



New Mexico

INBRE

IDEA Networks of Biomedical Research Excellence

NM-INBRE informational session for NMT faculty

March 31, 2021

Shelley L. Lusetti, PI/PD



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Outline for today

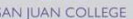
- What is INBRE?
 - Program mission and goals
 - Description of the Network
- INBRE funding opportunities
 - Research project grants (DRPP) and administrative supplements
 - Technology access grants
 - Mini-Sabbaticals and release time
 - Conference Presentation support
 - Grant pre-review
 - Equipment & Instrumentation
- Student support opportunities





New Mexico IDeA Network of Biomedical Research Excellence (NM-INBRE): The NM INBRE is funded by the National Institute of General Medical Sciences (NIGMS) of the National Institutes of Health (NIH), ([PAR-18-262](#)) NIH Grant Number P20GM103451. NM-INBRE is a statewide network that supports faculty and student research experiences. The NM-INBRE promotes biomedical and community-based research in the state of New Mexico through the development of innovative, supportive, and sustainable research environments for faculty and students, community engaging health initiatives, while building a network of lead scientists and educators at the state, regional, and national level.

For more information on the NM-INBRE visit: www.nminbre.org



21st YEAR OF NM-INBRE PROGRAM

Funding Cycle 4=
INBRE 4



National Institutes
of Health



NIGMS:
Center for
Research Capacity
Building



IdeA Networks of Biomedical Research Excellence

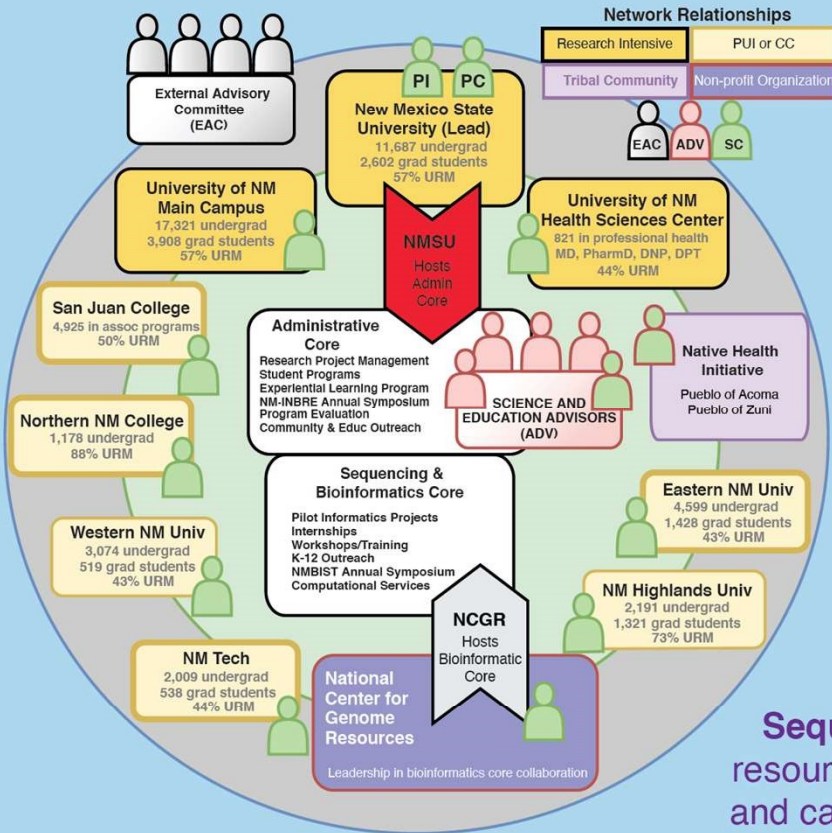


Key Requirements of an INBRE program

- Reside in an IDeA state
 - ▷ Historically low NIH funding
- A **network** of 1-2 Research Intensive (RI) + Partner Institutions (mainly primarily undergraduate institutions, PUI)
 - ▷ Developmental Research Project Program (DRPP)
- Bioinformatics Core (National Center for Genome Resources, NCGR)
- Build research infrastructure in a thematic area:
 - ▷ Structure and Function of Biomolecules
 - ▷ Pathogens
 - ▷ Cell and Organism
 - ▷ Population and Community Health



New Mexico INBRE Network Components

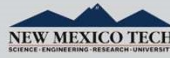


A cross-network partnership of
 3 research university campuses
 6 primarily undergrad institutions
 1 non-profit institute
 2 tribal communities

Admin Core provides leadership, management, coordination, and oversight for the scientific and programmatic development and operation of the network

External advisory and Steering Committee (SC) members, and expert Science & Educational Advisors form a system of enhanced oversight to all programmatic and research activities

