



University of California
San Francisco

Parnassus Research Space Task Force

Final Report

10/28/2021



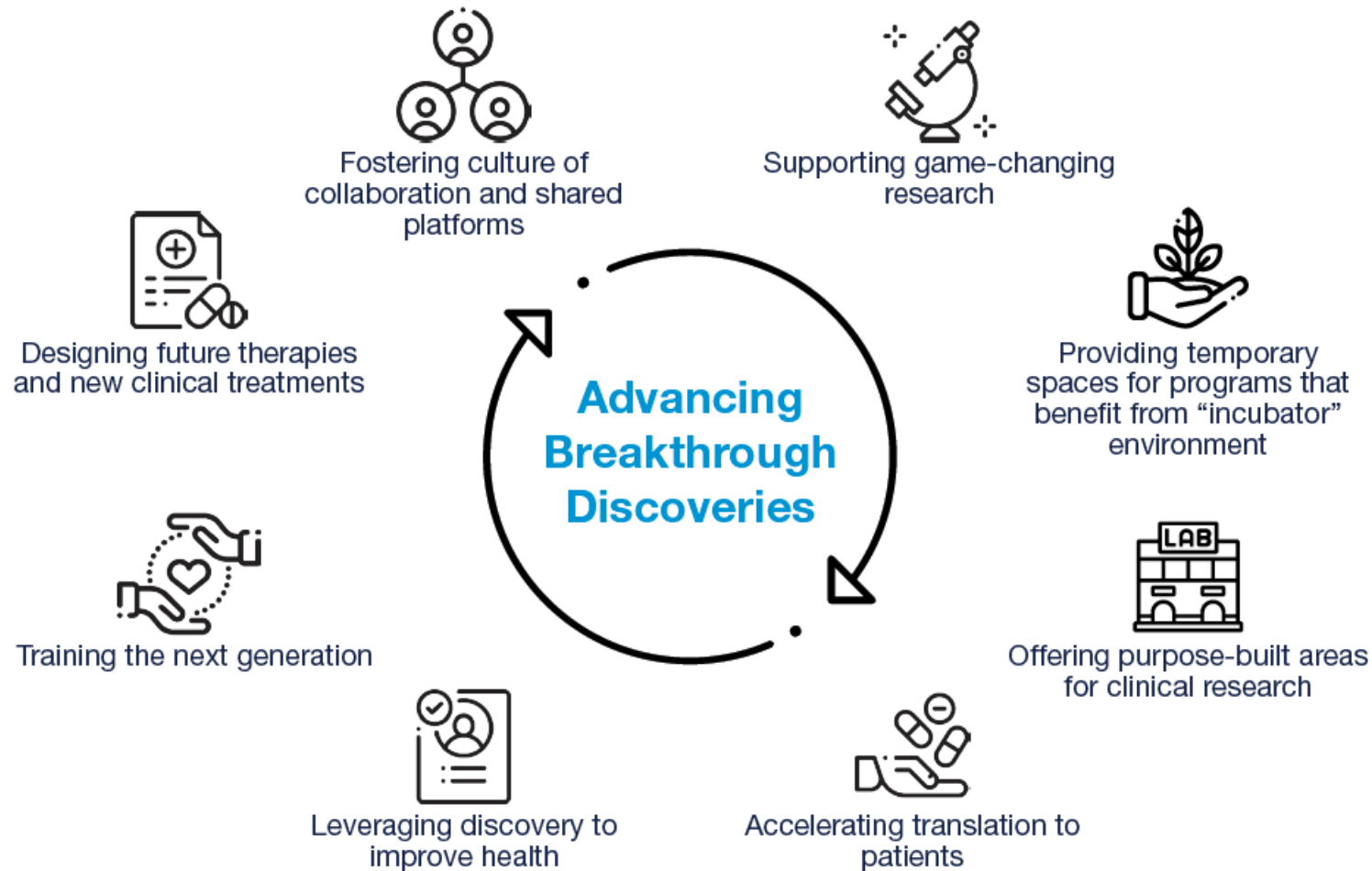
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Introduction: Vision and Recommendations

Vision: Rejuvenated Parnassus Space for a Thriving UCSF Research Community



Executive Summary

Vision: Rejuvenated Space for a Thriving Research Community

A programmatic approach to research space at Parnassus Heights (PH) advances **two primary goals**:

- 1. Transformative opportunity for breakthrough discovery**
- 2. Rejuvenation of the research infrastructure throughout the entire UCSF PH campus**

Through the combined application of outreach and dialogue, data analysis, and deliberation as we completed our charges, this Task Force, like its predecessors, found **broad support for programmatic research** in all schools across the spectrum of research from clinical, computational, and laboratory-based investigators. While this work was PH-centric, the findings complement and **integrate with the research enterprise across the many UCSF campuses**.

To create the **macroenvironment needed for successful implementation** of this programmatic research vision and the rejuvenation of PH research space, this Task Force provides the following recommendations, which are detailed throughout the rest of this report.

Recommendations

1. Ensure the creation and maintenance of a vibrant research enterprise at Parnassus by:

- a. Organizing Parnassus research programmatically, with an **integrated continuum of investigators and resources** for computational, clinical, and laboratory-based research, throughout four Discovery Themes.
- b. Physically connecting new and existing PH research space with **contiguous research arteries**.
- c. Making **informed programming decisions** using data and resources developed by this Task Force.
- d. Changing **governance policy** for programmatic space organization balanced with departmental vision and needs.

2. Meet the urgent need for high quality research space throughout the PH campus by:

- a. Seeking and **using near-term opportunities** to rejuvenate PH research space prior to 2026.
- b. **Maximizing the usable life of MSB** by seismic study, strategic colocation, and renovation for non-wet lab functions.
- c. Preparing for **cost-effective and efficient remodeling** of 3 HS Tower floor ‘triads’ to begin in 2026
- d. Using PRAB swing space to **incubate programs** during necessary remodeling.

3. Address the urgent need for 75K clinical research space by:

- a. Adopting a **phased solution**, beginning now with newly liberated space followed by purpose-built space in PRAB.
- b. Locating **purpose-built clinical research space throughout the campus** according to clinical intensity and participant access.
- c. Incorporating relevant **shared clinical research resources** (e.g., research units, CoLabs).

Snapshot: Task Force June 2021 Recommendations to Space Committee

In June 2021, the Task Force made the below recommendations to the Space Committee. To learn more about these first-round recommendations, view the [presentation deck](#) and read the [Space Committee response](#).

1. **Discovery Theme Identities**
2. **PRAB Programs**

Recommendations **endorsed** by the Space Committee

3. **Macroenvironment needed for Implementation of Recommendations**

- Space Governance
- Remodeling of Existing Research Space
- Physical Connectivity
- Clinical Research Space

Space Committee Response:

“The committee agreed the four areas identified [here] are high priorities for the Space Committee and will continue to be topics to discuss and identify solutions.”

Work Products and Recommendations

The Task Force sought to fulfill their charge in a way that was both **data-informed** and **community-minded**. The result of this two-pronged approach is a **robust set of programming recommendations** the Task Force is confident in and a solid set of **resources** to help bring the recommendations to fruition.

These **resources** have been designed to help Campus Planning and others involved in the next level of Parnassus programming work create and sustain a **vibrant, forward-looking research community** at Parnassus Heights. Not only are the resources included in the final section of this report, but so too is information about how and when to make use of them in future programming processes.

Part I: Task Force Background, Membership, and Charge

Background

In February 2021, EVCP Dan Lowenstein charged the **Parnassus Research Programming Task Force** with mapping research programs at Parnassus, building on the recommendations of the Parnassus Research Space Programming Task Force and the Research Space Working Group.



2021 ***Parnassus Research Programming Task Force***

Identify Parnassus research programs, define Discovery Themes and their locations, and map programs into each Discovery Theme.



2019-2020 ***Parnassus Research Space Programming Task Force***

Organize research by programmatic Discovery Themes and investigator Identity, centered around an Integrative Science Hub in new and remodeled space.

[Task Force Final Report](#)



2018-19 ***Research Space Working Group (RSWG)***

Immediately expand and transform the Parnassus Heights research campus to meet the urgent needs of current and future research programs.

[RSWG Final Report](#)

Task Force Charge

- a. Validate and resolve gaps in the list of existing and planned research programs at Parnassus, originally identified by the Parnassus Research Space Working Group in 2020.
- b. Assess the projected growth needs of existing and planned research programs based on existing and promised space allocations.
- c. Define the identity of the 4 “Discovery Themes” with anchor themes/programs as conceptualized by the Parnassus Research Space Programming Task Force. The definitions were provided to the UCSF Space Committee in May 2021 to meet PRAB space programming requirements.
- d. Map location of research programs across Discovery Themes at Parnassus over the next decade, including space in the new PRAB; released space in HSE, HSW, MSB and Koret associated with opening of the PRAB; and any other unoccupied or unassigned space.
- e. If applicable, make recommendations on possible moves of research programs between Parnassus and Mission Bay.
- f. Communicate recommendations to the appropriate audiences
- g. Inform the visioning of the PRAB design by participation in the Visioning Workshops. (February 2021)

Parnassus Research Programming 2021 Task Force

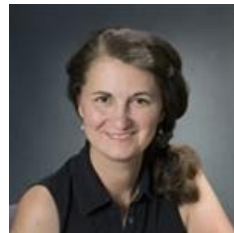
Membership



Tamara Alliston, Chair



Mark Ansel



Fran Aweeka



Harold Collard



Jayanta Debnath



David Erle



Lawrence Fong



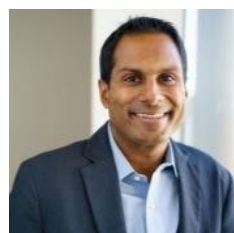
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Julene Johnson



Sarah Knox



Suneil Koliwad



Diana Laird



Patti Mitchell



David Morgan



Terri O'Brien



Rushika Perera



Saul Villeda



Alicia Murasaki
(ex officio)



Dan Lowenstein
(ex officio)



Sharon Priest (staff)



Jill Goldsmith (staff)



Sarah Fidelibus (staff)

Part II: Approach

- Operating Principles
- Data Collection
- Communication and Outreach

Operating Principles

The Task Force developed the following Operating Principles to guide their work:

Embrace a broad scope that encompasses all PH research space in all schools – not just the PRAB.

- Clinical Research
- Community and Population Health Research
- Basic Research

Prioritize an integrated PH research campus, with built-in physical and scientific connectivity.

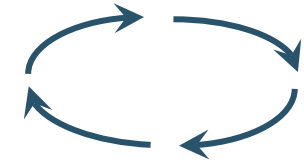
- Physical connectivity across entire campus
- Discovery Themes
- Interfaces

Centralize spaces for shared resources to support research and foster collaboration.

- Core resources for clinical, computational, and laboratory research
- CoLabs

Embrace a vision that is both ambitious and achievable.

- Learn from Mission Bay experience
- Consider practical issues – proximities, remodeling, chemical loading
- Retain robust research communities



Several Sources of Information Guided Recommendations

Different approaches, each imperfect on its own, yielded similar conclusions, which reinforced the validity of the Task Force recommendations.

Task Force Deliberation

20 Task Force Meetings
Meetings of 5 Subgroups

Space, Program & Affiliation Data

62 Research Programs
551 Faculty
979 Affiliations

Listening Sessions Town Halls Survey Data

57 Listening Sessions
200+ Town Hall Participants

Task Force Perspective

21 Members
All Schools

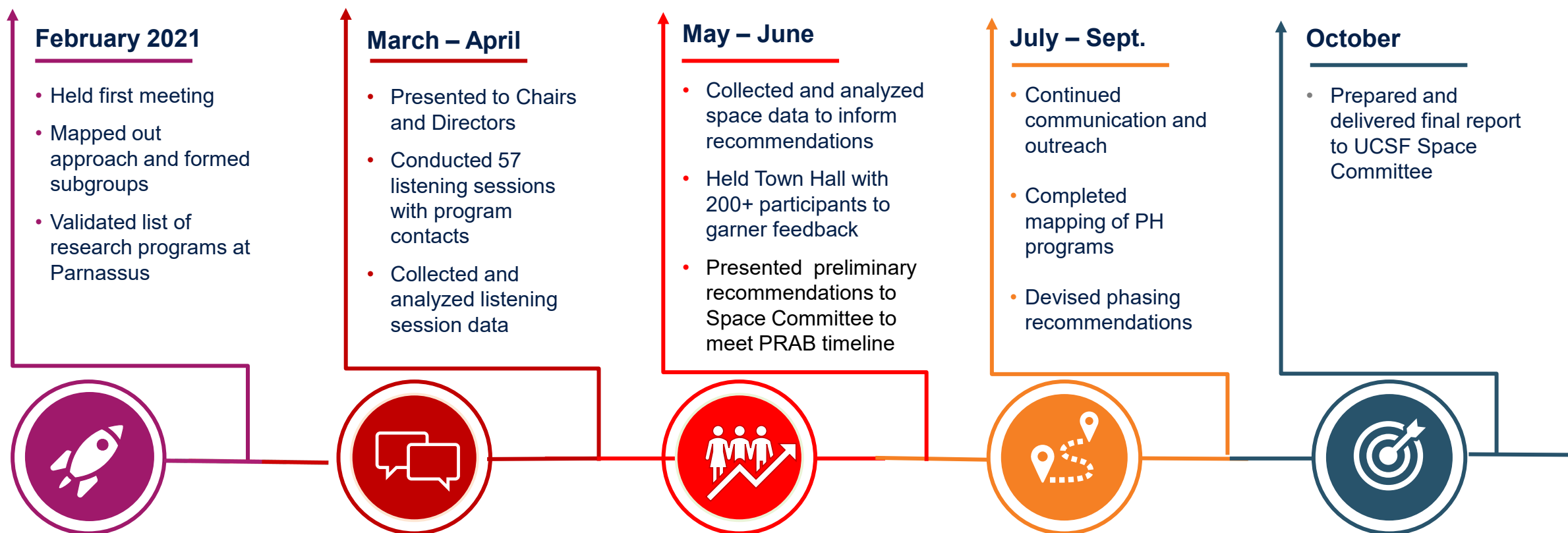
Dialogue, Narrative, & Outreach

Including: Academic Senate
Basic Science Chairs, PHCRAG
SOD, SOM, SON, SOP
Chairs, Directors, & Junior Faculty

Task Force Recommendations

Task Force Timeline and Process

The Parnassus Research Programming Task Force fulfilled their task by **gathering and analyzing data** to help inform their recommendations. They also applied a **community-minded approach** using the data gathered to make recommendations that would support a vibrant research community at Parnassus Heights. The timeline below provides a high-level overview of their process.



Communications and Outreach

To fulfill its charge of mapping the location of research programs at Parnassus over the next decade, the Task Force conducted **57 listening sessions with program leads** to understand:

- Program needs and preferences for co-location of member investigators
- Desired adjacency with other programs, and
- Proximity to shared resources and facilities.

In addition, the Task Force solicited and collected feedback from the community via the parnassusresearch@ucsf.edu email account, which was managed by the Communications team.

Analysis of the listening session data informed the designation of four Discovery Themes that describe and provide a physical center of gravity for integrated multidisciplinary research communities.

The Task Force presented the **organizing principles of the Discovery Themes** at the [Parnassus Research Programming Town Hall in June](#), which allowed attendees and viewers the opportunity to react to the organizing principles and the draft program recommendations for Discovery Theme C, which will be located in the PRAB (see poll results on following page).

