Learning and Growing Through UMaine Research
by President Joan Ferrini-Mundy

Four and a half years of visits to the University of Maine's numerous research labs, creative arts spaces, university farms, research forests, field sites, instruments, and development facilities in Orono and beyond have taught me a great deal. I am grateful to all who have stepped away from their research time to explain what they do and answer my many questions.

When I arrived here in 2018, I thought I had a comprehensive perspective on university research, having done some myself and having spent a decade as a research administrator at the National Science Foundation (NSF), the nation’s
premier agency for advancing the progress of science and education. But interacting with researchers from the faculty at the University of Maine and the University of Maine at Machias, along with their graduate and undergraduate students and external collaborators, has given me a broader and deeper perspective. Those experiences help me be a better president of our flagship land, sea and space grant R1 university — for our students, our faculty and staff, and Maine.

Thank you to VPRDGS Varahramyan for allowing me to take up some space in this newsletter with a periodic contribution to share my observations and highlight some of what I am learning in my quest to more fully understand the broad research portfolio, and those who work on it, at UMaine.

Last summer I had the good fortune to travel to Greenland, to the towns of Narsarsuaq and Narsaq. I went to observe research activity led by four of our university’s most distinguished scientists: Dr. Paul Mayewski, Dr. Jasmine Saros, Dr. Kristin Schild, and Dr. Kiley Daley, as well Dr. Robert Northington from Husson University.

The visit was to participate in the NSF-funded National Research Traineeship (NRT) project, SAUNNA (Systems Approaches to Understanding and Navigating the New Arctic), led by Dr. Saros. Both the NRT program and the Navigating the New Arctic program were launched by NSF while I worked there. I was very eager to see how actual projects looked “from the other side.” This group did not disappoint.
We are delighted to present the 2022 Research Report for the University of Maine. This year marked the realization of a historic accomplishment by Maine's land, sea, and space grant university as UMaine ascended to the highest tier of national research universities by earning a Carnegie R1 classification and joining the ranks of the nation's top doctoral universities with very high research activity. Visit our [website](#) and read more about UMaine's milestone year.

Five faculty members were selected in 2022 for the National Science Foundation CAREER Award

Heather Leslie, Darling Marine Center Director, named 2022 AAAS fellow

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**Announcements**

- Panel discussion on Gut microbiome, nutrition, and food security, February 8
- Advanced Imaging of Muscle Fiber Type Development, February 10
- CUGR Talk: 'In Love' with Art and Research, February 14
- Arts Funding Workshop, February 14
- 2023 Faculty Research Funds Application Deadline, February 16
- ARCSIM Research Data Security & Management Best Practices Seminar, February 21
- Webinar: Introduction to R Programming Resources and High-Performance Computing at OSC, February 24
- UMaine Student Symposium, April 14
Learning and Growing Through UMaine Research

February 6, 2023

President’s Messages

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The faculty, staff, and graduate and undergraduate students on this trip were gathering data for several research studies, all in some way examining climate change issues and impacts from multiple vantage points. And SAUNNA is an education project too, the activities of which are intentionally designed to prepare the next generations of Arctic researchers. As Jasmine Saros notes in this video summarizing the trip, for many students this was their first trip to the Arctic — it was mine, as well.

This experience taught me a great deal about why UMaine is special and distinctive as a research institution, and gave me ideas about how we can make this distinction stronger and broader. In my few days with the team, I gained new insights into why our undergraduate and graduate students who engage in faculty-led projects — whether they are taking water samples from a Zodiac inflatable boat in a fjord, interviewing sheep farmers in South Greenland, observing teachers in a middle school in Bangor, or setting up experiments at the blueberry research lab at the Witter Teaching and Research Center — are benefitting from something special, and uncommon. That is because UMaine, even as a growing powerhouse in research with its R1 status and strong national rankings, puts fostering student learning at the center of everything.

Our faculty tell me they want to be here because they can pursue frontier research activity with students and pay forward the excellent mentoring and inclusion that enabled them to become the researchers they are. This is part of why I am sure that our Harold Alfond Foundation-funded Research Learning Program has the potential not only to thrive and expand UMS-wide, but to distinguish us, the University of Maine, on the international higher education stage through the integration of research and teaching at the undergraduate level.

