UC San Diego

Summary Report from UIDP Future of Work Convening

Hosted by the University of California San Diego

In Partnership with UIDP

Qualcomm Institute

October 15, 2019

The Future of Work is Now! That was the overarching precedent at the Future of Work convening held at UC San Diego on October 15, 2019. While leadership at UC San Diego set the stage by offering the university's ongoing interest and exploration around 'the intersection of workers and technology use', faculty and researchers from the institution reinforced their work within this space along with supporting diversity and inclusion in the educational process and access to new tools in support of alternative work environments and lifestyles.

The convening welcomed broad representation expanding beyond higher education, featuring industry, regional nonprofits, foundations, the National Science Foundation and individuals working within the 'gig economy'. It is not surprising that the discussions around the 'human technology frontier' and 'illuminating the socio-technological landscape' covered a wide array of expected challenges while also uncovering new connection points and ideas for solutions. Small group discussions focused on aligned themes including Artificial Intelligence and Ethics, Veterans and Variously-abled Workers, Inclusion and Diversity, Future Curricula and Methods to Prepare Students, Cultural Considerations, Location and Workplace Logistics and Public/Private Partnerships and Economic Development.

Questions were posed such as 'How will workers operate in the future?' and 'How will they need to be educated in preparation for these roles?' which led to deep discussion around the current and future challenges that impact remote work and collaboration, and what communication tools are needed to maintain positive interpersonal interactions while acknowledging personal considerations. The conversations were open by nature, but also demonstrated an understanding of the nuance between the issues and challenges of implementation in real-world settings.

Location and logistics were key themes throughout all subtopic areas, with distance and community providing both a challenge as well as an opportunity—for work/life balance and outreach for diversity and inclusion. The P-16 educational process and the desired education pathway was an important discussion point. 'How early can we teach empathy? Where can failure be acknowledged as a part of the learning process? Is there a new model for leadership and supervisor training to encompass these elements while providing a focus on the worker rather than the work?' Even though the future of HR and management was not a direct topic for discussion, how leaders are trained to manage remote work groups and to build trust and rapport remained a prominent consideration throughout the day.

Discussion around technology design and access in the future of work also included dialogue about teaching technology etiquette, and having diverse users participate in the design and development process. This led to an aligned discussion on human-centered curriculum design within the worker's education pathway. With this approach, every individual and worker could be acknowledged for their unique voice, perspective and skill.

The 'gig-economy' received much attention as it is viewed as a work option aligned with entrepreneurial endeavors and self-directed work choices—at any age. Even within a more traditional environment, workers may have more flexible office hours and remote work opportunities. The parallel thread around these two future work approaches was distance and distraction. The challenge of distance was addressed in an idea to create drop-in or satellite work places where more advanced technology could be provided and access to the work environment could be offered for those with demanding personal needs. Even within the remote work-space, an infrastructure that acknowledges and appreciates cultural differences and supports work/life integration was deemed important to address.

Several best practices were introduced into the discussion as potential solution models for various work challenges. Storytelling as a tool to increase access, diversify the workforce, and reinforce cultural understanding was exemplified in a STEM pathways program currently underway at UC San Diego. The success of technology around telemedicine was viewed as a best practice for combining remote work with personal interaction. Additionally, two special research presentations by UC San Diego faculty researchers highlighted how successful project-based learning can address historical deficiencies in special-needs training and where multi-modal learning within a university-industry partnership can support the education of an evolving professional field.

Future considerations that surfaced during discussions, but where time was limited, for identifying suggestions or solutions included: 'How do we expand access to work and education among transient populations and people living below the poverty line?' and 'Is the gig-economy a fad, or will industry have to adapt?'

Overall, the day's discussions and activities engaged a diverse cross-section of workers and employer/supporters in collectively uncovering and framing future of work issues and opportunities. The mixed, cross-representation approach stimulated robust conversations and creative thinking. The following pages of notes have captured more details around the two main topics—the Human-Technology Frontier and the Socio-Technological Landscape while offering thoughts and suggestions around the subthemes. We provide this document as a testament to the exemplary efforts of all those involved and look forward to seeing its contribution to the overall NSF Future of Work Big Ideas framework.

UIDP Future of Work Convening – Summary Notes

I.   **Welcome and Introduction to the Future of Work Convening**

- *Sandy Brown, UC San Diego Vice Chancellor for Research*

  What the Future of Work means to UC San Diego is researching the nuanced intersection of workers and the technology they use. These considerations lead to interesting questions that will be addressed in this convening:

  o How will new technologies be designed?
  o How will the emerging socio-technology landscape be defined?
  o What are the risks and benefits of implementing new technologies?

