Industry Affiliates Program
Clinical Excellence Research Center

Innovation to Lower the Cost of Better Health

The provision of high-quality and affordable health care persists as one of our nation's biggest challenges. Soaring costs, concerns regarding the quality of care, the weakening of health benefits, and the drain health care extracts from the American economy continue unabated.

> *"The ballooning costs of healthcare act as a hungry tapeworm on the American economy."*
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> ——————
>
> Warren Buffett, 2018

At the nexus of medicine, engineering and management, discoveries are emerging that create a generational opportunity to lower the cost of better health in the US and globally. Using the discipline of science, Stanford scholars are bridging the approaches of doctors, managers and engineers to provoke fresh thinking about industry challenges. Our research distills today's most efficient care processes, develops novel applications of systems engineering and artificial intelligence (AI), and uncovers market flaws and other barriers that impede rapid adoption of innovation. The possibilities are many, but to have the greatest impact, these discoveries will need broader collaboration and support from across the industry.

Our Industry Affiliates Program offers a unique opportunity for companies to engage in this endeavor. Companies will help to pinpoint the knowledge gaps that most greatly impede health care innovation, learn about cutting-edge discoveries to address those gaps, transfer learnings for rapid scaling, and make impactful connections with thought leaders from Stanford and from across industry.

A Laser Focus on Tangible Outcomes

Drawing from the breadth and depth of Stanford's renowned faculty, we have built a diverse team across multiple disciplines to zero in on improvement opportunities. No other university of Stanford's global standing operates teams of diversely trained scientists and graduate students with a laser focus on lowering the cost of better health. We are agnostic to potential solutions -- rather than emphasizing a specific, single approach to the challenge, our goal is to identify multiple pathways for solutions and facilitate their development and implementation.

Two Stanford research units collaboratively engage in this Industry Affiliates Program:
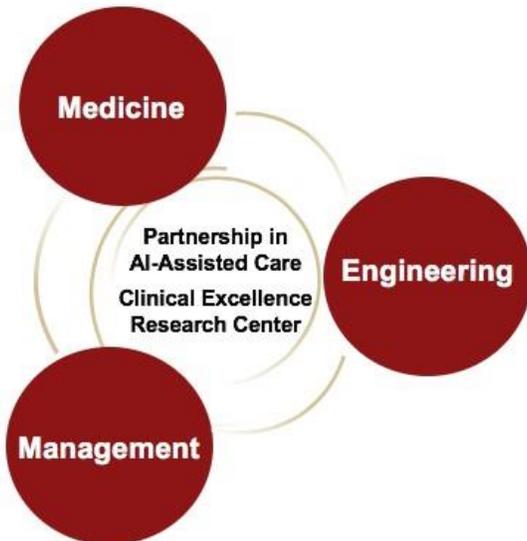
• **Partnership in AI-Assisted Care (PAC)** - a collaboration between the Schools of Medicine and Engineering focused on cutting edge computer vision and other computational methods to ensure that health-critical intended care activities are fact delivered to patients.

• **Clinical Excellence Research Center (CERC)** - focused on reducing the national burden of health care costs through investigation of the distinguishing attributes of "Bright Spots" clinical teams that considerably outperform national peers on measures of value to patients.

Seven distinguished senior faculty lead industry relationships:

- ❖ Arnold Milstein, MD, MPH, Professor of Medicine and Director of CERC
- ❖ Fei-Fei Li, PhD, Professor of Computer Science and Director of Stanford's AI Lab
- ❖ Kevin Schulman, MD, MBA, Professor of Medicine, Prof. of Economics
- ❖ Brent James, MD, Professor of Medicine, and former Executive Director of the Institute
- ❖ Nirav Shah, MD, Adjunct Professor of Medicine and former NY State Health Commissioner
- ❖ Jia Li, Adjunct Professor of Medicine and Co-Director of Partnership in AI-Assisted Care
- ❖ Jiayin Xue, MD, MPH, Adjunct Professor of Medicine

Our Research Portfolio: Tackling Big Challenges

Our research portfolio evolves over time to reflect emerging science, technology and policy. Current focus areas include:

