STAIR/DIAL Grant Programs
2017-18

Presented By:
Venture Catalyst
Office of Research

Enabled by the UC Davis Office of Research and the State of California Innovation and Entrepreneurship Expansion Bill (AB 2664)
Agenda

• Overview of Venture Catalyst and TMCR

• STAIR and DIAL Grant Program Objectives and Detail
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  • Intent and Objectives
  • Features and Benefits
  • Eligible Projects and Applicants
  • STAIR Grant Funding and Timeline
  • DIAL Grant Funding and Timeline
  • Review Criteria
  • Requirements for Grant Winners

• Previous STAIR Grant Awardees

• Other Venture Catalyst Programs

• Additional Details and Contact Information

• Q & A
Technology Management & Corporate Relations (TMCR)

InnovationAccess - Venture Catalyst - Office of Corporate Relations

Office of Research

Cindy Kiel
Exec Associate Vice Chancellor

Dushyant Pathak
Associate Vice Chancellor, TMCR

Paul Dodd
Associate Vice Chancellor

Technology Management & Corporate Relations

UC DAVIS MIKE & RENEE CHILD INSTITUTE FOR INNOVATION & ENTREPRENEURSHIP

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

Corporate Relations

Develops, fosters and manages long-term strategic relationships with industry partners across University units & disciplines
What are STAIR and DIAL Grants?

**STAIR™** = Science Translation and Innovative Research
- Launched in 2014; now entering fifth year
- Funded by Office of Research
- Potentially patentable technologies are eligible
- Up to $50K per project; total of $250K available

**DIAL™** = Data, Informatics & Application Launch
- Pilot program launched in 2017; offered again in 2018
- One-time funding to Office of Research from legislative initiative AB 2664*
- Eligible projects will have a focus in information science, software, or related applications (e.g., digital health)
- Up to $20K per project; total of $60K available

* Assembly Bill 2664, Innovation and Entrepreneurship Expansion, authored by Assembly member Jacqui Irwin (D-Thousand Oaks) and signed in October 2014 by Governor Brown
STAIR/DIAL Grant Programs: Intent and Objectives

• Support translational science and innovative research with targeted funding for UC Davis researchers

• Help move UC Davis technology towards commercialization by funding the generation of research results to create more robust foundational IP and improve funding prospects for startups that might be formed based on this IP

• Stimulate entrepreneurial activity powered by technological advances at UC Davis

• Spur more research and innovation in Davis and the surrounding region by helping to grow infrastructure to support other entrepreneurial ventures
STAIR/DIAL Grants: Features and Benefits

• Funding for early-stage translational research that might not be eligible for other grants

• Review panel includes external industry participants (e.g., R&D staff in companies; investors), providing both technical and market commercialization expertise

• Programs provide all applicants with summarized comments from reviewers (~1-2 pages)

• Programs provide access to mentors (advisors) in industry for finalists who wish to avail themselves of advisors’ expertise

• Programs provide grant winners with mentor and program support throughout the course of the project (one year for STAIR; DIAL projects may be shorter in duration)
Eligible STAIR/DIAL Projects and Applicants

• Eligible Projects
  – Research that is past the fundamental research stage but still requires basic proof-of-concept to demonstrate commercial feasibility
  – Technology that has demonstrated successful results in the research environment, but still requires a specific, targeted demonstration, test result, or prototype in support of commercialization activities
  – (For STAIR Grant) Technology for which a Record of Invention (ROI) has been approved by InnovationAccess
  – A PI may submit more than one application (each proposal must represent a different project)

• Eligible Applicants
  – Anyone with PI status at UC Davis is eligible to apply for a STAIR or DIAL Grant
  – Post-doctoral scholars and university staff are eligible to apply as Co-PIs
STAIR Grant: Funding and Timeline

• Grant Awards and Allowable Costs
  – Up to $50,000 per award; total of $250,000 available
  – Direct costs only—supplies, reagents, small equipment
  – No capital equipment (equipment equal to or greater than $5,000)
  – Salary support for post-docs, grad students, and research staff only*
    – Up to 20% of awarded funds may be used for salary support (including benefits) for most projects
    – Exception: IP-enabling software development—up to $10,000 of awarded budget can be applied to salary support (including benefits) for software development personnel
  – Hiring of external contractors is allowed, subject to approval
  – See RFP for other requirements/restrictions

• Timeline
  – Application deadline: March 5, 2018
  – Notice of award: Anticipated mid-June, 2018
  – Disbursement of funds: Anticipated July 2018
  – Project period: Maximum of one year from funds disbursement date

* Research staff to be supported by salary must be identified in the application
STAIR Grant: Funding Announcement—IIFH

- The Innovation Institute for Food and Health (IIFH) at UC Davis will make up to $25,000 in salary support available for graduate student, post-doctoral scholar or staff (including applicable fees and benefits) for one or two STAIR grants that align with the IIFH vision of enabling safe, sustainable, and secure nutrition for all.

