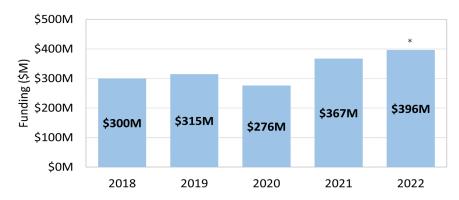
SONOR SCHOOL Office of Research

Extramural Funding Update



Fiscal Year 2022 ended with remarkable news for research at the School of Medicine and for the entire UC Davis campus. In a record-breaking year for research funding, UC Davis has received more than \$1 billion in extramural funding for the first time in its history; the School of Medicine was the largest contributor to university research funding, adding over \$396 million.

As Kim E. Barrett, School of Medicine vice dean for research, points out, "Central to this accomplishment is our School of Medicine, which received a record-breaking \$396 million – that's almost 40 percent of the UC Davis total! This comes from federal agencies like the National Institutes of Health (NIH), state agencies like California Department of Public Health (CDPH) and funders from industry and other private sector sources."

The School of Medicine's \$396 million in extramural research funding is an overall increase of approximately \$29 million (~ 8%) over FY 2021.

*This preliminary report is based on unvetted numbers. The final report will be released in October.

Research Resources



Are you new to UC Davis School of Medicine, or just need a refresher on the many resources that support research at UC Davis? SOMOR and the Clinical and Translational Sciences Center (CTSC) have created one-stop overviews of their research assets, with descriptions of SOMOR and CTSC unit services as well as links to helpful resources such as the Clinical Trials Office, UC Davis Profiles, SciVal and much more. Download here.

August 2022

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In This Issue

Extramural Funding Update	1
Research Resources	′
Publications	2
Recognition	
Featured Research Center:	
Center for Healthcare Policy and Research	
Featured Program: Works in Progress	
UC Davis Profiles]
Research in the News	(



August is Breastfeeding Month

- · Lactation support for UC Davis Employees
- Breastfeeding classes and support groups for UC Davis employees and the community
- UC Davis Human Lactation Center, a hub for communicating about lactation research and research-based policy

Publications



Post-doctoral scholar Jee-Yon Lee (pictured) and medical microbiology professors Renee Tsolis and Andreas Baumler have published a review on microbiome and gut homeostasis for the July 1 issue of <u>Science</u>. The review explores whether homeostasis and dysbiosis can be better defined by looking at the host environment that governs gut microbiota composition and function. Currently, limited information on the ecological causes of dysbiosis and the causative effects of dysbiosis on disease makes it difficult to translate research into medical interventions.



Kristen Aiemjoy, assistant professor of epidemiology, is the first author of a study published in <u>The Lancet</u> called "Estimating typhoid incidence from community-based serosurveys: a multicohort study." This study evaluates the use of serosurvelliance on catching incidences of enteric fever, an invasive infection, in populations that may be difficult to reach through traditional facility surveillance. Serosurveillance provides estimates of antibody levels against infectious diseases and is considered the gold standard for measuring population immunity due to past infection or vaccination.

Recognition

Interdisciplinary Team Wins Grant to Improve Rapid Diagnostics





An interdisciplinary team led by Cristina Davis, associate vice chancellor of Interdisciplinary Research and Strategic Initiatives and professor of mechanical and aerospace engineering, and Nicholas Kenyon, professor of pulmonary, critical care, and sleep medicine, has been_awarded a 5-year, \$5.9m grant from the National Institutes of Health (NIH) for their work on innovative, non-intrusive diagnostic technology that aims to shorten the time it takes to diagnose a broad range of medical conditions.

The project is a collaborative effort by faculty in the College of Engineering and School of Medicine. Davis will lead a team of engineers to construct miniature, hand-held units that can measure for traces of diseases on the skin. Kenyon's team in the School of Medicine, comprising faculty from the internal medicine, dermatology and psychiatry departments, will test the devices for their ability to diagnose conditions such as eczema and psoriasis, asthma, arthritis, attention-deficit/hyperactivity disorder and autism. The project has just received its first year of funding and the clinical work will begin fall 2023.

Kim E. Barrett awarded Honorary Fellowship



Congratulations to Kim E. Barrett, vice dean for research at UC Davis School of Medicine! Barrett has been selected as one of six honorary fellows for the Physiological Society. The Physiological Society is the largest network of physiologists in Europe, with academic journals of global reach. The society brings together over 4,000 scientists from over 60 countries, promotes physiology and supports those working in the field. The society's leading scientific journals include *The Journal of Physiology, Experimental Physiology* and *Physiological Reports*.

Honorary Fellowship is the highest honor that the Physiological Society presents to an individual. It is awarded to those individuals who are 'persons of distinction in science who have contributed to the advancement of physiology.' Barrett is a Distinguished Professor of Physiology and Membrane Biology at the UC Davis School of Medicine. She joined UC Davis Health in 2021 with more than 30 years of notable scientific research and institutional leadership experience.

