Health care is facing significant cross-industry challenges and opportunities created by a number of factors including: the increasing need for improved access to affordable, high-quality care; growing demand from consumers for greater control of their health and health data; the shift in focus from "sick care" to prevention and health optimization; aging demographics and the increased burden of chronic conditions; and new emphasis on real-world, measurable health outcomes for individuals and populations. Moreover, the delivery of health information and services is no longer tied to traditional “brick and mortar” hospitals and clinics: it has increasingly become "Digital," enabled by apps, sensors, wearables; simultaneously, it has been augmented and often revolutionized by emerging digital and information technologies, as well as by the data that these technologies generate. This multifactorial transformation presents opportunities for innovation across the entire cycle of care, from wellness, to acute and chronic diseases, to care at the end of life.

But how does one approach innovation in digital health to address these health care challenges while ensuring the greatest chance of success? At Stanford Biodesign, we believe that innovation is a process that can be learned, practiced, and perfected; and, it starts with a need. In Biodesign for Digital Health, students will learn about digital health and the Biodesign needs-driven innovation process from over 50 industry experts. Over the course of ten weeks, these speakers join the teaching team in a dynamic classroom environment that includes lectures, panel discussions, and breakout sessions. These experts represent startups, corporations, venture capital firms, accelerators, research labs, health organizations, and more. Student teams will take actual digital and mobile health challenges and learn how to apply Biodesign innovation principles to research and evaluate needs, ideate solutions, and objectively assess them against key criteria for satisfying the needs. Teams take a hands-on approach with the support of need coaches and mentors. On the final day of class, teams present to a panel of digital health experts and compete for project extension funding. Limited enrollment, by application only. Friday section will be used for team projects and for scheduled workshops.

**IMPORTANT:**

enrollment by application only

Applications for Biodesign for Digital Health will be in two rounds.

First round of applications
- Opens: May 21;
- Closes: September 2
- Up to 28 Spots Available

Second round of applications
- Opens: September 3;
- Closes: September 23
- Up to 8 Spots Available

**APPLY ONLINE AT:**

tinyurl.com/bioe273-2018
Directors: Oliver Aalami, M.D. (Lead)
Marta Gaia Zanchi, Ph.D. (Founding)
Paul Yock, M.D. (Founding)

Units: 3 units

Day/Time: Wednesdays 3:30 – 6:20 pm
A combination of lectures, panels and breakout sessions.
Fridays 11:30 – 1:20 pm
Fridays are for independent team work (no classes) and for two scheduled 1-hr workshops:
“Intellectual property in digital health” offered by Wilmer Hale
“mHealth Regulatory Topics” offered by Decus Biomedical

Location: Wednesdays: LK101/LK102 (LKSC Studio Room)
Li Ka Shing Center for Learning and Knowledge, 291 Campus Drive, 1st Floor
Fridays: except when workshops are in session, students have open access to Biodesign Studio at the Byers Center for Biodesign for team work.

Course Reader: No textbook required. Online resources to be provided via Canvas.

Dates: The class is held each Wednesday of the Fall quarter (except during holidays) starting on September 26, 2018 and ending on December 5, 2018. Following regular class hours on December 5, a ceremony is held at Biodesign awarding the top students’ projects. All students are expected to attend a minimum of 9 class meetings and the awarding ceremony.

GOALS FOR THE COURSE
At the end of this course, students will:
- be able to ask informed questions and apply critical thinking to understand the evolving digital health industry sector;
- be able to recognize, describe and apply the needs-driven Biodesign approach to the creation of innovative concept solutions in digital health;
- have developed or refined the soft skills required to work in teams and with the support of external advisers and mentors towards achieving and presenting digital health projects outcomes.

TOPICS COVERED
Biodesign process + digital health:
- enabling technologies
- design thinking
- policy
- value
- financing
- entrepreneurship
- corporate strategies
INSTRUCTIONAL METHOD

The Biodesign for Mobile Health course is taught by a combination of faculty from Stanford University and other academic institutions as well as invited speakers from the digital health industry and entrepreneurial community. Students devote significant effort into working in teams, both under guidance by need coaches and mentors, and independently. The course provides a unique chance to gain real-world insights; to acquire or refine the soft-skills necessary to work in multidisciplinary teams and interact with outside experts; to build a relevant network of digital health enthusiasts and professionals; and, to learn about career paths in health innovation.

