OFFICE OF VP FOR RESEARCH

Who We Are ... What We Do ...



Welcome to the University of Vermont!

The overarching mission of the Office of the VP for Research (OVPR) at UVM is to support faculty research, scholarship, and creative work in any way possible. OVPR and the units that report to it exist to help the 1,200 (and growing) UVM faculty scholars achieve maximum productivity and make outstanding contributions to the field. **Please visit our webpage:** https://www.uvm.edu/ovpr

It is imperative that our new faculty members learn about OVPR and the multiple competitive funding programs we manage for faculty. Details about these competitive programs can be found below, and any new UVM faculty member that needs help or direction should contact Dan Harvey, Chief of staff and Director of Operations, via email or phone (Dan.Harvey@uvm.edu or 802-656-4566 (Direct Office Line)).

To see all current UVM internal funding opportunities for faculty:

https://www.uvm.edu/ovpr/funding-opportunities

Specific programs to review:

- OVPR EXPRESS (Early EXtra Promotion of REsearch and Scholarly Success) is an internal, competitive funding program designed to stimulate research and scholarship by new junior faculty members. Specifically, the EXPRESS program will provide awards up to \$3,000 to newly hired UVM tenure-track assistant professors. The goal is that these awards will aid, within the first year of appointment, initiation of the research, scholarship, and creative works that will propel the careers of junior faculty recipients. https://www.uvm.edu/ovpr/ovpr-express-grant-program
- The REACH grant program seeks to promote and help fund promising research, scholarship, and creative arts in all areas of the University. The program is designed to provide funding to foster projects that can advance new areas of scholarly achievement.

 https://www.uvm.edu/ovpr/reach-grant-program
- Open to all tenured and tenure-track faculty in all Colleges, **the Postdoctoral Associate Program** provides the salary and fringe to fund a postdoctoral associate position for up to two (2) years.

This program is spurred by our common desire to increase UVM's productivity and standing in research, scholarship, and the creative arts. The funding awarded will not only foster productivity, but will also help faculty members budget their time so that they can compete for additional extramural funding to further increase productivity.

https://www.uvm.edu/ovpr/postdoctoral-associate-program

- In an effort to work more closely with industry and businesses, OVPR is pleased to offer the **UVM**Industry Fellowship Program. This program seeks to address the needs of businesses by partnering them with the expertise of UVM faculty members and doctoral-level graduate students or postdoctoral research associates.
 - https://www.uvm.edu/ovpr/industry-fellowship-program
- In order to encourage UVM faculty members to learn about each other's work and to work collaboratively, we are pleased to offer the **Faculty Activity Network (FAN)** initiative. This program is designed to encourage and foster faculty members (ideally between three and eight individuals at a time) to tour each other's laboratories or research spaces, studios, design/creative spaces, or wherever their research, scholarship, or creative work takes place. https://www.uvm.edu/ovpr/faculty-activity-network-fan



The Vermont Advanced Computing Core (VACC) is excited to support your computational research with locally housed, state-of-the-art high-performance computing. Whether you want to run computational simulations, analyze large-scale data, or testbed your code before scaling up to national clusters, we are here to help accelerate your results for proposals, publications, and the scientific enterprise.

The VACC is a critical computational and storage facility and a prime driver of interdisciplinary research at the University of Vermont (UVM). We serve **162 faculty principal investigators** and over **572 active users**, including post-docs, graduate students, undergraduates, and faculty, across nine colleges and 22 disciplines. We provide gateways, tools, and instruction for integrating high-performance computation in the classroom to train the next generation of technology leaders.



Coming in Fall 2021, there will be significant upgrades for the **BlueMoon** cluster.

- Increasing CPU performance by more than 200%. (5,312 new processor cores).
- Growing large memory capacity by 400%, allowing models not possible before on the VACC.
- Adding 1PB of storage, nearly doubling overall storage capacity.
- State-of-the-art networking upgrades, including 200Gb connectivity (200Gb is roughly 2,000 times faster than most good home internet connections, and we have that speed going into individual computers). New nodes dedicated to a web-based portal to lower barriers to access HPC.



