Committee Dinner Agenda

- Welcome
- Question & Answer session on the 2014 UCSF Long Range Development Plan
- Research: Vision and Need
Welcome

New Members

- Jeanne Myerson
  - SPUR
  - Cole Valley Neighbor
- Robert Ogilvie
  - SPUR
    - Inner Sunset Neighbor
- Maria Wabl
  - Inner Sunset Neighbor
Q&A on LRDP

Research: Vision and Need
RSWG Co-Chairs

Tamara Alliston, Ph.D., Professor, Department of Orthopaedic Surgery

John Fahy, M.D., M.Sc., Professor, Department of Medicine and Cardiovascular Research Institute

Meeting goal: To review the RSWG approach to discerning the amount and type of research space needed on the UCSF Parnassus Heights campus.

RSWG: Purpose and Structure

How much research space does PH need?

What kind of research space does PH need?

• Membership: Representative across schools, disciplines, basic and clinical research

• Charge: Develop guiding principles for research space at Parnassus Heights

• Approach: Data-driven, grassroots analysis of PH research space needs – space, investigators, programs

• Results: Report with guiding principles, 4 recommendations, 2 research listservs
**RSWG: Overview of Process**

1. **Meetings**
   - RSWG: monthly, March – December 2018
   - RSWG Executive Team: weekly, March – December 2018

2. **Sources of Information**
   - Research survey - Vice Chancellor of Research - Spring 2018
   - Research space data - Campus Planning, Space Management
   - Research funding data – Budget and Resource Management
   - National research space ‘benchmarks’ – Perkins Eastman, Jacobs
   - Grassroots and leadership – Stakeholder outreach and meetings

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**RSWG: What We Learned**

1) **Breadth, depth, and engagement** of the outstanding PH research community

2) Widespread, deep **frustration at gridlock and inadequate infrastructure**

3) **Urgency of need** for change for basic, quantitative, and clinical research

4) **Unified consensus** around RSWG guiding principles and recommendations
RSWG: Guiding Principles

1. World-class biomedical research campus:
   - a magnet science community
   - architecture and design that inspires innovation & discovery

2. Blend of research activities - basic, clinical, translational:
   - not dominated by any research category or program
   - each research activity represented by a critical mass of faculty

3. Research activities that are integrated with one another and:
   - UCSF Helen Diller Medical Center
   - UCSF education programs

Four RSWG Recommendations

1. Rapid, Phased, Thoughtful Expansion: Expand and transform the PH research campus to meet the urgent needs of current and future programs.

2. Programmatic: Create space conditions that rejuvenate the existing strong PH research programs while fostering growth of new programs.

3. Integrated: Create inspiring research space with adjacencies and design elements that spur connectivity, community, innovation, and celebration.

4. Inclusive: Develop and assign space using transparent and inclusive mechanisms.
## How much research space is available at PH?

558,000 ASF \(^a\) currently available

<table>
<thead>
<tr>
<th>Completed</th>
<th>Building</th>
<th>Space (ASF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1917</td>
<td>UC Hall</td>
<td>26,000</td>
</tr>
<tr>
<td>1941</td>
<td>Langley Porter (LPPI)</td>
<td>26,000</td>
</tr>
<tr>
<td>1954</td>
<td>Medical Science Building</td>
<td>117,000</td>
</tr>
<tr>
<td>1955</td>
<td>Millberry Union</td>
<td>9,000</td>
</tr>
<tr>
<td>1955</td>
<td>Moffitt Hospital</td>
<td>14,000</td>
</tr>
<tr>
<td>1956</td>
<td>Proctor Foundation</td>
<td>4,000</td>
</tr>
<tr>
<td>1964</td>
<td>HSIR East</td>
<td>130,000</td>
</tr>
<tr>
<td>1964</td>
<td>HSIR West</td>
<td>109,000</td>
</tr>
<tr>
<td>1964</td>
<td>LPPI Butler Building</td>
<td>1,000</td>
</tr>
<tr>
<td>1966</td>
<td>Surge</td>
<td>5,000</td>
</tr>
<tr>
<td>1972</td>
<td>ACC Building</td>
<td>10,000</td>
</tr>
<tr>
<td>1972</td>
<td>School of Nursing</td>
<td>19,000</td>
</tr>
<tr>
<td>1979</td>
<td>School of Dentistry</td>
<td>11,000</td>
</tr>
<tr>
<td>1982</td>
<td>Long Hospital</td>
<td>3,000</td>
</tr>
<tr>
<td>1986</td>
<td>Koret Vision Research</td>
<td>21,000</td>
</tr>
<tr>
<td>1991</td>
<td>Kalmanovitz Library</td>
<td>4,000</td>
</tr>
<tr>
<td>2005</td>
<td>PSB</td>
<td>8,000</td>
</tr>
<tr>
<td>2010</td>
<td>Dolby</td>
<td>41,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>558,000</strong></td>
</tr>
</tbody>
</table>