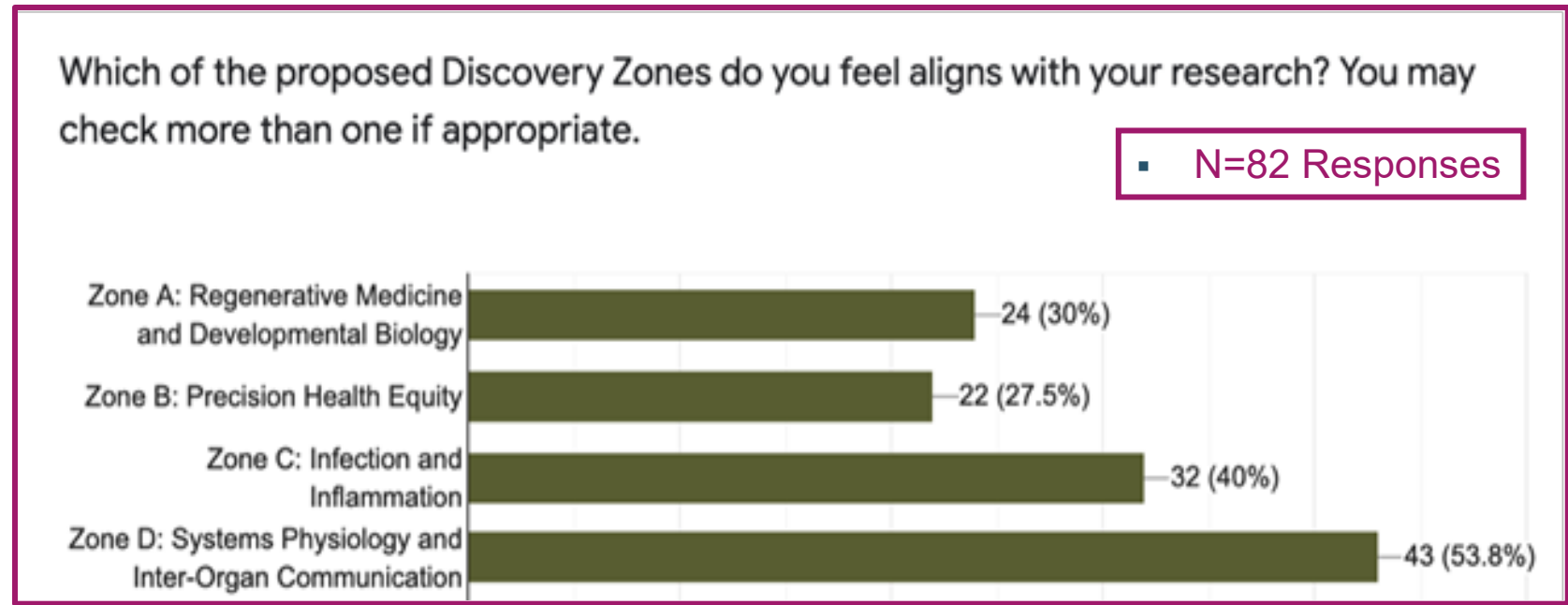
Following feedback from the Town Hall, the Task Force presented preliminary recommendations including the Discovery Themes and anchor programs for the PRAB to the Space Committee in mid-June.

Questions asked in listening sessions:

- With what other programs are you closely aligned such that co-location or adjacency is important?
- Would it be a big advantage for your program to be all in one place or would it be fine or even better to be distributed?
- What collaborative resources or cores would you like to be near?
- What clinical resources would you like to be near?

Communications: Town Hall Poll Results

- 71 Town Hall attendees submitted a total of 82 responses (multiple responses were welcomed if people have more than one basic science or clinical program affiliation).
- Affinity of respondents was distributed evenly across all four Discovery Themes (although the option to indicate a lack of affinity to any of the four Themes was not available). Most respondents (79%) selected only one Theme.



- This survey revealed a strong correspondence between programmatic assignments to Discovery Themes and sentiment of respondents, as 96% (68/71) indicated that they felt an affinity with the Discovery Theme that matched with the designation made by our Task Force.
- The survey also provided an opportunity for respondents to help complete the census of programs by filling in affiliations that were not in our original list. Six additional programs or alternative names for known programs were added.

Part III: Fulfilling Charges A, B, and C

- Gathering and analyzing relevant data
- Defining the identity of the four Discovery Themes

Charges A, B, and C Informed Recommendation #1

At the outset of this report, the Task Force outlined three Recommendations, the first of which is:

Recommendation #1: Ensure the creation and maintenance of a vibrant research enterprise at Parnassus by:

- a. Organizing Parnassus research programmatically, with an **integrated continuum of investigators and resources** for computational, clinical, and laboratory-based research, throughout four Discovery Themes.
- b. Physically connecting new and existing research space throughout the PH campus with one or more **contiguous research arteries** containing shared core resources for all types of research, CoLabs, and interaction space.
- c. Making **informed programming decisions** using data and resources developed by this Task Force.
- d. Changing **governance policy** for flexible and transparent programmatic space organization balanced with departmental vision, space investments, and management infrastructure.

The Task Force arrived at this recommendation via [extensive data collection and analysis](#), work they performed in fulfillment of Charges A, B, and C, which is captured in the following slides.

Charge A: Validate and resolve gaps in the list of existing and planned research programs at Parnassus.



- To fulfil Charge A, the Task Force developed a list of [62 Parnassus Research Programs](#).
- Programs were identified based on RSWG Clinical and Basic List-serves and additional meetings between Task Force members and department chairs, division chiefs and leadership across all schools. This list was the basis for subsequent Task Force outreach and Discovery Theme Program placement.
- The Task Force held one-on-one listening sessions with 57 programs through their identified contacts. Program contacts received questions in advance so that they could gather input from affiliated faculty.
- Chairs were charged with gathering feedback from department members and reporting back to the Task Force.

Charge B: Assess projected growth needs of existing and planned research programs.



- Gathered and updated existing data on current, planned, and promised space allocations.
- Developed [Estimated ASF per Parnassus Research Program](#) using Archibus and [Investigator Affiliation data](#) collected by the 2019-2020 Parnassus Research Space Programming Task Force
- Created [resources](#), including Archibus-based analytical tools, to aid future work by Space Committees and Real Estate.
- With additional refinement*, these data and resources will be valuable for future groups to make informed and transparent research space programming decisions.
- Approximate space representations in this report derive from:
 - 1) Estimated ASF per Parnassus Research Program
 - 2) Estimated ASF per research group (average group size of 9 people)**

ASF/Investigator - Core-centric Design

• Wet:	170 ASF/investigator
• Hybrid:	135 ASF/investigator
• Computational:	100 ASF/investigator
• Clinical:	190 ASF/investigator

*See challenges as outlined in [RSWG Report](#), page 30.

Charge C: Define identity of the 4 “Discovery Themes” with magnet programs as conceptualized by the Parnassus Research Space Programming Task Force.

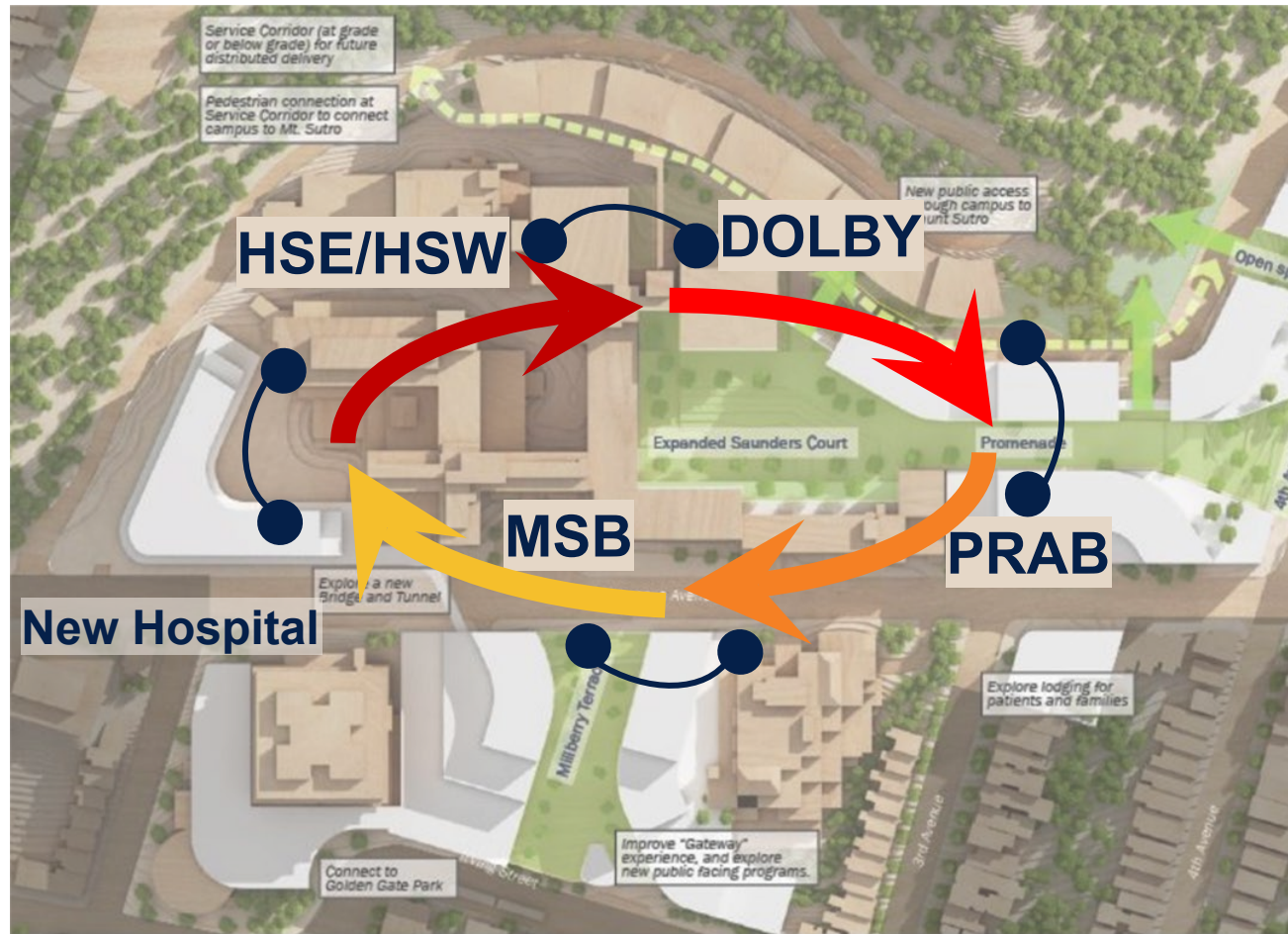


- The Task Force worked to define the identity of the four Discovery Themes using multiple sources of data:
 - The [Parnassus Research Program List](#)*
 - [Listening sessions](#)* with Program contacts
 - Feedback garnered at the [June 2021 Parnassus Research Space Town Hall](#)
 - **Presentations** to the Academic Senate and at Chairs and Directors meetings, as well as countless individual conversations with colleagues
 - **Targeted outreach** to investigators from multiple campuses in Computational Biology and Health Data Science, as well as Population Health and Health Equity
- The definitions were provided to the UCSF Space Committee in May 2021 to meet PRAB space programming requirements.

***PLEASE NOTE:** This data is only accessible to invited collaborators.

Discovery Themes: Vision and Key Principles

Vision: Rejuvenated Space for a Thriving Research Community



Realizing the vision of a thriving research community at Parnassus requires creating **dynamic research neighborhoods** (called “**discovery themes**”) and connections that **integrate the diversity of investigators** and encompass a broad spectrum of scientific programs, themes and disciplines at Parnassus.

Discovery Themes and Interfaces: Key Principles



1

Seek to maintain a strong sense of **connection and community** among all investigators throughout the Parnassus campus.

- While the addition of the PRAB on the west side of the Parnassus campus provides unparalleled new opportunities for growth and rejuvenation, it also poses new challenges for maintaining a tight-knit research community in light of the resulting larger physical footprint and expansion of the scientific enterprise.
- It is therefore critical to maintain a strong sense of connection and community among all investigators at Parnassus, which requires a campus that is open and accessible, both physically and culturally.

Discovery Themes and Interfaces: Key Principles



2

Integrate multiple research disciplines throughout all themes, resulting in multidisciplinary research communities that provide fertile ground for cross-talk and collaboration.

- Approaching research programming in this way helps ensure *all* the major buildings on the Parnassus campus—not just the PRAB—will become multi-disciplinary in scope, allowing for all the proposed Discovery Themes to house robust and engaged research communities.

Discovery Themes and Interfaces: Key Principles



3

Distribute at least one (large, impactful or exciting and emerging) research “magnet” program to each theme and maximize the impact of interfaces between themes to create connection.

- Great science cannot be achieved by multidisciplinary integration alone: scientific progress also requires coherent research groups or programs focused intensely on specific research problems.
- As such, each Discovery Theme should contain at least one magnet program that forms a nucleus of great science around which adjacent neighborhoods will develop and succeed.

View the [criteria for determining magnet programs](#).

Discovery Themes and Interfaces: Key Principles



4

Maximize the impact of scientific and physical **interfaces** among themes to create connectivity.

- **Interfaces** are robust scientific and physical connections that integrate research across Discovery Themes, result in multidisciplinary research communities, and provide fertile ground for cross-talk and collaboration.
- Since interfaces foster a culture of collaboration and resources sharing, they should be **prioritized in programming decisions and supported with physical connectivity**.
- One major asset of the current Parnassus campus is physical connection among the major research buildings. Physical connection of existing space to the PRAB is an essential physical interface.
- This physical interface should take the form of one or more **Research Arteries**, which are **home to resources that will bring researchers together**.
- A Research Artery would house core facilities, education space, collaborative resources like CoLabs and clinical research resources, and social space. One such opportunity is to connect CoLabs on MSB8 to the PRAB, possibly via CSB7.

Discovery Theme Interfaces

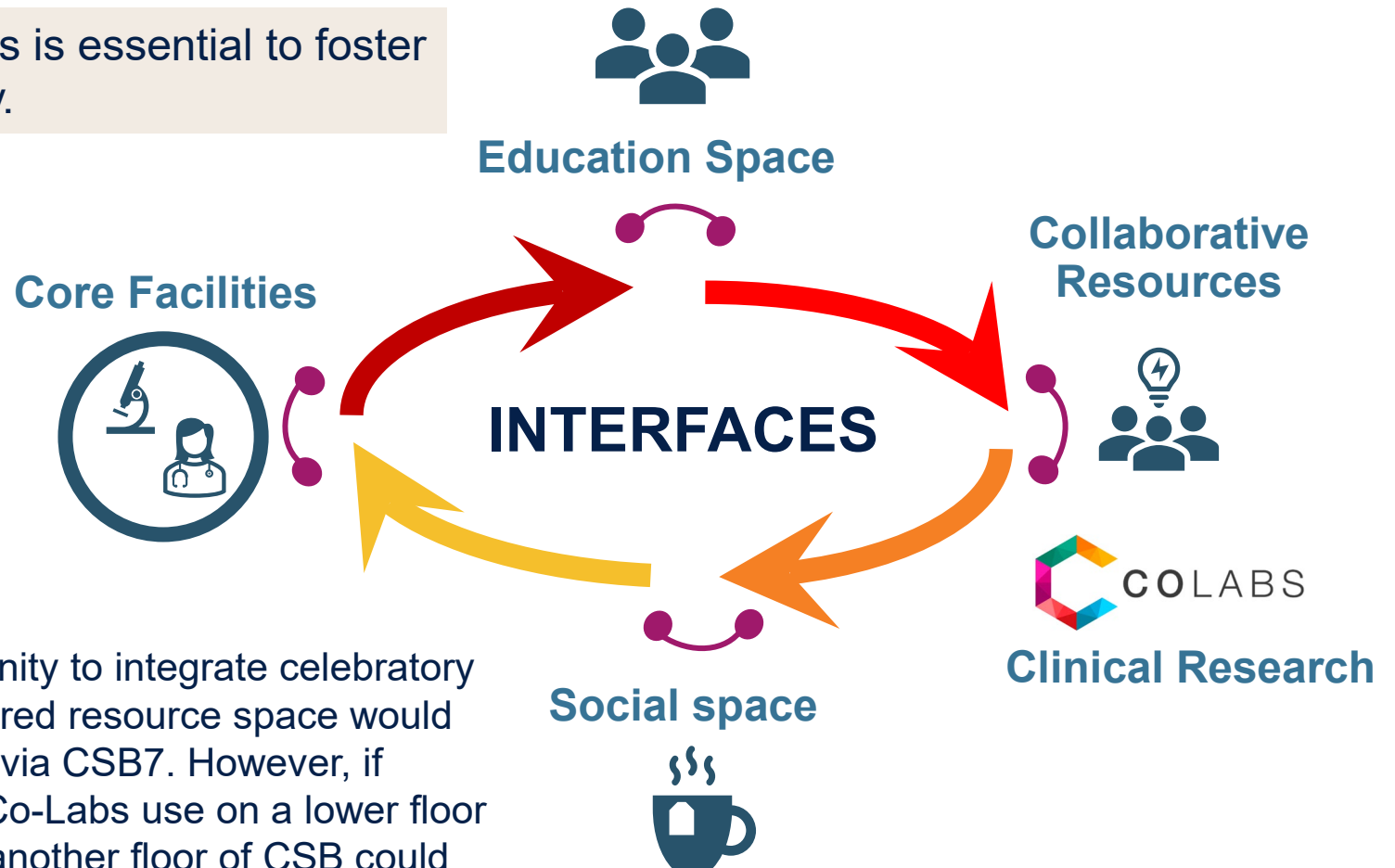
Connected Via Research 'Arteries'

Connectivity between discovery themes is essential to foster interdisciplinary research and creativity.

