Five-Year Senior Leadership Development Assessment Rodolfo H. Torres

Vice Chancellor for Research and Economic Development
Self-Assessment Report for the Period
September 2019 – October 2024

1. Introduction

Over the last five years, it has been a tremendous honor and pleasure to serve in the role of Vice Chancellor for Research and Economic Development (VC-RED) at the University of California, Riverside (UCR). I was drawn to UCR by the unique combination of its truly outstanding research profile and its commitment to education, embracing inclusivity and social mobility and delivering on them at the highest levels in the nation. I had followed UCR's trajectory for many years before my current position became available and I feel extremely fortunate to have been hired in my current role and as a faculty member in the Department of Mathematics.

Despite the many challenges facing our geographical area, I believe there are equally many potential opportunities to continue to grow our fantastic institution and its contributions to education, science, scholarly work, creative activities, and the wellbeing of our community, California, the nation, and the world.

I arrived at UCR and the University of California (UC) system in September of 2019, after having a similar interim role at the University of Kansas (KU), where for several years I had served as Associate Vice Chancellor for Research. Before that, I served in various leadership positions in governance at KU, including in the role of Faculty Senate President. And outside of these leadership positions at KU, I garnered a substantial amount of experience in several national organizations and as a researcher, PI, teacher, and mentor myself. Starting with graduate school, I have been in academia in the US for more than 39 continuous years, always at top research universities, members of the prestigious Association of American Universities (AAU), which we at UCR are now very proud to belong.

Nonetheless, no amount of experience could fully prepare one for this job. The learning curve for joining not only our campus leadership, but also the idiosyncrasies of the world-renowned UC system and the complexities and opportunities of the state of California, which rivals many top countries' economies in the world, has been both challenging and fascinating. And while the learning curve never truly ends, I feel quite settled in my position and excited about what we have accomplished so far and what we can contribute going forward. I say "we" not in the "royal sense", but because all the activities carried out have been the result of various teams' efforts and because I intend to continue to involve faculty and other stakeholders, both within

campus and external, in all initiatives going forward. I have an enviable group of direct reports and their respective staffs¹; many great colleagues in leadership, both inside UCR and at the other UC campuses; and a very large collection of outside partners in the community, at national organizations, in government positions, and in the private sector. And, needless to say, the research accomplishments and innovations of our campus are due to the faculty and their students, postdocs, and technicians, who we have tried to support as best as possible, and an army of staff working behind the scenes who keep the administration of the enterprise running.

When I arrived at UCR I asked Chancellor Wilcox what his priorities were for the office of the VC-RED. He replied that they were 1) to continue to support ALL of the research and creative activities on campus, not just the externally funded ones; 2) do all that we could to become an AAU member; and 3) further insert our campus in the community through tech transfer and economic development. These priorities, together with the pursuit of administrative restructuring and modernization to better serve the research enterprise; generating new funding resources to achieve a sustainable infrastructure; promoting more interdisciplinary research; potentiating several differentiating factors, which can make our campus the "go-to leader" in several areas; and preparing us to seek more and larger multi-university grants have guided my leadership in the office.

I am happy to report that we can put a check mark on all three of Chancellor Wilcox's priorities. Moreover, while a lot remains to be done, I believe we have also achieved several other important successes and improvements on the functioning of RED, which I will describe in the rest of the report. I shall provide the rationale and context for many of the initiatives and activities I led during the last five years, while also mentioning some challenges faced and shortfalls, as well as opportunities for improvements in various areas.

2. Financial Stability and Sustainability of the VC-RED Office Operations

Upon arriving at this position, I found a bleak financial situation. Some budget allocations and/or one-time allocations from the center to RED had been discontinued, the office had an operational deficit of about \$2M, and another \$2M of strategic investment had been promised to different projects. Additionally, in my view there were some clear gaps in the org chart: there was no Export Control Security Officer, no Communications Director, and only one part-time faculty Associate Vice Chancellor (AVC) (another one had left UCR and had not been replaced). Several units were also understaffed by comparison to other UC campuses, even when accounting for the size of our faculty. We conducted a campus-wide survey of all of RED's functions so I could quickly take the pulse of both the perception of the services and the actual impact of RED activities on campus. I also met with all the Deans and numerous chairs and individual faculty members to assess the major needs and gaps in our operations, as well as

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¹ The reader is referred to the attached Org Charts for structure and personnel of the different units under the VC-RED and his direct reports.

learn about their expectations and aspirations. My direct reports group and I then spent numerous hours discussing the status of RED and options and paths to move forward.

The faculty AVCs and Communication Director are a big aid to facilitate the tasks of the VCR, but I decided to hold off on their recruitment and first focus on the areas that represented the highest risk for the institution and provided the most needed service to our researchers. We also had to honor all previously made commitments. While we made a lot of financial savings by not filling vacant FTEs due to attrition and being conservative about new strategic investments, this alone was neither sustainable nor suitable to move the research enterprise to the next level of excellence.

The budget of RED is rather complex because of the multiple functions performed by the office and the diverse sources of revenue, including permanent state budget, a share of the Facilities and Administration (F&A) recovery costs from grants and contracts, patent and license income, and fees for service on core labs under RED's supervision and vivarium use. I took several administrative decisions to clarify the budget and try to match revenues to the functions they were supposed to support. In particular, we removed practically all expenditures of the Office of Technology Partnership from permanent funds (including salaries) and required that it sustains itself with the patent and licenses revenue and externally sponsored grants and contracts activities that they secured (which they did in an outstanding way; I will elaborate on this later). While still heavily subsidized, we moved the core labs and vivarium to a more sustainable fee structure, eliminating unrealistic fee exceptions and special rates that were used in the past. We also moved all strategic discretionary activities to the portion of funds we received through the F&A distribution formula. All these measures helped partially stabilize our budget but were not sufficient to move forward and support the increasing level of activity on campus.

We were cognizant of the center's own limitations with permanent funds, so I proposed to the Provost at the time that we modify the F&A distribution formula instead, specifically by changing RED's allocation from 10% to 20%. I am very thankful to him and the Vice Chancellor for Planning, Budget, and Administration Gerry Bomotti who agreed to this reallocation after consultation with the Provost's cabinet. My rationale for this change in funding has been that, as our research activities grow (and they do), the external funding and related F&A will grow too. We will continue to need an increase in research administration and facility support (precisely what F&A is supposed to cover) but a fixed permanent budget from the state may not always follow the same trajectory. So having a larger share of F&A (as opposed to additional permanent funds) will give more certainty to the ability to meet the growing needs. On the other hand, if research expenditures were to go down, so will the F&A. Consequently, RED, which would share some responsibility for decreases, should therefore adjust its size to a decreasing financial trend if that ever were to happen.

These changes have helped provide the needed stability and sustainability for the functioning of the office and its research support mission. We have filled several much-needed positions in all units, as well as an Export Control Officer and a Communication Director (the firsts ever in

RED) and a new AVC (though the original one has also left UCR for a VCR position at another UC campus). We were able to support many new strategic projects and moved from a negative budget to a healthy one.

The research expenditures have been continuously increasing during my tenure in the VC-RED role and last year, for the first time in UCR's history, reached the \$200M mark. In particular, the federal research expenditures (which generate the bulk of the F&A) have grown almost 50% over the same period. It is also worth mentioning that federal research expenditures are one of the main metrics tracked by AAU and this growth has certainly helped UCR achieve its longstanding goal to be invited to join this prestigious group of universities. Kudos to all the faculty, researchers, and students who successfully applied for funds and carried out all such sponsored research.

