“Smart Patients, Big Data, NextGen Primary Care”

Larry Smarr, Benjamin Smarr, Michael Kurisu

NextMed Health 2025

Session 22: The Future of Care

Del Coronado Hotel, San Diego

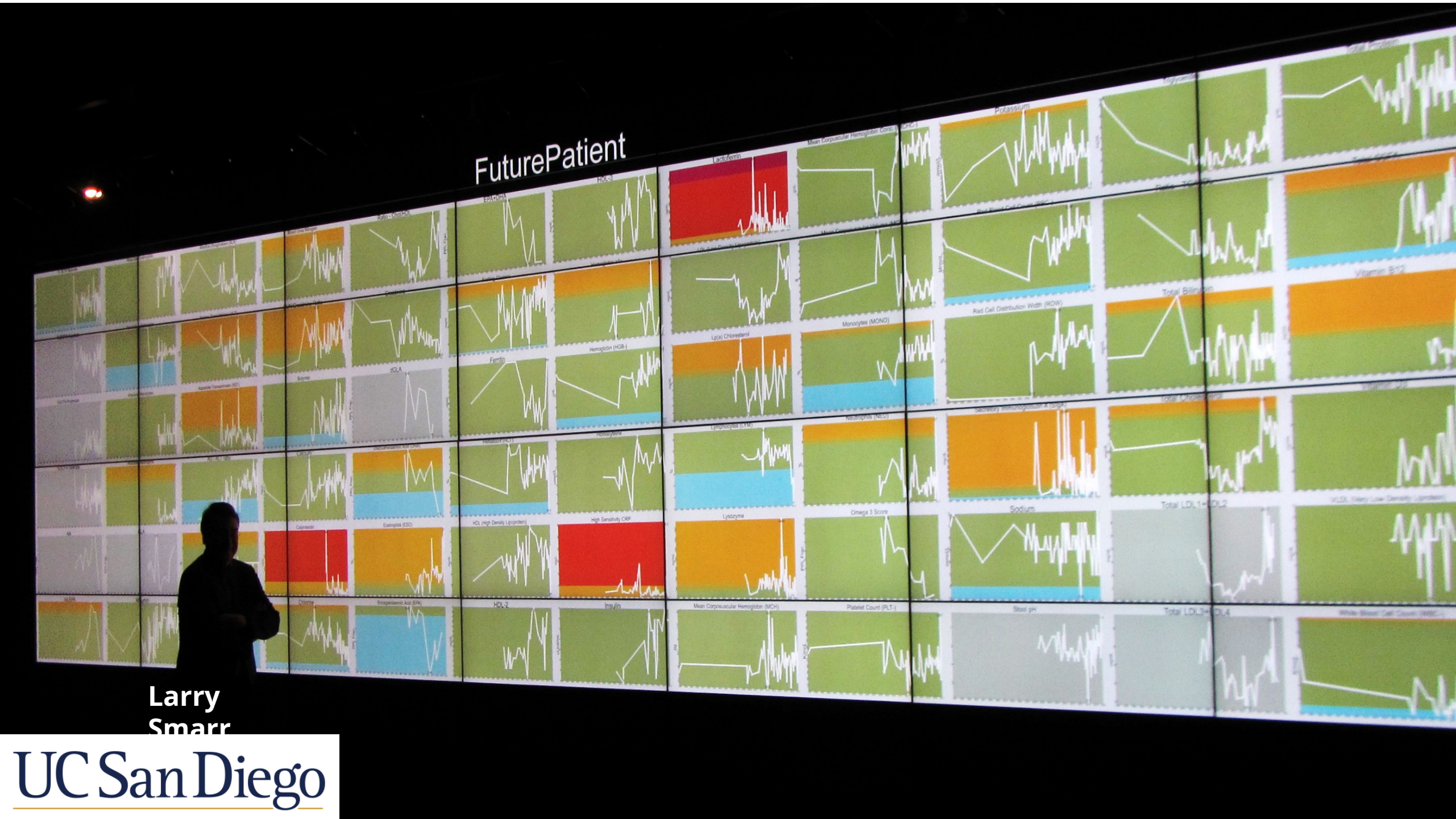
April 2, 2025

Personal time series are the revolution

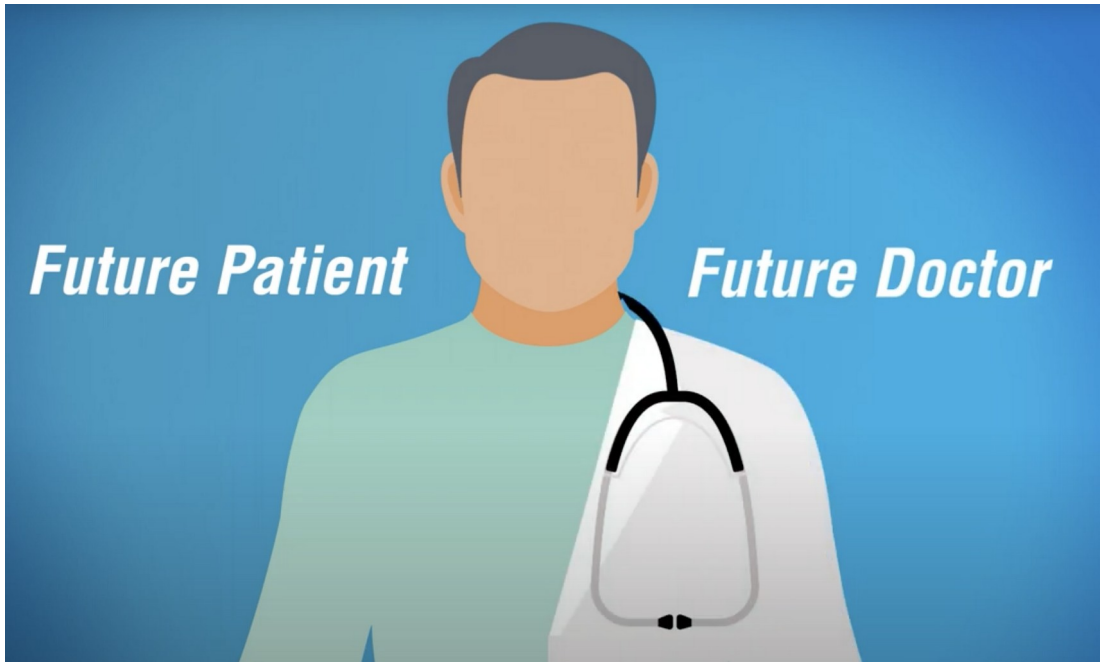
