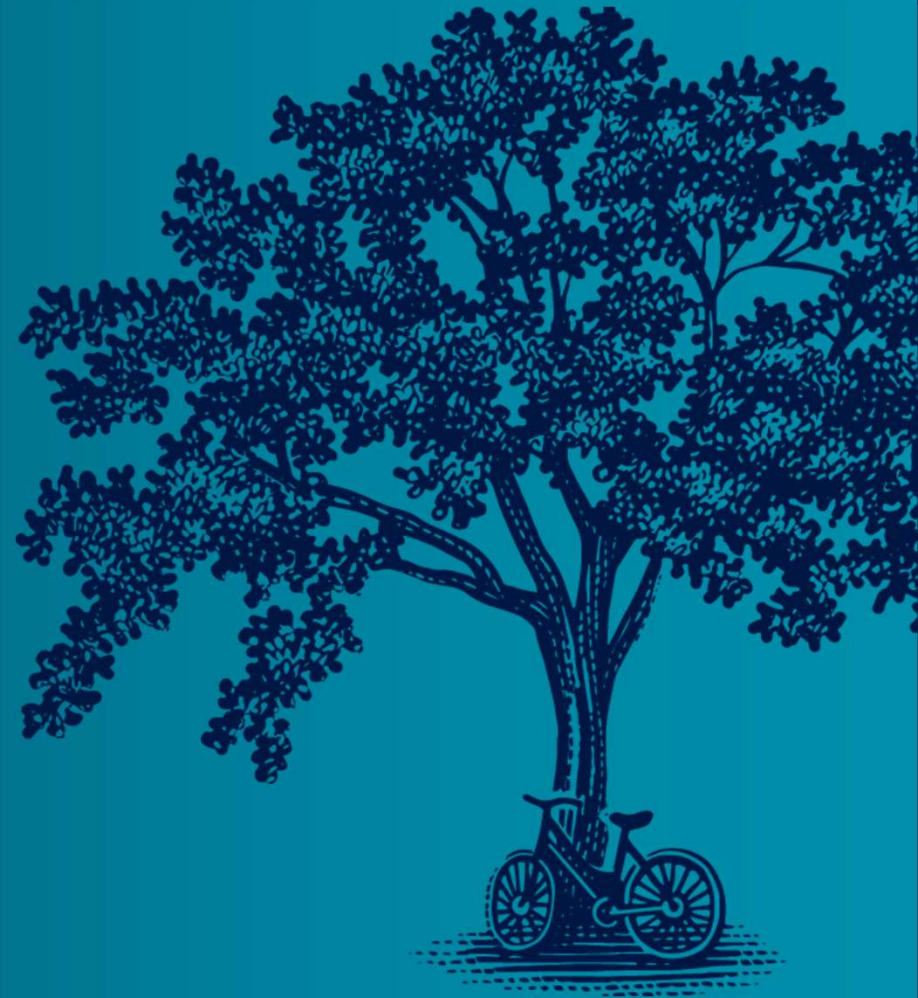# Office of Research

www.research.ucdavis.edu

Denise Ehlen

Associate Vice Chancellor

dmehlen@ucdavis.edu

UCDAVIS

OFFICE OF RESEARCH

Organizational Structure

Prasant Mohapatra
Vice Chancellor for Research

Research Administration & Central Services **Denise Ehlen** Associate Vice Chancellor	**Interdisciplinary Research & Strategic Initiatives** **Cristina Davis** Associate Vice Chancellor	**Innovation and Technology Commercialization** **Denise Ehlen** Interim Associate Vice Chancellor	**Research Core Facilities Program** **Cristina Davis** Associate Vice Chancellor	**Research and Teaching Animal Care Program** **Laurie Brignolo** Attending Veterinarian and Exec Director
• IRB and IACUC Administration • Sponsored Programs Office	• Interdisciplinary Research Support • Research Programs Administration • Strategic Initiatives	• Innovation*Access* • Venture Catalyst		• Campus Veterinary Services

Resources to Help You Succeed

Funding Opportunities

Project Development and Proposal Writing

Proposal Submission

Research Collaboration and Seed Funding

Early-Career Researcher Support

Research Unit Development

Strategic Partnerships

Research Promotion

Proof of Concept Grants

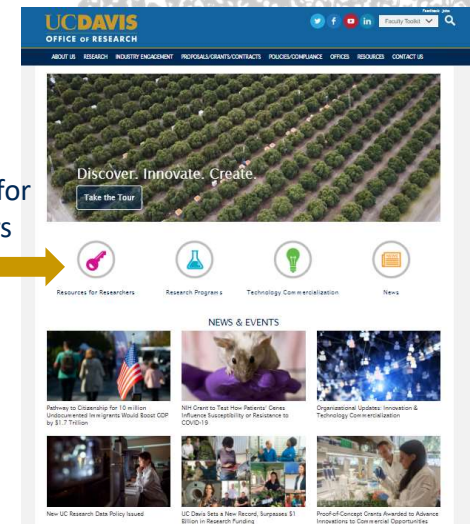Invention Protection & Licensing

Startup Formation

Business Incubators

To View the Full List:

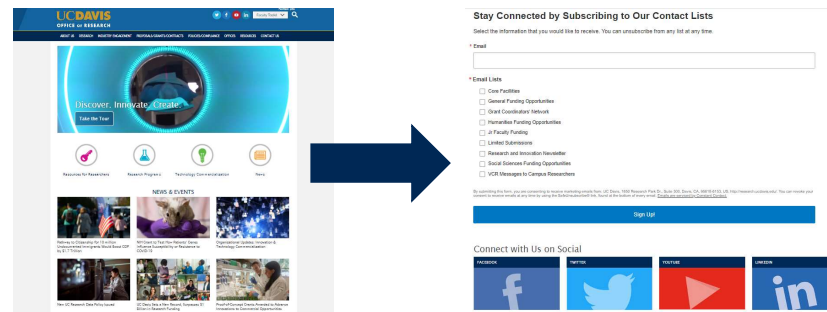research.ucdavis.edu

Resources for Researchers

Get Connected

Signup to receive the latest news, opportunities and events

VISIT: research.ucdavis.edu/connect

Join us on November 1 at a special research celebration event.

Register Today!

Research Development at UC Davis

Sheryl Soucy-Lubell, PhD
Interdisciplinary Research Support

Interdisciplinary Research & Strategic Initiatives

irs@ucdavis.edu

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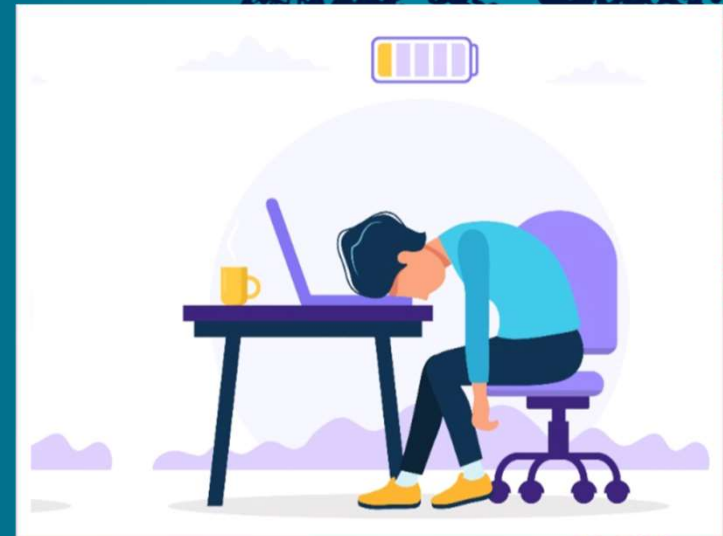
Objectives

Establish good grant writing habits

Fund your research program

Grant Writing is part of our culture

Self Assessment

Write Early and Often

Don't be Shy
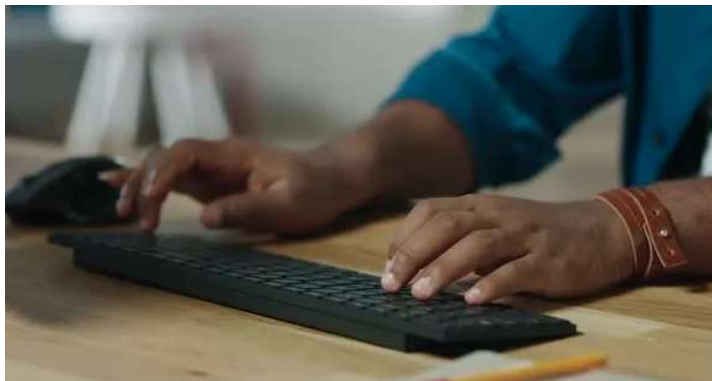
Grant-writers toolkit

Research Development Toolbox

Proposal Component
Templates

Grant-writing
Newsletters

Grant Writer's
Workbook

Early Career Grant
Writing Guides

Agency-specific
Tips and Tricks

SCAN ME

https://ucdavis.box.com/s/
22rxfl35wviv712f7l30sqt756ounylg

https://tinyurl.com/bdewy4bt
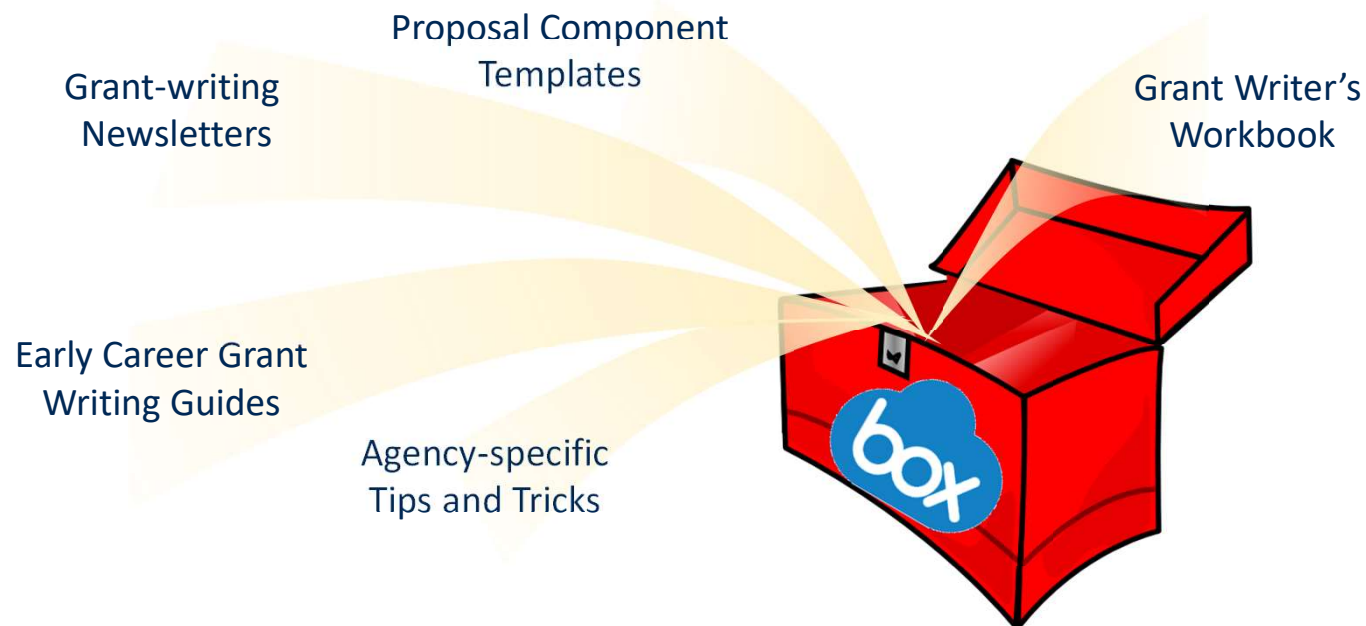
The Grant Writer's Workbook

- Part I: Orient Yourself: Understand the research landscape at UC Davis
  - Office of Research
  - Your Department and School
  - Other Offices and Services
- Part II: Developing Your Grantsmanship Strategy
  - Do a SWOT analysis of your own research program
  - Make a 5- year plan

Published February 2020

UC Davis Interdisciplinary Research Support team

The University of California, Davis
GRANT WRITER'S WORKBOOK

A Comprehensive Guide to:

- Developing a Multi-Year Grantsmanship Strategy
- Aligning your Project with the Goals of the Sponsor
- Developing Your "Pitch" for Sponsors & Reviewers
- Making all Proposal Sections Work for You
- The Review Process & Responding to Rejection

Sponsored by:

UC DAVIS
OFFICE of RESEARCH

Action Items

Download the Grant Writer's Workbook

Complete Part II of the workbook
- Take the "Grant Readiness: Self Assessment"
- Turn this self assessment into a SWOT analysis
- Make a 5-year plan and a 1-year plan

RESOURCES
- Grant writers' Workbook Parts I and II
- IRS team workshops

GRANT READINESS: FIVE-YEAR PLAN

YEAR 1:

PROPOSALS:

ACTIVITIES:

OUTCOMES:

YEAR 2:

PROPOSALS:

ACTIVITIES:

OUTCOMES:

proposal strategies and (2) request copies of their proposals and reviewers' comments?

Action Items

Check out our (recorded and new) workshops

For example...

FINDING FUNDING
Learn a 3-step method for finding the right funding opportunities, and apply it using the web's most powerful grant search database!

DEVELOPING YOUR PITCH
To engage reviewers and ensure a proposal makes it past the first round of review, researchers need a concise, compelling research "pitch."

BUDGET
With guidance from veteran financial analysts, learn what funders look for in financials and discover the top qualities of strong budgets.