The VACC recently expanded its computational capacity with a new high-performance computing cluster, **BlackDiamond**, made possible by a gift from microchip manufacturer AMD. This cluster has AMD's 2nd Gen AMD EPYC processor, which pushes the boundaries for x86 performance, efficiency, security features, and overall system throughput.



DeepGreen. is a massively parallel GPU cluster with ten fat nodes, 32 cores, and 8 V100 GPUs. It has an ultra-fast filesystem to avoid data starvation with 96TB Redundant NVMeOF storage. Its hybrid design enables over eight petaflops of mixed-precision calculations to expedite high-throughput artificial intelligence and machine learning workflows.

The VACC's broad range of heterogeneous computing options meets a wide variety of research computing needs. We service our computationally based faculty and researchers with professional staff adept at developing HPC software, tools, and technologies. The VACC delivers state-of-the-art high-performance research cyberinfrastructure and storage capacity combined with software engineering and in-classroom on-demand resources for HPC-related courses.

Contact Andi Elledge (Operations) at aelledge@uvm.edu or Chris Danforth (Director) at chris.danforth@uvm.edu with questions about your computational research needs.

Website: uvm.edu/vacc Twitter: @uvmvacc



As you settle into your faculty position, there will be lots of things to do during your "start-up" phase. Obtaining funding for your research program may be one of those things. Grant writing can seem daunting, particularly if you are a new or inexperienced grant seeker. In addition, large, complex, multidisciplinary proposals can overwhelm even the most accomplished grant writer. We'd like to help!

RESEARCH DEVELOPMENT offers a suite of services to support faculty efforts to obtain extramural funding for their research, scholarship, and creative activities.

Research Proposal Development and Project Management:

We partner with individual investigators and research teams through all stages of the writing process to develop competitive grant proposals. Our services include comprehensive grantsmanship review of the narrative sections of your proposal, assistance with development of non-technical content so you can focus on the subject matter, and development and management of proposal writing timelines.

Proposal Review and Grantsmanship Critique

- o Thorough review of your proposal for grantsmanship with annotated feedback
- Substantive review and editing of your draft text for responsiveness to funding solicitation and/or review critiques (for resubmissions)

• Proposal Writing Assistance and Editing

- Drafting non-technical proposal sections
- o Editing for clarity, readability, and concision
- o Assistance with formatting and presentation
- Proofreading

For large, complex grant proposals we support proposal development from concept to submission, ensuring that internal and external deadlines are met.

• Overall Proposal Project Management

- o Participate in high-level proposal strategic planning
- o Develop annotated outline of your response to the solicitation
- Develop and manage proposal preparation timelines
- o Manage collection of biosketches, letters of collaboration/support
- Coordinate with department, college and SPA to develop budget and justification
- o Liaise with VP for Research to facilitate cost-sharing/matching and letters of commitment

Communication of Funding Opportunities and Limited Competition Management:

We keep up to date with the funding landscape, and regularly distribute funding opportunities to college leadership and targeted investigators. We also provide access to and train investigators in the use of **PIVOT**, a comprehensive funding opportunity database.

Our office also announces **limited submission** funding opportunities (i.e., grant solicitations in which the sponsor restricts the number of proposals that can be submitted from UVM), and we administer the internal competitions to select our institutional applicant(s).

Grant Writing Tools, Resources, and Workshops:

We will be expanding our offerings for "on demand" content and support. Check out our website for current NIH writing templates, tutorials for biosketch development using the SciENcv tool, and content from previous workshops.

To Request Support:

To take full advantage of these services, which are at **no cost** to you as an individual researcher, please contact us **at least 4-6 weeks in advance** of your grant proposal deadline. For complex proposals, please contact us as soon as possible to discuss your needs.