Michael Kurisu, D.O.

Integrative Medicine Physician & Founder, Measured Wellness





UC San Diego



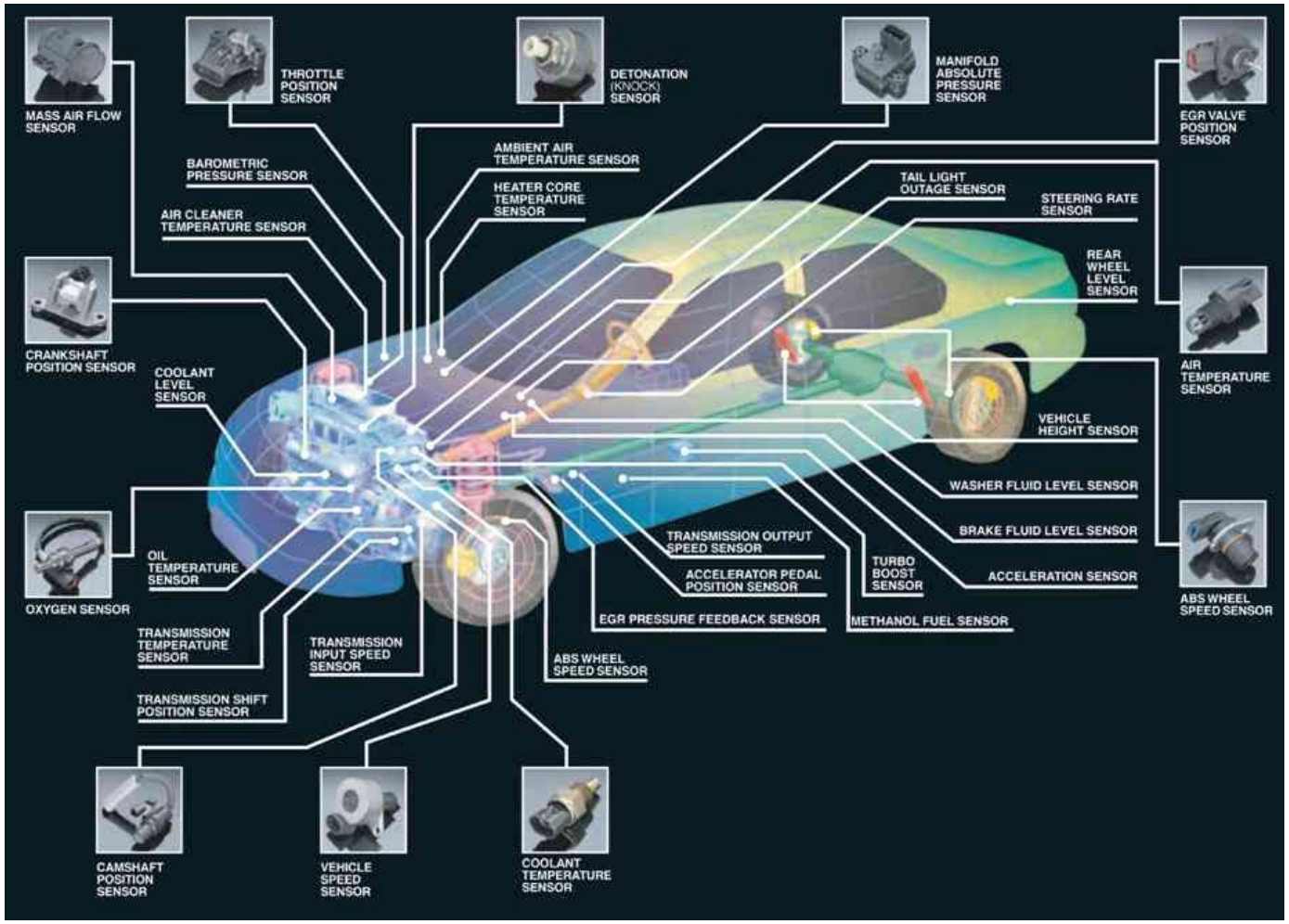


UC Wellbeing Channel

uctv.tv/wellbeing



Modern Cars Have Massive Sensor Arrays Which Record Vital Time Series Enabling Computer Diagnostics For Personalized Early Warnings



