Study Validates Techcyte Fusion™ AI-Assisted Kidney Biopsy Evaluation to Improve Organ Allocation Efficiency

OREM, UT, UNITED STATES, July 8, 2025 /EINPresswire.com/ -- Techcyte is proud to share results from a published pilot study demonstrating the effectiveness of its AI-powered kidney biopsy algorithm, part of the Techcyte Fusion™ Organ Donation Suite, in improving the speed, accuracy, and consistency of donor organ evaluations.

The study titled “Enhancing Organ Allocation Efficiency: A Pilot Study Evaluating Artificial Intelligence-Assisted Assessment of Donor Kidney Pathology”, was published in the Cureus Journal of Medical Science and will be presented at the World Transplant Congress in San Francisco, USA, on August 3, 2025.

Conducted in collaboration with DonorConnect and authored by experts in pathology, surgery, and transplantation, the study evaluated how Techcyte’s AI-assisted review impacts the speed, accuracy, and consistency of frozen-section kidney biopsy evaluations for deceased donor organs. The AI model, integrated into Techcyte’s digital pathology platform, demonstrated a 55% reduction in review time and achieved up to 98.33% concordance with expert evaluation in identifying kidney samples with over 20% sclerotic glomeruli—a crucial threshold for assessing organ viability and informing transplant decisions.

“AI has the potential to radically improve how we evaluate and allocate donor organs,” said Dr. Jeffery Campsen, transplant surgeon at DonorConnect and co-author of the study. “In our pilot, Techcyte’s solution enabled faster, more standardized biopsy interpretations, which are critical in time-sensitive transplant decisions. The ability to reduce cold ischemia time while maintaining diagnostic accuracy may increase organ utilization and save more lives.”

The study highlights the growing need for scalable pathology tools in the face of persistent organ shortages. By enabling general pathologists and transplant surgeons to conduct high-quality

evaluations with AI support, the Techcyte Fusion platform helps address staffing limitations and inter-observer variability, two key barriers in current kidney allocation workflows.

“This study represents an important step forward in leveraging digital pathology and AI to support time-sensitive, life-saving decisions,” said Dr. Tiffany Chen, Chief Medical Officer at Techcyte. “We’re proud to collaborate with leading clinicians like Dr. Campsen to advance transplant medicine.”

The full study is available via Cureus: https://www.cureus.com/articles/354850

To learn more, join us for a webinar on July 10th at 10 am MT with Dr. Campsen and Dr. Tiffany Chen: https://techcyte.webinargeek.com/enhancing-organ-allocation-efficiency-with-ai-assisted-kidney-pathology-assessment

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About Techcyte

Techcyte is aiming to transform the practice of pathology through a unified, AI-powered digital platform that streamlines complex workflows, integrates with core lab systems, and enhances communication across the lab.

By partnering with leading laboratories, scanner manufacturers, diagnostic hardware providers, and AI developers, we deliver a unified digital pathology platform to labs and clinics around the world, furthering our mission to positively impact the health of humans, animals, and the environment.

Visit techcyte.com for more information.

Techcyte’s anatomic and clinical pathology platform is for Research Use Only in the United States.

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