November 1, 2018

Dear Colleagues:

In this issue, I am glad to provide an update on the ambitious effort to reimagine our Parnassus Heights campus. Many people from all parts of the UCSF community have been coming together and sharing ideas on how to create a space up on the hill that’s every bit as dazzling and dynamic as what we’ve built in Mission Bay. The process is still in its nascent stages, but we’re moving quickly, and you can expect to hear a lot more from us in the months ahead.

Please read on for more detail and the rest of this month’s topics:

- Reimagining Parnassus: Blue Sky vision
- First Impressions Contest: Putting our best face forward ? Round 2!
- Precision Medicine Update: Positioning data to work for human health

I also want to give you a heads-up about the UCSF Food Industry Documents Archive [1]. Funded by the Arnold Foundation, this groundbreaking archive, with an initial collection of over 300,000 pages, will feature thousands of previously hidden classified documents produced by food industry executives that, until now, have been unseen by the public. On November 15, the Philip R. Lee Institute for Health Policy Studies and the UCSF Documents Library are co-sponsoring a monumental unveiling [2] that will illuminate how the food industry is influencing public health. This is an opportunity for you to join leaders in the field of food politics, journalism, and health policy. The keynote speaker is Marion Nestle, PhD, who will present ?Food Politics 2018: Food Industry Influence on Nutrition Research.?

Thanksgiving is just around the corner and gratitude is the food that nourishes our spirit. Thank you for everything you do to make UCSF such a remarkable place. I hope this holiday finds you being a light for someone experiencing darkness, and I wish you and yours a peaceful and reflective holiday.

You can always let me know your thoughts about anything you read or would like to see in Expresso ? at ExecutiveViceChancellor@ucsf.edu [3].

And ? as if I need to remind you ? don’t forget to vote!!!

Thanks,

Dan
Reimagining Parnassus: Blue Sky vision

Mythical Mount Parnassus was home to the Muses [4] and a place of poetry, music, and learning. In San Francisco, UCSF's very real Parnassus Heights has long been the home of health care, science, and learning. Moving to the hill in 1898 after Mayor Adolph Sutro donated the University the land, it has evolved into the extraordinary place where many of us work and study today.

However, many of our buildings date back to days of tremendous growth in the 1950s and ?60s. Our more recent expansion in Mission Bay has made our historic hilltop home seem faded in comparison. Expresso readers know that focus has returned to our Parnassus campus to make it every bit as awesome an environment as Mission Bay. (Details, updates, and progress are posted at Space@UCSF [5]. See also the March article in UCSF Pulse [6] and my May Expresso [7] on the subject.)

To reach that goal of renewed awesomeness, we have hired our own muse, the established global design firm Perkins Eastman [8], which believes that ?design can have a direct and positive impact on people?s lives.? Sharon Priest, a senior planner in UCSF Real Estate, says the firm brings ?new eyes and new vision? to our process. Because Perkins Eastman has an office in San Francisco, the team knows the local terrain and understands our unique presence in San Francisco.

Since May, Perkins Eastman has been meeting with our Parnassus Master Plan Steering Committee (PMPSC), which I co-chair with Senior Vice Chancellor Paul Jenny, and which includes representatives from all schools. Everything is on the table; we are thinking about how we could reconfigure space, repurpose existing buildings, and make changes ranging from small, easy fixes to big, bold re-workings.

Leading us through a fabulous ?blue sky? workshop in July [9], in which representatives of many sectors of our campus shared our dreams for what Parnassus could be, Perkins Eastman produced a list of six ?Big Ideas? [10] to anchor and inspire our process:

- **Create the Campus Heart.** Right now, we don?t feel we have a central spot at Parnassus, a destination for visitors, a landing place common to other campuses. Can we generate one?
- **Form Complementary Districts.** We?d like to create buildings that can redefine campus relationships. Perhaps clinical functions should be grouped together ? e.g., should dentistry be closer to the hospital? What about moving educational spaces from the upper floors to street level? As Sharon explains, ?We should think in terms of ?land use zones,? the way urban planners do.?
- **Emphasize Connections for Convergence.** ?Right now, we have a confusing network of corridors to get through our buildings, such as Clinical Sciences, Medical Sciences and Moffitt Hospital,? says Kevin Beauchamp, UCSF director of Physical Planning. If we think in terms of concourses, we could create new throughways, both interior and exterior, that could serve as organizing spines and give a sense of place. ?We want to create a sense of community where people serendipitously bump into each other,? Kevin says.
- **Park to Peak: A Vertical Campus.** We have a spectacular location, ideally situated just above world-class Golden Gate Park and below the fragrant woods of Mount Sutro.
Kevin notes that we maintain an open space reserve on Mount Sutro. Perkins Eastman wondered: Could we take advantage of our topography and do a better job of connecting to these natural marvels?

- **Parnassus Avenue is the Campus Main Street.** We would love to rethink our main thoroughfare, from practical considerations like creating a comfortable pedestrian experience and improving traffic flow and parking, to more lofty goals as expressed by Bob Wachter, chair of the Department of Medicine, who sees a potential Champs-Élysées that grandly connects the clinical, research, and educational enterprises.