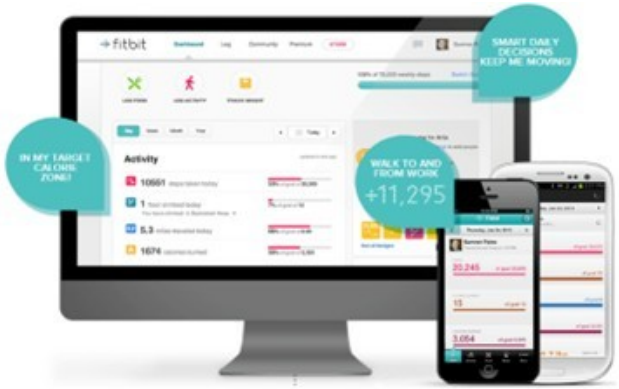


http://blog.asautoparts.com/5-common-symptoms-of-faulty-

Personalized Human Time Series: Tech Innovation is Leading the Way



MyFitnessPal- Calories Ingested



FitBit - Daily Steps & Calories Burned



Withings/iPhone- Blood Pressure





Withings WiFi Scale - Daily Weight



Oura Ring - Sleep, HRV, Temperature, Respiratory Rate



Apple Watch- Health Metrics Integration



Wellue Ring: Continuous SpO2

MEASURED WELLNESS

YOUR BODY IS TALKING,
WE LISTEN

Our physicians use continuous health monitoring to learn more about unique patterns in your health, so they can provide care that's personalized to you.

Health Dashboards




LIFE
Back to the Future!

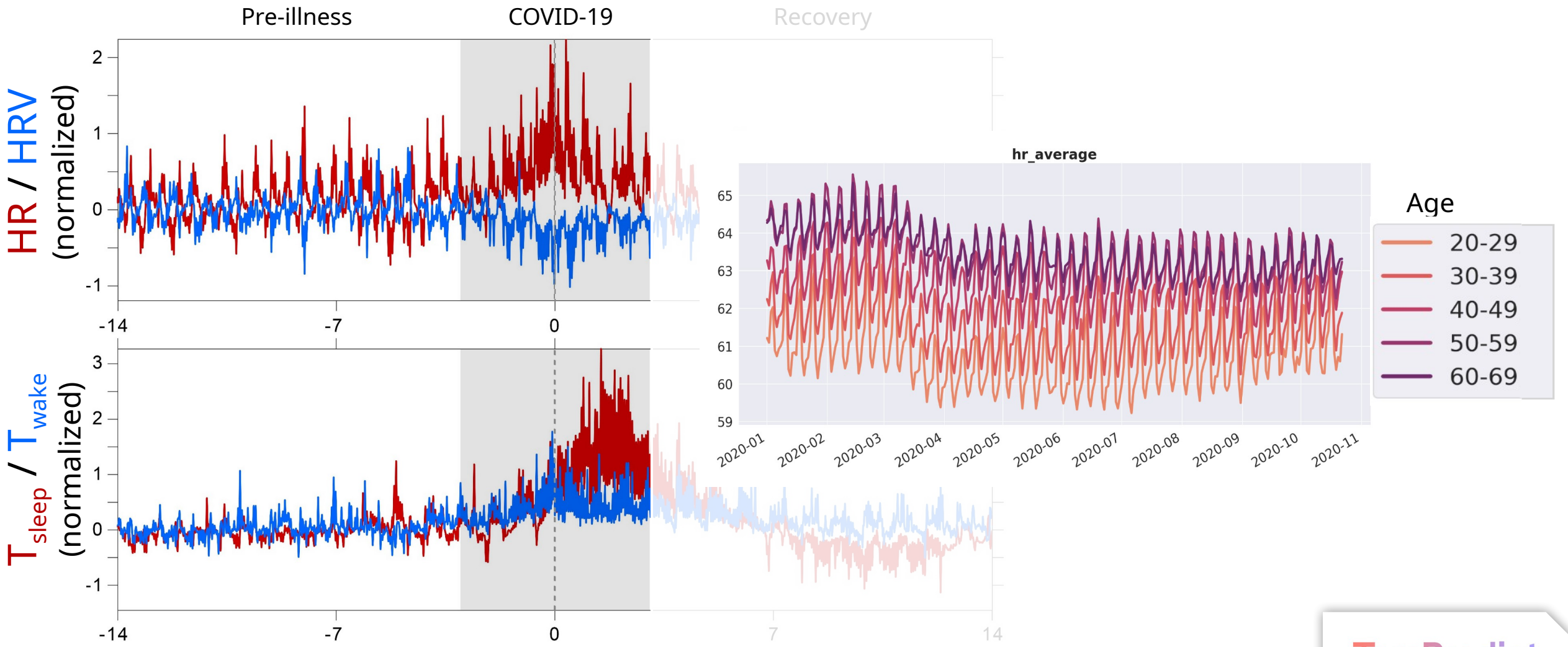
Benjamin Smarr, Ph.D.
Assistant Professor, Bioengineering & Halıcıoğlu Data Science Institute (HDSI), UC San Diego

TemPredict

UCSF Health | ŌURA

This effort was funded under MTEC solicitation MTEC-20-12-Diagnostics-023 and is funded by the USAMRDC under the Department of Defense. The views and conclusions contained herein are those of the authors and should not be interpreted as necessarily representing the official policies or endorsements, either expressed or implied, of the U.S. Government.