Please contact **Jeralyn Haraldsen** (Director) <u>jeralyn.haraldsen@uvm.edu</u> to request Research Development services.

Research Development (340 Waterman Building): https://www.uvm.edu/ovpr/research-development

Director:

Jeralyn Haraldsen, PhD jeralyn.haraldsen@uvm.edu

Grant Proposal Developers:

Gagan Bajaj, PhD gagan.bajaj@med.uvm.edu
Ingrid Barcelo, PhD ingrid.barcelo@uvm.edu
Heidi Malaby, PhD heidi.malaby@uvm.edu
Erin McConnell, MS erin.a.mcconnell@uvm.edu
Jeannine Valcour, MA, MBA jeannine.valcour@uvm.edu
Gund Institute primary contact

Grant Resource Specialist:

Cailey Biles, MS cailey.biles@uvm.edu



UVM Innovations is the University of Vermont's technology transfer office, meaning that it is the University's gateway and guide to the multifaceted technology commercialization pathway. From establishing industry collaborations to discovering the commercial potential of your research results to spinning out new companies, the UVM Innovations team brings UVM research the tools, funding and people necessary to bring your technologies and ideas to market sustainably and for the public benefit.





We are here to inform all members of the UVM community on intellectual property (IP) protection and the path from bench to commercialization. Learn more about the UVM commercialization process and the wide variety of technologies and innovations your UVM colleagues have developed at the UVM Innovations website.

Beyond protecting, marketing and licensing IP, UVM Innovations is UVM's agent for federal grant IP reporting (iEdison) and is UVM's <u>Material Transfer Agreement administrator</u>. Our team can also guide you through UVM's processes for establishing relationships with new industry partners and can help with other research engagement agreements such as confidential disclosure agreements, collaborations where intellectual property plays a critical role and funding opportunities, including SBIR/STTR subcontracts.

To connect and engage the UVM community with Vermont's tech commercialization ecosystem, UVM Innovations holds several events, including the annual Invention2Venture (I2V) conference, iCorps Short Course Training, SBIR/STTR events, technology commercialization courses through the iTREP grant, and presentations from industry experts, including the United States Patent and Trademark Office. Our staff engages with faculty, students, staff and members of the greater community to provide classroom and meeting seminars on intellectual property and commercialization across the UVM and Vermont community.

UVM Innovations manages two seed funding programs at UVM to help you bring your technology to market: UVM Ventures and SPARKVT. UVM Innovations is also home to the ARC (Academic Research Commercialization) internship program for students interested in engaging with the technology commercialization process and the local entrepreneur community.

Feel free to contact us with questions, new discoveries or external collaboration opportunities. If you have an existing intellectual property portfolio from your previous institution, please contact us so we can assure a smooth transition of these IP assets. You may contact any of our team directly at the emails listed below and we will set up a Zoom or Microsoft Teams call for a more in-depth discussion. We always enjoy meeting our researchers and hearing about new technologies!

We look forward to working together!

General UVM Innovations email - innovate@uvm.edu

Dr. Corine Farewell, DVM, MBA - Corine.Farewell@med.uvm.edu *Director, UVM Innovations*

Kerry Swift, MS - Kerry.Swift@med.uvm.edu *Technology Licensing Officer*

Jason Powell, JD - Jason.Powell@med.uvm.edu

Business Support Generalist, Administrative and Software/Copyright Licensing

Richard Gomez, JD - Richard.Gomez@med.uvm.edu
Business and Patent Administrator



The Office of Animal Care Management is happy to support your animal-based research here at UVM with animal housing and procedure facilities, technical services, protocol assistance, and training for you and your staff.

The Office of Animal Care Management (OACM) is led by **Dr Ida Washington**, DVM, PhD, DACLAM, who serves as the University Veterinarian and Director of OACM, with assistance from **Keirsten Rapoza**, OACM Administrative Assistant, and **John Lovelette**, OACM Business Manager. The Animal Care facilities are managed by **Alyssa Frizzell**, Project Manager, who leads a team of very capable animal care staff, including two **Veterinary Technicians** and eight **Animal Care Technicians**.

