

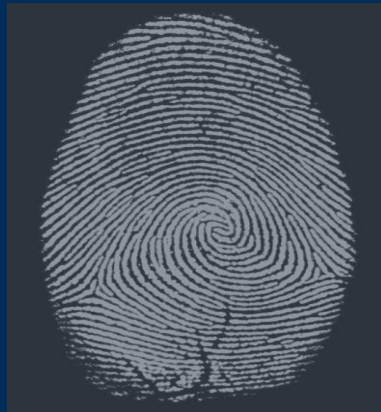


University of California
San Francisco

Information Commons

Michael Blum, MD, Rachael Callcut, MD
Center for Digital Health Innovation

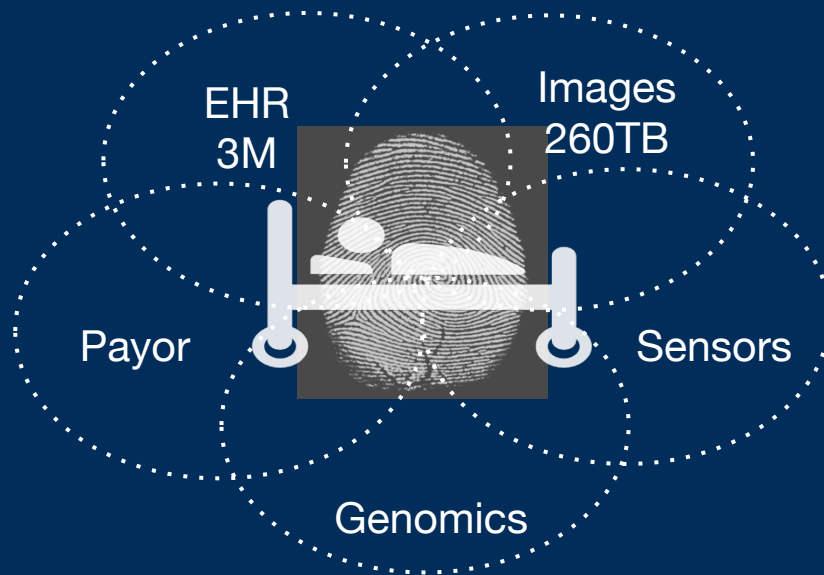
Outlier Health



Every patient is unique with their own story
& needs . . .

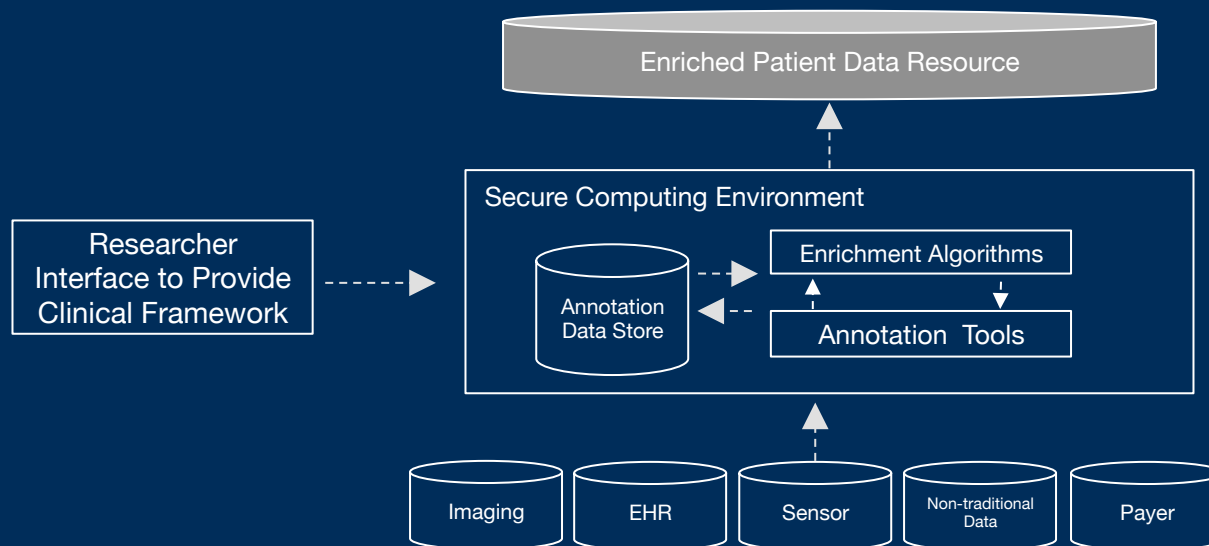
making every patient an outlier.

