



Center for Diverse Leadership in Science – Oceans Ocean Justice and Environmental Imagination

Aradhna Tripathi

Center for Diverse Leadership in Science

American Indian Studies Center, Atmospheric and Oceanic Sciences, Earth, Planetary, and Space Sciences,
Institute of Geophysics and Planetary Physics, Institute of the Environment and Sustainability, UCLA

Partners: Esperanza Community Housing, Northern Chumash Tribal Council, Gabrielino-Tongva Springs Foundation, Amah Mutsun Land Trust, Better Watts Initiative, Tataviam, Heal The Bay, The Bay Foundation, Critical Ecology Lab, Owens Valley Indian Water Commission, King/Drew High School, Central High School, North Hollywood High School, Markham Middle School, Center for Rural Enterprise and Environmental Justice, Watts Labor Community Action Council. The Nature Conservancy, People Not Pozos, NRDC

Student/postdoc leadership team: Alex Arnold, Jesse Bateman, Rob Ulrich, Adeyemi Addebi, Venezia Ramirez, and our Early Career Fellows

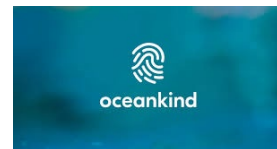
Faculty/staff leadership team: Monic Uriarte, Shanna Shaked, Krystle Cobian, Sylvia Hurtado, Marilyn Raphael, Ingrid Maradiaga, Mellisha Stokes, Rae Spriggs, Karen Andrade, Jeana Drake, Jasper Modha, Jessica Heckman, Venezia Ramirez, Liz Koslov, Jenny Jay, and our Faculty Fellows and staff

UCLA Partners: American Indian Studies Center, African-American Studies Center, Center for Education Innovation and Learning in the Sciences, Center for Advancement of Teaching, School of Education, School of Engineering, Division of Physical Sciences, and other partners

External Higher Ed Partners: CSULA, CSUN, ELAC, Santa Monica College, Navajo Technical University, Dine College, Howard University, Fort Valley State University, Spelman College, Nelson Mandela University, CSU Desert Studies Center, Charles Drew University, Pierce College, and other partners

Foundation Discussions: Ivvet Modinou, Craig Wesley, Sekita Grant, Ariane Bertrand, Rudi Navarra, Alexandria McBride, Chad English, Kathy Hesse, Lorelle Espinosa, Cyndi Atherton, Jochen Marschall, Brandon Jones, Aisha Morris, Sonia Esperanca, Lina Patino, Dena Smith, Rich Lane, Keith Sverdrup

Discussions: Team Star Wars, Shannon Speed, Jessica Cattellino, Mishuana Goeman, Claudia Mitchell-Kernan, Pablo Saide, Priya Ganguli, Krystle Cobian, Kristina Larsen, Tracy Johnson, Paul Barber, Alan Barreca, Kate Lowry, Sam Dyson, Pono Shim, Tom Rudin, Geoffrey MacDougall, Jasper Kok, Erin Sanders, Jess Gregg, Moana McClellan, Rob Eagle, David Colgan, Vernon Morris, Mark Gold, Brandon Hunter, Catherine Flowers, Kendall Moore, Catalina Martinez, NTFS, TCF, Science Philanthropy Alliance



