

The Regents of the University of California

**SPECIAL COMMITTEE ON INNOVATION TRANSFER AND ENTREPRENEURSHIP**

February 17, 2022

The Special Committee on Innovation Transfer and Entrepreneurship met on the above date by teleconference meeting conducted in accordance with California Government Code §§ 11133.

Members present: Regents Hernandez, Leib, Park, Reilly, and Sherman; Chancellors Christ, Khosla, and Muñoz; Ex officio member Drake; Advisory members Green, Kahn, Ku, Taylor, Walker, and Wallace

In attendance: Regent Zaragoza, Regent-designates Blas Pedral and Timmons, Faculty Representative Cochran, Secretary and Chief of Staff Shaw, General Counsel and Vice President Robinson, Deputy General Counsel Wright, Vice President Maldonado, and Recording Secretary Lyall

The meeting convened at 10:05 a.m. with Special Committee Chair Leib presiding.

1. **PUBLIC COMMENT**

There were no speakers wishing to address the Special Committee.

2. **APPROVAL OF MINUTES OF PREVIOUS MEETING**

Upon motion duly made and seconded, the minutes of the meetings of December 16, 2021 were approved, Regents Drake, Hernandez, Leib, Park, Reilly, and Sherman voting “aye.”<sup>1</sup>

3. **INNOVATION TRANSFER AND ENTREPRENEURSHIP TRANSFORMATION: PROGRESS UPDATE**

[Background material was provided to the Special Committee in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

President Drake underscored innovation and entrepreneurship as being an important component of the work of the institution. The University leadership has identified areas that can be developed to support faculty in bringing knowledge to the marketplace. He reiterated his opinion and that of the chancellors that several of the recommendations of the Regents’ Working Group on Innovation Transfer and Entrepreneurship Report (Working Group) are best executed by the campuses.

Vice President Maldonado provided an update on the consultation progress in implementing the Working Group’s 13 recommendations. She indicated that the chancellors, as well as other key stakeholders, have been extensively consulted on strategic directions, the priority of the recommendations, the approach for UC Office of the President (UCOP) and campus engagement with the Regents, and the strategy for next

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<sup>1</sup> Roll call vote required by the Bagley-Keene Open Meeting Act [Government Code §11123(b)(1)(D)] for all meetings held by teleconference.

steps. The chancellors agreed that innovation and entrepreneurship should be moved to a decentralized model for all campuses. Working directly with the chancellor's offices, UCOP would be responsible for systemwide policy and reporting, as these services are best performed centrally. Clear communication between the Regents, UCOP, and the campuses is critical to the successful implementation of the recommendations.

The 13 recommendations were prioritized by the Research and Innovation Office based on systemwide impact and scale of difficulty. High priorities are recommendations #1, roles and responsibilities; #4, patent tracking system (PTS) replacement; and #7, policy review. Based on consultation with campus leaders, recommendations #1 and #4 would be decentralized and recommendation #7 would remain within the purview of UCOP.

A thorough review of recommendation #1 has been conducted by the UC Research and Innovation Office. In consultation with the chancellors, the Research and Innovation Office would facilitate the transition to a more decentralized model allowing for decisions to be determined by each campus. A detailed approach would be presented to the Special Committee by April, 2022. Any solution must be phased to allow campuses to transition effectively and with low risk. The implementation process of these high priority recommendations would help to guide the process for the other ten recommendations.

Recommendations #2, equity management; #3, legal and policy compliance; #5 proof of concept fund, and #6, budget augmentation, have been determined to be easier to implement than the three high priority recommendations. Review of recommendations #2 and #3 with the Special Committee would begin by July, 2022.

Ms. Maldonado further explained that the decentralized innovation and entrepreneurship transition would allow each campus to determine and implement their own individualized PTS solution. The systemwide Innovation and Transfer Entrepreneurship Office has begun work on decommissioning the current PTS by fall 2023 or early 2024. UCOP would be responsible for defining the systemwide data requirements and managing a centralized data warehouse for reporting purposes. The decentralized system allows the Office of the President to support more strategic efforts, for example, engaging diverse students and faculty within the University's entrepreneurship ecosystem.