The typical format of a Wednesday afternoon in the classroom is (with exceptions):

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:30 – 4:20 pm</td>
<td>Lecture, Team Activity</td>
</tr>
<tr>
<td>4:30 – 5:45 pm</td>
<td>Panel Discussion</td>
</tr>
<tr>
<td>5:45 – 6:10 pm</td>
<td>Breakout Session</td>
</tr>
<tr>
<td>6:10 – 6:20 pm</td>
<td>Networking</td>
</tr>
</tbody>
</table>

Teaching methods used by the course include:
- team-based, multidisciplinary
- Biodesign process lectures
- topic panels, with digital health industry focus
- peer-to-peer learning, with team presentations
- mixed ‘flipped’ classroom model
- experiential learning, with coaches and mentors

STUDENTS RESPONSIBILITIES

Amount of Work Expected
Teams have reported up to 7-9 hours of work each week beyond classroom hours. A majority of the effort is spent researching needs, meeting need coaches and mentors, interviewing stakeholders, and ideating solutions as a team.

Absences
No more than one unexcused absence is permitted. A second absence may be permitted with: written justification by the student; and, fulfillment of a make-up assignment. Two or more unexcused absences will lead to a No CR grade.

GRADING

3 Units – CR/No CR or Letter Grade
Students may elect to attend the course for CR/No Cr or for a Letter Grade. In addition to attending classes, completing readings and participating actively in the classroom environment, students are required to complete a class project exploring a need in digital mobile health. Projects are chosen from a list of need areas, sourced by Faculty. Teams research and evaluate chosen need areas, translate them into focused need statements, ideate solutions, and objectively assess them against key criteria for satisfying the needs.
Requirements to fulfill a class project:

Registered students (before class starts):
- select one from a list of need areas;
- are matched in teams of four students to work on projects;

Teams, once formed:
- work independently and with the support of mentors and coaches;
- translate a need area into a focused need statement;
  - a first version of need statement is due Tuesday, October 9
  - a first version of need criteria is due Tuesday, October 16
- continuously iterate based on new research and insights;
  - a collaborative ‘team card’ (google doc) is updated weekly
- present and give feedback to each other during class on two separate dates;
  - Wednesday, October 24
  - Wednesday, November 14
- present to a panel of judges on Wednesday, December 5.

Grading will be based on:

15% attendance and individual participation in class.
15% project progress as measured by ‘team card’ updates each week.
15% peer evaluations: in a confidential surveys, students are asked to evaluate their teammates for dependability, effort, quality of work, attitude, and initiative.
20% one-page summary paper on the project, due Friday, November 30.
35% 10-15 slide presentation delivered on Wednesday, December 5. All team members must be present on this date. The slide deck (powerpoint or pdf) must be submitted in advance and no later than noon on Sunday, December 2.

The key criteria we are looking for in the project deliverables are (1) understanding of the need and (2) representation of the biodesign innovation process from need finding to concept. The first is paramount and involves a clearly formulated and well researched need statement. The second involves a strong process towards solution generation and selection (originality and potential for impact will be praised), with attention to opportunities for technical development (feasibility) and delivering strategies (sustainability, as can be achieved after thorough understanding of the competitive and stakeholder landscape).

By focusing on the need and how students have applied the innovation process to address it, teams will demonstrate that their solution has a reasonable likelihood of being accepted by all stakeholders. In evaluating the projects, we will place greater emphasis on evaluating the caliber of the research performed and what students have learned. High quality of content and deliverables is most important, and is always preferred over quantity with limited insight. Additional information on the final presentations and past examples of project papers and slides will be distributed in November. All deliverables should be submitted on Canvas for review by the lead Director, Marta Gaia Zanchi.

Teams who present their ideas in class on December 5 and are awarded best by a judging panel will be eligible to register for additional credit and received extension funding during the following quarter(s) through Biodesign NEXT.
COURSE MATERIALS

All course materials are found on the Canvas website, consisting mostly of information on guest speakers and real-world examples of digital health technologies. Presentation slides from the speakers who give consent will also be posted on Canvas.

CONTACT INFORMATION

Course Directors
Oliver Aalami, M.D.  aalami@stanford.edu
Marta Gaia Zanchi, Ph.D.  mgzanchi@stanfordalumni.org
Paul Gordon Yock, M.D.  Assistant: Annette Ewanich, ewanicha@stanford.edu

Teaching Assistant
Ryan Brewster  rbrewster@stanford.edu

Course Manager
Shiqin Xu  shiqinxu@stanford.edu

A course offered by:

ADVISORY BOARD MEMBERS

We acknowledge the strategic input of the generous members of our Advisory Board, who inform course Directors on relevant industry topics, advise course structure decisions and recommend key expert speakers.

