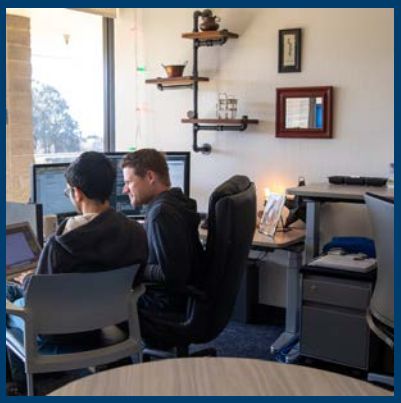
UNIVERSITY OF CALIFORNIA
SANTA CRUZ | Genomics Institute

ANNUAL REPORT 2020

July 1, 2019 - June 30, 2020



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LETTER FROM THE SCIENTIFIC DIRECTOR

Twenty years ago, scientists and engineers at UCSC, in collaboration with the International Human Genome Project, succeeded in assembling and publishing the first draft human genome sequence to the Internet. To further help researchers reveal life's code, we built what has become the most popular genomics browser in the world: the UCSC Genome Browser.

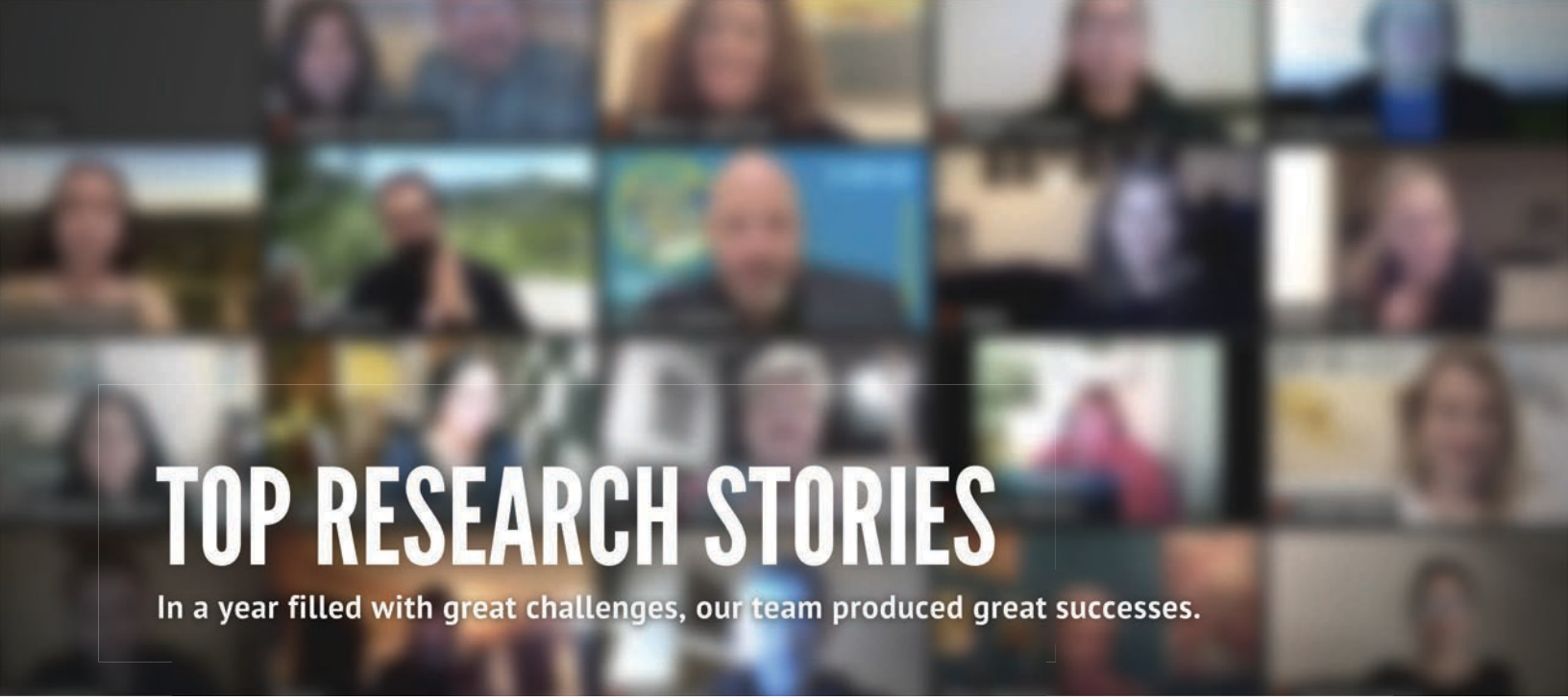
Through the Computational Genomics Laboratory & Platform (CGL/P), we are connecting the world's biomedical data into a cohesive data biosphere. With the Treehouse Childhood Cancer Initiative, PanCancer Consortium leadership, and the BRCA Exchange, we are leveraging genomics and data sharing to attack cancer and other diseases. Our Internet of Things-connected, work-automated tissue culture is providing new avenues to understand diseases, with a special focus on brain diseases. We are using cutting-edge long-read sequencing technologies developed at UCSC to unravel the mysteries of rare and undiagnosed diseases. Our conservation genomics scientists are using ancient DNA to understand extinction and protect species and ecosystems.

Now, in this pandemic, the Institute is spearheading efforts to sequence the virus. As early as February 2020, we developed a virus browser as part of our internationally recognized UCSC Genome Browser to track the COVID-19 virus sequence as it moves and mutates — thereby accelerating testing, vaccine and treatments to control further spread. Recognizing the importance of the social and racial justice movement, we are leading an effort to create a new human genome reference, one that better represents human diversity, to address inequities resulting from prior human genetics research.

The future requires sensitivity and strategic planning to accelerate scientific discovery. In our work today and in our strategy for the future, we embrace the importance of adding diverse voices, challenging what is known and revealing what is unknown.

David Haussler

DAVID HAUSSLER
Scientific Director



TOP RESEARCH STORIES

In a year filled with great challenges, our team produced great successes.

