PRESS RELEASE

New EU Project "CURE-SHOCK" Boosts Translation of Biotech Research by Advancing Treatment of Circulatory Shock

International consortium including Germany, Poland and Ukraine evaluates the safety and efficacy of Invobenitug as a targeted therapy for septic, burn and traumatic shock, aiming to improve patient outcomes and advance critical care across Europe.

Hamburg/Germany, 11th of June 2026 **– Circulatory shock, triggered by severe infection, major burns, traumatic injuries or surgery, remains a serious challenge in intensive care. Despite medical advances, patients still face high morbidity and mortality, while current treatment options remain largely supportive and do not address key biological drivers of shock. Coordinated by the University Medical Center Hamburg-Eppendorf and supported by 8 million euros in funding from the European Union's Horizon Europe Programme, CURE-SHOCK aims to address this unmet medical need. The project has also been awarded the Strategic Technologies for Europe Platform (STEP) Seal, recognising its relevance for Europe's bioresilience, technological sovereignty and capacity to respond to critical health threats. Over the next four years, experts from clinical care, academic research and industry will evaluate Invobenitug, a novel monoclonal antibody neutralizing cDPP3 activity, currently in clinical stage development by 4TEEN4 Pharmaceuticals, as a potential targeted therapy for septic, burn and traumatic shock in a multicentre international clinical trial.**

The urgent need for new treatment options is reflected in the scale and severity of circulatory shock: more than 500,000 patients are affected each year in the EU and the United States, with a 30-day mortality rate ranging from 30 to 50%. Beyond this high mortality, the condition places a profound burden on intensive care systems, often requiring prolonged organ support, extended hospital stays and complex recovery pathways. "CURE-SHOCK gives us the opportunity to explore a fundamentally new therapeutic principle for circulatory shock. This allows us to combine patient stratification, introducing a precision medicine approach into the treatment of circulatory shock with a novel antibody therapy and cross-border clinical and biotech expertise to pave the way towards the first causal treatment approach for circulatory shock and establish a new standard for shock management", says Mahir Karakas, Professor for Translational Research and Innovative Clinical Trials at the University Medical Center Hamburg-Eppendorf and scientific coordinator of the CURE-SHOCK consortium.

Targeting a key driver of mortality in circulatory shock

At the centre of this innovative approach is dipeptidyl peptidase 3 (DPP3), an enzyme increasingly linked to circulatory shock. Normally found inside cells, DPP3 can be released into the bloodstream after cell damage, where it can disrupt cardiovascular regulation and contribute to circulatory failure.

Building on this biological rationale, the German biotech company 4TEEN4 Pharmaceuticals has developed Invobenitug (formerly known as Procizumab in the pre-INN stage), a novel antibody targeting excessive DPP3 activity. "Invobenitug is designed to selectively neutralise circulating DPP3

Funded by
the European Union

activity, a key molecular driver of shock progression. By blocking cDPP3 activity, the antibody can stabilise cardiovascular function, restore the balance of vital cardiovascular hormone systems and protect organs. Building on promising preclinical studies demonstrating efficacy, CURE-SHOCK will evaluate whether this biomarker-driven, precision medicine approach can translate into clinical benefit for patients with circulatory shock," explains Andreas Bergmann, CEO of 4TEEN4 Pharmaceuticals.

The CURE-SHOCK clinical trial will include patients with septic, burn and traumatic shock across leading clinical sites in Germany, Poland and Ukraine. A central element of the study is rapid cDPP3 testing at the point of care, which will allow patients to be grouped according to their biological profile, helping identify those most likely to benefit from targeted DPP3 inhibition – a biomarker driven precision medicine approach in circulatory shock. The study will assess whether Invobenitug can improve cardiovascular stability, reduce the need for cardiovascular organ support and reduce organ failure, while closely monitoring safety. Further outcomes will include time to hospital discharge, short -term and six-month mortality and biomarker-driven insights to support future patient stratification in critical care.

Translating European biotech innovation into critical care

Bringing together clinical expertise, point-of-care diagnostics, biomarker analysis and antibody development, CURE-SHOCK seeks to move a promising European biotech innovation closer to clinical application. Through this integrated approach, the project aims to pave the way for a new treatment option for circulatory shock, potentially saving tens of thousands of lives annually in Europe, improving outcomes for critically ill patients and easing the burden on families, healthcare professionals and intensive care systems.

At the same time, the project also strengthens collaboration between hospitals, research institutions and industry partners across Europe, including Ukraine, creating a strong foundation for translating biomedical research into innovative therapies. By reinforcing European research infrastructures and advancing a targeted, biomarker-driven treatment approach, CURE-SHOCK contributes to European biotech resilience and competitiveness, while supporting long-term progress in critical care for patients facing one of medicine's most life-threatening conditions. Reflecting its strategic importance for Europe's innovation ecosystem, CURE-SHOCK was awarded the Strategic Technologies for Europe Platform (STEP) Seal, recognising its potential to strengthen European technological leadership and drive future innovation in critical care.

***

Funded by
the European Union

PRESS RELEASE

Project Key Facts

Title: Cure-Shock: Procizumab to Reduce Morbidity and Mortality in Circulatory Shock
Start: 1 June 2026
Duration: 42 months
Budget: € 8 Mil.
Coordinator: University Medical Center Hamburg-Eppendorf, Germany
Website: https://www.cure-shock.eu
LinkedIn: https://www.linkedin.com/showcase/cure-shock

CURE-SHOCK Partners

Germany

- University Medical Center Hamburg-Eppendorf
- University Hospital Schleswig-Holstein, Campus Lübeck
- University of Lübeck (affiliated)
- 4TEEN4 Pharmaceuticals GmbH

Poland

- Stanislaw Sakiel Burn Treatment Center in Siemianowice Slaskie

Ukraine

- Bogomolets National Medical University

Contact

Project Management
University Medical Center Hamburg-Eppendorf
Elaine Hussey
e.hussey@uke.de

Project Coordinator
University Medical Center Hamburg-Eppendorf
Prof. Mahir Karakas
m.karakas@uke.de

Funded by
the European Union