Recursion Releases MolRec, a Compound Intelligence Tool for Drug Discovery, Alongside the Largest of Its Kind Open-Source Dataset During First R&D Day

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- For the first time ever, a demonstration version of one of Recursion's Compound Intelligence tools to explore maps of biology and chemistry is open for anyone to use
- RxRx3, the underlying dataset released alongside MolRec™, spans almost the entire human genome and is 76 times larger than all previous datasets released by Recursion combined, yet it represents less than 1% of Recursion's total data universe

SALT LAKE CITY, Jan. 26, 2023 /PRNewswire/ -- Recursion (NASDAQ: RXRX), the clinical-stage biotechnology company industrializing drug discovery by decoding biology, announced the public release of MolRec™ - one of its many interactive internal tools to explore the company's proprietary maps of biology and chemistry. Just as a regular map is a navigation tool in the physical world, Recursion's maps are designed to help scientists understand the topology and connectedness of human biology and chemistry to navigate the path to new medicines more efficiently. In addition, Recursion released RxRx3, its largest open-source cellular imaging dataset to date, spanning approximately 2.2 million images across the human genome and 1,600 commercially available compounds in a single cell type.

"With the release of MolRec™ and the RxRx3 dataset, anyone in the world can now explore some of the same insights that our scientists are using to generate novel therapeutic hypotheses and advance new discovery programs," said Ben Mabey, Chief Technology Officer at Recursion. "MolRec™ represents a small portion of many applications built upon our proprietary datasets that are helping us industrialize the drug discovery process."

Recursion's maps are constructed using high-dimensional datasets generated in-house in the company's highly automated and industrialized laboratories. The foundational dataset uses a technique known as phenomics, in which machine learning algorithms extract structured data from billions of images of human cells that have been manipulated by genome-wide CRISPR-Cas9 knockouts, chemical compounds, or other reagents. Digital representations of cells are compared and contrasted to predict trillions of relationships across biology and chemistry — even without physically testing all of the possible combinations. To date, Recursion has generated more than 3 trillion searchable gene and compound relationships across all of its maps that are used to identify novel insights and advance new therapeutic programs, unconstrained by human bias or existing scientific literature.

The RxRx3 dataset and the part of MolRec™ available to the public are built using a small subset of Recursion's experimental inputs: Approximately 1,600 commercially-available compounds at eight doses each and 17,000 gene knockouts. The majority of genes are anonymized in the dataset, enabling people to explore and learn from this massive dataset while protecting Recursion's business interests. The application can be used to uncover known and novel compound-compound as well as compound-gene relationships. Importantly, MolRec™ provides information on a compound's potency and insight into its potential mechanism of action. Many of the insights found within MolRec™ have not been documented in scientific literature.

"Instead of looking narrowly at a handful of diseases with existing therapeutic hypotheses, our maps allow us to direct our focus toward unknown or unexplored relationships across biology and chemistry to pursue areas of high unmet need for patients," said Chris Gibson, Ph.D., Co-Founder and Chief Executive Officer at Recursion. "In essence, it's turning drug discovery from a bespoke and artisanal process into a search problem. This app and dataset release give people a peek under the hood of what we are building here at Recursion and will whet the appetite of many interested in this field."

The MolRec™ app and the corresponding dataset, RxRx3, were released during Recursion's Download Day, the company's first R&D Day. Sell-side equity research analysts, institutional investors, and investment bankers joined members of Recursion's executive team and board of directors for an engaging, in-person event at the company's headquarters in Salt Lake City, Utah. The day consisted of presentations on Recursion's technology, science, pipeline and partnerships, as well as demonstrations of Recursion's mapping and navigating technology and tours of the company's highly automated laboratories. A recording of the presentations is available on the investor relations section of the company's website at ir.recursion.com.

To begin exploring Recursion's MolRec™ app, or to download the RxRx3 dataset, visit **rxrx.ai**.

For those who are interested in connecting with Recursion to learn more about its mapping & navigating technology, contact: partner@recursionpharma.com.

About Recursion
Recursion is the clinical-stage biotechnology company industrializing drug discovery by decoding biology. Enabling its mission is the Recursion OS, a platform built across diverse technologies that continuously expands one of the world's largest proprietary biological and chemical 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 and chemistry 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, or connect on Twitter and LinkedIn.

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