

Research and Economic Development

The Office of the Vice President for Research and Economic Development and its constituent departments provide a supportive infrastructure for scholarly and entrepreneurial pursuits, fostering innovative thinking and industry collaboration within the university and community.

Working with you to impact our world

Our teams are here to handle the heavy-lifting in the process so you can focus on the research.



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Amy M. Schmit
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Chief of Staff
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Our Teams at a Glance

Office of Research Advancement provides training in grantsmanship and helps faculty develop competitive proposals.

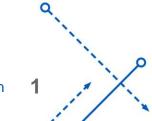
Sponsored Projects Services helps submit external proposals and manages grants and contracts.

Technology Transfer protects intellectual property, helps with commercialization and assists w/ industry-university partnerships.

Business and Entrepreneur Partnerships is the go-to team for entrepreneurs, mature companies and startups to connect and collaborate with UB. **Research Compliance** ensures all research meets compliance standards, funding guidelines and regulations.

Laboratory Animal Facilities ensures that healthy animals are available for faculty to perform approved research, testing or studies.

Research Information Systems provides integrated information services, resources and technologies to UB departments university-wide.



516 Capen Hall | Phone: 716.645.3321 | Fax: 716.645.6792 | www.buffalo.edu/research

Contacts

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Research Support

Supporting the university's scholarly and creative activities in its drive to be a Top 25 public research institution

Serving you better

External funders, especially federal agencies, seek solutions to complex problems, and increasingly look for multidisciplinary, collaborative research projects when selecting which proposals to fund. UB's Office of Research and Economic Development provides tools and programs to help faculty meet this demand, facilitating collaborative teams with expertise in multiple disciplines.

Bridge Funding and Cost-Sharing

In partnership with academic units, our Bridge Funding program supports projects that temporarily lose external funding. We also provide Cost Sharing for projects when required by sponsors. These programs fill budget gaps and ensure the continuity and quality of faculty research.

Human and Animal Research

Animal Research: If your research involves animals, our outstanding Laboratory Animal Facilities (LAF) support these activities. The university's Institutional Animal Care and Use Committee (IACUC) oversees and approves all animal-related research, so be sure to reach out as you start your research program.

Human Research: If your research involves human subjects - behavioral or biomedical – we have people to support these activities. All protocols require review by our Institutional Review Board (IRB), and investigators must complete various types of training prior to approvals, so reach out to our office to get started.

Did you know? UB's research enterprise exceeds \$474M in total R&D

exceeds \$474M in total R&D expenditures, leading in part to the university's overall direct and indirect economic impact of nearly \$3B annually.

Limited Submissions

Funding agencies sometimes restrict the number of applications that institutions can submit in response to grant opportunities. The OVPRED coordinates the nomination process to ensure UB submits only the number of allowed proposals. Limited Submission competitions are announced on our website and via the Limited Submission e-Newsletter.

Internal Funding

University internal funds are designed to increase the competitiveness of external proposals and strengthen the institutional research environment. Programs include Grant Resubmission Awards, Training Grant Support, a Matching Program for Q Equipment Purchases and a program for Equipment Maintenance.

516 Capen Hall | Phone: 716.645.3321 | Fax: 716.645.6792 | www.buffalo.edu/research

Office of Research Compliance (ORC)

Supporting the regulatory environment required for externally and internally funded research, training and other activities.

Protecting you and your research

- Institutional Review Board (IRB): 716.888.4888
- Quality Assurance: 716.829.2752; jmsmith@buffalo.edu
- Conflict of Interest: coiofficer@buffalo.edu
- Export Controls: 716.888.4881; exportcontrols@research.buffalo.edu
- Institutional Animal Care & Use Committee (IACUC): 716.888.4888; IACUC@research.buffalo.edu
- Responsible Conduct of Research: 716.829.3011; sarinad@buffalo.edu



Did you know?