Detecting COVID-19 through Collaboration



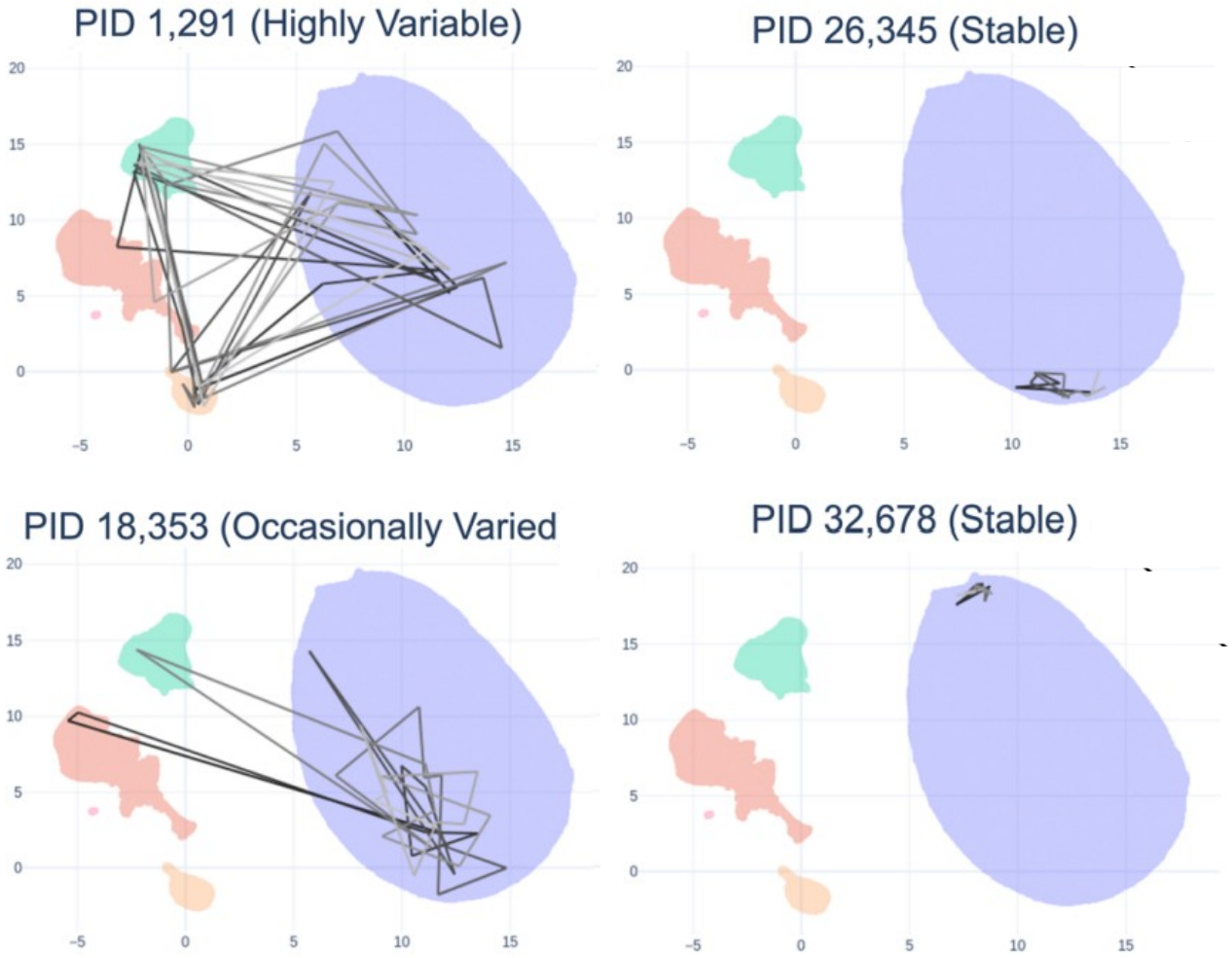
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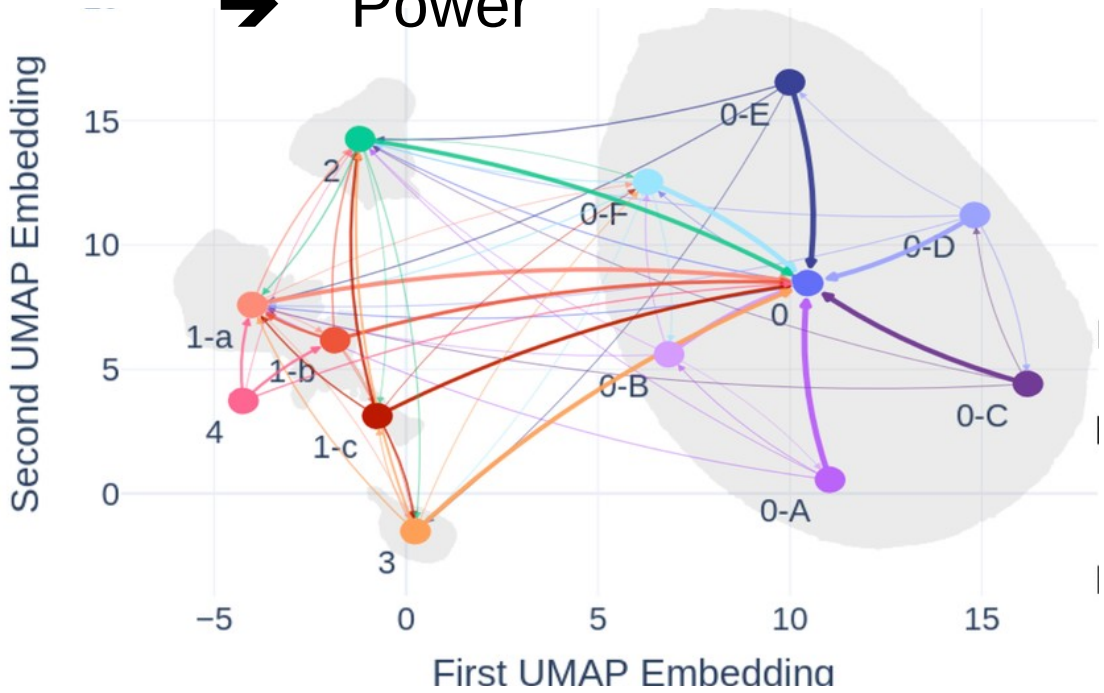
UCSF Health | ŌURA