In one of my conversations with the student researchers in their hostel in Greenland, over tea and with a stunning view of glaciers, we talked about how to create a Research Learning Experience (RLE) that could somehow enable more students to have some of the same experience, remotely. I hope that next year such an option will be on our RLE list.

Bringing a large group to South Greenland, visiting ice fields, getting samples back to the lab in Maine, living and working in tents in very remote areas with mainly caribou for company, and avoiding COVID (I wasn’t successful on that front) require extraordinary commitment and persistence.
The planning, logistics, and obstacles in obtaining the data that come from such an expedition — really, for obtaining most data — are daunting.

What drives the UMaine researchers? Perhaps a passion, verging on obsession, to understand the world around us or to solve a problem in order to enrich our lives and sustain our planet. With that passion also comes joy that the entire university community can share — excitement at such major results as 3D printing a house, or reaching definitive findings about the accelerated rate of glacier ice loss — and the rewards of solving hundreds of small problems along the way, like using PVC pipe, string, and a test tube to draw water samples. I observed members of the SAUNNA team having a prolonged, thoughtful discussion about how to respectfully and carefully pose questions to an Inuit community leader as a step in accessing the interviewees for one of the social science projects. The faculty, graduate students, and undergraduates had equal voice in figuring out what to do; I saw a moment of teaching and learning embedded in the work of research. Whether collecting water samples or collecting interviews, I observed excellence, inclusion, respect, and amazing expertise.

On this visit, as on so many of the visits I have made to almost three dozen UMaine and UMaine Machias research sites, labs, and teams in my time here, I saw multiple examples of what it means for research to be interdisciplinary and convergent. The SAUNNA website advertises for students in anthropology, Earth sciences, freshwater ecology, economics, law, and marine sciences; these areas and their several subspecialties were well represented on the Greenland trip. Learning to work together and solve meaningful problems with people from a variety of disciplines, and with a range of levels of education and experience, is fundamental to the education of tomorrow's leaders in all fields and professions. Ensuring that students have that experience is part of what we can do naturally in the research context here at UMaine. Students who come to learn with us, and who engage in research, will enter the world of work and their chosen professions with unique and important skills and experiences.

I can't say enough about the kindness of the Greenland trip leaders who helped me have the right gear (and miraculously produce what I was missing, seemingly out of thin air) and who patiently answered my questions. Plus, they brought me food and coffee while I was isolated during my bout with COVID. And sampling 10,000-year-old glacial ice was amazing, too.

In the University of Maine community, our students and faculty are answering critical questions for our future, advancing science, teaching the next generation of thinkers and leaders, and propelling our state and our nation forward. Those teams defy categorization, deepen understanding of our world, and converge on solutions through hard work, joy and creativity. It is nothing short of incredible.

Thank you for providing the opportunity to learn.
Spotlight: UMaine's 2022 NSF Career Award Recipients

February 6, 2023

The year 2022 marked a first for UMaine, as five faculty members were selected in the same year for the prestigious National Science Foundation (NSF) CAREER Award, a premier early career funding mechanism, which is intended to support enduring success in scholarship, teaching, and public service.

The National Science Foundation (NSF) CAREER Award, is considered one of the most prestigious awards for junior faculty members in the U.S. Awarded to early career researchers who have demonstrated the potential to serve as academic role models and to lead advances in the mission of their department or organization, the award provides funding for up to five years to support the research and educational activities of the recipient. This support can be critical for faculty members who are just starting their careers and trying to establish themselves in their field. In addition to providing funding, the NSF CAREER award also serves as recognition of the recipient's achievements and potential, which can help to boost their career and increase their visibility in the scientific community.

This prominent award recognizes the exceptional potential of the faculty and their research. In 2022, UMaine's Justin Dimmel, Salimeh Yasaei Sekeh, Babak Hejrati, Qian Xue, and Yingchao Yang all received awards.

Justin Dimmel

Assistant Professor of Mathematics Education and Instructional Technology

Justin Dimmel received an award for his project to investigate the transformative educational potential of using virtual reality technology.

The emergence of extended reality (XR) technologies, such as virtual and augmented reality, offers a profound shift in our capacities for representing and interacting with information. Three-dimensional figures can now be represented as diagrams that appear to extend into space in ways that are free of material or physical constraints. They can be rendered at any size, in any orientation, and at any position in space, and can thereby realize a far more varied set of mathematical concepts than what is possible with physical models.
The goal of Dimmel's project is to investigate the transformative educational potential of these representations and to generate a knowledge base that teachers, teacher educators, and researchers can use to reimagine the learning and teaching of geometry.

