

RadBase: Medical Imaging Database for Industry Research and Development

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Background

- Medical device companies need patient imaging (Xrays, CTs, MRIs)
 - To develop and validate 3D modeling
 - To develop and validate AI prediction tools
- The device industry struggles to assemble adequate amounts of commercially available patient imaging data
 - They have expressed a **great need** for large amounts of high quality data.
- While many image databases exist, the majority are limited for academic research purposes
- Device companies cannot use existing academic databases because patients did not consent to have their data used commercially



Background

- Medical device companies pay hospitals for small datasets
 - Hundreds of dollars per patient
 - Limited control over which images they receive
 - Very difficult to control for medical history
- The growth in personalized medicine means:
 - More companies are developing devices that require datasets to influence design
 - AI development requires very large quantities of data
 - More applications
 - Significantly increased need for patient images
- **Untapped \$100 million market**
 - Will only increase
 - There are currently no commercial players in this space



RadBase

What is RadBase?

- Large repository of medical imaging that can be licensed to medical device companies
 - Images include X-rays, CTs, MRIs
 - Can be used for research
- Patients have been compensated and given consent for this data to be used for commercial purposes
- Images are tagged with additional information
 - Comorbidities
 - Demographic background data
 - Includes both healthy patients and those with pathologies



Current Academic Database

Limit your search

Location	▼
Left Knee Joint	35
Right Knee Joint	33
Elbow joint	10
Knee	5
Patella	3
Femur	1

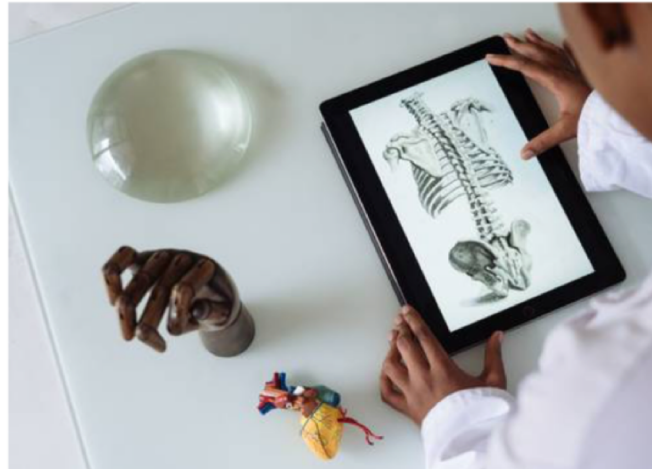
Age	▼
Below 25	13
25 to 50	3
Over 50	62

Type of Study	▼
CT	87

Yale SCHOOL OF MEDICINE

Department of Orthopaedics & Rehabilitation

3D Medical Image Library



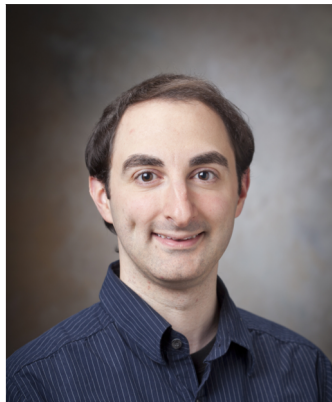
RadBase team



Daniel Wiznia, MD

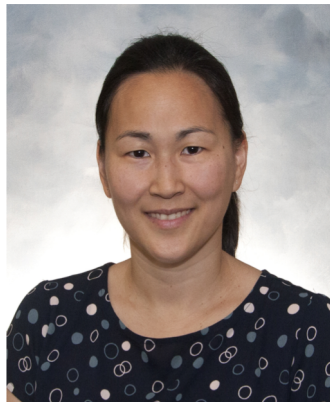
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Future goals

- Build out data collection infrastructure
- Streamline data entry tools
- Develop interface for companies to request and explore data
- Licensing / Legal development
- Create blockchain data tags to protect data