Yogen Dalal, PhD  Partner Emeritus, Mayfield. Chairman and co-founder, Glooko
Mark Zdeblick, PhD  Co-Founder, Chief Technology Officer, Proteus Digital Health
Cheryl Cheng, MBA  Partner, BlueRun Ventures. Co-Founder, BrandGarage
BIOE 273 | MED 273

Asha Nayak, MD, PhD  Global Medical Director, Intel Corporation
Paul Wang, MD  Professor of Medicine and of Bioengineering, Stanford University
Michael McConnell, MD  Head, Cardiovascular Health Innovations, Verily Life Sciences

GUEST SPEAKERS AND CONTRIBUTORS

Please see in Appendix a partial list of Past Speakers / Contributors

CLASS CONTENT: FRIDAYS

Fridays 11.30 – 1:20 pm are for team projects (no classes) and two scheduled workshops.

The dates for the two workshops are:

October 19, 2018:  Workshop “Intellectual property in digital health”
William Kim, Partner & Owen Allen, Counsel | Wilmer Hale

November 2, 2018:  Workshop “Digital Health Regulatory Topics”
Grace Bartoo, General Manager | Decus Biomedical

Workshops start at 12:00 pm at typically last one hour only.

Workshops are held in Seminar Room S361, located in the seminar area on the 3rd floor of the South wing of the Clark Center, accessible by going through Peet’s Coffee.
# Class Content: Wednesdays

## Class 1  September 26, 2018  Introduction; Overview of Mobile Health

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Details</th>
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<tbody>
<tr>
<td>3.30PM-4.20PM</td>
<td>LECTURE</td>
<td>Course Overview</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Biodesign Process Overview</td>
</tr>
<tr>
<td>4.30PM-5.15PM</td>
<td>KEYNOTE</td>
<td>Digital Health Landscaping</td>
</tr>
<tr>
<td>5.15PM-5.50PM</td>
<td>PRESENTATIONS</td>
<td>Guest Presentations (examples of digital health innovations)</td>
</tr>
<tr>
<td>5.55PM-6.20PM</td>
<td>NETWORKING</td>
<td></td>
</tr>
</tbody>
</table>

**Speakers:**

**Lecture:** Course Overview, Biodesign Program Overview  
Paul Yock, Stanford Byers Center for Biodesign (Biodesign Process Overview)  
Oliver Aalami, Stanford Byers Center for Biodesign (Course Overview)

**Keynote:** Mobile Health Technology Innovation  
Opening Keynote:  
Glenn Snyder, Deloitte Medical Technology Practice Leader

**Presentations**  
Alumni Guests (All Biodesign NEXT winners and funding recipients):
- Team NuLeaf, BIOE273 2016
- Team Migraine AI, BIOE273 2017
- Team SmartAid, BIOE273 2017
- Team Lilac, BIOE273 2017
- Team VascTrac, BIOE273 2015
Class 2: October 3, 2018

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>3.30PM-4.20PM</td>
<td>LECTURE</td>
<td>Biodesign Process: Needs Finding</td>
</tr>
<tr>
<td>4.30PM-5.30PM</td>
<td>PANEL</td>
<td>Mobile Health Needs</td>
</tr>
<tr>
<td>5.45PM-6.10PM</td>
<td>BREAKOUT SESSION</td>
<td>Speakers, faculty join teams at their tables</td>
</tr>
<tr>
<td>6.10PM-6.20PM</td>
<td>NETWORKING</td>
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</tbody>
</table>

Speakers:

Lecture: Biodesign Process: Needs Finding
James Wall, Stanford Byers Center for Biodesign
Oliver Aalami, Stanford Byers Center for Biodesign

Panel: Mobile Health Needs
MODERATOR:
James Wall, Faculty, Stanford Byers Center for Biodesign

GUEST PANELISTS:
- Jacqueline Shreibati, MD, MS, FACC, Medical Director, Alivecor
- Lance Downing, MD, Medical Director, PAC Program, CERC, Stanford Health Care
- Mintu Turakhia, MD, Senior Director (Research+Innovation), Center for Digital Health, Stanford University; Chief, Cardiac EP, Palo Alto VA - Stanford University School of Medicine
- Julia Hoffman, Psy.D., National Director for Mobile Health in Mental Health Services, US Department of Veterans Affairs
- Robert Chang, MD. Assistant Professor of Ophthalmology at the Stanford University Medical Center
<table>
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<tr>
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<tbody>
<tr>
<td>3.30PM-4.20PM</td>
<td>LECTURE</td>
<td>Biodesign Process: Needs Screening and Criteria Selection</td>
</tr>
<tr>
<td>4.30PM-5.30PM</td>
<td>PANEL</td>
<td>Enabling Technologies</td>
</tr>
<tr>
<td>5.45PM-6.10PM</td>
<td>BREAKOUT SESSION</td>
<td>Speakers, faculty join teams at their tables</td>
</tr>
<tr>
<td>6.10PM-6.20PM</td>
<td>NETWORKING</td>
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</tbody>
</table>

