

AI News Digest

01/12/2026 - 01/18/2026

WEEKLY DIGEST: BIOLOGICAL & BIOMEDICAL SCIENCES

AI Innovations Propel Drug Development and Neuroscience

Recent advancements in artificial intelligence are significantly influencing the fields of drug development and neuroscience. Notable collaborations, such as the partnership between Eli Lilly and NVIDIA to establish an AI co-innovation lab, highlight the growing investment in AI-driven healthcare solutions. Additionally, OpenAI's investment in Merge Labs aims to revolutionize brain-computer interfaces, while Owkin's AI platform seeks to enhance pharmaceutical insights. These developments underscore a transformative shift towards integrating AI technologies in biological and biomedical research.

KEY FINDINGS

- ✓ MIT's SQI focuses on interdisciplinary research to understand intelligence.
- ✓ UCSD's new data compression technique enhances scalability in pangenomics.
- ✓ Eli Lilly and NVIDIA's partnership includes a \$1 billion investment in AI infrastructure.

IMPLICATIONS

- Increased collaboration between tech and pharmaceutical companies may accelerate drug development timelines.
- Advancements in brain-computer interfaces could lead to breakthroughs in neurotechnology and mental health treatments.
- AI's role in biological research may redefine traditional methodologies and enhance discovery processes.

Key Metrics: \$252 million investment in Merge Labs by OpenAI.; \$1 billion investment commitment from Eli Lilly and NVIDIA.; \$130 million raised in Chai Discovery's Series B funding round.

1. At MIT, a continued commitment to understanding intelligence

Category: Research
Departments: Computer Science, Biological Sciences, Electrical & Computer Engineering, Psychology, Philosophy
Topics: Science & Research, Biological Intelligence, Interdisciplinary Collaboration, Artificial System Engineering

Impact Score: 26.0

Rubric Scores

Research Relevance: 5	Educational Value: 4	Innovation / Novelty: 5
Practical Impact: 4	Interdisciplinary Potential: 5	Ethical / Policy Implications: 3

The MIT Siegel Family Quest for Intelligence (SQI) is a newly renamed research unit within the MIT Schwarzman College of Computing, aimed at understanding the principles of intelligence through interdisciplinary collaboration among researchers in various fields. The initiative focuses on both the biological basis of intelligence in humans and animals and the engineering of artificial systems that can replicate these capabilities to solve complex real-world problems. Supported by a significant endowment from the Siegel Family, SQI organizes its research around long-term missions that address foundational questions about intelligence, with the goal of advancing both scientific understanding and technological innovation in artificial intelligence.

<https://news.mit.edu/2026/continued-commitment-to-understanding-intelligence-0114>

2. UCSD: Compressed Data Technique Enables Pangenomics at Scale

Category: Research
Departments: Biological Sciences, Computer Science, Electrical & Computer Engineering
Topics: Healthcare AI, Pangenomics Scalability, Data Compression Techniques, Genetic Dataset Management

Impact Score: 26.0

Rubric Scores

Research Relevance: 5	Educational Value: 4	Innovation / Novelty: 5
Practical Impact: 4	Interdisciplinary Potential: 5	Ethical / Policy Implications: 3

Engineers at the University of California have introduced a novel data structure and compression technique aimed at enhancing the scalability of pangenomics. Led by Professor Yatish Turakhia from UC San Diego, the research details a compressive pangenomics approach that allows for the management of significantly larger genetic datasets. The findings were published in *Nature Genetics* on January 16, 2026.

<https://www.hpcwire.com/off-the-wire/ucsd-compressed-data-technique-enables-pangenomics-at-scale/>

3. OpenAI Invests in Sam Altman's New Brain-Tech Startup Merge Labs

Category: Business
Departments: Electrical & Computer Engineering, Biological Sciences, Psychology, Public Health Sciences
Topics: AI Hardware, Non-invasive Brain-Computer Interfaces, Neural Signal Interpretation, AI-Enhanced Neurotechnology

Impact Score: 24.0

Rubric Scores

Research Relevance: 4	Educational Value: 3	Innovation / Novelty: 5
Practical Impact: 4	Interdisciplinary Potential: 5	Ethical / Policy Implications: 3

OpenAI has announced its investment in Merge Labs, a neurotechnology startup co-founded by CEO Sam Altman, aimed at developing non-invasive brain-computer interface technology using ultrasound to read and modulate brain activity. Merge Labs has secured \$252 million in funding from various investors, including Bain Capital and Gabe Newell, and plans to create interfaces that integrate biology, devices, and AI without the need for implants. The collaboration with OpenAI will focus on leveraging AI to enhance the functionality of these interfaces, potentially improving their ability to interpret neural signals and adapt to individual users. Merge Labs is a spinoff of the nonprofit Forest Neurotech, which continues to explore applications related to mental health and brain injury.