Salimeh Yasaeei Sekeh
Assistant Professor of Computer Science

Salimeh Yasaeei Sekeh's project investigates three desirable properties when developing deep networks, including performance, efficiency, and robustness. Her project also includes a comprehensive plan to integrate research results into inclusive, diverse, and cross-disciplinary educational multilevel programs by funding graduate research assistants, summer research fellowships for high-school students and teachers, and organizing a hybrid (online and in-person) deep-learning boot camp.

The overall goal of her research program is to develop a comprehensive and fundamental understanding of the robustness and computational aspects of deep networks by leveraging tools and concepts from probability, information theory, and statistics.

The project aims to make critical advances in areas such as proper formulations of subnetwork adversarial robustness, characterizing transferability via curriculum learning, and developing efficient approaches for reducing computational complexity involved in training, among others.

The theoretical and methodological outcomes of this cross-disciplinary project will broaden the prior knowledge of deep learning, a type of machine learning, and will improve prediction, exploration and detection applications of machine-learning models.

Babak Hejrati
Assistant Professor of Mechanical Engineering

Through his award by the NSF Disability and Rehabilitation Engineering (DARE) program, Babak Hejrati will establish a framework for helping people with mobility issues — such as older adults with mobility decline and those who have had a stroke — to improve their walking ability using wearable robots.

People with walking problems due to aging or neurological disorders such as stroke and Parkinson's disease often participate in gait training therapy to improve their walking ability. Walking is a complex skill that requires highly coordinated leg and arm movements. Current methods for gait training often focus on improving leg movements, but often overlook the importance of arm movement, particularly arm swing, which impacts stability, balance and the efficiency of energy use while walking.

Hejrati plans to develop two new wearable robotic devices to examine how the neural circuits that control limb movements interact while walking at different speeds to produce coordinated arm and leg movements in subjects without mobility issues. In patients with mobility issues, the robotic devices will be able to help induce proper whole-body response and enhance their walking ability.

Qian Xue
Assistant Professor of Mechanical Engineering

Assistant professor of mechanical engineering Qian Xue researches the sensing ability of seal whiskers, which have attracted increasing research interest because of their exceptional sensitivity and accuracy. Previous studies have shown that blindfolded seals can use their whiskers to track the disturbances left behind by moving objects in the water, known as hydrodynamic trails, that were generated several minutes before, as well as discriminate the size and shape of upstream objects through their wakes.

However, relatively little is known about the mechanisms of seal whisker sensing. Xue's research looks at how the unique geometry of seal whiskers responds to different vibrations in the water, including self-induced vibrations in calm water and wake-induced vibrations from other objects at both the single-whisker and whisker-array levels.

Xue will use a tool known as an immersed-boundary-method based fluid-structure interaction computer model to simulate the vibrations of a single whisker and multiple whiskers in a wide range of parameters. The simulation results will be validated by comparing them to the previously obtained experimental measurements in order to better understand how the whiskers respond to fluid vibrations.

Yingchao Yang
Assistant Professor of Mechanical Engineering

Ultrathin two-dimensional (2D) nanomaterials have been extensively researched for use in devices like electronics, photonics, batteries and more. The stability of components made from the materials is critical to their reliability, but toughening the brittle materials — making them more resistant to fractures, for example — often comes at the cost of their mechanical strength. What's more, 2D high-entropy materials (HEMs), nanomaterials that consist of multiple elements, are asymmetrical, and thus harder to fracture.

Yingchao Yang's research goal is to study the asymmetrical fractures of 2D HEMs. He will use the NSF funding to pursue four research objectives: fabricating stable 2D HEMs; conducting in situ tensile testing in a scanning electron microscope to visualize the deformation and fracture scenarios of 2D HEMs and their ripple effects understand the various impacts on the materials' mechanical behaviors; developing and applying a multiscale framework to simulate fracture behaviors of 2D HEMs with focus on crack initiation and crack propagation; and visualizing crack evolutions at the atomic level via in situ tensile testing using transmission electron microscopy.
The Office of Research Development (ORD) offers workshops, protected time writing sessions, and individual consultations to faculty for this and related early career faculty development funding programs. For more information please contact Associate Director of Research Development, Saul Allen (saul.allen@maine.edu).