HUMAN PANGENOME REFERENCE: GENOMICS DIVERSITY EXPLORED

New grants from the National Institutes of Health (NIH) totaling $22.5 million are enabling Genomics Institute scientists and collaborators to generate and maintain a comprehensive reference sequence of the human genome that represents human genetic diversity; UC Santa Cruz leads are Institute Principal Investigators (PIs) David Haussler, Benedict Paten and Karen Miga (left). The project will sequence a new set of 350 ethnically diverse reference genomes for the Human Pangenome Project. Paten's group also plays a key role in the international Human Cell Atlas Project, the National Heart, Lung & Blood Institute's TOPMed genome project, and the NIH's other major genomics and cloud computing projects.

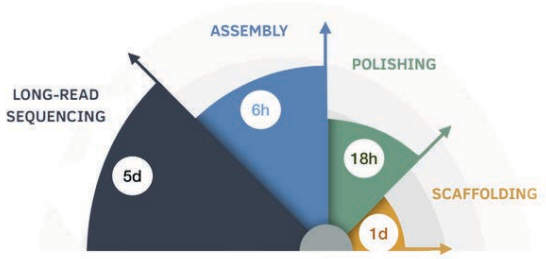
BUILDING THE DATA BIOSPHERE

UC Santa Cruz received $12.6 million in awards from the National Human Genome Research Institute and the National Heart, Lung and Blood Institute to develop their respective cloud platforms. Respectively, the AnVIL and the BioData Catalyst projects emphasize bringing researchers to the data in the cloud rather than the historical pattern of download, then compute. These projects also enable reproducible science through the use of containerized analysis utilities, which are findable in the Dockstore catalog.

AnVIL

NIH National Heart, Lung, and Blood Institute | BioData CATALYST

ELEVEN HUMAN GENOMES SEQUENCED AND ASSEMBLED DE NOVO IN NINE DAYS



The nine-day genome assembly process is broken down by length of time for each step.

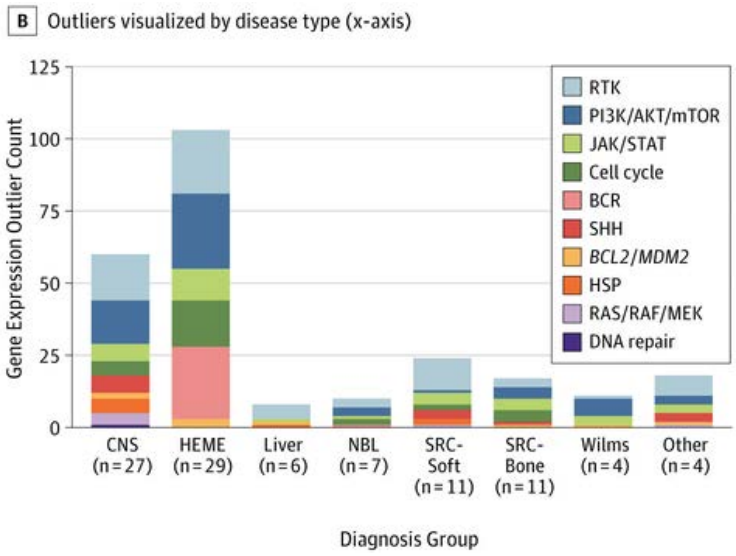
Computational genomics researchers collaborated on an algorithm designed to accurately and precisely assemble individual, near-complete human genomes de novo from long-read, nanopore sequencing data in about six hours using only about $70 of cloud computing time. This comes just three short years after the team proved that long-read human genome assembly using the same nanopore technology developed on campus could be done at all. This work demonstrates the incredible pace at which nanopore sequencing and novel computational methods are transforming genomics, making what used to cost millions just a few years ago possible for a tiny fraction of that.

UCSC IS A LEADER IN TEAM SCIENCE PANCANCER EFFORT TO UNDERSTAND CANCERS

As part of a massive team science effort involving researchers spanning the globe, the International Cancer Genome Consortium, PanCancer Project Steering Committee Principal Investigator (PI) Josh Stuart (left), along with PIs Angela Brooks (right) and Jing Zhu leading the UCSC Xena team were among >1,300 publishing the PanCancer Project, a huge milestone in cancer research and the most comprehensive study of whole cancer genomes to date.

TREEHOUSE SPEARHEADS COMPARATIVE GENOMICS TO DEFEAT CHILDHOOD CANCER

The California Initiative to Advance Precision Medicine, St. Baldrick's Foundation, Team G Childhood Cancer Foundation, Live For Others Foundation, Alex's Lemonade Stand Foundation, and Unravel Pediatric Cancer were among those supporting pediatric genomic research at UCSC, in a JAMA Network Open paper by the Treehouse team, "Comparative Tumor RNA Sequencing Analysis for Difficult-to-Treat Pediatric and Young Adult Patients With Cancer."