REVISE AND RESUBMIT
Most proposals are funded on the second or third try. Learn how to approach the resubmission process and what pitfalls to avoid.

Action Items

Check out our (recorded and new) workshops

**UC Davis
Research Development
Quick Chats**

Every M,T,W via Zoom
12:10-12:25pm

Mondays: Skill Share

Learn about the week's topic from Research Development experts; explore the challenges of mastering the topic effectively and engage with evidence-based tools and tips that can help you do so.

Tuesdays: Shop Talk

Chat with someone "in the trenches" working on/in/around the topic under discussion, who can speak about their experiences, share their suggestions—and give invaluable tips to aid your success.

Wednesdays: Try & Apply

Practice what you've learned from experts and peers, using materials provided by facilitators as your guide. Take advantage of plentiful Q&A time to clarify sticking points and establish next steps once the week is out.

Themes for 22-23: Funding Success at Mid-Career and Starting a Research Center

Make a Writing Plan

Make a Writing Plan: Action Items

Develop good writing

- Set a schedule
- Draft a one-pager

Never submit anything without review

- Create a peer-review group among your colleagues
- Contact program officer with your ideas

Volunteer to review grants

- RESOURCES
  - Research Development Toolbox: Writing a one-pager
  - Grant Writer's Workbook, Parts III and IV

One-Pager TEMPLATE

Long-Term Goal: Describe your *ultimate* goal in pursuing the project—typically something involving major steps toward addressing the problem/question/challenge (1 sentence)

e.g., "Our long-term goal is to establish a first-of-its-kind Center for Arctic Fermentation Studies, designed around a convergent approach to the co-production of knowledge…."

Project Goal: Explain the goal you will achieve *during the period of the grant*—typically a significant portion of work related to your long-term goal, but not often encompassing the entire long-term goal (1

Get Yourself Known

Get Yourself Known: Action Items

Talk to Program Officers whenever possible

- Washington
- Zoom
- professional meetings

Self-promotion

- Broadcast your good press

Fund your Research Program

Identify Funding Opportunities

UC DAVIS
OFFICE OF RESEARCH

Lead
- Identify search tools and learn how to use them
- Conduct a purposefully broad search
- Generate a list of 35 or more potential leads

Prospect
- For each identified agency, review mission statement
- Eliminate agencies and programs not aligned with your project goals
- Narrow your list to 10-15 opportunities

Match
- For each prospect, conduct a close read of RFP
- Eliminate poor matches due to eligibility, project needs, timeline, or logistics
- You now how 5-6 programs to focus on at this time

From Part III of the Grant Writer's Workbook

Identify Funding Opportunities

https://lists.ucdavis.edu/sympa/subscribe/fundingjrfaculty/index.html

Identify Funding Opportunities

https://research.ucdavis.edu/proposals-grants-contracts/funding-opportunities/

Know Your Tools

ExLibris | **Pivot-RP**

Accelerate your Research Funding

- Search Pivot® and Research Professional - the most comprehensive and trusted source for global funding information
- Save searches and Track funding opportunities
- Discover collaborators
- Get tailored funding recommendations and alerts
- Gain insights from previously awarded grants
- Inform your funding strategies with our authoritative global funding news and analysis service

Learn more

Sign in to use Pivot-RP

Enter your email address

Enter your password

Forgot your password?

Sign In

Use login from my institution

⇨ Create account

Know Your Tools

Have questions?
Email Meg Sparling at limsubmissions@ucdavis.edu

Consider some of these funding options

- Workshop Grants
  - Leadership opportunities
  - Develop relationships
  - Impress letter writers

- "Sweeps" month
  - Federal agencies must spend their remaining funds before fiscal close ever year

- Student Funding
  - Student Fellowships
  - Institutional Training Grants

Early Career Funding

GRANTS CALENDAR	NATIONAL SCIENCE FOUNDATION (NSF)	NATIONAL INSTITUTES OF HEALTH (NIH)	ENVIRONMENTAL PROTECTION AGENCY (EPA)	DEPARTMENT OF AGRICULTURE (USDA)	DEPARTMENT OF ENERGY (DOE)	DEPARTMENT OF DEFENSE (DOD)	NATIONAL ENDOWMENT FOR THE HUMANITIES (NEH)	PRIVATE FOUNDATIONS
WINTER-SPRING	NSF Investigator-Initiated Research Project (Round 1): Spring *date varies by division	NIH R01 Research Grant (Round 1): Feb 5 / NIH - K - CAREER DEVELOPMENT Grant (Round 1): Feb 12 / NIH R21 Exploratory Research Grant (Round 1): Feb 16		USDA AFRI Standard Grant: RFAs issued in Spring, due in Summer / USDA AFRI Conference Grant: RFAs issued in Spring, due in Summer		DOD Army Research Office (ARO) YOUNG INVESTIGATOR PROGRAM (YIP): Open / DOD Defense Advanced Research Projects Agency (DARPA) YOUNG FACULTY AWARD (YFA): January	NEH Fellowship (EARLY CAREER): April	Packard Fellowship for Science and Engineering (EARLY CAREER) - Limited Submission: February / Pew Scholars Program Biomedical Sciences (YOUNG INVESTIGATORS) - Limited Submission: April
SUMMER	NSF EARLY CAREER Program: July (last Wed)	NIH R01 Research Grant (Round 2): Jun 5 / NIH - K - CAREER DEVELOPMENT Grant (Round 2): Jun 12 / NIH R21 Exploratory Research Grant (Round 2): Jun 16		USDA AFRI Coordinated Agricultural Project (large-scale, multi-function): RFAs issued in Spring, due in Summer / USDA AFRI Food and Agricultural Science Enhancement, NEW INVESTIGATOR Grant: RFAs issued in Spring, due in Summer		DOD Air Force Office of Scientific Research (AFOSR) YOUNG INVESTIGATOR PROGRAM (YIP): June / DOD Office of Naval Research (ONR) YOUNG INVESTIGATOR PROGRAM (YIP): July	NEH Summer Stipends Limited submission: July	Hartwell Foundation Individual Biomedical Research Fellowship - Limited Submission: June / Johnson & Johnson, WiSTEM2D Scholars Award Program - Limited Submission: August
FALL	NSF Investigator-Initiated Research Project (Round 2): Fall *date varies by division / NSF Research Traineeship: September / NSF Major Research Instrumentation Grant: Limited Submission: October	NIH R01 Research Grant (Round 3): Oct 5 / NIH - K - CAREER DEVELOPMENT Grant (Round 3): Oct 12 / NIH R21 Exploratory Research Grant (Round 3): Oct 16	EPA Science to Achieve Results Research Grant: Varies by research area; must respond to open RFAs		DOE EARLY CAREER Research: September		NEH Infrastructure and Capacity Building Challenge Grants: September	W.M. Keck Foundation Science & Engineering and Medical Research Program - Limited Submission: October / Moore Inventor Fellows - Limited Submission: October

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Contact Us!

Interdisciplinary Research Support

irs@ucdavis.edu

Do your homework!

- Download the workbook

- Do a self assessment

- Write some one-pagers

- Form a working group

- Promote yourself

- Set up your Pivot profile with email alerts

- Attend our events

UCDAVIS
OFFICE OF RESEARCH

Strategic Initiatives - Overview

Ana Lucia Cordova

Director

anacordova@ucdavis.edu

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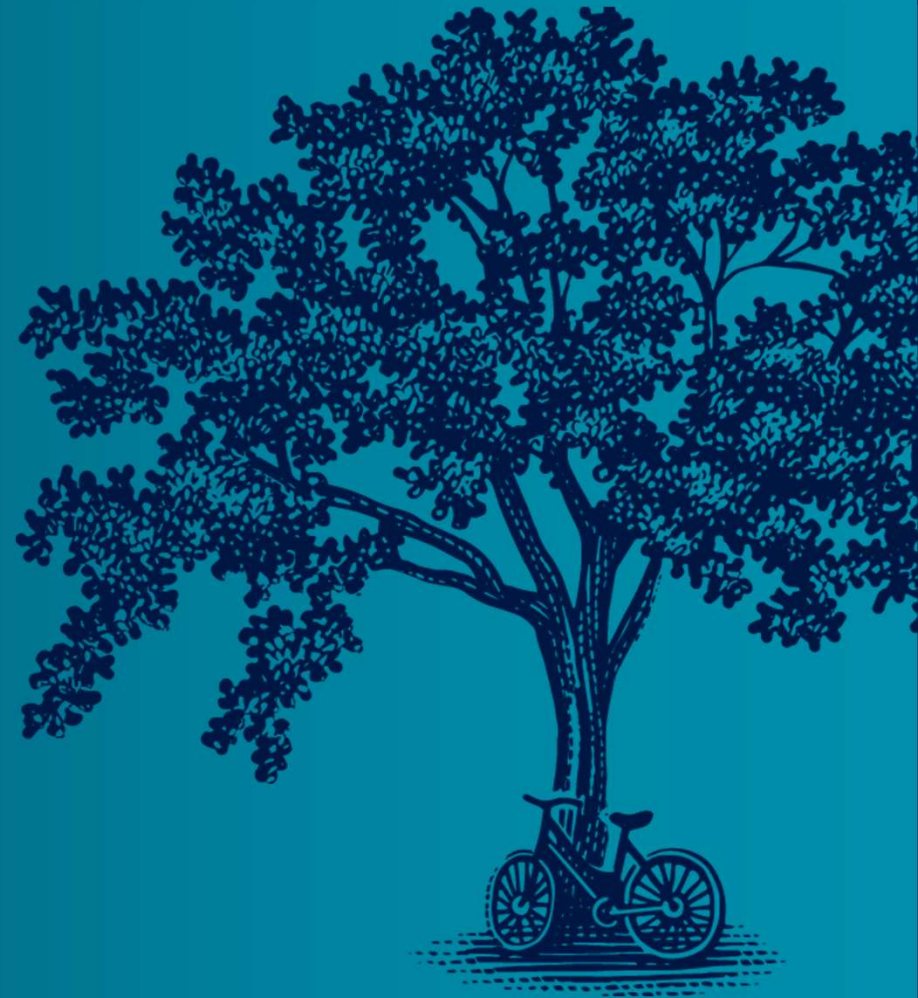
Award pipeline: Catalyze & convert ideas to awards

Mobilize & facilitate collaboration
- PhD level domain-specific expertise
- IRC: Conversations series
- Build institutional partnerships & networks
- Research working groups

Research program development services
- Early career & grantsmanship training & support.
- Program-specific cohorts (e.g., NSF-CAREER)
- Research Pathways to Impact

Catalyze new research
- Seed funding programs
- Strategic intelligence
- IMPACT Centers program

Funding Opportunities Program
- Identify & disseminate opportunities of interest
- Curated, custom funding searches
- Limited Submissions

Proposal development services
(individual & large team)
- Budget review
- Copyediting
- Proposal assembly
- Templates & formatting
- Training grant data

IRC: Faculty Fellows
- Enable PI to focus on writing large-scale proposal
- Team building facilitation

Research unit advancement
- Program-level oversight
- Communications, marketing, development

Enabling research activities
- Campus-wide
- Shared research facility resources & services

PI prepared to respond → Funding opportunity announced → Proposal preparation → Application submitted → Award → Post-award → Research activities

Designing infrastructure & programs

Strategic, top-down opportunities & services

Facilitation & development

Bottom-up / critical mass areas of interest & innovation

Addressing challenges

How can we support this area of research across **_all_** disciplines?

How do we maintain **research continuity**?

How do we encourage & support **proposal submission**?

How can UC Davis contribute to a **solution**?

What do our researchers need to be successful under these unexpected & challenging circumstances?