- Total space at PH = 1,777,000 ASF
- 31% = research space
- 10 buildings are more than 50 years old
- 20 of 28 HSE/HSW floors remodeled
- 49,000 ASF research space in last 20 years

\(^a\) Research Space includes: academic office, dry lab, wet lab, wet lab support, & Medical Center academic space = broader characterization than for ICR (only considers academic office space assigned to PI with awards).

## Parnassus Heights Investigators

- Number of PH PIs\(^a\): 427 PIs (40% of UCSF PIs)
- Academic research benchmarks suggest even faculty rank distribution.
- 55% Senior Faculty: Full Professors are overrepresented at PH
- 23% Junior Faculty: 1/3 fewer Assistant Professors at PH than MB
- PH Group Size: 25% small, 50% medium, 25% large research groups

\(^a\) PI: all PI’s of Sponsored Research Projects.
Parnassus Heights: Program

1. **Summary**
   - World leading research programs across a broad range of disciplines.

2. **Funding**
   - $309 MM in research funding (2016) - ICR/ASF similar to MB.

3. **Clinical Research**
   - large growth in clinical research in multiple departments & ORUs.
   - no concomitant growth in infrastructure for patient facing research.

4. **Bench Research**
   - vibrant basic science community in multiple departments & ORUs.
   - lack of investment in research infrastructure threatens competitiveness, faculty morale, recruitment, and retention.

5. **Quantitative Biomedical Research**
   - growing programs in data science, engineering, & imaging.
   - lack of coordination risks growth of programs.

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**PH Research Programs**

**Types of Research and Research Space**

<table>
<thead>
<tr>
<th>Types of Research</th>
<th>Types of Research Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic (40%)</td>
<td>Bench/Wet 200</td>
</tr>
<tr>
<td>Translational (21%)</td>
<td>Hybrid 150</td>
</tr>
<tr>
<td>Clinical (27%)</td>
<td>Computational 100</td>
</tr>
<tr>
<td>Population (12%)</td>
<td>Patient Facing 225</td>
</tr>
</tbody>
</table>

- Many PIs moving to MB (Block 33).
- Staying at PH: Tobacco Center, SOD, some SON.
Recommendation 1:
Expand and transform the Parnassus Heights research campus to meet the urgent needs of current and future research programs.

How much research space does PH need?

<table>
<thead>
<tr>
<th>Factor Considered</th>
<th>Values Used</th>
<th>Explanation</th>
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</thead>
<tbody>
<tr>
<td>Current PH Research ASF</td>
<td>550,000 ASF</td>
<td>• Research ASF in 2030 based on Campus Planning analysis</td>
</tr>
<tr>
<td>Current PH PIs</td>
<td>427 PIs</td>
<td>• PIs of sponsored research projects at PH.</td>
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<td>Growth over 20 Years</td>
<td>1-2%</td>
<td>• 1% Growth: 521 PIs</td>
</tr>
<tr>
<td>Group Size</td>
<td>9</td>
<td>• 2% Growth: 634 PIs</td>
</tr>
</tbody>
</table>

