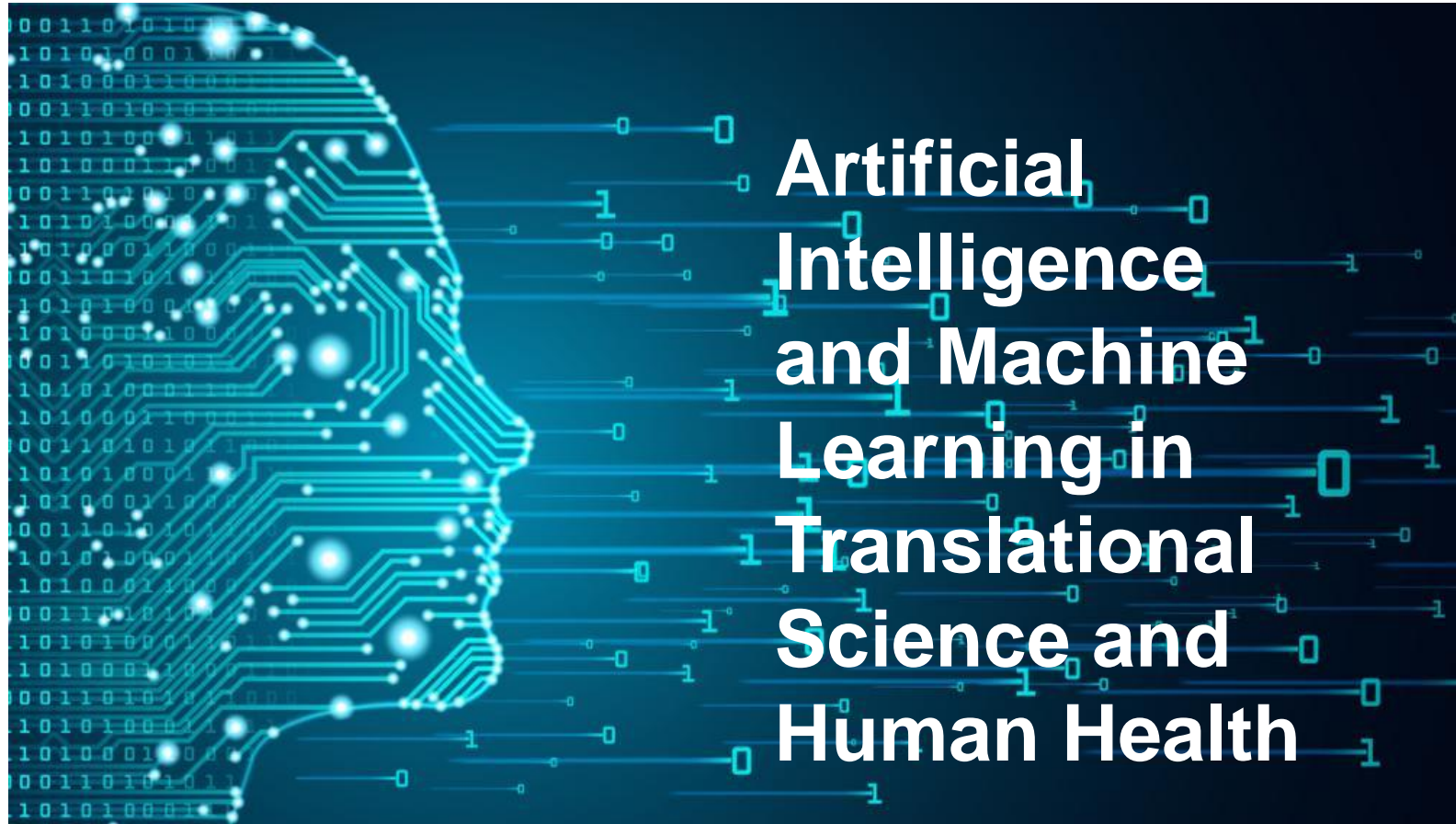


OSU Center for Clinical and Translational Science: 2019 Annual Scientific Meeting



Artificial
Intelligence
and Machine
Learning in
Translational
Science and
Human Health