I am also thankful to our Chief Financial and Administrative Officer Laura Manor and her team who have provided me with extremely knowledgeable and wise advice and support for the financial turnaround in RED. Laura Manor's dedication and commitment to RED and the campus go way beyond the call of duty, and I am grateful for all that she does. I also want to recognize Principal Financial Analyst Thomas Wong, particularly for addressing all my requests for data in such a clear manner, facilitating my understanding of our complex budget.

Regarding areas of improvement, we still feel the limitation of capital investment resources. While we have made a lot of progress in terms of core labs and centers (as will be described in later parts of this self-assessment) we still face a lot of needs in terms of space and facilities as well as instrumentation for the kind of top research university we are.

3. COVID-19

About six months into my new job, we faced the onset of the COVID-19 pandemic and the requirement by the health authorities to vacate campus except for essential personnel. I do not need to recount here the tragic effects of the pandemic, the disruption of the research and educational activities from which we are still recovering in some areas, or the transformational consequences into higher education now and ongoing in to the future, but I want to comment on the ways RED played a crucial role on campus facing the challenges and mitigating the impacts the global catastrophe brought.

Very early on I started to study many aspects of the pandemic and emergent best practices, including mathematical models that predicted what was to come. After attending a lecture by a recognized mathematician turned epidemiologist at UC Berkeley, I became aware of the potential devastating spread of the disease that some math models were anticipating. I came back to Riverside and informed our Chancellor of the situation and we started considering in cabinet meetings the possibility of closing some campus activities. Shortly afterwards, the health authorities requested the complete closeout of campus and suspension of all in-person

activities. We essentially had a weekend to formulate how to shut down labs and a lot of the research enterprise.

The extent of the pandemic took all the UC campuses by surprise and, though we had agreements in place for collaborations and arrangements for animal care and other labs activities in the event of natural disaster such as fires and earthquakes, there were no guidelines in the system for a long-haul total disruption like the one created by the pandemic. For the first few months we met daily (sometimes more than once per day) with the Council of Vice Chancellors for Research (COVCR) of the UC system. The COVCR is chaired by the system Vice President for Research and Innovation and includes not only my peers at the other UC campuses but also leadership of Agriculture and Natural Resources and the national labs under UC purview: the Lawrence Berkeley, Lawrence Livermore, and Los Alamos National Laboratories. We collaborated in developing instructions and procedures for our campuses to shut down and gradually reopen labs, manage vivaria and other research facilities, and many other aspects of research administration, compliance, and security. The daily meetings turned into biweekly and eventually weekly meetings which continued even past the end of the pandemic. This was a tremendous help and support group and I am thankful to and proud of my colleagues for the way we cooperated, helping each other navigate such an unprecedented situation. Despite the stress of the moment, these interactions created a formidable camaraderie among the VCRs that continues to this day and has helped the research enterprise of the UC system in many ways.

I took a leadership role supporting Professor Katherine Borkovich and Professor Isgouhi Kaloshian to create the UCR testing lab and co-led with Dean Deborah Deas the testing workgroup that was formed on campus. This endeavor required a lot of effort working outside my usual field of expertise, but I was inspired by the dedication of our faculty leaders and many other staff on campus who worked tirelessly to make the lab and the testing processes a reality. The saliva-based test our campus developed helped the students living on campus stay safe and continue their virtual instruction, something they could have not done from their homes. A lot of individuals from EH&S, Student Health Services, ITS, Facilities, an army of staff and leaders, and many other units on campus were involved to make this happen. In particular, among other functions, RED identified and made available the physical space in the Multidisciplinary Research Building (MRB) for the testing lab, helped hire technicians, and provided administrative support and oversight for the lab. I am thankful to a lot of staff in RED for their contributions to this project.

Because of my involvement in setting up the testing lab, I became a member of several workgroups at the UC system level and a spokesperson for UCR on the subject. In particular, I was interviewed by <u>Telemundo</u> and <u>NBC</u> and helped produce a video in Spanish to advocate for vaccination in our Latinx community.

A special word of thanks goes also to all RED's employees who continued to work in person at the vivaria. While some colonies of animals needed to be reduced and some research was indeed affected, we did not have to make devastating animal sacrifices in great part due to our technicians' efforts taking care of the animals. We offered funds from RED to our researchers for cryopreservation of animal lines, but nobody needed them.

One challenge we are still facing in RED as a consequence of the pandemic is the new deficit accumulated in some core lab facilities because of the absence of work during COVIC-19. Although the use of the facilities is returning now to pre-pandemic levels this financial situation still needs to be fully addressed.

4. Sponsored Program Administration and Research Compliance

When I arrived at UCR, Sponsored Program Administration (SPA) and Research Compliance (RC) were two separate units. I thought this was not the best situation, as it creates bureaucracy since many grants and contracts are subject to compliance requirements in diverse areas. There was also some overlap between the two units regarding animal care and use. At the same time, I was concerned with the lack of depth in the organizational structure in RC, since there was no real "second in command" in case the Assistant Vice Chancellor in charge of the unit was unavailable or if they were to leave UCR, which eventually happened. In view of these circumstances and in consultation with the rest of the team we combined both units under Associate Vice Chancellor Charles Greer, and I am very grateful that he agreed to take on the additional responsibility to direct both units. AVC Greer is a formidable asset, not only for the VC-RED office, but for the campus and the UC system as whole. For example, his national recognition in research administration is demonstrated by his role in the Council on Governmental Relations (COGR) which I encourage him to continue to pursue. I also want to recognize Assistant Vice Chancellor for Sponsored Programs Cynthia Wells, Pre-Award Manager Ursula Prins, and former Post Award Manager Robert Chan for all the support they have provided me.

Having all the aspect of sponsored programs, as well as the Institutional Review Board (IRB), the Institutional Animal Care and Use Committee (IACUC) and the veterinary office, Conflict of Interest (COI), Export Controls, and a few other compliance committees under one subunit has proved to be a much more efficient structure resulting in further expediting reviews and submissions of proposals.

Despite the growth in sponsored research activities, we have been able to maintain a shorter submission deadline than all the other UC campuses. In fact, UCR has long had a policy that indicates that proposals are due to the SPA three business days before the sponsor's deadline, and seven days before the deadline for complex proposals. However, in practice, we process proposals when received at least two days before the sponsor's deadline and, in many cases thanks to the extra efforts of our staff, we have successfully submitted proposals received the same day of the deadline. This is an increasing challenge for RED as both the volume of proposals and the number of federal compliance regulations and their complexities continues to grow. We need to better communicate to PIs the risks involved if not enough time is provided to our staff for detailed review of the proposals.

Export control and foreign collaborations are other areas in which we will continue to see increasing scrutiny and regulations by the federal government. We are fortunate to have hired Export Control Officer Roberto Ramos, who has implemented many of our policies and procedures in order to be in compliance in these areas.

Another compliance policy that will need further attention is the Policy and Procedures for Responding To Allegations of Research Misconduct. The Department of Health and Human Services (HHS) recently delivered the final new policy on research misconduct that will be in effect. We will work closely with the Academic Senate to implement the needed corresponding changes at UCR. Sherie Donahue in our office has been a great asset analyzing these policy changes and helping me planning for them and other matters related to investigations of allegations of research misconduct. I am grateful for her support.