Speakers:

**Lecture: Biodesign Process: Needs Screening and Criteria Selection**
Lyn Denend, Director of Academic Programs, Stanford Byers Center for Biodesign
Oliver Aalami, Stanford Byers Center for Biodesign

**Panel: Enabling Technologies**
MODERATOR:
Scott Barclay, Partner, DCVC
GUEST PANELISTS:
- Ryan Kramer, Product Manager, Verily Life Sciences
- Ian Shakil, CEO & Co-Founder, Augmedix, Inc.
- Michael Carchia, CTO, Tueo Health
- Pranav Rajpurkar, Stanford AI/ML PhD
- Gloria Lau, Serial Entrepreneur, Data Scientist, Alpha
- Rusty Hoffman, Co-founder, GrandRounds
- Jonathan Wilt, CTO, InnovationOchsner, Ochsner Health System, Louisiana
Class 4  October 17, 2018  Designing for Health

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Description</th>
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<tbody>
<tr>
<td>3.30PM-4.20PM</td>
<td>LECTURE TEAM ACTIVITY</td>
<td>Biodesign Process: Concept Generation and Screening</td>
</tr>
<tr>
<td>4.30PM-5.30PM</td>
<td>PANEL</td>
<td>Designing for Health</td>
</tr>
<tr>
<td>5.45PM-6.10PM</td>
<td>BREAKOUT SESSION</td>
<td>Design thinking exercise: Teams design Concepts</td>
</tr>
<tr>
<td>6.10PM-6.20PM</td>
<td>NETWORKING</td>
<td></td>
</tr>
</tbody>
</table>

Speakers:

Lecture: Concept Generation and Screening
Varun Boriah, Founder, CEO, Lully Sleep
Oliver Aalami, Stanford Byers Center for Biodesign

Panel: Designing for Health
MODERATOR:
Pablo Pantaleoni, Director, Digital Health, IDEO
GUEST PANELISTS:
- Silvia Vergani Design Director, IDEO
- Javier Garcia Palacios, Global Head, Digital Health Ventures #G4A
- Danielle Schlosser, Principal Research Scientist, Verily
- Farzad Azimpour, Chief Medical Officer, MYIA Labs & Assistant Director (Design), Stanford Biodesign

Fridays are for team projects (no classes) and two scheduled workshops.
This week’s workshop is:

October 19: Workshop "Intellectual property in digital health"
William Kim, Partner & Owen Allen, Counsel | Wilmer Hale
Location: Seminar Room S361, Clark Center
### Class 5  October 24, 2018

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Details</th>
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<tbody>
<tr>
<td>3.30PM-4.20PM</td>
<td>TEAM ACTIVITY</td>
<td>Activity: Teams Present Needs</td>
</tr>
<tr>
<td>4.30PM-5.30PM</td>
<td>PANEL</td>
<td>Policy</td>
</tr>
<tr>
<td>5.45PM-6.10PM</td>
<td>BREAKOUT SESSION</td>
<td>Speakers, faculty join teams at their tables</td>
</tr>
<tr>
<td>6.10PM-6.20PM</td>
<td>NETWORKING</td>
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</tbody>
</table>

**Speakers:**

**Lecture:** No Lecture Today (Team Activity Only)

**Panel: Policy**

**MODERATOR:**
Anil Sethi, serial entrepreneur and investor; founder, Ciitizen

**GUEST PANELISTS:**
- Deven McGraw, Former Deputy Director, Health Information Privacy for Civil Rights, U.S. Department of Health & Human Services; now CRO, Ciitizen
- [more to be announced soon]
Class 6  October 31, 2018  Value and Financing

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Description</th>
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<tbody>
<tr>
<td>3.30PM-4.20PM</td>
<td>LECTURE TEAM ACTIVITY Presenting your mHealth Story</td>
</tr>
<tr>
<td>4.30PM-5.30PM</td>
<td>PANEL Business Models and Financing</td>
</tr>
<tr>
<td>5.45PM-6.10PM</td>
<td>BREAKOUT SESSION Speakers, faculty join teams at their tables</td>
</tr>
<tr>
<td>6.10PM-6.20PM</td>
<td>NETWORKING</td>
</tr>
</tbody>
</table>

Speakers:

Lecture: Presenting your mHealth Story
Bob Kocher MD, Venrock
Oliver Aalami, Stanford Byers Center for Biodesign

Panel: Business Models and Financing
MODERATOR:
Bob Kocher MD, Venrock

GUEST PANELISTS:
- Alex Morgan, Khosla Ventures
- Bill Evans, Managing Director, Rock Health
- Karen Drexler, CEO at Sandstone Diagnostics, Founding Angels, Astia Angels
- Malinka Walaliyadde, Partner, Andreesen Horowitz
- Vineeta Agarwala, Venture Partner, Google Ventures