#### Researchers per PH PI

- 11+ 25%
- 8 to 10 30%
- 5 to 7 20%
- 1 to 4 25%

#### Direct Costs per PH PI

- >$1M 18%
- <$50K 22%
- $251K - 1M 32%
- $51K - 250K 28%
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<td>• PH-specific analysis based on funding and survey: PI+8</td>
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<tr>
<td>Modern Design</td>
<td>Core-centric: -15%</td>
<td>• 15% space efficiency for wet and clinical research space</td>
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<tr>
<th>Type of Research</th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>All Types New: Clinical</td>
<td></td>
<td>• Addresses the need for all types of research at PH.</td>
</tr>
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<tr>
<th>ASF/Investigator</th>
<th></th>
<th></th>
</tr>
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<tbody>
<tr>
<td>Core-centric Standards</td>
<td></td>
<td>• Wet: 170 ASF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Computational: 100 ASF</td>
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<td></td>
<td></td>
<td>• Consistent with national group size trends: PI+8</td>
</tr>
<tr>
<td>Modern Design</td>
<td>Core-centric: -15%</td>
<td>• 15% space efficiency for wet and clinical research space</td>
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<td>All Types New: Clinical</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>• Addresses unmet need for clinical research space</td>
</tr>
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<td>ASF/Investigator</td>
<td>Core-centric Standards</td>
<td>• Wet: 170 ASF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Hybrid: 135 ASF</td>
</tr>
<tr>
<td>Type of Research Space</td>
<td>Computationally integrated</td>
<td>• Computational: 100 ASF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Clinical: 190 ASF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Wet: 45%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Hybrid: 18%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Computational: 19%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Clinical: 18%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Plan to accommodate shift in research type over 20 years.</td>
</tr>
<tr>
<td>Core Space</td>
<td>20% Cores</td>
<td>• 20% of new ASF of non-computational space for Cores</td>
</tr>
<tr>
<td></td>
<td>15% Animals</td>
<td>• 15% of new ASF of wet research space for Animal Space</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Percentages derived from industry standards</td>
</tr>
</tbody>
</table>
How much research space is needed at PH?

<table>
<thead>
<tr>
<th>Growth in PIs</th>
<th>Group Size: 9 (PI+8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%</td>
<td>722,106 ASF</td>
</tr>
<tr>
<td>2%</td>
<td>878,724 ASF</td>
</tr>
</tbody>
</table>

Modest growth projections yield a research space calculation of 722,000 - 875,000 ASF.

*Realizing the transformative potential of PH requires that we right-size the research for growth and success.*

Recommendation 2:
Create inspiring research space with adjacencies and design elements that spur connectivity, community, innovation, and celebration.

(i) **Connectivity:** Center research space activities around Saunders Court.

(ii) **Community:** Create physical and digital connectivity, thoughtful adjacencies, and inviting, right-sized, formal and informal interaction spaces to overcome disciplinary and geographic boundaries.

(iii) **Innovation:** Co-locate programmatic research groups with critical mass in high quality space that is designed and allocated using inclusive and transparent mechanisms.

(iv) **Celebration:** Attract and inspire researchers and partners by celebrating UCSF science with art, architecture, and natural beauty.
Integration of the PH Research Enterprise
Basic Science Programs

Challenge: What are the research space needs of each critical mass of researchers?

One size does not fit all.

Disciplines: research areas with the most PH investigators that integrate all PH researchers

Topics: research areas with a critical mass of PH investigators

Integration of the PH Research Enterprise
Clinical Research Programs

Investigator led clinical research units in the Center for Innovative Medicine

Centralized Services For Clinical Research
Stewardship of Current and Future PH Needs with a Phase 1 Research Building

* A phased plan that addresses short-term needs & the long-term plan

**Current PH Stewardship:** New research space within 5 years would sustain excellence in PH research, improve faculty morale, meet urgent need for growth, and provide needed flexibility to remodel existing space in a cost-effective way

A Phase 1 Building aligns with RSWG priorities:

- **Speed:** A chance to complete a phase 1 building is needed to undertake urgently needed remodeling
- **Community:** keeps the campus heart of research at Saunders court
- **Connectivity:** build physical connections between Phase 1 and existing buildings
- **Integrated:** integrate Phase 1 plans with future Phases
Integration of the PH Research Enterprise

Integration of the PH Research Enterprise

[Diagram showing the integration of the PH Research Enterprise with labels for PHOSPH AND NEW HOSPITAL, MS, MOFFITT/LONG/NEW HOSPITAL, and KORET.]
Thank you for your consideration.

