ICOAT MEDICAL'S PRE-CLINICAL STUDIES PUBLISHED IN AMERICAN JOURNAL OF TRANSPLANTATION: NOVEL APPROACH TO MITIGATE ISCHEMIA–REPERFUSION INJURY IN KIDNEY TRANSPLANTATION

Stockholm, Sweden — September 29th, 2025 — iCoat Medical AB, a clinical-stage pharmaceutical company pioneering first-in-class therapies to reduce ischemia–reperfusion injury (IRI) in transplantation, today announced that the article, *"A new principle to attenuate ischemia reperfusion injury in kidney transplantation,"* has been published in the *American Journal of Transplantation (AJT)*.

The paper presents a novel pretreatment strategy that employs a surface-active coating designed to protect the endothelium and reduce the cascade of injury that contributes to early graft dysfunction and long-term organ damage in kidney transplantation.

The article can be found and downloaded at:
https://www.amjtransplant.org/article/S1600-6135(25)02938-7/fulltext

"A publication in AJT marks an important scientific validation and a major milestone for iCoat," said Peder Waern, Chief Executive Officer of iCoat Medical. "These preclinical results, together with our completed first-in-human ATMIRe study, reinforce the potential of our lead candidate iCM012 and the broader coating platform as a new approach to safeguard transplanted organs from IRI."

Key Scientific Findings

- **A new protective principle:** The manuscript describes a bioactive PEG-lipid–based coating that integrates with cell membranes to reinforce the endothelial glycocalyx, a critical barrier disrupted during ischemia and reperfusion. By stabilizing this interface, the coating reduced the multifactorial thromboinflammation associated with IRI.
- **Improved kidney function and biomarkers:** In established preclinical IRI large animal models, treatment improved histopathology and biomarkers of IRI and lowered serum creatinine, indicating consistent protection at both functional and tissue levels.
- **Mechanistic alignment with endothelial biology:** Findings are consistent with the recognized role of the glycocalyx in vascular integrity and transplant outcomes, supporting the biological rationale of a membrane-reinforcing strategy.

"IRI remains one of the most persistent challenges in kidney transplantation causing both early and late complications for the transplanted patients. Our coating concept is route-agnostic—adaptable to both preservation solutions and pretransplant administration—and designed to protect at the earliest point of injury," said Bo Nilsson, M.D., Ph.D., Chief Technology Officer of iCoat Medical and one of the senior authors of the paper. "We are encouraged by the robust consistency across biomarkers, histology, and function in these translational models."

About iCoat Medical
iCoat Medical AB is a clinical-stage pharmaceutical company developing coating-based therapeutics to mitigate and prevent ischemia–reperfusion injury in organ transplantation. Lead candidate iCM012 is designed to protect the endothelium and preserve organ function, with clinical proof-of-concept emerging from the ATMIRe study. The company is headquartered in Stockholm, Sweden.

Media & Investor Contact
Peder Waern, Chief Executive Officer
Peder.waern@icoatmedical.com

Attachments

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