MoA Technology integrates CAS chemical substance data into novel herbicide R&D workflow to increase screening efficiency

Scientist-curated chemistry data enhances innovative AI-enabled approach to accelerate discovery of safe and effective herbicides

Columbus, Ohio, USA and Oxford, UK - October 15, 2020 – CAS, a division of the American Chemical Society that specializes in scientific information solutions, and MoA Technology, an innovator in herbicide R&D and related technology, today announced an agreement to embed chemical substance data from the CAS REGISTRY®, as well as related reference and property information, directly into MoA's R&D workflow via an application programming interface (API). This agreement ensures MoA researchers have access to the most relevant, actionable chemical substance data within their daily workflow to quickly assess activity, enhancing productivity and expediting innovation.

MoA Technology, which was spun out of Oxford University in 2017 and received Series A funding in 2019, is focused on overcoming the global agriculture challenge posed by herbicide-resistant weeds with safe and effective new compounds showing activity based on novel modes of action. "Lack of innovation in agricultural herbicides over many years has created a dire situation for farmers and the environment," notes Dr. Shuji Hachisu, Chief Technology Officer at MoA. "We are partnering with CAS because our evaluation demonstrated that integrating their unique scientist-curated substance data collection with our novel AI-driven, in-vivo high-throughput screening platform greatly enhances our ability to accurately prioritize compounds most likely to have herbicide activity from an untapped chemical space with minimal off-target effects. As a result, our screening is much more focused and cost effective, allowing us to deliver new solutions faster to help farmers while reducing the environmental impact of agriculture."

Covering advances in chemistry and related sciences over the last 150 years, and updated daily, the CAS content collection includes data from journal and patent publications in over 50 languages. Sourced, curated and connected by a team of hundreds of scientists, it is the largest and highest quality collection of scientific information in the world including references, chemical substances, proteins, reactions, physical and chemical properties, formulations, bioactivity data, and much more. "CAS applauds MoA's innovative approach to developing safe herbicide alternatives," said Craig Stephens, Chief Customer Officer at CAS. "We are confident this custom solution that incorporates high-quality CAS data at the point of need in MoA's screening process will dramatically reduce their investment per candidate. It is a great example of the new ways we are partnering with our customers to optimize the success of their unique internal platforms and workflows through the integration of CAS content and technology."

About CAS

CAS, a division of the American Chemical Society specializing in scientific information solutions, partners with R&D organizations globally to provide actionable insights that help them plan, innovate, protect their innovations, and predict how new markets and opportunities will evolve. Scientific researchers, patent professionals and business leaders around the world across commercial, academic and government sectors rely on our solutions and services to advise discovery and strategy. Leverage our unparalleled content, specialized technology, and unmatched human expertise to customize solutions that will give your organization an information advantage. With more than 110 years' experience, no one knows more about scientific information than CAS. Learn more at www.cas.org.

About MoA

MoA Technology's mission is to provide farmers with a diverse choice of innovative technologies for weed control. MoA Tech's *in vivo* herbicide discovery platforms are based on cutting-edge science in the fields of genetics, trait analysis and data analytics. Spun-out from Oxford University's Plant

Sciences Department after ground-breaking research by co-founders Professor Dolan and Dr. Champion, MoA Technology has three innovative herbicide discovery platforms based on an *in vivo* plant model designed to pinpoint and elucidate new modes of action, essential to developing safe and effective active ingredients to control weeds. The platforms need only sub-microgram test samples and is ideal for screening chemical libraries not previously screened by conventional methods requiring high quantities or those from which traditional high-throughput screening failed to detect hits. Learn more at: https://www.moa-technology.com/

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