UCSC CONSERVATION GENOMICS GOES GLOBAL AT DAVOS 2020

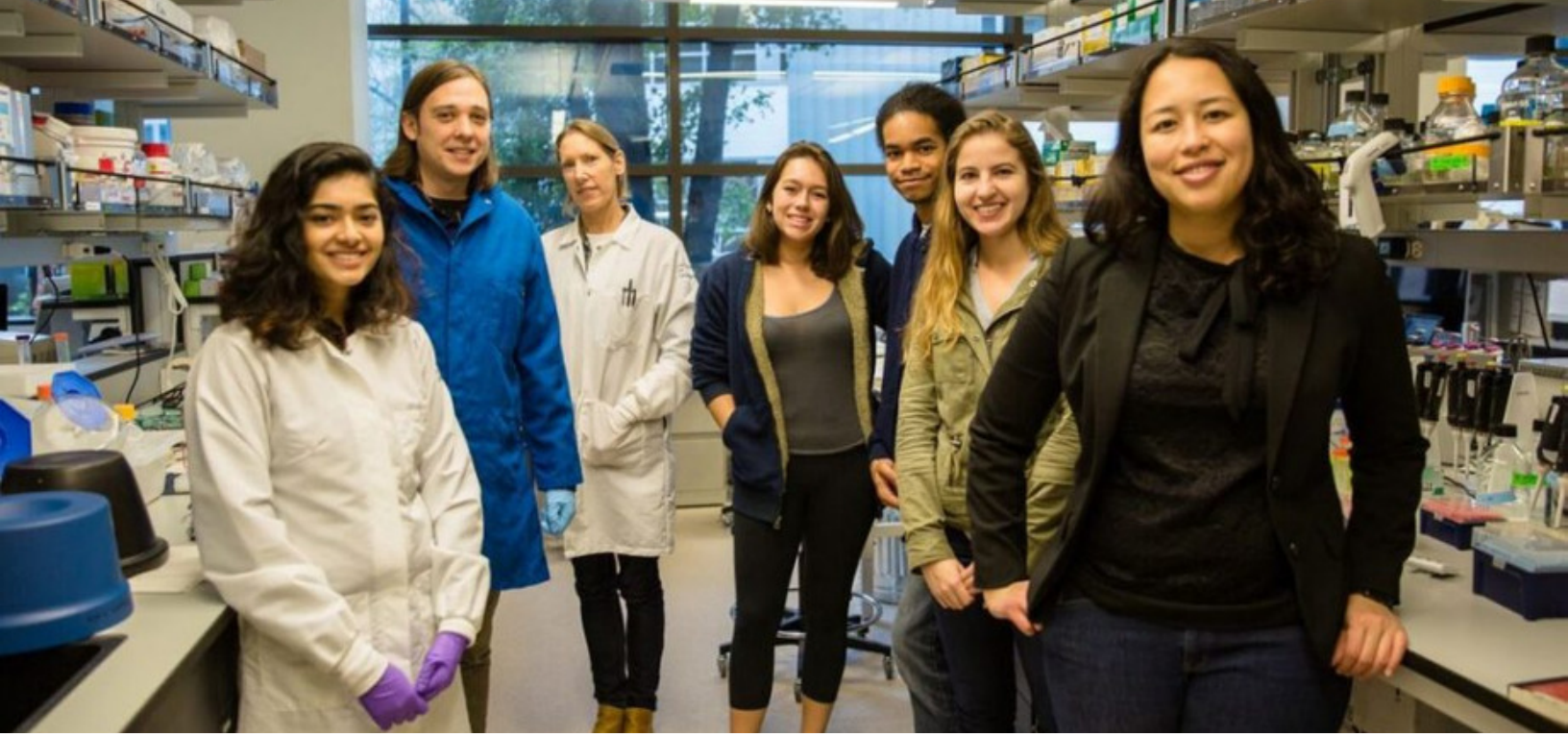
New genetic techniques could resurrect extinct species or eliminate dangerous pests. Genomics offers ways to conserve and protect species. But, how do we ensure their ethical and responsible application? Dr. Beth Shapiro shared how at Davos 2020: When Humankind Overrides Evolution.

Available at https://youtu.be/-Zos6stAwZo

"The public wants new ideas, and they want new things, but they also want to feel safe"

BRAINGENEERS EXPLORE WHAT MAKES US HUMAN

Schmidt Foundation funds organoid research: In collaboration with UCSF, the UCSC-led Braingeneers team, which includes more than 15 undergrad and graduate students, was awarded $10M over four years for “New Architecture of the Human Brain.” This ambitious project aims to establish a periodic table of genomic events underlying human brain specializations; unite human brain development studies with machine learning approaches; and to develop the first scalable, ex vivo system to actively study the behavior of human neural circuits under stimulus-response-reinforcement training.



GENOMICS INSTITUTE TAKES ACTION TO PROMOTE DIVERSITY AND INCLUSION

Assistant Professor Angela Brooks came to UCSC in July, 2015 and became the Institute's Diversity Director in March 2020. Dr. Brooks initiated and leads a Diversity Committee made up of a cross-section of Institute faculty, staff and students. She will continue advocating for diversity in genomics research along with genomics research into diversity to improve medicine. Dr. Brooks exemplifies those leading and building research organizations that are models of UCSC community values.

In June, as an extension of the work of the Diversity Committee, we recommitted ourselves to racial justice, inclusion, and systemic change. We galvanized internal resources and extended calls to action.

CATCH A KILLER WITH A SINGLE HAIR

Professor Ed Green was featured on ABC's 2020, explaining how the DNA technique he developed helped identify victims in New Hampshire's Bear Brook Murders, one of several cold cases Green's technology has solved.

Watch at https://bit.ly/2QFrTOY. Ed's segment begins around 1:06.

20 YEARS SINCE POSTING THE FIRST DRAFT OF THE HUMAN GENOME

On July 7, 2020, we celebrated 20 years since UC Santa Cruz published the assembled draft human genome to the Internet. We were thrilled to commemorate this effort, marking the significant moment when UC Santa Cruz ensured the genome would be free and available to everyone, everywhere, forever.

COVID-19 & UCSC'S RESPONSE TO A PUBLIC HEALTH EMERGENCY

Hiram Clawson of the UCSC Genome Browser team (bottom left) unveils the UCSC SARS-CoV-2 Genome Browser on February 27, 2020, beginning the Institute's fight against the virus. The brainchild of PI Max Haeussler, the virus browser is what New York Times reporter Carl Zimmer calls a one-stop shopping experience for Covid-19 molecular biology. The interactive tool gives researchers easy access to the latest molecular data related to the coronavirus genome.

In response to the limited testing availability, a team of researchers at UC Santa Cruz has established a diagnostic testing lab on campus. On May 1, the UCSC Molecular Diagnostic Lab (MDL) began doing coronavirus tests for the UCSC Student Health Center and other medical providers in the local community. Pictured at the first day of testing at Santa Cruz Community Health are Casey KirkHart CMO, Scott Failor PA, Aurora Martinez MA from Santa Cruz Community Health with Genomics Institute Executive Director Isabel Bjork and Lab Specialist Anouk van den Bout.

DIVERSITY & SOCIETY

The UC Santa Cruz Genomics Institute strives to involve all people — regardless of race, class and gender — in our research, scholarship and personnel.

By keeping the complete breadth and diversity of humankind at the heart of project goals, we are committed to steering research toward positive ends. Uncovering the mysteries of the human genome will affect all humans regardless of race, class, gender, socio-economic status, or other classification. How we work toward this goal must include attention to — and engagement with — diversity considerations.

Our leading role in the Human Pangenome Reference Consortium (HPRC), established in late 2019, will help address the racial and ethnic biases in genomic resources, by establishing a human genome reference that better represents human diversity across the globe.