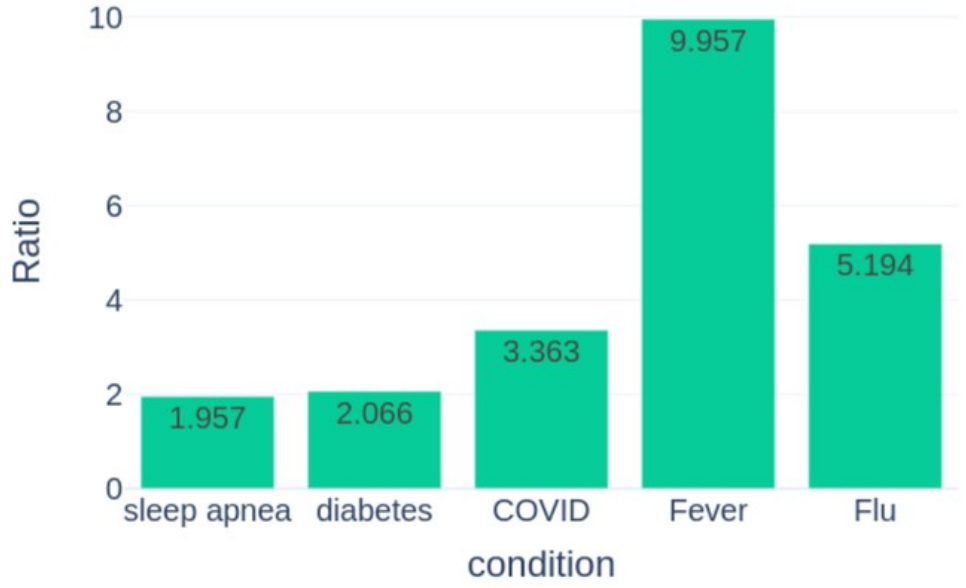
Millions of Days Make a Data Landscape



Instabilities ➔ Digital Pheno’ s ➔ Power

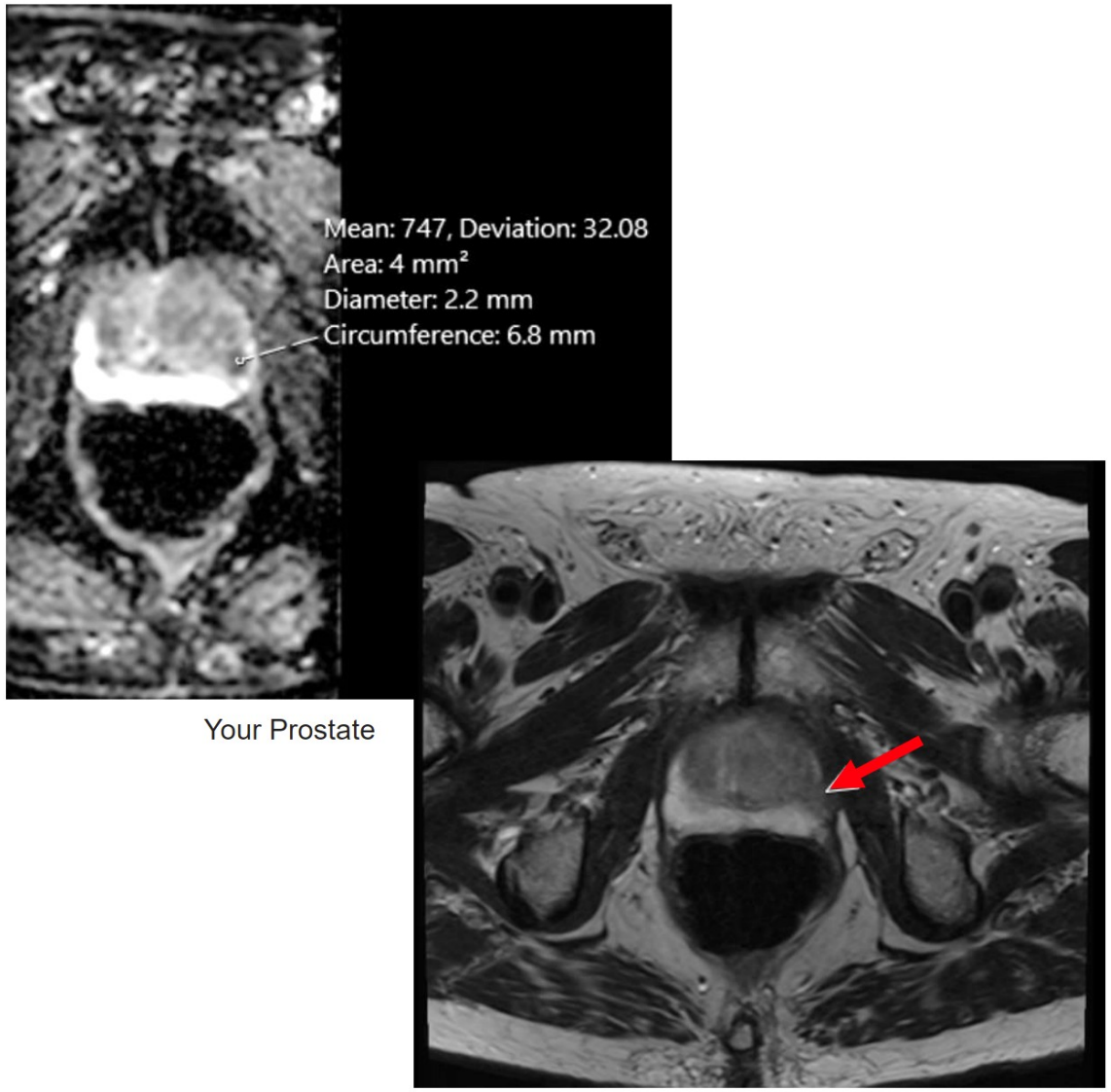






Larry Smarr, Ph.D.
Distinguished Professor Emeritus, Computer Science and Engineering, UC San Diego

Larry Smarr's Prostate Cancer Was Detected Early by