

UW Tacoma Faculty Assembly
Research Advisory Committee
2020-2021 Summary of Work

Voting Members: Belinda Louie (Chair), Eric Madfis, Huatong Sun, John Finke, Rich Furman

Ex Officio Non-Voting Members: Lisa Isozaki (Director, Office of Research), Cheryl Greengrove (Associate Vice Chancellor for Research)

This report summarizes the work of the Research Advisory Committee in its second year after creation by the UW Tacoma Faculty Assembly.

The Committee's first major project was to revisit the top five faculty needs as identified in the faculty survey on UWT Scholarship Needs. The needs are:

- lack of time and administrative respect/appreciation for research,
- lack of transparency/support in the Office of Advancement with respect to research funding,
- need for humanities support in the Office of Research,
- desire for more collaborations, professional development, and mentorship related to scholarship across campus,
- greater collaboration among faculty, the Office of Advancement, and the Office of Community Partnerships with respect to scholarship initiatives and funding,

With the support of Cheryl Greengrove and Lisa Isozaki, RAC initiated conversations with the Office of Advancement to create funding for course buyout and undergraduate research assistance support for faculty across academic disciplines. We also invited Ali Modarres (Assistant Chancellor for Community Partnerships from Office of Community Partnerships) to participate in the conversations.

The collaboration among RAC, Office of Research, Associate Vice Chancellor for Research, Office of Advancement, and the Office of Community Partnership has resulted in the following draft for Catalyst Research Awards:

DRAFT CATALYST RESEARCH AWARDS STATEMENT FOR POTENTIAL DONORS

BACKGROUND

A vital part of UW Tacoma's urban-serving mission is to foster publicly-engaged scholarship, research and creativity to address the challenging problems of our time and place. Financial resources to help UW Tacoma faculty members carry out scholarly and creative activities outside the classroom, however, are very limited. The opportunity to simultaneously teach while pursuing and executing vital research projects is critical to the career growth of faculty members, especially junior faculty working toward tenure.

The lion's share of federal grants from public funders such as the U.S. Department of Education and the National Science Foundation and from large private foundations such as the Robert Wood Johnson Foundation tend to be awarded to universities categorized as R-1, or research intensive. While UW Tacoma faculty members often collaborate with their colleagues at UW Seattle, a highly rated R-1 university, UW Tacoma is officially categorized as a community-engaged, master's granting university (though we do offer one Ph.D. and one Ed.D.). This means UW Tacoma needs additional, accessible avenues of research support—and so it is vital to cultivate local and regional individuals and organizations who may have general or specific research interests and passions and an inclination to invest in the aspirations and innovations of our ambitious faculty.

NEED FOR FACULTY RESEARCH SUPPORT

Some of our professors have had success attracting multi-year federal funding, but since many UW Tacoma faculty activate their research pursuits in partnership with community organizations to address pressing local social, environmental, economic and health issues, federal grants are often not relevant or available. In some cases, more regionally targeted research projects lend themselves to possible general or specific support from local and regional donor families, foundations, companies and agencies focused on South Sound and Pacific Northwest economic and community development and success.

Faculty research also has positive impacts on our diverse students, 56% who are first generation and 55% who are people of color. Many UW Tacoma professors were themselves first-generation college students and thus have a passion for teaching and mentorship that is deeply connected to the journey and success of UW Tacoma students. It is important to model the balance of effective teaching with the ability to excel in research. UW Tacoma's standard teaching load of six courses per year is considered heavy, and to carry out research studies most effectively—especially those focused on the community—faculty members require both course releases and funds to pay for undergraduate student research assistants. Both course-release funding and compensation for student research assistants have positive, local economic impacts, and the research experience for

students enhances the scope of their skillset and boosts their confidence and intellectual aspirations.

Research projects, initially small in scope and carried out successfully, can position faculty scholars to compete for subsequent support from nationally known foundations and federal agencies and can also help identify regional, national or even international scholarly partners. Over the years UW Tacoma has used institutional resources such as the Founders Endowment and Strategic Initiative Grants to serve as “seed” grants, but with a faculty now numbering 359, there is great need for added resources to support our growing faculty base. Students will also be the beneficiaries of new and expanded resources directed at research excellence. Being able to award these Career Catalyst funds each year from a combination of institutional funds, private endowed funds and additional gift resources will both help recruit and retain excellent tenure-track faculty and keep UW Tacoma on track for pursuing its vision as a national model amongst urban-serving universities.

