



University of California
San Francisco

Digital Hub @ Parnassus Heights

November 27, 2018
Parnassus Master Plan Steering Committee

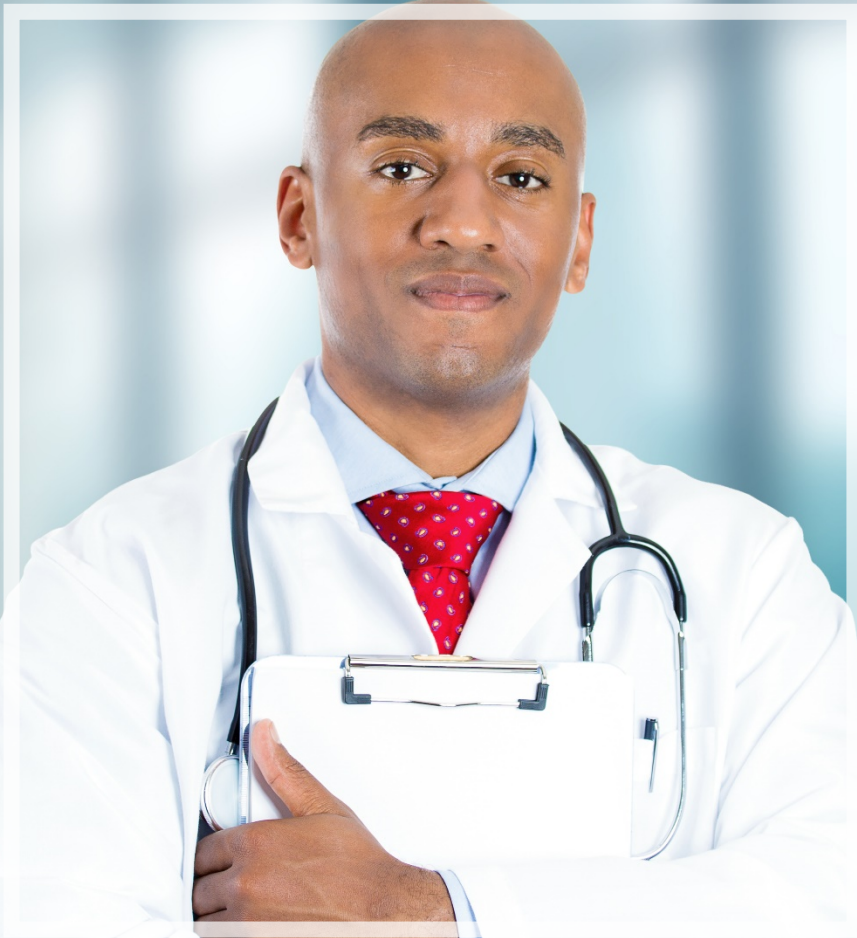
Julia Adler-Milstein, PhD
Aaron Neinstein, MD
Robert Wachter, MD



I am a: clinician at UCSF

I want to: inform a treatment decision for one of my patients by building an on-demand cohort of similar UC patients to compare.





I am a: clinician at UCSF

I want to: improve the way
our current EHR supports
medication reconciliation for
my clinic's patient population.

I am a: researcher at UCSF

I want to: build a decision support app that delivers real-time risk predictions to UCSF intensive care teams.





I am a: faculty member at Harvard doing cutting-edge robotics research

I want to: move to an institution where I can seamlessly collaborate with other digital health faculty and a health system that will allow me to test and refine my designs.

I am a: well-established
Silicon Valley technology
company

I want to: work with an
academic health center to co-
develop a breakthrough
technology that improves
population health.





I am a: start-up tech company

I want to: pilot test my new solution that improves OR scheduling and throughput.

I am a: third year Orthopedics resident at UCSF

I want to: work with UCSF digital health faculty to refine and pilot a new clinical decision support algorithm.