- To be eligible for this additional funding, the proposal must be:
  - within scope for IIFH
  - be selected as an award recipient through the STAIR Grant review process

- PIs who believe that their STAIR Grant proposal falls within IIFH’s scope should indicate their interest in being considered in the Project Abstract section of the online RFS project application.

- If the IIFH selects a PI’s proposal for consideration, the PI will be asked to submit a revised budget and scope of work reflecting the additional potential support for the project.

- Contact stairgrant@ucdavis.edu with any questions about the program and application process.
DIAL Grant: Funding and Timeline

• Grant Awards and Allowable Costs
  – Up to $20,000 per award; total of $60,000 available
  – Direct costs only
  – No capital equipment (equipment equal to or greater than $5,000)
  – Salary support for post-docs, technical research staff, and/or graduate students only*
    – Up to $15,000 of awarded funds may be used for salary support (including benefits)
  – Hiring of external contractors is allowed, subject to approval
  – See RFP for other requirements/restrictions

• Timeline
  – Application deadline: March 5, 2018
  – Notice of award: Anticipated mid-June, 2018
  – Disbursement of funds: Anticipated July 2018
  – Project period: Maximum of one year from funds disbursement date
    – It is anticipated that DIAL projects may be significantly shorter in duration than one year

*Research staff to be supported by salary must be identified in the application
Review Criteria

• Technical Merit Examples
  – Unmet need, potential customers, potential end users
  – Scientific / technical competencies of the team
  – Description of IP status of technology and any concerns

• Budget, Milestones, and Proof-of-Concept* Examples
  – Expected outcome of work and how it will move technology closer to commercialization
  – Steps anticipated to commercialization
  – Timeframe and budget for accomplishing work, with milestones and potential problems identified
  – Justification for how proposed milestones will be achieved with requested budget

• Commercial Potential Examples
  – Market niche, competitive landscape
  – How proposed technology is better than that currently on the market
  – Fit of project technology with market opportunity and investor interest

* If the STAIR or DIAL Grant project will leverage other research already underway in order to achieve the project’s objectives, this should be noted in the proposal.
STAIR/DIAL Grant Award Requirements (1)

• Mentor engagement
  – Prior to grant funds disbursement, awardees must meet with assigned mentor (facilitated by Venture Catalyst)
    – Researcher and mentor agree upon current existing research plan, or develop proposed modifications to project
    – Funding disbursed upon sign-off by Venture Catalyst related to project milestones, budget, and timelines
  – During grant term, researchers and mentors meet at least quarterly

• Submission of progress reports required
  – STAIR: 6 months and 1 year from date of funds disbursement
  – DIAL: mid-point and upon completion of DIAL-funded work
    – DIAL projects may be significantly shorter in duration than one year
    – Timeline for milestones will be agreed upon at time of funding
    – Reports must be provided no later than 6 months and 1 year from date of funds disbursement
STAIR/DIAL Grant Award Requirements (2)

• Presentation of project progress and milestones achieved at STAIR/DIAL Symposium (20 minute presentation; expected to take place in May 2019)

• Participation of team in an Entrepreneurship Academy
  • Managed by UC Davis Institute for Innovation & Entrepreneurship
  • Cost covered by STAIR/DIAL program)
## Previous STAIR Grant Award Winners: 2016-17

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
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<tbody>
<tr>
<td>Johnathon Anderson</td>
<td>Assistant Professor, Department of Internal Medicine, School of Medicine: “Novel Therapeutic Platform to Treat Inflammatory Diseases”</td>
</tr>
<tr>
<td>Paul Henderson</td>
<td>Associate Adjunct Professor, Department of Internal Medicine, School of Medicine: “Improvement of Chemotherapy with Oomnicoxib”</td>
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<tr>
<td>Lee Miller</td>
<td>Associate Professor, Neurobiology, Physiology and Behavior, College of Biological Sciences: “Clinical Feasibility of Patent-Pending EEG Assessment in Hearing Impaired Listeners”</td>
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<tr>
<td>David Olson</td>
<td>Assistant Professor, Chemistry, College of Letters &amp; Science: “Dimethyltryptamine-Levoamphetamine Hybrids as Plasticity-Promoting Treatments for Neuropsychiatric Diseases”</td>
</tr>
<tr>
<td>Lin Tian</td>
<td>Assistant Professor, Biochemistry &amp; Molecular Medicine, School of Medicine: “Illuminating Conformation Dynamics of GPCRs: A Novel GPCR Drug Discovery Paradigm”</td>
</tr>
<tr>
<td>Yu-Jui Yvonne Wan</td>
<td>Professor and Vice Chair of Research, Department of Pathology and Laboratory Medicine, School of Medicine: “Combined Retinoid and HDAC Inhibitors in Metabolic Disease Treatment”</td>
</tr>
</tbody>
</table>
Previous DIAL Grant Award Winners: 2016-17

Petr Janata, Professor, Department of Psychology, College of Letters & Science: “Music-Evoked Autobiographical Memory Central (MEAMCentral)”