In March 2020, Angela Brooks joined us as Diversity Director, and quickly established a Genomics Institute diversity committee composed of volunteers representing all campus roles. In Fall 2020, the committee held its first organization-wide meeting to review proposals and set metrics for success. The committee is working on short- and long-term strategies for change, such as reinforcing fair hiring practices, creating incentives for promoting diversity, and creating a digital bootcamp to train more diverse individuals in genomics research.

Our longstanding academic diversity programs are designed to encourage and assist underrepresented students in the science field with financial aid, support and resources. We have a dedicated, full-time, diversity program director, Dr. Zia Isola, who manages funded, undergraduate internships; a summer program for training in genomic science; and participation in diversity outreach programs and events, such as those put on by Society for Advancement of Chicanos and Native Americans in Science (SACNAS), American Indian Resource Center, The California Forum for Diversity in Graduate Education, and the Annual Biomedical Research Conference for Minority Students (ABRCMS).

As a community of scientists, we are fully committed to pursuing a greater understanding of the entirety of our diverse human genome and the consequences of this knowledge. We take pride in our history of making the results of our genomics research available to everyone in the public sphere. We support inquiry into the ethical, social and legal implications of genomics research and recognize the contributions of the UCSC Science & Justice Research Center, the Institute for Social Transformation, and the Center for Public Philosophy in this area. Finally, we pledge to achieve our research goals in a responsible and ethical manner, with explicit attention to community engagement, inclusion, and fair representation.

FINANCES

Grants, gifts, operating funds and expenditures

RESEARCH DEVELOPMENT

In fiscal year 2020 (FY20), the Institute submitted 49 proposals for 12 principal investigators (PIs) requesting $59 million (M) in new funds ($43.9M in direct costs, $15.1M indirect) for projects ranging from five months to five years in duration. The average requested was $20M per year in new funding. Of those proposals, 19 were awarded, resulting in $7.41M in new annual funding ($5.64M direct, $1.77M indirect).

In addition to new awards, the Institute generated continuing award funding of $23.52M (made up of $18.22M direct, $5.15M indirect, and a $150K gift processing fee) for 22 continuing projects, bringing the total research awards to 41, representing $30.69M in annual funding. More than three quarters of awards (76.8%) were made by Federal sources; this was followed by Foundations at 12.5%; a Research Gift representing 8.1%; Industry contributing 2.1%, and UC coming in at 0.4%. A summary follows in the table and chart below.

GENOMICS INSTITUTE AWARDS FOR FY20

Funding Category	Direct Costs	Indirect Costs (or Gift Fee)	Total Direct + Indirect	% of Total Award
Federal	$17,268,056	$6,308,090	$23,576,146	76.8
Foundation	3,477,621	362,302	3,839,923	12.5
Research Gift*	2,350,000	150,000	2,500,000	8.1
Industry**	437,826	219,183	657,009**	2.1
UC/UCSC	116,813	-	116,813	0.4
Grand Total	**$23,650,316**	**$7,039,575**	**$30,689,891**	

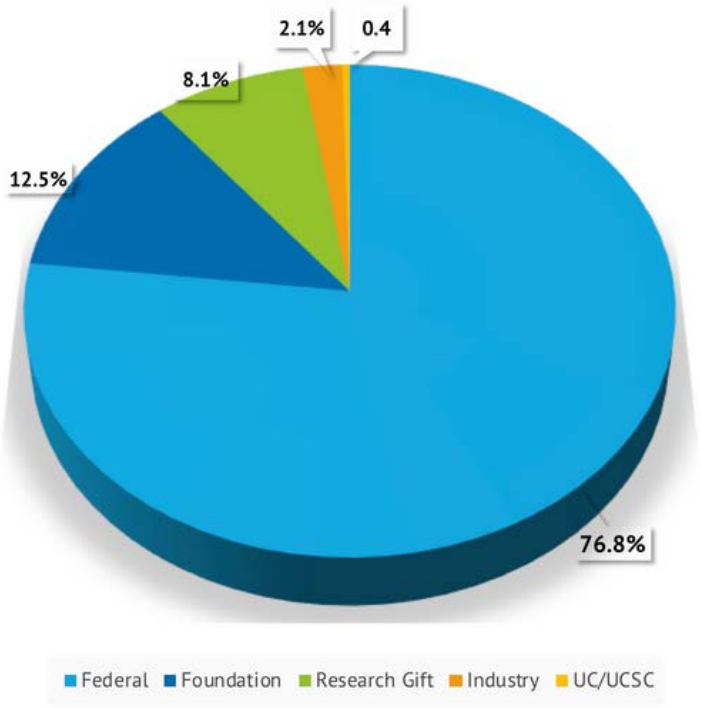
*Awarded by Schmidt Futures, a venture facility to turn private philanthropic capital into public benefit, this research gift was requested through a proposal process and has project reporting requirements similar to a grant. **Industry awards include a $50K gift from NVIDIA in addition to standard industry sponsored research agreements.