Leveraging next generation analytics to:

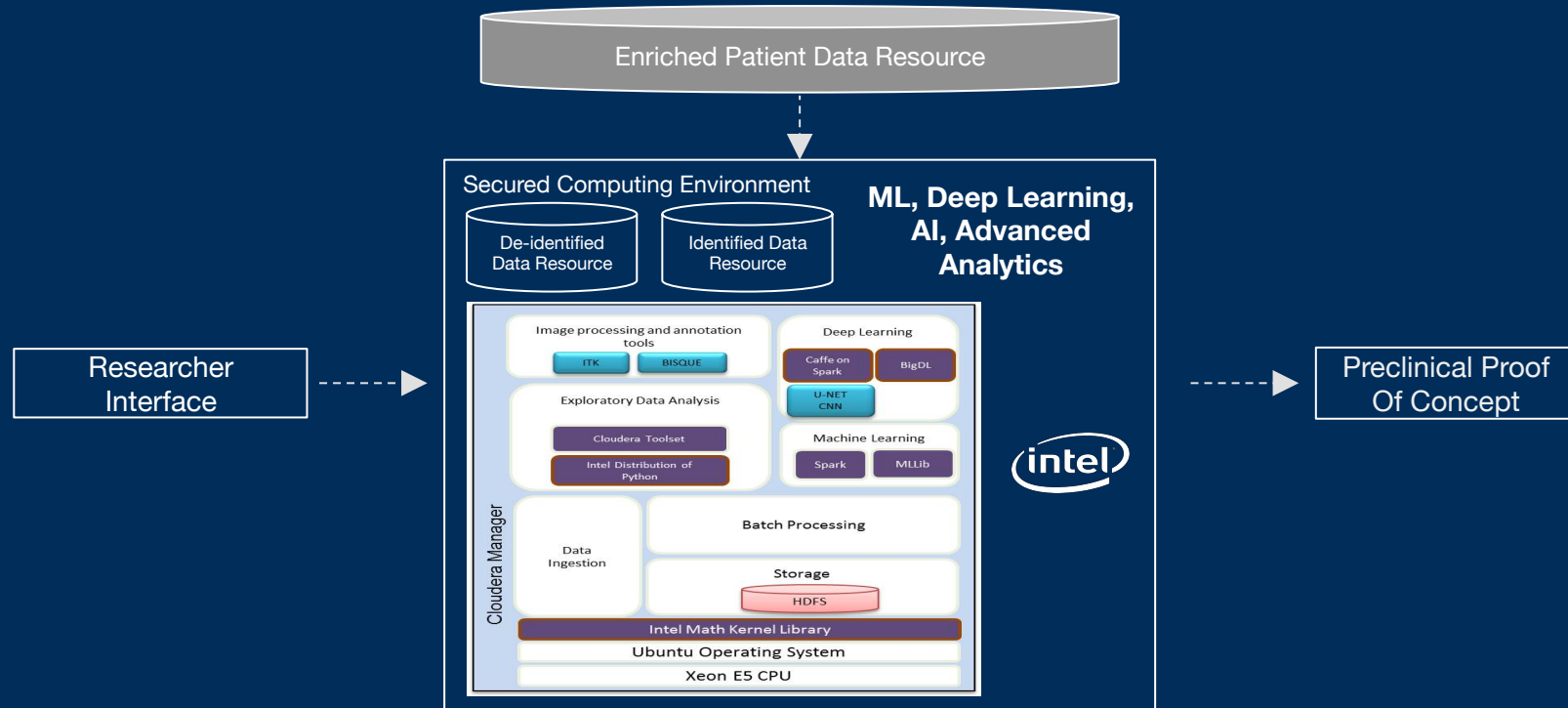


- Optimize the value of treatment
- Personalize treatment to an n of 1
- Automate triage
- Predict disease trajectories
- Assist in designing therapies
- Expedite workflow
- Define next generation treatment paths