With tenure-track faculty eager to implement already well-developed research ideas, grants to catalyze their work in the \$20,000 range can make a big difference and serve as a launchpad for other key funding opportunities and connections. The UW Tacoma Office of Research and Faculty Research Committee is initiating this effort as a new pilot initiative to secure \$100,000 for distributing five grants, with an emphasis on awarding assistant professors seeking associate status. Faculty members from all seven UW Tacoma Schools will be eligible, and awards will be distributed in as interdisciplinary a manner as possible to achieve diversity in content and scholarship.

FACULTY RESEARCH IMPACT EXAMPLES

The following research examples demonstrate the potential impact Career Catalyst funding can have for faculty seeking to gain credibility and momentum for their research pursuits. While we hope to initially primarily to support the career aspirations of junior faculty, support for more senior members of the faculty can have long term positive implications.

I. The Science and Study of Wildfires (Maureen Kennedy)

The American West is burning. In summer 2018, there were more than 100 active wildfires in the United States. All but one of those fires were in the West with 10 in Washington. The total number of fires in the Western U.S. varies from year to year. However, the total number of acres burned has steadily increased over the past 30 years. “Our fire season is getting longer and more destructive,” said SIAS Assistant Professor Maureen Kennedy.

Kennedy has spent the past decade researching fire ecology and forest management practices. She currently works with the Fire and Environmental Research Applications Team (FERA) as part of the Pacific Wildland Fire Sciences Laboratory. “I use quantitative methods to develop computer models that show the effect of a given fuel reduction treatment,” said Kennedy.

The trees and other plant life that make up a forest can be seen another way. In the hot summer months, after the moisture from the snow and rain has either evaporated or been absorbed, these trees and plants become fuel. It has become standard practice to remove vegetation to mitigate the damage done by wildfires. “There are different ways to do it,” said Kennedy. “One technique is to thin from below, take out the small trees that serve as ladder fuels and follow up with a prescribed fire to get rid of the surface fuels.”

Kennedy says the scientific consensus is that removing fuels has been shown to reduce a wildfire’s severity within a treated area. Kennedy is now investigating non-standard fuel treatments through her work with FERA. The idea is to strike a balance between preserving habitat and reducing the spread of a wildfire. “We’re trying to understand what happens when more fuels are left on the ground,” she said. Kennedy and her team use case studies to conduct their analysis. “We look at crown scorch or how black or brown a tree crown is as a result of the fire,” she said. For this research Kennedy and others run transects in the direction of a fire spread. “What we’re finding in early results is that you can still affect change in how a fire behaves but you need a wider treatment area,” said Kennedy. “This is helpful because it allows for flexibility in planning.”

Forest managers are left to balance differing needs. Removing more fuels could lead to habitat loss and could anger residents. “Lots of people settle near the forest because of the beautiful views,” said Kennedy. “Removing trees changes the view they have gotten used to.” However, failing to remove potential hazards could result in the loss of both life and property.

Kennedy is also working with a group of scholars at the University of California, Santa Barbara as part of a National Science Foundation grant. “We’re looking into ‘salience,’ which is this idea that decisions are disproportionately influenced by the most recent event,” she said. “What we’re seeing is the probability that a fuel treatment actually happens increases if a high-profile wildfire happened close by. This signal diminishes a few years after the fire.” The researchers published their findings in the journal *Nature Climate Change*.

Kennedy has built fire models for the project. “We want to know the consequences of disaster driven decision making,” she said. “What does fire look like in the future under different climate change scenarios? We’re just starting to make progress to answer this question.”

The future may seem bleak, but Kennedy retains her optimism. “I have hope, otherwise I wouldn’t be doing this research,” she said. “We are building the knowledge base to implement scientifically informed management actions that can balance these seemingly competing objectives, and to mitigate climate change. What we need is for this knowledge to be used, with the common citizen making good fire-wise and climate-wise decisions and compelling action from their government. The knowledge is being built, we need the resources and the will to use it.”

II. Diving for data: Solving the arsenic riddle (Jim Gawel)

In 2019, divers from the U.S. Environmental Protection Agency's Scientific Diving program helped UW Tacoma students, alumni and faculty researchers place metering devices and collect samples of local lake water. Arsenic was carried to many lakes throughout the region through the air from the tall smokestack at the ASARCO copper smelter that once operated on the shores of Commencement Bay. The research aims to explain what is happening to the arsenic in these lakes: how it moves through the aquatic environment, whether it enters the food web and whether it poses a toxic threat to human beings. Associate Professor Jim Gawel co-directs the arsenic research, funded by the National Institute of Environmental Health Sciences Superfund Basic Research Program.