UCSF's early successes in Digital Health

UCSF Bakar Computational Health Sciences Institute



UCSF Health Informatics











UCSF Department of Medicine
Center for Clinical Informatics and Improvement Research

UCSF Clinical Innovation Center

UCSF Innovation Ventures

Enterprise Information & Analytics

Successes	<p>Information Commons</p> <p>UC Data Warehouse</p>	   	<p>Epic EHR</p> <p>Clinical Decision Support</p> <p>Telehealth</p>	 <p>Learning Health System Projects</p> <p>De-ID'd Data</p>	  	<p>Inside Out Accelerator</p>	<p>Catalyst Program</p> <p>Entrepren. Center</p>	<p>Clinical Data Request Process</p> <p>Ops & Clinical Dashboards</p>
Expertise	<ul style="list-style-type: none"> •Bioinformatics •Omics •Data Science 	<ul style="list-style-type: none"> •Data Science •Software Development •Clinical Informatics •Commercial Partnerships •Early-Stage Innovation 	<ul style="list-style-type: none"> •Clinical Informatics •Clinical Analytics •Operations 	<ul style="list-style-type: none"> •Clinical Research 	<ul style="list-style-type: none"> •Health Informatics Research •Health Informatics Policy 	<ul style="list-style-type: none"> •Implementation Science •Service Design 	<ul style="list-style-type: none"> •Licensing •Intellectual Property •Partnerships 	<ul style="list-style-type: none"> •Analytics •Dashboards