Sequencing & Bioinformatics Core provides resources, tools, and training to enhance research and career development of all network participants



Expectations of Institutional Liaisons

- Responsible for coordinating NM-INBRE activities
 - ▷ NISE student recruitment and hiring
 - ▷ Manage flow of information – Communicate!!
 - ▷ Ensure compliance by both institution and investigators
 - ▷ Manage Experiential Learning Development Program (ELDP)
- ID needs and priorities
 - ▷ Faculty participation
 - ▷ Promote effective use of institutional resources
 - ▷ Work to increase research infrastructure

NMT's liaison:
Dr. Snezna Rogelj

Expectations of Institutional Liaisons

- Manage budgets (spend \$\$ each year), disseminate funds for everything except DRPP
 - ▷ Examples: travel, tech access, speakers, all ELDP funds
- Annual reporting of institutional data and impacts
 - ▷ Assessment and reporting for any Tech Access or ELDP awards.
- Support faculty development
 - ▷ Promotion guidance, time management, etc.
 - ▷ Provide a buffer with supervisors

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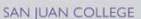
NM-INBRE funding opportunities for NMT faculty

1. Developmental Research Project program (DRPP)

Periodic Calls for applications

NM-INBRE Research Goals

NM-INBRE is a faculty and student-development program that emphasizes the maturation of research projects into comprehensive research programs providing opportunities for scientific advancement, professional growth, student development, and collaboration across network institutions and beyond. NM-INBRE stresses progress toward establishing independent research programs in order to sustain research activities beyond the NM-INBRE award. The NM-INBRE therefore expects faculty investigators to take active steps toward securing external funding and encourages investigators to submit proposals to the NIH and other federal agencies.





DRPP thematic focus areas

The NM-INBRE invites basic, clinical, translational, and/or community-based participatory research projects that address important biomedical problems, health disparities, and fit within one or more of the following NM-INBRE research thematic focus areas:

1. Structure and Function of Biomolecules

Aims to understand the molecular and structural mechanisms underlying the functions of proteins that mediate critical cellular processes

2. Pathogens

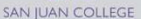
Builds on existing knowledge in infectious disease, immunology, and inflammation, strengthening a developing biodefense community

3. Cell and Organism

Examines complex physiological processes, such as hypertension, memory, cell division and oogenesis

4. Population-level and Community health research

Research involving population-level studies. Especially, includes projects that aim to eliminate health disparities affecting underserved populations, particularly in native communities in New Mexico. Includes research involving investigators and community members using true community-based participatory research methods. Also includes community health education.





DRPP: Full Research Projects

Goal: Faculty development to independent investigator

Funding level: \$50,000 - \$75,000 annual direct costs

Funding duration depends on application type and justification for multiple-year project, typically 3-5 years

Characteristics of Full DRPP Projects:

- Full-term study that fits within NM-INBRE thematic research areas
- Can be independent or *collaborative*
- Aims to develop results for publication and NIH R-type grant proposal
- Annual renewal of funds dependent on progress toward publications and grants
- Priority will be given to projects that include bioinformatics tools
- Must select a mentor with a track record of independent research funding
- Research Enhancement Plan must address plans for faculty career development and how the investigator will work with chosen mentor
- Must address plans for student involvement, development, and training



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DRPP: Full Research Projects

Funding level: \$50,000 - \$75,000 annual direct costs

Funding duration depends on application type and justification for multiple-year project, typically 3-5 years

Eligibility for Full DRPP Projects:

- Any individual or collaborative team with the skills, knowledge, and resources necessary to carry out the proposed research is invited to work with his/her organization to develop an application for support.
- Individuals from underrepresented racial and ethnic groups, as well as individuals with disabilities, are always encouraged to apply for NM-INBRE support. Typically, the PI of a NM-INBRE application possesses a Ph.D. or M.D./Ph.D. degree. S/he must also have a full-time faculty appointment at the applicant institution and for those applying for Full projects, eligibility to apply for a NIH R-type grants (R01, R03, R15, R21, etc.) is required. Faculty appointments may include tenure, clinical, and research-track positions. Preference for Full or Focus projects will be given to new investigators who have not yet competed successfully for an NIH research grant
- Full research project investigators will be expected to **devote at least 50 percent of their professional effort** (equivalent to 6.0 person months) to research and career development activities. Institutions must provide release time for project investigators, thus permitting a significant time commitment to the research enterprise. To allow flexibility to investigators who cannot devote 6.0 consecutive months throughout the year, the effort can be distributed over the year to achieve a total of 6 person months (for example, 3.0 person months during academic year and 3.0 person months in summer (up to three months) to account for a yearly 6.0 person months' effort).
- Individuals who have completed an NM-INBRE-funded FULL research project or who have achieved independent investigator status are not eligible.