How do we make sure our researchers have all the **information** that they need?
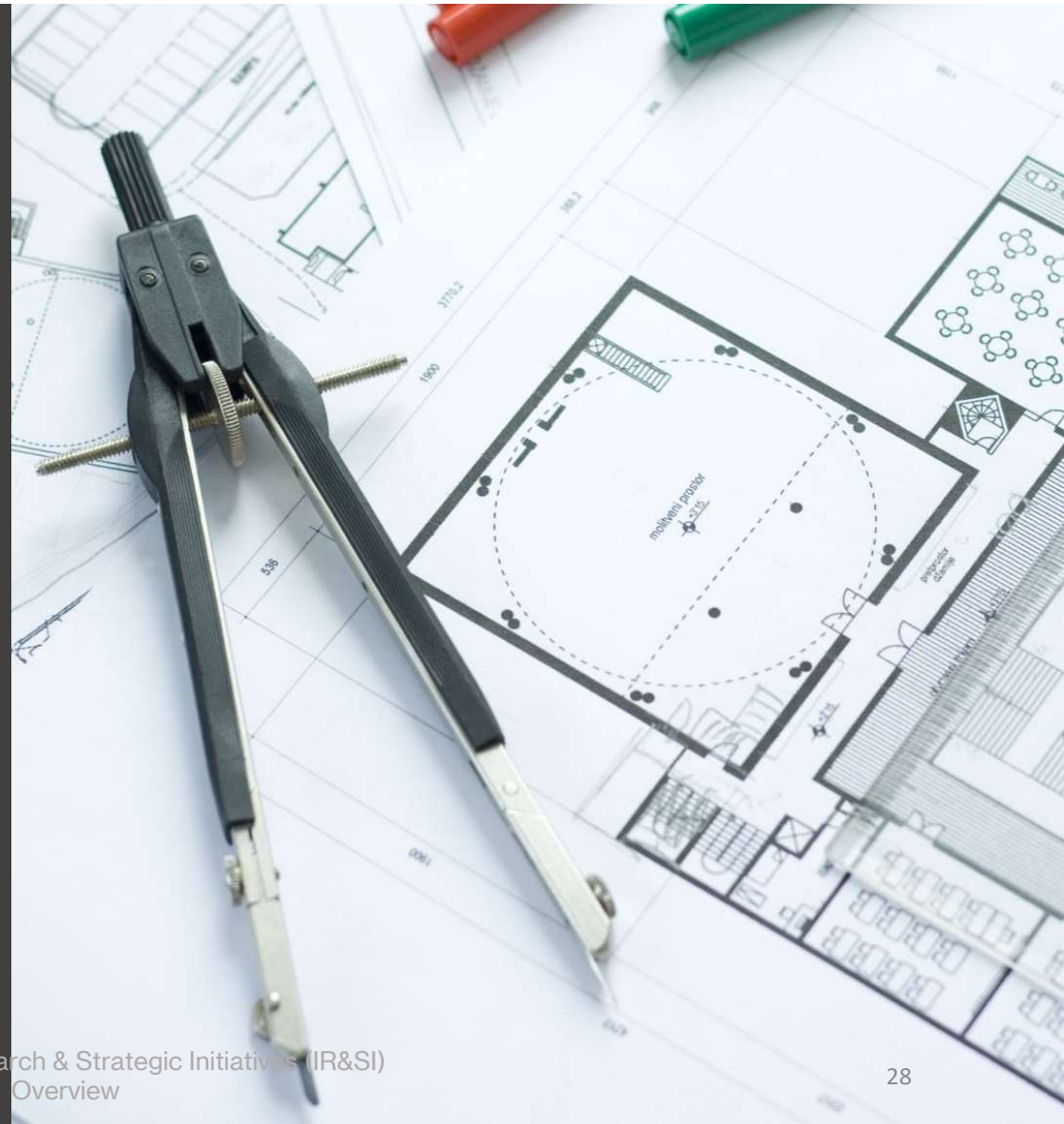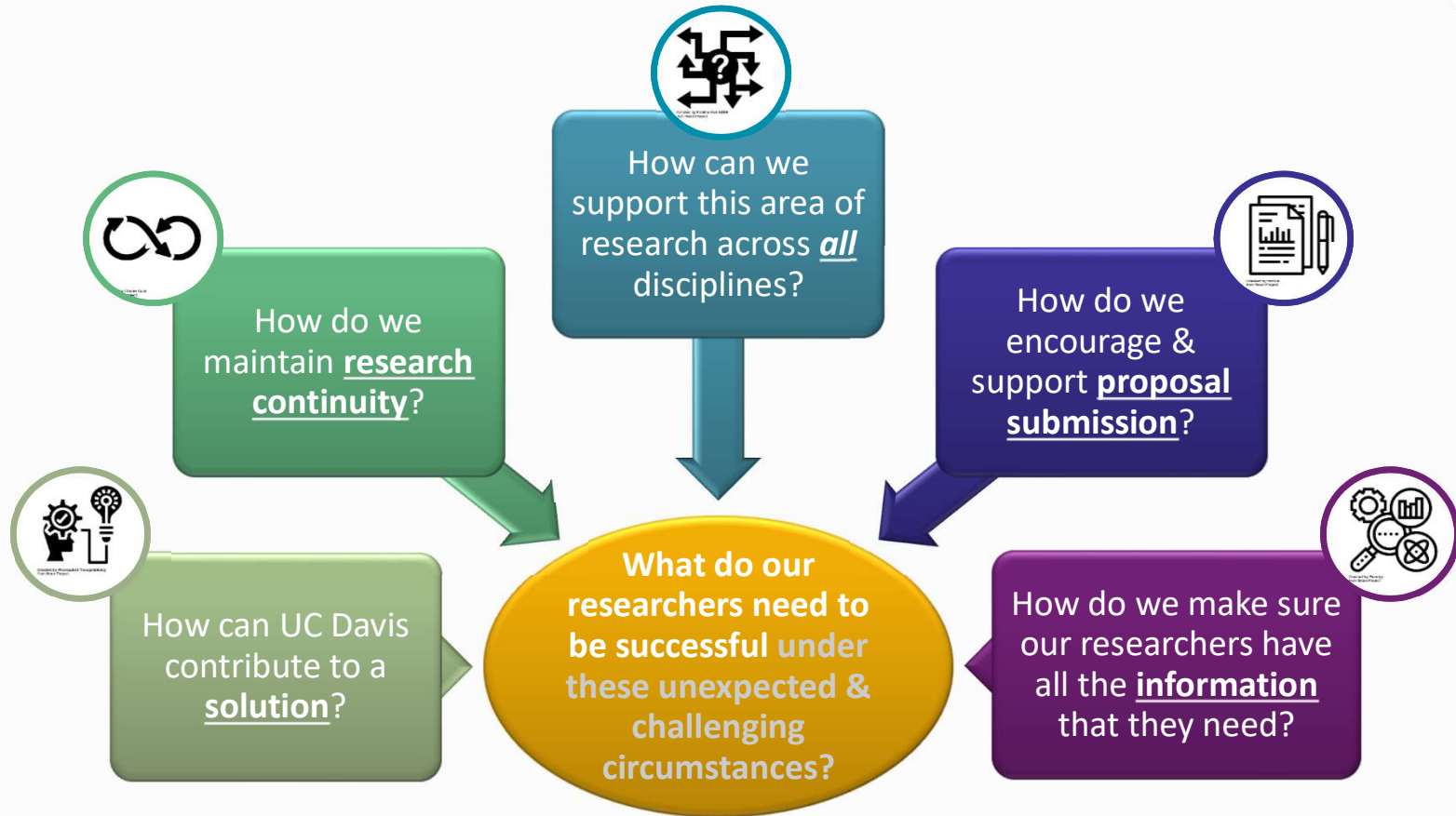
Interdisciplinary Research Catalyst

IRC: Faculty Fellows

https://ucdavis.infoready4.com/#manageCompetitionsDetail/1778501

❖ Up to $25,000 matched with Dean

❖ $313,000 total matched investment

❖ $15.3M awarded (so far...)

❖ $50M potential

IRC: Conversations

https://ucdavis.infoready4.com/#manageCompetitionsDetail/1863127

❖ $5,000 awards

❖ 415 participants

❖ Five themes - Community and Citizen Science, Biophotonics, Neuroengineering, Health & the Environment, Neuroscience

Team Research Forums

https://research.ucdavis.edu/research/interdisciplinary-research-strategic-initiatives/team-research-forum/

Jul 15 Team Research Forum — **Reproductive Rights and Health** — Hosted by UC DAVIS OFFICE of RESEARCH

A Conversation with Dr. David Kessler, Chief Science Officer for the White House COVID-19 Response Team — November 5th, 10:30 — Hosted by UC DAVIS OFFICE of RESEARCH, UC DAVIS HEALTH | SCHOOL OF MEDICINE

Mar 11 Team Research Forum — **Federal Funding Opportunities** — 10:30 to 11:30 — Hosted by UC DAVIS OFFICE of RESEARCH

Jan 14 Team Research Forum — **COVID-19 and the Omicron Variant** — 10:30 to 11:30 AM — Hosted by UC DAVIS OFFICE of RESEARCH, UC DAVIS HEALTH | SCHOOL OF MEDICINE

Feb 11 Team Research Forum — **UCD/LBNL Partnership and Opportunities** — 10:30 to 11:30 AM — Hosted by UC DAVIS OFFICE of RESEARCH

May 20 Team Research Forum — **Community Engagement and Public Scholarship** — 10:30 to 12 PM — Hosted by UC DAVIS OFFICE of RESEARCH, UC DAVIS PUBLIC SCHOLARSHIP AND ENGAGEMENT

Oct 29 Team Research Forum — **Indoor Air Quality** — 10:30 to 11:30 AM — Hosted by UC DAVIS OFFICE of RESEARCH, UC DAVIS COLLEGE of ENGINEERING

Apr 8 Team Research Forum — **Public Health and International Trade** — 10:30 to 11:30 AM — Hosted by UC DAVIS OFFICE of RESEARCH, UC DAVIS COLLEGE of LETTERS and SCIENCE

20+ Events   **1600+ Participants**

❖ Highlight specific research areas & opportunities.

❖ Provide a space for faculty & researchers to find collaborators and make new connections.

❖ Address areas of broader impact and societal well-being.

Strategic Initiatives contact information

General inquiries	strategicinitiatives@ucdavis.edu
IRC, Team Research Forum, IMPACT Centers, domestic & international partnerships, research working groups	**Dr. Ana Lucia Cordova** anacordova@ucdavis.edu *Strategic Initiatives Manager*
Funding Opportunities Program, Limited Submissions	**Dr. Meg Sparling** msparling@ucdavis.edu *Research Funding Manager*
BRAIN Initiative, program development, data analytics, IR&SI programs	**Dr. Whitney Cheung** wkcheung@ucdavis.edu *IR&SI Executive Analyst*

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OFFICE OF RESEARCH

Interdisciplinary Research & Strategic Initiatives (IR&SI) Overview

Sponsored Programs Office

Ahmad Hakim-Elahi

Executive Director
ahakimelahi@ucdavis.edu

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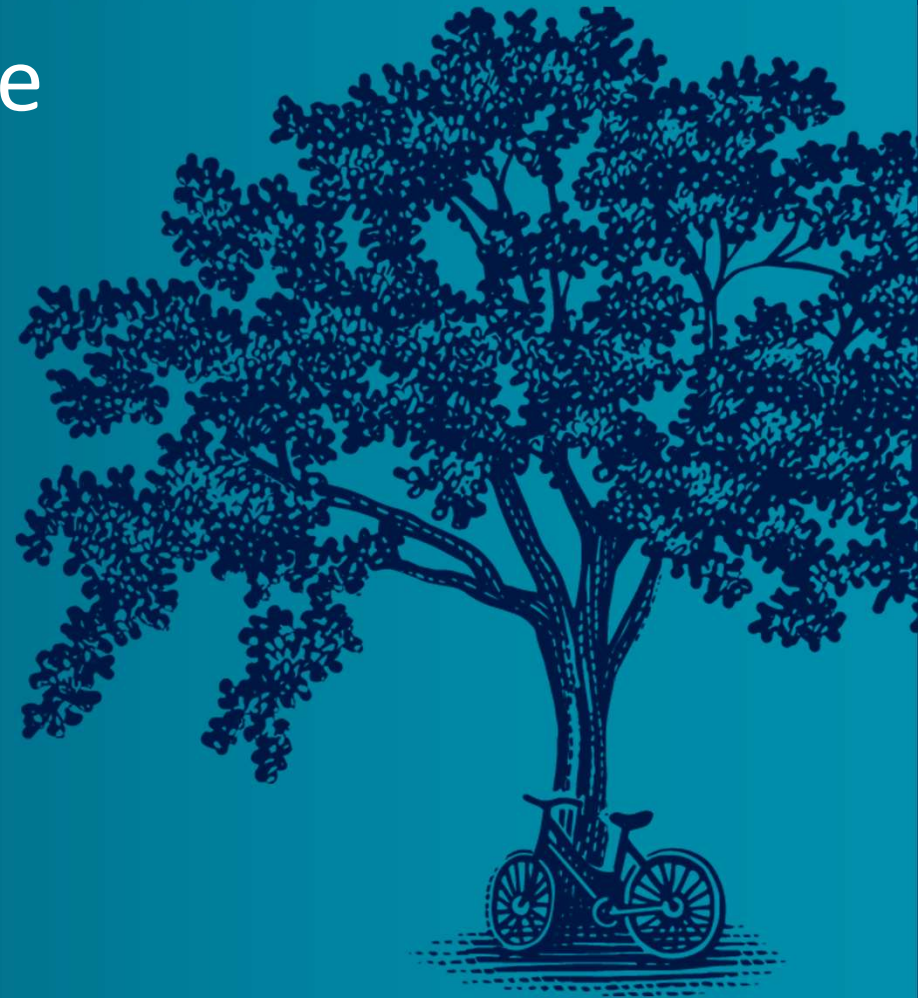
Sponsored programs
Office of VC Research

Ahmad Hakim-Elahi, *Ph.D., J.D.*
Executive Director, Research Administration

Research Support for Faculty

New Faculty

October 25, 2022

Sponsored Programs Office: *Mission*

– **The Sponsored Programs Office assists the campus research community with its efforts to secure <u>extramural funding </u>while promoting proper stewardship of those funds**

– **Responsible for:**
  • Review and submission of proposals, and

  • Accepting the resulting awards

  All on behalf of The Regents

Regent's Policy

– "It is the policy of the University of California that employees who receive any part of their salary through the University, or whose activities use any University resources or facilities, must submit their proposals for extramural support through the appropriate local contracts and grants office. Awards must be made to The Regents of the University of California."

– "This requirement is necessary to ensure that all research and other extramurally funded projects conducted by University employees, or with the use of University resources or facilities, are approved by the appropriate University contract and grant office and comply with relevant University policies and guidelines…"

– https://policy.ucop.edu/doc/2500500/ReqSubmitProp-Awar

Sponsored Programs Office

Primarily responsible for providing the following services in support of the unit's mission:

- Review and approve proposals as delegated by The Regents
- Review, negotiate, and accept awards on behalf of The Regents
- Issue subawards
- Secure proper approvals for post award transactions
- Coordinate award closeout
- Provide training on pre and post-award policies, procedures and regulations
- Maintain systems for proper reporting of extramural funds and effective management of the unit's functions.