Several of the compliance committees and functions lacked properly integrated software and were relying on some homemade applications that did not interact with each other or other adhoc mechanisms. I started to advocate from day one that we needed to acquire more modern software fully integrated with all the proposal administration functions, including financial ones. This desire finally materialized with the Impact23 initiative and the modernization of UCR's financial systems. Within the research area we have now subscribed to Kuali, which has the capability to integrate all of our proposal submission and compliance functions. The choice of Kuali was based on careful analysis of the tools in the market, and consultation with other campuses as well as many local users.

While a learning curve is always present with the change of any system and we are still experiencing some system hiccups, we have already seen a big improvement in many functions including some relating to compliance. To facilitate the transition, we are providing consultation and training material. In particular, the IRB staff will be hosting a series of office hours dedicated to reviewing the Kuali system. The topics and schedule can be found at Special Topic Office Hours. In addition, we have listened to faculty requests and implemented a general IRB monthly virtual office hours open to the UCR research community. I am particularly thankful to the IRB staff for these efforts.

We have also paid special attention to the vivarium activities and the oversight by the IACUC, and I want to recognize Campus Veterinarian Akiko Sato and Vivarium Operations Manager Dierk Biggs for their efforts. During this past five years we had two three-year site visit accreditations by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) without any non-compliance findings and only some minor suggestions for improvements. I am grateful to the IACUC and its staff, the veterinarian unit, and all the faculty who were involved in the accreditation process.

Another issue in which we have made substantial timesaving improvement relates to cost-sharing or matching support in grants and contracts. By policy, we are only allowed to match or cost-share expenses when that is required by the sponsor as a condition for the award. In many

past cases, PIs have struggled to secure this institutional support and it has not been consistently applied in terms of who contributes to those costs and how much.

After consultation with other campus leaders and faculty, we have now implemented the so-called 40-40-20 formula, which has guided PIs and leaders of the units to greatly expedite and facilitate the internal negotiations about matching cost. The formula now in place states that 40% of the cost should come from the Deans, departments and PIs involved, 40% from the Provost Office, and 20% from RED. These proportions are based on F&A distributions. The PIs are responsible for getting the approval of all the units' leaders involved. This has provided an equitable and relatively fast mechanism to secure the needed commitments. I am not aware of any situation on which a required cost-share was not secured since the 40-40-20 formula has been in place.

Timely and efficient proposal submission is a joint effort of PIs, units analysts, and RED staff. Unfortunately, as already mentioned, the complexity of regulations is becoming a real burden for research universities across the nation, but we need to comply with them. We are always listening to faculty input and are trying to provide training and resources materials to aid in this regard. The recent rebuilding of many of our webpages has incorporated information requested by PIs and we will continue to work towards our common goal of prompt and secure submissions minimizing both the administrative efforts of the PIs and the institutional risks.

5. Technology Partnerships and Economic Development

The Office of Technology Partnership (OTP) had already established its presence on campus and the region before I arrived at UCR. Under the exceptional leadership of Associate Vice Chancellor, Dr. Rosibel Ochoa, her outstanding team had performed at a level that rivals that of much larger universities. Yet I do not think I exaggerate by stating that in the last five years OTP has further bloomed and become one of the main engines of economic development in the region. And, as explained in Section 2, we have done this without deviating resources from other units and functions of the VC-RED office.

I partnered with Dr. Ochoa in numerous projects and we deliberately set ourselves in a very intense outreach mission, visiting with numerous individuals and organizations in the community, government, and the private sectors and/or inviting them to campus; participating in a variety of presentations, panels, and conferences at the regional, national and international levels; and relentlessly pursuing diverse funding opportunities and outside resources.

The efforts have paid off and we believe they will continue to do so. The success of OTP in terms of innovation and entrepreneurship support can be measured by metrics such as number of patents and invention disclosures, start-up companies advised, training opportunities

provided, faculty and student participation in such trainings, dollars raised, patent and licenses revenue, and grants and contracts secured, which have surpassed all our campus records.²

We continue to run and support two incubator facilities, ExCITE, jointly run with the City and County of Riverside, and the wet-lab facility in MRB, which is the first of its kind in the Inland Empire. ExCITE and the associated Riverside Entrepreneurial Proof of Concept and Innovation Center (EPIC) Small Business Development Center (SBDC) provide no-cost individualized support to early-stage tech companies in the region. The services provided include specialized consulting, access to capital, and SBIR/STTR assistance. The SBDC has supported 248 small businesses and startups, provided over 11,000 hours of expert mentorship, and developed over 300 jobs. The center has also trained over 600 entrepreneurs and raised more than \$70 million in capital. It also provided assistance to over a thousand of local small businesses during the pandemic, most of which were family businesses with owners from minoritized communities. Because of the pandemic the MRB incubator had a slow start (although this in turn allowed us to find space for the testing lab during COVID-19) but it is now at capacity providing support to fourteen companies.

One example of how we have changed the perception of UCR in terms of economic development is the invitation we received from the state GO-Biz office to lead the California Delegation at the 2023 SelectUSA Investment Summit, one of the most important annual events organized in the United State to attract foreign companies and investment. The participation of 14 US state governors in the event gives an idea of the magnitude of the summit. I was given the opportunity to present the keynote address at the "Meet California Breakfast." Based on the interactions at this event we have attracted several international companies to the Inland Empire. In particular, the County of Riverside made it possible for the Tunisian manufacturing company Starz Electronics to opened a location in Temecula. By the efforts and investment of the City of Riverside, the company Ohmio from New Zealand is moving their headquarters to our city. Ohmio manufactures self-driving electric vehicles.

In addition, the precision agriculture company Seedorina from Uruguay, which was the winner of the last <u>UCR EPIC Eurosemillas Incubation Challenge Grand Prize</u>, received UCR's help to enter in the US market. This has already resulted in a promising collaboration with UCR's researcher Dr. Robert Jinkerson and his <u>NASA's Deep Space Food Challenge project</u>.

Another example of national recognition we recently received is the <u>Innovation & Economic Prosperity (IEP) Designation</u> from the Association of Public and Land-Grant Universities (APLU). I chaired the advisory committee to present the application for this designation which recognizes, as stated in the IEP website, <u>"institutions that have demonstrated a substantive, sustainable, and institution-wide commitment to and strategy for regional economic engagement, growth, and economic opportunity"</u>. The assistance provided by Beth Claassen-Thrush who staffed the committee has been invaluable and it is much appreciated. We will receive the award at the upcoming annual APLU meeting in November.

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 $^{^{2}}$ The reader is referred to the attached OTP annual reports for further quantitative data and information.

Eurosemillas is our master licensee for the commercialization of some of UCR's citrus inventions, including the Tango mandarin, which has recently become one of the <u>top five</u> revenue generating inventions in the UC system. In addition, Eurosemillas has been supporting our avocado research program for a number of years. Certainly, the highlight in terms of our innovations has been the <u>Luna Avocado</u>, one of <u>TIME's 2023 best inventions</u>. Reporting to Dr. Ochoa, Director of Technology Commercialization Brian Suh and his team have been instrumental in growing our intellectual patent portfolio and its commercialization.

Dr. Ochoa is a force to be reckoned with and her innovative and entrepreneurial spirit has no match on campus. There are many more accomplishments of OTP that could be listed here, but can be found in the annual report. I am extremely thankful to have her as a colleague and it has been a pleasure to enable many of her contributions from my leadership position.

