EDUCATION

RESEARCH

SERVICE
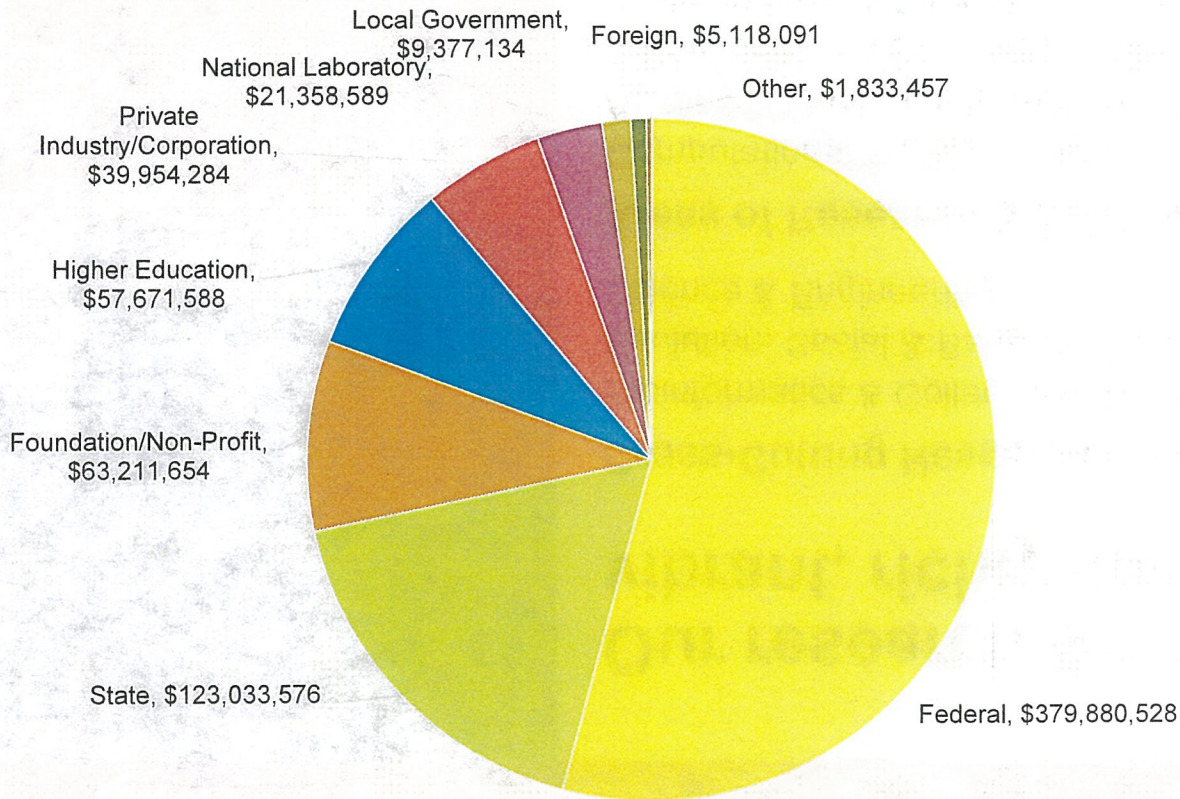
We are the top research university for under-represented minorities in science, technology, mathematics & engineering.

Over $700M Awarded to UNM Main & Branch Campuses, FY 2013-2018

Local Government, $9,377,134

Foreign, $5,118,091

National Laboratory, $21,358,589

Other, $1,833,457

Private Industry/Corporation, $39,954,284

Higher Education, $57,671,588

Foundation/Non-Profit, $63,211,654

State, $123,033,576

Federal, $379,880,528

Top Ten Funding Agencies

- National Science Foundation | $158M
- New Mexico Children Youth and Families Department | $61M
- Department of Defense | $56M
- National Institutes of Health | $56M
- Department of Education | $51M
- Department of Energy | $39M
- New Mexico Department of Transportation | $15M
- New Mexico Higher Education Department | $13M
- Department of the Interior | $13M
- Kellogg (W K) Foundation | $13M

Our research & scholarship landscape is vibrant, richly complex & ever-changing

Cross-Cutting Research Areas

Bioinformatics & Collections-Based Research | Ecology & Climatology | Human Evolution, Social & Behavioral Dynamics, And Addictions | Materials & Optical Science & Engineering

