

Can AI Control Energy Like Light Controls Genes?

Targeted activation of systems using non-invasive signals—inspired by CRISPR advances.

Swipe for insights →

in mice

Targeted tissue activation

CRISPR gene-editing tools controlled by light and sound were successfully activated in specific tissues.

This breakthrough demonstrates that biological systems can be selectively activated using external stimuli without affecting surrounding cells. In the study, viral particles delivered light- and sound-responsive CRISPR enzymes to target tissues in live mice, enabling precise genome editing. The ability to activate tools only where needed—without systemic exposure—mirrors the ideal for AI in energy: triggering responses only in the required grid zones or data centers.

Source: Nature · Published October 02, 2026

https://www.nature.com/articles/d41586-026-03037-8?error=cookies_not_supported&code=5cdfba42-ee0f-4829-8174-b4c08c82af35



01

Precision as a System Design Principle

The core insight is that activation must be spatially and temporally controlled. In energy systems, this means AI models must not only predict demand but also initiate responses only where and when needed—like a smart grid that activates power routing only in high-load zones during peak hours. This reduces waste, enhances resilience, and prevents cascading failures. The same logic applies to AI-optimized data centers, where cooling or power scaling is triggered only in active server clusters, not across entire facilities.



02

Non-Invasive Control Is the New Frontier

Just as light and sound were used to activate CRISPR without invasive surgery, AI in energy must leverage non-invasive, remote triggers—such as real-time feedback loops or predictive signals from distributed sensors. This allows for dynamic, adaptive control without physical intervention. In nuclear or grid operations, such a system could enable instant response to anomalies with minimal human input, reducing risk. The parallel is clear: the most advanced control systems don't react—they anticipate and activate with surgical precision.

MIT, Nvidia, Google & IBM-Trained. Cross Domain-Expert: Quantum, AI, Ethics, Sovereignty, Intelligence, Philanthropy.
Solepoint Planning. VUI AI Cloud Architect. AI Certifications Development. Quant/AI Instructor. Castor Venture Club Member.
Associate Broker.

George Arnold Alexander III, MPA

Director, ALEX Companies

Associate Broker, Alexander Tiffany Southwest, LLC dba ALEX.realestate, et.al.

Texas License #574878-B · Broker License #565194-BB

Broker, ALEX Real Estate · North Carolina License #367733

Independent Broker, ALEX Real Estate · Colorado License #II.100112456

george@alex.realestate · +1 713.918.9951

ALEX

ALEX Intelligence
deep intelligence

ALEX Real Estate
genius real estate

ALEX Advisory
uncontested strategy

ALEX Cares
purposeful philanthropy