Land Acknowledgement



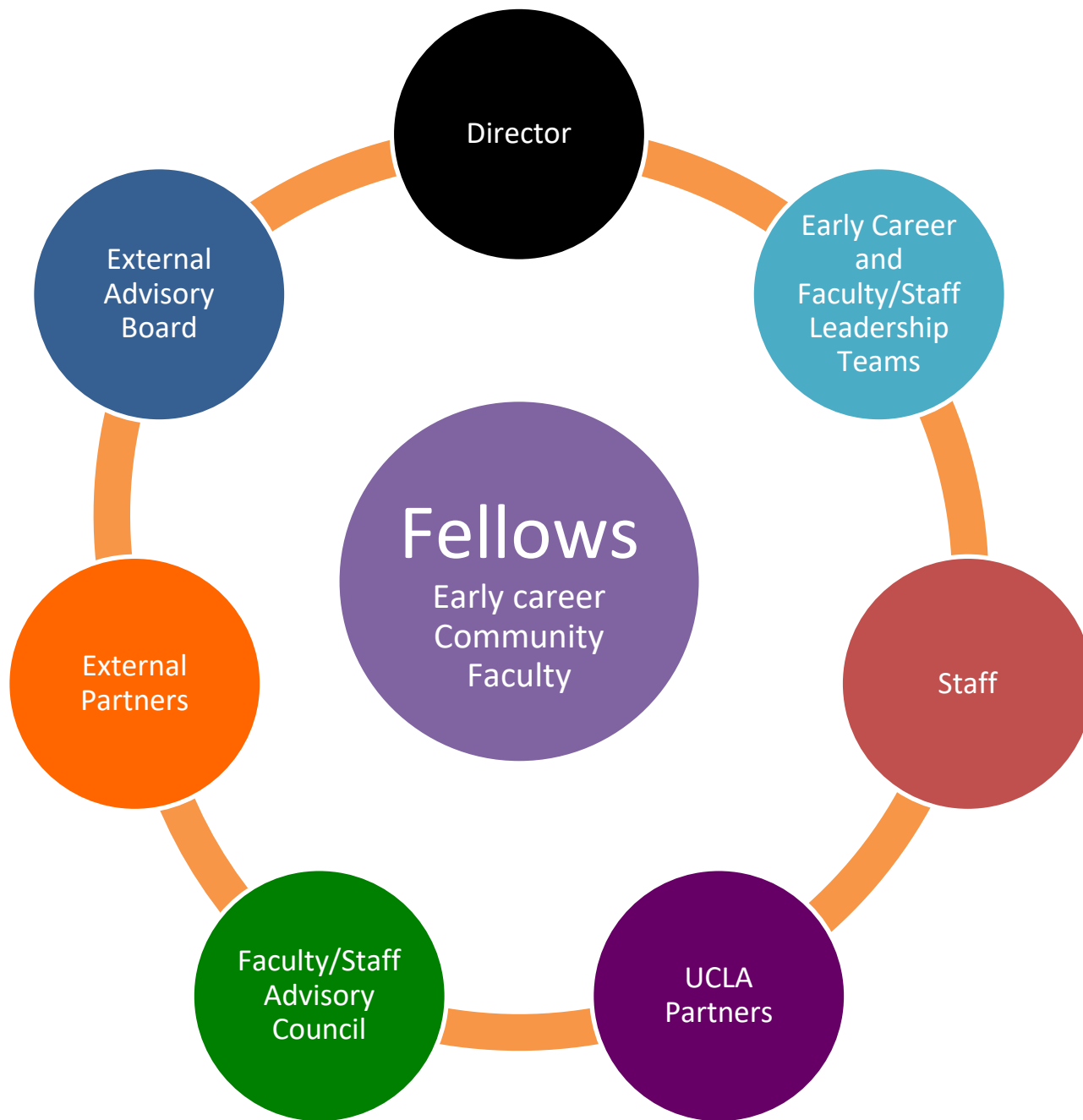
Cindi Alvitre, Ti'aat Dream panel

Climate futures

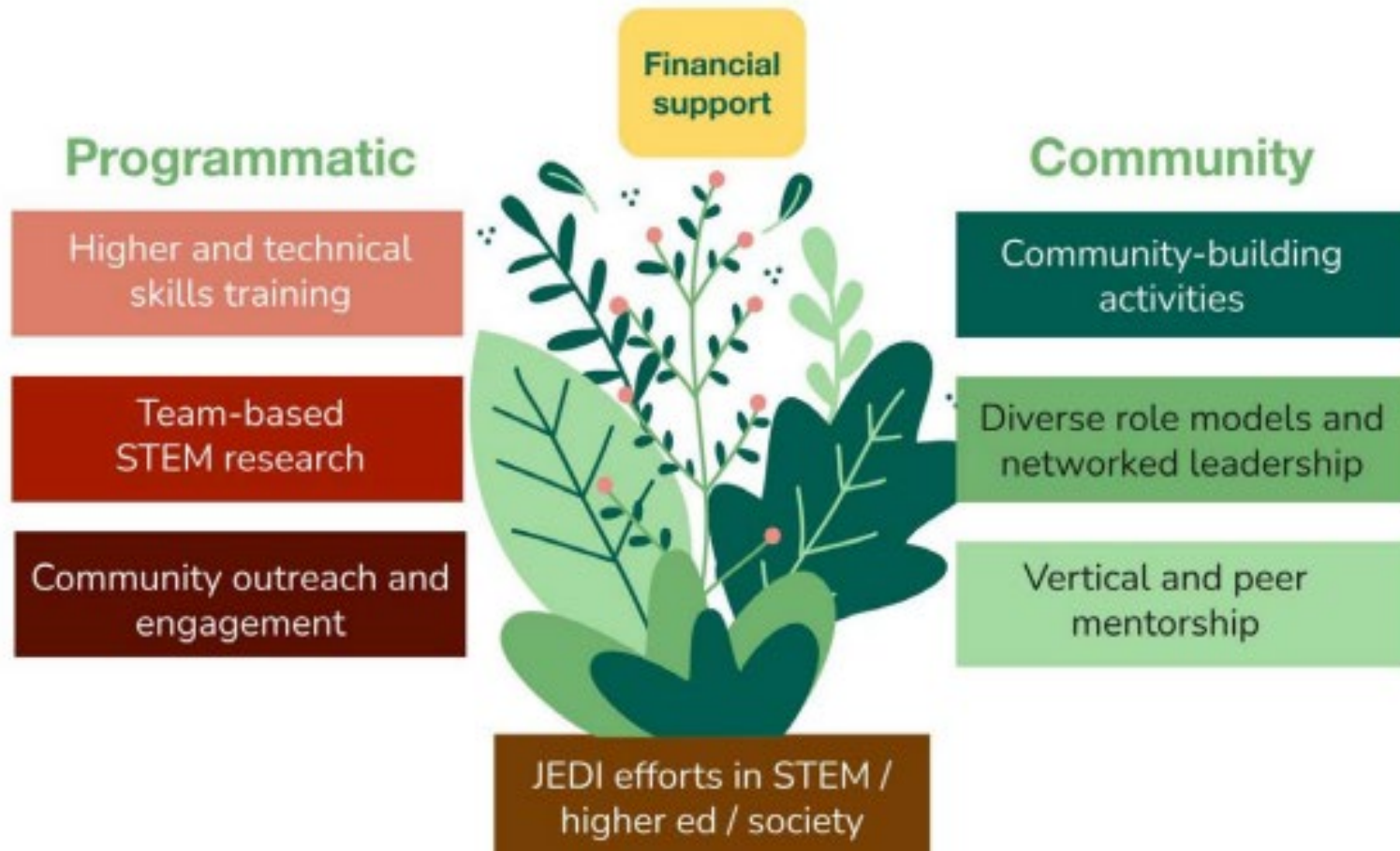
Who decides the direction of our relationships with climate, of the climate movement, of research and policy?



Structure



Putting social theory and knowledge into practice to support ocean and land health, healthy people, community and relationships, reparative processes and justice, carbon drawdown, sustainability, and innovation in the face of environmental change



An Ecosystem of People and Institutions Reimagining Blue and Green STEM

300 early career fellowships awarded over 6 years

- >95% retention rates
- 40 institutions across the US
- Outreach engages >2000 people/year