The biggest challenge we face in relation to economic development continues to be the attraction of investment, competing with the much more developed industry and technology hubs to the west of us in Orange County, Los Angeles, and San Diego. Potentiating areas of differentiation in research excellence in our campus is the key to success in this endeavor and it has already produced some results. The OASIS initiative, described in the next section, is a big step in this direction.

In 2022 in recognition of the VC-RED office's efforts engaging with the community and promoting economic development I was honored to receive the Educator of the Year Award of the Inland Empire Economic Partnership (IEEP).

6. OASIS

I have led the vision, planning and implementation of the Opportunity to Advance Sustainability, Innovation, and Social Inclusion or <u>SoCal OASISTM</u> initiative, a public-private partnership of our campus to promote regional economic development through solutions-driven research, innovation, entrepreneurship, and workforce development. As we have stated on our <u>website</u>:

SoCal OASIS™ addresses the climate, environmental, energy, health, and socioeconomic challenges of our region and promotes further engagement of UCR with the community, government organizations, philanthropic foundations, and the private sector. The objective is to transform the Inland Empire by producing original, creative, and scalable solutions applicable also at the national and global level. UCR is uniquely positioned for this task by taking advantage of its established record as the only R1 and AAU university in the Inland Empire, and the commitment to social mobility, inclusion, and equity, which are hallmark features of the higher education institutions in the region. UCR can also capitalize on the diverse population it serves as well as the diverse geography and natural resources of Inland Southern California.

The SoCal OASIS™ initiative consists of physical infrastructure projects and programmatic activities. The programmatic activities envisioned include the development and/or implementation of research and creative activities, proof of concept funds, living laboratories, pilot and demonstration programs, innovation and entrepreneurial projects, outreach and

community engagement, policy and decision making based on new knowledge and research, workforce development, and internship initiatives under the pillars of SoCal OASIS $^{\text{M}}$.

In terms of programmatic activities, SoCal OASIS™ is supported by six pillars in broad areas of agriculture technology and food security, community health and health disparity, human



development, natural resource management, renewable energy and fuels, and sustainable transportation and infrastructure.

These pillars are weaved across by the horizontal goals of the initiative which are sustainability, innovation, and social inclusion and the university's mission in education and workforce development, as represented in the matrix. While broad enough to encompass research and creative activities in all of our colleges and schools on campus, the set of pillars and goals, which were selected after numerous consultations with campus and community stakeholders, embrace some of our most developed areas of excellence. In broad terms the pillars are described as follows.

Agriculture Technology and Food Security: Urban agriculture, controlled environment agriculture, remote sensing, food production, plant breeding and propagation, new plant varieties, plant disease control and cures, pest control, wildfire and forest resilience, and pollination programs.

Community Health and Health Disparity: Health disparity across different populations, community engagement, community health training and education, disease monitoring, pandemic readiness and mitigation, and health policies.

Human Development: Sustainability, human impact on the planet, earth stewardship, social justice, inequality effect of climate change and change mitigation, human migrations and displacement, circular economy, environmental policies, economic growth and wealth distribution vs equitable human development, food security, other climate change and social justice initiatives focused on the humanities and the arts.

Natural Resource Management: Pollution, air quality, air monitoring, water resources, irrigation, ecology, climate change, conservation science, the Salton Sea, drought resilience, water conservation programs, extreme heat resilience, healthy soil programs.

Renewable Energy and Fuels: Zero emission vehicles; sustainable fuels (e.g. hydrogen); energy storage, batteries manufacturing and characterization; lithium extraction, purification, and recycling; new materials; renewable energy infrastructure (e.g. geothermal, smart grids, wind energy, solar energy, hydrogen); industrial decarbonization; electrical systems models.

Sustainable Transportation and Infrastructure: Intelligent transportation systems, vehicle computing and sensing technology, smart cities, sustainable freight and logistics, greenhouse emissions monitoring and controls, vehicle-to-grid (V2G) systems.

Regarding the horizontal goals, broad (and non-exhaustive) definitions are provided by the following examples.

Sustainability (from https://mcgill.ca/sustainability/files/sustainability/what-is-sustainability.pdf): "Sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs. In addition to natural resources, we also need social and economic resources. Sustainability is not just environmentalism. Embedded in most definitions of sustainability we also find concerns for social equity and economic development."

Innovation (from Drucker, Peter F. Innovative and Entrepreneurship Practice and Principles. Harper & Row, Publishers, Inc. 1985. See also https://extension.iastate.edu/aqdm/wholefarm/pdf/c5-10.pdf): Innovation involves finding a new and better way of doing something. Much of our modern society is based on innovations that have occurred in the past that provide us with the standard of living we enjoy today. Entrepreneurship and innovation are companion terms.

Social Inclusion (https://www.worldbank.org/en/topic/social-inclusion#1): Social inclusion is the process of improving the terms on which individuals and groups take part in society—improving the ability, opportunity, and dignity of those disadvantaged on the basis of their identity.

Education and Workforce Development (from Lyn E. Haralson (2010), "What is Workforce Development?" Federal Reserve Bank of St.

Louis, https://stlouisfed.org/publications/bridges/spring-2010/what-is-workforce-development): Workforce development from the organizational centric perspective is defined as training programs that provide existing and potential workers with the skills to complete tasks needed by employers to let the organizations stay competitive in a global marketplace.

In support of programmatic activities, we have launched the SoCal OASIS™ Internal Funding Awards (SoCal OASIS™ IFA). We have already awarded \$3.4M in funds via two competitions in the form of a collection of "large \$200K" and "small \$25K" awards. They are supporting research as diverse as Breeding Healthy Honeybees Using Intelligent Sensing to Safeguard Sustainable Food Production; Developing an Eco-Manufacturing Hub around Lithium Resources in the Salton Sea Geothermal Field; Addressing Health Disparities in COVID-19 Outcomes in

Riverside County; Sound OASIS: An Inclusive Future for Music Tech; and Science to Policy OASIS Fellowships for the Inland Empire; to name a few.

Moreover, a third call for proposals for a total of \$1.2M has just been released. These calls represent the largest internal seed funding program ever conducted at UCR. We are in the process of gathering reports and information from the first awards to measure the return on investment and plan future calls.

In addition, we have received external funding for other programmatic activities such as a \$1M grant from the UC system Climate Action Initiative for the OASIS Entrepreneurial Academy, on which I am the PI; or the \$1.9M award from the James Irvine Foundation for the OASIS Accelerator program on which Dr. Ochoa is the PI.

The research and programmatic activities complement the physical infrastructure developments of the SoCal OASIS™ Park, currently in the design phase, and whose construction is set to begin before the end of 2024 with the demolition of the existing University Extension building³. The SoCal OASIS™ Park will anchor diverse research stakeholders, incubate start-up companies, provide entrepreneurial training, strengthen partnerships with workforce initiatives, and welcome and inspire the next generation of diverse research and business leaders. Through the attraction of companies, the SoCal OASIS™ Park will also provide internships and job opportunities for students and alumni, and integrate economic development efforts of the Cities, Counties, Chambers of Commerce, and other stakeholders in the region.

We have secured more than \$65M for the OASIS Park project through funds provided by the county, state and federal governments. This allows us to carry forward Phase I of the project, which is physically located in the city Innovation District and Opportunity Zone, in close proximity to the California Air Resources Board and UCR, and on a lot of 8 acres with capacity for more than 300,000 sq ft of building space. We are grateful for the many faculty, staff, and university leaders who contributed their efforts to secure these funds, in particular to the Office of Government and Community Relations.