UB has approximately 1500 active human subject studies. 2024 UB review times are:

• Full Committee: 49 days

Expedited: 20 days

• Exempt: 19 days

Director, Office of Research Compliance 716.888.4881

Contacts

Richard Karalus, PhD

karalus@buffalo.edu

UB is an IRB leader, using best practices by implementing the new single-review process

- Member SMART IRB reliance system
- In 2022, UB has added an additional IRB reviewer for expedited and exempt studies

Fully Accredited

UB is fully accredited for its research programs:

- The human research program is accredited by the Association of Human Research Protection Programs (AAHRPP).
- The animal research program is accredited by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC).

Serving you better

Offering guidance and regulatory oversight to faculty members and staff so they can perform high quality research.

We do this by ensuring that UB meets the highest standards for the protection of the rights and welfare of human research subjects and the humane care of laboratory animals.

Laboratory Animal Facilities (LAF)

Supporting faculty and staff performing ethical and humane animal research.

Special Services

- Necropsy
- Pharmacy
- Diagnostics: Blood Testing (CBC & blood chemistry)
- Routine technical assistance: injections; blood collection; genotyping, identification (ear tagging/ punching)
- Routine husbandry assistance: rodent breeding
- Available with advanced planning: surgical and anesthesia assistance

Species

We can house and accommodate select species, including small animals (mice, rats, rabbits, ferrets, chinchillas and hamsters), large animals (pigs, sheep and dogs) and amphibians, Xenopus, reptiles, fish and birds.

Contacts

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LAF Director/Attending Veterinarian 716.829.6821 jpeirick@buffalo.edu

Liz Ertel

LAF Facilities Manager 716.829.6826 eertel@buffalo.edu Jolie McCutcheon, DVM

LAF Clinical
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Laboratory Animal Facilities (LAF)

Continued...

Locations and Animal Facilities

North Campus:

Hochstetter Hall

Conventional rodent housing

Park Hall

Conventional rodent housing

South Campus:

Biomedical Education Building (BEB) Biomedical Research Building (BRB)

- High Level Barrier Suite & Barrier Rooms (rodents)
- Animal Biosafety Level 2 Suite (rodents)
- Conventional rodent housing
- Large animal housing/surgery suite
- Rodent microPET
- Optical imaging/irradiation available in BRB

Pharmacy Building

- Conventional rodent housing
- Barrier Rooms



Downtown Campus:

Clinical and Translational Research Center

- High Level Barrier Suite & Barrier Rooms (rodents)
- Conventional rodent housing
- Large animal housing/surgery suite
- 3T MRI, PET/CT for large animals
- 9T MRI for rodents

Jacobs School of Medicine and Biomedical Sciences

- High Level Barrier Suite & Barrier Rooms (rodents)
- Animal Biosafety Level 2 & 3 Suites (rodents)
- Pig and rabbit housing
- Aquatic housing

Clinical Research Institute on Addictions

Conventional rodent housing



Office of Research Advancement (ORA)

Helping researchers develop and submit competitive grant proposals

Proposal Management

- Proposal organization: checklists, templates, sample plans
- Proposal coordination across internal units and external partners
- Assist with supplemental documents: draft standard university text, format proposal documents
- Ensure proposal compliance with solicitation

Proposal Quality Improvement

- Edit proposals and provide technical reviews
- Improve overall proposal presentation
- Ensure conformity with solicitation requirements

Contacts

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Proposal Development

- Develop non-technical components of the proposal
- Create graphics to illustrate project details
- Draft project management plans, work plans
- Assist with project evaluation, risk management
- Plans to ensure safe and inclusive environments for project implementation

What faculty say about ORA:

- "Excellent, responsive, knowledgeable and a pleasure to work with..."
- "Exceptional job in putting together a most professional package"
- "The help I received was invaluable..."



Other Services

- Find funding opportunities (SPIN database)
- Programs and workshops to improve grant writing skills, learn about funding agencies, and meet/ interact with agency program managers
- Help multi-investigator and multiinstitution team building

Serving you better

ORA supports the university's research and scholarly community in the pursuit of external research funding. ORA works closely with new investigators to help secure initial research funding, and with established investigators to pursue large, multi-disciplinary research grants.