... and much more within Departments



Stefano Bini, MD

Department of
Orthopedic Surgery

HealthLoop



Gabby Schmajuk, MD



Jinoos Yazdany, MD

Department of Medicine

Patient Reported Outcomes
in Rheumatology

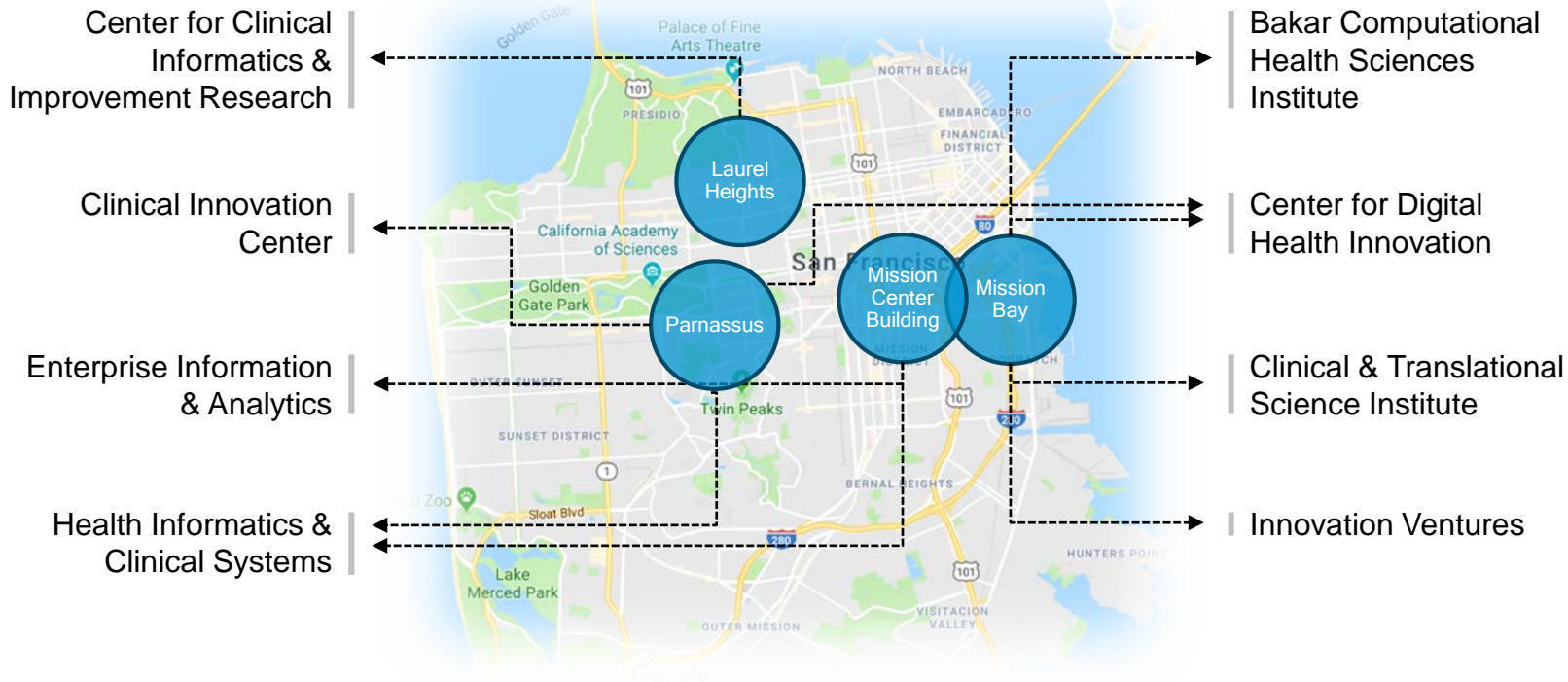


Xiao Hu, PhD

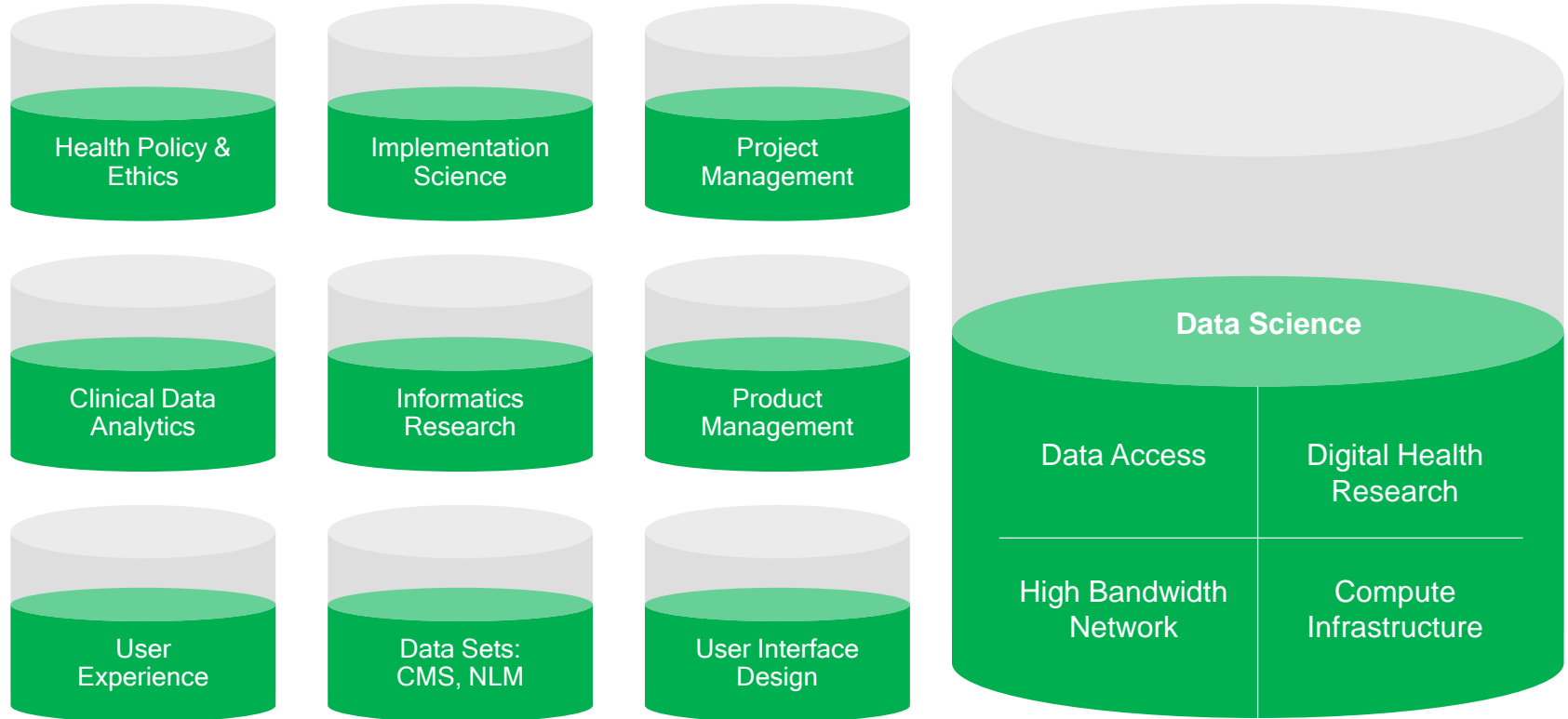
School of Nursing

SuperAlarm

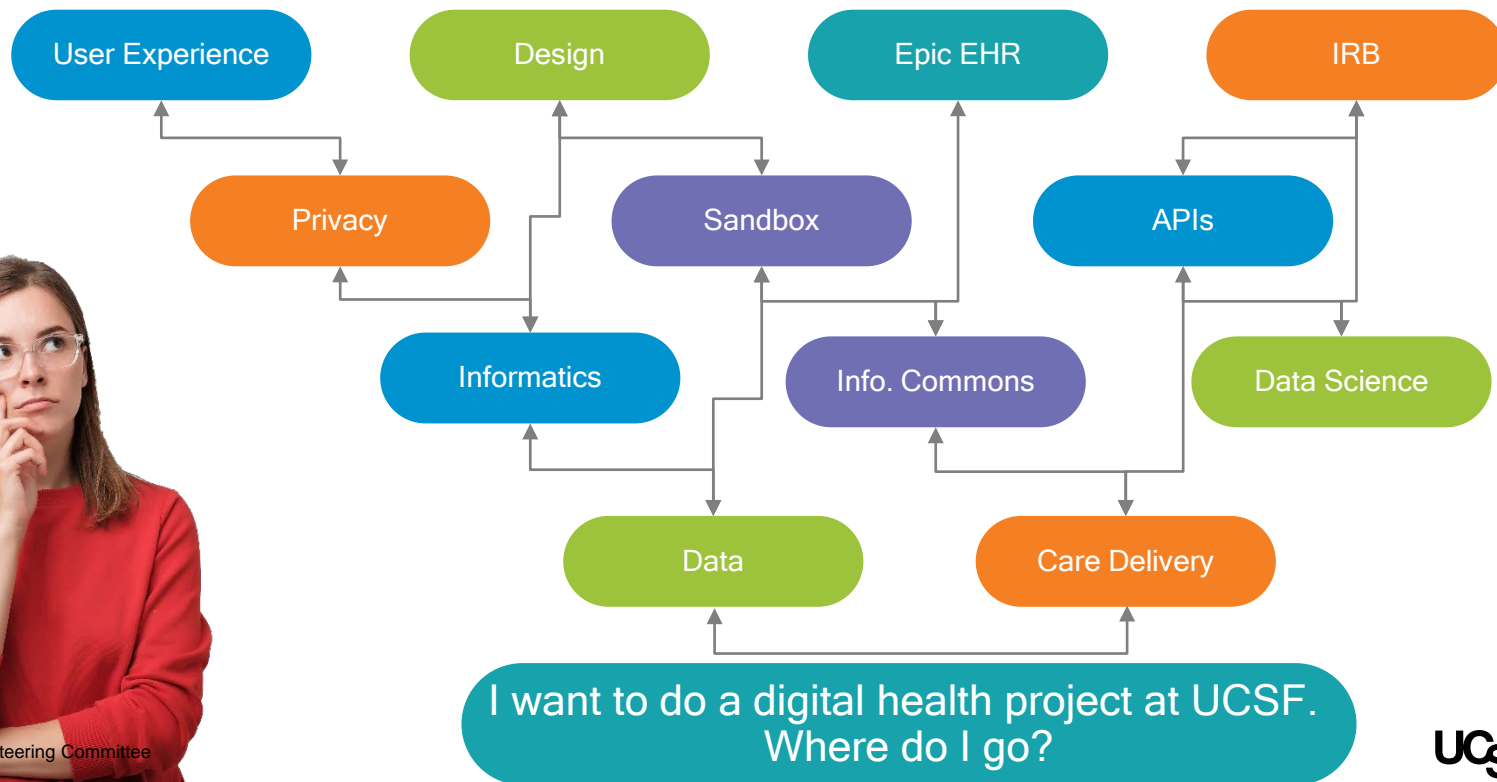
Our digital groups are geographically dispersed...



