

AI News Digest

06/08/2026 - 06/14/2026

WEEKLY DIGEST: BIOLOGICAL & BIOMEDICAL SCIENCES

AI Innovations Transforming Scientific Research Landscape

Recent advancements in AI are significantly impacting the biological and biomedical sciences. Microsoft's Discovery platform is now available, enhancing research workflows through agentic AI capabilities. Meanwhile, EpiBench highlights the challenges AI faces in epigenomics analysis, emphasizing the need for improved benchmarks. Additionally, NIST's expanded chemical fingerprint library aids in substance identification, while the achievements of MIT fellows showcase the ongoing investment in future scientific leaders.

KEY FINDINGS

- ✓ Microsoft's Discovery platform integrates agentic AI for research workflows.
- ✓ EpiBench introduces a benchmark for evaluating AI in epigenomics.
- ✓ NIST's updated mass spectral library includes over 450,000 compounds.

IMPLICATIONS

- Enhanced AI tools may accelerate scientific discovery and innovation.
- Improved benchmarks could lead to more reliable AI applications in genomics.
- Investment in fellowships supports the next generation of scientific talent.

Key Metrics: 382,180 compounds in the Electron Ionization Library.; 68,635 compounds in the Tandem Library.; Four MIT students awarded 2026 Hertz Foundation Fellowships.

1. Microsoft Discovery Platform Brings Agentic AI to Scientific Research

Category: Research

Departments: Computer Science, Physics, Biological Sciences, Public Health Sciences

Topics: Generative AI, Agentic AI in Research, Hypothesis Generation, Data Analysis Automation, Knowledge Management Systems

Impact Score: 23.0

Rubric Scores

Research Relevance: 4

Educational Value: 3

Innovation / Novelty: 4

Practical Impact: 5

Interdisciplinary Potential: 4

Ethical / Policy Implications: 3

Microsoft has announced the general availability of its Discovery platform, which integrates agentic AI into scientific research and development workflows. The platform facilitates hypothesis generation, experimentation, data analysis, and knowledge management through specialized AI agents, aiming to enhance the efficiency of research processes. A preview of the Microsoft Discovery app has also been released, designed to lower barriers for researchers and smaller teams to engage with AI-driven scientific discovery. Early use cases from institutions like Yale and Pacific Northwest National Laboratory demonstrate the platform's application in areas such as chemical design and energy storage.

<https://campustechnology.com/articles/2026/06/12/microsoft-discovery-platform-brings-agentic-ai-to-scientific-research.aspx>

2. EpiBench: AI agents still struggle with epigenomics analysis

Category: Research

Departments: Biological Sciences, Computer Science, Electrical & Computer Engineering

Topics: Healthcare AI, Epigenomics Analysis, Benchmarking AI Agents, Scientific Decision-Making

Impact Score: 20.0

Rubric Scores

Research Relevance: 4

Educational Value: 3

Innovation / Novelty: 4

Practical Impact: 3

Interdisciplinary Potential: 4

Ethical / Policy Implications: 2

The article introduces EpiBench, a verifiable benchmark designed for short-horizon epigenomics analysis, which dissects real analysis workflows into 106 deterministic evaluations across various epigenomic techniques, including CUT&Tag/CUT&RUN, ATAC-seq, ChIP-seq, and DNA methylation. The benchmark assesses the performance of modern agentic systems in completing tasks that require scientific decision-making, revealing that accuracy varies by assay type, with CUT&Tag/CUT&RUN achieving the highest pass rate at 34.0%. The findings indicate that while agents can select appropriate tools and compute intermediate values, they often produce answers that are not supported by the provided data or reflect errors in scientific judgment. The article encourages further exploration of the benchmark's tasks and trajectories for a deeper understanding of its measurements.

<https://blog.latch.bio/p/epibench-ai-agents-still-struggle>

3. MIT affiliates win 2026 Hertz Foundation Fellowships

Category:	Research				
Departments:	Industrial, Manufacturing & Systems Engineering, Computer Science, Biological Sciences, Electrical & Computer Engineering				
Topics:	Robotics, Bio-inspired Robotics, Goal Inference, Cognitive Science				
Impact Score:	17.0				
Rubric Scores					
Research Relevance:	3	Educational Value:	2	Innovation / Novelty:	3
Practical Impact:	4	Interdisciplinary Potential:	4	Ethical / Policy Implications:	1

The Hertz Foundation has awarded fellowships to four MIT students, including Annika Marschner, Alvin Q. Meng, Zachary S. Siegel, and incoming graduate student Matthew Wanta. Each fellowship provides five years of financial support, enabling recipients to pursue innovative research in their respective fields. Marschner focuses on bio-inspired robotics, Meng studies iron-sulfur clusters in inorganic chemistry, and Siegel investigates goal inference in robotics and cognitive science. The fellowship also offers lifelong access to networking and mentoring opportunities, fostering collaboration among over 1,300 past and present fellows.

<https://news.mit.edu/2026/hertz-foundation-fellowships-0611>

4. NIST Expands Its Library of 'Chemical Fingerprints' to Identify Unknown Substances

Category:	Research				
Departments:	Chemistry & Biochemistry, Biological Sciences, Pharmaceutical Sciences, Public Health Sciences				
Topics:	Science & Research, Mass Spectral Analysis, Chemical Fingerprinting, Substance Identification, Database Expansion				
Impact Score:	17.0				
Rubric Scores					
Research Relevance:	2	Educational Value:	3	Innovation / Novelty:	3
Practical Impact:	4	Interdisciplinary Potential:	4	Ethical / Policy Implications:	1

The National Institute of Standards and Technology (NIST) has released an updated version of its mass spectral library, known as Standard Reference Database 1A, which now includes over 382,180 compounds in the Electron Ionization Library and 68,635 in the Tandem Library. This update adds approximately 35,000 new compounds, including minor cannabinoids, nitazenes, thiophenes, alkylated polycyclic aromatic hydrocarbons, and various plant-based derivatives of serotonin and dopamine. The library serves as a critical resource for researchers and manufacturers to identify unknown substances by comparing mass spectra generated from samples to those in the database. The updated library is available for purchase and is preinstalled on many commercial mass spectrometers.

<https://www.nist.gov/news-events/news/2026/06/nist-expands-its-library-chemical-fingerprints-identify-unknown-substances>

5. Harriet having it all

Category: Other

Departments: Biological Sciences, Political Science & Public Administration

Topics: Healthcare AI, HIV-1 Vaccine Development, Gender Bias in Academia, Biotechnology Innovation

Impact Score: 13.0

Rubric Scores

Research Relevance: 1

Educational Value: 2

Innovation / Novelty: 1

Practical Impact: 2

Interdisciplinary Potential: 3

Ethical / Policy Implications: 4

Harriet Latham Robinson, a pioneering figure in microbiology and immunology, pursued a faculty position at the Yerkes National Primate Research Center at age 60, where she co-founded GeoVax, a biotechnology company focused on HIV-1 vaccine development. Throughout her career, Robinson faced gender biases in a male-dominated field, often being referred to by her first name while her male colleagues were addressed with titles. Her academic journey began at Swarthmore College, where she shifted from political science to biology, influenced by a supportive dean at Radcliffe College who encouraged her scientific aspirations. Robinson's contributions to science and her role as a trailblazer for women in academia are notable aspects of her legacy.

<https://news.mit.edu/2026/harriet-having-it-all-0612>