III. Engaging Local Populations in Public Health Nursing and Environmental Justice Research (Robin Evans-Agnew)

Associate Professor Robin Evans-Agnew's interest in asthma began while working as a school nurse. This interest led him back to college. For his dissertation, Evans-Agnew recruited a group of high school students in Southeast Seattle. "I had these two great sets of boys and girls, all with asthma, all claiming African American as their identity," he said. Evans-Agnew employed Photovoice for the project. The technique involves participants in documentary photography with personal reflection and action planning for change. Evans-Agnew gave the group prompts including, "What is it like to manage your asthma" and "What might make it harder for you to manage your asthma compared to other people?"

The material students brought back to Evans-Agnew was troubling. "Kids would talk about healthcare bias," he said. "If you're Black, healthcare providers don't recognize that you have pain or think you should just stick it out." Participants also discussed how inadequate housing contributed to their asthma and even seemingly innocuous structures – stairs in a public school – made life with the disease more difficult for youth living in less wealthy areas of Seattle.

More recently, Evans-Agnew helped establish a community-based participatory research group with Mujeres Latinas Apoyando la Comunidad (Latina Women Supporting the Community). The group is made up of Latina mothers from Tacoma whose children have asthma.

Mujeres Latinas and Evans-Agnew have worked together on a couple of projects. The first involved developing a culturally appropriate survey for analyzing local daycares for asthma triggers. The women walked through the facilities looking for things like proper ventilation and whether or not harsh chemicals were used for cleaning. Afterwards, the group took their findings and created a community education plan geared toward immigrant families. "They really launched this on their own," said Evans-Agnew. "One of them created a lesson plan, one organized the space and did the logistics and one of them got extra training so they could deliver the material."

Evans-Agnew also involves the women in writing up and publishing their findings. "We have published three articles and have a fourth undergoing a second review with a leading journal in the field," said Evans-Agnew. Meanwhile, Mujeres Latinas

and Evans-Agnew have partnered with the Asia Pacific Cultural Center in Tacoma on a new study. “We have kids collecting air samples and using Photovoice to document the indoor air quality at their homes,” said Evans-Agnew. “They’re specifically looking for volatile organic chemicals like acetone and formaldehyde.” Access and equity are at the heart of the work being done by Evans-Agnew and Mujeres Latinas. “Addressing environmental triggers is easier if you’re middle class,” said Evans-Agnew. “For instance, you can afford to remove the carpet in your home and replace it with hardwood floors but this may not be an option if you’re low-income.”

IV. A Community of Researchers (David Reyes)

UW Tacoma Assistant Professor David Reyes has teamed with Harvest Pierce County and the Puyallup Watershed Initiative (PWI) to address food access and insecurity in South Tacoma. Reyes is using a method called Community Based Participatory Research (CBPR). CBPR emphasizes a local approach to understanding the issues, challenges and solutions that communities face... What sets CBPR apart from other approaches is its commitment to equity. “Community intervention programs are often delivered to the community as a canned product, a package that can’t be adapted at a deeper level,” said Reyes. A goal of this project is developing residents as community researchers who will help define the issues around food insecurity and access as they relate to South Tacoma. Participants formed the South Tacoma Design Team and began working with Reyes to develop a series of questions that will be used in focus groups and surveys. “These are very specific questions about how people in South Tacoma think about food and what’s important to them such as buying food, the quality of food and how they might prepare food,” said Reyes. The idea is then to work with the community around recommendations for change and to get those decisions into the hands of policymakers.

V. Intelligent deployment of containerized bioinformatics workflows on the cloud (Ka Yee Yeung-Rhee, Wes Lloyd, and Ling-Hong Hung)

Dr. Yeung-Rhee and her co-investigators recently received a National Institutes of Health (NIH) award, funded through NIH’s highly competitive Research Project Grant (R01) program. This award is the largest NIH grant and among the largest of grants from any sponsor in UW Tacoma history. Through a multi-year effort, Drs. Yeung-Rhee, Lloyd, and Hung will deliver technological advances in containers and cloud computing to biomedical researchers who work with big biomedical data but have limited training in computational sciences. Specifically, the investigators will develop a user-friendly drag-and-drop interface to enable biomedical researchers to build and edit containerized workflows. Most importantly, users will be able to deploy and scale selected modules in the workflow on cloud computing platforms in a transparent, yet guided fashion in order to optimize cost and performance and leverage resources from multiple cloud vendors. These tools will allow the biomedical community to optimize the costs associated with cloud computing and to facilitate the replication of scientific results.