... and we have key resource gaps



... as well as poorly coordinated resources, leading to frustrated UCSF faculty and external partners



UCSF has an opportunity to be the premier university for digital...



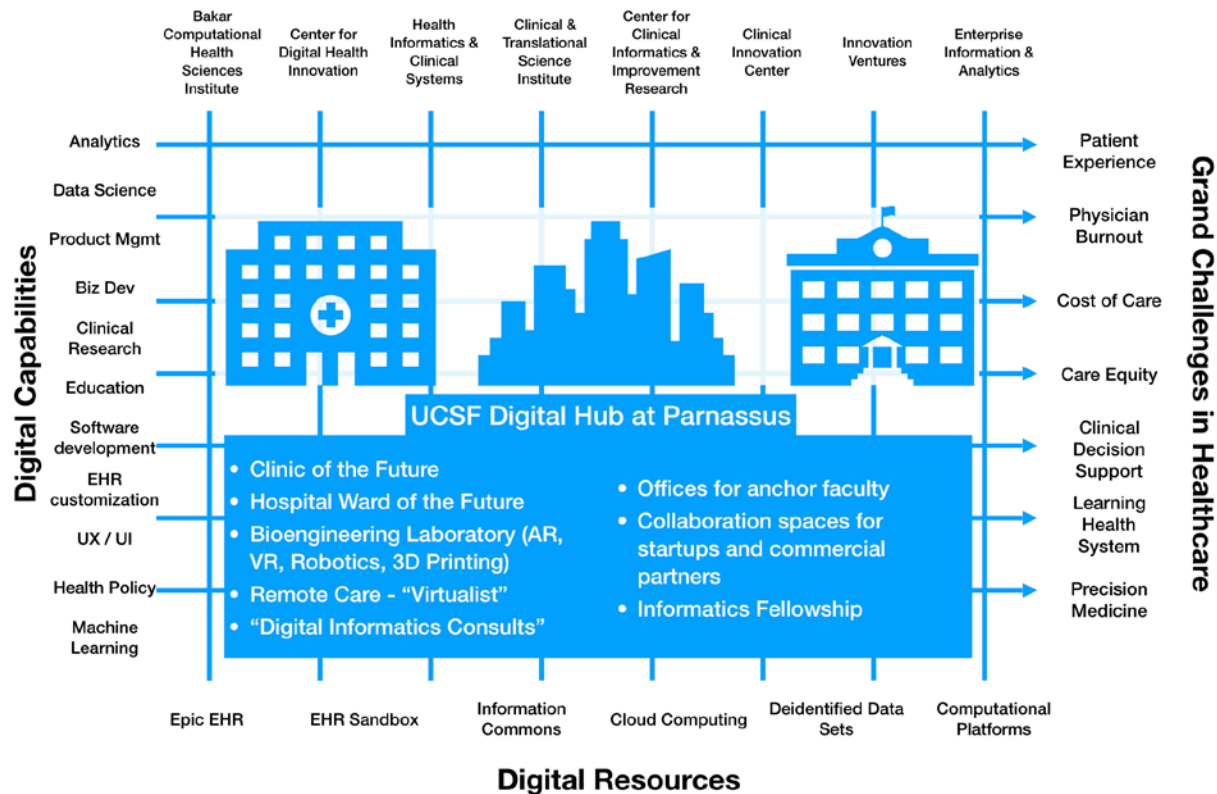
-  ... care
-  ... education
-  ... innovation
-  ... research
-  ... entrepreneurship
-  ... partnerships

Vision

To be the premier university in the world for digital, by...

streamlining Digital Health at UCSF to seamlessly support the needs of clinicians, researchers, trainees, and external partners...

