

# OHSU Informatics Discovery Lab

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# Goals for the next 5 minutes

- Problems we aim to solve
- About our department
- About the Informatics Discovery Lab (IDL)
- Where we aim to go

# Problems we aim to solve

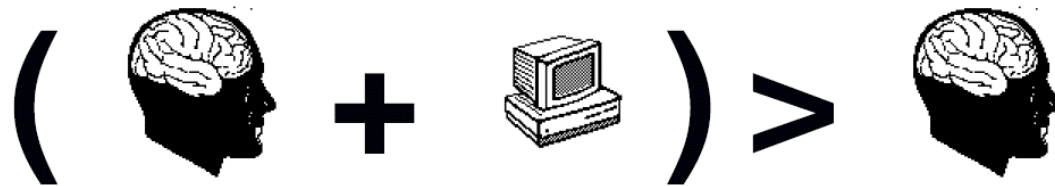
- Our “healthcare system” falls short
  - Health – does not optimize health
  - Care – has problems with quality, safety, and cost
  - System – is not coordinated

# “Informatics” is part of the solution

- The field concerned with the optimal use of information, often aided by technology, to improve individual health, healthcare, public health, and biomedical research
- More about “information” than “technology”

# Fundamental theorem (Friedman)

Goal is



Goal is not



# “DMICE” is part of the solution

- Oregon Health & Science University (OHSU) is a national and international leader in the field
- Through its Department of Medical Informatics & Clinical Epidemiology (DMICE)
- <http://www.ohsu.edu/informatics>

# DMICE fulfills its mission through

- Research
- Education
- Collaboration

# Sampling of DMICE research

- Re-use of clinical data
  - Predictive analytics – Dorr, Cohen
  - Applying search to EHR data – Hersh, Bedrick
  - Text mining – Cohen
- Standards and interoperability – Logan
- Patient shared decision-making – Eden
- People and organizational issues – Ash
- EHR simulation for safety – Mohan
- Bioinformatics and computational biology – McWeeney and others
- Ontologies – Haendel, Toriani, and others



# Education

- Training future
  - Professionals
  - Researchers
  - Leaders
- Via experiences that include
  - Knowledge
  - Practical skills and experiences
  - Professional development
- <http://www.ohsu.edu/informatics-education>

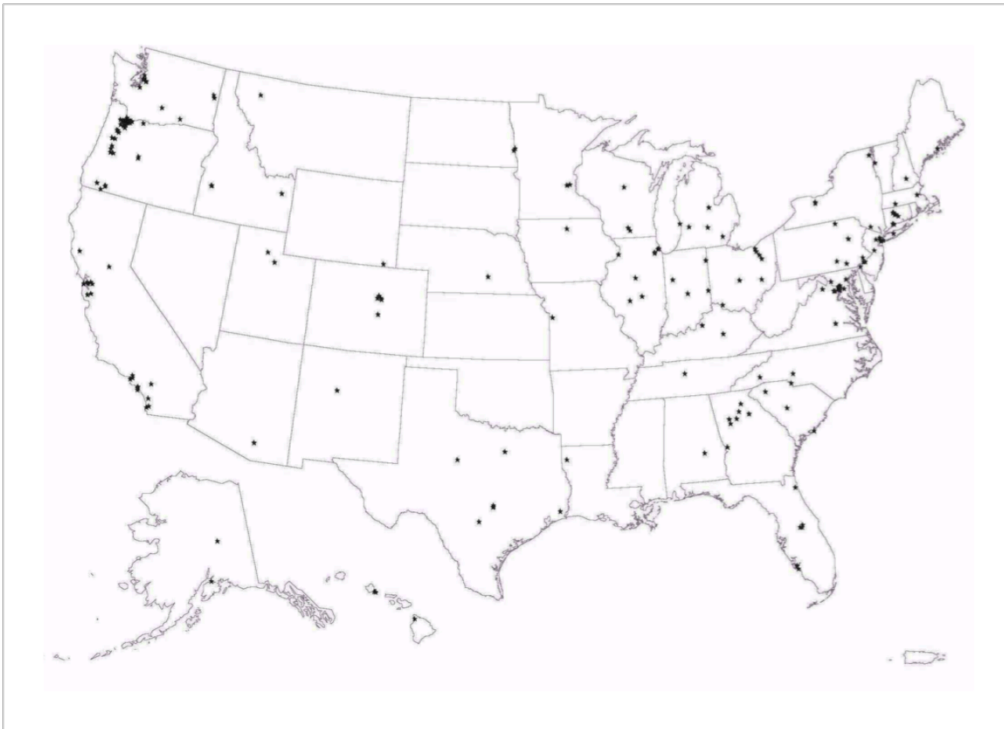
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BMI Current Enrollment (Active & LOA) by Degree & Track					
	BCB	CI	HIM	Total	%
BCRT	0	85	26	111	53%
MBI	3	55	7	65	31%
MS	11	6	0	17	8%
PHD	6	10	0	16	8%
	20	156	33	209	100%