Key Components:

- Social spaces and education space that **incentivize interaction**
- **Co-Labs artery** with connection through CSB
- A **clinical sciences artery** through CSB on another floor

The highest efficiency and greatest opportunity to integrate celebratory interaction space with new and existing shared resource space would be to connect MSB8 to the PRAB, possibly via CSB7. However, if space can be liberated and remodeled for Co-Labs use on a lower floor of MSB, then a similar connection through another floor of CSB could serve the same purpose.



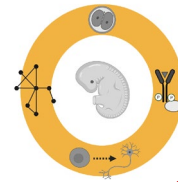


Discovery Themes

Discovery Theme Concepts

- The recommendation to organize Parnassus into **four Discovery Themes** resulted from the Parnassus Research Space Programming Task Force (2020).
- To define the themes and recommend programs for each theme, the Parnassus Research Programming Task Force conducted **listening sessions with 57 program leads** to understand their needs as investigators as well as the affiliations required to maximize their research.
- The listening session data form the **foundation** for the proposed Discovery Theme concepts.

Discovery Theme A - *Regenerative Medicine and Developmental Biology*



Discovery Theme B – *Precision Health Equity*

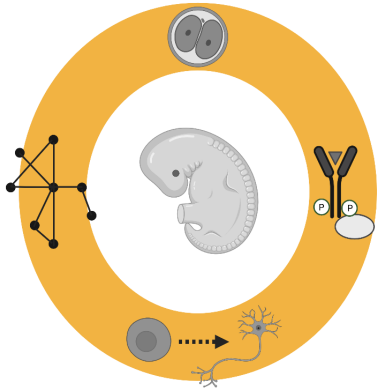


Discovery Theme C – *Infection and Inflammation*



Discovery Theme D - *Systems Physiology and Inter-organ Communication*



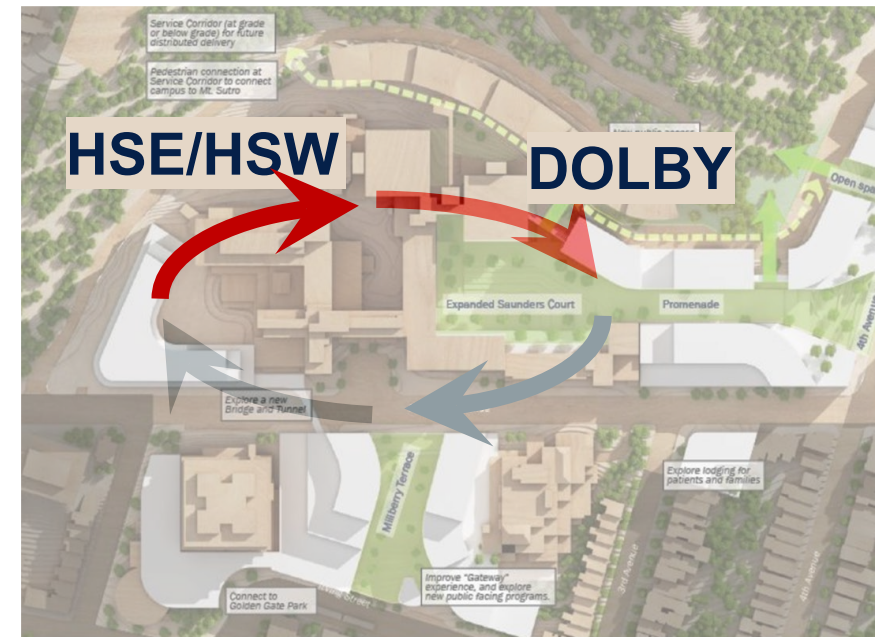


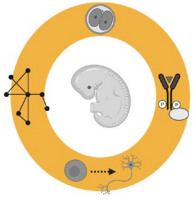
Discovery Theme A

Regenerative Medicine and Developmental Biology

Goal: To study the **cells**, **signals** and **programs** underlying the **development** and maintenance of human life.

Discovery Theme A will nucleate diverse research programs around a **central idea of development and regeneration** by investigating the **cells**, **programs**, and **signals** underlying human life, and by applying these concepts to protect or restore health in injury and disease.





List of Programs in Discovery Theme A

Regenerative Medicine and Developmental Biology

Magnet: Developmental and Stem Cell Biology

Broad Center of Regen Med and Stem Cell Research

Developmental and Stem Cell Biology

CRS - Center for Reproductive Sciences

Surgery and Surgical Subspecialty (also in C)

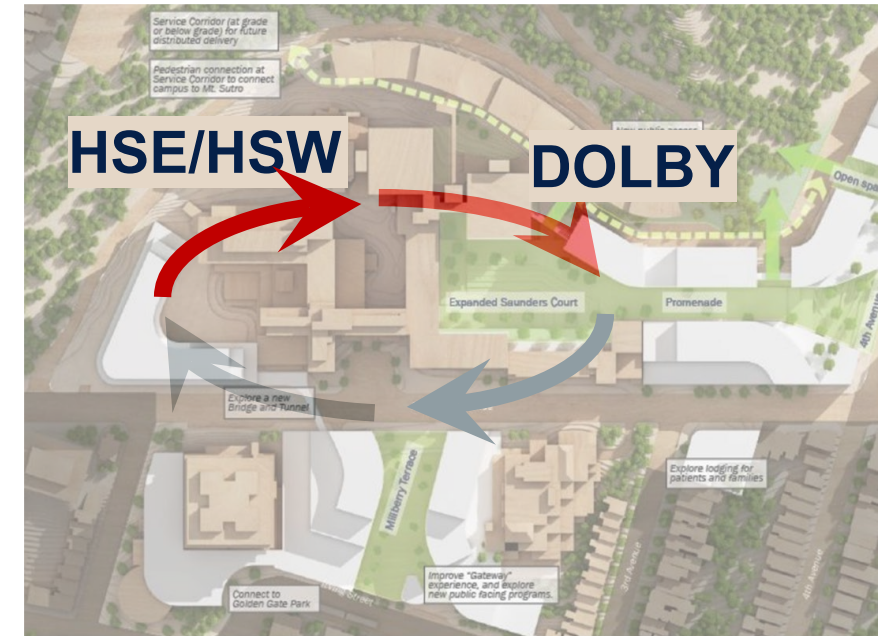
Neurological Surgery - Neuro-Oncology

Neuroscience

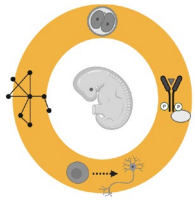
Otolaryngology - Head and Neck Surgery (also in D)

Program in Craniofacial Biology (also in D)

Diabetes Center (also in C)

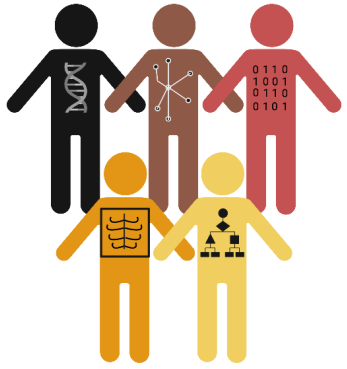


Opportunity: Strengthened partnerships among programs such as Craniofacial Biology + Otolaryngology.



Discovery Theme A *Opportunities*

- ❖ The programmatic organization of Discovery Theme A already boasts a **cohesive and strong identity**, anchored by the Broad Center and Stem Cell Biology.
- ❖ Increased physical and scientific connection could **strengthen partnerships** among programs, such as Developmental Biology + Diabetes; Craniofacial Biology + Otolaryngology.
- ❖ Co-location of Genomic Immunology and the Stem Cell Center at the 9th floor will connect communities working on **regenerative therapies** using genetic/genomic approaches, increasing competitiveness for **CIRM funding**, at the interface of Discovery Themes A and B.
- ❖ Especially since new space in Discovery Theme A is less affected by the CPHP than other existing research space, it could provide **strategic pre-PRAB swing/incubator space before 2026**.

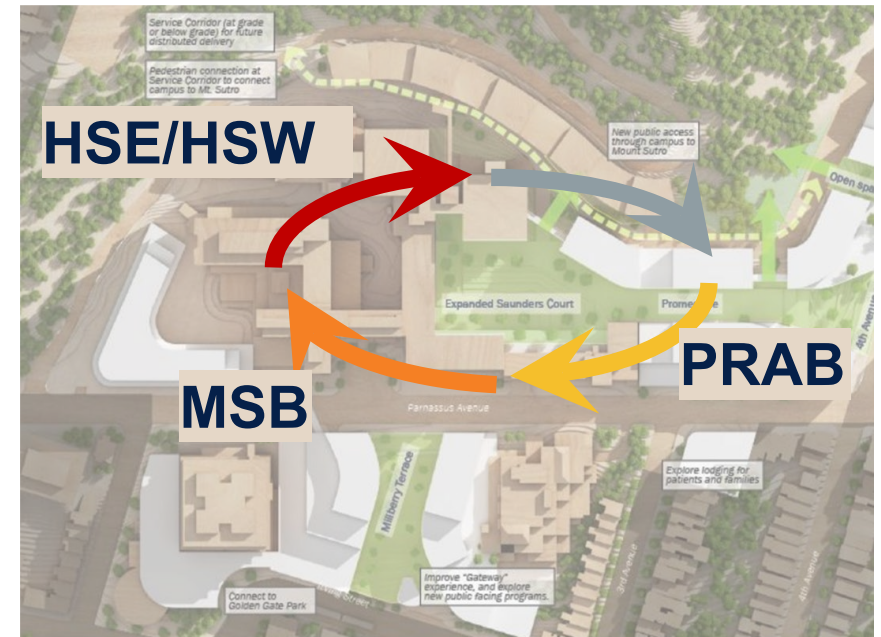


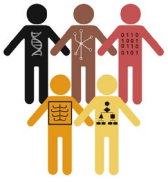
Discovery Theme B

Precision Health Equity

Goal: To use cutting-edge **quantitative approaches**, from **sub-cellular** to **population scale**, to better human health and **reduce disparities**.

Discovery Theme B will bring together an intersectional group of researchers specializing in **genetics, genomics, epigenomics, and other large-scale platforms**, including imaging and analytics with investigators focused on **societal policy, behavioral health, health equity and diversity, and implementation science**.





List of Programs in Discovery Theme B

Precision Health Equity

Magnets: Gladstone – UCSF Institute of Genomic Immunology at PH, Health Equity – School of Nursing

MERC - Multiethnic Health Equity Research Center

Health Equity - School of Nursing

CTCRE - Center for Tobacco Control Research and Education

Oral Epidemiology and Dental Public Health

Translational Pharmacology Research Center

Family and Community Medicine

Orofacial Sciences

Medications Outcome Center

Center for Clinical Informatics and Improvement Research

Digital Health Research

*Radiation Oncology - Data Science

Human and Population Genetics

IHG - Institute of Human Genetics

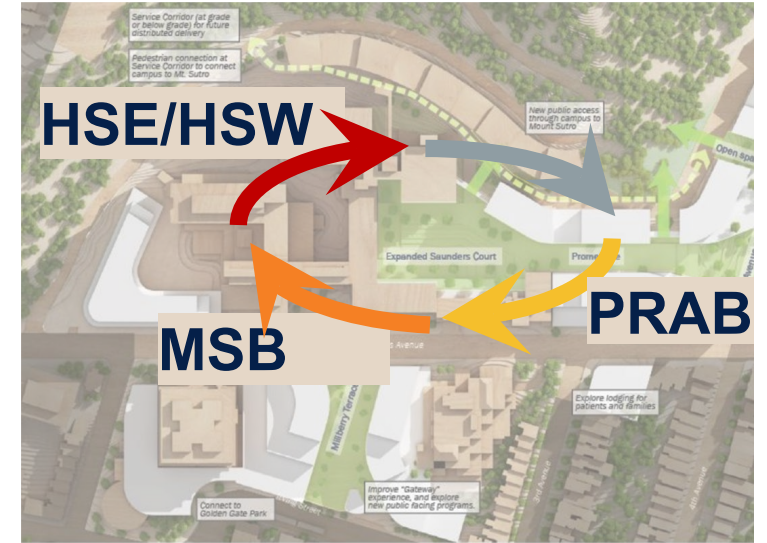
Bioengineering and Therapeutic Science

Gladstone – UCSF Institute of Genomic Immunology

Immunology – ImmunoX (also in C and D)

Infectious Disease (also in D)

Opportunity:
Nucleating
investigators who
are pioneering
**data science and
platform
development**



CoLabs (also in C)

Biospecimen Core (also in C)

Radiology

Hospital Medicine (also in D)

Palliative Care (also in D)

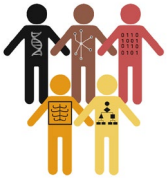
Symptom Science (also in C)

Aging and Gerontology (also in D)

Geriatrics – Clinical (also in D)

Bakar Aging Research Institute (also in D)

*To be considered for cross-campus relocation



Discovery Theme B

Opportunities

- ❖ Discovery Theme B nucleates investigators who are pioneering **data science and platform development** within a community employing quantitative approaches from the molecular to the population scale.
- ❖ Translational research will benefit from expertise in genomics, pharmacology, microbiome and other disciplines to optimize the **personalized use of therapeutics in diverse patient populations**.
- ❖ It creates opportunities to engage with the diverse community UCSF serves and to address scientific questions that can **improve health in vulnerable populations and reduce health disparities**.
- ❖ Discovery Theme B facilitates incorporation of **epigenetics** and other advanced quantitative analyses by **behavioral health** researchers – and vice versa.
- ❖ Proximity to Discovery Theme A provides opportunities to collaborate with investigators who are thinking therapeutically about **precision medicine and tissue regeneration**.

