded scope, growing partnerships, and continued commitment to innovation and clinical impact.
- CORTEX supports a wide portfolio of industry-sponsored trials aimed at advancing new therapies and improving quality of life for patients.
- Learn more at research.bidmc.org/cortex.

Clinical Trial Spotlight: Advancing Alzheimer's & MCI Care Treating Insomnia in MCI

Dr. Pete Fried and coordinator **Alex Diamond** are leading a 3-year clinical trial, funded by the BrightFocus Foundation, focused on individuals with mild cognitive impairment (MCI) who have trouble falling or staying asleep. The study combines 2 weeks of outpatient transcranial magnetic stimulation (TMS) with a fully-automated, at-home cognitive behavioral therapy for insomnia (CBT-I) program developed by the University of Virginia.

Real-Time Cognitive Monitoring at Home

Drs. Chun Lim and Dan Press, alongside coordinator Meaghan, are developing the **A2 study**, which focuses on creating an at-home, real-time monitoring tool to detect cognitive changes in **early Alzheimer's disease**—making assessments more accessible and continuous.

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Recent Publications

Machado, N.L.S., Lynch, N., Costa, L.H.A. *et al.* Preoptic EP3R neurons constitute a two-way switch for fever and torpor. *Nature* (2025). <https://doi.org/10.1038/s41586-025-09056-1>

Goldenholz DM, Goldenholz SR, Habib S, Westover MB. Inductive reasoning with large language models: A simulated randomized controlled trial for epilepsy. *Epilepsy Res.* 2025 Mar;211:107532. doi: 10.1016/j.epilepsyres.2025.107532. Epub 2025 Feb 24. PMID: 40020525; PMCID: PMC11908886.

Cheng JC, Goldenholz DM. *Seizure prediction and forecasting: a scoping review.* *Curr Opin Neurol.* 2025 Apr 1;38(2):135–139. doi: 10.1097/WCO.0000000000001344. Epub 2025 Jan 20. PMID: 39831588

Alkofer M, Yang C, Ganglberger W, Beal J, Hegde M, Kang JY, Yoo JY, Gelfand MA, Thio LL, Kutluay E, Campbell Z, Schmitt S, Gleichgerrcht E, Waterhouse E, Lopez MR, Eisenschenk S, Galanti M, Singh RK, Wills KE, Meulenbrugge EJ, Dlugos D, Dean B, Halford JJ, Goldenholz D, Jing J, Thomas R, Westover MB. *Automated detection of interictal epileptiform discharges with few electroencephalographic channels.* *Epilepsia.* 2025 May 3. doi: 10.1111/epi.18431. PMID: 40317534

Henry C, Creasey M, Cannon L, Terman SW, Goldenholz D. *Increased seizure frequency graphs in medication trials: FDA labels vs. peer-review.* *Seizure.* 2025 Jun 1;131:29–34. doi: 10.1016/j.seizure.2025.05.021. PMID: 40480038

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Recent Publications

[Sun C, Jing J, Turley N, Alcott C, Kang WY, Cole AJ, Goldenholz DM, Lam A, Amorim E, Chu C, Cash S, Junior VM, Gupta A, Ghanta M, Nearing B, Nascimento FA, Struck A, Kim J, Sartipi S, Tauton AM, Fernandes M, Sun H, Bayas G, Gallagher K, Wagenaar JB, Sinha N, Lee-Messer C, Silvers CT, Gunapati B, Rosand J, Peters J, Loddenkemper T, Lee JW, Zafar S, Westover MB. *Harvard Electroencephalography Database: A comprehensive clinical electroencephalographic resource from four Boston hospitals*. Epilepsia. 2025 Jun 4. doi: 10.1111/epi.18487. PMID: 40464151](#)

[Goldenholz DM, Cheng JC, Chang CY, Moss R, Westover MB. *Does missing medication acutely change seizure risk? A prospective study*. medRxiv \[Preprint\]. 2025 Jun 7. doi: 10.1101/2025.06.06.25329144. PMID: 40502567](#)

[Dave, J., Hakkinen, I., & Zhang, P. \(2024\). Comprehensive list of preventative migraine headache medications without significant drug–drug interactions. *Frontiers in Neurology*, 15, 1527897. <https://doi.org/10.3389/fneur.2024.1527897>](#)