

PRESS RELEASE
11 January 2021



MRC

Laboratory of
Molecular Biology

Mogrify enters research collaboration with the MRC Laboratory of Molecular Biology

Exploratory research project aims to develop novel protein expression systems via cell reprogramming

Cambridge, UK, 11 January 2021: Mogrify Limited (Mogrify®), a UK company aiming to transform the development of *ex vivo* cell therapies and pioneer the field of *in vivo* reprogramming therapies, and the MRC Laboratory of Molecular Biology (LMB), a world-class research laboratory dedicated to understanding important biological processes at the molecular level, today announced an exploratory research collaboration. The project aims to develop novel protein expression systems by leveraging recent advances in direct cell reprogramming to help improve the production of proteins which are not produced sufficiently well in existing expression systems.

The MOGRIFY® technology will be applied to predict combinations of transcription factors to induce trans-differentiation from one cell type to another. The resulting target cell types could provide researchers with improved access to important proteins found in human cell types that are difficult to obtain and allow for more efficient protein production.

Mogrify will receive access to any intellectual property and know-how developed during the project, further enabling the commercialization of the technology in areas of therapeutic value. This collaboration is an expansion of the Company's relationship with the MRC LMB and follows the announcement in [December 2020](#) that it had secured an exclusive license from the MRC LMB to an enhanced version of MOGRIFY technology enabling more accurate transcription factor predictions and improved cell conversion efficacy. On behalf of the MRC, the medical research charity LifeArc facilitated the exclusive license of the new version of Mogrify's core reprogramming platform, and jointly negotiated the legal framework to enable a successful collaboration between the MRC and Mogrify.

Julian Gough, PhD, Co-founder and CSO, Mogrify & Principal Investigator, MRC Laboratory of Molecular Biology, said: *"Protein expression presents a challenge for many research projects as well as bioproduction. This project proposes to solve the problem by taking more readily available cell types and convert them into other cell types which are harder to obtain. The successful outcome of this collaboration could provide researchers with improved access to important but hard-to-get proteins and enable more efficient antibody production methods for biologic drugs."*

"We are excited to embark on this new exploratory research project to deliver a practical solution that could potentially unlock new areas of structural biology and biochemistry."

For further information about Mogrify's technology, please visit: <https://moglify.co.uk/science/>

ENDS

Notes to Editors



*Julian Gough, PhD,
Co-founder and CSO,
Mogrify & Principal
Investigator, MRC
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For high-resolution images please contact Zyme Communications.

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About Mogrify www.mogrify.co.uk

Mogrify® has developed a proprietary suite of platform technologies that utilize a systematic big-data approach to direct cellular conversion (Rackham *et al.*, Nature Genetics, 2016) and the maintenance of cell identity (Kamaraj *et al.*, Cell Systems, 2020). The platforms, MOGRIFY® and EpiMOGRIFY, developed over a 12-year period via a multi-national research collaboration, deploy next-generation sequencing, gene regulatory and epigenetic network data to enable the prediction of the transcription factors (or small molecules) and optimal culture conditions required to produce any target human cell type from any source human cell type.

The platform can be used to enhance existing stem-cell forward reprogramming methods or can bypass development pathways altogether, affecting a direct transdifferentiation between a mature cell type to another mature cell type.

Mogrify is applying its proprietary and award-winning platforms to engineer a renewable and scalable source of cell types that exhibit efficacy and safety profiles necessary to transform the development of *ex vivo* cell therapies and pioneer a new class of *in vivo* reprogramming therapies for indications of high unmet clinical need in hematological, immunological, ophthalmological and other disease areas.

Uniquely positioned to address a regenerative medicine market estimated to be worth \$39 billion USD by 2023, Mogrify is commercializing its technology via a combination of internal cell and gene therapy development, co-development partnerships, and out-licensing of novel cell conversions. Based in Cambridge, UK, the Company has raised over \$20 million USD funding from Ahren Innovation Capital, Parkwalk, 24Haymarket, Dr. Darrin M. Disley, OBE and the University of Bristol Enterprise Fund III.

Follow Mogrify on Twitter [@Mogrify_UK](#) and LinkedIn [@Mogrify](#)

About the MRC Laboratory of Molecular Biology www2.mrc-lmb.cam.ac.uk

The Medical Research Council (MRC) Laboratory of Molecular Biology (LMB) is one of the world's leading research institutes. Discoveries and inventions developed at the LMB, for example DNA sequencing and methods to determine the structure of proteins, have revolutionised all areas of biology. Its scientists work to advance understanding of biological processes at the molecular level. This information will help us to understand the workings of complex systems, such as the immune system and the brain, and solve key problems in human health.

The MRC is part of UK Research and Innovation (UKRI).

Follow the MRC LMB on Twitter [@MRC_LMB](#)

About LifeArc www.lifearc.org

LifeArc is a self-funded medical research charity. Our mission is to advance translation of early science into health care treatments or diagnostics that can be taken through to full development and made available to patients. We have been doing this for more than 25 years and our work has resulted in a diagnostic for antibiotic resistance and four licensed medicines.

Our success allows us to explore new approaches to stimulate and fund translation. We have our own drug discovery and diagnostics development facilities, supported by experts in technology transfer and intellectual property who also provide services to other organisations. Our model is built on collaboration, and we partner with a broad range of groups including medical research charities, research organisations, industry and academic scientists. We are motivated by patient need and scientific opportunity.

Find out more about our work on www.lifearc.org or follow us on [LinkedIn](#) or [Twitter](#).