CTSA Clinical & Translational[®]
Science Awards



ACCELERATING DISCOVERIES TOWARD BETTER HEALTH

“a mission to translate new knowledge as a sacred social compact”

Basic Science



Clinical Research



Implementation and Population Health



Bench



Bedside



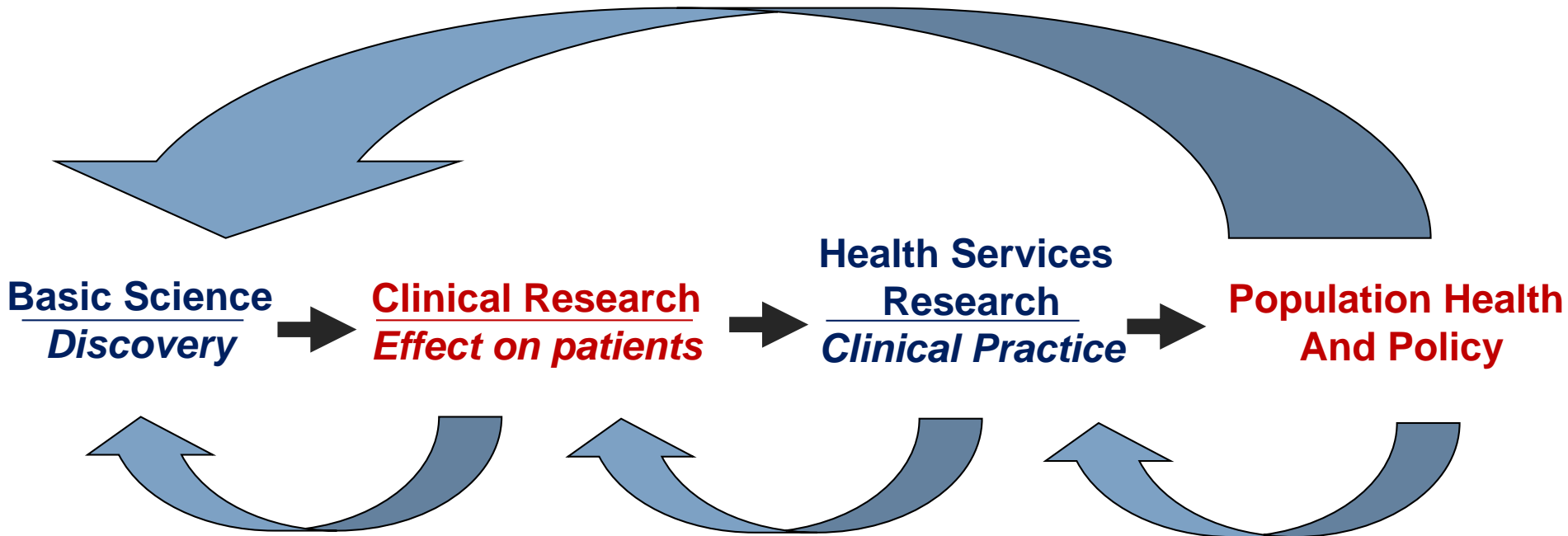
Community



THE OHIO STATE UNIVERSITY

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TRANSLATIONAL SCIENCE

Challenges Facing Clinical and Translational Research



Unique skills required for career success
Long time frame for adoption of new discoveries to improved health