- **Irving Street Connects to the Community.** We have another gateway to UCSF, the decidedly unspectacular entrance on Irving Street. Perhaps we could find a way to better welcome patients and the public, as well as improving access to the neighborhood and supporting local businesses. Sharon reveals the nature of our big ideas by asking: What if we removed a building? Could we look to Rome’s Spanish Steps as a model for navigating from Irving to Parnassus? Can we do something that bold that’s attractive and useful and serves our mission?

Our goal is to have an outline ready by January and a fully composed Comprehensive Plan in place by June 2019.

*Roma uno die non est condita.* The same goes for Parnassus. It won’t be rebuilt in a day. It took twenty-five years for Mission Bay to emerge from concept and planning to what it is now, and we estimate that Parnassus will need a similar time frame.

Has this piqued your interest in urban planning? Walter Hood, creative director and founder of Hood Design Studio in Oakland, CA, was a guest speaker at the PMPSC July workshop. Here’s an inspiring TED talk that he gave on August 31, titled “How urban spaces can preserve history and build community.”

And while many of these ideas have come from our extensive outreach efforts and multiple UCSF community surveys, we want to make sure everyone has a say. If you have an idea, comment, suggestion, or reaction, please let us know!

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**First Impressions Contest: Putting our best face forward? Round 2!**

For Richard Thomas, staff physician for Student Health and Counseling Services, the dreary Millberry Union West stairwell from the B1 to the P7 level certainly did not make a good first impression for students and employees, especially those new to UCSF.

Many new students and colleagues pass this way on their first day on campus to obtain their UCSF ID, secure parking, and transit passes, or to access health care services. Thomas said. One employee at the Student Health Center (SHC) said that walking down the steps to the student health center on the first day of work felt like they were walking down to a dungeon.
That’s why Thomas and the staff at the Student Health Center submitted an application to revitalize the stairwell as part of the annual Facilities Services First Impressions Contest. The project was one of twelve chosen in 2018 for funding, and the stairwell will be transformed with new paint, additional signage, and improved lighting. Facilities Manager Chris Gonzales will be working closely with Thomas and the SHC staff to implement their vision for a more welcoming entry.

“We have been amazed by the interest and creativity expressed in the contest,” said Jon Giacomi, assistant vice chancellor for Facilities Services. “Some departments make funny, but enlightening, videos in their contest submissions. It has been a great way for us to engage the UCSF community and help see and prioritize projects that we may not have noticed in the past.”

A fourteen-member committee from across UCSF selected the 2018 winners, with each project being judged on its overall impact and feasibility and the winning projects receiving up to $10,000 to upgrade the space.

For example, Melissa Telli, director of marketing and strategic relations for the School of Dentistry, submitted a proposal to update the lobby of the UCSF Dental Center’s Parnassus location. “Because the building is so busy, I thought it would maximize the impact of the First Impressions dollars [feasibility],” she said. The center receives more than 95,000 patient visits annually. “The entryway was chosen because it is what all of our patient community first encounters when they show up for appointments, so we want it to look as nice as possible [impact].”

Another First Impressions project will transform the hallways in the School of Nursing with color, benches, and greenery. Michele Keating, a project analyst with the School of Nursing, said the hallways were chosen for the contest because they are the gateway to the School of Nursing offices [impact]. “Having a splash of color, some benches for seating, and adding plants will truly welcome people to the School of Nursing [feasibility],” she said.

This is a highly successful, grassroots, community-oriented program at UCSF, of which we can all be proud. The full list of this year’s winners [13] (and last year’s winners [14]) can be found on the Campus Life Services website.

Kudos to all! I am looking forward to seeing each of the finished projects and what our community comes up with for next year’s contest entries.

(By the way?have you seen ?A Day at UCSF without Campus Life Services [15]?)

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**Precision Medicine: Positioning data to work for human health**

What do Google Maps and precision medicine have in common? (No, it’s not a trick question.) You look at Google Maps for directions to, let’s say, Lake Tahoe, and while you’re there, you check the traffic, the weather, and maybe the menus at local restaurants. What you
don’t see are the many layers of data that work together to deliver this information in one place.

The precision medicine approach shares this goal of integrating strata of information into a vast knowledge network [16], which can then be accessed to find answers to complex questions. Continuing the geographic analogy, a researcher may want to compare health outcomes in two ZIP codes, incorporating air pollution, availability of healthy food, genetic predispositions, patient ethnicity, and stress factors, such as violent crimes. As with Google Maps, the zoom function is critical, but in this case it would be from population to individual to molecular information.

The term precision medicine was coined in the 2011 National Academy of Sciences report, Toward Precision Medicine: Building a Knowledge Network for Biomedical Research and a New Taxonomy of Disease [17], whose authors include UCSF Vice Chancellor for Science Policy and Strategy Keith Yamamoto and former UCSF Chancellor Susan Desmond-Hellmann.