- *Tony Boccanfuso, UIDP President*

  The Future of Work convening at UC San Diego marks one of four listening sessions on the subject at UIDP. These sessions are designed to ignite important conversation around the Future of Work as well as foster strong partnerships between universities and industry.

- *Chaitan Baru, Senior Science Advisor, Convergence Accelerator Office, Office of the Director, National Science Foundation*

  The NSF Convergence Accelerator Programs is a way to fund prescient research that can be put on an accelerated timeline in support of the innovative outcomes and results of research that touch on the Future of Work.

II.   **Panel Discussion – Human – Technology Frontier Panel**

Technology and Education Conversation Igniters:

- *Neal Bloom, Fresh Brewed Tech*

  The catalyst for his thinking about the Future of Work came in 2011 with layoffs at the company he was working at. Utilizing UC San Diego as a "sandbox" to develop his idea, the concept for his visual resume came to fruition. What he thinks about most is not only what people will do, but how they will do it and how will they educate themselves to get there.

- *Henrik Christensen, Director, UC San Diego Contextual Robotics Institute*

  It is very important to think about the Future of Work in a technology-enabled society. This means thinking about the full scope of work, from basic skill jobs to professional degree positions, and how everyone within that spectrum is able to access the requisite education necessary to be successful. Additionally, we should be thinking about how technology influences access to education as well as the curricula being taught.

- *Rajesh Gupta, Director, Halicioglu Data Science Institute*

   A critical aspect of the Future of Work is how do we prepare students for the jobs of tomorrow that do not exist today? With more work being done by less people, there can be adverse effects on the personal lives of workers. Additionally, work and personal life will continue to become more intertwined with the addition of remote communication. Therefore, more consideration must be given to the nature of work and its influence on workers' physical and mental well-being.

- *Saura Naderi, CEO, ViaSaura*

   The Future of Work depends on how students today are being educated, and a large part of a successful workforce means teaching an experiential-based learning curriculum. Much of the focus on current and future work will involve cross-disciplinary problem solving, necessitating an education approach that mirrors it. In her program, Saura brings together different groups of people using communication as the main tool to solve large-scale problems.

Morning Panel Dialog Outcomes

- A growing need for the development of the future workforce is a strong, experiential, interdisciplinary, and project-based education system – something that is currently lacking amidst most P-16 education environments.

- Education access is an important consideration for nontraditional and historically underrepresented students in higher education and the workforce, given that large populations of each will be necessary to staff the positions of the future. Our education system needs to reflect the needs of an increasingly diverse population.

- Teaching skills outside of main areas of study help students to look beyond their traditional scope to challenge and grow new ways of thinking necessary to solve complex problems of tomorrow.

Top Challenges and Solutions of Technology/Education Intersection-small table outcomes

- **AI and Ethics**
   - Challenges - Displacement of human activity; privacy and decision-making authority
   - Solutions – utilization of communication tools to break distance barriers; oversight of data privacy and protection; development of industry best practices for ethical decision making with AI

- **Veterans and Variously-abled Workers**
   - Challenges – Removing stigma of workers with different abilities; teaching empathy; measuring transferrable experience; hiring best practices
   - Solutions – Teaching empathy and cultural competence as part of onboarding and continued workplace education; develop measures of grit, determination, and other soft skills in hiring process

- **Inclusion and Diversity**
  - Challenges – defining "diverse"; opening up lines of communication around increased diversity and equity; consideration of workplace culture vs. individual/personal culture
  - Solutions – using technology to educate and increase cultural competency; maintaining inclusiveness in creation of workplace policy

- **Future Curricula and Methods to Prepare Students**
  - Challenges – learning from failure; development/refining of curricula; maintaining generational knowledge transfer
  - Solutions – design curriculum that builds in failure to increase grit; teaching teamwork through project-based curriculum; challenge our notions of data literacy

- **Cultural Considerations**
  - Challenges **–** presumption of understanding existing cultures/norms/backgrounds; balancing workplace goals with work/life balance; building in cultural competency education in higher education
  - Solutions **–** create infrastructure that builds in education/appreciation of different cultures in school and workplace; foster better understanding of work/life *integration*, not work/life *balance*