The UVM Program of Animal Care is fully accredited by AAALAC International, certified by the USDA, and holds an Assurance with NIH OLAW. The OACM works closely with the Research Protections Office and the IACUC and IBC to ensure quality animal care and welfare, compliance with regulatory requirements, safety of animals and people, while helping investigators achieve optimal data from animal-based research.

OACM currently has direct oversight of 7 animal vivaria on campus or nearby:

- The **Health Science Research Facility** (HSRF) has a basement barrier facility that contains 6 rodent holding rooms and 2 procedure rooms, including an irradiator and imaging equipment.
- The **Given Building** has a conventional vivarium in the basement that contains 18 rodent holding rooms and 3 procedure/surgery rooms, and a necropsy suite. The main Animal Care staff offices are located in this vivarium.
- **Stafford Hall** is located on campus and contains 1 OACM-managed conventional rodent room in the basement.
- **John H Dewey Hall** is located on the edge of campus and houses a conventional rodent facility with 5 holding rooms and 1 OACM-managed procedure room.
- The **UVM Ungulate Facility** is located approximately 2 miles south of campus and contains conventional housing for rodents and large animals. There are 2 rodent holding rooms, 2 rodent procedure rooms, 1 large animal holding room with multiple pens, and 2 large animal surgery suites.
- The **Colchester Research Facility** (CRF) is located approximately 3 miles north of campus and has a conventional vivarium with 4 rodent holding rooms.
- The **Vermont Department of Health Laboratory** (VDHL) is adjacent to the CRF and contains a state of the art ABSL-3 rodent facility with 2 holding rooms and 2 procedure rooms.

There are a number of steps you need to complete before you work with research animals at UVM:

- Discuss your animal research plans and needs with Dr Ida Washington, University Veterinarian and OACM Director.
- Discuss your animal housing and procedure room needs with Alyssa Frizzell, Project Manager for OACM facilities.
- Contact the Research Protections Office for assistance with online training requirements and protocol submission procedures.
- Obtain Occupational Health & Safety clearance to work with animals.

- Contact Alyssa Frizzell to schedule a tour of the animal facilities you will use for your work. Contact the Veterinary Technicians to schedule hands-on training with the species you will use.

Please reach out with any questions!

Our Contact Information:

Ida Washington	Ida.washington@med.uvm.edu	6-7881
Keirsten Rapoza	Keirsten.Rapoza@uvm.edu	6-0459
John Lovelette	John.Lovelette@uvm.edu	6-2206
Alyssa Frizzell	Alyssa.Frizzell@uvm.edu	6-1006
Veterinary Technicians (Michelle Wells, Phil Griffin)	Vettech@med.uvm.edu	6-8708



Our research administration business follows industry standards used by research institutions nationwide to ensure that proper stewardship of sponsored awards and regulatory compliance is maintained.

FY20 Research by the Numbers



PRINCIPAL INVESTIGATORS



ACTIVE PROJECTS



PROPOSALS SUBMITTED



TOTAL AWARD AMOUNT



AWARDS ACCEPTED



FY20 HERD RESEARCH EXPENDITURES

Research Compliance

Research triggers oversight, good stewardship and compliance.

Human Subjects | Animal Research | Biosafety

Financial Conflict of Interest | Responsible Conduct of Research | Export Control Regulations

Research Misconduct | Data Management

Sponsored Project Administration | Allowable Costs | Effort Reporting

Lab Safety | Chemical Safety | Field & Travel Safety

Pathogens | Lasers | Radiation

Research Administration

Research Administration is comprised of the following offices.

