Imaging system from Molecular Devices helps Recursion produce the largest publicly available set of human cellular morphological data for COVID-19 therapeutic research

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More than 305,000 high-resolution, multi-channel COVID-19 cellular images captured in less than four weeks with Molecular Devices ImageXpress® Micro Confocal High-Content Imaging System are now available to the scientific community.

SAN JOSE, Calif. – June 25, 2020 — With the COVID-19 pandemic impacting millions around the globe, researchers are racing to develop a vaccine or drug treatment. In an effort to better understand the cellular responses to COVID-19, the digital biology company [Recursion](#) has publicly released the world's largest imaging dataset portraying therapeutic compound effects from over 1,600 approved and referenced molecules on SARS-CoV-2-infected human cells. The images and data were acquired using the ImageXpress Micro Confocal High-Content Imaging System from [Molecular Devices, LLC](#)., a leading provider of high-performance bioanalytical measurement solutions.

Named [RxRx19](#), the dataset from Recursion is an important contribution to a growing body of scientific data in the fight against COVID-19. The images and datasets are available and free online, giving researchers open access to both the images and the corresponding deep learning embeddings to analyze or apply to their own experimentation hypothesis.

"We commend Recursion for their leadership around RxRx19, empowering researchers with the statistically relevant data to advance our understanding of COVID-19 cellular responses and drug discovery. It is particularly valuable during this unprecedented time when many labs are operating at reduced capacity or are shutdown altogether due to shelter-in-place requirements," said Susan Murphy, President of Molecular Devices. "This is a powerful example of how our innovative, high-content imaging technology enables customers to provide data to insights quickly and reliably to help explore treatments for COVID-19."

Recursion imaged plates using the ImageXpress Micro Confocal system in widefield mode with 20X objectives, acquiring four sites per well with five channels per site. Featuring a unique optical technology that reduces background noise and improves sharpness, Recursion achieved excellent image quality of complex morphological structures—all at the speed of widefield imaging and without sacrificing throughput. Images from the dataset captured with the imaging system can be downloaded [here](#).

Molecular Devices continues to lead the cellular imaging community towards new discoveries utilizing a comprehensive portfolio of powerful yet easy-to-use high-content imaging systems. For more information, visit www.moleculardevices.com.

About Molecular Devices, LLC

Molecular Devices is one of the world's leading providers of high-performance bioanalytical measurement systems, software and consumables for life science research, pharmaceutical and biotherapeutic development. Included within a broad product portfolio are platforms for high-throughput screening, genomic and cellular analysis, colony selection and microplate detection. These leading-edge products enable scientists to improve productivity and effectiveness, ultimately accelerating research and the discovery of new therapeutics. Molecular Devices is committed to the continual development of innovative solutions for life science applications. The company is headquartered in Silicon Valley, California with offices around the globe.

About Recursion

Recursion is a digital biology company industrializing drug discovery. Recursion does this by combining automation, artificial intelligence, machine learning, in vivo validation capabilities and a highly cross-functional team to discover novel medicines that expand our collective understanding of biology. Recursion's rich, relatable database of 4.7 petabytes of biological images generated in-house on the company's robotics platform enables advanced machine learning approaches to reveal drug candidates, mechanisms of action, novel chemistry, and potential toxicity, with the eventual goal of decoding biology and advancing new therapeutics that radically improve people's lives. Recursion is proudly headquartered in Salt Lake City. Learn more at www.recursionpharma.com, or connect on [Twitter](#) and [LinkedIn](#).