- **Location and Workplace Logistics**
  - Challenges – remote work best practices; removing remote work distractions; workplace infrastructure/space considerations
  - Solutions – create more interpersonal interactions utilizing technology; build in remote work design to new workplace design; utilize telemedicine as best practice for combining remote work with personal interaction

Future Considerations

Homelessness and society – how to expand access to work and education among transient populations and people living below the poverty line

III.   **Future of Work for People with Autism, Program Case Study**

Leanne Chukoskie, Associate Director, Research on Autism and Development Laboratory and Director of Power of NeuroGaming Center, UC San Diego

- There exists a growing population of students and workers with autism that have not been historically included in Future of Work discussions
- 55% - 80% of people on the spectrum currently do not work – how do we increase access to work for these individuals?
- Exemplar program – Dr. Chukoskie has designed an 8-week internship program with students and educators doing project based teaching and learning that grows empathy
- More information on the program can be found here:
- *https://ucsdnews.ucsd.edu/feature/tapping-untapped-talent*

IV.   Panel Discussion – Illuminating the Socio-Technological Landscape

Diversity and Inclusion Conversation Igniters:

- *Parina Parikh, Director of Programs, San Diego Workforce Partnership*

  At the San Diego Workforce Partnership, the Future of Work is something regularly addressed on a few different levels. One important consideration is that of opportunity youth, or those youth who are aged 16-24 who are not in school and not working. There is a large need in the San Diego community for program development centered on opportunity youth to increase access to both education and workforce opportunities, specifically utilizing public-private partnerships to elevate programming.

- *Stephanie Davison, Program Officer, Human Services Program, Kresge Foundation*

  One important nuance of Future of Work discussion is the focus on the worker, and not the work. Thinking about how people will live a more prosperous life drives further consideration of how industries provide living wages and health insurance, address transportation issues, ensure equity and inclusion in the workplace, and how to do people-centered work. By focusing on the worker, new and critical insights can be gained about the nature of the worker and therefore about the work being done.

- *Gentry Patrick, UC San Diego PATHS Program Creator and Faculty Director*

  By utilizing storytelling in the characterization of access to education and work, we can better champion students who do not have the traditional resources and privilege to navigate the system. Additionally, partnerships can be a very powerful tool to leverage the relative strengths of different sectors to discover, education, train, and hire historically underrepresented people in very important emerging industries.

Afternoon Panel Dialogue Outcomes

- Storytelling is an underutilized tool to increase diversity and equity, particularly in the STEM fields

- One large existing need for increasing equity and access is to build better partnerships between higher education institutions, industries, and the communities in which they are located—with a focus on going into the communities to access diverse populations

- Representation plays a critical factor in building a diverse talent pipeline – how do organizations build infrastructure for peer mentoring and coaching?

- Considering all phases of life, personal and professional, will lead to better insights about diversity, equity, and inclusion in higher education and the workplace

Top Challenges and Solutions for Diversity and Inclusion in the Socio-Technology Landscape

- **Veterans and Variously-abled Workers**
  - o <u>Challenges</u> – how to make sure everyone has a voice in the conversation; how to get technology traditionally intended for people of privilege into the hands of all; workplaces often lack the infrastructure to support people from different backgrounds when compared to the higher education institutions they are coming from
  - o <u>Solutions </u>– higher education institutions and industries need to increase their presence in more communities; increase access to emerging technologies

- **Public/Private Partnerships and Economic Development**
  - o <u>Challenges</u> - how do universities better broaden their impact on the larger communities they serve; how are schools and workplaces better accommodating non-traditional modes of transportation; how can remote campuses be used to better achieve outreach goals
  - o <u>Solutions</u> – increase proximity through utilization of multi-modal transportation; employ satellite work groups to more conveniently interface with community

- **Inclusion and Diversity**
  - o <u>Challenges</u> – what technology or tools are needed to increase diversity in the workplace; developing cultural core competencies within an organization; how to increase education of soft skills while in school
  - o <u>Solutions</u> – create employee resource groups that embrace different cultures and backgrounds; develop (or explore existing) tech-based and intuitive learning platforms for use in universities and organizations; commit leadership time to continued education

- **Future Curricula and Methods to Prepare Students**
  - o <u>Challenges</u> – designing human-centered curriculum that teaches how to be a person in the structure of a workplace; how to build strong and meaningful partnerships with industry and community partners; how to increase professors of practice inside and outside university settings
  - o <u>Solutions</u> – utilizing liberal arts model to design human-centered curriculum; finding local champions in higher education and industry to create meaningful partnerships; identify and champion local experts in communities where you are trying to build partnerships