UB Commons | 520 Lee Entrance, Suite 114 | 716.645.1758 | ubgrants@buffalo.edu

Sponsored Projects Services (SPS)

Facilitates research, providing guidance to faculty and staff in securing and administering sponsored funding/awards

Internal Funding

SPS guides and assists university faculty and research staff in their efforts to secure sponsored funding/awards through proposal development and the submission process.



Contacts

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Joe Bach

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Paulette Ziff

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Managing Awards

SPS provides guidance to faculty and research staff to administer and manage sponsored funding/awards prudently, ensuring research meets sponsor commitments, compliance requirements and university expectations.

Serving you better

SPS works in teams to support the research community. To contact the team that supports your unit, please visit the SPS website. Scroll to the bottom of the page, and under Staff Directory, select Find Your SPS Representative.

Sponsored Awards

SPS serves the UB research community with professional staff who specialize in facilitating and administering the life cycle of sponsored funding/awards.

SPS staff members help develop budgets, submit proposals, negotiate agreements, and accept awards. SPS provides stewardship and acts as a liaison for department and sponsor, establishes accounts, ensures compliance for expenditures, submits invoices to sponsors and assists with closing awards.



520 Lee Entrance, Suite 211 | UB Commons | http://www.buffalo.edu/research/about-us/units/sps.html

Center For Computational Research (CCR)

Offering access to high-performance computing resources and expertise in scientific computing, simulation, data analytics and visualization

Capabilities and Services

- Supercomputing clusters and cloud infrastructure with more than 30,000 CPU cores, high-end GPUs, large memory support, high-performance networks and 4.5 PB high-performance file systems for more than 3 PFlop/s of peak performance compute capacity.
- Support staff with expertise in scientific computing, computational science, parallel processing, data analytics, modeling and simulation, scientific visualization and software development.
- Dedicated cluster for industry sponsored research and economic development.

Training and Accounts

- CCR offers courses, training and workshops in high performance computing as well as how to access and run on CCR resources.
- Primary group accounts reside with faculty members.
- Faculty-based clusters supported.

Serving you better

CCR, a leading academic supercomputing facility, offers assistance in advanced computing, scientific and medical visualization, software engineering, parallel computing and data analytics. There are no direct charges for computer time, however, queue priority is based on direct funds budgeted to CCR from faculty grants.

Faculty should:

- Include direct funds in grant proposals for projects requiring significant time and expertise
- Include a percent recognition credit to CCR on the Sponsored Services approval form
- Acknowledge CCR support in publications

Contacts

Matthew Jones, PhD

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Support ccr-help@buffalo.edu



Did you know?

CCR operates 24/7



- Faculty users run over 8.7 million jobs annually (more than 20,000 jobs / day)
- CCR delivers more than 5 million CPU days of computing



Business & Entrepreneur Partnerships (BEP)

Turn your innovations into impacts. Business and Entrepreneur Partnerships (BEP) can help you fund translational research, protect your intellectual property, make industry connections, and bring your breakthroughs to the world.

There are two paths you can take to move your discoveries and research forward.

We'll help you identify which is right for you.

1. Work with Industry

We'll help you engage with companies to collaborate on R&D and/or license your technology.

- Learn how to engage with companies and best practices for industry-sponsored research
- Get contract support for industry collaboration
- Access research funding
 - Matching grants
 - Proof-of-concept grants
 - Funded student internships
- Explore licensing options



Ram Samudrala, PhD

Professor & Chief Division of Bioinformatics Jacobs School of Medicine & Biomedical Sciences

Company Partner: Meditati Inc. (Buffalo, NY) **Project:** Designing non-addictive pain relievers using artificial intelligence to combat the opioid crisis

Did you know?

The BEP team has supported over 1400* partnerships with industry partners and can introduce you to key business contacts.

*FY 2022-2024

Researchers engaging with industry on cutting-edge R&D



John E. Tomaszewski, MD

SUNY Distinguished Professor & Peter A. Nickerson, PhD, Chair, Department of Pathology and Anatomical Sciences Department of Urology Jacobs School of Medicine & Biomedical Sciences

Company Partner: Formapath (Ithaca, NY) **Project:** Lymph node database to advance computational pathology

Business & Entrepreneur Partnerships (BEP)

Continued...