- 1. OFFICE OF THE EXECUTIVE DIRECTOR
- 2. SPONSORED PROJECT ADMINISTRATION
- 3. RESEARCH PROTECTIONS OFFICE
- 4. RESEARCH COMPLIANCE & INTEGRITY
- 5. ELECTRONIC RESEARCH SYSTEMS



UVMCLICK



PI PORTAL

1. Office of the Executive Director (ED)

Contact: <u>Brian.Prindle@uvm.edu</u> Executive Director

The Office of the Executive Director is committed to optimizing UVM's research administration business. The focus is on improving processes, electronic research systems, and delivery of outstanding support to our investigators, staff, students and sponsors.

The ED deploys its resources to ensure central office systems, procedures, and programs are in place to allow high-level stewardship of extramural support received through grants and contracts.

Research Administration Organizational Chart

2. Sponsored Project Administration (SPA)

Contact: Sonya.Stern@uvm.edu Director

SPA is a full-service research administration and compliance office committed to assisting faculty, staff, and sponsors navigate the lifecycle of a sponsored project. SPA is organized by functional area, which is consistent with a sponsored projects lifecycle.

- Proposal Preparation and Submission
- Award Acceptance and Set-up
- Outgoing Subaward Management
- Research Finance and Reporting
- Sponsored Revenue and Cash Management

Proposal Preparation and Submission

Contact: <u>Julie.Macy@uvm.edu</u> Team Lead

Contact: SPA Staff

All new sponsored project proposals, resubmissions, competing renewals, supplemental proposals, and preproposals (hereafter referred to as, Proposal) must be submitted to SPA prior to submission to the sponsor, using our **UVMClick electronic workflow system**.

A typical proposal requires 4 levels of approval:

- 1. Principal Investigator (certification)
- 2. Department (Chair or designee)
- 3. College (Dean or designee)
- 4. Sponsored Project Administration (Authorized Official)

Roles and Responsibilities

a) Principal Investigator (PI) and Department Research Administrator (DRA):

• Responsible for all aspects of a proposal, including provision of a submission-ready proposal to SPA no later than 2-business days prior to sponsor's published deadline.

b) Department Chair or Designee:

Reviews and approves proposals for consistency with departmental policies and procedures.

c) College Dean or Designee:

• Reviews and approves proposals for consistency with college policies and procedures.

d) Sponsored Project Administration:

- SPA Research Administrators are aligned by department and are available for consultation and guidance.
- Upon receipt of the **UVMClick Funding Proposal**, SPA will review and coordinate needed adjustments, edits, corrections with the PI or DRA.

• Is the University Signing Official and submits proposals directly to sponsor using electronic submission systems where required.

Award Acceptance

Contact: Emily.Trantum@uvm.edu Team Lead

Contact: **SPA Staff**

SPA is the ONLY office authorized to accept grants, contracts, cooperative agreements, and other related agreements, made in support of research or other sponsored projects.

Money Agreements (Sponsored Project Agreements, Grants, Contracts). Deliver to spa@uvm.edu

• No Money Agreements (Data Use Agreements, Non –Disclosure Agreements, Master Agreements). Deliver using **UVMClick – Agreements.**

Roles and Responsibilities

a) Principal Investigator and Department Research Administrator

- Participate in the negotiation and acceptance process, as needed.
- Review agreements and other documents as requested by SPA.
- PI must confirm acceptance of the award terms and conditions, prior to SPA acceptance.

b) Sponsored Project Administration

- Negotiate a mutually acceptable award for all sponsored projects on behalf of UVM and PIs.
- Coordinate and communicate award acceptance process to all concerned parties.

Award Negotiation:

- SPA follows national organizations (NCURA, FDP, COGR, AUTM) recognized university standards when reviewing and accepting awards in support of sponsored projects.
- SPA will engage other UVM offices (e.g., General Counsel, UVM Innovations, College) on topics of concern and request support in the negotiation process.