We now define it as the use of advanced computing tools to aggregate, integrate, and analyze vast amounts of data from basic science, clinical, personal, environmental, and population health settings, to better understand biological processes and define disease mechanisms, and to develop and deliver more precise diagnostics, therapeutics, and prevention measures. Everyone, including patients, can contribute their own data to this dynamic network.

The quantity of data generated at UCSF and UC-wide is staggering. Take the electronic health records and images of the 15 million patients in the UC Health system and add in the full spectrum of molecular through population level data, and you have a vast and largely underexplored resource. As Atul Butte, the director of the Bakar Computational Health Sciences Institute [18], keeps emphasizing, it would be a tragedy if we didn’t make use of this information in a safe respectful way to accelerate science and improve clinical care and population health. Recognizing this, Chancellor Sam Hawgood has established precision medicine as one of his priorities.

But what does precision medicine mean to you?

- If you are a basic scientist, you will be able to connect your data and discoveries via the evolving knowledge network to patient, microbe, environmental, and other information. New insights into mechanisms, biological processes, complex relationships, and gene-drug interactions [20] will emerge. The knowledge network will correlate bench research findings with clinical and population data, suggesting novel hypotheses that are testable in the lab. The result will be a learning cycle, with cross-feeding encompassing the full spectrum of research, from basic discovery, to clinical data and practice, to social and behavioral determinants of health.

- In clinical research, access to large data sets is already advancing health care. For example, mapping connections between breast and ovarian cancer genes and available chemotherapies [21] enables prediction of chemotherapies most effective for tumors with particular genetic mutations. New sources continuously appear, e.g., 10,000 Immunomes, a searchable database of human immunity. Analysis of systemwide health data will reveal which interventions and therapies work and which don’t, or are wasteful, or have negative side-effects [23]. The result: better outcomes for patients and cost savings.

- Population health researchers will be able to link exposome environmental, social,
and behavioral factors such as lifestyle, environment, economics, culture, and social determinants \[24\] to clinical and mechanistic studies to create a comprehensive view of individual and societal health. By observing how communities, patients, and practitioners \[25\] interact with emerging precision medicine tools and technologies, researchers will define practices and policies that predict and prevent disease and encourage access to and compliance with treatment regimens. Please see my opening remarks \[26\] for the symposium on "The Exposome and Metabolic Health."

- **Patients and healthy cohorts** are contributing data \[27\] through online and mobile health tools. They and their providers will examine data together to learn how genomic, social, and behavioral factors collectively affect individual health. Precision medicine depends on inclusion of all populations in our community, so every sector benefits from this revolutionary approach as we combat disparities and aspire to health equity. This is core to UCSF\'s values and simply, good science.

- **New curricula** in the Schools of Medicine \[28\] and Pharmacy \[29\] center on equipping students with the inquiry skills needed to interpret and integrate ever-increasing stores of data to effectively diagnose and treat patients and populations safely and effectively.

UCSF is seen as a leader in precision medicine, and a number of our experts will lead sessions at next year\'s Precision Medicine World Conference \[30\]. The developing agenda reflects the breadth of UCSF\'s roles in the field:

- AI and data sciences (Atul Butte \[31\])
- Public policy for precision medicine (India Hook-Barnard \[32\])
- Ethical implications of using whole exome sequencing in prenatal and young children (Barbara Koenig \[33\])
- Data Collection Use Cases ? Improved Patient Outcome (Laura Jelliffe-Pawlowski \[34\])
- The Need for Precision Medicine Workforce ? (Catherine Lucey \[35\])
- Cancer immunotherapy combined with other modalities (Pamela Munster \[36\])
- Genomics (Aleks Rajkovic \[37\])

If you are interested in speaking, please contact program co-chair India Hook-Barnard \[38\]. A limited number of complimentary tickets will be available for trainees or junior faculty who wish to attend.

Keith Yamamoto, director of UCSF Precision Medicine, sees the evolving knowledge network as a key to the University of the Future \[39\], asserting that "it will incentivize self-assembly of collaborative teams that span the full research, health, and health-care spectrum, opening opportunities to address vexing scientific and societal issues, many perhaps yet unimagined, that seem otherwise impenetrable."

That\'s a lot of information. Learn more at precisionmedicine.ucsf.edu \[40\].

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**Dan\'s Tip of the Month**
I’ve never really followed Lady Gaga’s career, but I’ve always admired her musical talent and the clear sense that she dances to the beat of her own drum. Then, about three weeks ago, I was blown away by her interview with Stephen Colbert where, among other things, she described her experience working with Bradley Cooper filming the latest production of ‘A Star is Born’ (the first was produced way back in 1937). This remake has everything – a swept-off-your-feet romantic fantasy, an underdog-makes-good journey, a wrenching substance abuse saga, and an industry cautionary tale – combined with incredible music and characters that grab your emotions until the very last second. I loved it! In my opinion, Lady Gaga’s genius in singing and songwriting has been extended to include acting, and Bradley Cooper is equally brilliant. Cinema at its best?