7. Communications

As explained earlier in this report, I waited until the RED Office's budget was stabilized to recruit a Communication Director. Before that, most communications from the office to campus and beyond were essentially handled by my Executive Assistant Marisela Martínez and myself. The amounts of activities, presentations, and need for sharing information we had in the office were overwhelming for the two of us despite Marisela's dedicated efforts, and we simply did not have the bandwidth to provide the type of communication the office should have been providing. I am greatly relieved that we succeeded in hiring Kendall Burks, the first

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 $^{^{3}}$ University Extension has an additional physical location and will also occupy space in the OASIS Park.

Communication Director for the office. In turn this has allowed my Executive Assistant to attend to other functions providing me with great support for which I am very thankful.

Since we hired the director we have regularly monthly newsletters and periodic communications about limited submission, a presence in social media, more direct interactions with UCR news, and a completely revamped website with a lot of new information that was missing before. Moreover, Kendall Burks has been a great aid in developing the narratives for strategic plans and numerous reports, communicating the fantastic research and creative activities of our faculty and students, the organization of large conferences and other events on campus, and the professional graphic and contain design of many presentations by many of us in the office. We are thankful that she has joined RED and for her many great contributions.

8. Core Labs, Research Facilities, and Centers

There is no question that core lab facilities, state-of-the-art instrumentation, and multi-unit centers are crucial for modern research universities. Different models exist to effectively run such resources and, while some are better kept under individual units' oversight, the possible centralization of such assets is something to be considered, especially when they involve users and/or members from many different academic units. From the moment I arrived on campus several faculty members as well as center and core lab directors expressed to me their aspiration for centralization. Based on my experience on the subject at my previous institution and what I have learned from national research organizations, I also favor such centralization when the appropriate resources are available. I committed myself to start addressing this matter early on, but we had to put plans on hold because of the pandemic, which not only derailed many projects but also put an extra financial burden on facilities which saw a considerable decline in revenue from user fees.

In the last couple of years things began to return to normal and it was time again to consider the core lab needs of our campus. I assigned former faculty AVC Dr. Gillian Wilson to lead the project to review core lab facilities. As we stated at the time, the general purpose of the review was to engage in a discovery process to better understand the current state of cores on campus; provide an inventory of facilities and instrumentation to better market, leverage, and facilitate collaboration across these resources; develop mechanisms for understanding and prioritizing campus needs for equipment; and identify opportunities for increased efficiencies and reduced administrative burden on facility operations. A committee to help with this review was created and it was requested that each dean nominate a representative to serve on the committee. After more than a year of intense work, which included numerous interviews with core lab directors, the committee produced a comprehensive report with a lot of data and a series of observations and findings which were discussed with deans and other campus leaders and presented to senate committees. I am grateful to former AVC Wilson for her contributions to this project.

Some of the common deficiencies or gaps found included duplication of some equipment and the need to update some others, the lack of proper communication across units, physical space limitations, limited staffing, and budget uncertainties. It was also observed that some units indeed function very well within specific schools/colleges and sometimes even departments, but that others would greatly benefit if some centralization or new budget allocations were to be made.

We have taken several steps to start improving on this situation, such as providing support and sometimes cost-share for grants to replace or acquire new equipment, making sure new hires do not ask for already existing equipment in their startups, compiling inventories of core lab facilities and developing new websites about them, and more broadly advertising available resources to both faculty and potential external users. Some of these efforts are in progress, some are conducted by the academic deans and chairs involved, and some have been initiated from RED. However, the allocation of new financial resources has been put on hold because of our campus' overall constraints and budget uncertainties.

So far we have been able to conduct only one new allocation of resources and centralization with the cooperation of the Deans of BCOE and CNAS, and the Provost and Executive Vice Chancellor. I proposed a new budget model for the merging of the Central Facility for Advanced Microscopy and Microanalysis (CFAMM), which was already under RED's oversight, and the UCR Nanofabrication Facility (Nanofab), previously under BCOE's oversight, into one single unit under the already existing UCR's node of the California Institute for Telecommunications and Information Technology (Calit2).

As stated in the MOU that created the new unit under RED, we set up the administration, funding, oversight, and expectations of the new combined core lab facility. In particular, budget commitments for a first 5-year period were stated as well as the appointment of a director, Professor Shane Cyber, and the creation of a faculty advisory committee. When taking in consideration the financial contributions of the MOU signees and the additional administrative support to be provided by RED, the new created core lab will receive a budget of more than \$1M annually and a new infrastructure and functioning that point towards a path for a sustainable future, which will be periodically scrutinized to meet goals and expectations. Although this is a small step given all the other needs in core labs, it represents a first pilot program that will help the campus plan and make other decisions going forward. I am thankful to Provost Watkins, Dean Atkinson (CNAS), and Dean Lynch (BCOE) for their financial contributions and their cooperative will in arriving to this important MOU.

Regarding UCR Calit2, this is the Riverside component of one of the four California Institutes for Science & Innovation (CALISIS), originally established by the Office of the California Governor and which are under the oversight of the University of California system. UCR joined the Calit2 consortium with the San Diego and Irvine campuses of the UC system in 2022, and UCR Calit2 became a RED subunit. As a CALISIS, Calit2 has specific administrative and budgetary structures. The MOU for the merged core labs at UCR does not modify any of those nor does it establish any authority over UCR Calit2.

Before joining Calit2, UCR was the only UC campus which was not a member of any of the CALISIS, and we are proud to have changed that. While we are now a member, we have not yet been allocated any permanent budget as the other campuses received, but we are hopeful to change this in the future too. In any case, membership in Calit2 has already brought up promising collaborations and new opportunities working with our sister campuses. I am thankful to UC Vice President for Research and Innovation Theresa Maldonado and colleagues at the UCI and UCSD campuses who facilitated the incorporation of UCR. This is a first step in fixing the unfortunate event of our campus missing on the important resources that the CALISIS creation brought and continues to bring to the other campuses in the system.

This past year we started a review process for Research Centers. This time I assigned the lead for the project to our new faculty AVC Dr. Djurdjica Coss. The situation is further complicated by the whole spectrum of "centers" whose creation, funding, functioning, and purpose of existence are very diverse. The first steps then were to catalog all the existing centers and create new guiding principles for the creation and review of research units. I am thankful to AVC Coss for embracing this effort, which has now produced a list of centers and generated a document of guiding principles currently being reviewed by the Academic Senate.

Independently of this, in collaboration with Provost Watkins we established guidelines and conducted a call for proposals for the creation of a new research entity denominated Campus Interdisciplinary Research Center (CIRC) to be funded by the center and administered under RED. We received 16 strong applications for the creation of this new center, which were reviewed by a committee of deans, RED, and a senate representative. After the thorough review process, the Riverside Artificial Intelligence ReSEarch (RAISE) Institute was chosen. The RAISE Institute, co-directed by Professor Amit Roy-Chowdhury and Professor Vassilis Tsotras, stood out for its clear vision in leading AI research and applications, uniting more than 85 faculty members across all seven colleges and schools at UCR. As reported in the campus announcement of the new center: 'Al is a national priority. The National Science Foundation states that "AI-driven discoveries and technologies are transforming Americans" daily lives — promising practical solutions to global challenges, from food production and climate change to healthcare and education." The National Institutes of Health asserts that "NIH has unique needs that can drive the development of novel approaches and application of existing tools in AI/ML. From electronic health record data, omics data, imaging data, diseasespecific data, and beyond, NIH is poised to create and implement large and far-reaching applications using AI and its components." The National Endowment for the Humanities affirms that "Artificial intelligence (AI) is one of the most powerful technologies of our time and will have profound consequences for civil rights and civil liberties, safety and security, and democratic values. Questions about the ethical, legal, and societal implications of AI are fundamentally rooted in the humanities, which include ethics, law, history, philosophy, anthropology, sociology, media studies, and cultural studies." The RAISE proposal effectively articulates the funding possibilities associated with such emphases as well as many other opportunities with multiple funding agencies.'