She presented an overview of the next steps in regards to the 13 recommendations. Recommendations, #1 roles and responsibilities and #2, PTS replacement, continue to be the highest priorities for significant decentralization. The Academic Senate has done extensive work on recommendations #8, promotion and tenure revision and #9, leave of absence policy. They concluded that recommendation #8 is not necessary, as the current set of promotion and tenure criteria already includes these activities. She indicated that recommendation #9 is currently under systemwide review. The Special Committee would be updated on recommendation #12, probe intellectual property rights, by June 2022, and updated timelines would continue to be developed for recommendations #10, #11, and #13. Throughout these processes, the chancellors would continue to be consulted.

Advisory member Taylor questioned how the University would address concerns that the less-resourced campuses may not be able to provide sufficient funding to accomplish the work outlined in the recommendations. Chancellor Muñoz replied that the proof of concept

fund and the budget augmentation would help to provide mechanisms for campuses who are differently resourced to accomplish the recommendations. Partnering with other campuses allows for the under-resourced campuses to further develop their structure and forecast future implications regarding roles, responsibilities, and management. He stated that the unique positions of each campus continues to be a consideration throughout the transition process.

Regent Sherman asked how the PTS would be developed, given the unsuccessful history of UCOP developing systems of this magnitude. He inquired if there are over-the-counter systems that can be used for this purpose and the cost of such systems. Executive Director Hunter responded that he is in discussions with several vendors, such as Wellspring, Inteum, and Caycuse, as well as with the UC Chief Information Officer, to review the options. He is working on a roadmap to determine the next steps, including the system cost. Caycuse currently works with all of the UC campuses on some level, and the cost of installations range from \$15,000 to \$90,000.

Regent Sherman asked which higher education institution has the most IP and what system they are currently using. President Drake responded that there is no comparable institution to the University of California. Mr. Hunter replied that the closest comparable institution is the University of Texas and they use Wellspring. Chair Leib indicated that UC is the institution with the most IP and emphasized the importance of understanding the needs of each of the campuses.

Advisory member Green asked for an outline of the proof of concept fund and asked what would be presented to the Special Committee. Ms. Maldonado responded that Chief Investments Officer Bachher, Chief Financial Officer Brostrom, and Chief of Staff Werdick have been working on the proof of concept fund. She was not aware of the specific timeline.

Regent Hernandez asked about the proposed decentralized model and indicated his concern that this model may leave the less-resourced campuses at a disadvantage, specifically when developing individualized patent tracking systems or establishing patent agreements with companies. Ms. Maldonado replied that the Office of the President would partner with the campuses to ensure there are sufficient transition plans that are thoroughly thought out and analyzed. She hopes that the systemwide data warehouse would have the ability to pool patents that can be bundled for licensing agreements.

Regent Park asked about the timeline for decommissioning the current PTS and the establishment of the individual campus patent tracking systems. It was estimated that the new PTS systems might be in place by fall 2023 to early 2024. Ms. Maldonado replied that this transition is a substantial, complex undertaking. The Chief Information Officer at UCOP has partnered with Ms. Maldonado and her team to analyze the transition of the system. She indicated that UCLA would likely be able to accomplish the transition within the fall 2023 to early 2024 time frame, but UC Merced might take longer due to the difference in resources. UCOP would create a detailed road map in order to deconstruct the current system. She explained that this provides campuses such as UC Merced with an opportunity to work with UCOP to reimagine a customized, campus-level innovation and entrepreneurship system.

Regent Park suggested that creating campus partnerships between a more established campus and a less-resourced campus, such as between UCLA and UC Merced, might aid in the process and shorten the timeline for accomplishing a campus-specific PTS. She remarked that UCLA is doing much of this work already so the 18-month timeframe might be lengthy. Chancellor Khosla explained that all ten campuses have a different level of maturity. It would be quite simple for UC San Diego to become autonomous, as the campus' innovation and entrepreneurship system is already substantially independent from UCOP. However, establishing this was a multi-year process. He suggested that campuses might consult with UCOP to determine which of these systems would work best for their campus, noting that several UC campuses are already using Wellspring and Inteum. Once the campus purchases the system, fund managers and other staff are already in place on most campuses to populate the data and manage the licensing revenue. Ms. Maldonado responded that each campus transition from the current PTS to the individualized campus system is be a phased approach, with ten distinct plans and timelines. To decommission the current PTS may take 18 months but she plans to work in partnership with the campuses to ensure a smooth transition between the systems. Chancellor Khosla emphasized the importance of the campuses capturing all of the data from the current PTS before decommissioning the previous system.