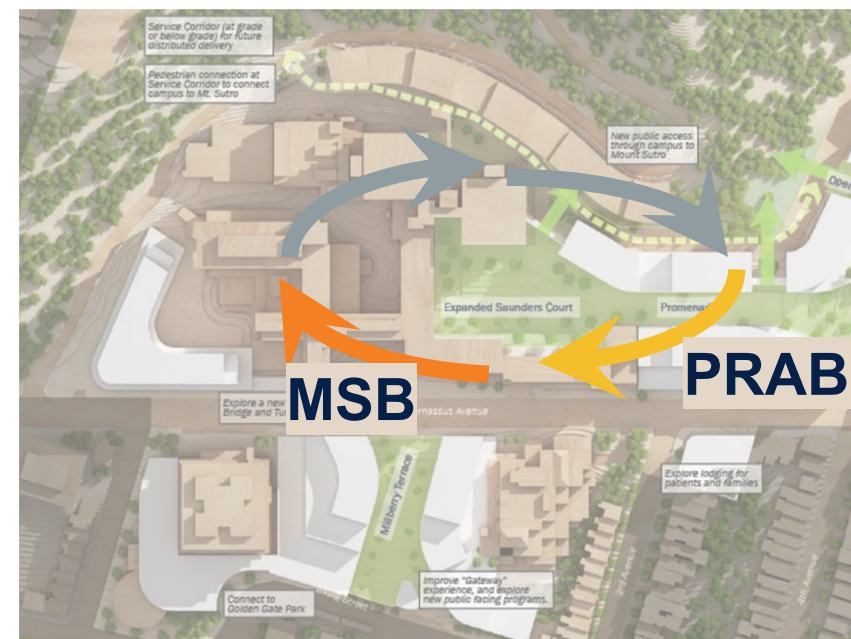


Discovery Theme C

Infection and Inflammation

Goal: To nucleate diverse research programs around a central idea of **immunology** to understand and mitigate diseases ranging from **infection** and **allergy** to **autoimmunity** and **cancer**.

Discovery Theme C will take advantage of foundational resources of ImmunoX, bringing together world class expertise in **cellular and systems immunology** across diverse contexts in order to explore autoimmunity, inflammation, infection, immunometabolism, and immuno-oncology.





Programs in Discovery Theme C

Infection and Inflammation

Magnet: ImmunoX (also in B and D)

Symptom Science (also in B)

Surgery and Surgical Subspecialty (also in A)

Rheumatology Autoimmune - Clinical

Autoimmune Rheumatology – Basic (also in D)

Biospecimen Core (also in B)

CoLabs (also in B)

BCMM - Benioff Center for Microbiome Medicine (also in D)

iMicro - Integrated Microbiology

Hooper Foundation

Immunology – ImmunoX (also in B and D)

Oncology – Translational (also in D)

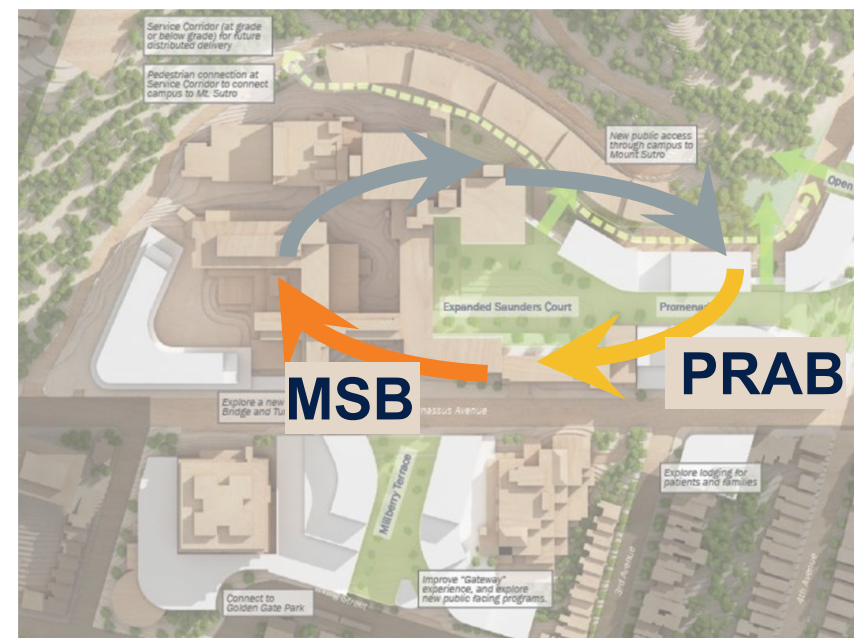
*Radiation Oncology – Basic (also in D)

Tumor Immunology/Cancer immunotherapy

Cancer – Basic (also in D)

Cell Biology (also in D)

Diabetes Center (also in A)



Opportunity: Consolidation of currently fragmented research communities

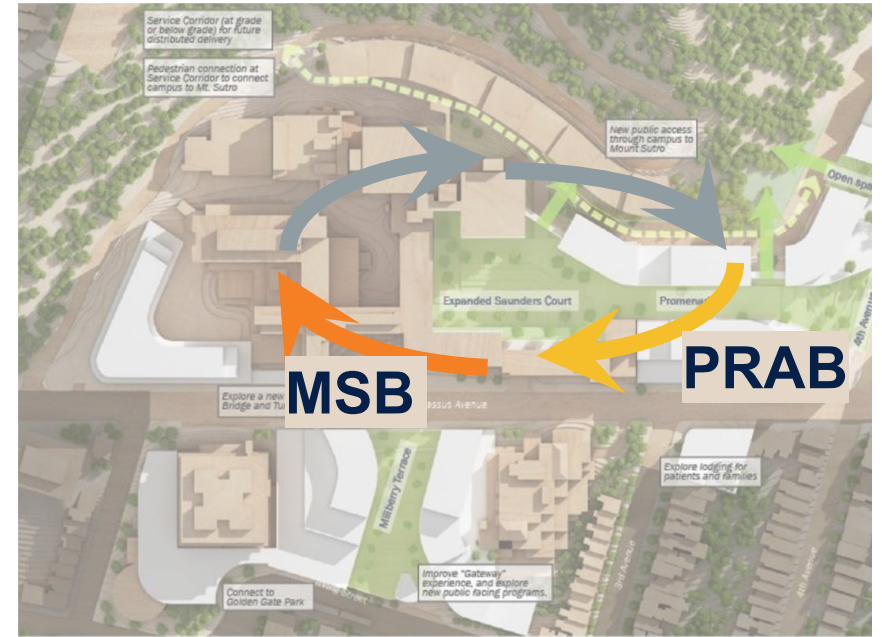
*To be considered for cross-campus relocation

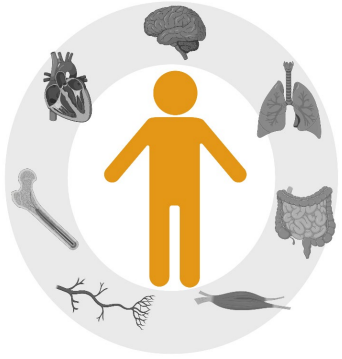


Discovery Theme C

Opportunities

- ❖ Discovery Theme C co-locates investigators from several departments to **consolidate currently fragmented research communities** in immunology, cancer, and other programs.
- ❖ A shared low-touch clinical research resource **fills an unmet need for UCSF investigators working with diverse healthy human participants**, including those in all schools conducting microbiome research.
- ❖ Shared resources, such as Co-Labs and other collaboration and celebratory spaces, in Discovery Theme C will help ensure **connectivity among investigators in new and existing PH research space**.
- ❖ The addition of **174K square feet of research space** (roughly equivalent to 17 HSE floors) will expand PH research space and propel the needed remodeling of existing research space.
- ❖ Swing space in the PRAB will **incubate exciting new research groups** while existing space is remodeled.



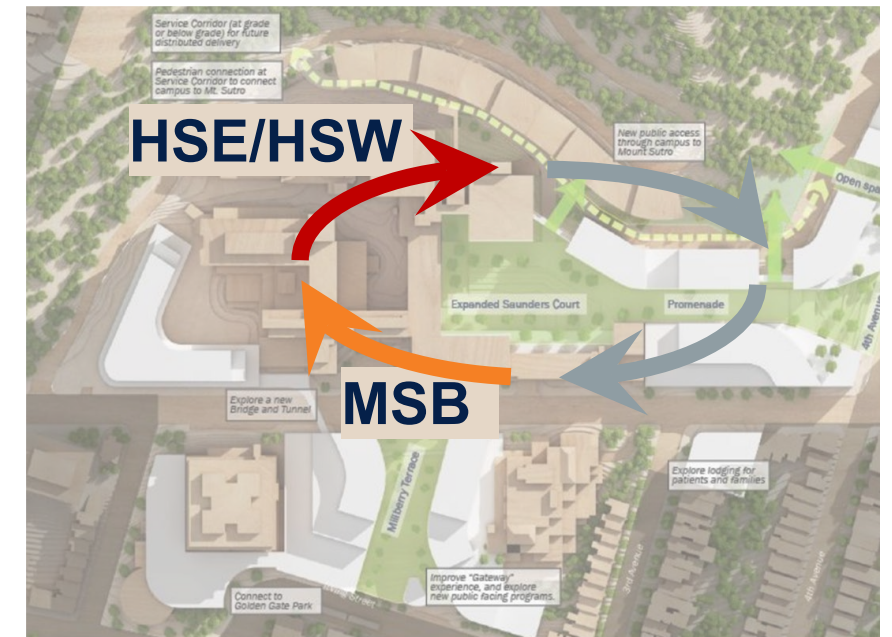


Discovery Theme D

Systems Physiology and Inter-Organ Communication

***Goal:** To integrate researchers with expertise across **tissues and systems** in order to understand **organ health, metabolism** and diseases connected to **advanced age**.*

Discovery Theme D will leverage the **connecting signals** of the **endocrine and immune systems**, the **microbiome**, the **nervous system**, and our **nutritional environment**, to probe how imbalances in our physiological systems and tissue function, contribute to altered metabolism and diseases connected to advancing age.





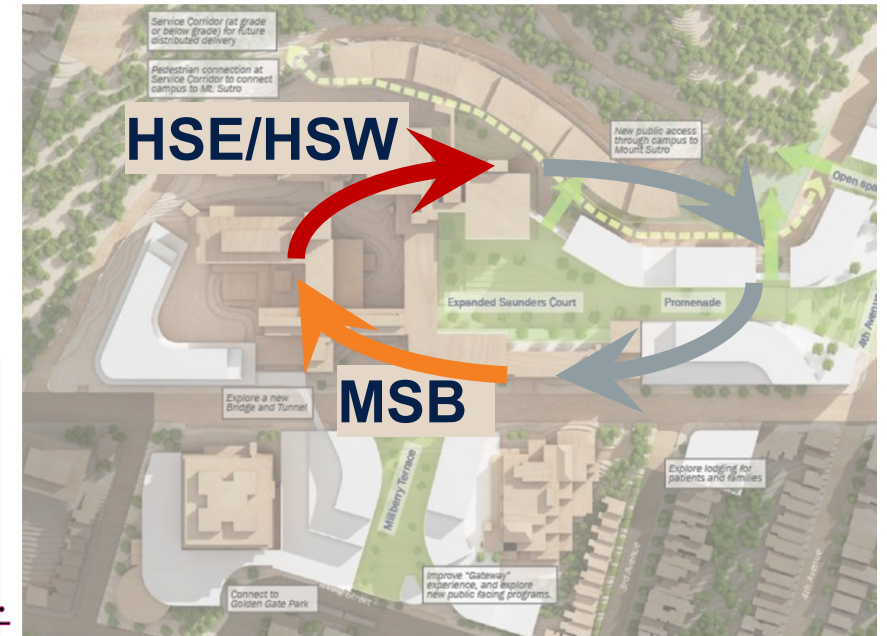
Programs in Discovery Theme D

Systems Physiology and Inter-Organ Communication

Magnet: Bakar Aging Research Institute (also in B)

UCSF Musculoskeletal Center
 Palliative Care (also in B)
 Aging and Gerontology (also in B)
 Geriatrics – Clinical (also in B)
 Bakar Aging Research Institute (also in B)
 Endocrinology
 Autoimmune Rheumatology – Basic (also in C)
 Infectious Disease (also in B)
 Cardiology
 Gastrointestinal
 UCSF Liver Center
 Nephrology
 Urology
 Emergency Medicine

Orthopedic Surgery
 PT and Rehab Sciences
 *Center for Cerebrovascular Research
 Neurology
 Neurological Surgery - Speech
 Anesthesia
 Hospital Medicine (also in B)
 Dermatology
 Cutaneous Immunology
 Immunology – ImmunoX (also in B and C)
 Lung Sciences
 BCMM - Benioff Center for Microbiome Medicine (also in C)
 Otolaryngology - Head and Neck Surgery (also in A)
 Program in Craniofacial Biology (also in A)



Opportunity: Transformative co-location of investigators from multiple departments engaged in **stroke** research.

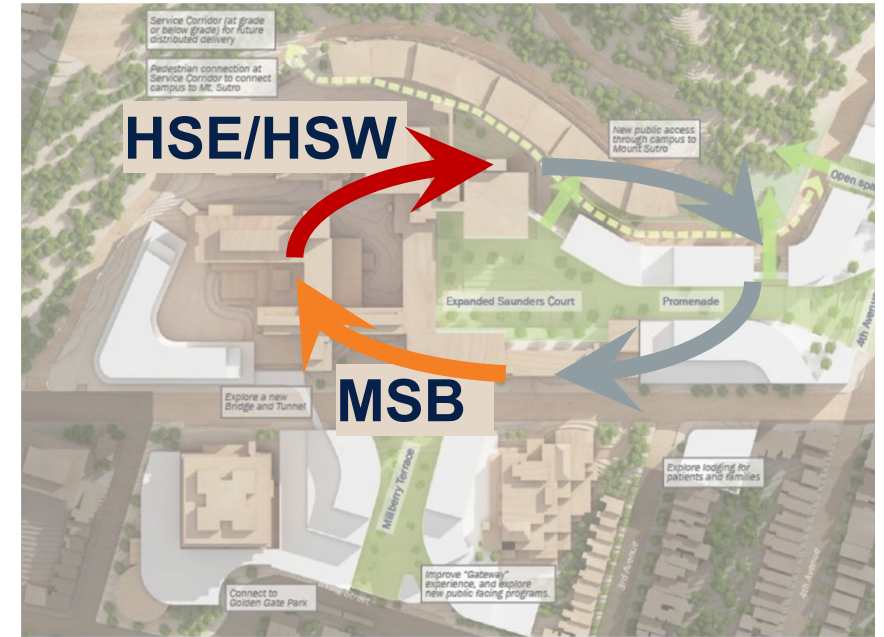
Cell Biology (also in C)
 Cancer – Basic (also in C)
 Oncology – Translational (also in C)
 *Radiation Oncology – Basic (also in C)



Discovery Theme D

Opportunities

- ❖ Traditionally, programs that involve systems or organ crosstalk are housed within larger centers, ORUs, or other academic units. As such, they cannot realize their potential and may fail to **develop their own identities**.
- ❖ Such programs can be sprinkled across multiple academic units, unable to develop **critical mass**. Theme D colocates and connects such investigators to space so that they can build identity/brand over time. Especially for programs spanning from **basic to clinical research**, this may provide **the visibility needed to realize their true potential**.
- ❖ By using space strategically, **emerging areas of scientific synergy** can be colocated. For example, publications in the intersectional space between microbiome and metabolism go up every year. However, most institutions do not collocate these groups.
- ❖ Theme D allows takes a truly innovative approach to collocate a consortium of scientifically-linked groups that is bound to increase shared science. Several programs should be placed into immediate proximity to create **exciting new Interfaces**, none of which has had this opportunity to date despite high need for collaboration.