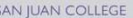
DRPP: Full Research Projects

Funding level: \$50,000 - \$75,000 annual direct costs

Funding duration depends on application type and justification for multiple-year project, typically 3-5 years

Expectations for Full DRPP Project Investigators:

- Respond to NM-INBRE proposal review critiques
- Spend 50% of full-time effort on research and professional development
- Develop and enable a plan to be mentored (formal mentor is required but not monitored)
- Give at least one research presentation at a network institution per year
- Submit at least one external grant application per year in years 3-5
- Publish, publish, publish!





DRPP: Focus Research Projects

Goal: Faculty development to independent investigator and/or development of research experiences for students

Funding level: \$5,000 - \$25,000 annual direct costs

Funding duration: may request multiple years, depending on application type and justification for multiple-year project.

Characteristics of Focus DRPP Projects:

- Focused study that fits within one or more NM-INBRE thematic research areas
- Can be independent or *collaborative*
- Aims to develop results for publication and NIH R-type grant proposal
- Can be used to transition to a Full NM-INBRE-funded Research Project
- Priority will be given to projects that include bioinformatics tools
- Must select a mentor with a track record of independent research funding
- Research Enhancement Plan must address plans for faculty career development and how the investigator will work with chosen mentor
- Must address plans for student involvement, development, and training, as appropriate to aims



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DRPP: Focus Research Projects

Funding level: \$5,000 - \$25,000 annual direct costs

Funding duration: may request multiple years, depending on application type and justification for multiple-year project

Expectations for Focus DRPP Project Investigators:

- Respond to NM-INBRE proposal review critiques
- Ensure commitment for adequate effort to complete the proposed research
- Develop and enable a plan to be mentored (formal mentor is required but not monitored)
- Submit at least one external grant application per cycle
- Publish, publish, publish!



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A note about collaborative proposals

NM-INBRE seeks to foster collaborations that develop cross-institutional research relationships within the Network. Proposals that link formally to another proposal or existing project within the NM-INBRE network are especially encouraged. Proposals from research-intensive institutions involving formal collaboration with proposals from an NM-INBRE PUI will be prioritized.

Collaborative research must have one investigator from an NM-INBRE Institution and can include collaborating investigators from the following:

- NM-INBRE network PUI institutions
- NM-INBRE network RI institutions
- The National Center for Genome Resources (NCGR)
- Institutions of the Regional Alliance of INBRE Networks ([RAIN](https://rainresearch.org)): ID, MT, NV, and WY
- Mountain West Research Consortium (MWRC): AK, HI, ID, MT, NV, NM, WY

For description of RAIN see <https://rainresearch.org>



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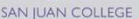
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Other DRPP expectations

- Foster student participation and employ good mentorship and training practices
- Contribute to NM-INBRE network activities
- Publish in peer-reviewed journals and acknowledge INBRE funding and resources
- Present at scientific meetings
- Seek and utilize shared core facilities and resources
- Manage budgets (spend \$\$ each year)
- Comply with policies: federal, agency, institutional
- Make and meet professional development goals

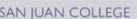
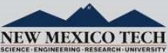




Look for calls for supplements

Administrative Supplements

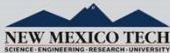
Periodic calls for projects that address an area of specific and urgent interest to the National Institutes of Health may be available. These awards are provided for very short-term project periods of 8 months to a year and require very quick application and proposal through the NM-INBRE Administrative Core to NIH. Opportunities to apply will be posted to nminbre.org as NIH makes them available.





DRPP at NMT summary

- NMT faculty are eligible for Full and Focus projects
- Applications are accepted in response to specific calls by NM-INBRE
- Application information can be found at nminbre.org
 - Proposals are reviewed through an external review process, an administrative review, and require both EAC and NIH program approvals



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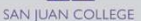


2. Other non-DRPP funding that can be requested at any time

Technology Access grants (apply directly at nminbre.org)

- To support high-quality research and training that depends on costly technologies, core facilities, services and/or expertise, NM-INBRE offers support for faculty and students at its member institutions to access relevant research tools. Requests may include
- Facility access and/or training costs
- Costs to obtain archived or gathered data sets, sample processing, or analytical services (such as DNA/RNA sequencing, -omics, etc.)
- Training costs required to use instrumentation at technical or core facilities
- Expert consultants such as those in biostatistics, bioinformatics, or other disciplines peripheral but necessary for sound experimental design or implementation

<https://nminbre.org/faculty-funding-opportunities/>





2. Other non-DRPP funding that can be requested at any time

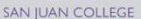
Faculty Release Time (apply directly at nminbre.org)

Funds may be available periodically to cover faculty release time for the purpose of research-related activity that is not direct project support. Examples of appropriate release-time requests include developing a research project proposal or research manuscript. Release time must be approved by the applicant's institutional supervisor and administrative official.