Most discoveries fail to translate



Translational Science = Team Science



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The OSU CCTS Call to Action



Ultimate Objective



Translational Research Engine



CCTS Foundational Efforts



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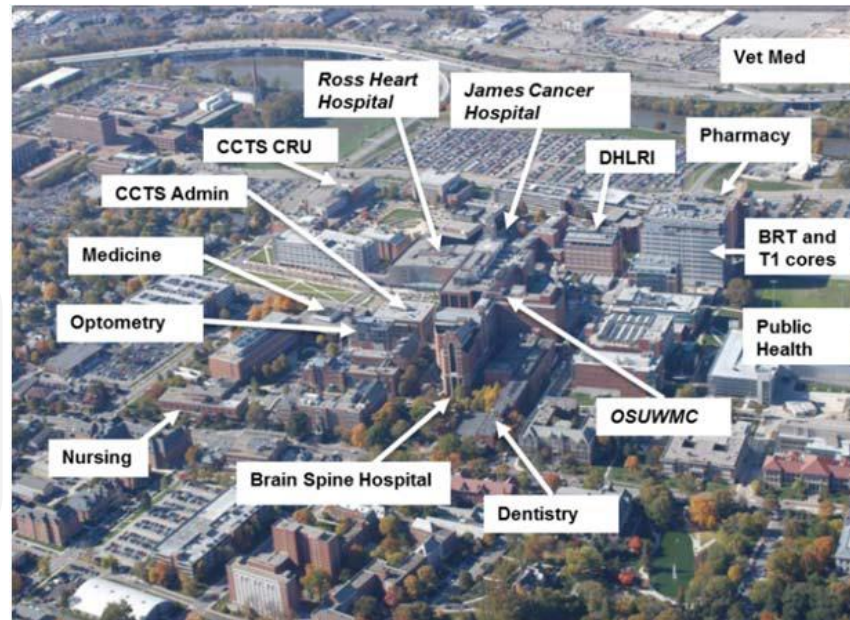
CCTS Activity in Last Year

**\$94 Million
NIH Funding to
support CCTS
since 2008**

**189 vouchers
and >200 CCTS
consults and
services for CTS**

**> 200 new
publications
since 2018**

**> 600 attendees
at workshops and
programs**



**30 teams
funded under 7
different pilot
initiatives**

**11 faculty
scholars and 7
TL1 awarded**



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Advancing New Scientific Initiatives