Regent Park asked how the development of the systemwide data warehouse would impact the timeline of decommissioning the current PTS. She inquired if UCOP would have a role in aiding campuses in the procurement of a new system. Executive Director Hunter replied the UCOP would help campuses to the extent that the campuses would like assistance. President Drake described that distinct differences between each of the campuses makes this a complicated process as each campus needs varying levels of assistance.

Regent Reilly asked if there was a designated funding stream to help the campuses in the PTS process. Ms. Maldonado did not know of a designated funding stream but they would work to determine what resources are needed for this effort. Chancellor Muñoz remarked that once the transition is complete, a budget augmentation is required to support the staffing needed. UC Santa Cruz Professor Scott Brandt remarked that systemwide coordination is needed in this effort and the ten individual campus plans need to be coordinated, while being sensitive to the needs of each campus.

Chair Leib suggested that thought be given to what information the Regents and UCOP would need to be able to determine appropriate reporting, compliance, and other information.

Advisory member Wallace remarked that decentralization may diminish the interest from investors due to the varying systems and structures of each campus. If campuses differ, there may be concern that the UC process is not market friendly. Entrepreneurs who are navigating the UC system would be drawn to the uniform nature across the ten campuses rather than having to learn the variations of each campus. She suggested that with more commonality, students from different campuses would be able to assist one another. Ms. Maldonado responded that more thoughtful dialogue with the campus leaders is required to ensure these concerns are addressed.

Advisory member Ku noted that the current PTS does not need to be decommissioned quickly as long as the campuses are able to become independent with their own systems. She emphasized that the start-up community already views the UC campuses differently, so there is not a significant need to be consistent and centralized.

#### 4. **UPDATE ON LEGAL AND POLICY COMPLIANCE IN INNOVATION TRANSFER**

[Background material was provided to the Special Committee in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Deputy General Counsel Wright discussed implementation of recommendation #3, the realignment of legal and policy compliance from the Office of the General Counsel to the campuses. The types of transactions discussed under this recommendation refer to the licensing of UC intellectual property to third parties for royalties.

Ms. Wright indicated that the current legal review framework in regards to innovation transfer legal affairs is ambiguous and does not provide adequate systemwide guidance. She noted that the Working Group's recommendation #7 is intended to update these policies to reflect current business needs and establish a process for ongoing periodic review and revision as appropriate.

UC Legal recommended that campuses be allowed the discretion to determine when legal review is necessary in technology transfer matters. Campuses, upon approval of the chancellor, may choose to utilize UC Legal, campus counsel, or retain outside counsel. If the campus chooses to handle some or all technology transfer legal affairs locally, then it would be required to acknowledge that UC Legal would continue to regulate the retention of outside counsel to ensure quality control. The campuses, however, are responsible for the costs associated with retention of outside counsel.

The campus technology transfer directors indicated their preference to ensure policy compliance and determination of legal review when handling licensing agreements. They supported their autonomy, encouraged appropriate checks and balances and noted the importance of systemwide UC Legal approved templates and resources.

Campuses would continue to engage services of UC Legal, specifically in regards to complex legal issues. There is a risk of possible inconsistent outcomes from campus to campus as a result of the decentralized process. The intended use of the pre-approved systemwide UC Legal templates are anticipated to mitigate some of these risks.

A few concerns the campuses shared were with establishing a threshold for required legal review, managing conflicts between campuses, possible increase of reporting or bureaucracy, and inefficient use of limited resources on campus. Ms. Wright explained that the University's limited resources in this arena made it inefficient to require operationalizing review of all licensing deals. However, one of the opportunities of the revised policies would be that the campuses already employ skilled technology transfer subject matter experts that are fully versed in IP at a local level.

The chancellors indicated their support of the implementation of recommendation #3 in shifting responsibility to the campuses for compliance and determination of required legal review.