Accept Award, Release of Budget, PI Portal:

- Upon completion of a mutually acceptable agreement SPA, on behalf of UVM, accepts the award, collects needed signatures, and completes the **UVMClick Award** record.
- Budget is released into the PeopleSoft financial system where projects are established and spending on allowable costs occur.
- The **PI Portal** provides immediate access to real time web-based sponsored project expenditure reports.

Outgoing Subawards

Contact: Emily.Trantum@uvm.edu Team Lead

Contact: **SPA Staff**

This office prepares and generates all outgoing subawards.

At Time of Proposal

• The Principal Investigator selects a subrecipient that will be included in a proposal.

At Time of Award

- If a proposal is awarded and a subaward was included, SPA's outgoing Subaward Team is notified by the SPA Award Team.
- Upon approval of the UVM PI, the subaward is delivered by email to the subrecipient's SPA (or equivalent) for review and signature.

Subrecipient Monitoring

• PIs do have the primary responsibility for overseeing performance of the work being conducted by the subrecipient.

Subaward Payments

• With each invoice, SPA will provide the PI and Unit Administrator with the Subaward Invoice Payment Certification Form, which must be completed and returned.

Research Finance and Reporting

Contact: <u>Linda.Serrantonio@uvm.edu</u> Team Lead

Contact: SPA Staff

Our Financial Analyst are aligned by department and are available to assist with post award management of the awards, including preparation and submission of sponsor require fiscal reports.

- Allowable Costs & Charging Costs
- Use of Correct PeopleSoft Account Codes
- Financial Management
- Prior Approvals and Post Award Changes
- Close Out

PI Portal (Visual User Guide)

PIs and Department Research Administrators should use the **PI Portal** to review Sponsored Project Expenditure Reports on a regular basis.

Sponsored Revenue and Cash Management

Contact: Lana.Metayer@uvm.edu Team Lead

Contact: SPA Staff

This team is responsible for all billing, letter of credit drawdowns, accounts receivable, collections and accounting activities associated with sponsored projects.

• SPA collects over \$125M a year in sponsored payments.

Other Responsibilities

- Manage the federal Letter of Credit (LOC) draws
- Receive and post payments to appropriate PeopleSoft receivables
- Research and correct payment related errors
- AR collections activities
- Sponsor refunds

3. Research Protections Office (RPO)

Contact: Donna.Silver@uvm.edu Director

Contact: RPO Staff

Contact: Committee Chairs

RPO facilitates the review and approval process for research activities involving human subjects, vertebrate animals, biohazardous materials, and recombinant DNA.

RPO plays a key role in supporting UVM and UVMMC researchers in maintaining compliance with the vast and complex regulatory requirements, oversees external reviews and inspections by regulatory agencies, and investigates and manages the remediation requirements of any non-compliance.

RPO is the administrative and operational support team for the following University committees:

- IRB Committee on Human Research in the Medical Sciences
- IRB Committee on Human Research in the Behavioral and Social Sciences
- Institutional Animal Care and Use Committee
- Institutional Biosafety Committee

UVMClick

• All IRB, IACUC or Safety Protocols are created and submitted using UVMClick.

REQUIRED TRAINING THROUGH CITI

- **Humans Subject Training:** All faculty involved in the conduct of research with human subjects, regardless funding source, must complete the Human Subjects Training through CITI.
- **Animal Research:** All faculty involved in the conduct of research with vertebrate animals, regardless of funding source, must complete the following Training thru CITI.
 - IACUC Lab Animals
 - General Lab Animal Training
 - Animal-Specific Courses (e.g. mouse, rat, guinea pig, etc...)
- **Biosafety Training:** Active PIs and key personnel as listed on an IBC registration will be required to complete the CITI Program Training.
 - Depending on the level of containment, you will need to complete either the BSL-1 or BSL-2 Basic Course. The BSL-2 Basic Course meets all requirements.
 - AND other CITI course(s) if applicable:
 - OSHA Bloodborne Pathogens
 - Animal Biosafety
 - Select Agents/DURC
 - Nanotechnology

LCOM Human Subject Training Requirement

 All principal investigators or key personnel working on a clinical trial involving human subjects and all personnel affiliated with the UVM Larner College of Medicine will need to complete the Good Clinical Practice Training. Every three years, all personnel still listed on an active protocol are required to retake the training.