Sponsored Programs Office

Some of our functions are:

➤ Effective and timely handling of <u>all research proposals</u>
➤ Review/negotiate **NDA/CDAs** for anticipated research collaborations
➤ Review, interpret, negotiate, and <u>accept awards/agreements</u> on behalf of the Regents for projects funded by:
  - o **federal** and **state** agencies
  - o **foundations**, and
  - o other **public** and **private** sources.

➤ Draft, negotiate, and execute <u>awards</u> and <u>subawards</u> for collaborative research.

– Dedicated analysts within the Sponsored Programs office carry out these duties.
  - • Each analyst is part of a team (led by a Contracts and Grants Officer) and is assigned to focus on either proposals or awards for a set of schools / colleges.

Structure of SPO

Sponsored Programs
October 1, 2022

Ahmad Hakim-Elahi
Executive Director
Research Administration

Sponsored Programs

Proposals

Awards

Admin Assistant
Eliminated - Campus
budget shortfall 2020

Kelly Gilmore
Associate Director

Bridget Strong
Team Leader

Grace Liu
Associate Director

Chris Dye-Hixenbaugh
Team Leader

Alyssa Bunn
Team Leader

Negotiation Team
- Gina Melville
- Vacant (RA4)
  2 Positions Eliminated
  due to the Campus
  budget shortfall 2020

Subaward Team
- Maria Thomsen
- Salvador Mendez
- Vacant (RA3)
- Cannan, Lindsey (*)

Jinger Snyder
Team Leader

Gayle Sherwood
Team Leader

Ag & ES
- Vacant (RA2)
- Vacant (RA2) (*)

Engineering
- Jeff Grandy

CBS
- Sarah Smith

SOE, OR
- Chantal Gallegos

School of Medicine
- Jane Celarbo
- Madison Spiva
- Emilee Noble

School of Nursing
- Jane Celarbo

School of Vet Med
- Yvonne Cheng Vogt

Letters & Science
- Shanna Jose

Floater
- Vacant (RA2) (*)

SPO Facilitation Team

ERA/Cayuse Help
Terry Duperron

Training Officer
Perry King

Intake
Kassandra Flores (*)

Closeout
Alexa Rubio

Ag & ES
- Stephanie Eichhorn
- Vacant (RA3)
- Wendy Johnson (*)

Engineering
- Maria Garcia

L & S, SOE, OR
- Lien Pham
- Shannel Jones

Floater
- Jeanet Reyes

School of Medicine
- Marlene Mooshian
- Katie Baxendale

School of Nursing
- Marlene Mooshian
- Katie Baxendale

School of Vet Med
- Daniel Cordes

CBS, Extension
- Brooke Curry

(*) *Contract Positions*

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Structure of SPO *(continued)*

Proposal Team

Is charged with reviewing and approving research proposals to ensure compliance with University/ campus and sponsor policies, including but not limited to approriate indirect cost recovery.