VI. Preventing School Violence, Mass Shootings and Hate Crimes (Eric Madfis)

In 2019, UW Tacoma Eric Madfis gave invited testimony to the Washington legislature's mass shooting work group and to the House Education Committee. His testimony and underlying research informed HB1216, subsequently passed by the legislature and signed by the governor, which mandates the implementation of non-biased threat assessment procedures in public schools across the state. He has recently published a book, *How to Stop School Rampage Killing: Lessons from Averted Mass Shootings and Bombings*, and has a subsequent publication currently being reviewed by New York University Press. Dr. Madfis has also recently secured the rights to a new body of data associated with one of the premiere threat assessment models in the country toward fully evaluating the efficacy of this model an

VII. Adoptees as parents: Korean American adoptees talk about ethnicity, race, and adoption (JaeRan Kim)

Dr. Kim has been continuing the UWT Lightning Talk series, she presented her study of how adult Korean adoptees practice racial, ethnic and adoption socialization strategies with their children when they themselves had no role models for racial and ethnic identity development. Dr. Kim also completed a qualitative study about the experiences of intercountry adoptees whose adoptive parents placed them in out-of-home care as children, effectively constituting some of voluntary foster care placements, Dr. Kim was asked to serve as the Principal Investigator on a study examining child welfare workers' processes of assisting families in placing children in voluntary foster care for needed treatment. All of these studies are intended to provide recommendations for child welfare policy and practice.

VIII. Social Research in Action (Marian Harris)

UW Tacoma Professor Marian Harris has spent most of her professional life helping the most vulnerable both in the United States and elsewhere. Harris' research focuses on child welfare including the children of incarcerated parents. She's a licensed social worker and former chair of the Public Policy Council, Children's Alliance of Washington. In 2018, the National Association of Social Workers, Washington Chapter named Harris its Social Worker of the Year. Harris is grateful for the honors, but that's not why she does what she does. Recently, the University of Washington School of Social Work and Criminal Justice and the Department of Social Welfare at the UCLA Luskin School of Public Affairs organized a service trip to the South Texas Family Residential Center in Dilley, Texas through CARA. The facility is the largest family detention center in the United States. Harris and UW Tacoma graduate student Zea Mendoza spent a week in Dilley helping asylum seekers prepare for their credible fear interviews. In these interviews, asylum seekers appear before a judge and argue why they either face a "credible fear of persecution" or "credible fear of torture" if they are returned to their home countries. Mendoza said, "Our job was to help them to prepare for this interview by listening to their stories and highlighting the areas that might be important for the court to hear. This project processes around 500 women a week. So, basically our job is to prepare one client every two hours on average, which is kind of a challenge because their stories are so long and so complex. Harris prepared a psychological evaluation

for one woman in particular that had twice been denied asylum. Not able to attend the hearing in person, Harris asked the attorney representing the client to please let her know the decision of the judge reading her evaluation. Sitting at her desk in her office on campus the Monday after she had returned from Dilley, Professor Harris turned on her computer and received an email stating, “Thank you. The judge read the first narrative page of your psychological evaluation and stated that he did not need to read any more and he gave a positive ruling.”

IX. Student Research on Electoral Districts and Gerrymandering (Jim Thatcher)

Over the last 3, Dr. Jim Thatcher, assistant professor of urban studies at UW Tacoma, is the principal investigator on “Spatial Models and Electoral Districting,” funded through NSF’s Research Experience for Undergraduates (REU) program. Courtney Thatcher, an assistant professor in math and computer science at Puget Sound (they are married), is co-investigator.

“We’ll be focusing on the social impacts of algorithmic redistricting methods—especially related to the impact of individual experience and movement through space—on perceptions of gerrymandering,” said Jim Thatcher.