Bright Spots Research identifies and studies the attributes of clinical teams that are able to deliver high quality care and maintain lower costs when compared to similar care organizations. Our dissemination and evaluation research teams work with organizations to adapt, adopt, scale, and quantify the effect those Bright Spots attributes have on cost and quality when applied to patient populations. Illustrative focus areas include:

Primary Care	Dementia Care Oncology	Obstetrical Care
Late Life Care	Care	High Needs/High Cost
Spine Care		

AI-Assisted Care Research draws from machine learning, computer science and human factors research to improve health and daily life, and to perfect the delivery of intended care. Illustrative focus areas include:

- Using computer vision technology to make it easier for clinicians to continuously detect and correct clinical error and omission in ICUs and other care settings
- Creating ambient intelligence in home settings to support seniors living independently
- Advancing the quality of surgical technical skill through the application of computer vision technology

Management and Innovation research extends the reach of our discoveries through the application of management science for driving value improvement

- Resolving challenges in scaling innovation
- Addressing market inefficiencies and non-competitive practices
- Improving health system operations using artificial intelligence and operations research

Industry Affiliates: Making a Difference

Industry collaboration is an integral part of Stanford's success. Our experience has shown that the most productive and innovative research at Stanford is based on multi-year relationships and close communication with industry. Through the Industry Affiliates Program, companies can help advance our mission to surface breakthrough discoveries for scaling by industry collaborators. Members work with distinguished scholars from across campus and learn from other corporate members.

Industry Affiliates Program: Accelerating Innovation and Translation

Community of Innovators Making Health Care Affordable

Academia · Health Plans · Analytics and Data Science · Health Systems · Employers · Government and Policy · Technology · Pharma and Medical Device

Stanford and industry affiliates reciprocally benefit from shared insights on challenges and solutions. Through relationships with faculty and students, members will actively engage with Stanford on a broad array of tangible discoveries suitable for industrial scaling.

Companies have an opportunity to view research as it unfolds. This is in contrast to sponsored research with its focus on predefined deliverables. Our goal is to conduct world leading research in healthcare value and innovation in an open and collaborative environment. The ability to share ideas, tools, and results openly and without barriers is essential for bilateral success.

Program Participation Information

Affiliate Benefits – Tiered Participation Levels

We offer three membership levels: Affiliate, Principal and Strategic.

Benefit	Strategic Affiliate	Principal Affiliate	Affiliate
Invitation to Annual Research Conference	✓	✓	✓
Regular updates on research results (invitations to faculty talks, fellow/student talks)	✓	✓	✓
Access to videotaped talks and webinars of faculty, students, distinguished guests	✓	✓	✓
Invitations to fellowship annual progress and final research presentations	✓	✓	✓
Opportunity to provide input on scope of research in faculty focus areas	✓	✓	
Faculty site visits to companies for presentation and discussion of research	✓ 2	✓ 1	
Educational program/workshop to catalyze change in the industry (Workshops based on timely and complex strategic industry challenges. Companies have opportunity to provide input into topics.)	✓		
	$400,000	$250,000	$75,000

Industrial affiliates programs are subject to Stanford University policies for research policies specific to industry relationships. Please see the Stanford University Research Policy website for more details. Affiliates Programs follow the rules that govern gifts. Membership benefits do not include a statement of work, deliverables, or rights to intellectual property. More directed research relationships may be arranged through sponsored research agreements.

Affiliate Membership is $80,000 per year, Principal Membership is $250,000, and Strategic Membership is $400,000. Companies are encouraged to develop multi-year relationships, with the expectation of a three- year commitment. Companies may provide additional funding above the membership fee to support an area of on-going research with faculty participating within the program. These contributions will be used to fund research projects and educational programs. In line with University policies for all industry affiliate programs, research results arising from use of supplemental funding will be disseminated for public benefit.

The membership is considered renewed automatically upon each subsequent annual payment. Membership may be terminated by written notice from either Stanford University or the company to the other.

Corporate funding is also used to support a repository of useful data sets and data analysis tools. The data sets include Stanford generated scientific data, as well as data provided by corporations. Any request for such data is managed through individual data agreements between a company and Stanford.

For further information, please contact:

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