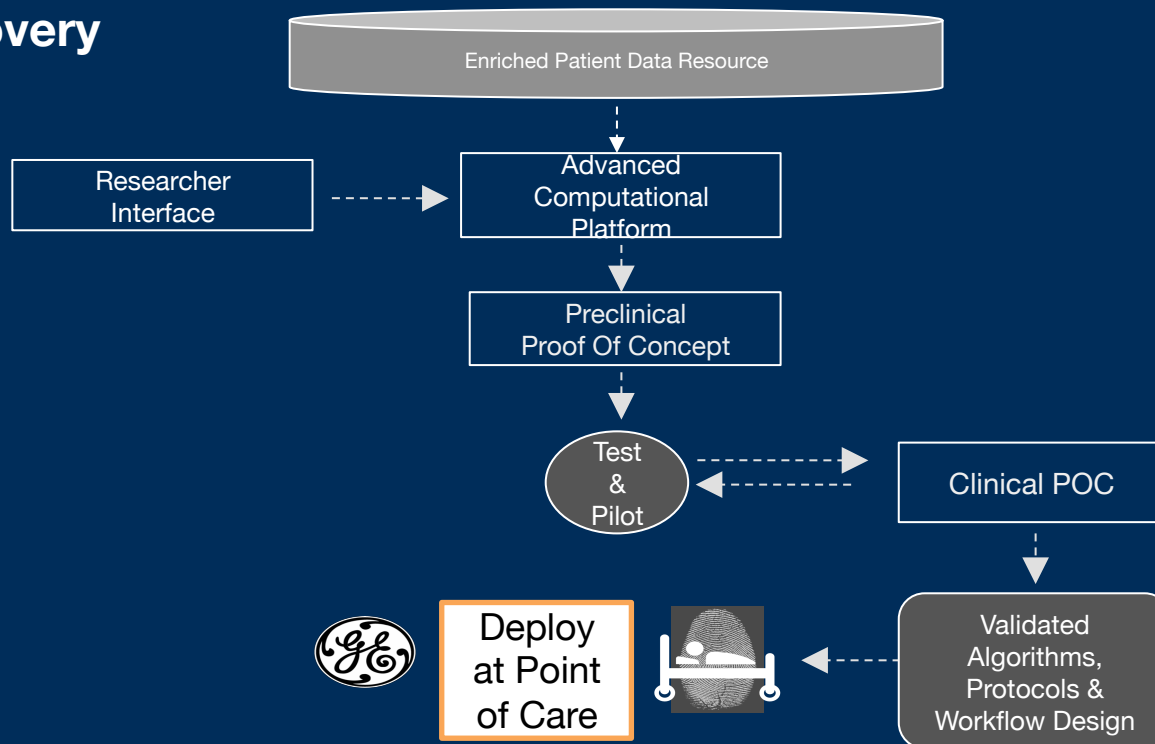
Enrichment / Annotation Framework



Information Commons with Algorithm Pipeline

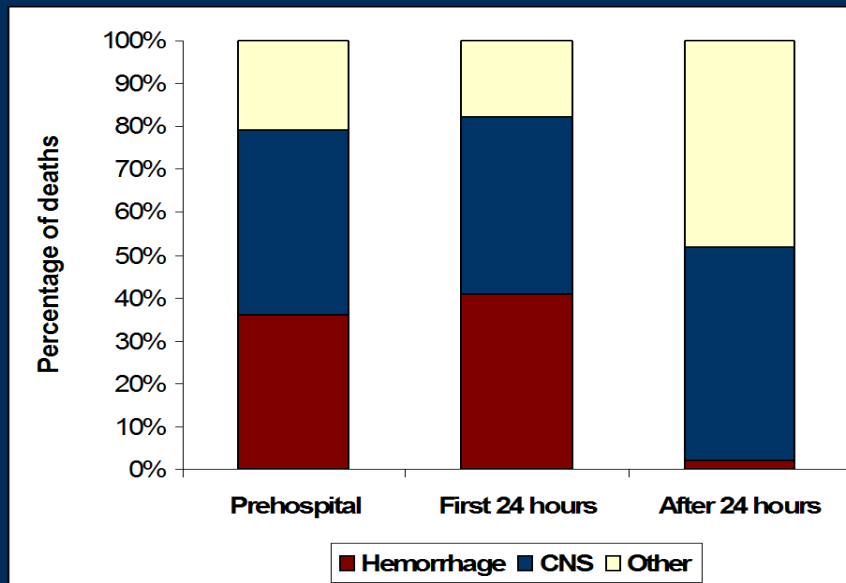


Scientific Discovery

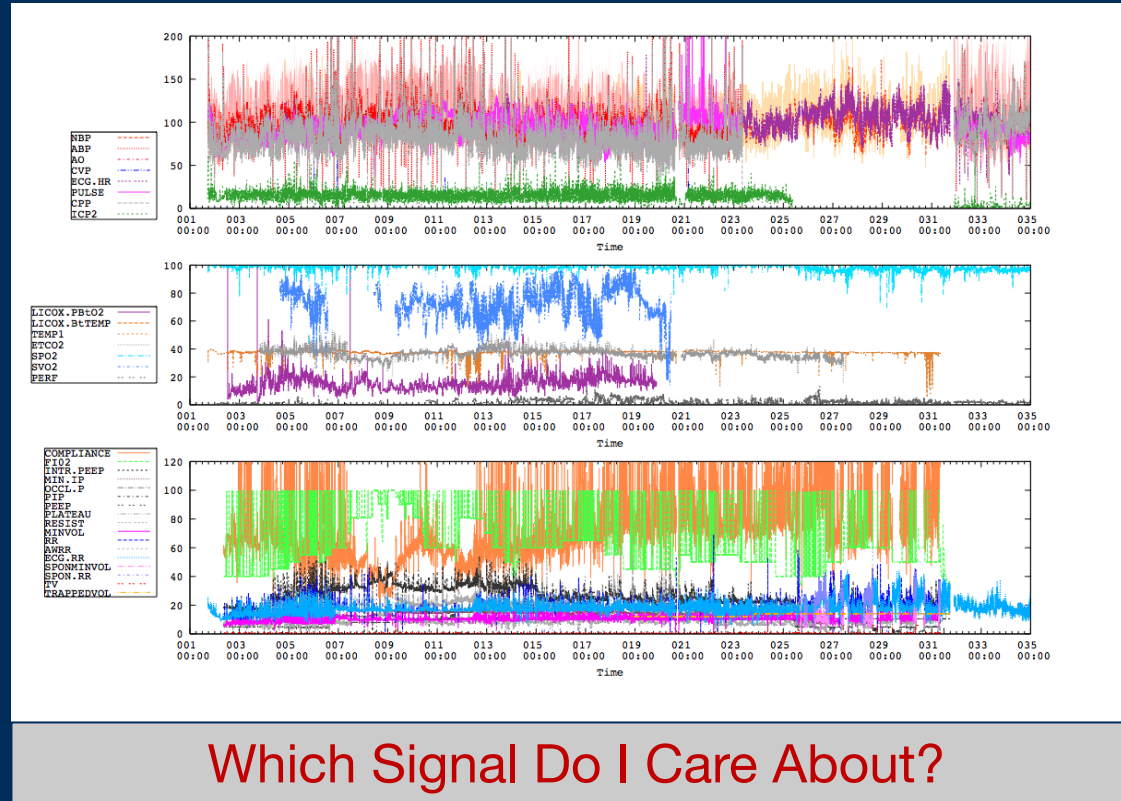


Case Study: Trauma

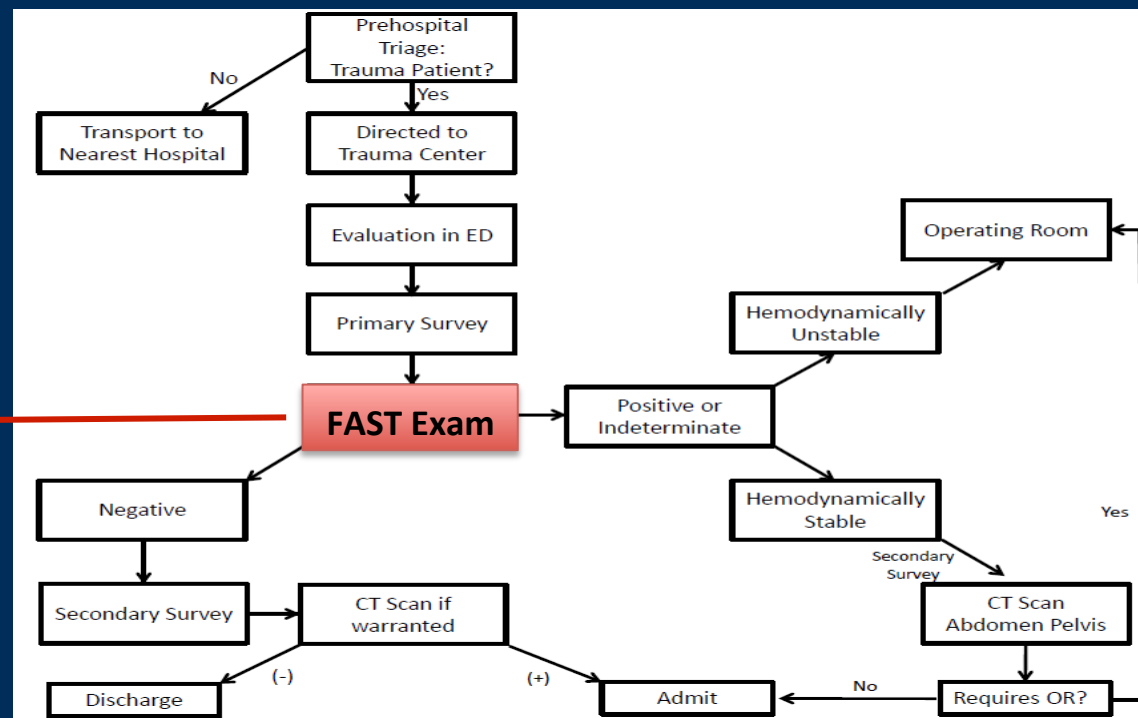
- Leading COD US 1-44 year old
 - US > \$400 Billion per year
- #2 Worldwide COD exceeding HIV, TB, & Malaria Combined



Dynamic Patient State