Gerrymandering is the intentional manipulation of electoral district boundaries meant to create

an advantage for one political party over another. The word refers to Elbridge Gerry, governor of Massachusetts, who authorized the remapping of a district outside Boston, Mass., in 1812, meant to favor his re-election. Redistricting and gerrymandering have a rich history in the U.S. Although redistricting occurs every 10 years, on the heels of the U.S. population census, controversies flare up continually. Most recently, courts ordered Michigan and Pennsylvania to revisit their 2010 redistricting; and courts are in the process of deciding about Ohio, North Carolina, Virginia and Wisconsin, among others. The three-year UW Tacoma/UPS project will fund 12 students each summer from those two institutions and others around the country. They will blend cutting-edge computational and mathematical research analysis with social theoretical knowledge from geography and other social sciences.

“The pace of technological change these days is fast.” said Jim Thatcher, “Since redistricting only happens once every 10 years, there are many advances in geographic information science and data analytics that simply didn’t exist during the last cycle.”

X. Tacoma Whole Child Initiative (Laura Feuerborn)

Tacoma Whole Child transforms schools by creating safe, positive, engaging, and equitable learning environments through a mutually-beneficial partnership between UW Tacoma and Tacoma Public Schools. This engaged work with district leaders, school teams, and educators draws from research-based frameworks such as social emotional learning (SEL) and positive behavior supports (PBIS) to fit each school community’s unique cultural and contextual needs.

PRIVATE INVESTMENT LEADERSHIP PROSPECTS

Families/Individuals

Absher Family
Bingham Family
Brown, Jim and Ann
Chang, Florence
Fisher Family
Hoard, James and Jean
Ingalls, Gwen and Gill, Doug
Joy, Charles
McMaster, Heather
Whitacre, Kathryn

Organizations

Baker Foundation (possibly emphasizing research with a focus on youth)
Greater Tacoma Community Foundation (donor advised)
Kaiser
USU

Community campaign

Can we think of groups to specifically appeal to for supporting this fund? (retired faculty and administrators, faculty professional associations, etc.)

Can we add a fund donation button to certain communications and website locations?

On May 10, 2021, we submitted the following proposal of **Catalyst Research and Scholarship Support Initiative** to the AC/VC Meeting:

RAC proposed creating five catalyst grants per year of \$20K each that would include either a course buy-out or one month's summer salary, associated fringe benefit costs, and hourly pay and benefits for students to work with the faculty member on research.

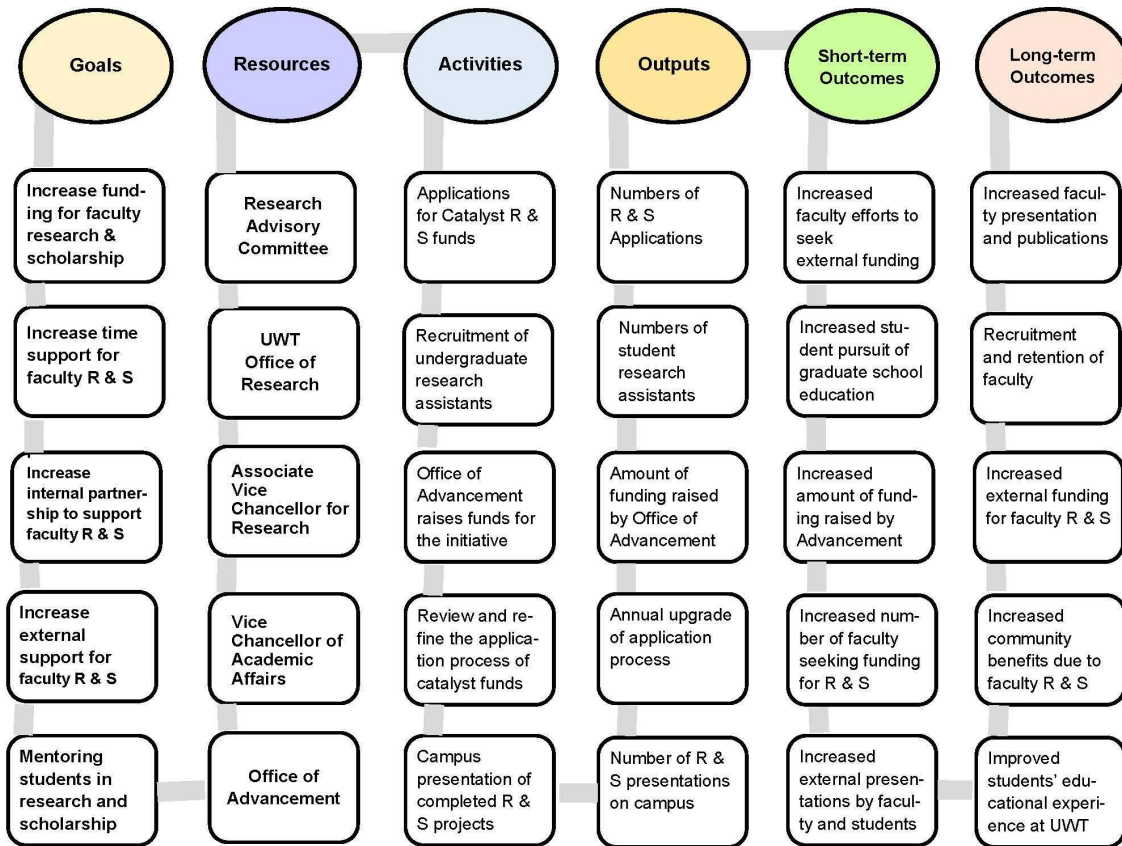
It is proposed that this initiative be seeded with \$40K of institutional funds that would be used to leverage an additional \$60K in private funds annually for a grand total of \$100K to support five faculty and their students to do research.