- New fellow-led programs – Environmental justice working group, Environmental Science Without Borders, Queer and Trans in STEM, Veterans in green STEM, Inclusive sustainability

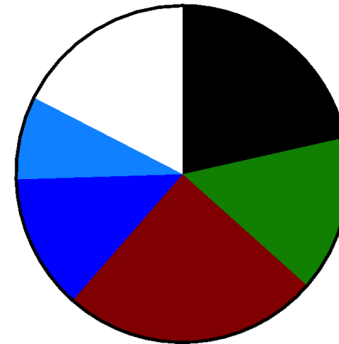


Honorary fellows and community fellows from 10 institutions that steer the work

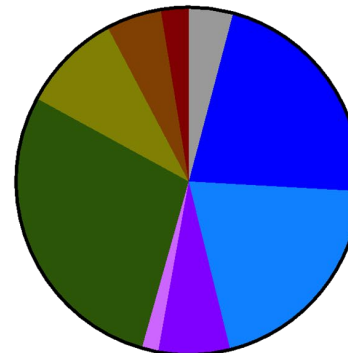
- Civic science/science in service
- Projects include GIS for Community Health, STEM and Justice Camp, Curriculum Development, Coastal Stewardship and Environmental Genomics

25 faculty fellows affiliated with 8 STEM Departments

- 19 completed 20-50 hours of professional development and are implementing to use evidence-based teaching, mentoring, administrative, policy interventions
- Teaching and mentoring reaches >4000 students/year

