S.O.L.A.R.I.S. launches to advance scalable CAR T cell manufacturing across Europe

Bergisch Gladbach, Germany, July 16, 2026 – S.O.L.A.R.I.S., a new EU-funded project by Horizon Europe, will develop and test novel approaches to CAR T cell manufacturing to improve patient access to therapies across Europe.

S.O.L.A.R.I.S. brings together 13 partners from across Europe, spanning industry, healthcare, research, and regulatory authorities. Together, they will improve the efficiency, robustness, and scalability of CAR T cell manufacturing, helping to make these therapies available to more patients. While advanced therapy medicinal products (ATMPs), including CAR T cell therapies, have expanded treatment options for patients with severe diseases, their availability remains limited due to complex, labour-intensive, and costly manufacturing processes that are difficult to scale.

"*CAR T therapies have shown strong clinical potential, but broader patient access depends on making manufacturing faster, more efficient, and more scalable,"* says Ian Johnston, Project Coordinator at Miltenyi Biotec. "*S.O.L.A.R.I.S. supports the implementation of technological innovations in both point-of-care and centralized manufacturing scenarios."*

Developing new manufacturing solutions

Over the next four years, S.O.L.A.R.I.S. is set to develop and implement seven new modules into CliniMACS Prodigy®, the automated cell manufacturing platform developed by Miltenyi Biotec. These modules will integrate into the existing system to support a digitally enhanced, highly automated manufacturing workflow that complies with Good Manufacturing Practice (GMP) standards.

Testing across European sites

The new technologies will be tested and validated at six ATMP manufacturing hubs across Europe, covering clinical, industrial, and newly established production settings. This includes both centralized facilities and point-of-care environments, such as hospital-based manufacturing. This will allow the technologies to be evaluated across different settings, support the development of best practices, and reduce implementation risks.

At the same time, partners will contribute their specific expertise in areas such as clinical application, manufacturing, or technology development.

Supporting implementation and sustainability

S.O.L.A.R.I.S. will also assess ways to reduce waste, improve resource efficiency, and environmental sustainability in advanced cell therapy manufacturing. In parallel, project partners will work with regulatory authorities to support the future adoption of these technologies in clinical and manufacturing environments.

By combining technology development with validation in real-world settings, S.O.L.A.R.I.S. will support more efficient and scalable manufacturing of CAR T therapies,

help improve patient access, and strengthen Europe's capabilities in advanced cell therapy manufacturing.

About S.O.L.A.R.I.S.

S.O.L.A.R.I.S. (Sterile Optimized Lean Automated Robust Integrated Scalable) is a Horizon Europe Innovation Action bringing together 13 partners from across Europe. The project aims to advance CAR T cell manufacturing through innovative automation technologies, sustainability-focused process development, regulatory integration and a European validation network.

The project receives funding from the European Union under the Horizon Europe program. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Health and Digital Executive Agency (HaDEA). Neither the European Union nor the granting authority can be held responsible for them.

Key facts

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Coordinator: Miltenyi Biotec B.V. & Co. KG (MB), Germany
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