- **Cultural Considerations**
  - o <u>Challenges</u> – how is inclusiveness defined; tokenism in the workplace; consideration of work/life balance (e.g. raising a child)
  - o <u>Solutions</u> – consult experts in the field to help lead trainings and education for students, staff, and employees; integrating inclusion and diversity from the top down – representative leadership; creating pathways to life balance, specifically with child-rearing and elder-care

- **Location and Workplace Logistics**
  - <u>Challenges</u> – building trust and rapport when working remotely; clarity of role delineation; proper technology etiquette; training leaders on how to orchestrate group work remotely; losing interpersonal relationships
  - <u>Solutions</u> – make remote work a training priority for managers; use video when possible to protect some interpersonal relationship building

- *Future Considerations*
  - How will the "gig economy" influence the Future of Work and progress over time? Will it be a fad, or will industry have to adapt?

V. Public/Private Partnership Case Study

- *Linda Awdishu, Chair, Division of Clinical Pharmacy, UC San Diego Skaggs School of Pharmacy & Pharmaceutical Sciences / Praggya Garg, Manager of Software Engineering, Sony Electronics*

  - Partnership between UC San Diego and Sony Electronics created a new program that utilized technology from Sony for the use of training pharmacy students at UC San Diego

  - Partnership was successful because it addressed a pressing need, that the scope of practice in pharmacy is changing, and employed a needs-based model of using multi-modal learning for the best outcomes

  - Utilization of technology removed traditional barriers of time and administration so students were able to practice and prepare for clinical practice on their own time

FUTURE OF WORK CONVENING
UC San Diego
Attachments

- October 15, 2019 Agenda

- Speaker Bios

- Participant List

FUTURE OF WORK CONVENING | Listening Session
Office of Corporate Relations and Office of Foundation Relations in partnership with UIDP
Tuesday, October 15, 2019 | Qualcomm Institute, UC San Diego

8:00 – 8:30am	Check in and Coffee, breakfast snack
8:30 – 8:35am	Welcome by UC San Diego Vice Chancellor for Research Sandra Brown
8:35 – 8:50am	University Industry Demonstration Partnership Introduction, Tony Boccanfuso, UIDP President
8:50 – 8:55am	Anne O'Donnell, Senior Executive Director, UC San Diego Corporate Relations
8:55 – 9:00am	Chaitanya Baru, Senior Science Advisor, Convergence Accelerator Office, Office of the Director, NSF Science and Engineering, *NSF Convergence-Accelerator*
9:00 – 9:45am	**Morning Panel**: *Human-Technology Frontier Panel*: What should we be teaching so students can be prepared to enter the future workplace? What technologies should we invest in now to support the future of work? Technology and Education Conversation Igniters: • Neal Bloom, Founder, Fresh Brewed Tech • Henrik Christensen, Director, UC San Diego Contextual Robotics Institute • Rajesh Gupta, Director, Halıcıoğlu Data Science Institute • Saura Naderi, CEO, ViaSaura
9:45 – 10:45am	Table topics: Small group discussion
10:45 – 11:00am	Break
11:00 – 11:45am	Report out to full group and discuss
11:45 – 12:00pm	*Future of Work Employees, the 4 C's: Critical thinking, Creative thinking, Collaboration, Communication*, Leanne Chukoskie, Research Scientist, California Institute for Telecommunications & Information Technology (Calit2) with Pamela Cosman, Professor, Electrical and Computer Engineering, UC San Diego
12:00 – 12:55pm	**Lunch** in QI Courtyard
12:55pm	Return to QI Theater
1:00 – 1:45pm	**Afternoon Panel**: *Illuminating the Socio-Technological Landscape Panel*: What partnerships are needed between diverse major players to better train and prepare the workforce? How do we ensure access to differently abled and historically underserved groups? Diversity and Inclusion Conversation Igniters: • Parina Parikh, Director of Programs, San Diego Workforce Partnership • Stephanie Davison, Program Officer, Human Services Program, Kresge Foundation • Gentry Patrick, UC San Diego PATHS Program Creator and Faculty Director
1:45 – 2:45pm	Table topics: Small group discussion
2:45 – 3:00pm	Break
3:00 – 4:00pm	Report out to full group and discuss
4:00 – 4:25pm	*The Work of the Pharmacist of the Future*, Linda Awdishu, Chair, Division of Clinical Pharmacy, UC San Diego Skaggs School of Pharmacy & Pharmaceutical Sciences with Praggya Garg, Manager of Software Engineering, Sony Electronics
4:25 – 4:30pm	Wrap-Up, Tony Boccanfuso, UIDP President
4:30 – 6:00pm	Reception – Lobby and Courtyard