Feature

Featured Center: Center for Healthcare Policy and Research



A politicized pandemic response. The inequal weight of climate policy on wellness. Confusion over abortion care laws. It has never been more evident that healthcare policies profoundly impact health.

The UC Davis Center for Healthcare Policy and Research (CHPR) focuses on the intersection of research and policy. CHPR supports interdisciplinary, innovative research

on healthcare outcomes, access, quality and costs. It synthesizes research and disseminates analyses directed to improving clinical care and health policy. It also educates trainees in health services research methods. Center-affiliated faculty researchers represent a broad spectrum of disciplines from across the University.

Since 1994, CHPR resources have been helping translate research to policy recommendations to improve healthcare delivery and outcomes, and 2021-22 was another standout year. Faculty affiliated with CHPR, including Interim Director Anthony Jerant, assistant professor Alicia Agnoli and Joshua Fenton, professor and vice chair of research for Family and Community Medicine, conducted a major work on opioid dose reduction that was published in JAMA Open Network and has the potential to make changes to existing opioid dose tapering guidelines. Lead author Agnoli received a prestigious Top Ten Clinical Researcher award for this study.

Center-affiliated faculty have also recently published on <u>physician burnout</u> (former CHPR Director and Professor Emeritus Joy Melnikow), <u>maternal autoantibody</u> <u>markers for autism</u> (MIND Institute researcher Judy Van de Water), <u>barriers to family practitioner-provided abortion care</u> (Na'amah Razon, assistant professor of family and community medicine), and <u>new methods for cost-effectiveness analysis</u> (Shuai Chen, assistant professor in the Department of Public Health Sciences, and CHPR Associate Director Jeffrey Hoch). Jerant explains the importance of this work: "As



these examples make clear, CHPR catalyzes, supports, and disseminates the findings of a truly broad array of studies, addressing issues of pressing importance to society to improve health and healthcare delivery and better inform health policy."

The Center partners with the division of Health Policy and Management in the department of Public Health Sciences to provide a seminar series enhancing cross-campus learning about health services research and

policy. The seminar presentations have covered a diverse array of topics and draw students from all levels, including clinicians and researchers. More details about future CHPR seminar series as well as previously recorded seminars are available on CHPR's seminar website: https://health.ucdavis.edu/chpr/seminars/index.html.



Anthony Jerant, M.D.
Interim Director
Jeffrey Hoch, Ph.D.

Leadership Team

Associate Director

Patrick Romano, M.D., M.P.H.

James F. Holmes, M.D., M.P.H.

Emeritus Leadership

Joy Melnikow, M.D., M.P.H. Richard Kravitz, M.D., M.S.P.H. Klea Bertakis, M.D., M.P.H.



Research policy leadership

Laura Kair, medical director of Well

Newborn Care at UC Davis Children's
Hospital, and affiliate of the UC
Davis Center for Healthcare Policy
and Research, is a breastfeeding
equity expert. She serves on the
Board of Directors of the Academy of
Breastfeeding Medicine (ABM) and helped
draft its recent position statement for
referencing lactating persons with genderneutral language. This position statement
helps clarify the distinction between
affirmed language used in the clinical
setting and the requirements for language
in the research milieu.

ature

Works in Progress: a peer mentorship program for pediatrics researchers





Jennifer Rosenthal

In 2018, then-assistant professors Jennifer Rosenthal, Laura Kair, and others in the Department of Pediatrics were considering ways to best support early career investigators in the department. They proposed to implement a program entitled "Works in Progress" that could serve as a regular mentoring group for early career faculty, particularly for those learning the process of grant writing and submitting grant applications.

Since its inception, the program has grown significantly and Department of Pediatrics Chair, Satyan Lakshminrusimha, and Vice Chairs for Research, Jim Marcin and Alice Tarantal, have been instrumental in ensuring full support for these activities.

The monthly "Works in Progress" sessions are overseen by the department and administratively managed by Clinical Research Supervisor Christine Feller's team. Feller describes Works in Progress as "a forum where junior researchers can talk about their research ideas, study design, results, and get feedback in an informal setting." There are also didactic sessions with presentations by guest speakers highlighting resources related to clinical and translational research. Faculty can bring their research to the sessions at any stage: starting a project, planning the design, analyzing the data, or getting ready to present results at conferences.

The department provides these monthly sessions to be informative, enhance collaborations, flesh out new ideas, gain feedback on research challenges, learn new skills – as well as learn from each other. Some of the informational sessions have included discussions by guest presenters on how to determine order of authors for publications, overviews on the use of REDCap, StudyPages, and the Clinical Trial Office, as well as practicing presentations for national meetings.