4. Research Compliance & Integrity (RCI)

Contact: Victoria.Jones.1@uvm.edu Research Compliance Officer

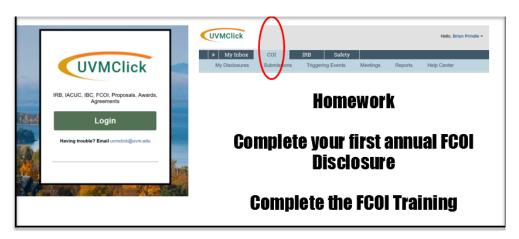
Research Compliance & Integrity provides management and training programs in support of our investigators, students and staff in the following areas:

- Financial Conflicts of Interest (FCOI) in Sponsored Projects
- Export Controls
- Responsible Conduct of Research (RCR)

RCI oversees our electronic RCR Training program, required by the National Science Foundation and by National Institute for Food and Agriculture.

In addition, RI is responsible for reviewing high-risk sponsored projects for export control concerns and where needed, generating a Technology Control Plan to ensure compliance with these complicated federal laws and regulations.

Homework: Make your first annual UVMClick - FCOI disclosure.



Research Misconduct

Matters involving allegations of research misconduct will be handled according to the UVM policies outlined in Misconduct in Research (PDF).

View, print, reproduce and post in your lab our Responsible Conduct of Research poster (PDF).

5. Electronic Research Systems (eRS)

Contact: Lynn.Tracy@uvm.edu eRS Team Lead & UVMClick Project Manager

Contact: <u>UVMClick@uvm.edu</u> Questions and Technical Support



UVMClick is where UVM researchers and administrators will manage the lifecycle of IRB Protocols, IACUC Protocols, IBC Registrations, Conflict of Interest Disclosures, Proposal Submissions, Awards and Agreements.

• User Guide and Training Sessions for all modules are available at <u>UVMClick</u>.



Instrumentation and Technical Services, a UVM Core Facility within the Office for the Vice President for Research, consists of IMF Labs and Technical Services Partnership (*TSP*).

IMF Labs has served the University community since 1969 providing research instrument design and fabrication services for campus researchers, Vermont innovators, and other universities. *IMF Labs* is a centralized resource with a comprehensive design and fabrication space, research engineers and specialized fabrication equipment available to serve the research and business community.

IMF Labs custom design and fabrication services enables world-class research, through rapid product development (RPD), or prototype parts and assemblies using innovative, rapid-manufacturing techniques. *IMF Labs* has the capability to design and produce anything from a single part to a complete working prototype or model. Through our complete on-site machine shop, we provide: CNC milling services, CNC turning center, Drilling, Grinding, Polishing, Welding, and more! *IMF Labs* work with a wide range of materials including plastics, metals, carbon, graphite and machinable ceramics. Our research engineers can also provide additional fabrication management services including heat treating, coating and others.

TSP applies biomedical engineering and technology management expertise to serve the UVM research enterprise by focusing on the preventative maintenance and repair of a wide variety of lab instrumentation. **TSP** is the on campus resource for servicing common lab equipment such as biosafety cabinets, refrigerators, centrifuges, sterilizers, pipettes and so much more. In addition, **TSP** can provide a comprehensive review of maintenance service contracts on lab instrumentation to help reduce costs.

TSP delivers world-class equipment maintenance for today's modern research facilities. With the investment made in research technology it is expected to work 100 percent of the time and to deliver accurate and timely results. TSP provides equipment safety and performance inspections, as well as preventive maintenance and repair services to keep your technology working as expected. TSP's services include: Consolidated management of all equipment assets under one cost-effective program, Extension of the useful life of all assets by ensuring equipment is properly maintained through performance inspections and preventive maintenance, Management of the maintenance of the equipment portfolio when equipment failures do occur, Reduction of staff time spent managing equipment service vendors, service contracts, and all related paperwork.