The Proposal Process

```
┌─────────────────────┐        ┌──────────────────────────────────────┐
│                     │        │   SPO reviews the proposal for       │
│   SPO receives      │──────▶ │   University/campus compliance,      │
│   proposal          │        │   sponsor compliance and terms &     │
│                     │        │   conditions                         │
└─────────────────────┘        └──────────────────────────────────────┘
                                                                    │
                                                                    ▼
┌──────────────────────────┐        ┌──────────────────────────────────┐
│  SPO receives all        │        │  SPO coordinates with department │
│  outstanding documents   │◀────── │  staff and/or Principal          │
│  and approves proposal   │        │  Investigator on needed          │
│  for submission          │        │  information                     │
└──────────────────────────┘        └──────────────────────────────────┘
            │
            ▼
      ╭────────────────────────────────────────────────────────╮
      │  SPO, department staff or Principal Investigator submit │
      │  proposal to sponsor                                    │
      │                                                      41 │
      ╰────────────────────────────────────────────────────────╯
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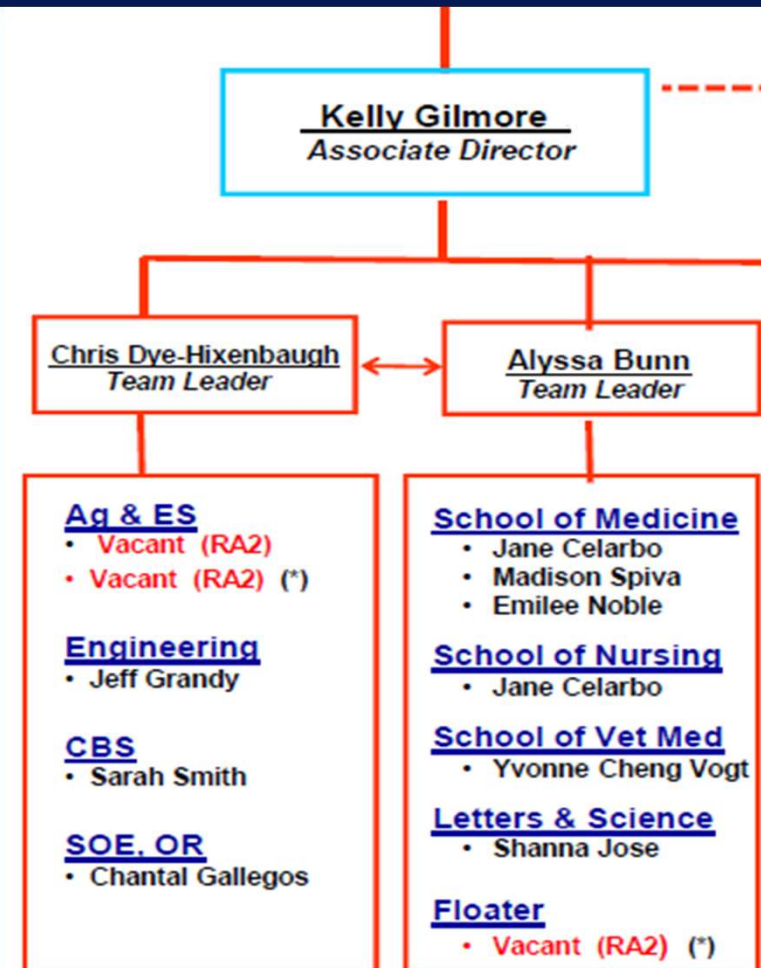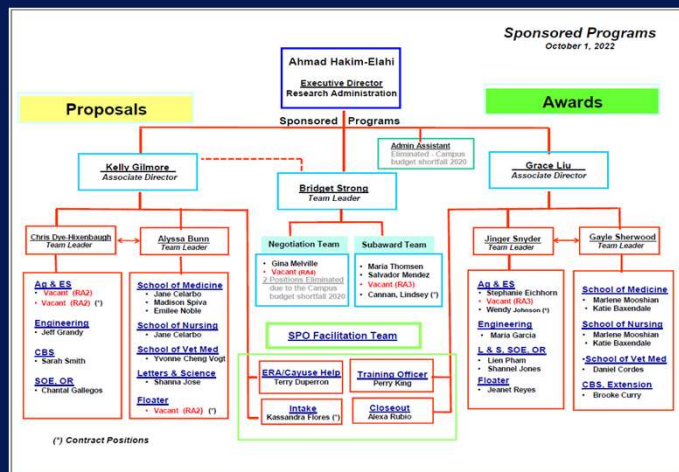
Types of Proposal Reviews

Full Review
≥ 5 Business Days

- Campus & sponsor requirements
- Financial & regulatory compliance
- PI & institutional eligibility
- Terms & conditions, if applicable
- <u>Submission</u>: Final packages should be submitted to SPO two business days prior to submission deadline (preferred); at a minimum, three hours prior to submission deadline

Limited Review
< 5 business days

- Indirect cost rate, <u>based on information as submitted</u>
- Additional items as time may allow
- Reserve right to negotiate at time of award
- **Submission**: As soon as practicable, although we cannot guarantee an error-free submission or that th submission will be completed due to factors such as volume or system issues

No Review

- No review
- Reserve right to negotiate at time of award
- **Submission**: As soon as practicable, although we cannot guarantee an error-free submission or that the submission will be completed due to factors such as volume or system issues
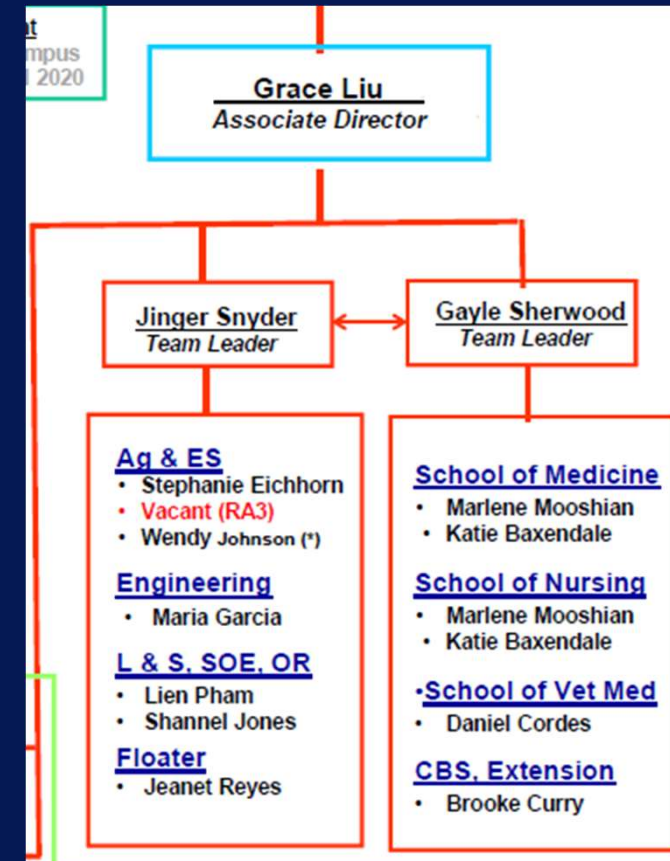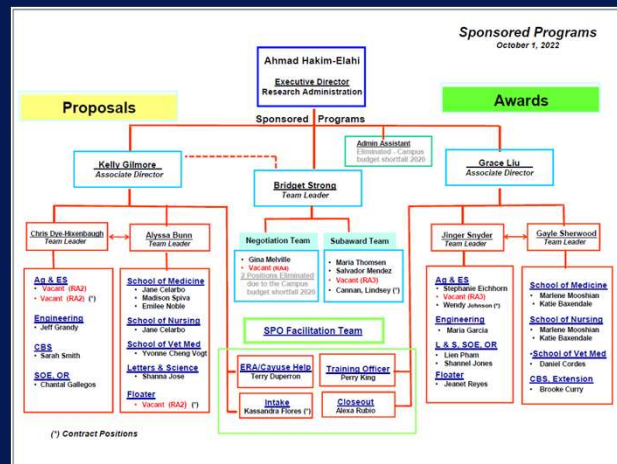
Sponsored Programs is open from 8:00 a.m. to 5:00 p.m.

All proposals must be submitted to sponsors **<u>before 5:00 p.m.</u>**, even if the sponsor has listed a later submission time.

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Award Team

is charged with reviewing and approving awarded grants and contracts. The review process ensures terms and conditions fall within applicable laws and University policies.

Award Process

SPO receives award from Sponsor.

SPO reviews the award document and notifies the Principal Investigator and Department Administrator of outstanding documents, such as compliance items or rebudgets.

SPO initiates contract negotiations with the sponsor, if needed.

SPO receives all outstanding documents and negotiations are successful.

SPO signs the agreement on behalf of the Regents, and sends it to the Sponsor.

SPO receives the fully-signed agreement from the Sponsor.

Copies of the fully-signed agreement are available to:
- Principal Investigator
- Department Administrator
- Contracts & Grants Accounting
- Other campus units as needed (e.g., Equipment Management, Risk Management, etc.)
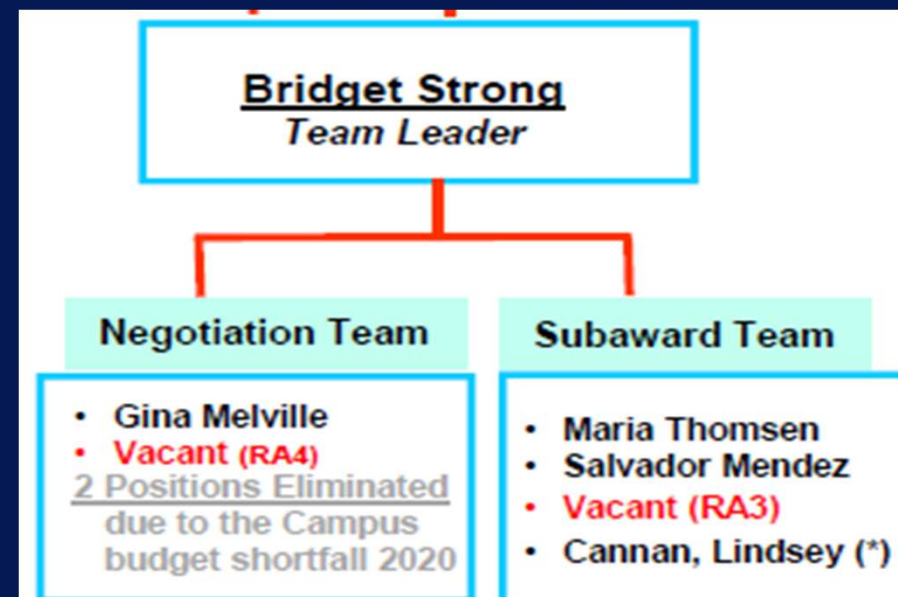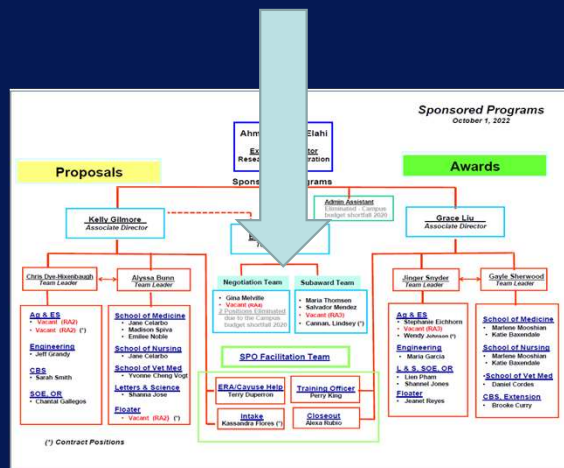
Structure of SPO (continued)

Negotiation & Subawards

is charged with reviewing and approving awards/contracts that required extensive negotiations, especially with the private sponsors, and issuing subawards.

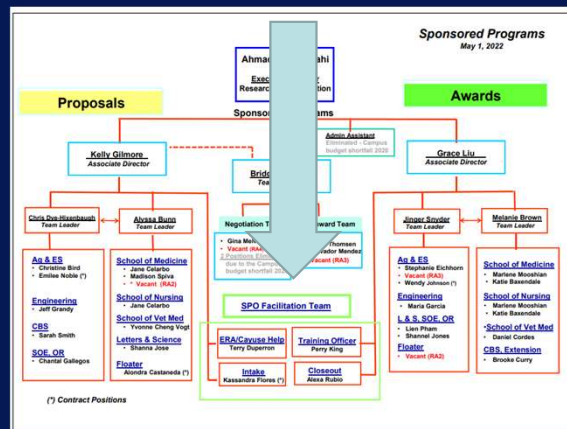- **In the last 2 to 3 years, for negotiations, we have been relying on other members of SPO, due to on-going vacancies.**

Bridget Strong
Team Leader

Negotiation Team
- Gina Melville
- Vacant (RA4)
- 2 Positions Eliminated due to the Campus budget shortfall 2020

Subaward Team
- Maria Thomsen
- Salvador Mendez
- Vacant (RA3)
- Cannan, Lindsey (*)

Structure of SPO *(continued)*

Facilitation Team

- provides internal/external support for SPO activities. The team is vital   to ensuring efficient operations. This dedicated team is tasked with:
- resolution of *Cayuse Help Desk inquiries,*
- *real-time review and team* **assignment of Cayuse requests, systems access controls** *and prompt resolution of access issues,*
- **internal and external training,** *and*
- *award* **closeout** *activities.*

SPO Facilitation Team

ERA/Cayuse Help	Training Officer
Terry Duperron	Perry King
Intake	**Closeout**
Kassandra Flores (*)	Alexa Rubio

Sponsored Programs Office: Role

- **Proposals**: Review and Submit Proposals:
  - ➢ Make sure the proposal and supporting documents follow the RFP
  - ➢ Ensures that budget is appropriately prepared:
    - · Correct indirect cost rate
    - · subawards & consultants are properly budgeted
  - ➢ Submit proposals to sponsor

- **Awards**: Review and Accept Awards:
  - ➢ Make sure award terms are acceptable
  - ➢ Make sure all compliance items are accounted for
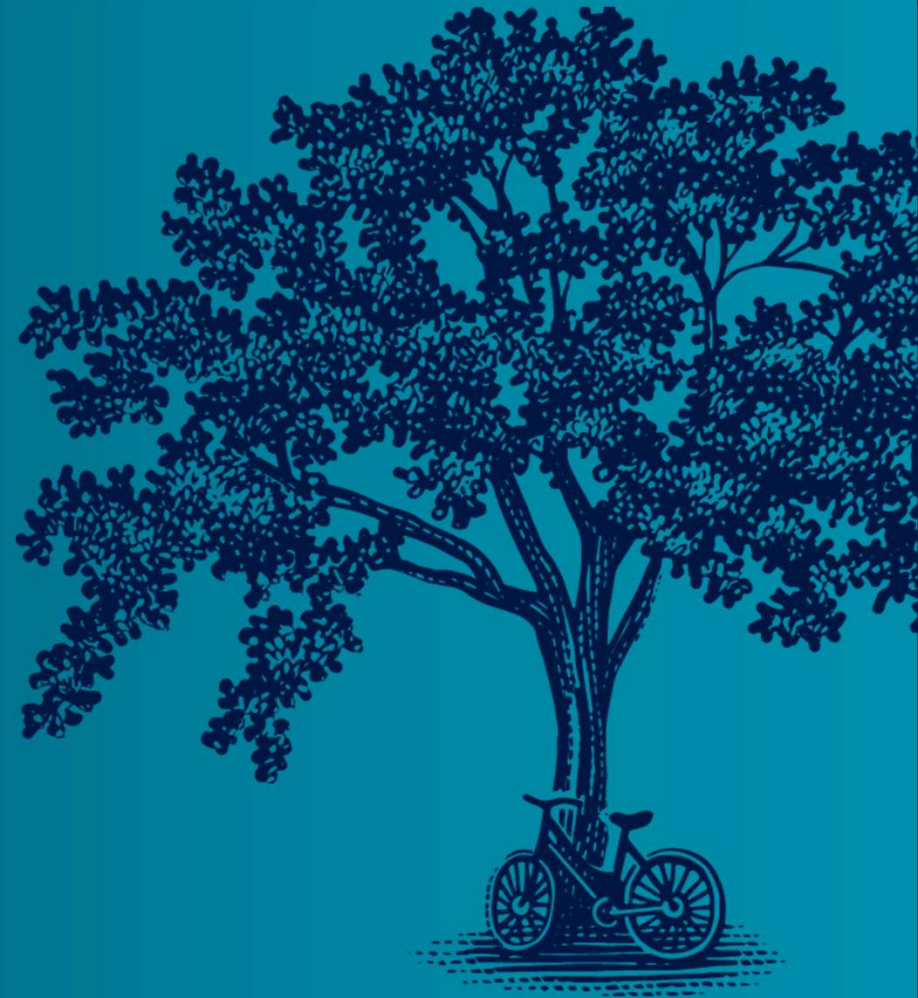 - ➢ Sign award on behalf of the Regents

Awards $$ Amounts

UC Systemwide Extramural Research awards FY1995 to FY2021
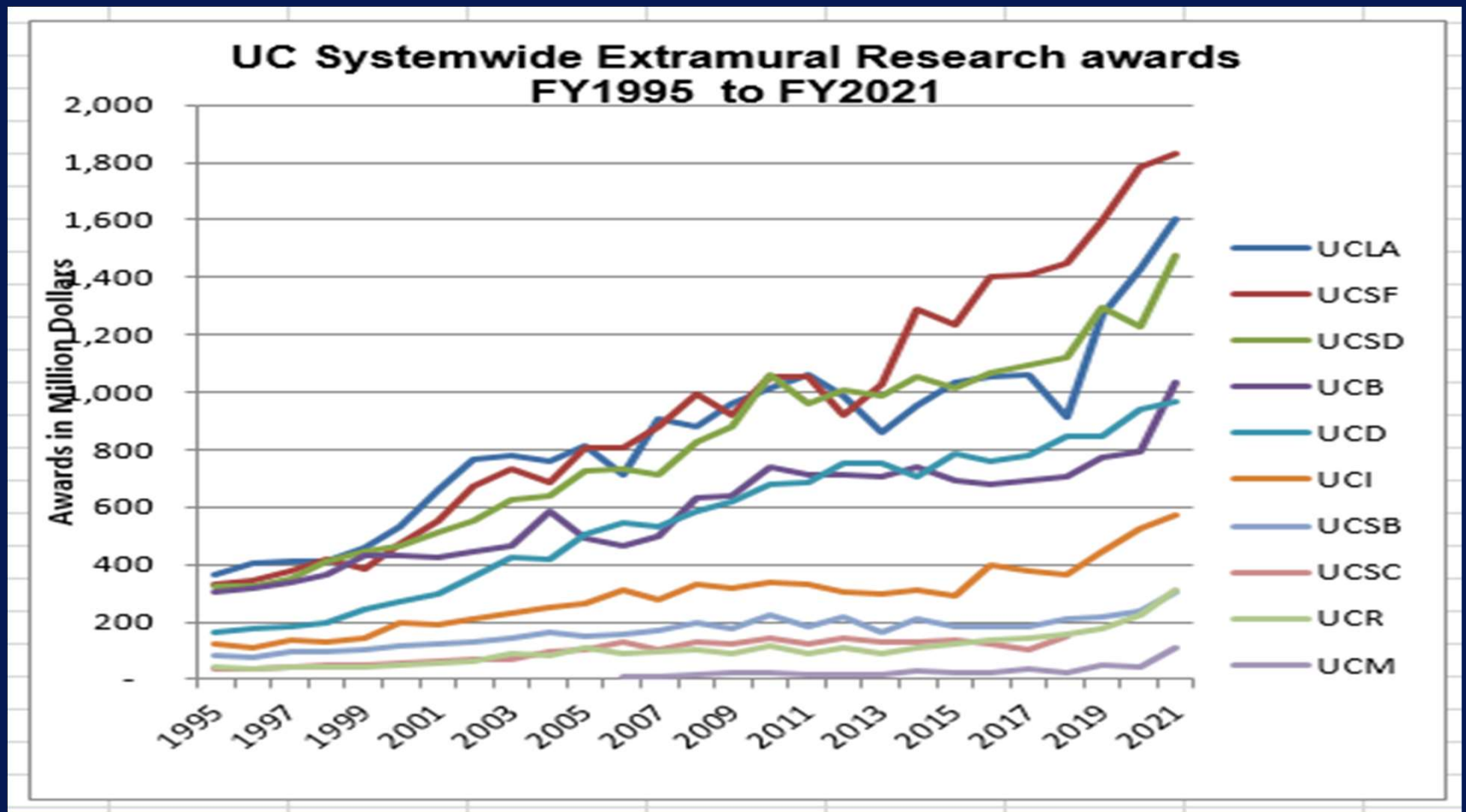
Research Cores Facilities Program (RCFP)

Isabelle Girard, PhD
Interim Director, RCFP

igirard@ucdavis.edu

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Research Core Facilities Program

- Launched in 2015 by the Office of Research
  - $5.3 million investment to strengthen the shared research infrastructure

- Supports access to state-of-the-art technology for their scientific research through designated Campus Research Core Facilities (CRCF)
  - Access to instruments, technologies, expertise, training, and high-quality scientific services
  - Use of instruments and services based on reasonable fees
  - 18 designated campus cores (STEM disciplines)
    - up to 100 additional shared facilities