RAISE is moving forward at full speed. After a couple of months of existence, RAISE is already having several campus-wide activities like the Charting the Landscape of Ethical AI webinar series, co-organized with the Graduate Division. Recently it also organized the Workshop for University of California Researchers and National Laboratory Collaborators to Advance AI Science at Scale. This UC-system-wide workshop for the Laboratory Fee Research Program (LFRP). This year the system is conducting a pilot approach to energize and speed up collaboration between the campuses and national labs. The co-directors of RAISE successfully organized the launching workshop for the program on our campus with a record in-person attendance of 150 people from across the system. RED staff play a crucial role managing the logistics of the event. I served on the steering committee for this new pilot program.

I am grateful to Provost Watkins for securing the funding for the center and to the Deans for their support of this project. This is also a first step in fulfilling faculty requests for the existence of such entities and it is the campus' intention to create additional centers like this in the future.

The main challenge we will continue to face for both core labs and research centers is the budgetary constraints of our campus. However, the two initiatives we have taken in particular bring hope and, if successful, could provide a path to future investments.

There are also other facilities currently administrated by RED. Among them I would like to mention the Biosafety Level 3 (BSL3) Citrus Research Facility. This facility was built and it is owned by the California Citrus Research Foundation (CCRF), and was created to fight the devastating Huanglongbing (HLB) citrus disease. The administration of this facility falls under RED and all the research conducted in it so far has been done by UCR researchers.

While this important facility and the plan to create it was developed by my predecessor in the VC-RED office, the MOU with CCRF had not been signed when I arrived to my position due to existing disagreements between CCRF and the University of California, Riverside High-Containment Laboratory Oversight Group (HCLOG). I was finally able to negotiate the terms of the agreement with the CCRF leader at the time, Joel Nelsen, and every stakeholder involved, and the facility was then open for our research.

Unfortunately, after several years of work by our researchers, problems with the physical structure of the BSL3 have been aggravated in recent times and the approval for use of the facility is currently suspended while it undergoes repairs. At times we have had challenging interactions or disagreements with the Citrus Research Board, which supports some of the research in the facility, but we hope that after the current impasse in operations we will renew our partnership and continue to work together to find a cure to the HLB disease, which poses a dreadful concern for the multi-billion-dollar citrus industry in California.

The Center for Advanced Neuroimaging (CAN) is also under the VC-RED office oversight. The center has suffered a substantial financial setback during the pandemic and it is still trying to recover. Its director Professor Xiaoping Hu has been working very hard to increase services and

number of users. We have implemented some changes in the hours of service to achieve this and we are also in conversations with the UCR School of Medicine to provide testing capabilities for clinical use.

Another challenge has been providing proper support to the <u>High-Performance Computer Center (HPCC)</u> also under RED's oversight. A much-needed relocation of HPCC, which received an important National Science Foundation MRI award, to a different location on campus has been promised for many years, but has not yet been completed, in part because of supply-chain problems during COVID 19. However, it seems all the issues have been resolved and we are in the process of drafting an MOU for the joint administration of the new space with ITS. Professor Thomas Girke, the center director, has shown an incredible amount of patience and restraint with the delay situation. I am extremely thankful for his continuing efforts despite frustrations trying to get this project to a happy ending, which I hope will be realized soon.

9. Alianza MX

Alianza University of California-Mexico, or simply Alianza MX or Alianza, was established in 2019 and integrates three preexisting system-wide programs between the University of California and Mexico under one single organization. These are UC MEXUS, which is a Multicampus Research Unit (MRU) created in 1980; the UC-Mexico Initiative, created by the UC Office of the President in 2014; and La Casa de la Universidad de California in Mexico City (Casa), which was established in 2005.

As stated in the program's last annual report, "Alianza provides seed funding and logistical support for research collaborations that sustain long-standing relationships between the UC and partner institutions in Mexico. It specifically encourages research focused on core issues in the US-Mexico relationship and provides unique opportunities for UC researchers to share their work with both academic and non-academic audiences."

While a UC-wide program, the oversight of Alianza MX has been assigned to the UCR's Chancellor, with RED serving as the administrative unit for program activities. Shortly after joining UCR, I chaired the search committee which selected Dr. Isabel Studer as director for the newly created program and who reported to the Chancellor with a "dotted-line" to the VC-RED. The program has bi-national staff, some located in Mexico and some in Riverside.

I frequently interacted with Dr. Studer and support from my unit in several projects, sometimes beyond the typical administrative and financial functions that RED was assigned to provide, including our participation in several events in Mexico. RED shares with Alianza common interests in promoting research and innovation across the border.

With the departure of the director in 2023, RED assumed a more direct role in the management of Alianza, and I started serving in an Executive Leadership role for the program. We underwent

a transition period aided by the diligent actions of former Assistant Chancellor Christine Victorino, and RED's Chief Financial and Administrative Officer Laura Manor and Human Resources and Administrative Policy Manager Bri Cates. Thanks to the impressive efforts of Alianza's Associate Directors and other staff ⁴, the restructure was essentially seamless for the many subprograms, grants, and supported activities conducted.

Having three initiatives bundled together under Alianza MX, with different funding sources for them, and with one being an MRU, created some administrative hurdles. MRUs are subject to specific reviews and reporting regulations which involve oversight from the UC Academic Senate. Also, by UC policies the directors of MRUs must be a faculty member. To simplify the administrative burden, fully integrate all the activities of Alianza in the reporting requirements and not just those related to research, as well as fulfill the requirement for the MRU director, the UC Provost and Executive Vice President of Academic Affairs Katherine Newman appointed me as Faculty Director of the Alianza MX making, the whole program now an MRU and not just part of it. I am jointly accountable in this role to the UC Office of the President and Vice President for Research and Innovation Theresa Maldonado. Moreover, the UC Office of the President, after consultation with Chancellor Wilcox and the UC Academic Council leadership, expects UCR to recruit and hire a full-time Executive Director for Alianza MX, who will report to the VC-RED office. We are in the initial stages of planning such recruitment which we plan to commence very soon.

One of my contributions to the program since taking the leadership role has been broadly communicating all the activities run by Alianza MX and the funding opportunities for them to many different UC stakeholders and encouraging UC faculty and leaders to organize interactions with Mexican universities and visit them, with Casa providing all the logistic support of our program staff. We hosted at Casa both the UC Council of Vice Chancellors for Equity and Inclusion and the UC Vice Chancellors for Student Affairs who met with their peers of the Tecnológico de Monterrey and Universidad Panamericana.

A recent important strategic initiative has been Alianza MX's involvement in the US-MX Semiconductor Cooperation Forum (SCF), organized by the U.S. State Department and Mexican IT & Telecommunications Industry Chamber (CANIETI). This initiative included the participation of researchers and leaders from Calit2. We have identified opportunities for bi-national collaborations to support the development of the semiconductors industry in Mexico through access to UC advanced lab facilities and training programs.