Advanced MRI Full Body Scan at Human Longevity, Inc. on January 19, 2023



Estimate is:

- **Very Early Stage**
- **High Grade Cancer**
- **Small Cancer (<1% of Prostate Volume)**

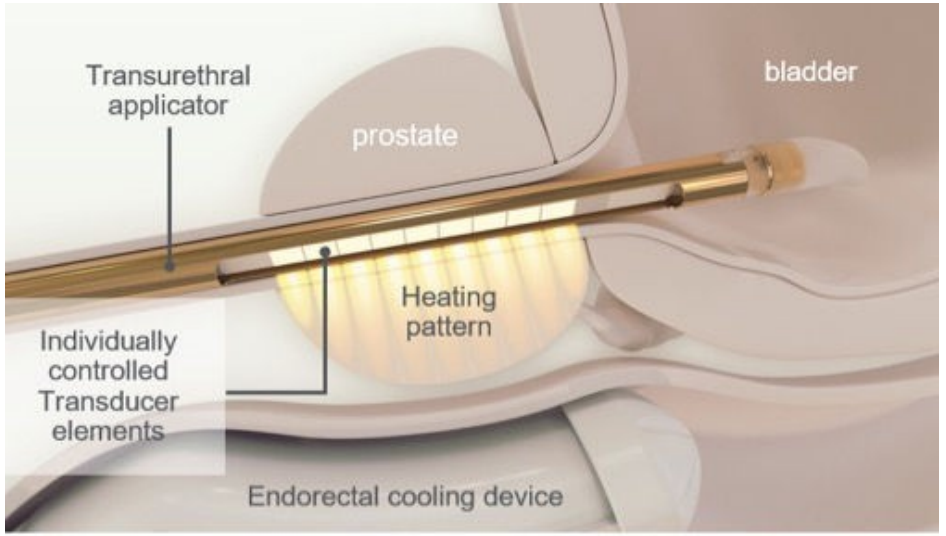
UCLA's Team Performed a Focal Transurethral Ultrasound Ablation (TULSA) With Realtime MRI Imaging