Part IV: Fulfilling Charge D

- Mapping research programs across Discovery Themes at Parnassus over the next decade

Completion of Charge D Informed Recommendation #2

At the outset of this report, the Task Force outlined three Recommendations, the second of which is:

Recommendation #2: Meet the urgent need for high quality research space throughout the PH campus by:

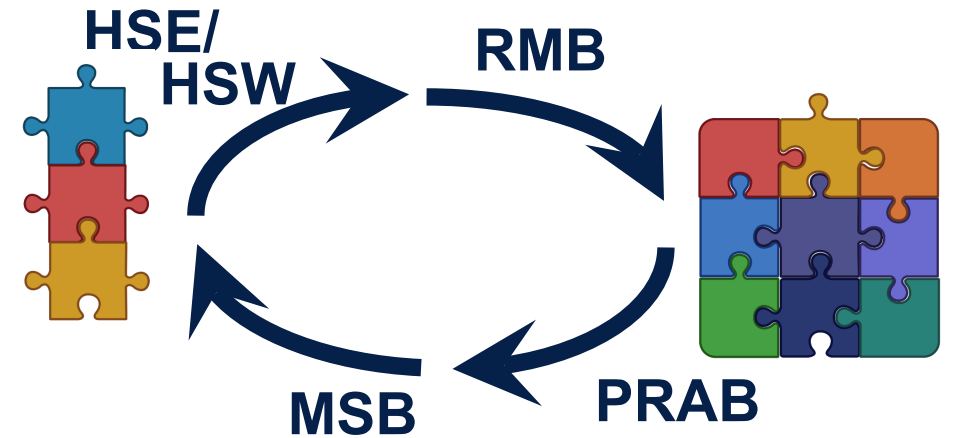
- a. Seeking and using near-term opportunities to rejuvenate PH research space prior to 2026.
- b. Maximizing the usable life of MSB by seismic study, strategic colocation, and renovation for non-wet lab functions.
- c. Preparing for cost-effective and efficient remodeling of 3 HS Tower floor ‘triads’ to begin in 2026
- d. Using PRAB swing space to incubate programs during necessary remodeling.

The Task Force arrived at this recommendation via [substantial data collection and analysis](#), work they performed in fulfillment of Charges A, B, and C. Through extensive study and deliberation, the Task Force generated a methodology to revitalizing the Parnassus campus via a phased approach to remodeling and incubating programs during renovation, which is described in detail through page 62 of this report.

Charge D: Map location of research programs at Parnassus over the next decade.

Phasing

- ❖ PRAB expands PH research space and **enables critically needed remodeling** of existing research space.
- ❖ The most cost-effective and transformative solution is strategic **remodeling of 3 'triads'** of adjacent Health Science Tower floors.
- ❖ Planning and fundraising must **start now**.
- ❖ **Opportunities abound** to convert outdated and underutilized research space into **vibrant new neighborhoods and contiguous space for major research programs** not sited in the PRAB.



Phasing Overview, Illustration, Details, and Opportunities are presented for:

1. Strategic Opportunities before 2026 and MSB
2. PRAB Programming
3. Triad Remodeling
4. Possible Swing Incubators

1. Strategic Opportunities before 2026 and MSB

Background

- ❖ PH has longstanding unmet needs for research space that severely impede the productivity of UCSF investigators.
- ❖ Current remodeling projects are often complicated, prohibitively slow, programmatically suboptimal, and expensive.
- ❖ Remodeling constraints include gridlock, seismic issues, chemical safety factors, and prohibitive remodeling expenses. Consequently, a large amount of PH research space is unusable, with no real solution until the PRAB opens in 2026.
- ❖ This is especially true for **MSB**, which despite its limitations, is **central to connectivity** of the current PH campus. The recommendations here were made with the understanding that MSB will be useful research space beyond 2030.
- ❖ Leaders need guidance now to make immediate, near-term, and long-term remodeling and programming decisions.
- ❖ Recent developments could ease enough gridlock to **create some high-quality flexible swing space before 2026**. This could benefit clinical, computational and laboratory-based investigators.

Opportunities

- ❖ Changes in space utilization due to **telework** could release space to create **clinical research space**.
- ❖ Clarity about future PH research space plans may create flexibility for UCSF to create one **HS Tower floor of high-quality swing laboratory space** to rapidly unlock stalled remodeling projects and make better use of remodeling investments.
- ❖ The newest research space on campus in **RMB** should be maximally utilized, including as **swing incubator space to ease gridlock** so that remodeling can begin before 2026, especially since this Discovery Theme is least impacted by the CPHP.

2. PRAB Programming: Overview

Many layouts for the 174K GSF of research space are possible in PRAB.

Each floor will be different because of elevation change, but 30K GSF per PRAB floor is a reasonable programming unit.

For reference, each Health Science Tower floor is approximately 10K GSF.

Programming analysis considered 3 x 10K GSF HS Tower floor ‘units’ for each floor of the PRAB.

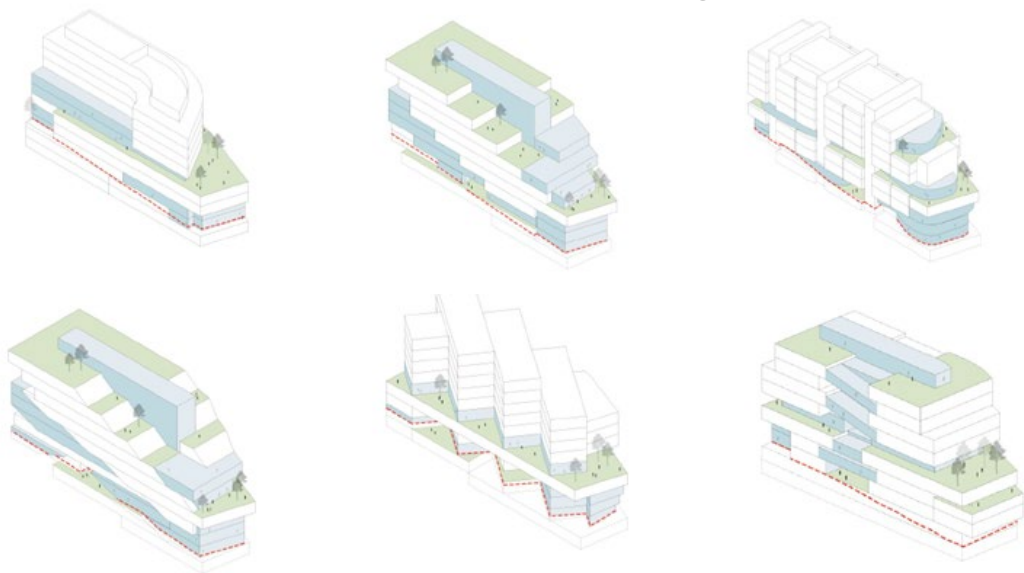
While programming the PRAB will require detailed conversations with Programs and investigators, the following slides focus on the need for specific programs and activities to be colocated in the PRAB in order to fulfil the vision for Discovery Theme C.

Space Budget used to Estimate Cost of PRAB Construction

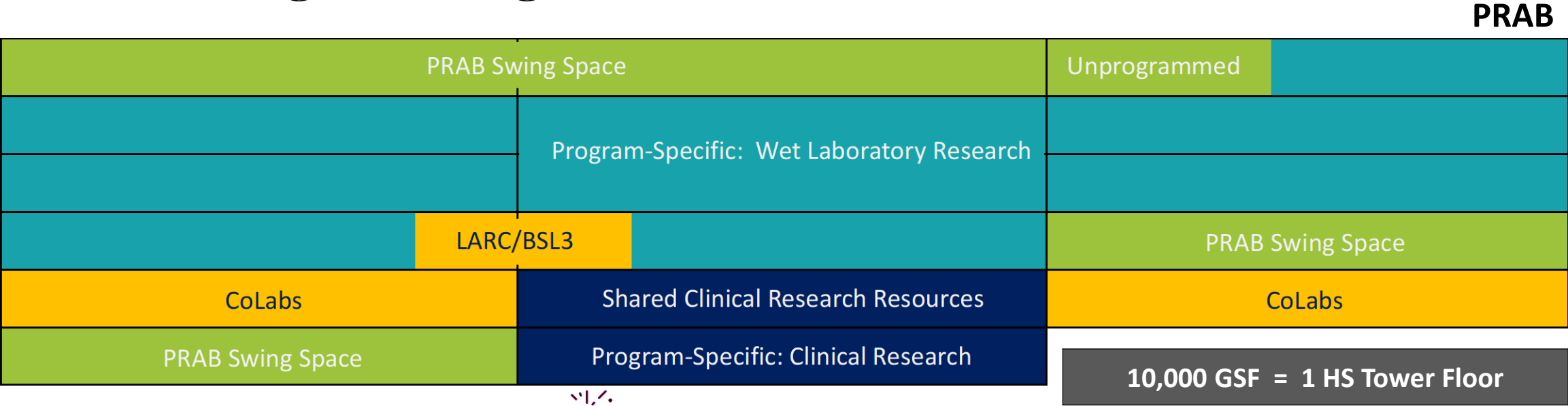
Space Type/Function		GSF
Wet Research		137,000
Dry Research		10,000
CoLabs		22,000
Larc or ABSL		5,000
School of Nursing Admin and Dry Research		33,000
Community and Retail		13,000
Education		12,000
Building Support and Services		39,000

174K GSF
for Research

April 2020 Research and Academic Building District Plan Validation Study



2. PRAB Programming: Illustration



Six anchor programs
(ImmunoX, iMicro, Microbiome, Cancer
Diabetes, & Cell Biology)
nucleate neighborhoods
composed of labs that share common
research areas and/or disciplines

~20,000 ASF dedicated
clinical research space

Shared resources connected to
community space and other DZs

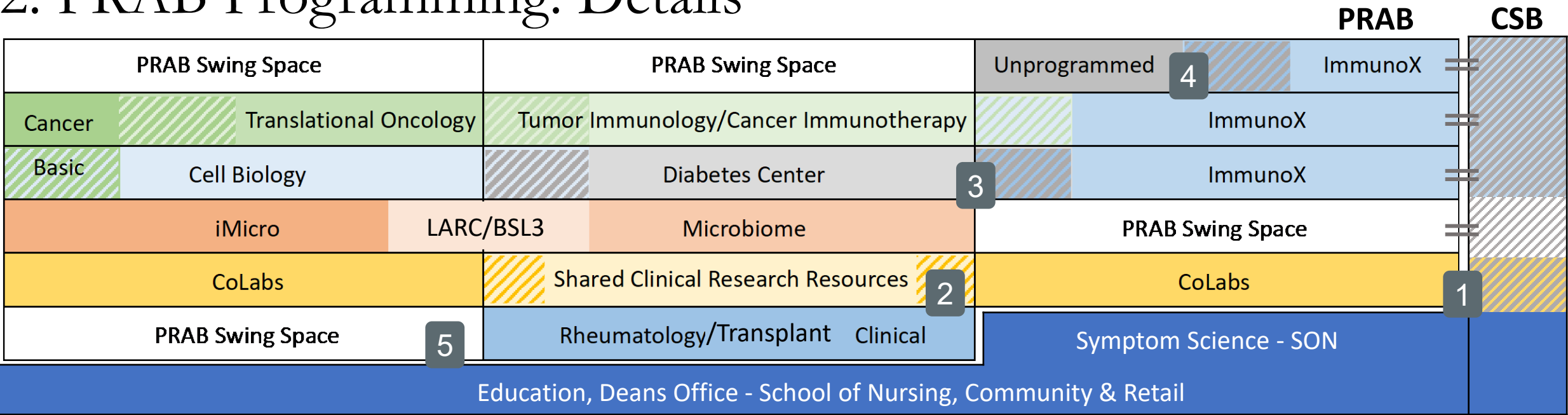
Sufficient unassigned space
to provide the "empty chair"
to unlock opportunities in
Discovery Zones B and C



Opportunity: Shared low-touch clinical research resources at the West end are ideal for inclusion of healthy participants from diverse communities and for Discovery Theme C investigators

- Diagram is conceptual, not an actual floorplan.

2. PRAB Programming: Details



10,000 GSF \approx 1 HS Tower Floor

- Diagram is conceptual, not an actual floorplan.

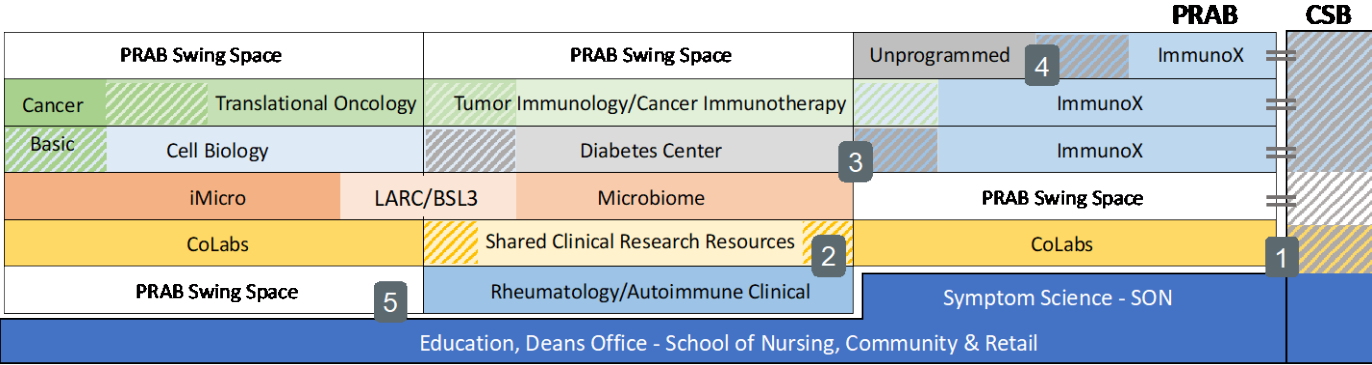
This diagram represents estimates of space in increments of 3 x ~10,000 GSF neighborhoods equivalent to 1 HS Tower floor.

Several major opportunities could be realized in the programming of the PRAB by colocation of the identified programs, and by co-programming of the **Interfaces** among them.

An explanation of the numbered items appears on the following slide.

Research Program		Estimated GSF (K)
ImmunoX (partial)		25
Diabetes (partial)		10
iMicro (all)		10
Microbiome (partial)		10
Cancer (partial)		25
Cell Biology (partial)		10
Clinical Research		10
Shared Research Resources (CoLabs, Clinical)		35
Swing Space & Unprogrammed Space		45
Coprogrammed Space		(20)
TOTAL		174

2. PRAB Programming: Opportunities



- 1
- The highest priority is the **connectivity** of new (PRAB) and existing (CSB) research space at the level of **CoLabs** and other shared research resources to form a cross campus ‘research artery’.
- 2
- The recommendation includes ~20,000 ASF **purpose-built research space in the PRAB**, and features an **opportunity to create shared clinical research resources** that will support clinical research across campus, especially community and population health in SON, microbiome research in all schools, in a non-hospital environment that welcomes all participants.
- 3
- There are built in opportunities for synergistic adjacencies, wherein investigators with joint affiliations among multiple PRAB programs could be located in the coprogrammed spaces. ImmunoX, like other programs, has some program-centric faculty, as well as many faculty who are co-affiliated with other PRAB programs. Likewise, cancer research in the PRAB will integrate with other programs across the basic to clinical spectrum (Cell Biology, ImmunoX, etc.)
- 4
- Some unprogrammed space should be kept for opportunities that arise between now and the 2026 opening of the PRAB.
- 5
- Swing space distributed in the PRAB should ‘incubate’ other research programs while remodeling of existing space is underway. All of this “white space” is important for the execution of a whole campus rejuvenation.

3. Tower Floor Triad Remodeling: Overview

A **concrete and substantial commitment to remodel existing research space** is a prerequisite for the Parnassus-wide scope of the Task Force recommendations.

Three 3-floor ‘triads’ of Health Science Tower space were identified as ideal candidate spaces to begin remodeling of existing Parnassus research space because:

- ❖ Remodeling of 3 vertically adjacent floors **saves money and reduces disruption**, especially while remodeling utilities and ceiling/floor space.
- ❖ The majority of space on three triads of Tower floors has **not been remodeled in the last 10 years**, including HSE4/5/6, HSE 11/12/13, and HSW 14/15/16.
- ❖ **Floors adjacent to remodeled triads** in the other Tower or in MSB provide numerous opportunities to maximize the impact of PRAB release space or existing high-quality laboratory space in MSB while **consolidating programs and making important new Interfaces**, as illustrated on the next slide.
- ❖ Because of seismic factors, chemical safety, and remodeling costs, the Towers, especially low floors, are **best suited for new laboratory space**.