2. Launch a business

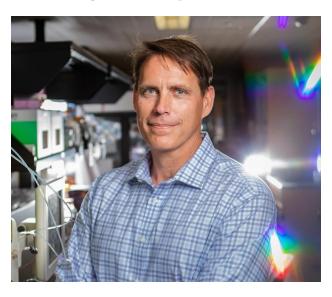
We'll explore if a startup is right for you and help you get it off the ground.

- Access funding and programs to de-risk and commercialize innovations
- Consult with experienced, successful entrepreneurs on startup exploration
- Tap into business formation services

Did you know?

BEP supported more than 60 faculty-led teams and companies in FYs 2022-2024.

Faculty entrepreneur success story



Joseph Balthasar, PhD

David and Jane Chu Endowed Chair in Drug Discovery and Development, Professor of Pharmaceutical Sciences. Director of the Center for Protein Therapeutics. Executive Director of University Research Initiatives Department of Pharmaceutical Sciences School of Pharmacy

Did you know?

*FY 2022-2024

BEP supported over 60*

faculty-led teams and companies

Innovation: Novel drug class aimed at preventing the delivery of anticancer toxins to healthy cells, potentially improving survival rates for cancer patients

Company: Abceutics

Result: Acquired by Merck in 2024 for a

potential \$208M

Read full case study at:

https://www.buffalo.edu/partnerships/collabor ate/case-studies/abceutics.html

2. Launch a business continued...

We know building a startup business is hard and takes a great team. You bring the technical expertise. The Business & Entrepreneur Partnerships (BEP) team will help you with the rest.



Center of Excellence in Bioinformatics & Life Sciences (CBLS)

Accelerate Life Sciences Discoveries

Working with businesses, accelerating research

We connect researchers to industry to help drive scientific discovery in life sciences. Through the Center of Excellence in Bioinformatics and Life Sciences (CBLS) and life sciences programs, we provide funding, wet labs, office space, shared equipment and connections—all to facilitate collaboration among academia, industry and the public sector to directly impact our regional businesses, state economy and the communities we call home.

High-Tech Facilities

The CBLS, located downtown on the Buffalo Niagara Medical Campus, is home to one of UB's incubators — a collaborative office space for startups and small businesses — as well as state-of-the-art facilities to support scientific research:

- Genomics & Bioinformatics Core
- Proteomics & Bioanalysis Core
- Wet labs
- Leading supercomputing facility at the Center for Computational Research (CCR)

Access Funding

Life sciences research can benefit from outside capital to bring life-changing ideas to the next level. We provide several joint R&D co-funding programs that link academic research with companies who have an interest in cost-sharing projects to fuel R&D, including:

- Center for Advanced Technology in Big Data and Health Sciences (UB CAT) is a project cost-sharing grant program that necessitates faculty to partner with NYS companies and provides a generous subsidy for co-sponsored preclinical research.
- Empire Discovery Institute (EDI) is a nonprofit drug discovery and development accelerator that provides funding, expertise, business development support and more for selected pharmaceutical technologies.

Contacts

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Amy Jacobs, PhD Research Associate Professor Department of Microbiology and Immunology Jacobs School of Medicine and Biomedical Sciences

Company Partner: KSL Diagnostics (Buffalo, NY) Project: Risk Stratification of COVID-19 Vaccinated Individuals based on Antibody Levels Result: KSL launches first-of-its-kind antibody test that measures degree of immunity from COVID-19. **Read Full Story**



Center of Excellence in Materials Informatics (CMI)

Accelerate Advanced Materials Innovation

Collaborating with industry, driving R&D. Through the Center of Excellence in Materials Informatics (CMI), we connect researchers to manufacturing companies to accelerate R&D, invent new materials and develop innovative new products. We provide access to advanced scientific and engineering equipment - including precision laboratories, tools and equipment - as well as joint funding and grants to support your R&D.



Access Funding

The CMI annually supports Faculty-Industry Applied Research (FIAR) opportunities. The FIAR Program focuses on opportunities to foster applied research efforts that drive economic growth and impact with commercial value to manufacturing businesses in New York State.

