

Liver Imaging Group Research Program

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Vision

- Improve the lives of people with or at risk for developing liver cancer
- Develop & validate imaging methods to detect, diagnose, and characterize liver cancer or its precursor conditions

Why Liver Cancer?

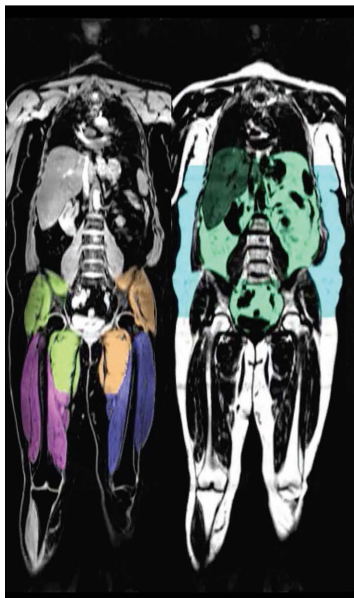
- 2nd most common cause of cancer death worldwide
- Most rapidly growing cause of cancer death
- Disproportionately affects CA, SD
- Biological spectrum
 - *Can identify population at risk*
 - *Can image pre-neoplastic conditions*

Obesity

Body Composition Profiling

Developed at AMRA
Validated in part at UCSD

→ Obesity trials at UCSD

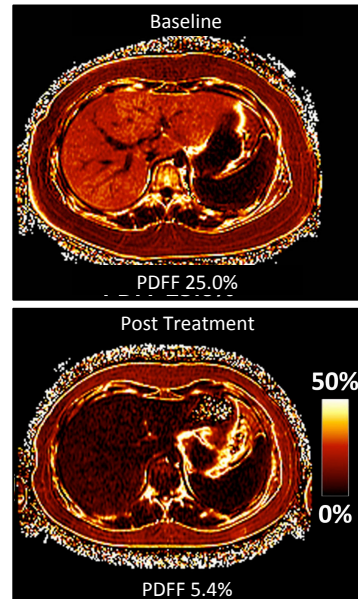


Liver Fat

MRI Proton Density Fat Fraction

Developed at UCSD
in collaboration with UW

→ Clinical care

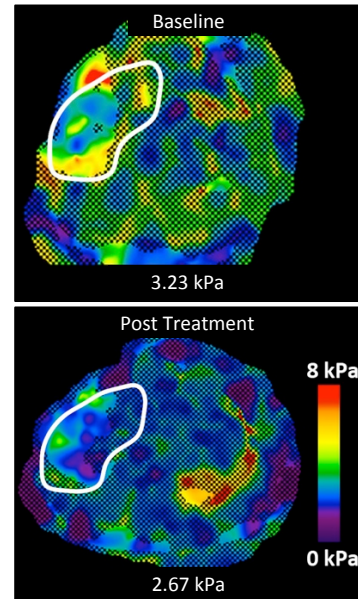


Liver Fibrosis

MR Elastography

Developed at Mayo
Validated in part at UCSD

→ NASH trials at UCSD



Liver Cancer

Abbreviated MRI

Developed at UCSD

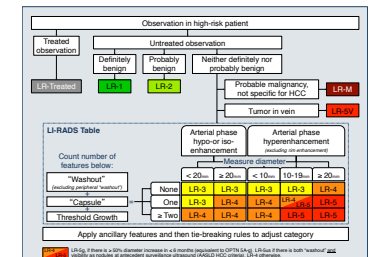
→ Clinical care



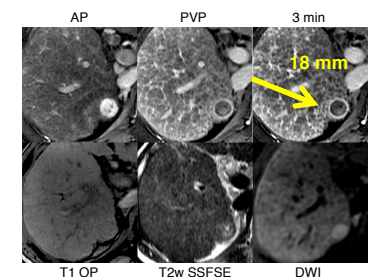
LI-RADS

Developed at UCSD

→ Clinical care



54-yo man with HCV cirrhosis



What's Next?

- SPORE:
 - Specialized Program in Research Excellence
- Liver cancer translational research
- UCSD – SDSU – Sanford Burnham

Central theme: Imaging