Belinda Louie originally proposed a timeline that would start with awards this summer, but in discussions with Advancement and Jill Purdy the Executive Vice Chancellor for Academic Affairs, it was felt that Advancement needed more time to raise funds for this initiative and the RAC needed time to develop a clear and robust application process.

We propose RAC lay the groundwork for creating the application process this spring, finalize the application/review process in the fall, with applications due around late fall quarter with awards made late winter quarter starting in summer 2022.

Applications would initially be open to junior tenure track faculty based on broad scholarly themes. Summer 2022 would be the pilot year for this initiative and it is anticipated that the application process will evolve over time.

RAC also drafted a logic model to monitor and to evaluate the Catalyst Research and Scholarship Support Initiative. The goals for this initiative are to strengthen the research culture at UWT, to increase support for faculty scholarship, to recruit and retain faculty by increasing scholarship support, to receive more external scholarship support, to increase benefits to the community as a result of faculty research, and to improved students' educational experience in research.



The Committee also worked with Lisa Isozaki and Cheryl Greengrove to finalize a set of rubrics, which RAC drafted in 2019-2020, to evaluate the applications of the **Founders Endowment Grant**. In March 2021, we reviewed 12 Planned Need Founders Endowment Applications. Of the 12 applications, 2 were submitted by non-tenure track faculty. The committee decided that these applications were not fundable since priority is to fund applications from tenure track faculty. The committee did not review these applications. This eligibility requirement will be added to future funding opportunity announcements. Using a weighted review rubric based on criteria outlined in the funding opportunity, the committee scored and then discussed the remaining 10 applications. Based on committee review, 6 applications were viewed as fundable and 4 were not. In May 2021, we reviewed and funded one application for Immediate Need Founders Endowment Applications.

RAC developed the evaluation rubrics for the Planned Need Founders Endowment Applications. We will continue to invite faculty input to revise the application process and evaluation rubrics.

2021 Founders Endowment - Planned Need (\$15K/yr)	Weight	
Name/Identifier		
Tenure Track	deal breaker	yes/no
Collaborating with community	1	yes/no/unclear
Collaborating with other faculty (anywhere)	1	yes/no/unclear
Student involvement	1	yes/no/unclear
Addresses one or more strategic impact goals:	1 min, 2 max	
a. Students		yes/no
b. Communities		yes/no
c. Scholarship	deal breaker	yes/no
d. Equity		yes/no
e. Culture		yes/no
f. Growth		yes/no
Scholarly Project Topic		
Clear plan for this proposed project?	3	yes/no
Clear outcome or goal for this proposed project?	3	yes/no
Doable in 1 year timeframe?	3	yes/no
Comments/Concerns? (If reservations write brief summary here)		
How benefits applicant's scholarship? (if pilot project explain connection to larger project)	2	
Budget		Amount:
\$3000 or under?	no wt.	yes/no
Budget & Justification reasonable for project?	2	yes/no
conference travel)	deal breaker	yes/no
Comments/Questions? (add text here)		
Overall Impression:		
Fund:		yes/no
Priority rank:		
Resubmit?		yes/no
Comments/Suggestions to applicant		

Three of the original Committee members are rotating out of RAC for the 2021-2021 AY, and three new members will be selected by Faculty Council to join RAC in Autumn 2021, and the new Committee will choose its own Chair at that time.

RAC has requested to be considered to be a standing committee so that staff support will be available to us.