Contact: research@maine.edu
Heather Leslie, professor of marine science and director of the Darling Marine Center at the University of Maine. Photo by Jeremy Rich

Heather Leslie, Darling Marine Center Director, named 2022 AAAS fellow

January 31, 2023

Heather Leslie, professor of marine science and director of the Darling Marine Center at the University of Maine, has been named a 2022 American Association for the Advancement of Science (AAAS) Fellow, one of the highest honors in the scientific community.

AAAS Fellows are a group of scientists, engineers and innovators recognized for their achievements across disciplines, from research, teaching, and technology, to administration in academia, industry and government, to excellence in communicating and interpreting science to the public.

Since the program’s establishment in 1874, the AAAS Council has elected such distinguished fellows as W.E.B DuBois, Maria Mitchell, Steven Chu, Ellen Ochoa, Irwin M. Jacobs, Alan Alda, Mae Jemison and Ayanna Howard. Other recent AAAS Fellows from UMaine include Susan Brawley, professor emerita of plant biology and marine ecology and 2012 AAAS Fellow; Daniel Sandeweiss, professor of anthropology and 2014 AAAS Fellow; and R. Dean Astumian, professor of physics and 2016 AAAS Fellow.

“I am honored to be recognized as a AAAS Fellow. I hope my election will inspire students to pursue interdisciplinary research relevant to coastal communities,” Leslie says. “We need many researchers from many different backgrounds contributing to marine conservation, given the importance of ensuring both people and ecosystems thrive in the face of climate change and other challenges.”

Leslie has been a professor of marine science and director of the Darling Marine Center at UMaine since 2015. An international leader in marine conservation science, Leslie studies the drivers of ecological and social processes in marine systems, and how to more effectively connect science to policy and management. Leslie’s work has appeared in the Proceedings of the National Academy of Sciences, Ecology, Conservation Biology, and Frontiers in Ecology and the Environment.
The AAAS Council wrote that Leslie was selected for her “distinguished contributions to conservation biology, particularly to coastal marine ecology, human-environment linkages, and design and evaluation of marine management strategies.”

Before arriving at UMaine, Leslie was on the faculty at Brown University, as the inaugural Peggy and Henry D. Sharpe Assistant Professor. She also received an A.B. in Biology from Harvard University, a Ph.D. in Zoology from Oregon State University and conducted postdoctoral research at Princeton University. Leslie lives with her family by the Damariscotta River in Newcastle, Maine.

Leslie and the other 505 newly elected 2022 AAAS Fellows will be recognized this spring at the ceremonial Fellows Forum in Washington, D.C.

Contact: Sam Schipani, samantha.schipani@maine.edu
UMaine Institute of Medicine

This event has passed.

Advanced Imaging of Muscle Fiber Type Development

February 10 @ 12:00 pm - 1:00 pm FREE

**Speaker:** Jared Talbot, Ph.D. Assistant Professor of University of Maine’s School of Biology and Ecology

Dr. Talbot received his Bachelors in Science in Biology from Cornell University. He then began his work on developmental biology by studying skeleton formation with Dr. Charles Kimmel at the University of Oregon. After this, he did a postdoc investigating muscle development with Sharon Amacher, initially working at the University of California Berkeley, then continuing the same work at The Ohio State University. He is now an assistant professor at the University of Maine in Orono.

In order to produce conscious movement, our body contains hundreds of carefully positioned muscles, that are each endowed with specific contractile properties. The Talbot lab investigates how muscle precursor cells are positioned during embryonic development and how these precursors transform from motile cells into functional muscle fibers. To investigate muscle precursor development Dr Talbot uses zebrafish embryos, which have a comparatively simple musculature and can be imaged live at high resolution throughout their rapid embryonic development. Right now the Talbot lab is pursuing two projects: The first investigates how precursor cells migrate to the correct positions during development. The second project investigates how muscle cells generate contractile structures called sarcomeres.