Areas of Research & Scholarship Strength

Computational & Data Sciences | High Energy Density Physics | Medieval Studies | Quantum Information Science | Regional Resource Economics, Water, & Environment | Southwest Anthropological Research & Socio-Cultural Studies | Latin American Studies | Land Arts Of The American West

Developing Areas of Research & Scholarship Strength

Community Engaged Arts, Education & Public Health | High Performance Computing | Neuroscience, Learning, Cognition & Memory | Clean Energy Systems

Summary of the Research Strategic Plan (RSP)

VISION

The University of New Mexico will dramatically enhance its research excellence such that its culture of scholarly creativity, discovery and innovation is recognized internationally, is an integral part of education, and is a source of inspiration for all New Mexicans.

MISSION

To significantly enhance capacity, competitiveness and impact in world class research and creative activity by tenure track, tenured and research faculty, graduate students and postdoctoral fellows, research staff and undergraduates.

PROCESS

The Office of the Vice President for Research (OVPR) assembled a diverse Research Strategic Planning Committee of faculty and staff members from colleges across UNM's main campus.

Six formal working groups gathered data through interviews, surveys, and document reviews.

Working group reports led to recommendations that, with additional feedback from the campus community, resulted in objectives, tasks, metrics, and timelines.

OVPR has developed an Implementation Plan; implementation currently underway.
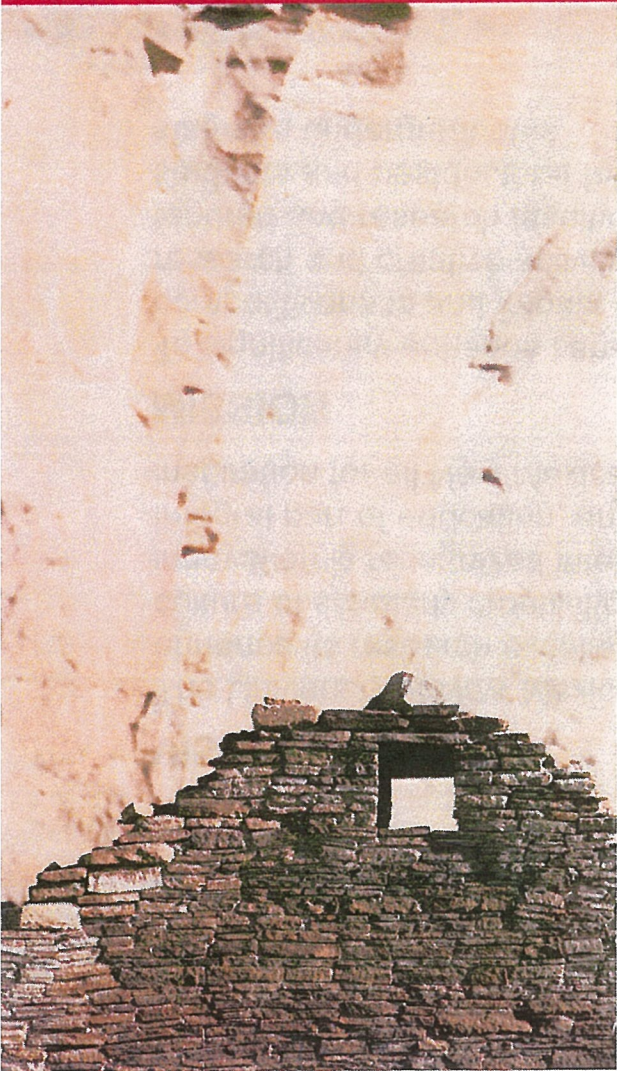
| Working Group	RSP Objectives
Research Excellence	1. Develop a mechanism to assess & communicate research excellence across the diversity of research programs on campus
	2. Develop a plan for investments into new research areas
	3. Improve & encourage excellent interdisciplinary research
Human Capital	1. Recognize & publicize research contributions & research excellence
	2. Identify & assist in providing more time for investigators to conduct their research
	3. Foster an environment of support & mentorship within the research community
	4. Create a task force for the establishment of incentives for research excellence
Infrastructure	1. Improve efficiency of research administrative services
	2. More efficiently manage research equipment & facilities & plan strategically for future needs
	3. Improve OVPR visibility & effectiveness in supporting research
	4. Improve research IT capacity & services
Federal & State Government Relations	1. Improve the process of developing UNM's federal & legislative priorities as it relates to UNM's research focus areas
	2. Improve & grow the relationships with the national laboratories
	3. Strengthen institutional linkages & enhance relationships with funding agencies
Corporate Relations	1. Establish an office for corporate-sponsored research
	2. Establish a comprehensive UNM web portal for corporate-sponsored research
	3. Establish new model for OSP (pre-award & post-award) to facilitate corporate-sponsored research