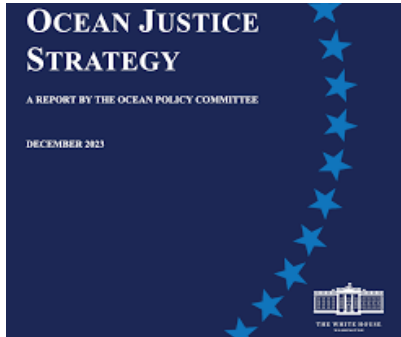


- Black (22%; n = 43)
- Indigenous - AI/AN/NH (15%; n = 30)
- Latinx/Hispanic (25% n = 50)
- Asian Pacific Islander (13%; n = 26)
- Middle Eastern/North African (8%; n = 16)
- White/Caucasian (17%; n = 35)



- High School Student
- Undergraduate Student (UCLA)
- Undergraduate Student (non-UCLA)
- Recent Graduate (UCLA)
- Recent Graduate (non-UCLA)
- Graduate Student (UCLA)
- Graduate Student (non-UCLA)
- Postdoctoral/Researcher (UCLA)
- Postdoctoral/Researcher (non-UCLA)

Ocean justice strategy



Vision

- Equitable access to the benefits of a healthy and resilient ocean and sustainable ocean economy.
- Meaningful engagement of all communities in Federal ocean activities.
- Recognition of the value of engagement with Tribal Nations, Indigenous Peoples, and Indigenous Knowledge in ocean decision-making and research.
- Expanded and improved ocean education to build knowledge about the ocean and create a diverse and inclusive ocean workforce.

Recommendations:

1. Embed Ocean Justice in Federal Activities
2. Develop a Diverse, Equitable, Inclusive, and Accessible Federal Ocean Workforce
3. Enhance Ocean Justice through Education, Data, and Knowledge:

Outcomes

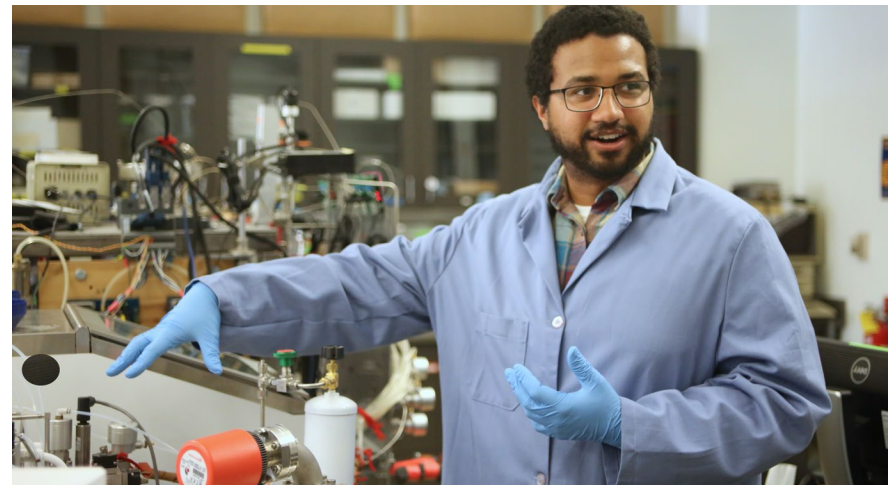
- Stewardship
- Centering on the ecologies of the marginalized
- Uplifting voices
- Inspiring the next generations
- Healthier people, systems, and environments for now and for the next generations
- Ethics, respect, sovereignty
- Collaborative, community focused and pro-social values
- Building power in communities
- Building power in ethnic studies
- Supporting leadership development
- Shifting resources
- Shifting power



Hurtado et al., 2017

Aspects of our work

- **Community-led research projects**
- **Cross-generational learning**
- Cross-organizational partnerships
- **Courses with service learning and climate action curriculum**
- Workshops to share skills and knowledges
- **Mobile field labs in communities**
- **Co-management of university labs**
- **Increased community capacity to advance their own strategies and policies**
- **Increased college and university capacity for ethical STEM**
- Convenings
- Climate assemblies
- Development of actionable research and campaigns
- Memoranda outlining policy and regulatory levers
- Infrastructure development
- Transferable structure for partnership development



Tribal Stewards Network



Equitable exchange:

- Tribal stewards training – traditional, geochemical, geobiological
- Monitoring and sample analysis
- Youth leaders program
- Summer camp for youth and families
- Summer internship program
- Research symposium



EQUALITY

THANK
YOU