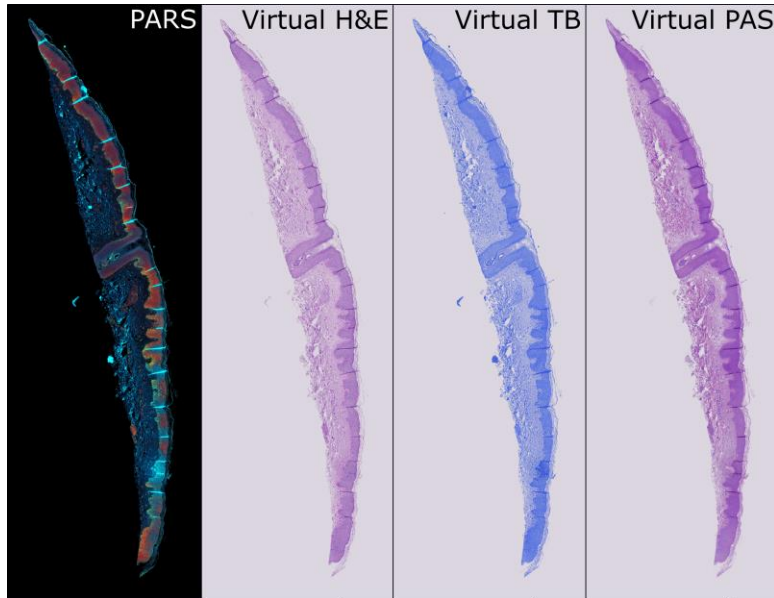


illumisonics label-free fresh tissue histology imaging to be presented at the 25th World Congress of Dermatology



July 1, 2023: illumisonics, a leader in label-free imaging, is pleased to announce that Dr. Ally-Khan Somani will be presenting on PARS fresh skin tissue imaging at the 25th World Congress of Dermatology in Singapore, July 3rd-8th, 2023.

Dr. Somani MD, PhD, EMBA, is a board-certified dermatologist and micrographic surgeon, and an award-winning dermatologic oncologist with several appointments at the Indiana University School of Medicine.

On July 7th at 09:30 in Level 3 - Room 320 at the Suntec Singapore Convention & Exhibition Centre, Dr.

Somani will present PARS fresh tissue histology imaging at the 25th World Congress of Dermatology as part of a session dedicated to cutting-edge skin imaging technologies. World Congress of Dermatology is a prestigious international conference that runs every four years and attracts dermatologists, scientists, and industry professionals from around the globe. The conference showcases cutting-edge research and innovative technologies, providing the ideal platform for Dr. Somani to present this exceptional milestone.

“The PARS technology will revolutionize how we currently see and diagnose tissue histology! PARS can produce histology on fresh tissue in less time and fewer steps than standard frozen sections without the need of staining the tissue. I’m especially excited by the potential for PARS to identify and highlight the distinct molecular signatures of both benign and malignant cutaneous lesions, enhancing diagnosis and optimizing patient care.”

PARS is a rapid, non-contact, high-resolution label-free laser imaging system that can image anything that absorbs light. Dr. Somani will present the new PARS system optimized to image tissue histology on fresh and formalin-fixed, paraffin-embedded skin tissues. Mohs resection specimens and skin punch biopsies were imaged and then virtually stained using an artificial intelligence (AI) algorithm to colorize each pixel and emulate the Hematoxylin and Eosin (H&E) gold standard. The tissues were subsequently stained with H&E to enable a direct one-to-one cellular comparison with the gold standard. The images were assessed by Mohs surgeons and dermatopathologists who confirmed that they are diagnostic quality, sufficient to establish skin cancer diagnosis and determine resection margins.

“With one in three cancer diagnoses worldwide being skin cancer, we desperately need a rapid diagnostic-quality skin imaging system,” says Dr. Mackey, Chief Medical Officer at illumiSonics. “PARS provides gold-standard equivalent histology, with the ability to display the scanned tissue in any manner that the Mohs surgeon needs. We expect to replace frozen sections and increase the efficiency of Mohs surgery by 30 to 50%, giving Mohs surgeons the opportunity to treat more patients and address their lengthening waitlists.”

Most of the rich biomolecular data acquired by PARS is not needed to generate the H&E emulations, meaning that there is much more data in each PARS scan than is currently leveraged. Dr. Somani presents a [multiplex video](#) of normal skin, showing the PARS acquisitions and the virtual histology stains derived from them. With further development, PARS could be used for molecular diagnostics and has the potential to provide a near-real-time evaluation of living skin histology and cellular processes and change the way the world looks at tissue.

About illumiSonics Inc.

illumiSonics Inc. is a Waterloo, Ontario-based microscopy company that develops and commercializes the PARS platform-- a revolutionary non-contact, high-resolution, label-free, non-destructive microscope. PARS visualizes all light-matter interactions to provide unprecedented deep data, which is then processed using AI to yield multiple virtual histological stains for precision diagnostics. The ability to generate multiple diagnoses from a single tissue sample addresses an unmet, urgent medical need that has the potential to save lives and reduce costs. For more information, visit www.illumisonics.com.