RE-2A: The OVPR identified three emerging research areas for fiscal year 2018


RENEWABLE ENERGY
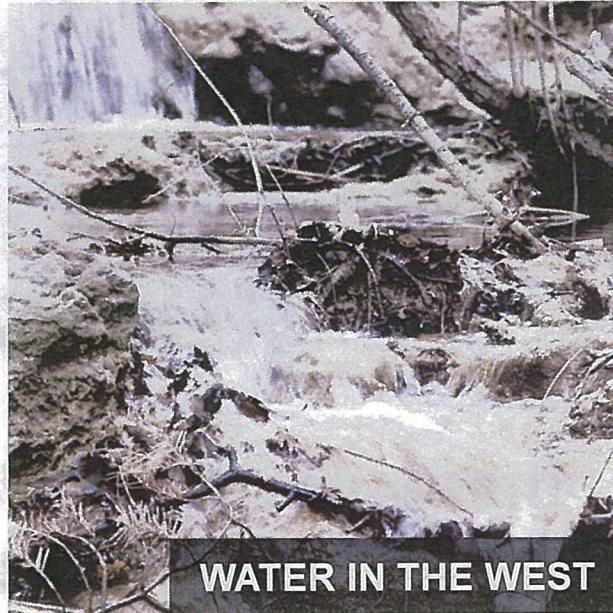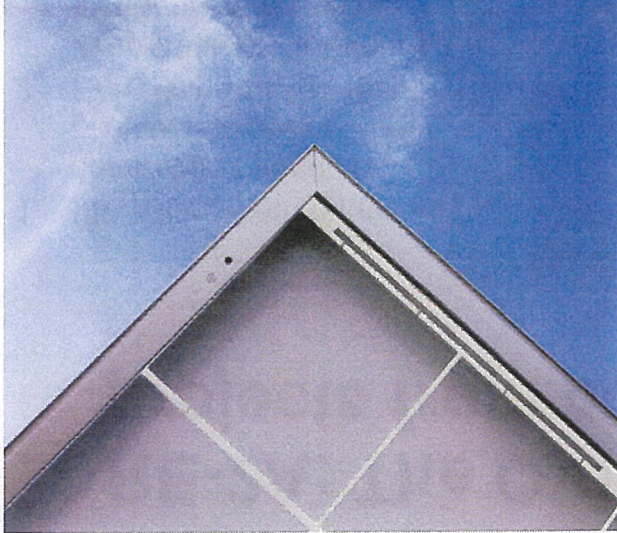
WATER IN THE WEST

SOCIAL, CULTURAL PLACE-BASED RESEARCH RELATING TO THE SOUTHWEST

RE-2A: The OVPR invested in seven emerging research projects from across the university

1. III-V/Silicon multi-junction solar cells based on pixilation process
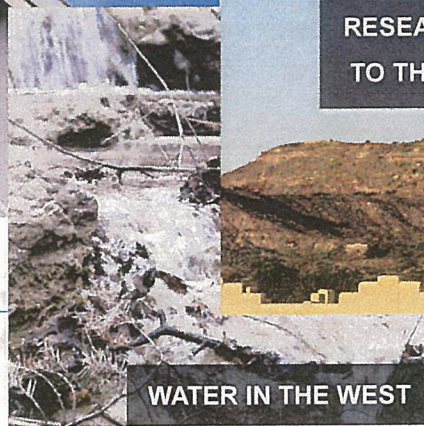2. Enhancing Piezoelectric Properties of Aluminum Nitride for Energy Harvesting Applications