Fridays are for team projects (no classes) and two scheduled workshops.
This week’s workshop is:

November 2:  Workshop "Digital Health Regulatory Topics"
Grace Bartoo, General Manager | Decus Biomedical
Location: Seminar Room S361, Clark Center
Class 7  November 7, 2018

Entrepreneurship

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>3.30PM-4.20PM</td>
<td>LECTURE TEAM ACTIVITY</td>
<td>Evaluating a Business for Success</td>
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<tr>
<td>4.30PM-5.30PM</td>
<td>PANEL</td>
<td>Entrepreneurship</td>
</tr>
<tr>
<td>5.45PM-6.10PM</td>
<td>BREAKOUT SESSION</td>
<td>Speakers, faculty join teams at their tables</td>
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<tr>
<td>6.10PM-6.20PM</td>
<td>NETWORKING</td>
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</table>

Speakers:

Lecture: Evaluating a Business for Success
Jagjot (JJ) Singh, CEO, Service Associates, Lead Mentor, StartX, Angel Investor
Oliver Aalami, Stanford Byers Center for Biodesign

Panel: Entrepreneurship
MODERATOR:
[to be announced soon]

GUEST PANELISTS:
- Larry Frye, Chief Executive Officer and Founder, Healthyer
- Zoe Barry, Zapprx
- Lindsey Judson, Zapprx
- [more to be announced soon]
Class 8  November 14, 2018  Corporate Perspectives

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<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Description</th>
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<tbody>
<tr>
<td>3.30PM-4.20PM</td>
<td>TEAM ACTIVITY</td>
<td>Activity: Teams Present Concepts</td>
</tr>
<tr>
<td>4.30PM-5.30PM</td>
<td>PANEL</td>
<td>Corporate Perspectives</td>
</tr>
<tr>
<td>5.45PM-6.10PM</td>
<td>BREAKOUT SESSION</td>
<td>Speakers, faculty join teams at their tables</td>
</tr>
<tr>
<td>6.10PM-6.20PM</td>
<td>NETWORKING</td>
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</tbody>
</table>

Speakers:

Lecture: No Lecture Today (Team Activity Only)

Panel: Corporate Perspectives
MODERATOR:
Topher Sharp, CMIO  Stanford Hospital & Clinics

GUESTS
- Asha Nayak, Chief Medical Officer, Intel Corporation
- Herb Riband, Amgen / Medtronic
- [more to be announced soon]

Fridays are for team projects (no classes) and two scheduled workshops.
This week, our TA will help teams in Biodesign Studio with designing effective UI/UX and Visual Designs:

November 16:  Workshop "UI/UX and Visual Identity Workshop"
Ryan Brewster, TA Biodesign for Digital Health
Location: Biodesign Studio, Clark Center
November 21, 2018  Thanksgiving Break

Class 9  November 28, 2018  Mentor Day

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<tr>
<td>3.30PM-4.20PM</td>
<td>TEAM ACTIVITY</td>
<td>Mentor Day</td>
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<tr>
<td>4.30PM-5.50PM</td>
<td>TEAM ACTIVITY</td>
<td>Mentor Day</td>
</tr>
<tr>
<td>5.50PM-6.20PM</td>
<td>TEAM ACTIVITY</td>
<td>Mentor Day</td>
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Class 10  December 5, 2018  Final Presentations, Reception & Awards

<table>
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<tr>
<th>Time</th>
<th>Activity</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.30PM-6.00PM</td>
<td>TEAM ACTIVITY</td>
<td>Teams present a full, 10-15 slides presentation of their project to the class and a judging panel. All students must present.</td>
</tr>
<tr>
<td>6.30PM-7.45PM</td>
<td>NETWORKING</td>
<td>Winning teams are announced and awarded. Food and drinks are served in a casual atmosphere at Biodesign in Clark Center, encouraging networking among students, faculty and judges.</td>
</tr>
</tbody>
</table>

The judging panel will be announced to the students in class in November 2018.