Convene



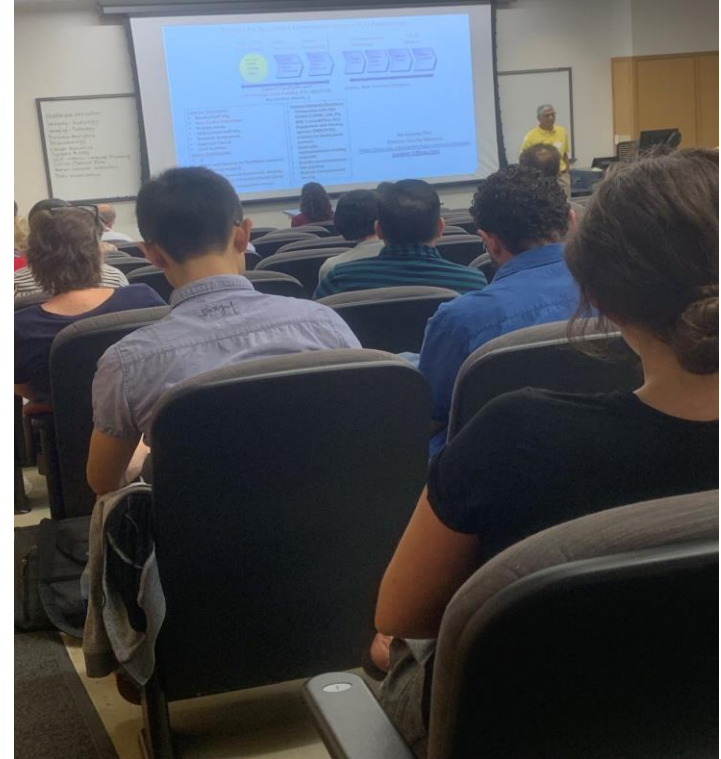
Connect



Catalyze



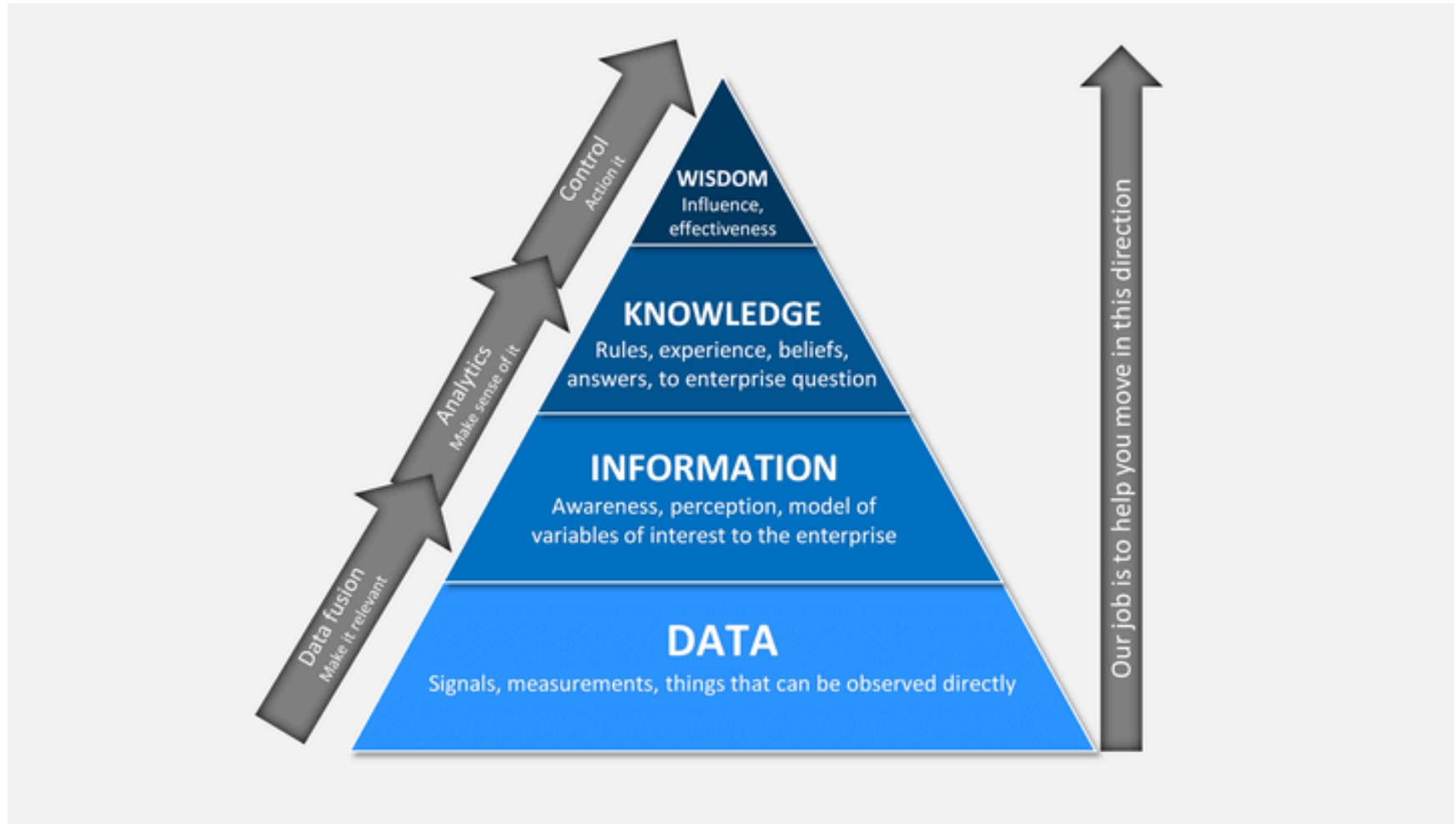
Enable



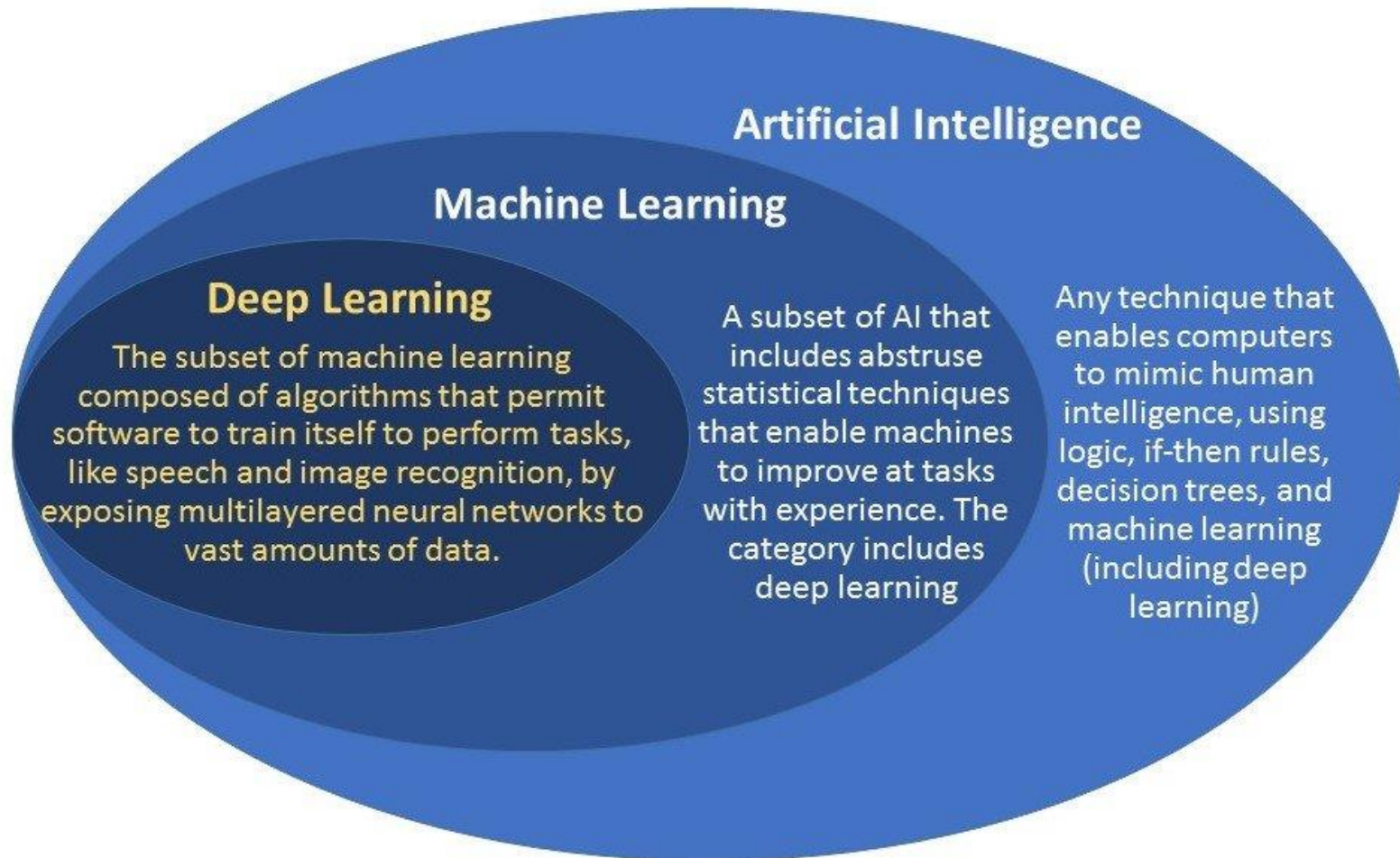
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TRANSLATIONAL SCIENCE

Generating Knowledge from Data



Artificial Intelligence and Machine Learning



Our Approach to Enhancing Application of AI and ML to Advance Translational Science

- **Convene**
 - CCTS-Office of Research-CCC AI workshops
- **Connect**
 - CCTS Annual Scientific Meeting
- **Catalyze**
 - Pilot funding initiatives and vouchers
 - Methods development
 - Address scientific hypotheses
- **Enable**
 - Expertise discovery
 - AI Toolkits
 - Increasing access to high quality shareable datasets



Overview of CCTS Meeting

- Keynote presentation
 - *Catalyzing Innovation in Translational Science*
- Plenary talks
 - *ML in monitoring mental health and performance*
 - *Genomics and phenotyping*
 - *AI and microelectronics*
 - *Ethical issues in AI*
- Oral and Poster Presentations
 - Highlights of translational science and AI-ML activities ongoing at OSU and NCH
- Facilitated table talks
 - Small group discussion around CTS topics
 - opportunity to network and collaborate



The OSU Center for Clinical and Translational Science

*“Coming together is a beginning.
Keeping together is progress.
Working together is success.”*
Henry Ford



ACCELERATING DISCOVERIES TOWARD BETTER HEALTH