Mini-sabbatical (apply directly at nminbre.org)

Funds may be requested to cover costs related to time needed at another institution or facility to receive training in research methods, data collection or analysis, or instrumentation use that will expand research capabilities of researchers at member institutions.

<https://nminbre.org/faculty-funding-opportunities/>





2. Other non-DRPP funding that can be requested at any time

Conference Presentation Support (apply directly at nminbre.org)

Conference support may be provided to cover the cost of registration and/or travel to professional meetings or conferences for researchers who will be presenting their research and may be students or faculty (while funds are available).

Sequencing & Bioinformatics Projects with Nation Center for Genome Resources (<https://nminbre.org/sbc-pilot-award-rfp/>)

- NM-INBRE Sequencing design and Bioinformatics Core (SBC) pilot project award is valued at approximately \$5k – \$10k and is to help you with your sequencing experimental design, suggest sequencing outsource options and to provide bioinformatics to drive your research, publications and grants!
- DEADLINE: Every 2nd Sunday of the month by 11:59pm.



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3. Other non-DRPP support that can be requested *through your liaison*

Grant pre-review services

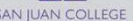
NM-INBRE will arrange for expert peer review for your NIH grant application at no charge. We also can provide administrative review.

Equipment & Infrastructure investments

Keep your liaison updated on current and future infrastructural needs. Funds become available periodically.

Professional Development Workshops

As requested, NM-INBRE can organize workshops on the NMT campus





NM-INBRE Summer Experience (NISE) Student Opportunities

Applications due in Feb., see nminbre.org

NISE PREP – UG students without laboratory experience work in a research laboratory for the summer at the students' home institution. The ideal participating student is entering their sophomore or junior year, interested in learning more about careers in biomedical research, and has not previously worked in a research lab. Students that have **NOT** engaged in any research experience will be **PAID** to conduct independent biomedical research projects at their home institution. Faculty mentors will provide research-related guidance to their student mentees. Students will develop skills to move into a biomedical research career. For application, please contact your liaison.



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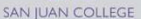




NM-INBRE Summer Experience (NISE) Student Opportunities

Applications due in Feb., see nminbre.org

NISE Bootcamp – The goal is to increase student understanding of biomedical research and enhance their career development through a mixture of laboratory experiences and lecture-based activities on the New Mexico State University (NMSU) campus. Students between Sophomore and Junior Year (or those expecting to be 2 academic years away from a BS/BA degree) with little to no research experience will work with researchers at NMSU, including workshops to develop bench and college-success skills. NISE-Bootcamp will provide students with an authentic research experience to prepare them to pursue a career in science. NISE bootcamp will help students move from an academic understanding of science to hands-on experience with research techniques and concepts. Students with no research experience will be **PAID** to conduct Microbiology research at NMSU. ***Housing on NMSU campus will be included.*** An important expected outcome of this program is having students apply for and conduct mentored research internships the summer after they participate in Bootcamp.

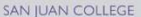




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NM-INBRE Summer Experience (NISE) Student Opportunities

Applications due in Feb., see nminbre.org

NISE Internship – The goal is to enhance student research skills and prepare participants for graduate education in biomedical research and/or health research careers. Students, ideally between their Junior and Senior Year (or those entering their final/senior year as an undergraduate), planning to apply to graduate school in biomedical/behavioral sciences in the next year with research experience will be **PAID** and matched with NMSU or University of New Mexico (UNM) faculty to conduct independent biomedical research projects at NMSU or UNM. ***Housing on NMSU or UNM campus will be included.*** NISE-internship will help students identify appropriate graduate programs, and gain the application skills to make them competitive for entry into advanced degrees. An important and expected outcome is for students to apply to biomedical or behavioral graduate programs during the academic year following their NISE Internship.



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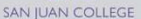


NM-INBRE Summer Experience (NISE) Student Opportunities

Applications due in Feb., see nminbre.org

- **NISE Bioinformatics** – Students interested in researching the coronavirus disease (COVID-19) and other pandemics will be paid to engage virtually with scientists and bioinformaticians at the National Center for Genome Resources to develop critical-thinking, research and basic bioinformatics skills.

For students interested in bioinformatics, **additional** student training opportunities are available through NCGR. (see <https://nminbre.org/training/>)





Contacts

- The first place to start with questions is your institutional liaison:

Dr. Snezna Rogelj Snezna.Rogelj@nmt.edu

- Browse the NM-INBRE website:
nminbre.org
- Send detailed email questions to:
nminbre@nmsu.edu



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