December 19, 2016

HSW/HSE LAB Floor Plates

Design Layout

HSW	Corner Office	Center Office	No Recent Reno >10 YRS	HSE	Corner Office	Center Office	No Recent Reno >10 YRS
				2	X		
				3	X		
4	X			4			X
5	X			5			X*
6	X			6			X
7		X		7		X	
8		X		8		X	
9	X			9	X		
10			X*	10	X		
11	X			11			X
12	X			12			X
13	X			13			X
14			X	14		X***	
15			X	15		X	
16			X***	16			X*

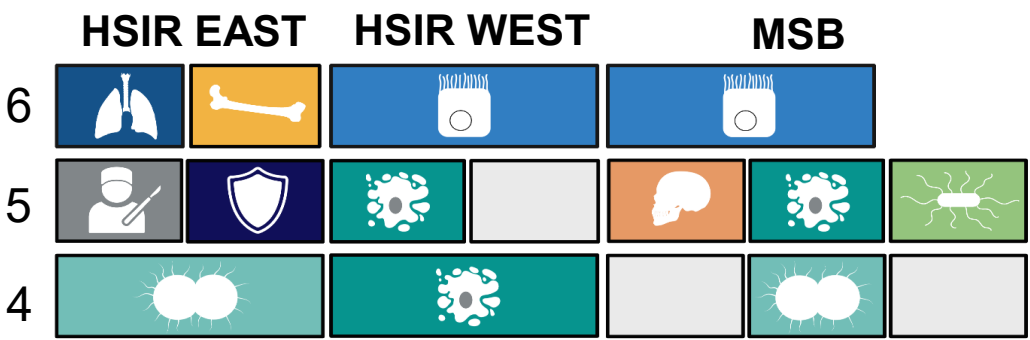
* Floor has been partially renovated

*** Floor is mainly vacant, both wet and dry

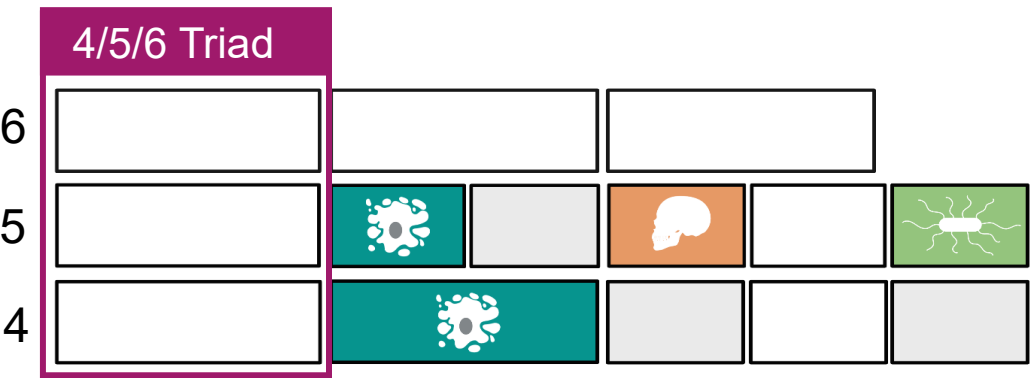
3. Tower Floor Triad Remodeling: Illustration

HSE 4/5/6

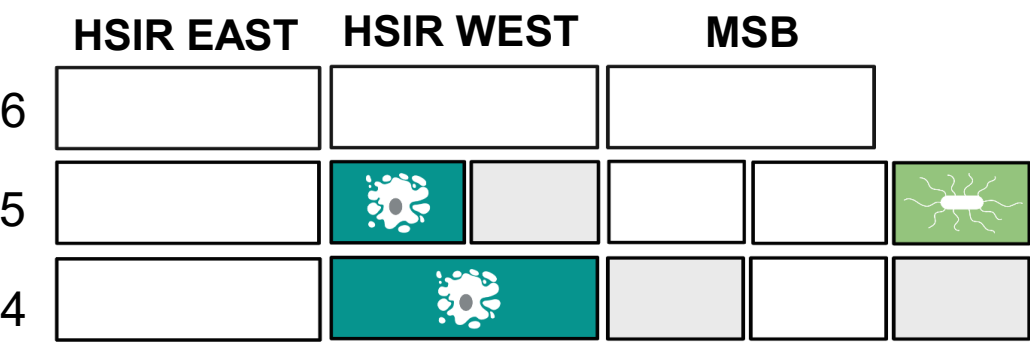
CURRENT



RENOVATE



CREATE



PRAB



- For illustration purposes only.
- Figures were generated using program and affiliation data and do not represent individual investigator or departmental space assignments.
- Actual phasing will require detailed analysis of investigator and departmental space information and conversations with all participants.

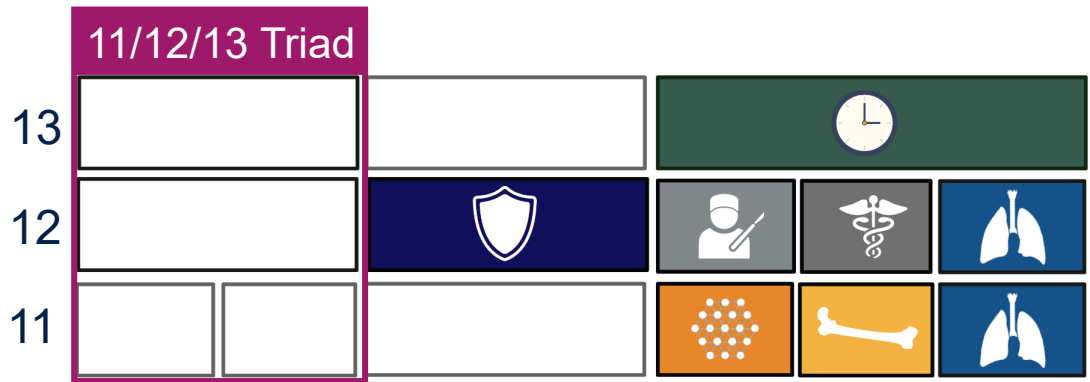
3. Tower Floor Triad Remodeling: Illustration

HSE 11/12/13

CURRENT



RENOVATE



CREATE



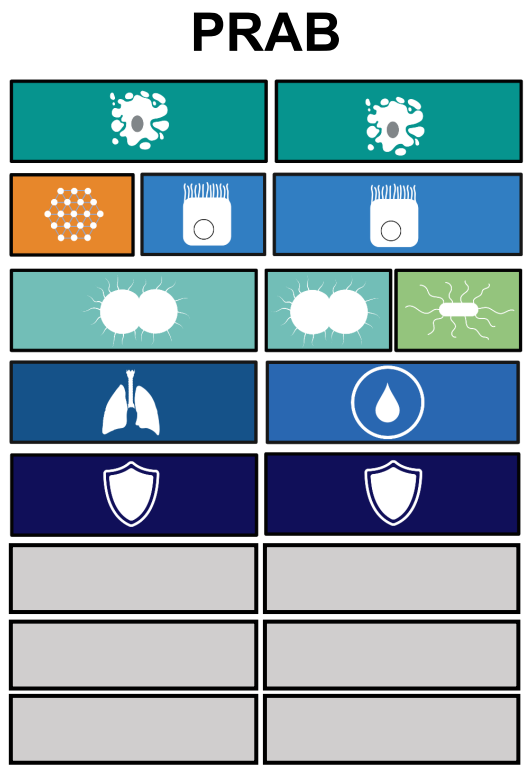
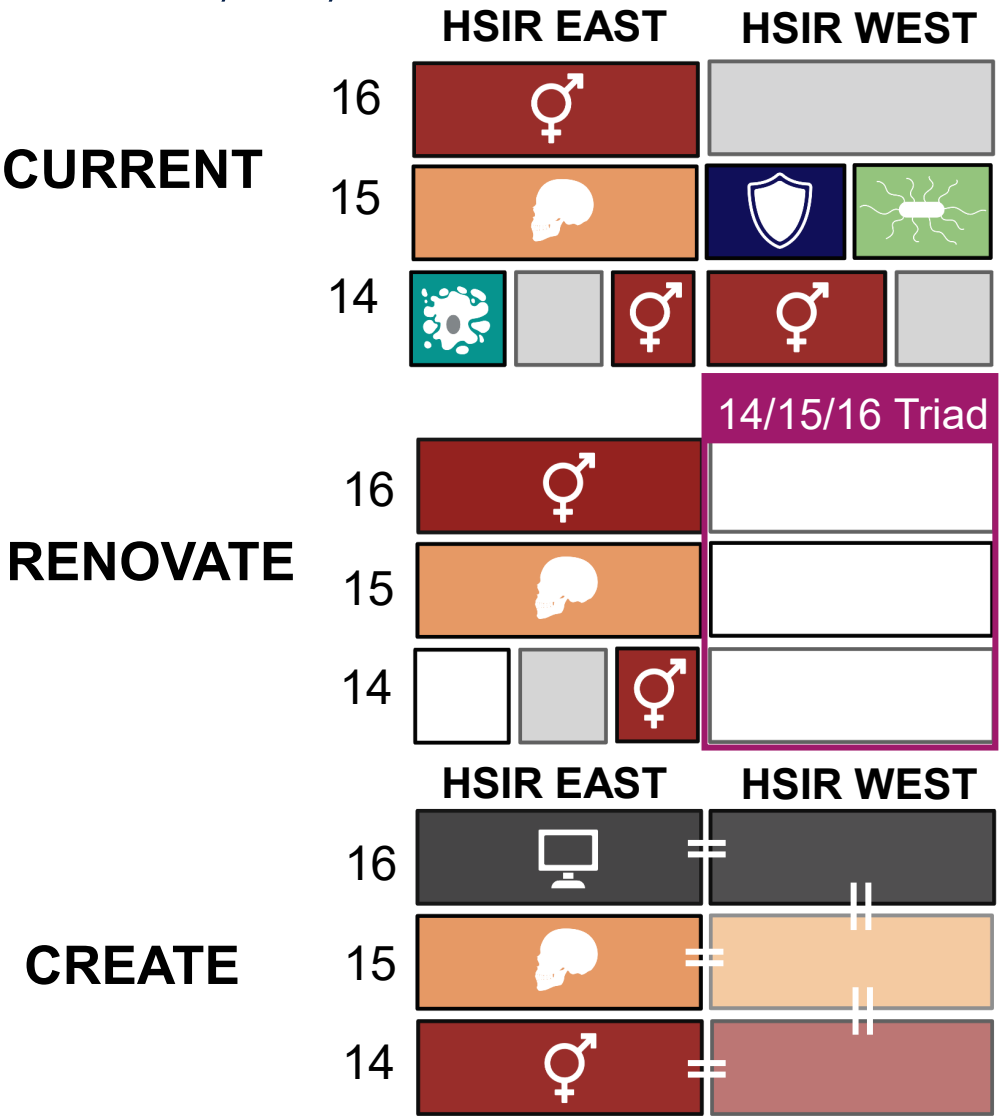
PRAB



- For illustration purposes only.
- Figures were generated using program and affiliation data and do not represent individual investigator or departmental space assignments.
- Actual phasing will require detailed analysis of investigator and departmental space information and conversations with all participants.

3. Tower Floor Triad Remodeling: Illustration

HSW 14/15/16



- For illustration purposes only.
- Figures were generated using program and affiliation data and do not represent individual investigator or departmental space assignments.
- Actual phasing will require detailed analysis of investigator and departmental space information and conversations with all participants.

3. Tower Floor Triad Remodeling: Details

TOWER FLOOR TRIAD REMODELING PLAN			PHASING				
OPPORTUNITY	CURRENT	PROGRAM	STAY	PRAB	SWING	SWING INCUBATOR	FINAL LOCATION
REMODEL HSE 4/5/6 TRIAD							
Remodel	HSE4	iMicro		•			PRAB iMicro
Remodel	HSE 4	Lung			•	4. Center for Pandemic Response	12 or 13th floor
Remodel	HSE 5	Surgery/BioE		•			PRAB Interface: Cancer/Cell Biology
Remodel	HSE 5	Surgery/Transplant			•	2. Mechanobiology	Discovery Theme A or C
Remodel	HSE 6	Musculoskeletal/BioE			•	2. Mechanobiology	11th Floor
Remodel	HSE 6	Lung			•	4. Center for Pandemic Response	12 or 13th floor
Related Opportunities							
Adjacent Good Space	HSW 6	Cell Bio		•			PRAB Cell Biology
Chemical Storage	HSE 3	ImmunoX		•			PRAB Tumor Immunotherapy
Chemical Storage	HSE 3	Cancer		•			PRAB Tumor Immunotherapy
Chemical Storage	HSE 3	Medicine		•			PRAB Tumor Immunotherapy
REMODEL HSE 11/12/13 TRIAD							
Remodel	HSE 11	BioE/HIVE			•	2. Mechanobiology	Discovery Theme B
Remodel	HSE 11	BCMM		•	•	3. Multiscale Metabolism	Discovery Theme C or D
Remodel	HSE 11	Cancer		•	•	1. Cancer Metastasis	Discovery Theme C or D
Remodel	HSE 12	Graduate Program Office					Educational Space
Remodel	HSE 12	Nephrology			•	5. Sex Differences	Discovery Theme D
Remodel	HSE 12	Cancer		•	•	1. Cancer Metastasis	Discovery Theme C or D
Remodel	HSE 13	Lung	•		•	4. Center for Pandemic Response	Discovery Theme D
Related Opportunities							
Adjacent Good Space	HSW 11	Diabetes Center	•	•	•	3. Multiscale Metabolism	Discovery Theme A or C
Adjacent Good Space	MSB 11	Musculoskeletal	•				Discovery Theme D
Adjacent Good Space	MSB 12	Lung	•				Discovery Theme D
Adjacent Good Space	MSB 13	Aging	•				Discovery Theme D
REMODEL HSW 14/15/16 TRIAD							
Remodel	HSW 14	Reproductive Sciences			•	5. Sex Differences	Discovery Theme A
Remodel	HSW 14	Urology		•	•	5. Sex Differences	Discovery Theme D
Remodel	HSW 15	ImmunoX		•			PRAB ImmunoX
Remodel	HSW 15	BCMM		•	•	3. Multiscale Metabolism	Discovery Theme C or D
Remodel	HSW 16	Reproductive Sciences			•	5. Sex Differences	Discovery Theme A
Remodel	HSW 16	Surgery			•	2. Mechanobiology	Discovery Theme A or C
Related Opportunities							
Adjacent Good Space	HSE 15	Craniofacial	•				Discovery Theme A

- Diagram was generated using program and affiliation data and does not represent individual investigator or departmental space assignments.
- Actual phasing will require detailed analysis of investigator and departmental space information and conversations with all participants.

