

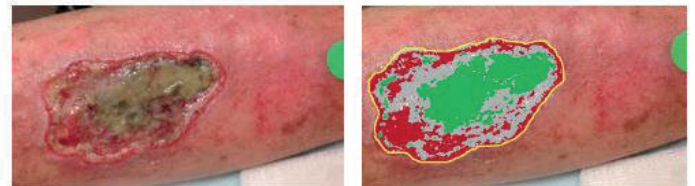
DESCRIPTION

Tissue Analytics transforms the smartphone into a sophisticated platform for imaging and remotely evaluating chronic wounds. The 8.5 million Americans living with chronic wounds, such as bedsores and diabetic ulcers, cost the US healthcare system \$30 billion each year.

A ruler is the most common tool to track wounds over time. This technique is so variable and prone to error that doctors cannot see if prescribed treatments are working. Tissue Analytics solves this problem by using image analysis technology to standardize wound documentation. Nurses use the Tissue Analytics mobile application to capture digital photographs of wounds. Tissue Analytics processes these images and sends them to a secure website where doctors can remotely evaluate their patients or view in their EMR with SMART on FHIR integration. Users are presented with precise information about changing characteristics of the wound over time and the effect of treatment.

PRODUCT

Tissue Analytics uses state-of-the-art machine learning and computer vision to autonomously segment, classify, and measure wounds. The techniques used standardize for lighting, distance, and camera angle. Data is collected on a secure, HIPAA compliant smartphone app.



TOTAL WOUND AREA: 4.07 CM²

TISSUE	AREA	PERCENTAGE
Black	0 cm ²	0.0
Red	0.86 cm ²	21.1
Yellow	1.09 cm ²	26.8
Other	2.12 cm ²	52.1

ADVANTAGES OF THE TISSUE ANALYTICS SYSTEM:



Proprietary image analysis provides doctors with new and accurate metrics for wound healing.



Users experience high ease of use due to minimal disruptions to workflow.



Measurement precision increases by 34%.



Clinicians can reduce their charting and measurement time by 56%.

EMR INTEGRATION

Tissue Analytics has integrated with 4 major EMR systems via industry-leading technologies such as SMART on FHIR and HL7 standards. The integrations were completed at a corporate level and are, by design, rapidly deployable.



TRACTION

Over 120 health centers in the US are active users of the enterprise Tissue Analytics system. These sites are home care agencies, outpatient wound centers, hospitals, inpatient, and skilled nursing facilities. Several customers are listed below:

- Johns Hopkins University
- The Mayer Institute
- Penn Medicine
- Nash Health Care
- Intermountain Healthcare
- CHS Bayfront Health
- Integrity Transitional Hospital
- Valley Health System

Tissue Analytics is currently preparing to launch a follow-on product to analyze common skin conditions.

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TEAM

// KEVIN KEENAHAN, CO FOUNDER & CEO

Kevin is a graduate of Johns Hopkins University with a focus in biomedical instrumentation. He has worked in research settings at the University of Rochester Medical Center and Tsinghua University in Beijing.

// JOSH BUDMAN, CO FOUNDER & CTO

Josh also received his bachelor's and master's from JHU Biomedical Engineering. He has a focus in medical imaging and worked for Nobel laureate Carol Greider.

// GABRIEL BRAT, MD, MSc, MPH, CO FOUNDER & CMO

Dr. Brat attended Stanford Medical School, was the Chief Resident in General Surgery at Johns Hopkins, and is currently a surgical fellow at Brigham & Women's Hospital in Boston.

COMPANY STATUS

FOUNDED

JULY 2014

TOTAL INVESTMENTS TO DATE

\$7,725,000

INVESTORS

Tencent, DreamIt Ventures, Penn Medicine, Intermountain HealthCare, Molnlycke HealthCare

INTELLECTUAL PROPERTY

Tissue Analytics is the assignee on three domestic provisional patent applications. The first two are a novel machine-learning algorithm for wound and skin image analysis. The second protects the system architecture (including a method for collecting and analyzing images, a physician web portal and an integrated billing module). The first two provisional patents were converted to a global PCT application.

CLINICAL VALIDATION

Two IRB-approved studies were conducted at Johns Hopkins beginning in June 2014. Results were presented at Connected Health in October 2015 and published in JMIR mHealth uHealth. A third clinical study began at Penn Medicine in August 2015. Product evaluation pilots were conducted at Lancaster General Hospital and 5 Intermountain Healthcare wound care clinics.