Steven Raman, MD
UCLA Director of Prostate MR Imaging and Interventions

October 10, 2023

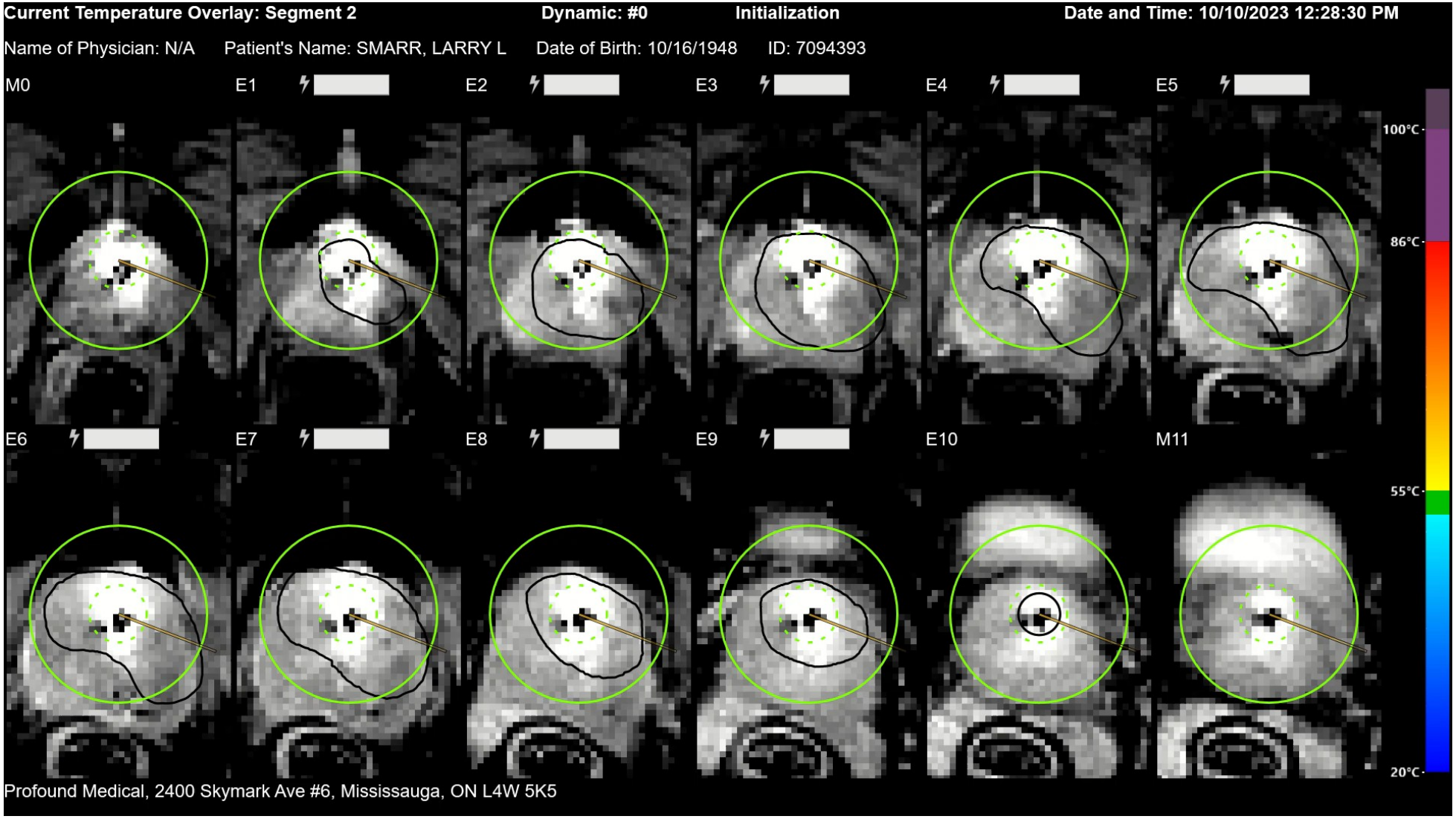






Wayne Brisbane, MD
UCLA Urology
Urologic Oncology

UCLA Doctors Watch the MRI Slices of My Prostate: Current Temperature from Ultrasound Heating **Every 5 Seconds**



Max Temp 190° F

Source: Dr. Steve Raman, Interventional Radiology UCLA

As is the Medical Standard, After Discharge I Was Sent Home With No Tracking

Fortunately, I Wear a Continuous Pulse Oximeter on My Thumb Every Night From Going to Bed Until Waking Up



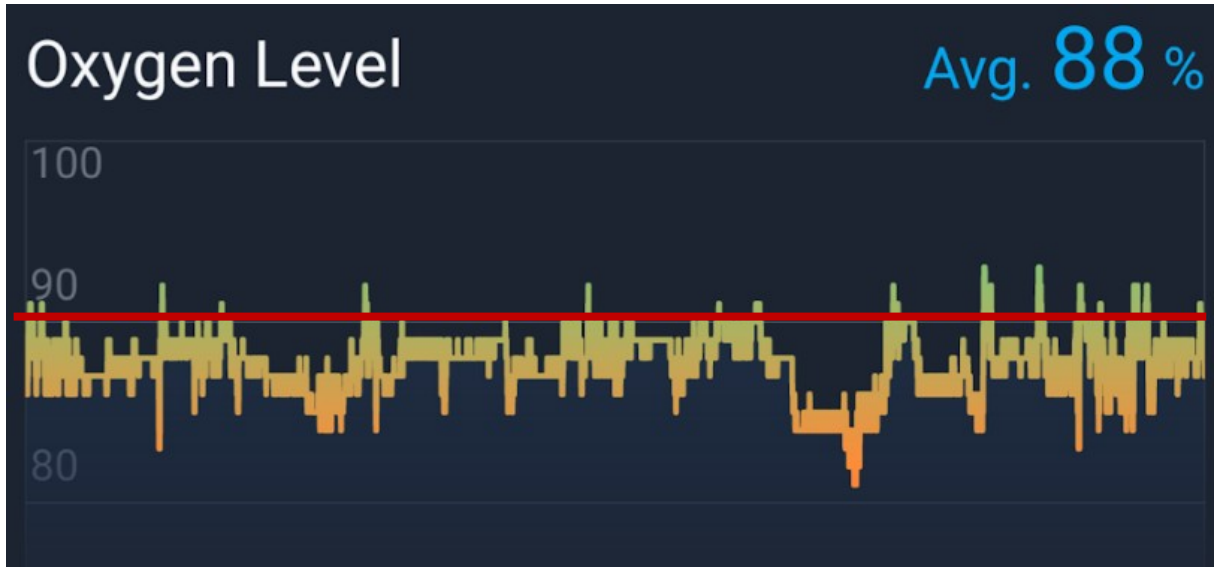
Wellue O2Ring Oxygen Monitor

My Unofficial Outpatient Time Series Experiment Following My TULSA Procedure: Using My 02 Ring to Track Sleep Deoxygenation