- [Link to Tower Floor Triad Remodeling Plan](#)

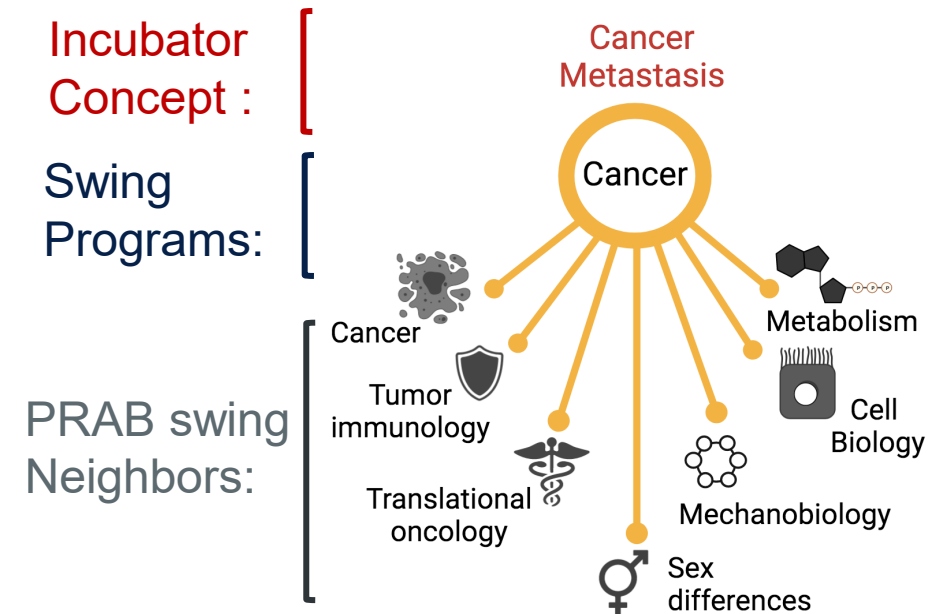
3. Tower Floor Triad Remodeling: Opportunities

- ❖ High quality space for consolidated or new research Programs in Discovery Themes A, B, and D.
- ❖ Tower floor triads provide opportunity for contiguous programming with MSB neighbors, which will maximize the utility of good laboratory space in MSB, allow MSB-based programs to grow, and reduce pressure to remodel MSB for wet lab space. Examples: Musculoskeletal Center (11), Lung Sciences (12), Aging (13).
- ❖ Tower floor triads provide the opportunity for horizontal and vertical integration of programs within the Towers, and/or growth. Examples: Center for Reproductive Science (14), Craniofacial Biology (15).
- ❖ HSE16 may be best suited for a computational science center offering inspiring ocean views.
- ❖ The Graduate Medical Education Unit on HSE 12 should be relocated to integrate with other administrative, educational, and/or student interaction space in another location that can not be remodeled for wet laboratory space, possibly in the Research Artery.
- ❖ Many programs could benefit from this effort, including:

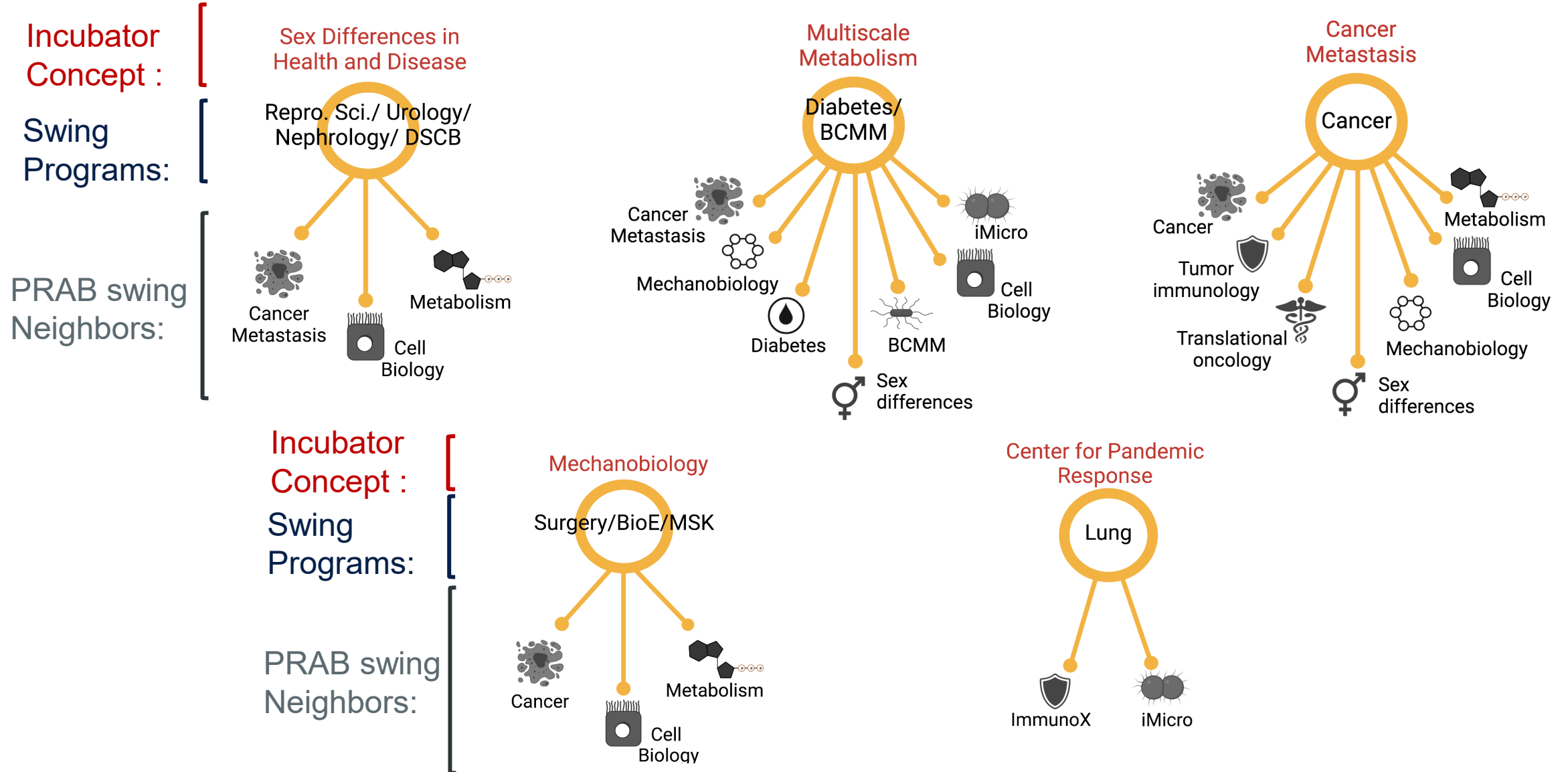
Research Artery	Co-Labs	Clinical Research Shared Resources
Craniofacial Research Center	Musculoskeletal Center	Aging (Bakar/Geriatrics/Aging and Gerontology - SON)
Lung Science Center	Center for Pandemic Response	UCSF/Gladstone Genomic Immunology Institute
Benioff Center for Microbiome Medicine	Center for Reproductive Science	Stroke (Radiology, Anesthesia, Neurosurgery, PT, Neurology)

4. Possible Swing Incubators: Overview

- ❖ Swing space in the PRAB is designed to facilitate remodeling of programs in existing research space.
- ❖ **PRAB swing space must be sufficient to facilitate remodeling of 3 HS tower floors at one time.**
- ❖ Based on the programs in **Discovery Theme C**, and those that would move during HS Tower Triad remodeling, new scientific opportunities emerge.
- ❖ Rather than simply serving as a temporary lab space, PRAB swing space should **maximize the chance to incubate exciting new programs.**
- ❖ The Task Force identified several possible **Swing Incubator Concepts**, diagramed on the next slide.
- ❖ In the **example** on this slide, “Cancer Metastasis” is an Incubator Concept, in which “Cancer” investigators move into swing space near PRAB neighbors, including Cell Biology and other programs.
- ❖ After **space in Discovery Theme D** is remodeled, a community of Cancer and/or Cancer Metastasis investigators will move into newly remodeled existing space.
- ❖ Only a few, among many, possible Incubator Concepts are drawn.



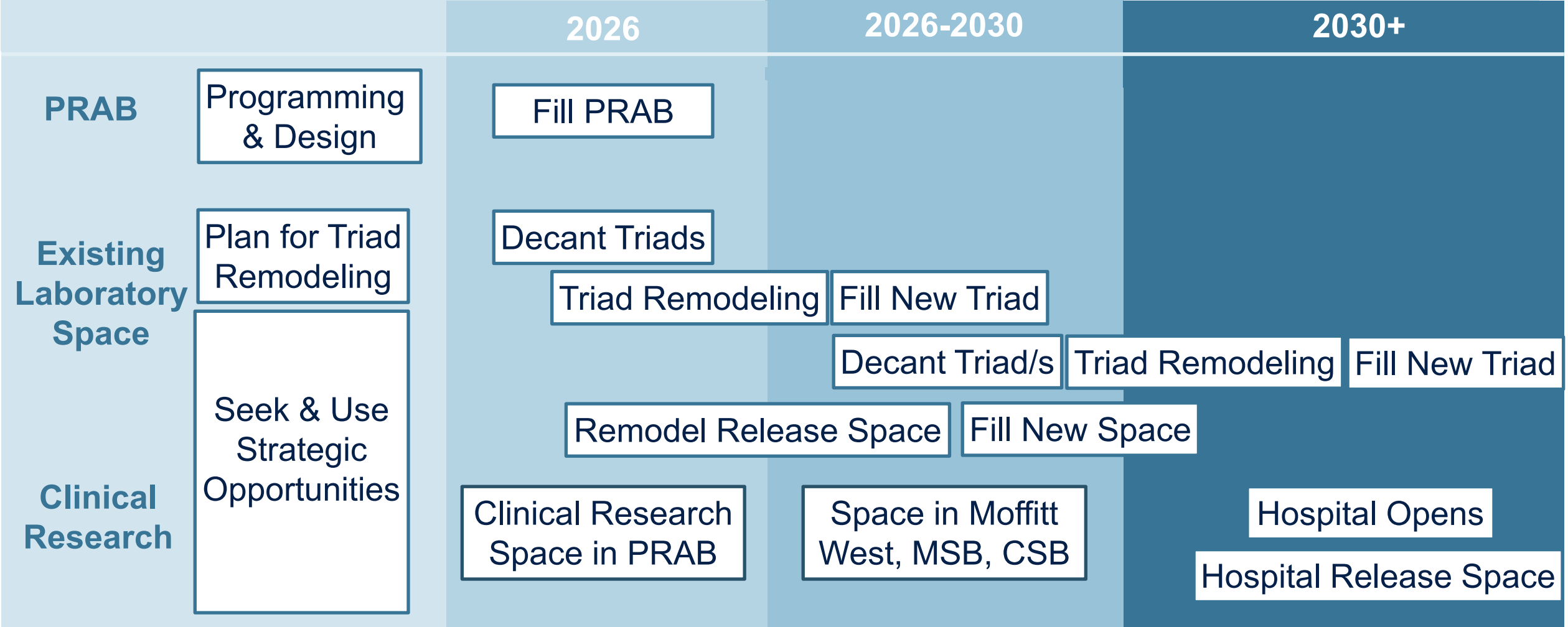
4. Possible Swing Incubators: Illustration



4. Possible Swing Incubators: Details & Opportunities

Incubator Concepts		Swing Programs	PRAB Swing Neighbors	Opportunities During Swing	Opportunities after Swing
1	Cancer Metastasis	Cancer	Cell Biology, Multiscale Metabolism, Mechanobiology, Cancer, Translational Oncology, Tumor Immunotherapy. Sex Differences	Incubate a Cancer Metastasis community with cell biologists and bioengineers to study cell-intrinsic and microenvironmental factors involved in cancer metastasis, to lung, bone, and other sites.	Newly remodeled space in Discovery Theme D, colocated with Cancer, Genomic Immunology, Aging, and others.
2	Mechanobiology	Surgery/BioE/MSK	Multiscale Metabolism, Cancer Metastasis, Cell Biology	Incubate a Mechanobiology community studying interaction of physical and biological factors in cancer, developmental, vascular, metabolic, and musculoskeletal biology and bioengineering.	Newly remodeled space in Discovery Themes A, B, and D, colocated with Cancer, DSCB, Musculoskeletal, and Bioengineering.
3	Multiscale Metabolism	BCMM, Diabetes	Cancer Metastasis, Mechanobiology, Sex Differences, BCMM, iMicro, and/or Diabetes	Incubate a Multiscale Metabolism community studying cellular, systemic, and organismal metabolism, including the role of the physical factors and the microbiome, throughout the lifespan and in disease.	Newly remodeled space in Discovery Theme D, colocated with Aging, Microbiome, Endocrinology and others studying metabolism in health and disease.
4	Center for Pandemic Response	Lung	ImmunoX and/or iMicro	Incubate the Center for Pandemic Response among iMicro, ImmunoX, and Lung.	Newly remodeled space in Discovery Theme D, colocated with Lung
5	Sex Differences in Health and Disease	Reproductive Sciences, Urology, Nephrology, DSCB	Multiscale Metabolism, Cancer Metastasis, Cell Biology	Incubate a community studying Sex Differences within and beyond the reproductive system in health and disease.	Newly remodeled space in Discovery Theme A.

Phasing: Conceptual Timeline



Part V: Fulfilling Charges E, F, and G

- Recommending possible intercampus moves
- Communicating recommendations to the appropriate audiences
- Participating in PRAB Visioning Workshop

Charge E: If applicable, make recommendations on possible moves of research programs between Parnassus and Mission Bay.

- No recommendations for inter-campus relocation.
- However, the Space Committee should be aware of the following:
 - Faculty affiliated with the following programs may be candidates for intercampus relocation:
 - Center for Cerebrovascular Research (candidate for consolidation at ZSFG or PH)
 - Individual CVRI-affiliated faculty
 - Individual MB IHG and cancer labs
 - Translational Pharmacology Research Center
 - Radiation Oncology researchers aligned with ImmunoX and Cancer proposed moving from Mt. Zion to PH. Although this is outside the scope of this report, there is a need for renewed focus on Mt. Zion research space programming.
 - Pediatric clinical research is interested in access to shared clinical research space at PH, which would introduce significant design considerations.
- Although some programs currently at other campuses were ‘placed’ in Discovery Themes, actual placements will need to be considered with more data on available space and programmatic priorities.

Charge F: Communicate recommendations to the appropriate audiences

- This Task Force made a commitment to data-driven, open, bi-directional, and transparent communication.
- A subgroup focusing specifically on communication led extensive communications and outreach efforts at every stage of this process, to collect data, to gather feedback on Discovery Theme recommendations as they were developed, and to share information broadly.
- The Task Force utilized several communication channels to reach all research communities, including:
 - Engaging in outreach via UCSF Faculty Listserves and RSWG Listserves, to reach clinical and laboratory research communities,
 - Hosting a Parnassus Research Programming Town Hall,
 - Conducting Listening Sessions with 57 program leads,
 - Establishing and monitoring a dedicated email account,
 - Performing targeted outreach to specific research communities and
 - Engaging leaders and communicating through multiple leadership channels (Academic Senate, Chairs meetings, etc.)

Charge G: Inform the visioning of the PRAB design by participation in PRAB Visioning Workshops.



- Task Force members contributed to the **PRAB Visioning process** in February 2021 to articulate the research community's **goals and aspirations** for the Parnassus Research and Academic Building.
- These contributions helped inform the building's vision, values, design principles, operating principles, and metrics.
- The [Vision report](#) was Issued to the Executive Oversight Committee in May, 2021 and was provided to the design teams under consideration for the PRAB Architect of Record.

Part VI: Clinical Research Space

Completion of Charges Informed Recommendation #3

At the outset of this report, the Task Force outlined three Recommendations, the third of which is:

Recommendation #3: Address the urgent need for 75K clinical research space by:

- a. Adopting a **phased solution**, beginning now with newly liberated space followed by purpose-built space in PRAB.
- b. Locating **purpose-built clinical research space throughout the campus** according to clinical intensity and participant access.
- c. Incorporating relevant **shared clinical research resources** (e.g., research units, CoLabs).

The Task Force arrived at this recommendation via extensive outreach and deliberation through the completion of the Task Force charges. The following slides describe the need and outline an approach to meeting that need via an approach that distributes clinical research across the Parnassus campus based on the degree of clinical care intensity involved.

Need for Clinical Research Space at Parnassus

- **The clinical research community at Parnassus is large, highly productive, and under-resourced ***
 - There are 249 Parnassus-based clinical research faculty (45% of whom are women)
 - Parnassus-based clinical researchers receive \$113.5 million in annual research funding
 - Only ~15,000 ASF of purpose-built clinical research space, representing 2.7% of the 555,000 ASF of research space at Parnassus
- **There is an urgent need for purpose-built clinical research space**
 - The urgent need for purpose built clinical research space at Parnassus has been endorsed by the UCSF Space Committee (June 25th, 2021)

* Source: Research Space Working Group Report February 15th, 2019 (slides 26, 27)

Clinical Research Has Diverse Space Needs

Parnassus Heights is home to all types of clinical research - from clinically-embedded studies to studies of healthy individuals from the community; from studies that are population-based to those that are mechanism-based. Clinical research and the researchers doing it are **integral to the PH research culture and community**.