Sandra Brown, Vice Chancellor of Research

Sandra Ann Brown, Distinguished Professor of Psychology and Psychiatry, and Vice Chancellor for Research at UC San Diego. VC Brown oversees the Office of Research Affairs, which is charged with creating opportunities, enhancing the research experience, developing tools and training to improve research administration, and supporting and promoting university innovations. Under her leadership, UC San Diego has achieved multi-year, billion-dollar investments in research and the university's top-five ranking as one of the nation's premier public research universities. She designed and implemented major transformations of research structures and processes to enhance the university's competitiveness. She launched the Office of Innovation and Commercialization to accelerate UC San Diego related start-up companies, and improved training to help prepare trainees for future research careers. Dr. Brown is a Distinguished Professor in two UC San Diego departments: Psychology and Psychiatry. Her pioneering studies of cognitive features of youth addiction and adolescent development have led to 26 federally funded grants including the current National Consortium on Alcohol and Neurodevelopment in Adolescence (NCANDA) and Adolescent Brain Cognitive Development (ABCD) Consortium.

Tony Boccanfuso, UIDP President

As the UIDP's President, Tony is a leading expert on university-industry relations and over the past 29 years, he has gained significant experience and insights by working in the academic, corporate, government and non-profit sectors. Tony holds a Ph.D. in Inorganic Chemistry from the University of South Carolina and a B.S. in Chemistry and Political Science from Furman University. Tony also serves as a consultant for government agencies, non-profit organizations and corporations and is the former Chair of the MedStar Health Research Institute. Tony is married to Dr. Laura Boccanfuso, who founded Van Robotics; along with their three children, they reside in Columbia, SC.

Anne O'Donnell, Senior Executive Director, UC San Diego Corporate Relations

With 18 years of experience building impactful corporate relations programs, Anne leads a team developing central holistic corporate relationships across campus for industry access to innovation, talent, education and partnerships. Prior to this role, Anne led the UC San Diego Jacobs School of Engineering corporate engagement programs as the director of the Corporate Affiliates Program (CAP), and she later became the executive director of Corporate Research Partnerships where she built the dean's agile research centers, leveraging multidisciplinary faculty teams on projects highly relevant to industry. An alumna of Mount Holyoke College, Anne earned a master's in public policy and a master's in theology at Harvard University. Anne currently serves on the Board of Directors for University-Industry Demonstration Partners (UIDP).

Chaitanya Baru, Senior Science Advisor, Convergence Accelerator Office, Office of the Director, NSF

Since September 2019, Chaitan Baru has been on assignment at the National Science Foundation as *Senior Science Advisor* in the Office of Integrative Activities, Office of the Director, NSF. Baru has served in a number of roles at the San Diego Supercomputer Center, including Co-Program Director, Data and Knowledge Systems; Division Director, Science R&D; and Associate Director of Data Initiatives. Prior to joining SDSC in 1996, Baru was at IBM, where he led one of the development teams for DB2 Parallel Edition Version 1 (released Dec 1995); and at the University of Michigan, where he served on the faculty of the EECS Department. He received his B.Tech in Electronics Engineering from the Indian Institute of Technology, Madras, and M.E. and Ph.D. in Electrical Engineering from the University of Florida, Gainesville.

Neal Bloom, Founder, Fresh Brewed Tech

Neal Bloom ('08) completed an engineering degree at UC San Diego before pursuing an MBA from Pepperdine University. At the height of the 2008 recession, went to work on NASA's Space Shuttle program while its astronauts were building the International Space Station. From that experience, Bloom co-founded Portfolium to help new grads promote themselves, launched Hired.com to attract tech talent to the San Diego region and created a venture capital podcast and newsletter to continue to bring venture capital and businesses to San Diego, elevating the community as a top 10 tech and startup hub.