Regent Park asked if UC Legal currently reviews every licensing transaction as requested by the campuses and questioned the difficulty or complexity of the systemwide template. Ms. Wright replied that the ambiguity in the current guidelines has allowed the campuses to incorporate varying practices of review. She explained that the template would evolve to make it more industry friendly and used at the campus-level. Part of the current challenge is that not everyone on campus is utilizing the systemwide template.

Regent Park asked if UCOP would need to pre-approve use of outside counsel and if campuses approved of this process. Ms. Wright stated that UC Legal has the responsibility to ensure quality control and oversight, including engagement of outside counsel. General Counsel Robinson explained that one of the provisions for this pre-approval would be to ensure that UC Legal does not slow the process in a bureaucratic manner. One approach is to offer a pre-approved list of firms that respond to a request for proposal, as well as to have exception criteria.

Chancellor Khosla asked for clarification as to whether UC Legal would be required to approve the hire of all outside counsel pertaining to IP and licensing review. He explained his concern over the possible delay in retention that this additional approval may cause. General Counsel Robinson stated that UC Legal would be required to approve the retention of outside counsel. He is reviewing the process to simplify the collaboration with campus technology transfer offices. The goal is for the majority of outside counsel retentions to occur quickly, possibly through a pre-approved counsel list.

Regent-designate Blas Pedral asked if UC Legal has plans to proactively review the template process to ensure that discrepancies between campuses do not arise. Ms. Wright replied that the template is adaptable and is an evolving design through discussions with UC Legal and the campuses. General Counsel and Vice President Robinson remarked that the template would be utilized for standard transactions. For more complex transactions, campuses would likely want to engage UC Legal. UC Legal plans to perform post-deal legal review every so often to ensure the technology transfer practices on the campuses are appropriate.

Chancellor Muñoz shared his appreciation that this recommendation affords the campuses the opportunity to continue the relationship with UC Legal for guidance and advice.

Regent Park thanked UC Legal for developing a retrospective review process to ensure the process is working as intended.

5. **UPDATE ON IMPLEMENTATION OF THE REGENTS' WORKING GROUP ON INNOVATION TRANSFER AND ENTREPRENEURSHIP RECOMMENDATION ON EQUITY MANAGEMENT**

[Background material was provided to the Special Committee in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Research Policy Analysis and Coordination Executive Director Deborah Motton provided an overview of progress on recommendation #2, realign equity management from UC Investments to the campuses. She explained that in May 2021, the Regents amended Bylaw 23.5(d) to expand the equity management authority to include the President of the University in addition to the Chief Investment Officer. The President can delegate certain equity management responsibilities to the chancellors. This shift in responsibility allows the campuses to have greater flexibility and better control over managing equity generated by campus innovation and entrepreneurship activity.

The goal is to minimize UCOP's role in the process, maximize the campus' flexibility and avoid bureaucracy when the University accepts equity related to licensing technology. She shared that this has the support of the chancellors.

Ms. Motton explained that guiding principles would be developed in collaboration with several units at UCOP and campus stakeholders addressing the general legal and regulatory requirements that accompany the responsibility for equity management. These principles would describe best practices for compliance with security laws and regulations, conflict of interest laws, obligations as a 501(c)(3) entity, consideration with mentors and inventors, general corporate duties, accounting issues, and reporting responsibilities.

Campuses would develop individual equity management plans in accordance with the guiding principles provided by UCOP. Elements of each campus' plans might include decision making processes, an outline of how certificates of ownership are stored and monitored, equity thresholds, and compliance requirements.

Regent Leib asked if the UC Chief Investment Officer has been consulted. Ms. Motton stated that this matter has been discussed with the Chief Investment Officer and that he is in agreement with the process.

Advisory member Walker asked if there would be a review prior to the completion of an equity security sale transaction to ensure compliance. Ms. Motton explained that a centralized review at UCOP is not being considered but that the campuses would be granted the decision making expertise to perform a final review before any sale is executed. She noted that consideration of a final review might be beneficial. Senior Counsel Nima Katz explained that the current system provides a separation of duties and insider trading protections because equity management is under the purview of the Chief Investment Officer. With campuses being allowed to manage the equity, best practices need to be established to keep the principal investigator and licensing officers distinct. Ms. Katz shared that the campuses would be afforded the autonomy to able to determine what is appropriate.