Each type of clinical research has **different considerations for space and proximity to resources.**

Benefits of a phased approach to create clinical research space **throughout the PH campus include:**

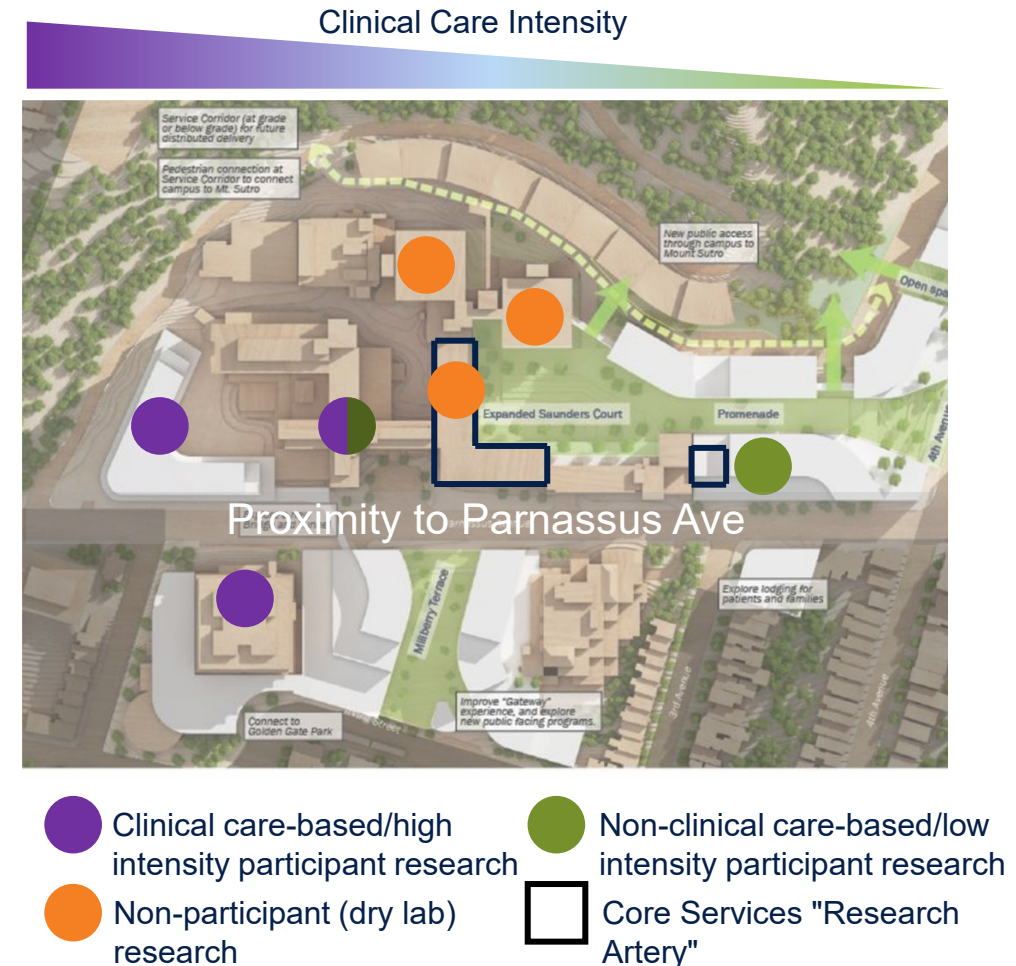
- **Rapid solutions** for urgent need for purpose built clinical research space.
- Colocation with basic and laboratory-based investigators in each Discovery Theme will **amplify research impact** in discovering new mechanisms, diagnostics, and therapies, and rapidly applying them for **clinical benefit**.
- Colocation will **augment competitiveness** for translational team science **funding** opportunities and the development of new **intellectual property**.
- Integrated purpose-built clinical research space in the new Hospital will **improve clinical care** through enabling participation in cutting edge trials.
- Purpose-built clinical research space in the PRAB will **promote biospecimen-based discovery** and **engagement of the diverse communities** served by UCSF.

DIVERSE TYPES OF CLINICAL RESEARCH	
Proximity Considerations	
CLINICAL TRIALS & HEALTH SYSTEMS Clinical Services, Clinics, Hospitals	OBSERVATIONAL & MECHANISTIC Biomedical/Basic Sciences, Biospecimen cores, CoLabs
DATA ANALYTIC & POPULATION HEALTH Computational Science and Informatics	COMMUNITY & BEHAVIORAL Social Science & Public Health, Community Access

Clinical Research Space: Programming Principles

For the 75,000 ASF* of purpose-built clinical research space at Parnassus:

- **Distribute space** across the Parnassus campus
 - Place **participant**-based research space with **easy access to Parnassus Avenue** (e.g. Moffitt, ACC, PRAB)
 - Locate **non-participant**-based dry lab research **strategically** (e.g. high MSB and tower floors due to chemical loading)
 - **Create a clinical care gradient** from East to West with care-based, high-intensity research near hospital and clinics.
- Interface space with **"Research Artery"** and shared core resources for clinical research



* Source: Research Space Working Group Report February 15th, 2019 (slides 29-31)

Clinical Research Space at Parnassus

Detail: PRAB Clinical Research Space

- **The PRAB should contain 20,000 ASF of clinical research space**
 - Programmatic space supporting PRAB-based clinical researchers (~10,000 ASF)
 - Programmatically aligned clinical research and laboratory space should co-locate
 - Clinical investigators need dedicated workspace for faculty and staff, storage of research equipment, supplies and documents
 - Program-specific space planning should complement the use of shared clinical research resources (see below) where appropriate
 - Non-clinical, low-intensity shared research resources (~10,000 ASF)
 - Participant-facing unit: an accessible, welcoming, participant-centered space for research involving participants not requiring clinical care or high-risk interventions (~7,500 ASF)
 - Biospecimen procurement core: would provide for collection and simple processing of blood, stool, urine and other biospecimens from the participant-facing unit (~2,500 ASF)

Clinical Research Space at Parnassus

Detail: Participant-facing unit

- A PRAB-based low-intensity participant-facing unit would include:
 - Private rooms to accommodate 1:1 activities (questionnaires, simple examination)
 - Conference rooms for community-based research, group research activities
 - Video conferencing, recording, and technology for observational virtual research
 - Hotel space for research staff conducting monitoring visits
 - Short-term storage space for research supplies and equipment
 - Support for PRAB program-specific activities (e.g., SON, Rheumatology, Microbiome)

Part VII: Macroenvironment Needed for Implementation of Programmatic Vision and Rejuvenation of PH Research Space

The Macroenvironment needed for Implementation of Task Force Recommendations



Clinical Research Space – as discussed above, given the urgent need, purpose-built clinical research space must be available **no later than 2026**, and sooner, if possible.



Physical Connectivity – internal connectivity and broad access among new and existing research space is essential and should be central to future remodeling and new research space



Remodeling of Existing Research Space – a prerequisite for the Parnassus-wide scope of these recommendations is a concrete and substantial commitment of resources to remodel existing research space



Space Governance – change policy to create flexibility for programmatic space organization balanced with departmental vision, space investments, and management infrastructure

Physical Connectivity

Architectural solutions that support community and collaboration



- **Internal connectivity** and broad access among new and existing research space is **essential**, a conclusion reinforced by input from colleagues at Mission Bay.
- **Top Priority:** contiguous **Research Artery** with shared research resources for all types of research, interaction space, and CoLabs
- **Distribute interaction spaces** proposed in CPHP across Discovery Themes: Concourse, Forum, Living Room, Workspace Hoteling, Food & Beverage, etc.

Remodeling of existing research space

Commitment to whole campus Parnassus Heights rejuvenation



- To **benefit the entire PH community**, use new construction to unlock opportunities to remodel underutilized space in existing buildings.
- Make a **concrete and substantial commitment** of resources now so that remodeling can begin immediately after the opening of the PRAB.
- The examples of shovel ready projects provided here would create **transformative opportunities** for strong PH research programs not sited in the PRAB.

Space Governance

Clarity for all stakeholders



- Department chairs, program directors, and other individual faculty members expressed **concerns about uncertainty** regarding how space assignments will be managed, and how and by whom decisions will be made.
- New policies are needed to create **flexibility for programmatic space organization** balanced with departmental vision, space investments, and management infrastructure.
- Accelerate ongoing efforts to reform space management to increase **transparency and participation** from the research community.
- **Communicate** policies clearly to all stakeholders.
- Make informed programming **decisions using data and resources** developed by this Task Force (see “Resources” provided in Section I of this report).

Resources – Work Products Developed by the Task Force

Resources for Informed PH Research Space Programming

NOTE: All data compiled by the Task Force will require regular updating to remain relevant and useful. Resources outlined here are intended for use by specific audiences and therefore may not be accessible to all readers.

Resource	What It Is	How to Use It
<ul style="list-style-type: none"> • Parnassus Research Program List • Investigator Affiliation and Space Data 	<ul style="list-style-type: none"> • A list of all research programs at Parnassus, with contact info for program leads • Data on Parnassus investigator affiliations and space currently assigned to faculty investigators 	<p>These documents to be used for:</p> <ul style="list-style-type: none"> • Backfilling space vacancies and allocation decisions • Making decisions about space allocations for new recruits and for new space—these decisions should be made referencing the affiliations, specific space needs, and agencies listed.
<ul style="list-style-type: none"> • Listening Session Data • Supplemental Materials from Listening Sessions 	<ul style="list-style-type: none"> • Raw data gleaned from the listening sessions the Task Force conducted with program leads • Reports and presentations provided by program leads to further inform space planning efforts for their respective programs 	
<ul style="list-style-type: none"> • Criteria for Determining Magnet Programs 	<ul style="list-style-type: none"> • Criteria used for choosing magnet programs for Discovery Themes 	
<ul style="list-style-type: none"> • Parnassus Research Program Space Data 	<ul style="list-style-type: none"> • Space data from Archibus grouped by primary program affiliation of Pls. 	
<ul style="list-style-type: none"> • Parnassus Space Commitments 	<ul style="list-style-type: none"> • This document includes space commitments by School. 	<ul style="list-style-type: none"> • For use by UCSF Space Committee/Faculty Space Committee
<ul style="list-style-type: none"> • Tower Floor Triad Remodeling Plan 	<ul style="list-style-type: none"> • Outlines proposals to decant adjacent Tower Floors for cost-effective and efficient remodeling, swing incubator opportunities, and PRAB Programming 	<ul style="list-style-type: none"> • Identifies logistical and scientific opportunities that could arise from thoughtful and deliberate space planning

Considerations for Identifying Research "Magnet" Programs



- Number of investigators within a program
- Funding within a program (e.g., center grant, T32, department/school-level support)
- Existing strong footprint / identity / longevity
- Existing infrastructure (e.g., admin support, seminar series, retreats)
- Extent of collaboration between programs
- Existing or potential to support infrastructure of other groups
- Potential for future growth

Parnassus Research Program Placements

Sorted by Discovery Theme	
Research Programs	Proposed Discovery Theme Placement
Broad Center of Regen Med and Stem Cell Research	A
Developmental and Stem Cell Biology	A
Neuroscience	A
CRS - Center for Reproductive Sciences	A
Neurological Surgery - Neuro-Oncology	A
Surgery and Surgical Subspecialty	A
Diabetes Center	A, C
Otolaryngology - Head and Neck Surgery	A, D
Program in Craniofacial Biology	A, D
Translational Pharmacology Research Center	B
MERC - Multiethnic Health Equity Research Center	B
Orofacial Sciences	B
Health Equity - School of Nursing	B
CTCRE - Center for Tobacco Control Research and Education	B
Radiation Oncology - Data Science	B
IHG - Institute of Human Genetics	B
Human and Population Genetics	B
Bioengineering and Therapeutic Science	B
Radiology	B
Oral Epidemiology and Dental Public Health	B
Gladstone - UCSF Institute of Genomic Immunology at PH	B
Family and Community Medicine	B
Center for Clinical Informatics and Improvement Research	B
Medications Outcome Center	B
Digital Health Research	B
CoLabs	B, C
Symptom Science	B, C
Biospecimen Core	B, C
Immunology - ImmunoX	B, C, D
Geriatrics - Clinical	B, D
Palliative Care	B, D
Hospital Medicine	B, D
Bakar Aging Research Institute	B, D
Infectious Disease	B, D
Aging and Gerontology	B, D
Rheumatology Autoimmune - Clinical	C
Tumor Immunology/Cancer immunotherapy	C
iMicro - Integrated Microbiology	C
Hooper Foundation	C

Sorted by Discovery Theme	
Research Programs	Proposed Discovery Theme Placement
Cell Biology	C, D
Radiation Oncology - Basic	C, D
Autoimmune Rheumatology - Basic	C, D
Cancer - Basic	C, D
Oncology - Translational	C, D
BCMM - Benioff Center for Microbiome Medicine	C, D
Dermatology	D
Nephrology	D
Gastrointestinal	D
Cutaneous Immunology	D
Orthopedic Surgery	D
Neurological Surgery - Speech	D
Lung Sciences	D
UCSF Liver Center	D
UCSF Musculoskeletal Center	D
Cardiology	D
Anesthesia	D
Emergency Medicine	D
Endocrinology	D
Center for Cerebrovascular Research	D
Urology	D
Neurology	D
PT and Rehab Sciences	D

Sorted A-Z by Program Name	
Research Programs	Proposed Discovery Theme Placement
Aging and Gerontology	B, D
Anesthesia	D
Autoimmune Rheumatology - Basic	C, D
Bakar Aging Research Institute	B, D
BCMM - Benioff Center for Microbiome Medicine	C, D
Bioengineering and Therapeutic Science	B
Biospecimen Core	B, C
Broad Center of Regen Med and Stem Cell Research	A
Cancer - Basic	C, D
Cardiology	D
Cell Biology	C, D
Center for Cerebrovascular Research	D
Center for Clinical Informatics and Improvement Research	B
CoLabs	B, C
CRS - Center for Reproductive Sciences	A
CTCRE - Center for Tobacco Control Research and Education	B
Cutaneous Immunology	D
Dermatology	D
Developmental and Stem Cell Biology	A
Diabetes Center	A, C
Digital Health Research	B
Emergency Medicine	D
Endocrinology	D
Family and Community Medicine	B
Gastrointestinal	D
Geriatrics - Clinical	B, D
Gladstone - UCSF Institute of Genomic Immunology at PH	B
Health Equity - School of Nursing	B
Hooper Foundation	C
Hospital Medicine	B, D
Human and Population Genetics	B
IHG - Institute of Human Genetics	B
iMicro - Integrated Microbiology	C
Immunology - ImmunoX	B, C, D
Infectious Disease	B, D
Lung Sciences	D
Medications Outcome Center	B
MERC - Multiethnic Health Equity Research Center	B
Nephrology	D

Sorted A-Z by Program Name	
Research Programs	Proposed Discovery Theme Placement
Neurological Surgery - Neuro-Oncology	A
Neurological Surgery - Speech	D
Neurology	D
Neuroscience	A
Oncology - Translational	C, D
Oral Epidemiology and Dental Public Health	B
Orofacial Sciences	B
Orthopedic Surgery	D
Otolaryngology - Head and Neck Surgery	A, D
Palliative Care	B, D
Program in Craniofacial Biology	A, D
PT and Rehab Sciences	D
Radiation Oncology - Basic	C, D
Radiation Oncology - Data Science	B
Radiology	B
Rheumatology Autoimmune - Clinical	C
Surgery and Surgical Subspeciality	A
Symptom Science	B, C
Translational Pharmacology Research Center	B
Tumor Immunology/Cancer immunotherapy	C
UCSF Liver Center	D
UCSF Musculoskeletal Center	D
Urology	D

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