Questions?

Advisory Committee Public Meeting Agenda

- Welcome, Recap of Last Meeting, Agenda
- Researcher Spotlight
- UCSF Listening Session
- Small Group Report-Out
- Near-Term Projects Overview
- Public Comment
- Recap
- Next Steps
- Adjourn
Welcome, Recap of Last Meeting, Agenda

Recap of Last Meeting: Advisory Committee Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>What effect will the new UCSF have on the immediate neighborhood?</td>
<td>This will be studied in the Environmental Impact Report (EIR), which is slated for publication around March 2020.</td>
</tr>
<tr>
<td>Information about impacts to environment.</td>
<td></td>
</tr>
<tr>
<td>Explain the need for and history of space at Parnassus.</td>
<td>History is on the agenda for the evening. The need for space is based on anticipated space needed to accommodate the new hospital, research needs expressed by the CPHP faculty work groups, other features of the CPHP like the service corridor and Irving Street Arrival, plus associated support space. This will be more fully explained in the EIR.</td>
</tr>
<tr>
<td>Why does UCSF need to grow at Parnassus, especially in correlation to the growth at Mission Bay.</td>
<td>The two campus sites have different programmatic strengths. Parnassus is the site of UCSF’s adult care hospital and five professional degree programs with a research portfolio focused on human-centric science across basic, translational, and clinical areas, whereas Mission Bay houses women’s children’s and cancer hospitals, cancer research, and basic research. The Parnassus Heights campus is aging, and the infrastructure, buildings, and interior require significant renewal and investment. In addition, we have a seismic mandate for the hospital by 2030.</td>
</tr>
<tr>
<td>Request for operating principles for other working groups.</td>
<td>Please see handouts</td>
</tr>
</tbody>
</table>
Recap of Last Meeting: Advisory Committee Questions (cont.)

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the license capacity for the hospital</td>
<td>590</td>
</tr>
</tbody>
</table>
| What are the number of beds currently in the hospital and proposed/needed at the hospital? | Moffitt: 163 (includes 13 PPU beds)  
Long: 325  
Total: 488 –the difference between “licensed” beds and beds in use is due to rooms really being unsuitable for patient care. |
| How much of the need can be accommodated at Moffitt?                    | Moffitt Hospital was built in 1955, thus under state law, it must be decommissioned for inpatient care or retrofitted by 2030 to conform to seismic code requirements. |
| What is the profile of the patients served at UCSF?                     | Parnassus is solely focused on the care of adult patients. The inpatient profile is a mix of primary medical, surgery and emergency services provided for the local community as well as highly complex care, requiring specialized tertiary-quaternary care services. |

Advisory Committee Questions Parking Lot

- What are the transportation effects? Both operational and how UCSF discourages traffic?
  - We plan to have a more in-depth conversation about Transportation at the October 22 meeting
Osteocytes: A Common Mechanism in Bone Fragility and Joint Disease

Tamara Alliston, Ph.D.
Professor
Department of Orthopaedic Surgery
University of California, San Francisco

Karsyn Bailey
MD/PhD Student
UC Berkeley/UCSF Graduate Program in Bioengineering
Osteocytes
Osteocytes: A Common Mechanism in Bone Fragility and Joint Disease

Mazur, Woo, et al. BioRxiv # 5347
**Osteocytes: A Common Mechanism in Bone Fragility and Joint Disease**

1. Aging
2. Bone Fragility
3. Joint Disease

And others yet to be discovered, such as...
- Diabetes?
- Obesity?
- Alzheimers Disease?