To access services:

- Call (802)656-3255 or
- Submit online:
 - o IMF Labs: https://www.uvm.edu/research/imf/forms/contact-us#request
 - o *TSP*: https://www.uvm.edu/research/*TSP*/forms/contact-us#request

Please reach out with any questions!

Our Contact Information:

Michael Lane, Director	Michael.Lane@uvm.edu	6-0070
Laurence Robert, Associate Director	Laurence.Robert@uvm.edu	6-9461
Janet Metcalf, Business Manager	Janet.Metcalf@uvm.edu	6-0072
Tim Agan, Biomedical Services Manager	Timothy.Agan@uvm.edu	6-0078

INSTRUMENTATION & MODEL FACILITY
280 East Avenue Suite 2, Burlington, VT 05401-3437
(802)656-2976 • info@its.uvm.edu • www.uvm.edu/~its

TSP
TECHNICAL SERVICES PARTNERSHIP
280 East Avenue Suite 2, Burlington, VT 05401-3437
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The Office of Engagement (OOE) is the "front door" of the university for the state of Vermont. The stated goals of OOE are to:

- Elevate and amplify our Land Grant Mission by expanding and coordinating our engagement activities throughout Vermont to support and strengthen the state's economy and the well-being of its people.
- Increase the value of UVM to all of Vermont's communities, including our business, nonprofit and public sectors.
- Align UVM's outreach and engagement-oriented programs, centers, and institutes via a
 network designed around information sharing, resource pooling, and matchmaking to
 amplify impact.
- Incubate new and deepen existing partnerships involving UVM faculty, students and staff.

Learn more at <u>uvm.edu/engagement</u> and follow us on social media.



Building Partnerships for Vermont's Future

OUR DOORS ARE OPEN. LET'S WORK TOGETHER.

Researchers, faculty, and students at the University of Vermont are working every day to provide solutions to contemporary challenges. Building upon the University's land-grant mission, UVM established the Office of Engagement to serve as the

university's "front door" for private, public and non-profit entities and communities looking to access UVM's many strengths and capabilities.

- · Find an expert
- · Find a volunteer
- · Share an engagement story



ECONOMIC DEVELOPMENT

The University of Vermont is committed to the supporting the economic success of the state of Vermont. The Office of Engagement pursues opportunities with partner organization to enhance conditions for productive economic and community development.

- Request Data
- Seek Technical Assistance
- · Access our Research Expertise



WORKFORCE DEVELOPMENT

We recognize that there is often a gap between the skills of job applicants and the positions that businesses need to fill. We can connect you with training programs that give your workers the skills they need to help you be more relevant and competitive in Vermont's iob market.

- · Request Data
- · Host an Intern
- · Access training opportunities



BUSINESS SERVICES

UVM is a local engine for ingenuity and problem-solving. We are dedicated to leveraging university resources to help Vermont businesses reach their full potential. We can assist you with:

- · Request Data
- Access our Research Expertise
- Use our core facilities
- Find an intern

Partnership Incubation –

Looking for an organization to partner with for research? Our team can link you to potential partners to amplify your research impact.

Data Services – Our team can provide economic and labor market data to inform your curricular design and student career advising.

Internships – A top priority for UVM and Vermont is increasing the number of paid internships and developing pathways for young talent to live and work in the state. Connect with us if you want to learn more about supporting internship development.

Communications – We are bringing more attention to the amazing work that is already happening between UVM and the community. Let us know if you have a story to share and we can help write it up and feature it in our newsletter.

Please reach out if you have any questions or engagement ideas to share!

Christopher Koliba, Ph.D., Director - Christopher.Koliba@uvm.edu

Kevin Chu, Managing Director - Kevin.Chu@uvm.edu