

Emily Biggane, PhD



EXECUTIVE SUMMARY

Driven by a commitment to expanding education and research opportunities for North Dakota's tribal college and primarily undergraduate institution students, I am a Biomedical Scientist and Assistant Director with over 6 years of experience bridging academic research, federal grant administration, and community sustainability. My work centers on advancing science accessibility, delivering real-world solutions through cross-disciplinary teams, training the next generation of scientists and leaders, and building sustainable and equitable partnerships across the state and nation. I thrive in collaborative environments where strategic vision, empathy, and operational rigor come together to promote STEM for everyone.

CORE COMPETENCIES

- **Program & Grant Administration:** Federal Award Management, Budgeting, Resource Allocation, Fiscal Oversight
- **Transformational Leadership:** Strategic Planning, Operations Optimization, Change Management, Team Building
- **Stakeholder & Community Engagement:** Rural & Tribal Partnerships, Inter-agency Alignment, Advisory Governance, Community-Engaged Research
- **Research & Policy Governance:** Data Governance, IRB Compliance, Evidence-Based Policy, Program Evaluation

PROFESSIONAL EXPERIENCE

UNITED TRIBES TECHNICAL COLLEGE | Bismarck, ND

Research Faculty/Assistant Director – Intertribal Research & Resource Center | 2019 – Present

Direct administrative, fiscal, and operational leadership for institutional research infrastructure, high-value federal grants, and community-engaged sustainability programs.

- **Program Leadership & Transformation:** Spearhead multi-departmental strategic initiatives to modernize laboratory infrastructure, streamline compliance workflows, and scale research capacity serving rural and tribal North Dakotans.
- **Federal Grant Oversight:** Manage complex federal and state grant awards (e.g. NIH, NSF, USDA, ND EPSCoR), maintaining responsibility for budget execution, regulatory reporting, multi-year strategic milestones, and audit compliance.

- **Team & Operations Management:** Directly supervise cross-functional teams of research staff, personnel, and student researchers; lead student professional development, performance management, and operational execution.
- **Data & Institutional Governance:** Serve as **Vice Chair of the Data Governance Committee** and active member of the **Institutional Review Board (IRB)**, establishing data stewardship policies, ethical oversight frameworks, and institutional standards.
- **Community & Rural Outreach:** Cultivate strategic partnerships with regional partners, tribal leaders, and state stakeholders to address environmental health, health disparities, and workforce development in underserved communities.

UNIVERSITY OF NORTH DAKOTA | Grand Forks, ND

Graduate Biomedical Research Fellow | 2014 – 2019

Executed advanced biomedical research projects, mentored junior researchers, and managed technical laboratory operations.

- Executed complex scientific studies in molecular biology and human health, translating findings into actionable publications and presentations.
- Managed cross-functional project workflows and coordinated operational logistics for relocating lab facilities to a new building, ensuring equipment safety and minimal project disruption.
- Trained and mentored undergraduate/graduate students in research methodologies, analytical precision, and regulatory compliance.

*** Selected publications, presentations, and comprehensive CV available upon request***

EDUCATION

- **Doctor of Philosophy (PhD) in Biomedical Sciences**
 - University of North Dakota | Grand Forks, ND
- **Bachelor of Arts (BA) in Biology**
 - Minot State University | Minot, ND

LEADERSHIP & AFFILIATIONS

- **Vice Chair**, Data Governance Committee – United Tribes Technical College
- **Member**, Institutional Review Board (IRB) – United Tribes Technical College
- **Member**, Visiting Scientist Series Committee – Bismarck, ND [2019 – 2026]
- **Member**, American Society for Cell Biology [2022-2024]