- Visit cores.ucdavis.edu
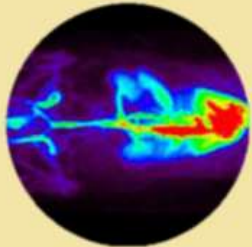
Campus Research Core Facilities

Bioinformatics Core
bioinformatics.ucdavis.edu
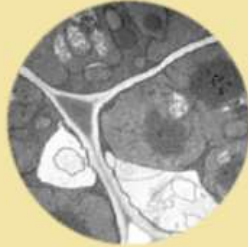
Biological Electron Microscopy Facility
bioem.ucdavis.edu

Campus Mass Spectrometry Facility
cmsf.ucdavis.edu

Center for Molecular and Genomic Imaging
cmgi.ucdavis.edu

College of Biological Sciences DNA Sequencing Facility
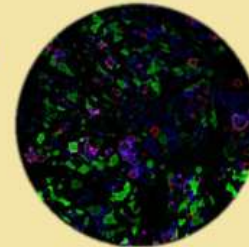dnaseq.ucdavis.edu

Controlled Environment Facility
cef.ucdavis.edu

DNA Technologies and Expression Analysis
dnatech.genomecenter.ucdavis.edu

Flow Cytometry Shared Resource Laboratory
health.ucdavis.edu/cancer/research/sharedresources/flowcytometry.html

Health Sciences District Advanced Imaging Facility
advancedimaging.vetmed.ucdavis.edu

Campus Research Core Facilities

High Performance Computing for Research Core Facility
hpc.ucdavis.edu

Imaging Research Center
ucdirc.ucdavis.edu

Interdisciplinary Center for Inductively-Coupled Plasma Mass Spectrometry
icpms.ucdavis.edu

Keck Spectral Imaging Facility
ksif.ucdavis.edu
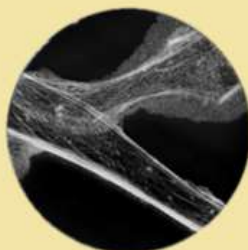
MCB Light Microscopy Imaging Facility
microscopy.mcb.ucdavis.edu

Mouse Biology Program
mbp.mousebiology.org

Nuclear Magnetic Resonance Facility
nmr.ucdavis.edu

Proteomics Core Facility
proteomics.ucdavis.edu

West Coast Metabolomics Center
metabolomics.ucdavis.edu

Find services and equipment

https://research.ucdavis.edu/research/core-facilities-services/service-equipment-locator/

Search: _____

	Facility	Email	Phone No.	Facility Website
⊕	Advanced Materials Characterization Laboratory (AMCaT)	benthem@ucdavis.edu	(530) 752–0284	https://mse.engineering.ucdavis.edu/amcat
⊕	Behavior Research Services Core	cehogrefe@ucdavis.edu	(530) 752–5179	http://www.cnprc.ucdavis.edu/our–services/core–research–services–core/
⊕	Bioanalysis and Pharmacokinetics Core Facility	chywu@ucdavis.edu	(916) 703–5510	http://pk.ucdavis.edu
⊕	Bioinformatics Core	settles@ucdavis.edu	(530) 752–2698	http://bioinformatics.ucdavis.edu
⊕	Biological EM facility (CBS)	epbaldwin@ucdavis.edu	(530) 752–1108	https://www.mcb.ucdavis.edu/cryoem/
⊕	Biological EM facility (SOM)	pekysar@ucdavis.edu	(530) 752–	http://www.ucdmc.ucdavis.edu/cellbio/electronmi

Innovation & Technology Commercialization:

Innovation*Access* & Venture Catalyst

Janine F. Elliott

Interim Director- Venture Catalyst

jafelliott@ucdavis.edu
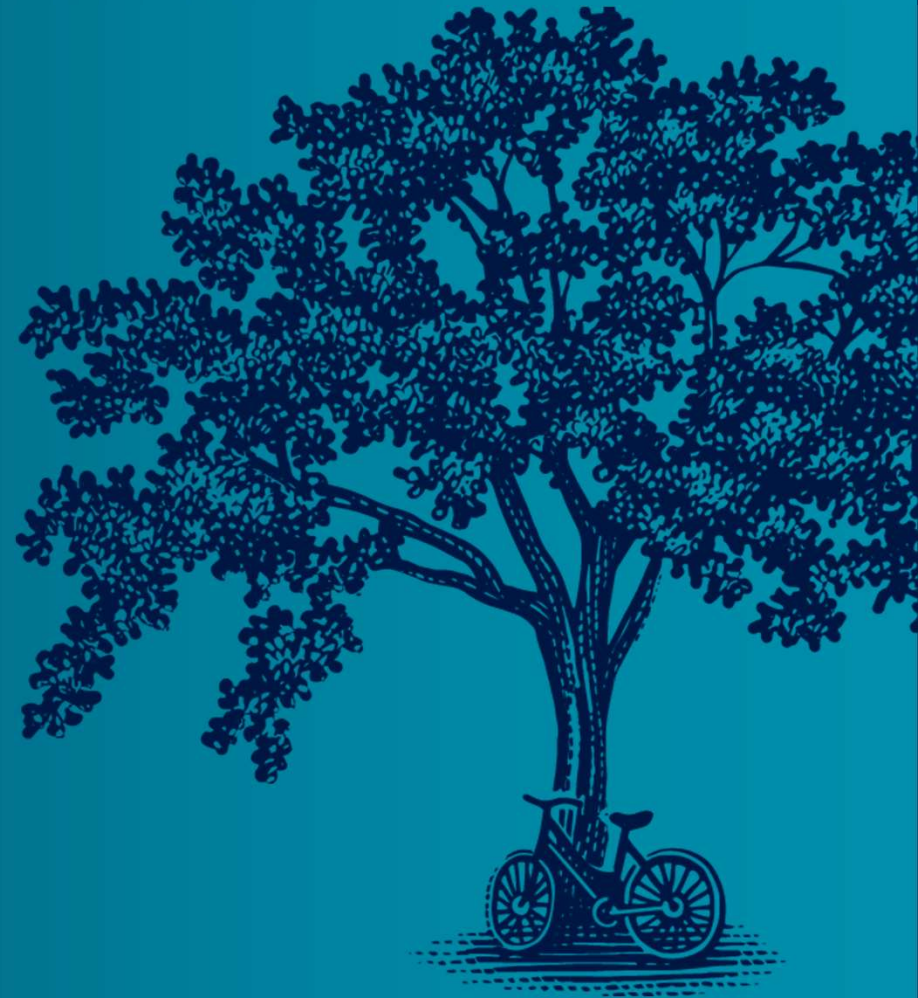
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Innovation and Technology Commercialization (ITC) helps transform today's research into tomorrow's successful products, services and business.
We offer a wide range of services to ensure inventions reach society to improve the lives of others.

UC DAVIS
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Innovation *Access*

Stewards university intellectual property and implements and manages IP agreements and technology transactions

Venture Catalyst

Catalyzes the commercial translation of university research through effective enablement of startups and new ventures

Over 900 Active Patents Currently Under Management

120+ Startups with Foundational IP
200+ Startups Served
Since FY 2013-14

RESEARCH

MARKET

58

Innovation & Technology Commercialization:
What we do

SUBMIT AN INVENTION DISCLOSURE

REQUEST AN AGREEMENT

LAUNCH A STARTUP

AVAILABLE TECHNOLOGIES

PLANT VARIETIES

Last year alone, our office helped campus researchers with:

130 Invention Disclosures

112 Total Patents Issued

$12.5 Million Royalty Income

9 Startups

1203 Transfer Agreements

96 Licenses

What is Intellectual Property?

Intangible personal property which is a product of the intellect

- Patent (make, use, sell/offer to sell, import)
- Copyright (reproduce, derive, distribute, display, perform, transmit)
- Trademark (identify source of goods/services)
- Trade Secret (formulations, know-how, data sets, customer lists)

Why protect IP? (or at least declare the invention to IA)

- It's counter-intuitive, but… IMPACT!

  Most IP is more valuable and likely to scale-up when it grants
  temporary exclusive rights to some parties to make & distribute it
  to as many people as possible

- It's Policy

  Federal Bayh-Dole Act
  UC Patent Acknowledgement

- It can generate royalty income

  Inventors, their departments, the University

Innovation*Access* Request

Please DO disclose even potential inventions to IA (ROI). They will make the determination if there's patentability and/or market potential

Please AVOID public disclosures before an ROI evaluation
- Includes publishing papers, presentations (even on campus)
- Negates patentability for most of the world

Inventors

+ Submit a Record of Invention

+ Request a Material Transfer Agreement

+ Consulting for Industry

+ Types of Intellectual Property

+ Learn About Copyright

https://itc.ucdavis.edu/
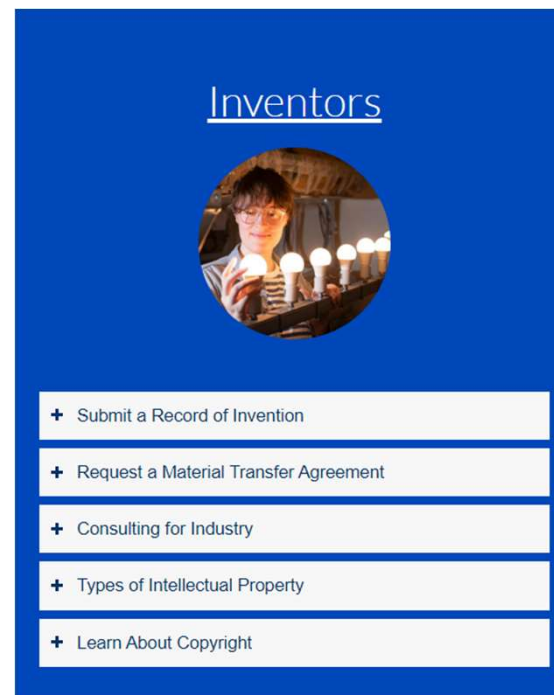
Innovation*Access* Resources

- For yourself: Learn more about intellectual property
- For your students:
  - Use it in your curriculum
  - Request a TIPS presentation from an IA team member

Venture Catalyst

Proof-of-Concept Programs	Venture Toolkit	Startup Incubator Network	Economic Engagement
+ Overview	+ Overview	+ Overview	+ Overview
+ Science Translation & Innovative Research (STAIR™) Grant	+ START™ Program	+ Working Together	+ Economic Development Ecosystems
+ Food Systems Innovation Award	+ Download Program Brochure	+ Innovation and Entrepreneurship	+ Biotech Innovation Gallery
+ Applications	+ Download START form	+ Available Opportunities	
+ Funding & Partnerships	+ Get in Touch		

Whether you're an *entrepre-curious* innovator or a fire-forged entrepreneur, we're here to help

Upcoming Opportunities to Engage in I&E

- **Big Bang! Competition & Workshop series** just started with the Mike & Renee Child Institute for Innovation & Entrepreneurship

- **Chancellor's Innovation Awards** nominations open this Winter & awards reception will be this June

- Venture Catalyst **STAIR & FSI Proof-of-Concept Award Program** applications open this January and close in March

- **NSF I-Corps bootcamps** by Venture Catalyst & the **UC Entrepreneurship Academy** by the Mike & Renee Child Institute for Innovation & Entrepreneurship coming this Winter & Spring

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Thank you!