<https://www.wired.com/story/openai-invests-in-sam-altmans-new-brain-tech-startup-merge-labs/>

4. Q&A:: Owkin CEO on building an AI scientist and pharma's short-term thinking

Category: Business
Departments: Pharmaceutical Sciences, Biological Sciences, Political Science & Public Administration
Topics: Healthcare AI, AI in Drug Development, Biological Insights Extraction, Long-term Innovation Strategies

Impact Score: 24.0

Rubric Scores

Research Relevance: 3	Educational Value: 4	Innovation / Novelty: 4
Practical Impact: 5	Interdisciplinary Potential: 4	Ethical / Policy Implications: 4

Thomas Clozel, cofounder and CEO of Owkin, discussed the company's AI platform that emphasizes biological insights during an interview at the JPM Healthcare Conference. He criticized the pharmaceutical industry's tendency to prioritize short-term pipeline successes over long-term innovation. Clozel's comments highlight a broader concern regarding the sustainability and effectiveness of current practices in drug development.

<https://www.mobihealthnews.com/news/qa-owkin-ceo-building-ai-scientist-and-pharmas-short-term-thinking>

5. JPM: NVIDIA and Eli Lilly announce co-innovation AI lab

Category: Business

Departments: Pharmaceutical Sciences, Computer Science, Public Health Sciences

Topics: Healthcare AI, AI in Pharmaceuticals, AI Infrastructure Development, Workforce Development in AI

Impact Score: 23.0

Rubric Scores

Research Relevance: 3

Educational Value: 4

Innovation / Novelty: 4

Practical Impact: 5

Interdisciplinary Potential: 4

Ethical / Policy Implications: 3

Eli Lilly and Co. and NVIDIA announced a partnership to establish an AI co-innovation lab in San Francisco during the JPM Healthcare Conference. The collaboration includes an investment of up to \$1 billion over five years, aimed at enhancing infrastructure, workforce development, and computational resources. This initiative seeks to leverage AI technologies in the pharmaceutical sector.

<https://www.mobihealthnews.com/news/jpm-nvidia-and-eli-lilly-announce-co-innovation-ai-lab>

6. From OpenAI's offices to a deal with Eli Lilly - how Chai Discovery became one of the flashiest names in AI drug development

Category: Business

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

Topics: Healthcare AI, AI Drug Discovery, Antibody Development, Chai-2 Algorithm

Impact Score: 23.0

Rubric Scores

Research Relevance: 3

Educational Value: 4

Innovation / Novelty: 4

Practical Impact: 5

Interdisciplinary Potential: 4

Ethical / Policy Implications: 3

Chai Discovery, an AI startup founded in 2024, has raised significant funding, including \$130 million in its recent Series B round, achieving a valuation of \$1.3 billion. The company has partnered with Eli Lilly to utilize its AI algorithm, Chai-2, for developing antibodies aimed at accelerating drug discovery. This collaboration coincides with Eli Lilly's announcement of a \$1 billion partnership with Nvidia to establish an AI drug discovery lab in San Francisco. Despite skepticism from some industry veterans regarding the impact of AI on traditional drug development, proponents believe that early adopters of such technologies will gain a competitive advantage in bringing new medicines to clinical trials.

<https://techcrunch.com/2026/01/16/from-openais-offices-to-a-deal-with-eli-lilly-how-chai-discovery-became-one-of-the-flashiest-names-in-ai-drug-development/>

7. Can A.I. Generate New Ideas?

Category: Research

Departments: Computer Science, Biological Sciences, Chemistry & Biochemistry, Mathematical Sciences

Topics: Generative AI, AI in Scientific Inquiry, Research Automation, AI-Assisted Discovery

Impact Score: 22.0

Rubric Scores

Research Relevance: 4

Educational Value: 3

Innovation / Novelty: 3

Practical Impact: 4

Interdisciplinary Potential: 4

Ethical / Policy Implications: 4

Recent advancements in AI systems, such as OpenAI's GPT-5, are significantly enhancing research capabilities in fields like mathematics, biology, and chemistry. However, there is an ongoing debate regarding the extent to which these systems can independently conduct research without human intervention. The discussion highlights the limitations and potential roles of AI in scientific inquiry, emphasizing the need for further exploration of AI's capabilities in these domains.

<https://www.nytimes.com/2026/01/14/technology/ai-ideas-chat-gpt-openai.html>