Chancellor Khosla asked if a campus would be able to transfer equity to their campus foundation, as this allows for separation. Ms. Motton remarked that this poses risks as campus foundations are separate legal entities. Ms. Katz underscored that the Regents' property is distinct from the campus foundations' resources. This idea could be further explored but it would likely be a case by case analysis based on the campus foundation guidelines.

Regent Park asked if the campus foundations can act in any capacity under the new decentralized process, due to the restriction that Regental assets cannot be transferred to campus foundations. Ms. Motton stated that under the current foundation guidelines, the transfer of Regents property is not allowed. She remarked that these guidelines can be changed if the foundation chooses to do so. Many of the equity management companies that the foundations utilize are private and are not 501(c)(3) entities subject to public open meeting law. If Regents' assets were transferred to a campus foundation, careful legal analysis would need to be performed to ensure that all laws were followed. Ms. Katz remarked that each foundation has their own external counsel who would need to determine the parameters.

Regent Park inquired about the level of guidance that UCOP would be giving to campuses in the development of the equity management plans. Ms. Motton indicated that UCOP would provide guidance to the campuses as requested, but the intent is for the campuses to create their own individualized plans. General Counsel Robinson explained that there likely would need to be an agreement, prepared by the campuses with legal input, with respect to how the University assets are being managed to provide assurances to the Regents and the University.

Chancellor Khosla asked if a campus can gift equity received from the output of a licensing or patent transaction to a campus foundation. Mr. Robinson commented that the University is not able to gift its assets. The University is required to transfer assets at fair market value.

## 6. **EQUITY SOLUTIONS GROUP, BERKELEY CAMPUS**

[Background material was provided to the Special Committee in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

UC Berkeley Professor and Chief Innovation and Entrepreneurship Officer Richard Lyons provided an overview of UC Berkeley's innovation and entrepreneurship ecosystem. He described the Equity Solutions Group at UC Berkeley as a platform to elevate the campus' innovation and entrepreneurship capacity in ways that had previously not been considered.

The Equity Solutions Group was charged with compiling an inventory of the campus' portfolio in its entirety, determining how to grow equity that aligns with the mission of the campus and the University, and ascertaining how to leverage the portfolio at a campus level. Mr. Lyons remarked that understanding the entire portfolio of the campus was critical to realizing equity and managing the equity rights. In addition, this afforded the campus the ability to participate in future financing rounds and develop relationships which can create additional financing potential.

Mr. Lyons explained that by leaning into the acquired equity in start-ups, the campus is able to reimagine how companies can participate as affiliates where the consideration is equity rather than cash. Start-up companies often are not able to provide funding but providing an equity option is feasible, allowing for appropriate lines to be opened as equity for research acceleration. He underscored that an important component in this was retaining faculty and staff within the campus' technology transfer office that have expertise in equity management.

By leveraging the portfolio on campus, the Equity Solutions Group currently maintains seven venture capital funds totaling approximately \$250 million. The establishment of this Group has provided the campus with the expertise and mechanism to be able to provide additional resources to the campus as well as have discussions with general partners about participation rights.

UC Berkeley contractually receives ten percent of the total return of the entire portfolio and is successfully managing the participation of portfolio rights. Mr. Lyons referred to Mammoth Biosciences, the CRISPR-based biotech startup, that is now valued at approximately \$1 billion. As the Equity Solutions Group began its inventory work, they discovered that UC Berkeley has a ten percent non-extinguishing participation right in every round of this company's financing. Leveraging the portfolio at the campus level provides opportunities to manage the campus' innovation and entrepreneurship capacity in efficient, creative, and resourceful ways.

Regent Sherman asked how transferable participation rights are in the secondary market or internally to the University's general endowment pool. Mr. Lyons replied that the UC Chief Investment Officer manages the decisions surrounding participation rights. In the past, UC Berkeley's participation rights were highly unutilized and would often expire as the funding did not warrant oversight by the Chief Investment Officer.