Read more

This event is free, but registration is required

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**DETAILS**

**Date:** February 10

**Time:** 12:00 pm - 1:00 pm

**Cost:** Free

**Event Category:** Seminar Series

**Website:** https://umaine.edu/medicine/seminars-2/

**ORGANIZER**

UMaine Institute of Medicine

Phone: 207.581.3026

Email: umainemed@maine.edu

View Organizer Website

**VENUE**

Virtual
Related Events

Lunch & Learn: Maintaining Cognitive Health as We Age
December 4 @ 12:00 pm - 1:00 pm

Event Navigation

« Panel discussion on Gut microbiome, nutrition, and food security

CUGR Talk: “In Love” with Art and Research »
Competition Details

Faculty Research Funds 2023

Dates

Internal Submission Deadline: Thursday, February 16, 2023

Details

Administrator(s): Saul Allen (Owner)
Edward Derrick
Category: UMaine and UMM
Cycle: 2023
Discipline Subject/Area: All
Number of Applications Allowed per Applicant: 1

Description

Submission Deadline: Feb 16, 2023

This program invites full-time faculty from the University of Maine and the University of Maine at Machias to compete for limited funds to establish, maintain, or advance high-quality research programs. Funding is available in three tracks: Regular Faculty Research Awards; Summer Faculty Research Awards; and Scholarly Equipment and Materials. Projects proposed to any of these tracks should be oriented towards concrete and relevant-to-discipline outputs. Such outputs may include performances, showings, publications, grant proposals, or others. When the Faculty Research Funds Committee weighs funding decisions for comparable proposals, it normally gives priority to tenure-track members of the UMaine/UMM faculty and to faculty members who propose to redirect their research programs. Award of FRF funds is based only on the quality of the application and proposed project, with no preference given to specific disciplines.

General Guidelines

The following guidelines apply to all three tracks:

1. Eligibility is limited to full-time faculty. This includes tenured, tenure-eligible, non-tenure track, and soft money faculty for whom research is an element of their appointment. Faculty who have received this award during the previous two years are not eligible. Only one submission per person (including co-investigators), per competition is allowed. Faculty members receiving substantial start-up funds are ineligible to receive awards from the FRF Program for a period of two years after the start-up monies have been expended. Applicants will be asked to provide information regarding start-up packages as part of this application; eligibility decisions will be made on a case-by-case basis by the Vice President for Research and Dean of the Graduate School.

2. Excepting the Summer Faculty Research Award, no faculty salaries are to be paid from this program.

3. Individuals often seek research funding simultaneously from a variety of sources, including the FRF Program; this is permissible and appropriate. However, individuals are expected to withdraw FRF proposals, and return unspent FRF funds, when external funding is received for the same work, equipment, or materials.

4. Awards terminate automatically at the end of one year from the date of the award, and unused funds revert to the Faculty Research Funds. All projects or acquisitions should accordingly describe efforts to be undertaken inside of one year. The faculty member will assume full responsibility for any over-
expenditure on the project account. If it is anticipated that additional time will be needed, a request for extension should be submitted. *Special note for Summer Faculty Research Awards:* projects must describe a minimum of 1.5 months of effort, and recipients may earn no more than 1.5 additional months of summer salary, inclusive of salary earned for teaching.

5. A two-page report summarizing results and copies of publications resulting from the project are required at the termination of the project. Proposals from individuals with any delinquent reports will not be considered.

6. Proposals to all three tracks are limited to three single-spaced pages, using a legible font of 11 points or greater and 1” margins.

**Track Specific Guidance:**

**Regular Faculty Research Awards:**

1. Requests to the *Regular Faculty Research Award* program should not exceed $10,000. Allowable costs include personnel support (non-student wages must include fringe benefits at the current rate of 49.8%); travel; supplies; and equipment. Please note, faculty salary is not an eligible expense.

2. Please include a simple itemized budget organized by cost categories and accompanied by a brief budget narrative.

**Summer Faculty Research Awards:**

1. Awards are for a fixed value: $8,000, distributed in two equal payments in the June and July paychecks of awardees. No budget should be uploaded for this track.

**Scholarly Equipment and Materials Award**

1. Awards made in this track seldom exceed $10,000. Requests should be made with this general ceiling as a guideline.

2. Please include an itemized budget and accompanying budget narrative. Itemized budgets should include additional funds granted or requested from other sources in support of the purchase.

3. Only collections not presently available in the Library are eligible for purchase. The Library will assist with the purchase, and the collection will be housed in the Library. The applicant will then access the collection consistent with Library policies and procedures.

4. (Optional) Include vendor quotes if appropriate.