RENEWABLE ENERGY
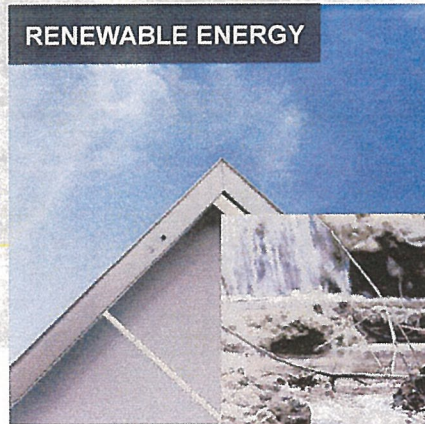
SOCIAL, CULTURAL PLACE-BASED RESEARCH RELATING TO THE SOUTHWEST
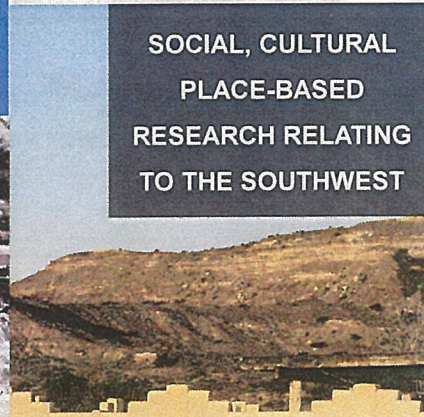
WATER IN THE WEST

1. Post wild-fire watershed and stream response

1. Community Planning for the Dine Red Water Pond Road Community
2. El Camino Real de Tierra Adentro National Historic Trail Development Concept Plan
3. The Growth of Albuquerque: Domestic and Global Migrant Relationality
4. Voces de Nuevo México/Voices of New Mexico: Documenting the Cultural Contributions of the 'Baby Boomer' Generation in New Mexico
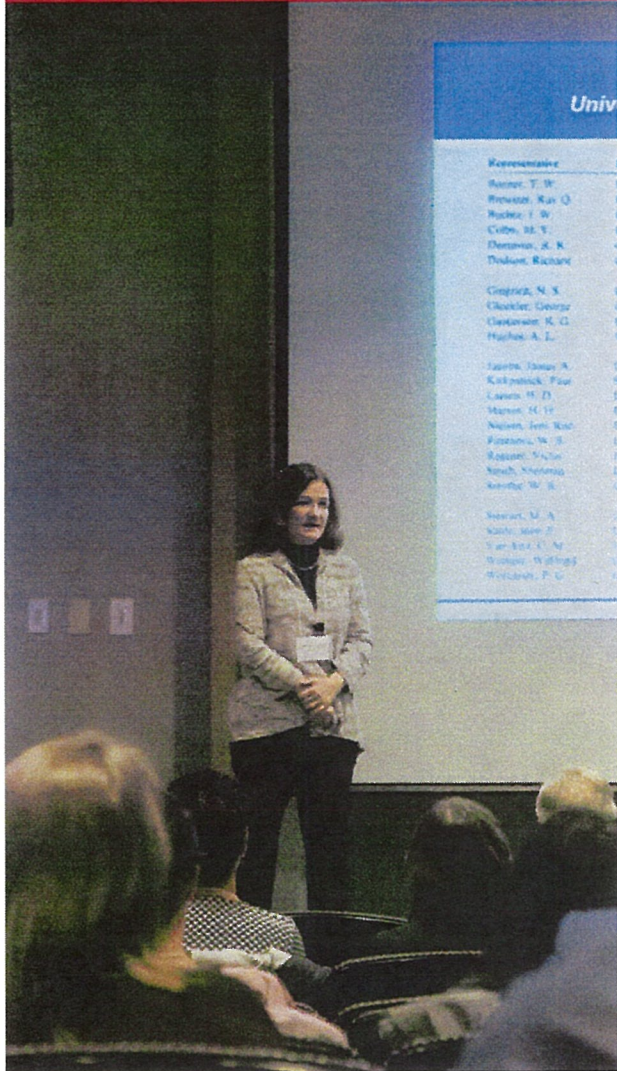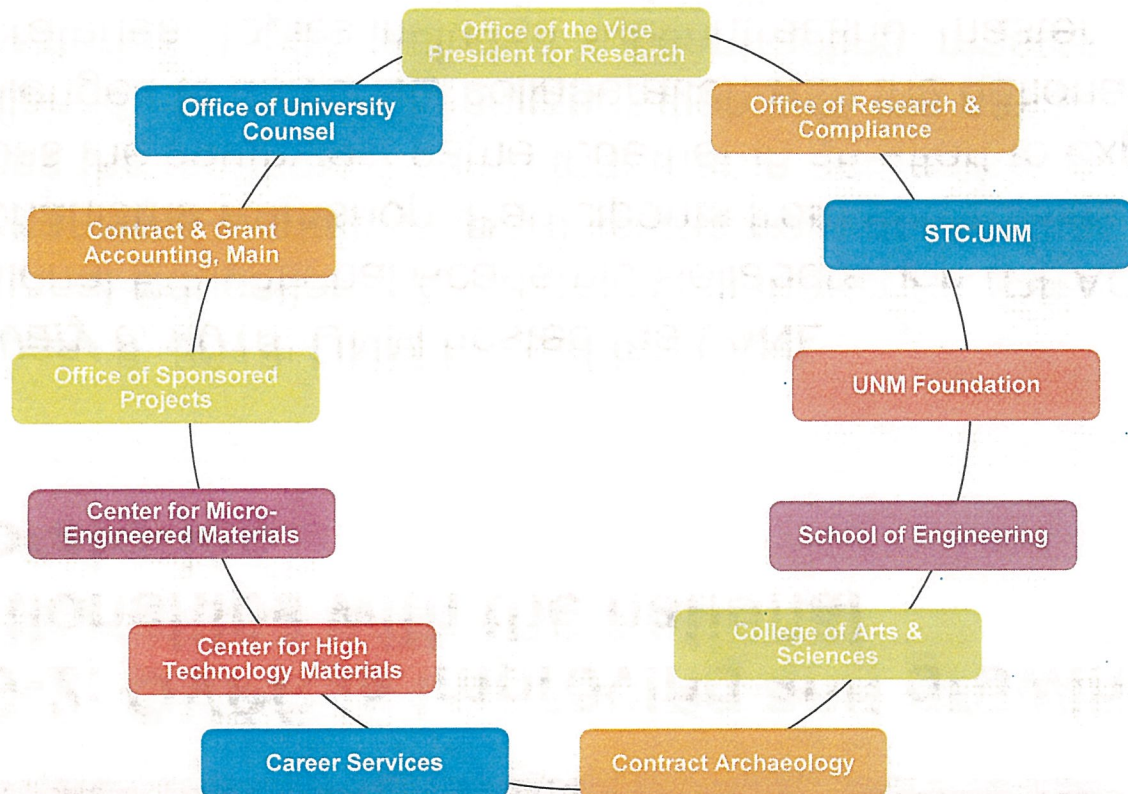
FSG-2: OVPR is improving and growing relationships with the national laboratories