Working with Laura Manor and Bri Cates we are also revising all position in Alianza addressing in particular employment conditions for the staff who are not in the UC system.

Finally, I would like to mention that coinciding with the inauguration of the new Mexican president, we were honored to host <u>an event at Casa with the First Partner of California</u>, Jennifer Siebel Newsom. I moderated a panel with the participation of the First Partner and

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⁴ See the Org. Charts

student leaders of the Climate Ambassadors initiative from California and Mexico. I am very proud and thankful of the work done by the Alianza MX staff planning an elaborate but extremely successful event, which was much appreciated by the First Partner and her staff.

Going forward I am fully committed to increasing the level of participation of all UC campuses in Alianza MX activities and generating further partnerships with Mexico around challenges and opportunities related to climate change, energy, natural resources, and heath, cultural, and socio-economic issues, in particular those affecting both countries' underserved populations.

10. Other Activities Supported and Strategic Investments

I can honestly say that I have yet to hear an idea from any of the faculty and students who approach RED to get some help to carry out their research and creative activities projects which is not worthy of support. We will never run out of visionary and creative ideas from the campus, the only limitations we have are, of course, the financial resources. Having successfully negotiated the increase in F&A distribution to RED allowed us to make a few more discretionary strategic investments. We have tried very hard to be consistent on how we use these resources and to distribute them across a variety of disciplines. The few examples provided below illustrate the breadth and diversity of activities and areas supported.

- A very large and ever-increasing number of conferences, workshops, and events.
 Including the UCR Center for Ideas and Society "Being Human" Project and the "Interdisciplinary MiniLabs.02: Innovation Through Humanities", Society for Mathematical Biology (SMB) 2021 Conference, 50th Annual Pacific Coast Conference on British Studies (PCCBS), Workshop on Mission San Gabriel, EPIC International Challenge 2023, The Lancet medical journal Commission convening, 2025 Molybdenum and Tungsten Enzymes Meeting, to name a few.
- Cost-sharing for numerous research grants including major equipment.
- Travel of PIs to meet with funding agencies.
- Sponsored tables at local and regional events on economic development and community engagement.
- Support for R Studios space.
- Support for several activities of the UCR Science to Policy Program.
- Travel support for taking Tilly No-Body (a piece of practice-as-research in the arts) to the Daejeon International Theatre Festival in South Korea.
- Support through the OASIS initiative to help with the production of "Blackbox", a story by Henry Box Brown, adapted by Rickerby Hinds.
- Funding for the annual workshop and other activities of the UCR Postdoctoral Association, as well as their membership in the national association.
- Co-sponsoring the Postdoctoral Research Awards with the Graduate Division.
- Re-establishment of the UCR Charter Member Institution of the National Academy of Inventors.

- Support, jointly with the Graduate Division, for the submission of two successful NIH T32 training proposals.
- Contribution towards the Lindcove Research and Extension Center citrus tree screen.
- Contribution towards physical enclosure for the campus observatory.
- Funding through the OASIS initiative for a controlled environment growth chamber for an interdisciplinary project on Next Generation Agriculture.
- Incentive funding for junior faculty to apply to the NSF CAREER Awards. We continued a
 training workshop for such purposes and have received several times record numbers of
 awards, larger than those at any of the other UC campuses.
- Funding for the internal competition for the Extramural Funding Opportunity Preparation Award (EFOPA), which provided seed funding for PIs who have identified an upcoming externally sponsored solicitation for which they commit to submit a proposal.
- One-time bridge funding support for the Stem Cell core.
- Joining the <u>SoCal Hub</u> involving now UCI, UCLA, UCR, UCSB, UCSD, and Lawrence
 Livermore National Laboratory (LLNL) and Los Alamos National Laboratory (LANL). The
 Hub provides funding for the organization of workshops, grants and student support to
 enhance the interactions of the member UC campuses with the national labs. UCR was
 not originally part of this hub, but we joined to take advantage of this fantastic
 opportunity.
- Submission of the largest (in terms of the budget requested) proposal in UCR history to
 the Regional Innovation Engines solicitation by NSF. The proposal was not funded but
 we led a large coalition of UC campuses and other institutions of higher education in the
 region working together with the Inland Empire Economic Partnership (IEEP),
 community organizations, local government agencies, and the private sector to create a
 hub for sustainable logistics. Our efforts to work with this industry continue despite not
 receiving the award.
- Serving as the PI of the following funded awards
 - DOE to the PEOPLE: Opportunities for MSI faculty and students, US Department of Energy
 - Advancing AI at Scale for National Security and Scientific Discovery Workshop, UCLERP
 - US HUD Community Project and Development Funding for the OASIS Initiative,
 US Department Of Housing And Urban Development
 - UC-CONACYT AGREEMENT, Government of Mexico
 - Jumpstarting Climate Action through Entrepreneurship in the Inland Empire, UC Climate Initiative

11. Contributions to DEI, Unit Climate, and Staff Professional Development

All the members of the leadership team in the VC-RED office understand the need for and are committed to weaving the campus principles of Diversity, Equity, and Inclusion (DEI) into all aspects of the activities we conduct, as well as the professional development of all the office's staff. This is a common theme of discussion and planning in our weekly meetings. Some of the

goals and achievements described in other sections of this report already illustrate this. We summarize them here again while adding a few other activities.

In terms of DEI, some of the major activities conducted were:

- The already mentioned SoCal OASISTM initiative, addressing the region's challenges and also focusing on the creation of high-paying jobs in inland Southern California and internship opportunities for our students.
- The creation of a saliva-based COVID testing lab on campus during the pandemic to alleviate the regional needs. This lab allowed thousands of students, mostly from underserved populations, to stay on campus as most of these students did not have internet access at their homes.
- The OTP creation of a Micro MBA program with the National Latina Business Women Association and two community training certificates on smart agriculture and sustainable logistics.
- The assistance of thousand local small businesses owned by individuals from minority communities during the pandemic through EPIC SBDC.
- A lead role in the organization of events with federal agencies on campus to increase and diversify their workforce.
 - The Department of Defense from the Pentagon to the People Conference, UCR 2022.
 - The Department of Energy to the People Conference (first ever in the nation), UCR 2023.
- The support of research conferences (several examples provided already) with a strong DEI component.
- Representing UCR in the Alliance of Hispanic Serving Research Universities VPR/VCR Affinity Group.
- The commitment to provide mentorships to the postdoctoral association and groups of underrepresented students with direct participation of the VC-RED in DEI related programming tailored to diversifying the professoriate.

RED's commitment to equity, unit's climate, and the professional development of its staff is also reflected by the following.

- Joining the first units to pilot the new performance assessment process on campus.
- Performing frequent equity reviews for its personnel and job descriptions adjustments to provide professional advancement opportunities. The support of RED's HR and Administrative Policy Manager, Bri Cates, in this regard has been invaluable.
- Funding of at least one professional development opportunity per year for staff members.
- Conducting "happy hour" meetings during COVID via zoom, when it was very important to maintain some level of face-to-face interaction (at least virtually) and lift morale.
- Establishing quarterly "all-hands" meetings. At these lunch events we recognize special achievements of our personnel, provide RED's and campus' updates, invite guest

speakers to talk about their research so some staff members working behind the scenes can appreciate the large impact of their efforts, and also engage in games and other team-building activities to create camaraderie and further loyalty to the institution. I am very thankful to the team-building committee for their creative ideas and efforts in organizing all these events.