We look forward to supporting your innovative endeavors

Join the Venture Catalyst Newsletter to stay up-to-date:

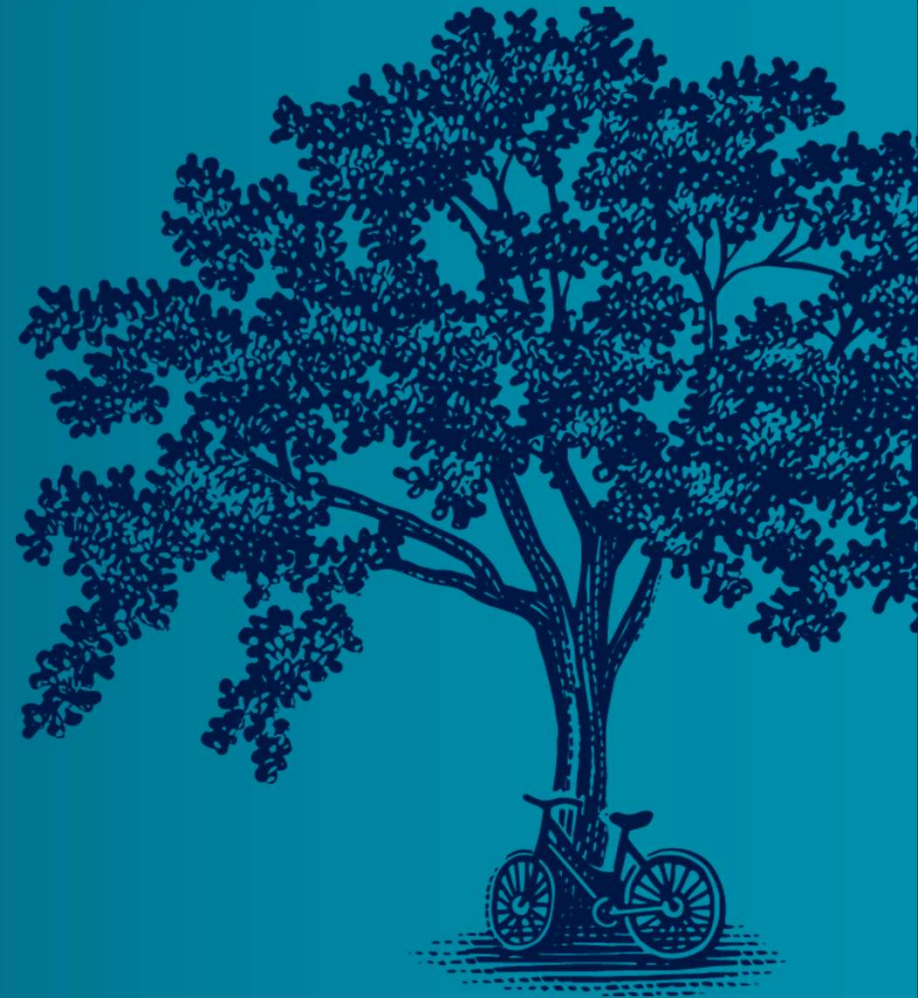https://itc.ucdavis.edu/venture-catalyst-0/#top

Research Compliance & Integrity

Denise Ehlen

Associate Vice Chancellor

dmehlen@ucdavis.edu

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Research Compliance & Integrity

Export Control	Financial Conflicts of Interest	Stem Cell Research Oversight
Human Subjects Research QI/QA	Research Misconduct	Research Conduct of Research

Export Controls

Consult RCI, your Export Control Office, if your Research Involves

- Shipping or hand carrying items internationally
- Traveling internationally
- Sponsors that require publication and/or citizenship restrictions
- Purchasing equipment that is, or may be, controlled under export control laws
- Allowing a foreign person access to controlled items (even if the access occurs within the US)
- Work with foreign military
- Undertaking activities in a sanctioned country (e.g. Cuba, Iran, North Korea, Syria, Crimea region of Ukraine, Russia)

Financial Conflicts of Interest

How to Disclose

- Navigate to https://research.ucdavis.edu/policiescompliance/coi/coi-filing-process/ecoi-system/
  - Link to Access eCOI
  - Quick Start User Guides
  - Technical Guidance
  - Overview of Disclosure Forms
    - *700U*
    - *Form 800*
    - *Supplemental Form*
    - *PHS Form*

Stem Cell Research Oversight

Stem Cell Research

- ALL UC Davis research activities involving human stem cell research must be conducted in compliance with the applicable university, state, and federal regulations governing such research.
  - See https://research.ucdavis.edu/policiescompliance/stem-cell-research/ for additional information.
    - *Submit application to the Stem Cell Research Oversight Committee (SCRO):* https://research.ucdavis.edu/wp-content/uploads/SCRO-Application-rev-07-31-2013-3.docx
    - *Quick Guide to Stem Cells and Stem Cell Research:* https://research.ucdavis.edu/wp-content/uploads/Stem-Cell-Research-Quick-Guide1.pdf

Human Subjects Research QI/QA

Routine Reviews of Active IRB Studies and "For Cause" Audits

- Evaluating human subject studies for possible non-compliance with the IRB Protocol and/or regulatory requirements.
- Promoting a culture of compliance among the human subject research community.
- Assisting with human subject compliance training and outreach.
- Recommending improvements and corrective action in the human research study and IRB process.
- See https://research.ucdavis.edu/offices/rci/human-subjects/ for additional information.

Research Misconduct

Implement and Enforce Integrity in Research, PPM 220-05

- Evaluate and investigate all allegations of misconduct related to research at UC Davis.
    - Fabrication, Falsification, and/or Plagiarism
    - DOES NOT include honest error or differences of opinion
- Research Compliance Hotline: At any time, an employee or individual may make a confidential telephone call to the Research Compliance Hotline (877-384-4272) or the University of California Confidential Hotline (800-403-4744).
- See https://research.ucdavis.edu/policiescompliance/research-misconduct/ for additional information.
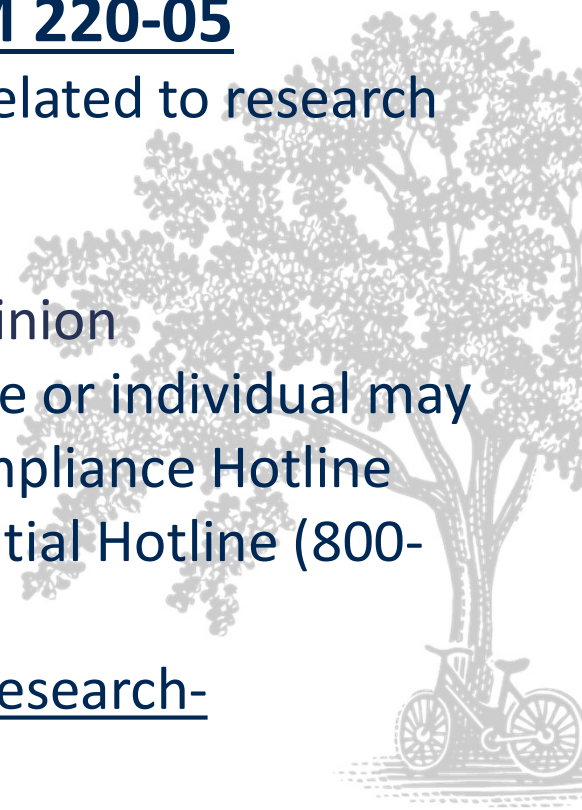
Responsible Conduct of Research

Provide Information, Training, and Tools Related to Responsible and Ethical Conduct of Research

- May be used to satisfy NIH, NSF, and USDA-NIFA grant requirements.
- 12 online (Zoom) modules offered every academic year.
  - Must complete at least 8 modules to earn certificate of completion
- Register online at http://lms.ucdavis.edu/, click on "Find a Course," and search for "RCR"
- See https://research.ucdavis.edu/policiescompliance/research-ethics-rcr-program/ for additional information.

UC Davis Animal Care Program

Donna Routley, CPIA, RVT, RLATg
IACUC Director

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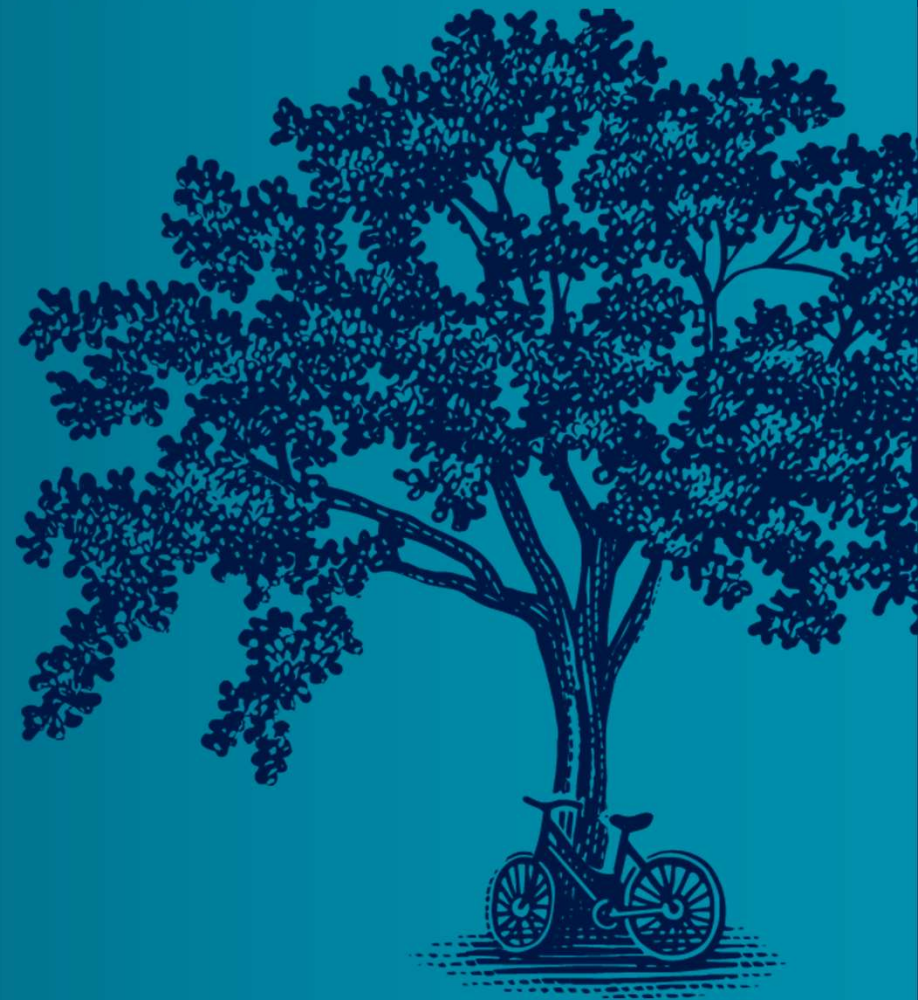
UCD Research and Teaching Animal Care Program

Vision

Ensuring people and animals live healthier lives through the judicious, respectful use of animal models
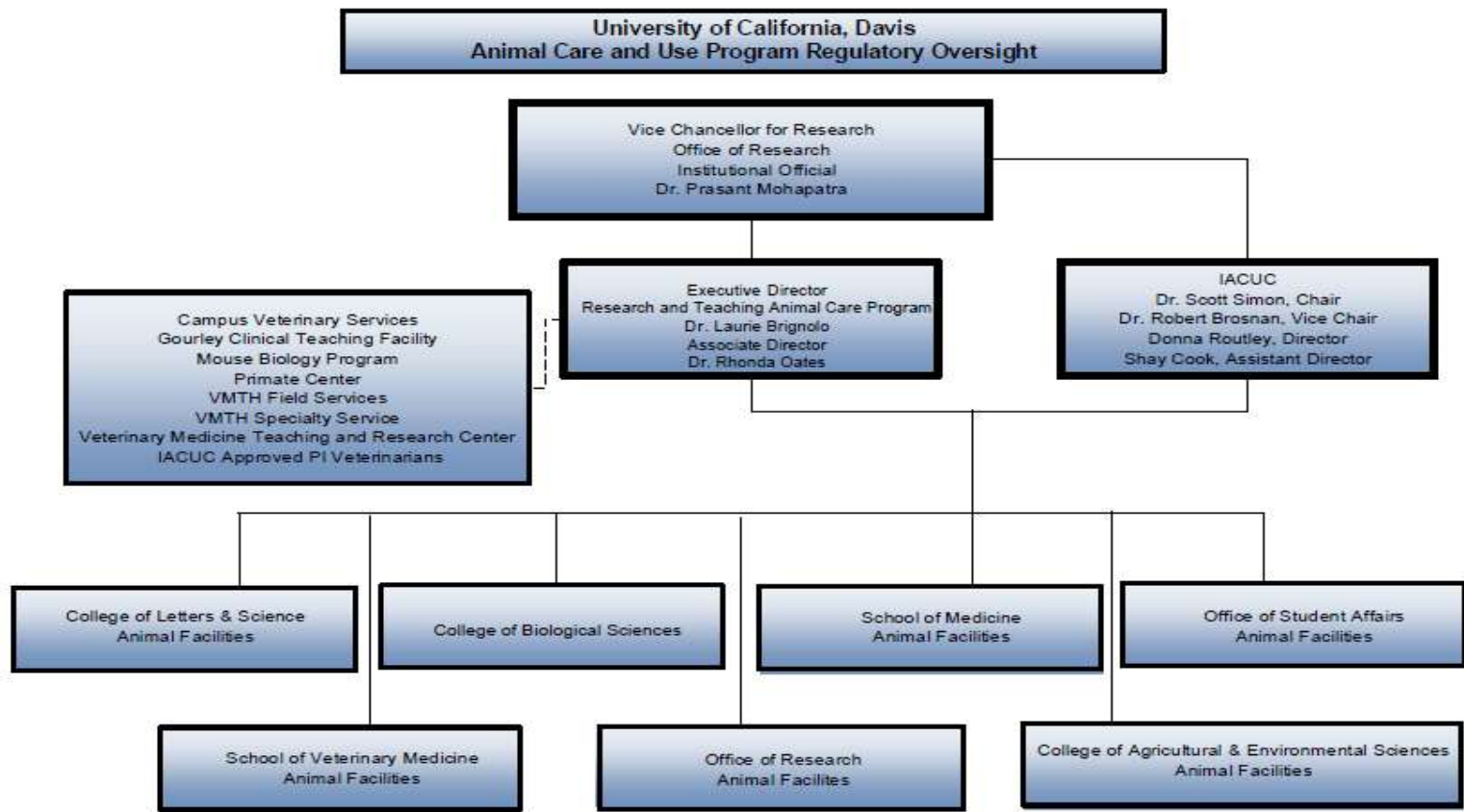
Mission

Foster a culture of excellence by providing the highest standard of care for our research and teaching animals while providing exemplary support to our investigators, staff and students working with those animals

UCD Research and Teaching Animal Care Program

University of California, Davis
Animal Care and Use Program Regulatory Oversight

Vice Chancellor for Research
Office of Research
Institutional Official
Dr. Prasant Mohapatra

Executive Director
Research and Teaching Animal Care Program
Dr. Laurie Brignolo
Associate Director
Dr. Rhonda Oates

IACUC
Dr. Scott Simon, Chair
Dr. Robert Brosnan, Vice Chair
Donna Routley, Director
Shay Cook, Assistant Director

Campus Veterinary Services
Gourley Clinical Teaching Facility
Mouse Biology Program
Primate Center
VMTH Field Services
VMTH Specialty Service
Veterinary Medicine Teaching and Research Center
IACUC Approved PI Veterinarians

College of Letters & Science
Animal Facilities

College of Biological Sciences

School of Medicine
Animal Facilities

Office of Student Affairs
Animal Facilities

School of Veterinary Medicine
Animal Facilities

Office of Research
Animal Facilites

College of Agricultural & Environmental Sciences
Animal Facilities

July 2022

University of California
Davis Animal Care and Use Program Facilities

Office of Research

1. California National Primate Research Center (CNPRC)
   - Respiratory Disease Center
2. Campus Veterinary Services Clinic
3. Center for Health and the Environment (CHE)
4. Mouse Biology Program (MBP)
   - M3 Barrier
   - 2nd Street
   - J2
5. Off-Site-Bodega Marine Laboratory (BML- Bodega)
6. Teaching and Research Animal Care Services (TRACS)

School of Veterinary Medicine

7. CABA- Soto-Fish and Frogs
8. Center for Equine Health (CEH)
9. Feline Nutrition and Pet Care Center (FNPCC)
10. Feline Research Laboratory (FRL)
11. Gourley Facility
12. J1 ABSL3- Coffey- Rodents
13. J1 Facility- Gallardo- Poultry
14. P Building- Gallardo- Poultry
15. M1- Beaufrere- Bearded Dragons
16. M1- Foley- Amargosa Voles
17. Off-Site-California Animal Health and Food Safety (CAHFS- San Bernardino)
18. Off-Site-Templeton Center for Equine Health (Templeton)