Final presentations are held at auditorium (TBC) in the Stanford medical campus. The following reception (and announcement of the awards) is held at the Stanford Byers Center for Biodesign in Clark Center, situated a short walk from the Alway Building.
Biodesign for Mobile Health, Fall 2018

Abbreviated Calendar

Wednesdays:

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture, Team Activity</th>
<th>Panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept 26</td>
<td>Introduction, Team Formation</td>
<td>Opening (Keynote, Presentations)</td>
</tr>
<tr>
<td>Oct 3</td>
<td>Needs Finding &amp; Exploration</td>
<td>Digital Health Needs</td>
</tr>
<tr>
<td>Oct 10</td>
<td>Needs Criteria Selection</td>
<td>Enabling Technologies</td>
</tr>
<tr>
<td>Oct 17</td>
<td>Concept Generation &amp; Screening</td>
<td>Designing for Health</td>
</tr>
<tr>
<td>Oct 24</td>
<td>Activity: Teams Present Needs</td>
<td>Policy</td>
</tr>
<tr>
<td>Oct 31</td>
<td>[Title TBA]</td>
<td>Value &amp; Financing</td>
</tr>
<tr>
<td>Nov 7</td>
<td>Evaluating a Business for Success</td>
<td>Entrepreneurship</td>
</tr>
<tr>
<td>Nov 14</td>
<td>Activity: Teams Present Concepts</td>
<td>Corporate Perspectives</td>
</tr>
<tr>
<td>Nov 21</td>
<td></td>
<td>Thanksgiving Break - No Classes Today</td>
</tr>
<tr>
<td>Nov 28</td>
<td>Mentor Day: Work on Final Paper, Presentation</td>
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</tr>
<tr>
<td>Dec 5</td>
<td>Final Team Presentations followed by Reception &amp; Awards</td>
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</tr>
</tbody>
</table>

Fridays:

Fridays are for team projects (no classes) and two scheduled workshops.

The dates for the two workshops are:

**October 19:** Workshop "**Intellectual property in digital health**"
William Kim, Partner & Owen Allen, Counsel | Wilmer Hale

**November 2:** Workshop "**Digital Health Regulatory Topics**"
Grace Bartoo, General Manager | Decus Biomedical
APPENDIX:
PAST GUEST SPEAKERS AND CONTRIBUTORS

