



## Power of Recursion OS on Display at Genome Scale in Nature Genetics Paper Detailing Potential Limitation of CRISPR Gene Editing Tool

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**Published open-access today in Nature Genetics, “High-resolution genome-wide mapping of chromosome-arm-scale truncations induced by CRISPR–Cas9 editing” identifies novel evidence of a proximity bias in CRISPR-Cas9 gene knockouts and a debiasing (correcting) algorithm.**

SALT LAKE CITY, May 29, 2024 (GLOBE NEWSWIRE) -- Recursion (Nasdaq: RXX), a leading clinical stage TechBio company decoding biology to industrialize drug discovery, today published in [Nature Genetics](#) scientific findings that highlights a potential limitation of CRISPR-Cas9 in gene editing - a key component in understanding disease mechanisms, and developing new therapeutic approaches.

This proximity bias, discoverable through Recursion’s proprietary biological dataset, could have many downstream impacts on the community’s ability to make meaningful progress in our understanding and treatment of disease within both large scale datasets and small gene-specific work.

CRISPR-Cas9 is a revolutionary technology that can be used as “molecular scissors” to edit the human genome. Upon investigation of the massive datasets within the Recursion OS, Recursion identified large-scale structural changes to the genome – chromosomal truncations – caused by CRISPR-Cas9 editing. The Recursion team subsequently confirmed the widespread presence of this effect in several widely-used public data resources, and, using proprietary datasets and its full stack techbio platform, developed and demonstrated a correction method to analytically mitigate this proximity bias in CRISPR screen datasets at scale.

Recursion applies CRISPR to systematically “knockout” or delete each of >17,000 individual genes in cells as part of its phenotypic screening process. High-dimensional measurements of the edited cells, such as microscopy or scaled transcriptomics, are integrated using proprietary AI to build “maps of biology” to infer biological pathways and uncover new approaches to treating disease. This methodology is applicable across a wide swath of biology, with Recursion’s internal discovery pipeline and our external partnerships.

“Over several years, Recursion has built both unique scale and experience of working with CRISPR-Cas9. By combining the massive scale enabled by Recursion’s phenomics platform with our highly sensitive AI models for image analysis, we were able to discover a subtle bias in CRISPR-Cas9 with meaningful consequences for drug discovery and gene editing. We’re excited to share with the community not only these findings but also potential solutions to improve the quality of inferences from large-scale public data,” shares Imran Haque, PhD, Senior Vice President of AI and Digital Sciences.

### About Recursion

[Recursion](#) is a clinical stage TechBio company leading the space by decoding biology to industrialize drug discovery. Enabling its mission is the Recursion OS, a platform built across diverse technologies that continuously expands one of the world’s largest proprietary biological, chemical and patient-centric datasets. Recursion leverages sophisticated machine-learning algorithms to distill from its dataset a collection of trillions of searchable relationships across biology and chemistry unconstrained by human bias. By commanding massive experimental scale — up to millions of wet lab experiments weekly — and massive computational scale — owning and operating one of the most powerful supercomputers in the world, Recursion is uniting technology, biology, chemistry and patient-centric data to advance the future of medicine.

Recursion is headquartered in Salt Lake City, where it is a founding member of [BioHive](#), the Utah life sciences industry collective. Recursion also has offices in Toronto, Montreal and the San Francisco Bay Area. Learn more at [www.Recursion.com](http://www.Recursion.com), or connect on [X](#) (formerly Twitter) and [LinkedIn](#).

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### Forward-Looking Statements

This document contains information that includes or is based upon "forward-looking statements" within the meaning of the Securities Litigation Reform Act of 1995, including, without limitation, those regarding Recursion’s leadership of the TechBio space; the impact of the discovery of proximity bias in CRISPR-Cas9 editing and potential solutions; early and late stage discovery, preclinical, and clinical programs; licenses and collaborations; prospective products and their potential future indications and market opportunities; Recursion OS and other technologies; business and financial plans and performance; and all other statements that are not historical facts. Forward-looking statements may or may not include identifying words such as “plan,” “will,” “expect,” “anticipate,” “intend,” “believe,” “potential,” “continue,” and similar terms. These statements are subject to known or unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statements, including but not limited to: challenges inherent in pharmaceutical research and development, including the timing and results of preclinical and clinical programs, where the risk of failure is high and failure can occur at any stage prior to or after regulatory approval due to lack of sufficient efficacy, safety considerations, or other factors; our ability to leverage and enhance our drug discovery platform; our ability to obtain financing for development activities and other corporate purposes; the success of our collaboration activities; our ability to obtain regulatory approval of, and ultimately commercialize, drug candidates; our ability to obtain, maintain, and enforce intellectual property protections; cyberattacks or other disruptions to our technology systems; our ability to attract, motivate, and retain key employees and manage our growth; inflation and other macroeconomic issues; and

other risks and uncertainties such as those described under the heading “Risk Factors” in our filings with the U.S. Securities and Exchange Commission, including our most recent Quarterly Report on Form 10-Q and our Annual Report on Form 10-K for the Fiscal Year Ended December 31, 2023. All forward-looking statements are based on management’s current estimates, projections, and assumptions, and Recursion undertakes no obligation to correct or update any such statements, whether as a result of new information, future developments, or otherwise, except to the extent required by applicable law.

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