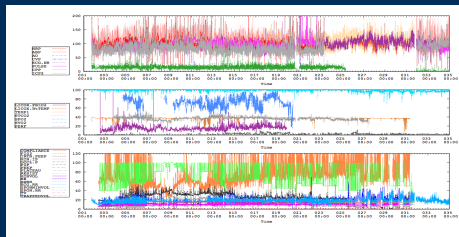
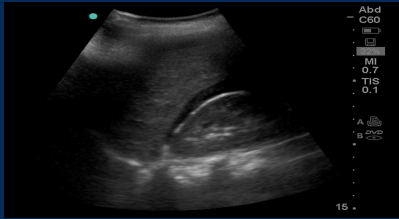


Improving Sensitivity & Specificity of Point of Care Ultrasound



Is there fluid in the abdomen?

Initial Use Case



Additional Data Streams

Scales to Multiple Use Cases from Initial Use Case

Pre-hospital

ED

OR

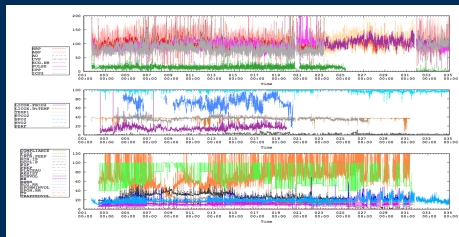
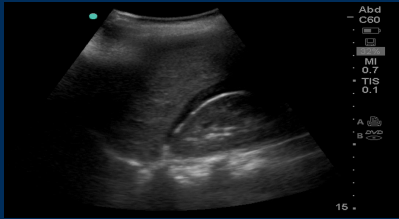
Advanced Imaging

ICU

Low Resource Environments

Applications

Initial Use Case



Additional Data Streams

Scales to Multiple Use Cases from Initial Use Case

Field Triage

Bleeding?

Intraop Resuscitation

CT?

ICU Bedside volume?

Remote Decision Support

Battlefield Triage & Treatment

Right Treatment to the Right Patient at the Right Time

- Finding value in data
- Robust set of tools
- Enhance information commons
- New paradigm for medical innovation