UCSF Digital Hub Anchor Programs

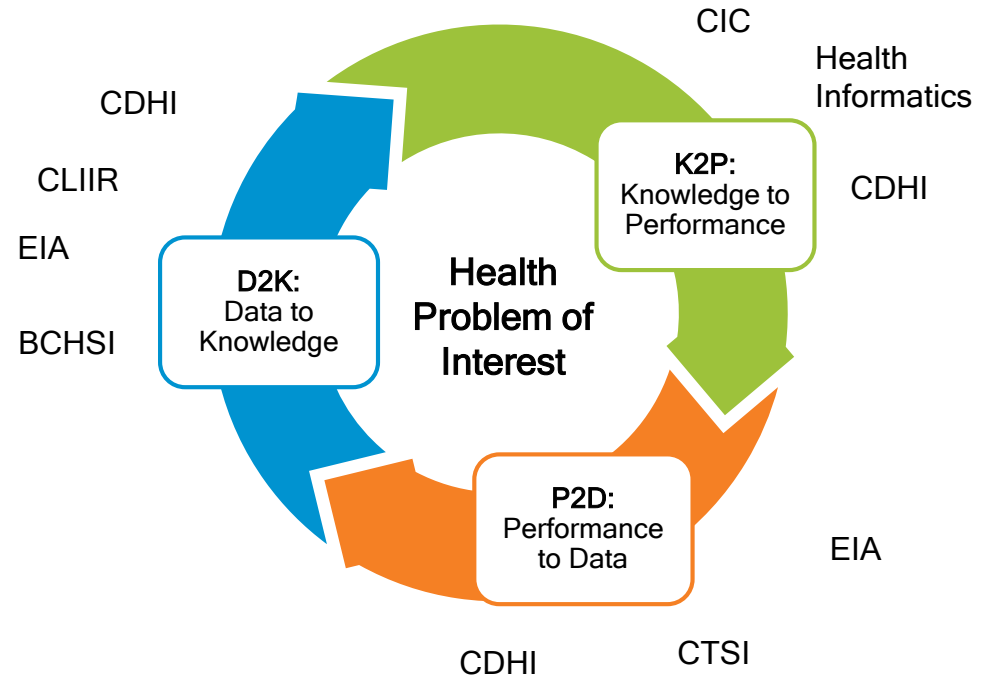


Note: BCHSI remains at Mission Bay, but will be core member of the Digital Hub and have a presence at Parnassus

Vision

... allowing current UCSF Digital Health assets to work together to deliver a true Learning Health System.

Learning Health Cycle



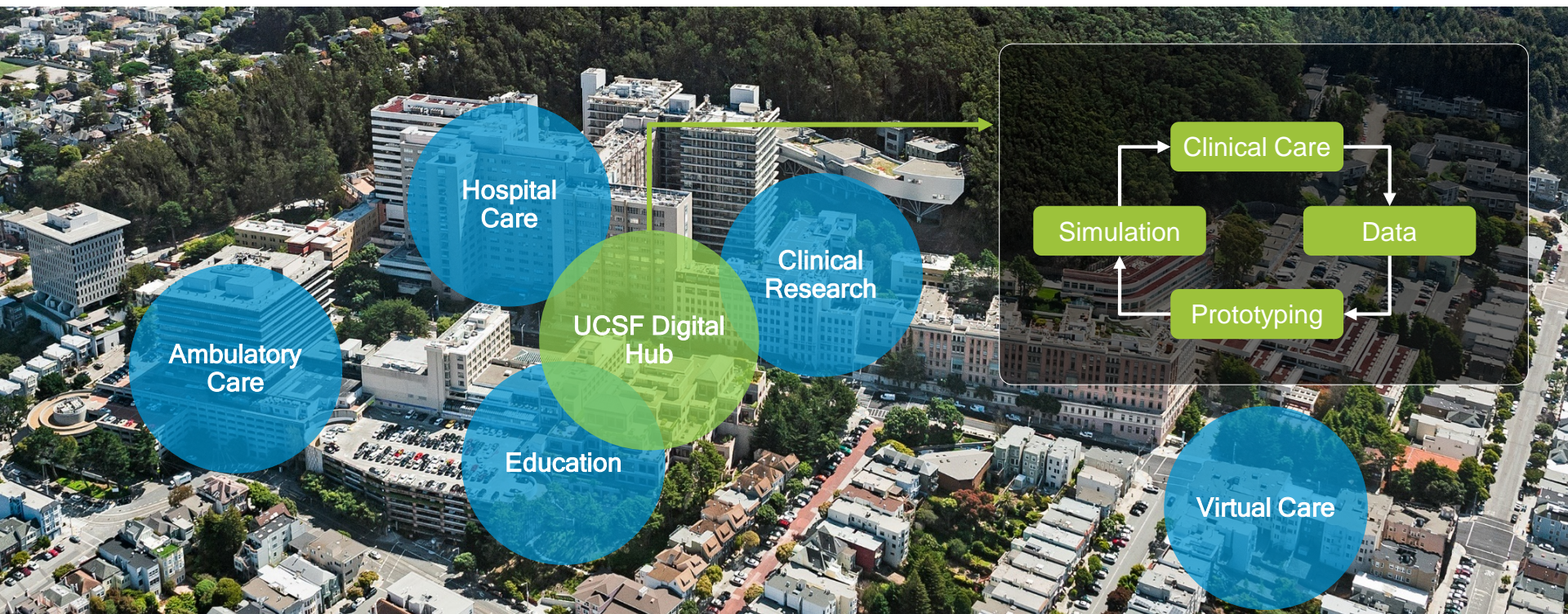
*With engagement of policy, ethics, patient engagement, disparities groups

