Press Release

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PlasmidFactory and Fraunhofer IZI join forces to advance non-viral cell and gene therapies

Bielefeld/Leipzig, September 24, 2025 – PlasmidFactory GmbH and the Fraunhofer Institute for Cell Therapy and Immunology IZI have signed a Memorandum of Understanding to combine expertise in cell therapy process development and GMP manufacturing, aiming to accelerate non-viral cell and gene therapies for the benefit of patients.

PlasmidFactory GmbH, a leading European CDMO for plasmid and Minicircle DNA, brings more than 25 years of experience and over 3,500 DNA constructs delivered worldwide. The Fraunhofer IZI contributes extensive translational capabilities in immuno-oncology, regenerative medicine, and advanced cell manufacturing.
Together, they are accelerating the development of next-generation, virus-free genetic engineering platforms while maintaining the highest quality and regulatory standards.
In the past, the two partners have already successfully established new manufacturing processes for CAR-T cells at Fraunhofer IZI and conducted joint research projects on virus-free gene transfer, which served as the foundation for the production of clinical cell products.

“By building on our long-standing collaboration, this partnership allows us to translate scientific innovation into tangible therapeutic advances,” says **Dr. Dirk Winnemöller,** CEO of PlasmidFactory. “Together, we can streamline non-viral manufacturing workflows and bring promising therapies to patients more efficiently.”

Prof. Dr. Michael Hudecek, Fraunhofer IZI, adds: “PlasmidFactory’s expertise in high-quality DNA manufacturing perfectly complements our translational capabilities. By joining forces, we can further advance non-viral engineering platforms and help shape the future of cell and gene therapies.”

Viral vectors remain the standard in many therapies, but they are associated with high costs, complex production, and safety concerns such as insertional mutagenesis. Minicircle DNA overcomes the

limitations of conventional plasmids with higher transfection efficiency, stronger and more stable expression, and lower DNA toxicity – making it a real alternative to viral vectors and a key enabler of virus-free engineering approaches for CAR-T, TCR-T, NK, and other immune cell therapies.

The collaboration underscores a shared commitment to advancing virus-free technologies such as minicircles and transposon systems, which have the potential to overcome bottlenecks in viral vector production. By aligning innovation with patient needs, PlasmidFactory and Fraunhofer IZI are creating a platform that strengthens Europe's position in the global race for advanced therapies.

About Fraunhofer IZI

The Fraunhofer Institute for Cell Therapy and Immunology IZI in Leipzig conducts applied research and development in immuno-oncology, cell and gene therapy, and biomanufacturing. The institute develops innovative solutions from basic research to clinical application in close collaboration with partners from academia and industry.

About PlasmidFactory GmbH

PlasmidFactory GmbH, based in Bielefeld, Germany, is a leading global manufacturer of high-quality plasmids and Minicircles. Its products are used in research, preclinical, and clinical projects, covering applications from basic research to the development of advanced cell and gene therapies. With a focus on quality and customer benefit, PlasmidFactory has supported international partners from science and industry since 2000.

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