Advisory member Green questioned the scalability of the seven funds valued at \$250 million and inquired how this model has worked with larger amounts, specifically asking if UC Berkeley would consider taking less than ten percent of a more substantial investment. Mr. Lyons responded UC Berkeley has had a large increase in venture opportunity flow, with a fund coming online that is thought to be \$100-200 million. This a relatively new concept that UC Berkeley has started to explore over the past four years and the hope is that the fund would grow. Mr. Lyons explained that the ten percent of the total return of the seven venture capital funds was created as part of an initial template but that there would be future consideration of a lower percentage of a higher return.

Regent Park asked what it took structurally to launch the Equity Solutions Group at UC Berkeley. Mr. Lyons replied that the Group is lean and consists of three people – the Group's director, the assistant vice chancellor for Intellectual Property and Industry Research Alliances, and the chief innovation and entrepreneurship officer. He stated that a donor funded two years of the Equity Solutions Group's director's salary to help establish the Group.

Regent Park asked what advice he might give to relatively young campuses, such as UC Merced. Mr. Lyons remarked that most campuses have a robust innovation and entrepreneurship ecosystem with incubators and accelerators that many are not aware of. He suggested taking distributed successes on campuses and building platforms. He encouraged the campus' licensing officers to lean into equity in negotiations and indicated that the campus should be thoughtful in deciding if cash can be offered in lieu of equity.

Regent Park asked if the Special Committee should encourage campuses to replicate UC Berkeley's Equity Solutions Group or if a multi-campus equity solutions group would be beneficial. Mr. Lyons shared that UC Berkeley can be a resource to other campuses and

welcomes the opportunity to distribute best practices and other information that has made them successful in elevating the campus' innovation and entrepreneurship platform. He noted that Osage Venture Partners has also been a great benefit to several UC campuses.

Regent Park asked if a certain level of entrepreneurial activity needs to be on a campus in order to warrant a group similar to that of the Equity Solutions Group. Mr. Lyons underscored the importance of campuses seeking to obtain more equity in their portfolio from IP. A necessary condition to establishing a similar group is not substantial entrepreneurial activity on a campus. Even with little or no entrepreneurial activity, faculty can still create IP and there might be start-up interest. He explained that Berkeley's Founders' Pledge allows for Cal entrepreneurs and innovators to publicly make a pledge to support the University with a meaningful gift. Pledges like this produce great philanthropic loyalty.

Advisory member Wallace praised the value and work of the Equity Solutions Group. She asked how involved UC Investments is in the decision making process. Ms. Wallace encouraged each campus to develop a similar group, possibly in a centralized manner, in order to discover inventory and ensure that campuses are exercising all available options. Mr. Lyons shared that UC Investments handles a massive portfolio so some of the startup participation rights are not significant enough to handle at the systemwide level. However, at the campus level, these rights and portfolios are less complicated to manage. This also gives the campuses the ability to notify UC Investments of large-scale transactions to ensure the University is optimizing monetization opportunities. Mr. Lyons outlined the benefits of using a platform that allows the campuses to track all of their positions in order to view the portfolio in its entirety.

Regent Leib emphasized the significance of the Equity Solutions Group providing best practices across the system. He noted the importance of innovation and entrepreneurship mentorship programs at UC Berkeley and systemwide. Mr. Lyons shared that alumni are a valuable asset in this area, both volunteering their time to mentor and provide workshops and lecturers. The Berkeley SkyDeck Fund is a public-private partnership that helps support the campus' education and creates a source of funding for the campus' public education mission. SkyDeck offers 20-25 companies each year the opportunity to participate in a cohort acceleration program with expert advisors. SkyDeck launched a program called Accelerating Careers in Entrepreneurship (ACE) where 800 undergraduates are interning at startups annually.

Regent Leib asked if there are any recommendations of the Working Group that seem insupportable. Mr. Lyons expressed appreciation with the direction of the Working Group's report but noted concern about guidance surrounding the implementation process. He remarked that some of the recommendations, specifically related to culture, clearly outline the problem but without a solution. He shared that the UC Office of the President has been supportive of UC Berkeley's vision related to innovation and entrepreneurship.