UCSF Digital Hub: Four Core Areas



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UCSF Digital Hub belongs at Parnassus Heights



UCSF Digital Hub - Governance



- Broad representation from community of digital entities and core users (e.g. clinical departments)
- Federated model: maintain autonomy of constituent units while emphasizing cross-cutting projects, communication (between silos and externally-facing), convening, education, collaborative
- Decision Making & Authority
 - \$1-2M/yr, staff to purpose, 3-5 staff to start
 - Focused on strategic planning, space mgmt., building & managing cross-cutting projects



Unified space @
Parnassus Heights



New federated program,
strategy and governance

Appendix



University of California
San Francisco

Working Group Membership



Julia Adler-Milstein



Aaron Neinstein



Steven Bin



Stefano Bini



Rachael Callcut



David Dobbs



Xiao Hu



Carolyn Jasik



Elsbeth Kalenderian



Marc Kohli



Michael Lesh



Chandler Mayfield



Rosa Rodriguez-Monguiro



Cara Fladd



Sharon Priest

Full-Time Occupants - Current & Projected

Team	Current @ Parnassus Heights		FY20 @ Digital Hub		FY25 @ Digital Hub	
	Low	High	Low	High	Low	High
CDHI	12	17	25	50 (Increasing team size & shift staff from MB)	35	80
CLIIR	0	0	10	20		
CIC	8	10	8	10		
CTSI	0	0	5	15	5	25
Dept of Epi/Biostats						
BCHSI	0	0	1	2		
EI&A	0	0	5	15	8	20
Health Informatics	5	10	4	6		
Informatics Trainees	5	10	5	10	8	15
EIR / Incubator	0	0	2	3		
Clinical Dept people			10	15		
Totals	30	47	70	131		



Entrepreneurship & Innovation

- Collaborative Environment
 - Attract and recruit top talent
 - Strengthen synergies of existing UCSF people and assets
- One Stop Shop for Consultations: IRB, Privacy, Legal, Risk, Security, Design, UX, Product Management, EHR



Simulation & Testing

- Basic Digital Research: Utilization of large data sets with ML & AI
- Translational Digital Research: Rapid design and prototyping
- Implementation Science: Laboratory Practice. Ward of the Future. Hospital at Home
- Post-Market Digital Surveillance



Collaboration & Resources

- Data Science Resources
- Accelerator for Internal Ideas
- Entrepreneurs-in-Residence
- Co-locate with Industry Partners
 - Co-Development
 - Validation



Education & Training

- Seminars and Events
- Education: Data Science, Informatics, Design, Entrepreneurship
- Clinical Informatics Fellowship Program
- Public-Facing Digital Health “Exploratorium”