FUNDING SOURCES

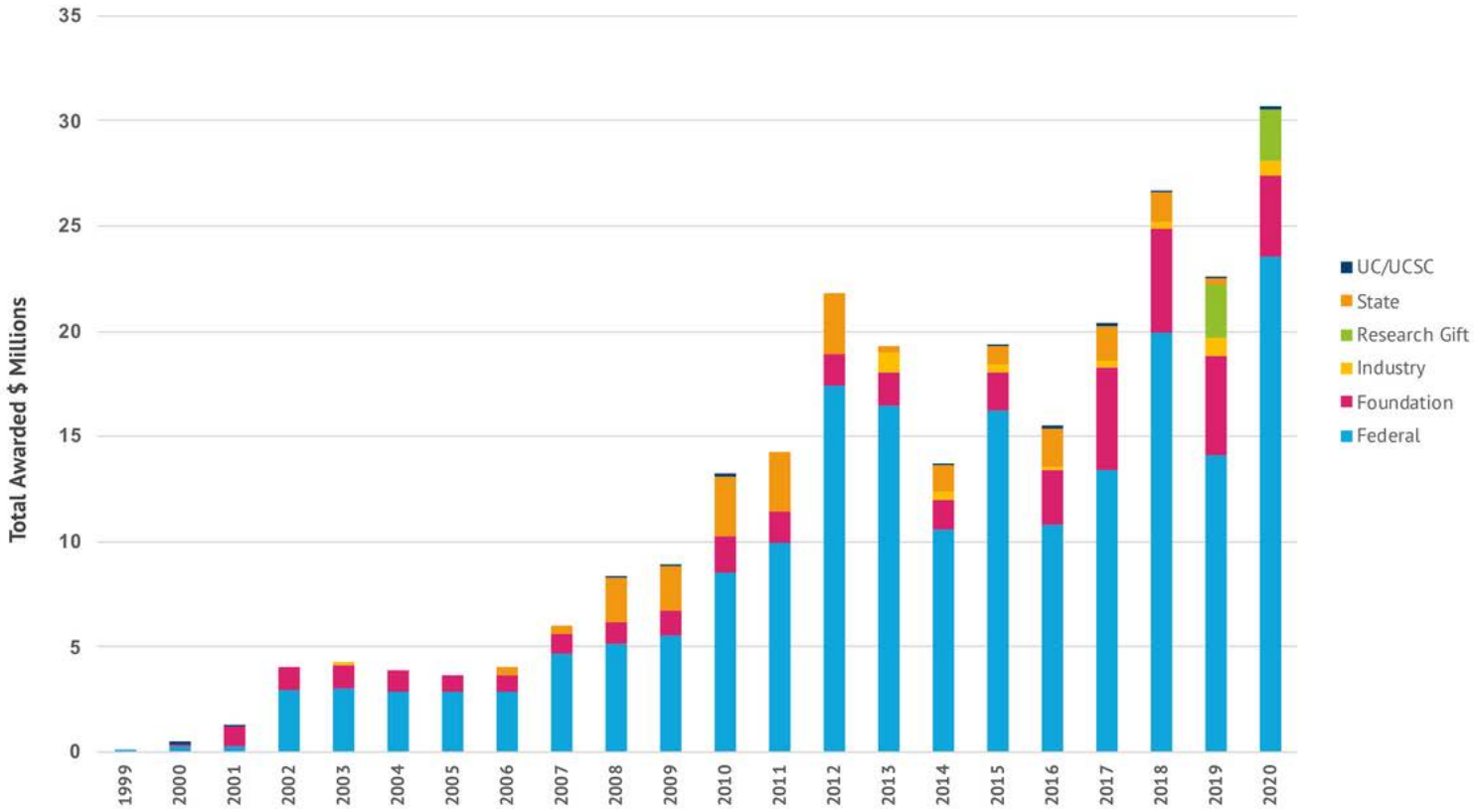
In our November 2018 Organized Research Unit (ORU) proposal, we anticipated that becoming a funded ORU would significantly enhance our ability to incubate major initiatives and bring revenue and visibility to the university at large. We projected an increase in external award funding of approximately 25%, from $20M in 2017 to $25M in three to five years.

We have exceeded this projection both in timing and amount, having achieved an increase in award funds of more than 50% in the three years, from FY 2017 to 2020.

The chart below displays annual external awards received beginning in 1999 with our earlier organization as the CBSE. We believe the financial support that accompanied becoming an ORU was critical in helping us achieve the significant jump in award funding in FY 2020.



ANNUAL EXTERNAL AWARDS 1999-2020



OPERATING BUDGET OVERVIEW

Our operating budget supports the administrative, operational and physical infrastructure of the Institute.

Total available operating funds in FY 2020 were $4.748M and were composed of $716,681 in general operating funds, $2,261,958 in gift funds, $1,556,458 in recharge revenue, and $213,064 in targeted program funds.

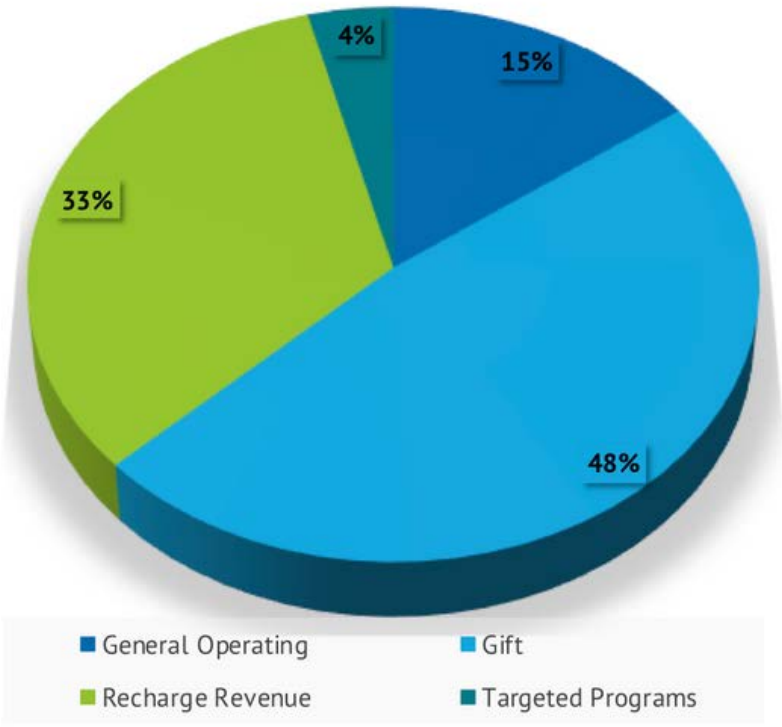
General operating funds include a new annual contribution from campus, and revenue from royalties and other minor sources.

Gift funds include a new generous annual contribution from a foundation. Some gift funds are earmarked for specific projects.

Recharge revenue is received for grant management and system administration services provided primarily to Institute Principal Investigators (PIs).

Targeted program funds are contributed by other campus units and from UCOP to support specific programs or purposes, such as the Research Mentoring Institute within our Office of Diversity, and towards the development of a live cell biotechnology complex.

Genome Browser Training Program Income is another source of targeted program funding.