- Abby C. King, Professor of Health Research & Policy and Medicine, Director, Healthy Aging Research & Technology Solutions laboratory, SPRC, Stanford University
- Abhas Gupta, Principal, Wildcat Venture Partners
- Adam Schlifke, Health & Technology Innovator, Entrepreneur, Investor, Anesthesiologist
- Adrian Aguilera, Assistant Professor, University of California Berkeley
- Alex Tam, Head of Design, Augmedix
- Alex de Winter, Director, GE Ventures, Healthcare
- Alexander Grunewald, Digital Health Initiatives, Johnson & Johnson
- Alexander Anthony Morgan, Scientist in Residence, Khosla Ventures
- Alison Bloch, Health & Technology Strategy Independent Consultant, formerly led mHealth Programme, GSM Association’s Development Fund
- Amar Kendale, Vice President of Strategy and Market Development, mc10 Inc.
- Amish Parashar, Venture Partner, Yamaha Motor Ventures & Laboratory
- Andrei Pop, Founder, CEO, Human API
- Anil Sethi, Director, Apple Health
- Amy Tenderich, Founder & Editor, DiabetesMine
- Andrea Mason, Director of Science and Strategy, CTO at Telbios
- Andrew Atwell, Principal, Open Innovation Center, Samsung
- Andrew Broderick, Research Program Director, Public Health Institute
- Andrew Chen, CTO, Astra Zeneca
- Andrew Lee, Co-Founder, StartX MED
- Andy McGibbon, Co-Founder at Muvr Labs
- Anna de Paula Hanika, Open mHealth
- Anil Sethi, Serial Entrepreneur, Founder & CEO, Glimpse
- Anurag Mairal, Director, Global Exchange Programs, Stanford University
- Arnold Milstein, Professor of Medicine, Stanford University, Director, Stanford Clinical Excellence Research Center (CERC)
- Asha Nayak, Chief Medical Officer, Intel Corporation
- Ben Wilson, Director, Intel Global Healthcare Strategy
- Bassam Kadry, MedicineX Director of Technology Discovery, Stanford School of Medicine
- Barry Hurewitz, Partner, Wilmer Cutler Pickering Hale and Dorr LLP
- Bill Kramer, Executive Director, National Health Policy, Pacific Business Group on Health
- Bryant Lin, Clinical Assistant Professor of Medicine, Medical Director of the Consultative Medicine Clinic, Stanford University
- Cecilia Corral, Chief Design Officer, CareMessage
- Cheryl Cheng, Partner, BlueRun Ventures
- Chris Furmanski, Director of Innovation, Stanford Health Care
- Christina Claire Lane, Visiting Associate Professor, Orthopaedics, Stanford University
- Christine Nguyen, Founder, Footsteps
- Chuck Sted, (former) CEO and CFO, Hawaii Pacific Health
- Cosima Gretton, King’s Fund
- Dan Weberg, PhD, MHI, RN, Director, Nursing Innovation, Kaiser Permanente (KP) Information Technology’s Innovation & Advanced Technology Group (IAT)
- David E. Goodman, Co-Founder, FeetFirst
- David Haddad, Executive Director, Open mHealth
- David Myung, Resident Physician, Byers Eye Institute, Stanford University and Co-Founder & Chief Scientific Officer, Biomimedica, Inc.
- David Sayen, Region IX, CDR U.S. Public Health Service, Centers for Medicare Medicaid Services
David Zapol, Social Entrepreneur
Deborah Dean, MD, Founder and Executive Director, Children’s Global Health Initiative
Deborah Kilpatrick, Chief Executive Officer, Evidation Health
Dennis Boyle, Partner & Founding Member, IDEO, IDEO's Health & Wellness Business
Dianna Kane, Senior Designer, Medic Mobile
Divya Nag, Founder, StartX Med, now Special Projects, Apple
Elli Kaplan, CEO, Neurotrack
Eric Leroux, ER Resident Physician, Stanford School of Medicine
Euan Ashley, Associate Professor of Medicine, Stanford University Medical Center
Euan Thomson, Health of Digital and Data Driven Health, Samsung Strategy and Innovation Center
Dan Riskin, Chief Executive Officer, Vanguard Medical Technologies
David Hopkins, Senior Advisor, Pacific Business Group on Health
Farzad Azimpour, MD, Biodesigner + Cardiologist, IDEO
Fred Toney, Co-founder, Chief Executive Officer, Launchpad Digital Health
Grace Hwang, Health Care Lead, IDEO
Greg Sommer, Co-Founder and CEO at Sandstone Diagnostics, Inc.
Gloria Lau, Equity Partner, Data Collective
Fay Xing, Partner, Wuxi Healthcare Ventures
Geetha Rao, PhD, Vice President Strategy & Risk Management, Triple Ring Technologies
Geoffrey Clapp, Mentor/Advisor, many Healthcare and Technology Startups
George Savage, Founder, CMO, Proteus Digital Health
Grace Bartoo, President, CEO, Decus Biomedical
Greg Sommer, Co-Founder and CEO at Sandstone Diagnostics, Inc
Hilary Spindler, Sr. Data Research Analyst, UCSF Global Health Sciences
Ibrahim Sezan, Senior Director of Technology, Qualcomm
Ida Sim, Professor, Division of General Internal Medicine, UCSF; Co-Director of Biomedical Informatics, UCSF Clinical and Translational Sciences Institute
Jacob Reider, Co-Founder, RS Partners
Jacques Robert, Senior Vice President, Wealth Strategy, Destination Wealth Management
Jay Watkins, Managing Director, De Novo Ventures
Jeffrey Brewer, Founder, Bigfoot Biomedical
Jenna Tregarthen, Founder, CEO, Recovery Record
Jeremy Johnson, Head of Engineering, ginger.io
Jordan Shlain, Founder and Chairman at HealthLoop
Jorge Caballero, Founder, Care Sprint Labs
Josh Makower, General Partner, NEA
Josh Nesbit, Chief Executive Officer, Medic Mobile
Juan-Pablo Mas, Partner, Action Potential Venture Capital
Jules Sherman, Designer, Entrepreneur & Lecturer, JS Design Group
Julia Hu, Founder, CEO, Lark
Julie Black, Chief Technology Officer, Evidation Health
Julie Papanek, Principal, Canaan