Henrik Christensen, Director UC San Diego Contextual Robotics Institute

Henrik Christensen is the director of the UC San Diego Contextual Robotics Institute and a professor in the Department of Computer Science and Engineering at the Jacobs School of Engineering. Over the past three decades, Christensen has established a stellar track record of leading robotics institutes and bringing them to the forefront of the robotics field. Christensen is a leader in the setting of national policy for the field of robotics and has testified before Congress on the subject. He is the head of a nationwide effort to draft a robotics roadmap and explore the field's potential to transform U.S. society. Christensen's own research covers computer vision, artificial intelligence and robotics, and his primary emphasis has been on a systems-oriented approach to machine perception, robotics and design of intelligent machines. He has worked with a number of industry partners, including Boeing, KUKA, iRobot, BMW and Apple. In 2011, Christensen was awarded the Joseph F. Engelberger Robotics Award, widely considered the world's most prestigious robotics honor. In 2013 Christensen was elected a fellow of the American Association for the Advancement of Science (AAAS), and later a Fellow of the Institute of Electrical and Electronic Engineers (IEEE) in 2015. Christensen was initially trained in mechanical engineering and worked subsequently with MAN/BW Diesel. He earned a master's and Ph.D. in electrical engineering from Aalborg University in Denmark, in 1987 and 1990, respectively.

Rajesh Gupta, Director, Halıcıoğlu Data Science Institute

Rajesh Gupta is the director of the Halıcıoğlu Data Science Institute (HDSI). The HDSI's mission is to lay the groundwork for the scientific foundations of this emerging discipline, develop new methods and infrastructure, and train students, faculty and industrial partners to use data science in ways that will allow them to solve some of the world's most pressing problems. Dr. Gupta is a professor and holder of the QUALCOMM endowed chair in Embedded Microsystems in the Department of Computer Science & Engineering at UC San Diego. He leads the Microelectronic Embedded Systems Lab and is head of the Embedded Systems Group. Rajesh did his undergraduate education at IIT-Kanpur and his graduate education at UC Berkeley and Stanford. He currently serves as an advisor to Tallwood Venture Capital, RealIntent, Calypto and Packet Digital Corporation.

Saura Naderi, CEO ViaSaura

Saura Naderi ('07) earned her engineering degree from UC San Diego Jacobs School just as the recession hit. Not satisfied by the opportunities available to her, she created her own. She volunteered, later becoming an employee, to create a program at UC San Diego where undergraduates and K-12 students could play and explore science and technology with art-themed engineering-based projects. After receiving the exemplary employee award at UC San Diego and the Athena Pinnacle award and invited to do a TEDx talk, she was recruited by Qualcomm to create a similar program named - Thinkabit Lab. Thinkabit Lab engaged 14,000+ middle school students and has been replicated in many different environments from libraries and schools to universities and companies. Saura left Qualcomm to start her own company, ViaSaura,to help organizations build their STEM programs.

Leanne Chukoskie, Research Scientist, Calit2, UC San Diego

Leanne Chukoskie conducts research on the links between movement and cognition, especially during typical and atypical development. Her work spans both discovery research and translation. Most recently, she has focused on developing and testing behavioral therapeutics for individuals on the autism spectrum. Professor Chukoskie earned her Ph.D. in Neuroscience from New York University and a dual major B.A. in Biological Basis of Behavior and Anthropology from the University of Pennsylvania.

Pamela Cosman, Professor, Electrical and Computer Engineering, UC San Diego

Pamela Cosman is a Professor of Electrical and Computer Engineering at UC San Diego. She did her undergraduate degree in EE at Caltech and her Ph.D. at Stanford University. On the UC San Diego faculty since 1995, she has served as the Director of the Center for Wireless Communications, Vice Chair of ECE, Associate Dean for Students of the Jacobs School of Engineering, and Editor-in-Chief of IEEE JSAC. Professor Cosman is the PI on the first NSF S-STEM grant in the history of the Jacobs School, and supports low-income, women, and under-represented minority students. She was the recipient of the 2018 national diversity award from the Electrical and Computer Engineering Department Heads Association. Her research is on video compression, wireless communications, and image and video processing. Recent projects include underwater image enhancement, cognitive radio, and quantifying gaze behavior using eye-tracking glasses.