OPERATING BUDGET

Category	Carry Forward	Budget Adjustments*	Total Budget	% of Total Budget	Transactions	Unspent Balance
General Operating	$35,516	$681,166	$716,681	15%	$669.428	$47,253
Gift	1,046,169	1,215,789	2,261,958	48%	1,107,134	1,154,824
Recharge Revenue	(190)	1,556,648	1,556,458	33%	1,663,981	(107,523)
Targeted Programs	130,380	82,684	213,064	4%	69,820	143,244
Totals	**$1,211,874**	**$3,536,287**	**$4,748,162**	**100%**	**$3,510,364**	**$1,237,798**

*Includes transfers in as well as recharge and other revenue

EXPENSES OVERVIEW

General operating funds supported HR, finance, leadership and front office operations as well as undergrad student workers, temp staffing, and campus fees. These funds also supported the genomics work of Science & Justice Research Center and Arts Division colleagues, and conservation genomics work with Environmental and Evolutionary Biology (EEB) department colleagues.

Institute gift funds supported our leadership, diversity, and communications teams; supported our research development team's pre-award work (through our recharge system); allowed us to support the Center for Public Philosophy, and to fund the technical design of a new live cell biotechnology complex.

Targeted programs supported personnel, students, travel, and the supported programs' project supplies.

Recharge revenue was used for the salaries, benefits, and supplies for our research development and system administration staff who provide our recharge services. These staff work directly with our researchers to apply for and manage sponsored projects and to provide computational infrastructure and support. The recharge mechanism allows these valuable support systems to be available to large and small projects alike, and is an important factor in the success of our research projects and programs.

We are grateful to all of our funders, both inside and outside the university, for allowing us to provide critical services and administrative support to our research teams.

RESEARCH OPERATIONS EXPENSES

Expense Category	General Operating	Recharge	Gift	Targeted Programs	Total Transactions	% of Expenses
Salaries & Benefits	$551,643	$1,632,111	$276,344	$5,979	**$2,466,075**	**70.3%**
Non-Capital Expenditures	50,921	31,871	788,365	57,909	**929,066**	**26.4%**
Travel	607	-	1,860	3,836	**6,303**	**0.2%**
Participant Support	-	-		418	**418**	**.01%**
Tuition & Fees	-	-	23,565	-	**23,565**	**0.7%**
Interdisciplinary Transfers	62,883	-	17,000	-	**79,883**	**2.3%**
Indirect Costs	3,375	-	-	1,678	**5,053**	**0.1%**
Totals	**$669,428**	**$1,663,981**	**$1,107,134**	**$69,820**	**$3,510,364**	**100%**

LOOKING FORWARD

Our primary target areas for the next five years in genomics research are: (1) ***defeating diseases and pathogens***; (2) ***furthering data sharing and open compute platforms***; (3) ***advancing scientific discovery by use of novel sequencing technologies;*** (4) ***protecting the web of life through comparative and conservation genomics;*** (5) ***furthering diversity and inclusion,*** *and (6)* ***expanding research in society and genomics.***

Our record makes us uniquely qualified to execute this plan successfully. We assembled and published the first human genome sequence to the Internet in 2000; we created, house and continue to evolve the most used genomic browser in the world; we were the first NIH trusted partner for global patient data sharing; we led the path for open, research-driven data sharing by co-founding the Global Alliance for Genomics and Health; we are funded to develop the next-generation of open, cloud-based platforms for multiple, leading genomics initiatives at NIH and beyond; and we are leading the team for the NIH human pangenome reference project, spearheading an effort to bring human diversity into our understanding of the human genome.

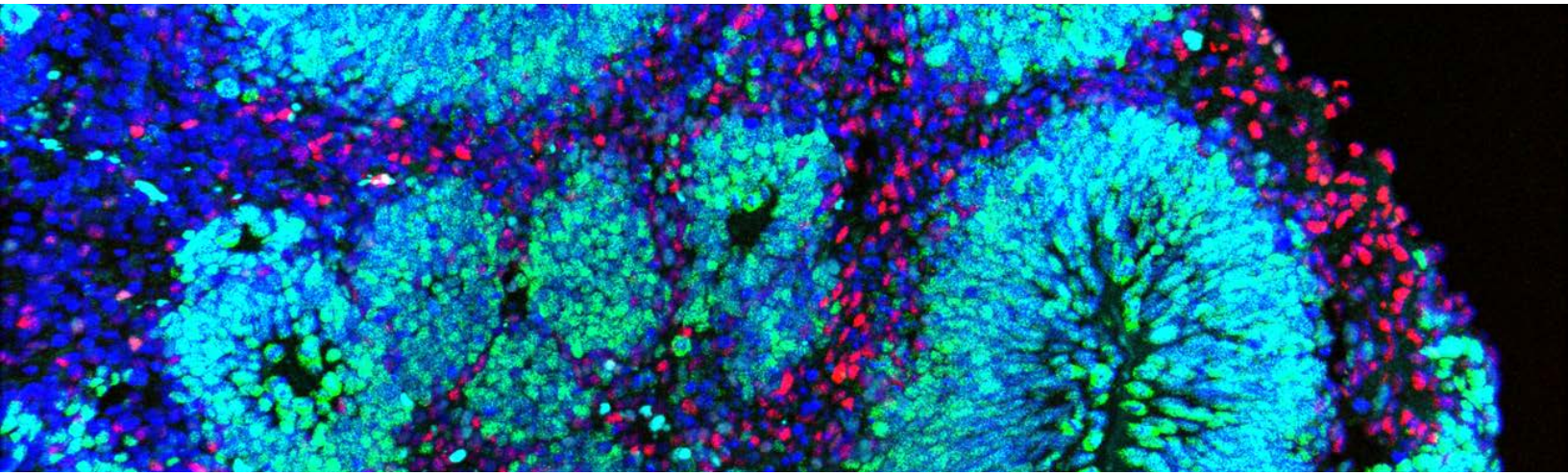
DEFEATING DISEASE AND PATHOGENS

We leverage UCSC's genomic research expertise and computational tools to impact clinical care. We will continue to apply big-data comparative genomics to discover treatment options for children and adults with rare, undiagnosed or refractory diseases. We will continue to use our genomic expertise to eradicate pathogens, as we have in contributing to COVID-19 testing and tracking and analyzing virus sequences. We will do this work in partnership with leading research hospitals around the globe. To expand our impact, we will build a diagnostic and research complex.