James Kennedy Wall, MD, Assistant Director, Biodesign Innovation Fellowship Program
Jaspal Sandhu, Founding Partner, Gobee Group
Jagjot (J.J.) Singh, Investor, Advisor, CEO, several Digital Health companies
Jordan Shlain, Founder and Chairman, HealthLoop
Karen Drexler, CEO, Sandstone Diagnostics
Kiki D. Chang, Director, Pediatric Bipolar Disorders Program, Professor of Psychiatry and Behavioral Sciences, Stanford University Medical Center
Kyra Bobinet, MD/MPH, CEO, engagedIN,
Kunal Sethy, Director of Operations, Zephyr Health
Larry Chu, Executive Director, Stanford Medicine X, Associate Professor of Anesthesia, Stanford University School of Medicine
Lyn Denend, Director, Academic Programs at Biodesign, Stanford University
Lynne Chou, Partner, KPCB
Lucy Kalanithi, Postdoctoral Fellow, Clinical Excellence Research Center, Stanford University
M. Rami Bailony, Senior Advisor, Telemedicine, Stanford Medicine X, Hospitalist, Kaiser Permanente
Manu Prakash, Assistant Professor, Bioengineering, Stanford University
Marco Smit, Managing Director & Founder, Next Innovation Health Partners
Mary Rosenberger, Postdoctoral Fellow, Psychology, Stanford University
Mark Schwartz, General Partner, Launchpad Digital Health
Mark Zdeblick, Chief Technology Officer, Proteus Digital Health
Matthew Smuck, Chief of PM&R and Associate Professor of Orthopaedic Surgery, Stanford University, Founder and Director, Wearable Health Lab
Mike O’Reilly, MD, Vice President, Special Projects Group, Apple
Missy Krasner, Managing Director, Healthcare & Life Sciences, Box, & Special Advisor, Canvas Venture Fund
Mitchell Mom, Venture Associate, Rock Health
Mohit Kaushal MD, MBA, Partner, Aberdare Ventures, Advisor to the National Committee on Vital and Health Statistics, US Department of Health and Human Services
Monique Lambert, Medical Ethnographer, Investigator, Palo Alto Medical Foundation
Nina Kjellson, General Partner, Canaan Partners
Oliver Aalami, Vascular and Endovascular Surgeon, Stanford University
Partha Ray, Managing Director, Kalyan Medical & Board Member, Life Science Angels
Philip Sager, Consulting Professor, Stanford Cardiovascular Institute (CVI)
Phillip Olla, CEO, Mobile Diagnostics Services
Piya Sorcar, Founder, CEO, Teach Aids
Raj Bhargava, Fellow, Distinguished Careers Institute at Stanford University
Rebecca Lin, VP of Business Development, Theranova
Renee Ryan, Vice President, Investor, JJDC at Johnson & Johnson
Rebecca Coelius, (former) Director of Health and Human Services, Code for America
Rebecca Lynn, Partner, Morgenthaler Ventures, Information Technology Team
Rick Altinger, CEO, Glooko
Rick Valencia, Vice President, Qualcomm & Founder, General Manager, Qualcomm Life
Robert Chang, Assistant Professor of Ophthalmology, Stanford University Medical Center
Roger Chen, Associate, O’Reilly AlphaTech Ventures
Ryan Bloom, Founder, Factor 14
Ryan Van Wert, Founder, Vynca
Rush Bartlett, Founder, Vynca
Russell Hirsch, Managing Director, Prospect Venture Partners
Ryan Panchadsaram, (former) U.S. Deputy Chief Technology Officer, White House
Sami Hamade, Partner, Apple Tree Partners
Samir Medjebar, CEO, adScientiam
Sanjay Shah, Senior Program Officer, California Healthcare Foundation
Sarah Mummah, Product Manager & Creator of Vegetthon iPhone App, Stanford University School of Medicine
Sean Nola, (former) Distinguished Engineer & Chief Architect, Microsoft Health Solutions Group
Sonny Vu, CEO & Founder, Misfit Wearables (acquired by Fossil)
Stephanie Habif, Healthcare Design Strategist. Stanford Calming & Persuasive Labs, Habif Health
Stephanie Shorter, Neuroscientist, Behavior Designer, engagedIN
Sumbul Desai, MD, Clinical Assistant Professor, Associate Chief Medical Officer, Strategy and Innovation, Stanford Hospital and Clinic
Susan Dybbs, Managing Director & Interaction Design Practice Lead, Cooper
● S. V. Mahadevan, MD, FACEP, FAAEM, Associate Professor of Surgery/Emergency Medicine Director, Stanford Emergency Medicine International, Stanford University School of Medicine
● Thomas Goetz, co-founder, Iodine & author, "The Decision Tree: Taking Control of Your Health in the New Era of Personalized Medicine"
● Tyler Haydell, Data Insights Engineer, Flatiron Health
● Uday N. Kumar, MD, Fellowship Director, Global Biodesign Programs, Consulting Associate Professor, Bioengineering, Stanford University
● Varun Boriah, Founder, CEO, Lully Sleep
● Vineet Singal, Founder, CEO, Caremessage
● Waimei (Amy) Tai, MD, Clinical Assistant Professor, Neurology & Neurological Sciences, Clinical Excellence Research Center, Stanford University
● Yogen Dalal, Partner Emeritus, Mayfield Fund & Co-founder & Chairman, Glooko, Inc.

Information for Students with Disabilities
Students with Documented Disabilities: Students who may need an academic accommodation based on the impact of a disability must initiate the request with the Office of Accessible Education (OAE). Professional staff will evaluate the request with required documentation, recommend reasonable accommodations, and prepare an Accommodation Letter for faculty dated in the current quarter in which the request is made. Students should contact the OAE as soon as possible since timely notice is needed to coordinate accommodations. The OAE is located at 563 Salvatierra Walk (phone: 723-1066, URL: http://studentaffairs.stanford.edu/oae).