**Required Application Format and Supporting Documents**

Applicants to all of the three tracks will submit the common application through the InfoReady platform: [https://umaine.infoready4.com/](https://umaine.infoready4.com/). Applicants to all three tracks must complete the Endorsement Form and the PI Information Form (both available on InfoReady). The common application is limited to three single-spaced pages in an 11 point legible font, with page margins of 1” or greater, uploaded as a .pdf. Applicant information and a required abstract of no-more-than 250 words will be input directly into InfoReady. Common applications should be written for a general university audience, avoiding discipline-specific jargon or shorthand.

The three-page common application must contain the following elements, organized with the bolded subheadings:

1. **Merit.** a) Specific goals or objectives of the proposed research, project, or acquisition. State clearly the hypothesis(es) to be tested, or the question(s) to be asked, and the types of information to be collected. For creative endeavors, describe the desired outcome(s) of your project and their contribution to your field. b) Background information regarding the research or activity being proposed and the relevance of the proposed work to your field(s). c) Describe clearly the procedures of information/data collection, analysis, and interpretation associated with the planned research or project. For creative activities, discuss media and methods. d) Describe collaborative relationships, if any, and clearly articulate the role(s) of any
participants in the proposed work beyond the submitting applicant. e) Clearly align your request with the specific track to which you are applying.

2. **Professional significance of the research, project, or purchase of scholarly equipment or materials.** The applicant should indicate how this FRF Award will enhance their career development and advance the missions of their department and the university. For equipment purchases, other likely users should be identified and the projects these purchases will enable should be concisely described. Applicants should situate their FRF proposal within the broader context of their research and professional goals.

3. **Likelihood of additional funding and/or future related products.** Applicants should list sources of additional funding or investment that could be leveraged by positive results from the proposed work, including external grant applications to specific federal agencies/competitions, or contracts from state or private enterprise. Follow-on funding targets are encouraged for all three tracks. Projected outcomes of projects not leading directly to external funding requests (e.g., publications, performances or showings, etc.) should be indicated.

4. **Availability of resources.** List and characterize the adequacy of available facilities and how the requested funding will enable the completion of the project. Describe commitments of institutional support for the proposed project, and other support the applicant has received in the past. Briefly characterize productivity associated with this support.

5. **References.** After a page break, include all cited references. Please note that these references do not count against the three page limit for the common application.
FACULTY RESEARCH FUNDS
Common Endorsement Form

Principal Investigator ___________________________ Department ___________________________ College ___________________________

Campus Address and Phone: ___________________________ ___________________________

TITLE OF PROPOSAL:

__________________________________________________________________________________
__________________________________________________________________________________

Endorsement:

It is understood that this grant will be administered in accordance with the guidelines that accompany this request. For the Summer Research Award track, recipients are expected to devote a minimum of 1.5 months to approved projects, and, as such, they may earn no more than 1.5 months of additional summer salary through the University (this includes teaching).

The Department/College indicated above will make available the additional necessary supplies, facilities, and/or equipment not covered in the proposal to support the research described in this proposal.

____________________________________ _________________
Signature of Principal Investigator Date ___________________________

____________________________________ _________________
Signature of Department Chairperson Date ___________________________

____________________________________ _________________
Signature of Dean of the College Date ___________________________

PLEASE COMPLETE AND SUBMIT THE APPLICATION VIA THE UMAINE INFOREADY GRANT PORTAL:
https://umaine.infoready4.com/

Rev. 12/2021
This must be completed by the applicant and included with the proposal.

1. Are you a full-time □ tenured or □ tenure-eligible, or □ soft-money faculty member (check one)? If you are a soft-money faculty member, please describe to what extent is research an expected component of your appointment, the dates of your appointment, and whether it is a renewable appointment. This information, along with the information in the Instructions for Proposals (requested for all applicants), is used to weigh funding decisions. For all applicants, if you received start-up funding, please list amounts and the date funds were expended in the box below.

2. How long have you been employed by the University of Maine? _______________

3. Is this project:
   □ A new project for an untenured faculty member, □ initiation of a new line of research, □ continuation of an existing research program, or other (explain)?

4. Will the project involve the use of the following:

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If a proposal is selected by the FRF Committee for an award, funding will not be released until appropriate clearances have been granted.

continued
5. Have you received Faculty Research Funds before? If so, please provide below the information requested.

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* Proposals from individuals with any delinquent reports will not be considered.

** Formerly known as Scientific Equipment and Book Fund

Include resulting publications or other outcomes of these awards in your proposal as outlined in the Instructions for Proposals.