 Providing flex time arrangements with staff to accommodate personal and family circumstances.

12. Other Campus and UC Roles

I serve or have served in numerous other leadership roles including the following ones.

- Member of the Chancellor Cabinet, 2019-present.
- Member of the Provost Cabinet, 2019-present.
- Member of the Campus Finance Committee (formerly Budget Advisory Committee),
 2019-present.
- Member of the Information Technology Executive Governance Committee, 2019present.
- Member of the Emergency Management Policy Group (EMPG), 2019-present.
- Member of the University Space Committee, 2019-present.
- Member of the Ethics & Compliance Risk and Audit Controls (ECRAC) Committee, 2019present.
- Convener of the Deans Research Group, 2019-present.
- Member of the Council of Vice Chancellors for Research (UC systemwide), 2019-present
 - o Convener of the Council, 2023-present.
- Member of the Research Data Backup Service Steering Committee (UC systemwide),
 2022-present.
- Member of the Joint Senate-Administration Workgroup on the Future of Doctoral Programs (UC systemwide), 2023-present.
- Convener and co-Chair of the Responsible Conduct of Research Ad-hoc Committee, 2023-present.
- Member of the Academic Planning Council (UC systemwide), 2021-2023
 - Member of the Workgroup on the Future of Undergraduate Education, 2022-2023.
- Chancellor Designee for the Native American Cultural Affiliation and Repatriation Program, 2020-2022.
- Chair of Chief Campus Counsel Search Committee, 2022
- Member of the Working Group on Mitigating COVID-19 Impacts (UC systemwide), 2021-2022.
- Co-chair of the COVID-19 Testing Committee, 2020-2022.
- Member of the Mitigating COVID-19 Impacts on Faculty Working Group (UC systemwide), 2021.

- Member of the Dean of the College of Humanities, Arts & Social Sciences Search Committee, 2021.
- Member of the Cyber-Risk Working Group (UC systemwide), 2020-2021.
- Member of the Multicampus Research Programs and Initiatives Portfolio Panel (UC systemwide), 2020.
- Member of the Vice Provost for Academic Personnel Search Committee, 2020.
- Chair of the UC Mexico Director Search Advisory Committee (UC systemwide), 2020.

13. Presence at National Organizations

I strongly believe that having a seat at the table at national and professional organizations provides a way to promote our campus' principles, achievements, and aspirations, and helps shape policy making and the future of higher education. I play a very active role in this regard. These are some of the positions and activities in which I am or have been involved since coming to UCR.

- National Science Foundation
 - Member of the Advisory Committee on Environmental Research and Education,
 2022-present.
 - Member of the Mathematical and Physical Sciences Advisory Committee, 2021present.
 - Member of Recruitment Committee for the position of Director, Division of Mathematical Sciences, 2021.
 - Member of the Division of Mathematical Sciences, Committee of Visitors, 2020.
- Association of Public and Land-Grant Universities
 - Keynote Panelist, Future Forward, Annual Meeting 2022 (<u>video starting at the 4:30 mark</u>).
 - Member of the Executive Committee of Council on Research (CoR), 2021-2023
 - Presenter at the Session on Helping to Build the Diversity Pipeline: New Approaches to Increasing Diversity and Inclusion in Academic Leadership, Summer Meeting, 2021.
- Association of American Universities
 - Member of the Senior Research Officers Group.
- Council on Governmental Relations (COGR)
 - Member of the Research Regulatory Reform Committee, 2018-2019.
 - o Participant in COGR regular national meetings, 2015-present.
- Higher Learning Commission
 - Member of the Peer Corps (accreditation review of universities) 2015-2024.
- Institute for Research on Innovation & Science (IRIS), Ann Arbor, MI
 - o Member of the Board of Directors, 2018-2021.
- American Mathematical Society
 - Member at Large on the Committee on Meetings and Conferences, 2024-2027.

- Member of the Prize Oversight Committee, 2022-present; Chair, 2024-2025.
- o Chair of the Subcommittee on Equity, Diversity, and Inclusion, 2022-2023.
- o Member of the Fellows Selection Committee, 2019-2022; Chair, 2020-2021.
- Simons Laufer Mathematical Sciences Institute (SLMath) (new name), Berkeley, CA
 - o Member of the Board of Trustees, 2023-2027.
 - o Ex-officio Member of the Board of Trustees, 2019-2021.
 - Member of the Broadening Participation Advisory Committee, 2016-2019, Co-chair, 2019-2021.
- Presenter to the Board of Regents Special Committee on Innovation Transfer and Entrepreneurship meeting at UCR, 2023 (video).
- Presenter and Panel Moderator in the Session on Jumpstarting Climate Action through Entrepreneurship in the Inland Empire, UC Advancing Climate Innovation, Entrepreneurship & Economic Development Summit, Sacramento, 2023.
- Panelist in the Session on Energy and the Environmental Impact: Fireside Chat, Department of Defense to the People Conference, UCR, 2023.
- Panelist in the Charla, White House Initiative Latino Economic Summit, San Bernardino, 2022 (video starting at the 40:00 mark).
- Panelist in Session on The New Town-Gown Partnerships, Higher Education Summit, San Diego, 2021.
- Panelist in the Session on Higher Education's Role in Economic Mobility, National Academies of Sciences, Engineering and Medicine, online summit, 2020.

14. My Own Scientific Research

Although my VC-RED position is a 100% appointment, I have managed to find time after hours to continue some of my own research in mathematics. In particular, since coming to UCR, I have published or submitted for publication 7 research articles and 2 other contributions; been invited to give 15 lectures including some international ones in Argentina, Australia, Italy and Spain; organized two conferences; served as editor in two journals; and reviewed numerous articles for research periodicals and proposals for funding agencies⁵. Last year I had the honor to be elected as a Corresponding Investigator of the Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET) of Argentina.

As already listed, I also served in several roles in the American Mathematical Society. While I miss the mathematics interaction with students, it would be unfair to incorporate them in my research as my PhD students, since my VC-RED's responsibilities and substantial travel would not allow me the proper time for their training. I am considering however the possibility of hiring a postdoc to work under my mentorship, something I had already planned to do before COVID-19 but needed to be put on hold due to the pandemic.

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⁵ We refer the reader to the attached CV for further information.

15. Concluding remarks

As the quantity and quality of the research and creative activities of our campus continue to increase we will need to further adapt and increase our service in the research administration area too. The VC-RED office has gone through a substantial transformation in structure and functions, modernizing and expanding many of our activities, and we are looking forward to incorporating further changes to better address the needs of our research enterprise in consultation with all campus' stakeholders. Our office has also potentiated much more economic development, tech transfer, and outreach activities than in the past, while continuing to contribute to the creation of knowledge and education mission of our institution. Although balancing and securing resources to carry forward the many aspects of both RED's and campus' goals and aspirations will continue to be a challenge, we are looking forward to new creative activities and approaches for what we do and to diversifying our research funding portfolio. 6

To me, a big component of leadership is allowing and enabling the talented people who work with us to do their job and contribute in meaningful ways to the common good. The VC-RED office has 137 employees filling 116.56 FTE. I have explicitly mentioned the contributions of many of them and, while I probably forgot many other ones, I am honored, proud, and fortunate to serve with every single one of them. It has been a fantastic journey and I hope I can continue to lead this unit. I am looking forward to all that UCR will accomplish in the future.

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⁶ We refer the reader to the attached strategic plan for the priority areas of growth and improvement we have identified.