SpO2 Reading Taken Every 4 Minutes All



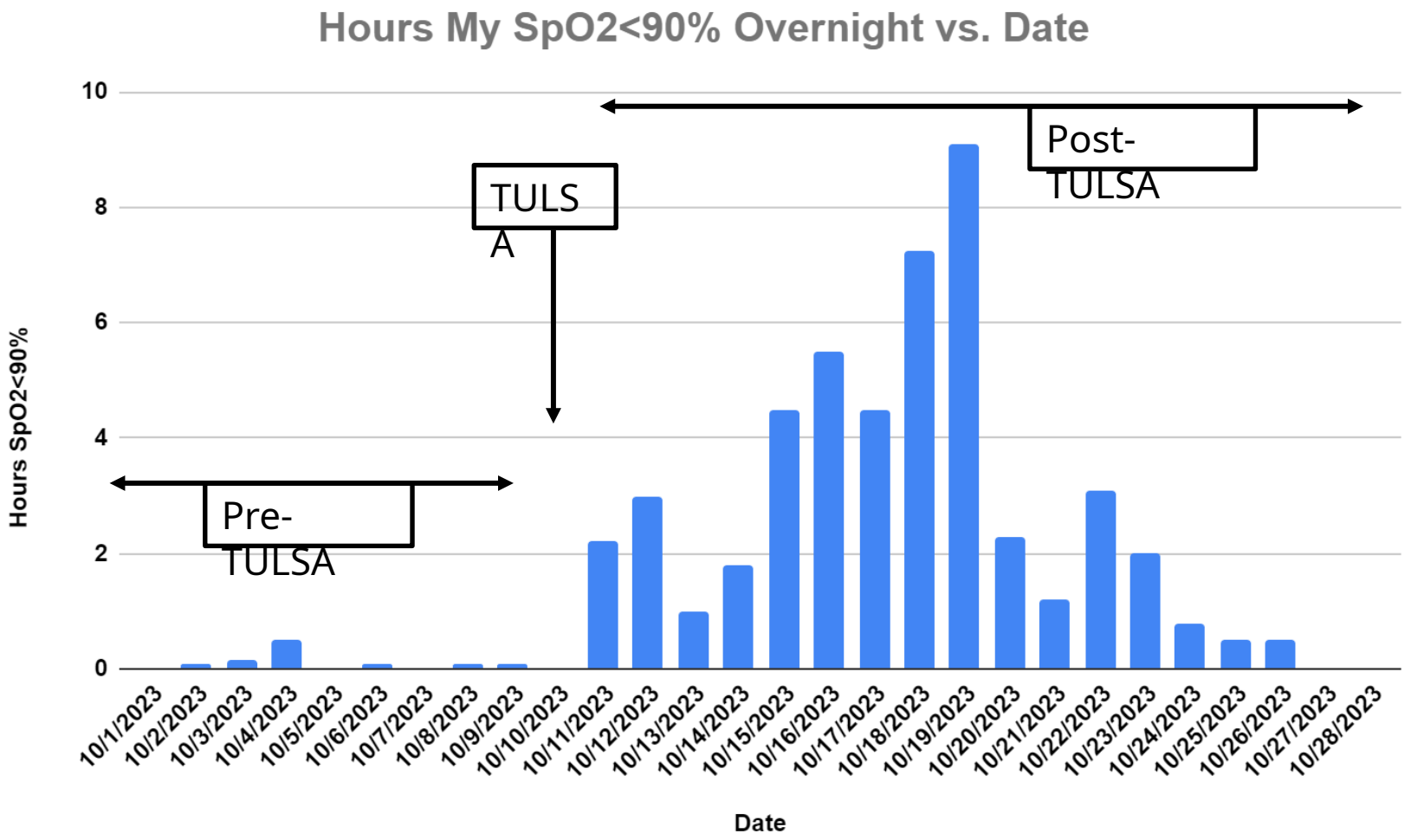
October 9-10, 2023
9pm-5am
Night Before TULSA



October 19-20, 2023
9:15pm-7:15am
9 Nights After TULSA

I Was Using a CPAP All Night During This

Post-TULSA My Blood Deoxygenation Steadily Increased Until My SpO2 Was <90% For More Than 8 Hours a Night!



I Had Been Prescribed Sulfamethoxazole-trimethoprim (Bactrim ds) in Case of UTI

Bactrim ds and Oxygen saturation decreased - a phase IV clinical study of FDA data

Time on Bactrim ds when people have Oxygen saturation decreased

- < 1 month: 100 %
- 1 - 6 months: 0.0 %
- 6 - 12 months: 0.0 %
- 1 - 2 years: 0.0 %
- 2 - 5 years: 0.0 %
- 5 - 10 years: 0.0 %
- 10+ years: 0.0 %

I was on Bactrim for 2 weeks

Age of people who have Oxygen saturation decreased when taking Bactrim ds

- 0-1: 0.0 %
- 2-9: 0.0 %
- 10-19: 0.0 %
- 20-29: 5.0 %
- 30-39: 6.67 %
- 40-49: 6.67 %
- 50-59: 25.0 %
- 60+: 56.67 %

I was 74

www.ehealthme.com/ds/bactrim-ds/oxygen-saturation-decreased/

The UCLA Team
Invited Me Back to Give a Seminar on My Discovery ☺

“Larry Smarr’s Prostate Cancer Early Detection and Focal Therapy”

UCLA

January 16, 2024

Personal time series are the revolution