

## Wyoming INBRE-5 Plan for Enhancing Diverse Perspectives (PEDP)

Wyoming (WY) INBRE recognizes the benefits of diverse perspectives in enhancing excellence and innovation in STEM education and biomedical research. By promoting diversity, equity, and inclusion, we will **support** environments in which the experiences, talents, and histories of all participants in the INBRE Network are recognized and respected. WY's minorities and underserved populations include many first-generation college students (~36% at the University and community colleges), the rural disadvantaged, those with an annual income below the poverty line (~12% in the general population), a small number of Native Americans (~3%), and a small but growing Hispanic/Latino population (~11%). From 2020 to 2030, WY is projected to have 15% and 18% increases in the number of job positions that require a college degree in biomedical/allied health and data/computer science, respectively. WY needs an educated, diverse populace to support the development of and provide staff for vibrant and creative academic, private, and government-funded biomedical research. INBRE-5 will enhance representation of these diverse perspectives by (i) increasing the number of WY's underrepresented individuals among those who do biomedical research and those who enroll in study populations, and (ii) expanding support for biomedical education and research across the Network.

WY students and faculty from underrepresented groups experience barriers to participation in biomedical research that include (i) lower levels of confidence and negative perceptions of STEM competence; (ii) lack of mentoring; (iii) limited math/science skills; (iv) socioeconomic disparity; (v) cultural bias and assimilation pressure; (vi) misperceptions that devalue higher education, beliefs associated with gender/racial stereotypes, and no/limited knowledge for navigating academia among parent or community members. INBRE will work with will Network partners—the University of WY (UW) and WY Community Colleges (CCs)—to reduce. Our goal is to ensure equitable opportunities for participation and advancement in biomedical research. By enhancing participation of underrepresented students and faculty we will enhance creativity, quality, and problem-solving capabilities and broaden the impact of our efforts. Below we outline the strategies and approaches WY INBRE has pursued and will continue to pursue.

**1. Increase participation of individuals from diverse backgrounds** by fostering a welcoming and inclusive environment and promoting cultural competence, respect, and equal opportunities for all program participants. Mentoring will connect individuals from underrepresented backgrounds with experienced researchers who can provide guidance, support, and career advice. We will advertise all INBRE opportunities for students and faculty broadly and specifically to encourage (i) women, (ii) those historically underrepresented in biomedical research, and (iii) those from disadvantaged backgrounds to participate. All INBRE positions, applications, selection processes, and funding allocations are adjusted to minimize traditional barriers to underrepresented applicants. INBRE will offer workshops/seminars on grant writing, scientific communication, and career development specifically tailored to the needs of underrepresented groups.

**2. Engage all eligible institutions** by including UW and every WY CC in the INBRE Network. This will maximize inclusivity; no matter where students and faculty are, they are included and have opportunities to participate. The INBRE Steering and Executive Committees will promote inter-campus cooperation because they are composed of upper administrators and faculty from every institution. The Student Research Program will include research internships on every campus, experiential learning in STEM courses, and—when and where possible—industry and government internships to promote community interactions.

**3. Foster transdisciplinary research projects and collaborations** among Network institutions in WY and regionally by funding collaborative team science within and across institutions. Also, WY INBRE will participate in the seven-state Regional Alliance of INBRE Networks (RAIN). Together, we will host innovative annual faculty Collaboration Studios to enhance regional interdisciplinary partnerships and fund the meritorious interstate transdisciplinary projects. Awardees will have productivity expectations including having students in their laboratories, co-authoring scientific publications, and submitting NIH grant application(s).

**4. Encourage team science and mentoring across career stages** by fostering collaborations between seasoned faculty and early-stage investigators. INBRE-funded Project Leaders will be required to have a senior Scientific Mentor, an interaction that often develops into team science. CC faculty will collaborate with UW faculty of all ranks.

The PEDP **timeline** is continuous and adaptive. **Milestones** are the number of underrepresented participants and their successful degree completion, advancement to graduate/professional programs, workforce placement, professional advancement, publications/presentations, and research grants. **Assessment** is regular evaluation of effectiveness of the diversity initiatives, training programs, and policies as part of the INBRE-5 program evaluation. Adjustments will be made based on progress, participant feedback, and achievement of milestones and in consultation with the three INBRE governance committees.