19. Off-Site-Veterinary Medicine Teaching and Research Center (Tulare)
20. TRACS Pasture- Chigerwe- Dairy Calves
21. California Raptor Center
22. Pasture-Pitesky- Poultry
23. VM3B- Hammock- Fish
24. VM3B- Lanzaro- Fish
25. VM3B- Lein- Fish
26. VM3B- Rogers- Axolotls
27. VMTH Large Animal Clinic
28. VMTH Small Animal Clinic

College of Agricultural & Environmental Sciences

29. Department of Animal Science
30. Center for Aquatic Biology and Aquaculture (CABA)
31. CABA- Sih- Fish and Frogs
32. Cole A- Ji- Piglets
33. Nutrition/Environmental Toxicology
34. Meyer Hall- Whitehead- Fish
35. P-Building and field site- Post-Frogs
36. Surge- Fangue- Fish (WFCB)
37. Hydraulics Lab- Fangue- Fish
38. WFCB-TB1- Eadie- Ducks
39. Off-Site-Desert Research Extension Center- (DREC- El Centro)
40. Off-Site-Fish Conservation and Culture Laboratory- (FCCL- Byron)
41. Off-Site- Folsom Rangelands
42. Off-Site-Sierra Research Extension Center- (Brown's Valley)
43. Off-Site- Vacaville Rangelands

College of Letters & Science

44. M1- Bales- Prairie Voles
45. Research Park- Wiltgen- Mice-Learning & Memory Facility
46. Psychology
47. Psychology Field Pens- Krubitzer-Rats

College of Biological Sciences

58. Chronic Acceleration Research Unit (CARU)- Fuller- Rodents
59. Green Hall- Draper-Fish
60. Green Hall- Furlow- Frogs
61. Storer- Laskowski-Fish
62. Storer- Wainwright- Fish
63. Green Hall- Bales- Seahorses

School of Medicine

48. Caldecott Tunnel- Bein- Rodents
49. G-Barn- Datar- Sheep
50. GBSF- Baumler- Mice
51. GBSF- Goncharova- Rodents
52. Institute for Regenerative Cures (IRC)
53. Med Surgery H1
54. Research Park-Fuller-Mice
55. Research II
56. Tupper Hall- Jao- Fish
57. Tupper Hall- Marsh-Armstrong-Frogs

Office of Student Affairs

64. Equestrian Center

July 2022
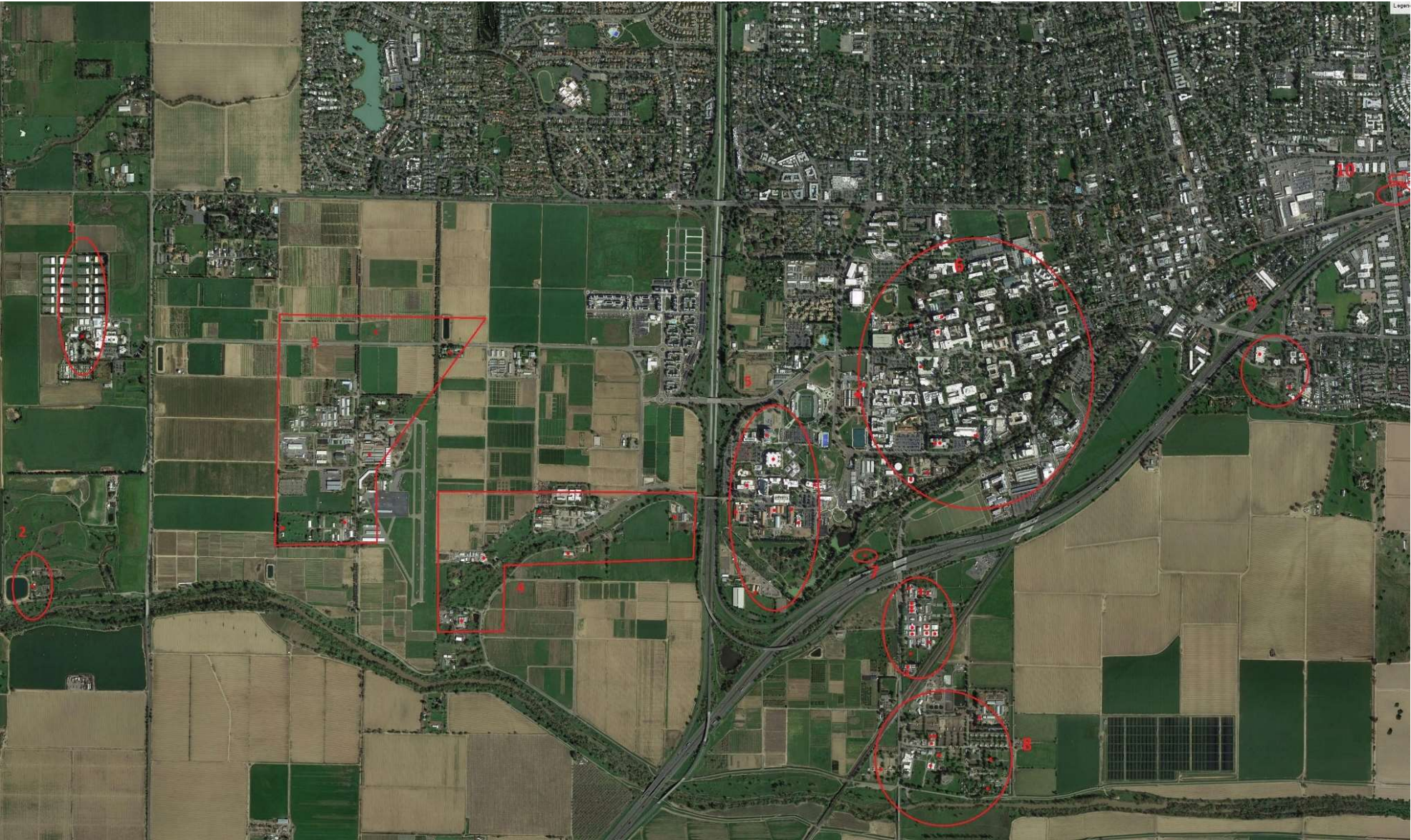
Program Scope: in People and Projects

- 1383 active research, teaching and clinical trial protocols
  - 80 pending approval
- 497 Principal Investigators
- 3,044 support staff
- 64 vivaria units
- 276 Investigator laboratory rooms

October 4, 2022

Program Scope:
in Animal Numbers

- Over 8 million animals covered by protocols
  - 6.2 million fish
  - 500,000 frogs
  - 1.2 million mice
  - 100,000 rats
  - 4,100 nonhuman primates
  - 4,000 rabbits
  - 2,800 Cows
  - 8,500 Horses
  - 900 Sheep
  - 7000 Cats

Over 64 different species represented on protocols

- 21.4 % of the grant dollars coming to campus involve animal research
- 2022
  - $229,437,876
  - Total grant dollars
    - 1,071,091,089

Tips New PI – where do I start?

- **Your Department** (is there an internal mentor available?)

- **Animal housing**
  - If within TRACS, "Space Request Form" must be submitted,
    - https://research.ucdavis.edu/wp-content/uploads/TRACS-Space-Request-Form-fillable-6.3.21.pdf
  - *Other vivaria are handled at the department or facility manager level*

- **EH&S safety review**
  - BUA, RUA, Chemical Safety

- **Veterinary consultation**
  - Clinical Care
  - Research Support
  - Regulatory Oversight
  - Teaching and Training

Tips   New PI – where do I start?

IACUC Protocol

- Reach out to the **IACUC Office** iacuc-staff@ucdavis.edu
    - let us know you are a new PI and are seeking guidance

- **ACU 101** must be completed
    - https://hr.ucdavis.edu/departments/learning-dev/uc-learning

- **Occupational Health Program**
    - https://safetyservices.ucdavis.edu/units/occupational-health/surveillance-system

Key Animal Care and Use Contacts

- **Animal Care and Use Program**

    https://research.ucdavis.edu/policiescompliance/animal-care-use/

- **Campus Veterinary Services**

    cvs@ucdavis.edu

- **IACUC Office**

    iacuc-staff@ucdavis.edu

PROUDLY, AN
aaalac
INTERNATIONAL
ACCREDITED
PROGRAM

Introduction to the UC Davis IRB

Stephen Falwell

IRB Education, Training, and Outreach

UCDAVIS
OFFICE OF RESEARCH

What is the purpose of IRB review?

Protect rights and welfare of research participants

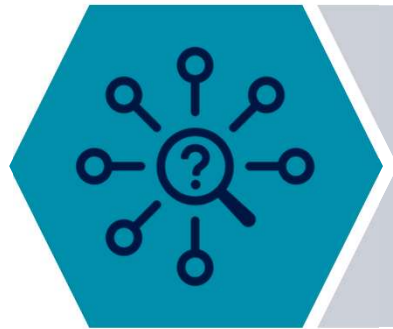Compliance with applicable regulations, laws, and policies

The IRB reviews Human Subjects Research

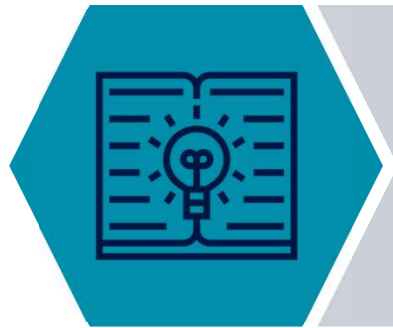| | | Is the project research? | |
		Yes	No
Does the project involve human subjects?	Yes	Submit to the IRB	IRB review **NOT** required
	No	IRB review **NOT** required	IRB review **NOT** required

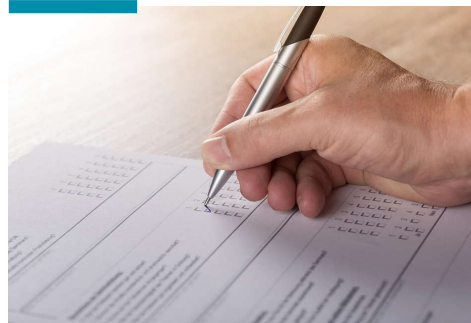# What is Research?

Systematic Investigation

Generalizable Knowledge

What are Human Subjects?

Intervention

Interaction

Private Identifiable Information/ Biospecimen

The IRB reviews Human Subjects Research

		Is the project research?	
		Yes	No
Does the project involve human subjects?	Yes	**Submit to the IRB** • Clinical Trial • Surveys to develop generalizable knowledge • Retrospective study using data from patient medical records	IRB review **NOT** required • Case reports/series • Quality improvement/assurance • Program evaluation
	No	IRB review **NOT** required • Analysis of publicly available, anonymous, or de-identified data or biospecimens* • Non-human animal research	IRB review **NOT** required

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Structure of the UC Davis IRB

Institutional Review Board

Administration	Biomedical Committee A	Biomedical Committee B	Social and Behavioral Committee C

The Review Process
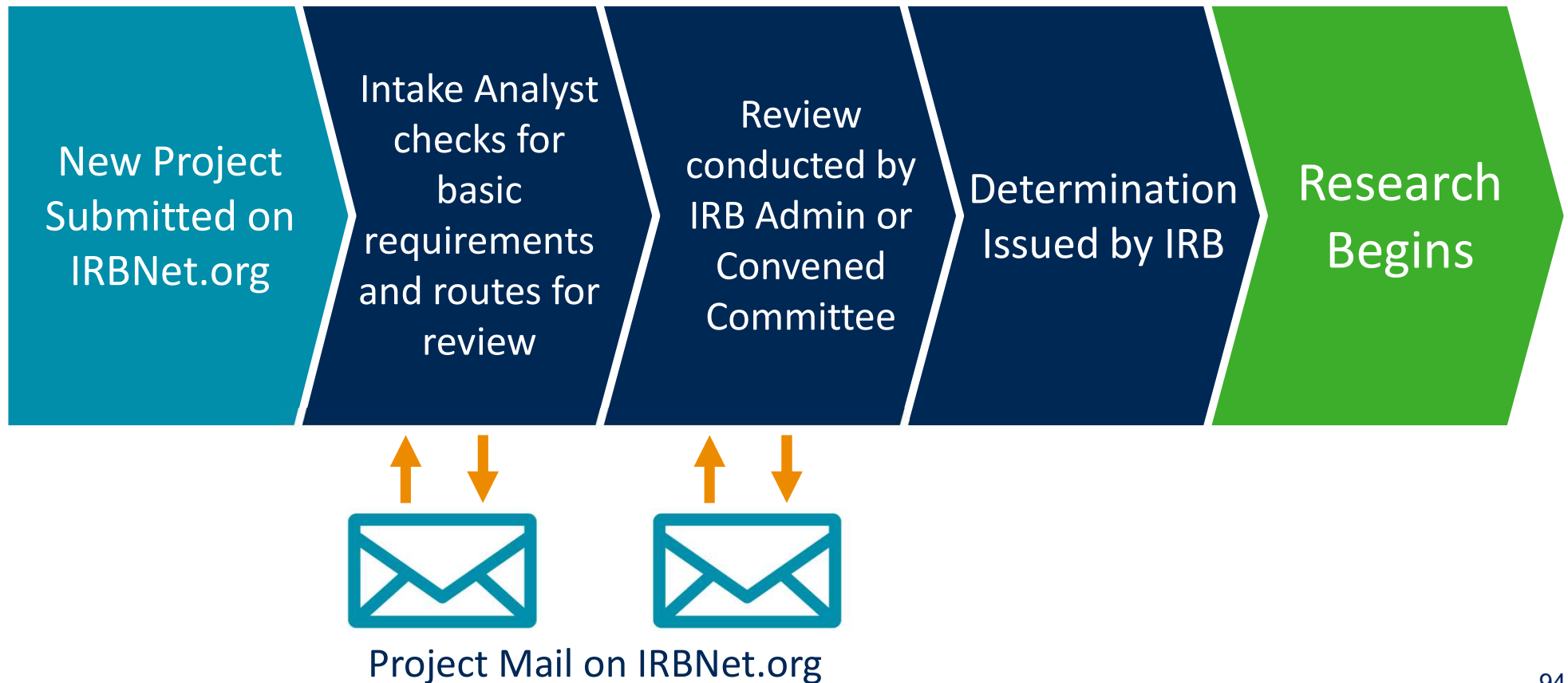
New Project Submitted on IRBNet.org

Intake Analyst checks for basic requirements and routes for review

Review conducted by IRB Admin or Convened Committee

Determination Issued by IRB

Research Begins

Project Mail on IRBNet.org

IRB Determinations for New Projects

Not Research	Not Human Subjects Research	Not Engaged
Modifications Required	**Deferred**	**Not Approved**
Exempt	**Approved**	

IRB Determinations for New Projects

Not Research	Not Human Subjects Research	Not Engaged

IRB review **NOT** required

Exempt	← IRB review required

Recipe for Success

Read the Investigator Manual

Transfer CITI Training

Refer to the Website

Ask Questions Before Submitting

Resources

- ✓ [Join our listserv](#)

- ✓ [Required Education](#) webpage
  - ↳ www.citiprogram.org

- ✓ [IRBNet](#) webpage
  - ↳ www.irbnet.org

- ✓ [IRB Forms](#) webpage

- ✓ [New Projects](#) webpage

- ✓ [UC Davis Investigator Manual](#)

Questions

✓ hs-IRBeducation@ucdavis.edu

✓ hs-IRBreliance@ucdavis.edu

Thank You!

Office of Research

www.research.ucdavis.edu