Others in the department have used these monthly sessions to discuss specific aims for a range of grant applications including NIH K01, K08, K23, R03, R21, and R01 proposals, as well as submissions to the Department of Defense and the Children's Miracle Network. Some have taken the opportunity to review and discuss summary statements from submitted grants. Examples of the research projects discussed in these monthly sessions have included:



Leading edge research

Rosenthal and Kair are collaborators and co-authors of research published in Breastfeeding Medicine that focused on the use of technology to improve pumping for parents whose infants are in the neonatal intensive care unit (NICU). Using Family Link, a virtual visit technology, to "visit" their babies, the study found that this activity improved the quality of breast milk pumping.

- A study on child abuse reporting during the COVID-19 pandemic. co-authored by associate professor Julia Magana.
- Studies by associate professor Kathleen Angkustsiri addressing maternal autoantibody-related autism.
- Assistant professor Veronica Ahumada's new ideas related to the use of in classroom robots for children who are unable to attend school in person due to significant health issues.
- Assistant professor Heather Siefkes' study on screening critical congenital heart disease with pulse oximetry and machine learning.

The "Works in Progress" sessions have proven highly informative and useful particularly for junior faculty, but also for faculty at any career stage seeking helpful feedback. "Through these efforts the department has seen research ideas formally take shape and benefit from the comments that have significantly improved scores and grant funding," says Tarantal.



UC Davis Profiles: Editing your Profile

Now that UC Davis Profiles is here, you should edit your profile to enhance its searchability for potential collaborators. Using your kerberos credentials, <u>login</u> to edit your profile (add a photo, awards, links to other websites, etc.). Your name, degrees and contact information are imported from campus systems, as well as NIH research activities and funding and PubMed articles. Other activities and funding, along with optional information such as your photo, CV information, and video, website or news links may be added by you or by a designated proxy.

Researcher Information

An individual's profile page shows data drawn from external sources, and may also display custom content added by the researcher

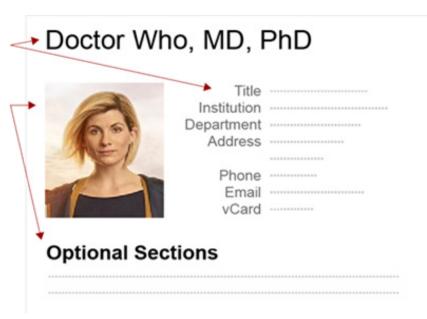
Name, degrees and contact information are imported from campus systems.

Profile owners may add:

- Photo
- Education and Training
- Awards and Honors
- Research Overview
- Interests
- Featured Publications
- Faculty Mentoring
- Student Projects
- Twitter and other feeds
- Videos
- Websites
- News Links

Research Activities and Funding come from NIH ExPORTER. Other grants may be added.

Published articles available in PubMed are listed automatically. Other publications may be added.





You have the option of designating your own proxies by signing in and going to Manage Proxies in the edit menu. Proxies do not need to have profile pages themselves.

Contact Us

Please share your feedback about how to improve UC Davis Profiles, and let us know if UC Davis Profiles has enabled your research in any way. Your success stories are important to enable the continued support and expansion of this important tool.

Email us at profiles@ucdavis.edu

2022 Research Opportunities Expo for Medical Students

Faculty participation needed!

The Research Opportunities Expo is returning in person for the first time since the COVID pandemic. This is your chance to talk directly to students about your research and how they can become involved with it.

When: October 27, 5:30-7:00 p.m.

Where: Education Building; tables will be provided to participating faculty. How: Fill out this <u>survey</u> to let us know you are interested in participating!

For additional information, contact Holly Ly, hhly@ucdavis.edu



2022 NorCal Symposium

A Collaboration between the Schools of Medicine at Stanford, UC Davis and UCSF

Join us virtually on September 23rd from 12pm to 5pm PT

NorCal Symposium on Climate, Health and Equity

Climate change is a health risk multiplier, disproportionately impacting communities made vulnerable by racism and poverty. As healthcare providers, our role in safeguarding the health of the communities we serve has never been more important.

For the third year, an alliance of faculty, students and staff from UC Davis, UCSF and Stanford are bringing together leaders in climate and health equity. The 2022 symposium, hosted by UC Davis this year, will include sessions on important issues of our day and will focus on how to advocate for our patients and communities.

Come learn from leaders in the field how communities are preparing to meet these challenges and what role health professionals can play in effective partnership. Join us virtually on Friday, September 23rd. Registration will be open soon and all are welcome..

More information here: https://norcalsymposiumorg.wpcomstaging.com/

Research in the News

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https://health.ucdavis.edu/ctsc/news/

- Researchers awarded 1.4-million to develop gene therapy for rare genetic condition
- Prestigious NIH grant helps UC Davis train researchers in drug discovery and development
- <u>Interdisciplinary team receives grant</u> to improve rapid diagnostics
- Obesity and age at menopause affect womens heart failure risk
- Two studies show Healthy Davis
 Together prevented infections,
 hospitalizations and deaths
- Startup developing technology to combat degenerative diseases



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