In 2020, UCSC established its first diagnostic lab to test for the SARS-CoV-2 virus. In 2021, we will complete the build of a new diagnostics genomics lab, which will begin by expanding campus COVID-19 testing and then will pivot to rapidly implement assays for clinical care, including RNA sequencing and gene fusion tests for pediatric cancers, undiagnosed diseases, and rare genetic disorders. The diagnostic lab will become part of a planned larger full-cycle, live-cell biotechnology complex, where researchers can grow, sequence and analyze tissues to study, diagnose and test potential treatments of disease.

Digitization of the wet lab will achieve more than a move from analog to a networked, scalable research facility: Digitization will achieve exponential, reproducible improvements in speed of discovery and potential for improved care. It will make these improvements more accessible through lower costs and the disaggregation of research and clinical care.

The vanguard in live-cell, advanced ex vivo tissue biotechnology will come from neuroscience, rapidly spreading to other biomedical areas. Over the next five years, we will accelerate the development of new technology and systems to grow brain tissue on the internet of things, interacting with deep learning — the computational expertise on which we have built our reputation.



FURTHERING GENOMIC DATA SHARING AND OPEN COMPUTE PLATFORMS

Our commitment to data sharing, which dates back to the publishing of the first draft of the human genome, remains the cornerstone of our identity. Going forward, we are furthering data sharing with our UCSC Genome Browser and, in particular, the SARS-CoV-2 Genome Browser (ucscgenomics.soe.ucsc.edu/the-ucsc-sars-cov-2-genome-browser/), which is designed to help researchers track and analyze coronavirus genome data, its variants and related vital data donated by labs around the world. The Browser highlights the positions in the virus genome used by all of the different "PCR" methods employed to detect the virus. It also highlights the positions in the virus genome where experimental research by labs around the world has indicated that mutations are likely to produce dangerous new strains; it tracks the positions in the virus genome that antibodies produced by infected patients use to recognize the virus. We are the only public entity that is actively collecting and integrating these types of information into a single, online resource for tracking new mutations. Thousands of researchers worldwide now rely on the SARS-CoV-2 Genome Browser. We will continue to develop our virus browser to freely and openly share this information.

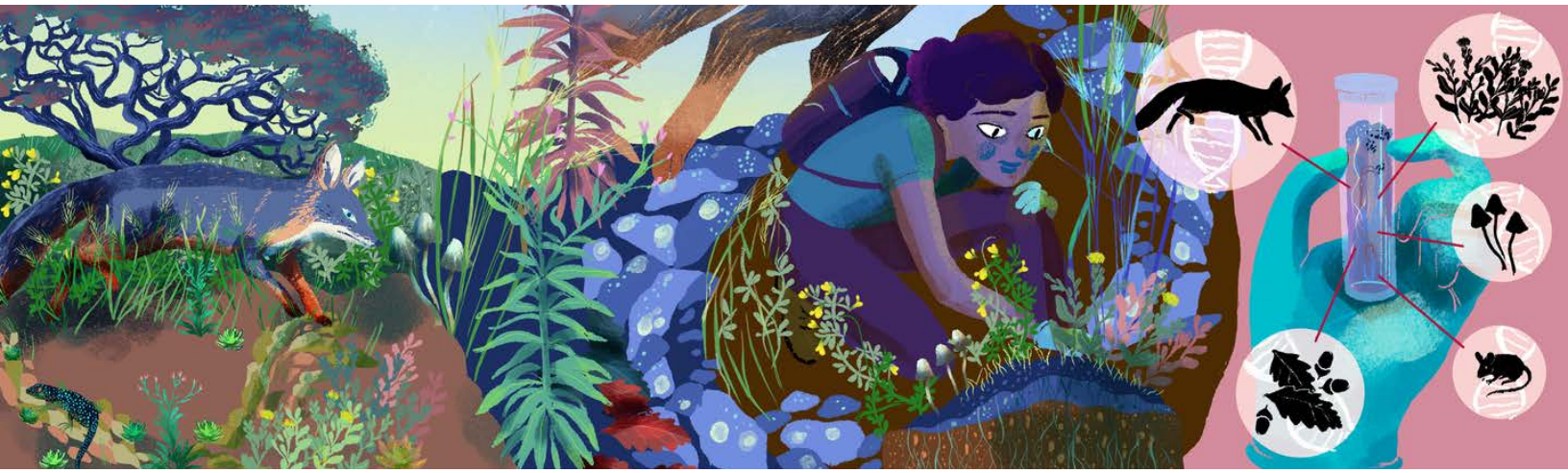
In parallel, the Computational Genomics Platform team is hard at work on delivery of multiple cloud-based platforms, each designed to hold rich genomic datasets where components of these systems are modular, open and based on community standards. The CGP develops highly secure and compliant tools, while providing re-usable workflows for performing genomic analysis that can be brought to the cloud-based data, inverting the traditional download and analyze paradigm. The CGP will continue to expand the types of workflows and tools it provides, while increasing the interoperability of the platforms so that they can be utilized by the growing community of genomic researchers that are moving to the cloud.

ADVANCING SCIENTIFIC DISCOVERY BY USE OF NOVEL GENOMICS SEQUENCING TECHNOLOGIES

A UCSC-led consortium is dedicating the next three years to using novel sequencing technology to change how we think about genomics. For 20 years, the world has had a single individual's genome for a reference , which was unable to represent the genetic diversity in our species. Many different reference genomes, representing genetic variations present in all different people and parts of the world, offers a fair and unbiased resource for global genomic medicine.

While sequencing whole genomes has become affordable, a significant cost of using genomes in medicine is the cost of looking up all the genetic variants in a patient's genome in the reference genome — a complicated procedure that looks for approximate matches. The procedure is approximate because the standard reference genome does not precisely represent the genetic variation present in the human population. In contrast, a new "pan-genome" built by a UCSC-led global consortium is coming close to representing most of the genetic diversity in the human population, in a more precise and unbiased manner.

We are also using novel technologies to sequence the COVID-19 virus genome, to add to the data available on the UCSC Browser, and to assist in the understanding, treatment and cure of undiagnosed and rare diseases.