7. **SPEAKER SERIES: LESSONS FROM THE CENTER FOR DATA-DRIVEN INSIGHTS AND WHAT FACULTY INVENTORS WANT**

[Background material was provided to the Special Committee in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

UC Health Chief Data Scientist Atul Butte presented a slide outlining the organization of the Center for Data-driven Insights and Innovation (CDI2) within UC Health. CDI2's portfolio includes building and maintaining technical infrastructure, data science analytics, data governance, and strategy and support collaboration. CDI2 was launched at a cost of \$1.5 million, and the majority of its staff reside on the various UC campuses, specifically UC Irvine, UC San Francisco, and UCLA. CDI2 pays for information technology staff on the campuses who assist with the transfer of data and meet with the campus teams every two to four weeks.

The most important responsibility of CDI2 is that it maintains the UC Health central data warehouse which houses the clinical data from the six UC medical schools and systems. Every month, data from the medical centers flows centrally to the data warehouse for analysis. COVID-19 data is generated every day from the campuses into the data warehouse.

Mr. Butte reported that the UC Health data warehouse allows the University to determine systemwide operational partnerships, support clinical research, measure clinical outcomes, and understand quality and population health. For example, CDI2 is able to determine how many doses of a specific drug the University is purchasing in order to leverage its scale for best value. He noted that the U.S. Food and Drug Administration often contacts UC Health to obtain data as part of the approval process for various medications.

Many operational teams within UC Health are utilizing and benefiting from the data warehouse. The data provides an efficient way to report health information to boards and government entities in order to improve the quality of care such as analysis of possible use of unnecessary inpatient drugs and affords the University the opportunity to manage drug costs associated with the UC's self-funded health plans.

Through this system, the University is able to obtain information on a variety of patient disorders. For example, a dashboard for UC Health's nearly 47,000 patients who have type 2 diabetes compares the individual medical centers' information regarding treatment of these patients, blood test results and other health results. Distribution of this central data is intended to inspire discussions between the campuses to ensure optimal patient care.

Mr. Butte remarked that a similar system could be utilized for innovation and entrepreneurship at the University. Centralized data might allow for distribution of clients lists, optimization of contract approval timelines, and exchange of best practices between campuses. He noted that a centralized center requires convincing the campuses that are already successful in this arena that they would remain competitive nationally while also helping the other campuses.

Mr. Butte reflected on programs, such as QB3 and the UCSF Catalyst Program, that provide executive mentoring, offer fellowships and classes, encourage collaboration, and provide funding. He gave an overview of the entrepreneurship programs at Stanford University, which invests liberally in faculty and graduate students' startup companies. Mr. Butte encouraged the University to continue to build its portfolio to recruit and retain faculty.

He indicated some significant challenges that UC entrepreneurs face, including lack of transparency in University investment in faculty startups, potential reporting conflicts of interest, unclear policy around staff researchers/entrepreneurs, and distinctions in leave without pay between medical and non-medical campuses. According to Academic Personnel Manual (APM) 025 and 671, faculty are allowed forty-eight days per year for outside professional activities. APM 671 indicates that faculty on the Health Sciences Compensation Plan Salary Scale are required to pay a tax to the campus on any dollars or value of shares that are over twenty percent of the faculty member's salary.

Mr. Butte underscored the importance of engaging faculty innovators informing policy at UCOP.

Advisor member Wallace noted that women and people of color have historically been forgotten in innovation and entrepreneurship discussions. She stated her hope that the University would take actions to promote inclusion of these groups.

Regent Park remarked that CDI2 had clarity of purpose in terms of the value the Center desired to add to UC Health. She asked what approach might be taken to achieve that same clarity in the innovation and entrepreneurship arena. Mr. Butte agreed that CDI2 did have clarity and specific reporting metrics. The benefits of sharing data from campus to campus is substantial. He believe that this same clarity is possible in innovation and entrepreneurship but being able to document the value added is crucial.

Chancellor Muñoz noted the importance of entrepreneurial culture and asked how the University can begin to change its culture. Mr. Butte responded that the University should make it a duty to have conversations about innovation and entrepreneurship. UC is creating great talent but not necessarily providing adequate opportunities in this area.

Regent Reilly asked if the data in the dashboard was already being captured by the campuses prior to the creation of CDI2. Mr. Butte responded that the collaboration between the Center and the campuses is agile and the process fluctuates from campus to campus. There are instances when the Center may need more information from a particular campus and they work collaboratively in this effort.

The meeting adjourned at 2:05 p.m.

Attest:

Secretary and Chief of Staff