BMI Graduates to Date by Degree & Track					
	BCB	CI	HIM	Total	%
BCRT	0	279	32	311	60%
MBI	4	119	0	123	24%
MS	6	65	0	71	14%
PHD	4	8	0	12	2%
	14	471	32	517	100%

# Delivered online to a wide audience



- International collaborations in
  - Argentina
  - Singapore
  - Egypt
  - Israel
  - Zimbabwe

# Collaboration is essential

 OREGON HEALTH & SCIENCE UNIVERSITY  
MEDICAL INFORMATICS & CLINICAL EPIDEMIOLOGY

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## INFORMATICS DISCOVERY LAB

WHERE INDUSTRY AND RESEARCH MEET



**Upcoming Events**

**June 4th - IDL Talks:** "The Evolving Role of the CMIO". Viet Nguyen, MD, CMO, Systems Made Simple.

**June 17th - IDL Talks:** Sponsored by Accenture. Title and Speaker TBA.

**June 27th - IDL Talks:** Sponsored by GE Healthcare. Featuring Peter Kinhan, General

<http://www.ohsu.edu/idl>

# Mission and approach

- IDL solves real-world problems in healthcare and medicine
- Through a collaborative, iterative approach between academia and industry
- Based on feedback provided by measurement of results

# Core expertise of IDL



# Synergize academia and industry

## Academia Strengths

- Deep understanding of informatics issues
- Novel approaches
- Evaluation-driven science
- Wide range of expertise
- Ability to look beyond today
- Grant funding experience
- Smart and curious students

# Synergize academia and industry

## Academia Strengths

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## Industry Strengths

- Deep understanding of product, customer, and market issues
- Extensive experience with development and deployment of products
- Real-world environment and exposure
- Long-term commitment to customers and product



# Current status

- Director – Aaron Cohen, MD, MS, Associate Professor
- Program Manager – Deborah Woodcock, MBA
- Current activities
  - Developing partnerships with companies and others
  - IDL talks on campus
  - Event later this fall

# How can you get involved?

- **Supporters** - Philanthropic donors who help fund lab research activities gain wider access to the labs research, facilities, faculty, and staff. Eligible for a lab-wide NDA.
- **Sponsored Research** - Specific projects of interest to both the commercial partner and the mission of the lab. These projects are funded by the commercial partner and managed and executed by the lab in collaboration with the partner, based on a project-specific statement of work and deliverables.
- **Fee for Service** - Sponsoring organization engage DMICE to provide certain services; strictly generation of data or analysis for a set fee with no ownership of IP by OHSU.
- **Collaborative Development** - This model comprises exploratory problem-solving intended to create shared intellectual property.

# Getting involved (cont.)

- **Consulting** - Partners may access the expertise and experience of the lab for small, focused advisement, direction, evaluation, and feedback on their projects or areas of interest.
- **Company Start-up** - Faculty can start companies with outside partners that can either provide unique resource, services and/ or develop products that have tangible IP to address an unmet need.
- **Product/Software Development** - In partnership with companies jointly develop software and also be a beta testing site.
- **Clinical Trial/Evaluation Design** - Outcomes research and patient information analysis partnering with OCTRI/Knight Cancer and Cardiovascular Institutes/ORCATECH.

# More information



- <http://www.ohsu.edu/idl>
- Aaron Cohen – [cohenaa@ohsu.edu](mailto:cohenaa@ohsu.edu)
- Deborah Woodcock – [woodcocc@ohsu.edu](mailto:woodcocc@ohsu.edu)
- Bill Hersh – [hersh@ohsu.edu](mailto:hersh@ohsu.edu)