COMPARATIVE AND CONSERVATION GENOMICS TO PROTECT THE WEB OF LIFE

We use genomics to protect ecosystems. We identify threatened species with genomics analysis, providing the information needed to save them. We do this through projects like the Genome 10K project, which is now part of the Vertebrate Genome Project (VGP). The VGP's goal is to sequence one genome from each of the 66,000 vertebrate animal species on our planet to better understand and conserve the species.

We also work at the grassroots level. We are key players in CALeDNA, a program where school-age children and the public are collecting DNA samples in the wild to help monitor California ecosystems using evidence from the entire web of life.

To support this work, we plan to build a conservation genomics program that capitalizes on technological advances in genome sequencing and assembly to develop and distribute resources necessary for managers to make on-the-ground decisions about species conservation and habitat protection.

These resources would include portable platforms to survey biodiversity, and virtual platforms designed to enable biodiversity-based assessments or hypothesis testing with predictive models that integrate cutting-edge, remote-sensing environmental data with historical data. Our program will prepare a genomics-enabled economy characterized by biodiversity, and will advise where to put the next protected marine and terrestrial parks.

FURTHERING DIVERSITY AND INCLUSION IN GENOMICS

As we move genomic science forward, we never forget the humanity of the individuals who are the cornerstone of our genomics experience: We are committed to racial justice. We are committed to integrity. We are committed to community action.

As we reach a projected 25-40% increase in staff and revenue over the next five years, we will focus on growing well — which we define as engaging our teams and enhancing diversity in all forms. New ideas are best wrought by different perspectives; we challenge ourselves daily to change in uncomfortable ways in order to grow and expand. In this spirit, and in the spirit of the social justice movement of 2020, the Genomics Institute's Diversity Committee has already proposed policy changes that are under review. For example, we are encouraging goals for diversity, equity and inclusion (DEI) actions in staff annual performance assessments, and developing more equitable and inclusive hiring practices at all levels. Over the next five years, we will hold ourselves accountable to these goals, using metrics to assess and improve our performance.

EXPANDING RESEARCH IN SOCIETY AND GENOMICS

We are committed to an investment into social science research on the impact of genomics. This includes a study of the legal implications of genomic discovery and influence. This is an emerging area that requires careful thought, integration, and exploration as we navigate the expanding power of genomic technology to change how we work and live together. It is with humility and community awareness that we pursue this area of research and look forward to the changes that it brings.

IN SUMMARY

Looking forward, we envision an experiment of the future using advanced genomic technology, perhaps one of hundreds of thousands of similar experiments conducted globally, in parallel, to fight a viral outbreak in real time. We imagine a day when new drugs are developed as efficiently as new software. We imagine a world without undiagnosed diseases, where treatments are targeted, and where we understand what makes us human. We are committed to creating the foundation for this future in a responsible and ethical manner, with explicit attention to community engagement, inclusion, and fair representation. This is the world that we are set on achieving.

STRUCTURE & PEOPLE

STRUCTURE

UCSC's history in genomics goes back to 1985 when UCSC scientists met with a group of international visionaries at a conference hosted by Chancellor Sinsheimer, a meeting that triggered the inception of the Human Genome Project. Fifteen years later, UCSC scientists helped the Human Genome Project reach a stunning milestone by providing the computational solution that produced the first assembly of the human genome, the map of our genetic make-up.

The Genomics Institute provides the organizing framework, focus, and leadership for the next great leap in the science of genomics and its implications for human health and species conservation. In 2014, we established the UC Santa Cruz Genomics Institute. In 2019, we became an Organized Research Unit of the University of California, and in 2019, we moved to UCSC's Westside Research Park at 2300 Delaware Avenue. The Genomics Institute falls under the Baskin School of Engineering.

The UC Santa Cruz Genomics Institute is focusing the power of genomics — collaboratively, openly and ethically — for the benefit of both the individual and the planet. Our platforms, technologies, and scientists unite global communities to create and deploy data-driven, life-saving treatments and innovative environmental and conservation efforts. We openly and responsibly share what we learn and create.

We are *Revealing life's code.*™

LEADERSHIP

David Haussler, Scientific Director
Isabel Bjork, Executive Director
Ann Pace, Director, Research Dev. & Finance
Josh Stuart, Associate Director
Benedict Paten, Associate Director
Beth Shapiro, Associate Director
Angela Brooks, Faculty Director, Diversity

We also worked to form an Advisory Committee made up of UC Santa Cruz faculty dedicated to genomics and external members who are luminaries in their fields; the first meetings of the Committee will take place in 2021. In addition, we are building a team of advisors to work with us on business strategy, and anticipate meetings to start in 2021. Finally, a new Associate Director with a focus on Society and Genomics is planned for FY 2021.

PROJECTS & TEAMS

Our organization is home to more than a dozen key initiatives including Braingeneers, BRCA Exchange, CIRM at UCSC, Computational Genomics Laboratory (CGL) & Platform (CGP), Genome 10K, Global Alliance for Genomics & Health, the Haussler-Salama Lab, the Telomere-to-Telomere (T2T) Consortium, Treehouse Childhood Cancer Initiative, UCSC Genome Browser, and UCSC Xena.

SPACE & EQUIPMENT

Genomics Institute computational research labs have 11,031 sq. ft. designated space on the 2nd floor of UCSC's Westside Research Park at 2300 Delaware and 4,076 sq. ft. additional space at the Physical Sciences Building (PSB) on campus. Both locations feature shared offices (67 to 377 sq. ft.) and open floor plans (481 to 1984 sq. ft.) divided into cubicles. Together, these spaces provide seating for more than 100 research and technical staff, postdocs, graduate students, telecommuters, and visiting researchers. The Genomics Institute also supports the Office of Diversity Program Director in the Baskin School of Engineering with an additional 156 sq. ft. office.

At the Westside Research Park, we have six conference and meeting rooms (10-45 seats) and five stand-up meeting areas all outfitted with Chromeboxes. All of these rooms/spaces are equipped with web cameras and 4K LED monitors. Computers are either Dell desktop workstations or Apple, or Dell laptops; some staff have both desktop setups and laptops.

CONTACT US

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