*Drugs that control osteocytes present new therapeutic opportunities to treat skeletal disease and improve healthspan.*
Proposed Change to Space Ceiling Approach

- UCSF’s 2014 Long Range Development Plan (LRDP) anticipated addressing the existing space ceiling overage by:
  - Demolishing buildings and reducing the amount of research and other space at Parnassus Heights
  - Converting UC Hall and the Millberry Union towers to housing (the 2014 LRDP amended the space ceiling calculation to exclude all residential space)
  - Constructing a new hospital to replace inpatient functions currently in Moffitt
- The Comprehensive Parnassus Heights Plan (CPHP) proposes to increase the space ceiling limit by approximately 40% to:
  - Construct a new hospital that is larger than anticipated in the 2014 LRDP
  - Increase the amount of research space at Parnassus Heights
  - While residential space does not count towards the space ceiling, the CPHP also proposes to develop more housing than proposed in the 2014 LRDP
What is Not Proposed to Change

- UCSF’s Commitment to:
  - Maintain Mount Sutro as permanent open space
  - Not expand the campus boundaries
  - Not lease private residential property anywhere within the area bounded by Golden Gate Park, Oak Street, Ninth Avenue, Clayton Street, and Clarendon Avenue
  - Maintain the Third and Fifth Avenue edges of the campus consistent with the Housing functional zone, to serve as a transition to the adjacent residential neighborhood
  - Address UCSF traffic by enhancing Transportation Demand Management (TDM) programs
Initial Project Sequence Overview

Goals for the Initial Project Sequence

- Enables construction of a larger new UCSF Helen Diller Medical Center at Parnassus Heights
- Generates enthusiasm and momentum
- Supports research and academic community
- Improves patient and visitor experience
- Provides the “empty chair” to enable renovation of existing space
- Improves access to the campus
- Maintains long-term flexibility, while moving towards overall vision

Implementation of the initial project sequence would follow completion of an Environmental Impact Report and amendment of UCSF’s Long Range Development Plan.
Near-term projects are intended to support the research priority, the new hospital, and benefit the community.

NEAR TERM (2030)

A. Irving Street Arrival improvements: new garage facades on Irving Street, enhanced arrival experience, improved wayfinding

B. New Hospital, including consideration of bridge and/or tunnel over/under Parnassus Avenue

C. New Research and Academic Building to replace UC Hall

D. Aldea Housing improvements to increase number of units

• Parnassus Avenue Streetscape Improvements adjacent to near-term projects
Irving Street Arrival Improvements

Provide a more attractive, intuitive, and efficient entry experience from Irving Street to Parnassus Avenue

- New garage facades on Irving Street
- Streetscape improvements
- Enhanced mobility amenities
- Improved wayfinding
- “Unified Lobby” including:
  - Atrium, natural light
  - Central reception, seating, and gathering
  - Convenience retail

New Hospital at the Helen Diller Medical Center

- Mission critical for UCSF Health
- Addresses marketplace competition
- Responds to record high demand for services
- Improves recruitment and retention of providers, researchers and staff
- Achieves modernization and patient satisfaction goals
- Addresses seismic safety requirements
New Research and Academic Building (RAB)

- The RAB would provide new research space recommended by the Research Space Working Group and “empty chair” space to help decompress, decant, and renovate other space.

- The RAB will allow the first increments of the promenade and new Fourth Avenue to be constructed.

- Building program, adjacency requirements, construction logistics, and utility/infrastructure needs will examined in a Validation Study currently underway.

Aldea Housing Improvements

- Redevelop the Aldea housing complex with taller buildings in a denser layout

- Prioritize buildings with significant deferred maintenance needs

- Analyze and limit traffic impacts

- Consider new child care facility at 50 Johnstone

- Increases from 172 units today to up to 504 units
Next Steps

Next meeting date
   Tuesday, October 22
   Millberry Union
- Topics
  ▪ Mobility and transportation
  ▪ Q&A on Comprehensive Parnassus Heights Plan