Parina Parikh, Director of Programs, San Diego Workforce Partnership

Parina Parikh currently serves as the Director of Programs for the San Diego Workforce Partnership, creating and executing a comprehensive and coordinated approach across SDWP's programs and funding streams to best serve the community with workforce solutions across the County. She also directs the activities of the nation's first ever Income Share Agreement program run by a Workforce Development Board, partnering with UCSD Extension. Parina has almost 20 years of experience building partnerships, performing in depth financial analysis and leading business development efforts. Prior to her role at the Workforce Partnership, Parina spent almost 15 years in varying leadership positions at San Diego Gas & Electric and Sempra Energy. Parina is a native Chicagoan obtaining dual degrees from Northwestern University in Economics and Learning & Organizational Change.

Stephanie Davison, Program Officer, Human Services Program, Kresge Foundation

Stephanie Davison is a program officer for the Human Services program at the Kresge Foundation, which she joined in 2018. Previously Stephanie served as a project manager at FHI 360, where she managed a portfolio of juvenile justice, youth development, and workforce development programs including overseeing program design and execution, subgrantee management, team and consultant management, and policy development. She also supported college and career readiness initiatives, increasing high school graduation rates and post-secondary enrollment rates. In previous roles, she coordinated and supported workforce development and education programs and initiatives, including those funded by private foundations, the U.S. Department of Labor, U.S. Department of Justice, and the U.S. Department of Education. Stephanie earned a Bachelor of Arts in political science from the Mercyhurst University and a Master of Public Affairs from the School of Public and Environmental Affairs at Indiana University, Bloomington.

Gentry Patrick, UC San Diego Professor in Neurobiology, PATHS Program Creator and Faculty Director

Dr. Gentry Patrick is a Professor in Neurobiology and Director of Mentorship and Diversity for the Division of Biological Sciences at UC San Diego. Born and raised in South Central Los Angeles, he received his Ph.D. from Harvard University in 1999 after working in the laboratory of Dr. Li-Huei Tsai. Dr. Patrick joined the UCSD faculty in 2004. His lab has uncovered key pathways to understand the molecular makeup and modifications of synapses in the brain in both health and disease. The PATHways to STEM through Enhanced Access and Mentorship (PATHS) Program, developed by Dr.

Patrick and launched in 2018, was recently funded by a $6.9 million grant from Chan Zuckerberg Initiative (CZI) as a partnership between UC San Diego, UC Berkeley, and University of Maryland Baltimore County (UMBC), for the replication of UMBC's Meyerhoff Scholars Program to both UC campuses. The mission of the PATHS Program is to "increase the number, persistence, and success of under-resourced and underrepresented minority (URM) students in STEM in San Diego." The integrated approach adopted by the PATHS Program leverages strategic partnerships to systematically address historic challenges facing students from San Diego's socio-economically disadvantaged neighborhoods. Modeled after Dr. Patrick's own personal trajectory into STEM, the PATHS Program's all-access model for support, empowerment, and professional exposure will mobilize a new, diverse generation of STEM leaders.

Carol Hobson, Director, Foundation Relations, UC San Diego

Carol Hobson ('84) is a director of foundation relations, bringing over twenty-five years of University of California insight and experience to her advancement work focused on building the university's relationships with foundations, and securing support for projects and research across the university. She is a proud UC San Diego Triton, completing a bachelor's degree in visual arts/film and video in 1984.

Linda Awdishu, Chair, Division of Clinical Pharmacy, UC San Diego Skaggs School of Pharmacy & Pharmaceutical Sciences

Dr. Linda Awdishu currently serves as Chair of the Division of Clinical Pharmacy at UC San Diego. Her role as director of the Interprofessional Education and Simulation program in the Skaggs School of Pharmacy and Pharmaceutical Sciences supports the school's mission to educate future pharmacists, scientists and diverse leaders. The ultimate educational mission of SSPPS is to provide an exceptional training experience that positions graduates at the forefront of the fields of pharmacy and pharmaceutical sciences, and embraces effective new models and methods for teaching. Through advanced joint programs that bridge pharmacy practice with both basic and applied research, the school promotes interdisciplinary education and collaboration among pharmacy, medicine, biomedical research and public health disciplines.

Praggya Garg, Senior Software Engineering Manager, Sony Electronics

Praggya Garg is a Senior Software Engineering Manager at Sony Electronics, Inc., in its Research and Development group in San Diego. She is a technology leader with over fifteen years of experience leading global cross functional teams in engineering and innovative consumer products. She has consistently brought customer focus into software development/implementation and business processes. She is actively involved in various initiatives for women in technology, including mentoring and advocating for women leadership and empowerment. She has been in San Diego since 2004 and enjoys spending time outdoors with her two children and husband.

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