Focused Growth Areas

Partner with of over 60 UB materials scientist and advanced manufacturing experts

- Biological & Biomedical Materials & Devices
- Continuum & Multiscale Modeling
- Data Analytics & Machine Learning
- Design, Digital & Additive Manufacturing
- Inorganic Materials Synthesis & Processing
- Materials Characterization & Spectroscopy
- Photonic & Electronic Devices
- Polymeric & Macromolecular Materials Synthesis & Processing
- Quantum, Atomistic & Molecular Modeling

Contact

Adrian Levesque
Interim Director,

NYS Center of Excellence in
Materials Informatics
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Gang Wu, PhD

Professor, Department of Chemical and Biological Engineering School of Engineering and Applied Sciences

Company Partner: Bettergy Corporation (Peekskill, NY)
Project: Low-Cost Hydrogen Production through
Economically Feasible Ammonia Cracking Technologies
Result: Groundbreaking ammonia cracking catalyst
developed that's used to produce hydrogen on demand
and at low cost without carbon emissions.

Read Full Story

Research Information Systems (RIS)

We build relationships with university faculty, departments and schools at all levels to create, enhance and maintain a rich research IT infrastructure. We provide services of the highest quality with a customer service focus.

Services

- Research Administration Analysis
- Application Development
- Application Support
- Training and Development



Click portal support

Click automates the submission, review and approval processes while managing all major administrative aspects of the research and compliance lifecycle – from proposal development and submission through compliance checks, negotiations, award setup and award management to eventual project closeout.

Serving you better

We are dedicated to supporting UB's research efforts, both on the administrative and project side, providing integrated information services, resources and technologies to the UB community.

RIS has two branches of service: Electronic Research Administration (ERA) and Project Support. ERA develops and maintains administrative systems such as Click, OnCore and Central Study Registration. Project Support develops systems for investigator research projects at a reasonable rate.

Contacts

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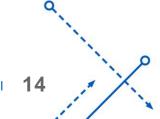
grogan@buffalo.edu

Paul Reinhardt

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Did you know?

RIS has introduced Project Support, an initiative aimed at giving investigators quality systems development at reasonable rates. RIS supports a variety of administrative and research systems.



















Contacts

Tech Transfer Office 716.645.5500 techtransfer@buffalo.edu dunbari@buffalo.edu

Timothy Dee Associate Director 716.645.8139 tpdee@buffalo.edu

Technology Transfer (TT)

Developing innovative technologies through the creative pursuits of our faculty and targeted research with industry partners. TT facilitates new technology commercialization and industry sponsored research projects that help companies build and problem solve.

Technology Transfer

Transferring faculty innovations into commercial opportunities is how UB benefits the public good. Contact the Technology Transfer office to begin the process with a New Technology Disclosure (NTD). TT will work with you to protect intellectual property and develop a commercialization plan that best fits your innovation.



Industry Sponsored Research

UB research expertise helps companies solve problems and grow. Faculty work with companies to develop a scope-of-work and with Sponsored Project Services on the budget. TT negotiates the contract and when appropriate and approved by the PI, may offer UB SWIFT.

UB SWIFT reduces transaction time with preferred exclusive license terms in a ready-to-sign industry sponsored research agreement.

Other Services

- Confidential Disclosure Agreements (CDA) preserve intellectual property protection allowing the exchange of proprietary information in negotiating agreements and collaborations.
- Material Transfer Agreements (MTA) facilitate the transfer of materials into or out of your research lab.

Did you know?

You can jeopardize your patent rights if you make a public disclosure prior to filing a patent application. Please contact TT before you publish or present.

Jeff Dunbar

Director

716.645.8134

Serving you better

- Protecting intellectual property and licensing UB discoveries
- Facilitating faculty contract requests online through Click
- Streamlining industry / university contracting
- Generating revenues to recruit, retain, reward and re-invest
- Positioning university research for regional economic growth

Tech Transfer (FY 2014-2023):

- 724 New technology disclosures
- 105 US issued patents
- 162 Licenses and licensing options
- 63 Proof-of-concept awards
- Two 43North winners
- Three Equity exits