Nelson Max, Distinguished Professor, Department of Computer Science, College of Engineering: “Augmented Reality Multi-Player Quadcopter Game System”

Lisa Miller, Professor, Human Ecology, College of Agricultural & Environmental Sciences: “Gamification of an Educational Tool to Increase Nutrition Literacy Skills and Promote Healthy Food Choices”
Previous STAIR Grant Award Winners: 2015-16

Gino Cortopassi, Professor, Molecular Biosciences, School of Veterinary Medicine: “Small molecule Shc inhibitors to combat pediatric NAFLD and diabetes”

Richard Levenson, Professor and Vice Chair, Department of Pathology and Laboratory Medicine, School of Medicine: “Snap-shot spectral camera with applications in bio-medicine, agriculture, manufacturing and remote sensing”

Kai Liu, Professor, Department of Physics, College of Letters & Sciences: “Magnetic skyrmions for future nanoelectronics”

Tony Simon, Professor, Psychiatry & Behavioral Science, School of Medicine: “Expanding and evaluating the prototype of a neuro-therapeutic video game”
### Previous STAIR Grant Award Winners: 2014-15

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Department</th>
<th>Project Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aijun Wang</td>
<td>assistant professor</td>
<td>Department of Surgery</td>
<td>“A sutureless artificial graft for arterial replacement”</td>
</tr>
<tr>
<td>Wenbin Deng</td>
<td>associate professor</td>
<td>Department of Biochemistry and Molecular Medicine</td>
<td>“A drug candidate for the treatment of multiple sclerosis”</td>
</tr>
<tr>
<td>Richard Levenson</td>
<td>professor and vice chair</td>
<td>Department of Pathology and Laboratory Medicine</td>
<td>“Deep UV surface excitation microscopy (MUSE)”</td>
</tr>
<tr>
<td>Tingtui Pan</td>
<td>assistant professor</td>
<td>Department of Biomedical Engineering</td>
<td>“Wearable pressure sensor for the management of chronic venous disease”</td>
</tr>
<tr>
<td>John Voss</td>
<td>professor</td>
<td>Department of Biochemistry and Molecular Medicine</td>
<td>“A novel approach for early detection of Alzheimer’s disease”</td>
</tr>
</tbody>
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## Previous STAIR Grant Award Winners: 2013-14

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<thead>
<tr>
<th>Photo</th>
<th>Name and Title</th>
<th>Department</th>
<th>Project Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Photo]</td>
<td>Charles Hunt, professor, Department of Electrical and Computer Engineering</td>
<td>“Low-cost, high-quality energy-efficient light sources using field-emission lighting”</td>
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<tr>
<td>![Photo]</td>
<td>Jared Shaw, associate professor, Department of Chemistry</td>
<td>“A new class of antibiotics for treating infections resistant to current therapies”</td>
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<tr>
<td>![Photo]</td>
<td>Kyria Boundy-Mills, research specialist in the Department of Food Science and Technology</td>
<td>“Structure and activities of biosurfactants produced through a renewable, yeast-based, reduced cost process”</td>
<td></td>
</tr>
<tr>
<td>![Photo]</td>
<td>Mark Mascal, professor, Department of Chemistry</td>
<td>“Simple, high-yield production of gasoline and renewable polymers from biomass”</td>
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Venture Catalyst START™ Program
Smart toolkit for accelerated research translation

Smart Toolkit for Accelerated Research Translation (START™) Suite of programs equip UC Davis entrepreneurs with the tools needed to form and grow successful companies.

- **Inventor Advantage™ Program**: Deferment of patent expenses to UC Davis startups
- **LegalNet™**: Company incorporation services
- **MentorNet™**: Access to a network of experienced professionals and business leaders
- **VentureNet™**: Commercial bank, human resources, business vendors, and contract service providers
- **DRIVE™**: Distributed Research Incubation and Venture Engine; provides access to incubation facilities for university startups
- **SBIR/STTR application workshop**: Grant writing & submission workshops
- **Workshops/Pitch Coaching**: Pitch decks, executive summaries, coaching, connections
- **Entrepreneurship Academies**: Cosponsored by Venture Catalyst & developed and managed by the Mike and Renee Child Institute for Innovation and Entrepreneurship
- **MICA™**: Market Intelligence & Competitive Assessment research reports to support commercialization plans for startups
Additional information

• Please visit the program web pages for detailed program information, including eligibility requirements, application procedures, and more
  • STAIR:  http://research.ucdavis.edu/offices/vc/stair/
  • DIAL:  http://research.ucdavis.edu/offices/vc/dial/

• Questions?  Contact us
  • STAIR Grant Program (stairgrant@ucdavis.edu)
  • DIAL Grant Program (dialgrant@ucdavis.edu)
  • Venture Catalyst:  Gina Durante (gdurante@ucdavis.edu)
  • InnovationAccess:  Barry Curtis (bacurtis@ucdavis.edu)