January 8, 2018: UNM hosted the LANL Regional Educational Academic CollaboraTion (REACT) Mechanisms workshop. Participants from universities across the southwest came together in an effort to explore challenges to university collaboration with the national laboratories. Topics included subcontracting, master agreements and the science and engineering educational enterprise.

C-1A: A Corporate Relations Round-Table has been convened to enhance corporate-sponsored research

- Office of the Vice President for Research
- Office of Research & Compliance
- Office of University Counsel
- STC.UNM
- Contract & Grant Accounting, Main
- UNM Foundation
- Office of Sponsored Projects
- School of Engineering
- Center for Micro-Engineered Materials
- College of Arts & Sciences
- Center for High Technology Materials
- Contract Archaeology
- Career Services

UNM Economic Development: Our lobos innovate New Mexico

Since 1996, STC.UNM, the University's technology transfer arm, has:

- Filed 1,356 patent applications
- Received 597 issued U.S. patents
- Executed 583 license and option agreements
- Spun off 113 start-up companies from UNM technologies

In 2013 alone, 26 UNM start-ups generated a significant impact on the local economy:

- 147 high-paying jobs
- $3.5 million in revenue
- $8.6 million in salaries and benefits
- $4.7 million in goods, services and spending
- Raised $17 million in venture capital

In Fiscal Year 2017, STC.UNM generated $2,050,437 in income[1].

Among its 16 peer institutions, for every $2 million in research dollars spent, UNM is:

- 4th in number of invention disclosures
- 2nd in number of licenses and options signed
- 13th in licensing income
- 3rd in number of start-up companies created

[1]Combined licensing revenue and patent cost reimbursement revenues
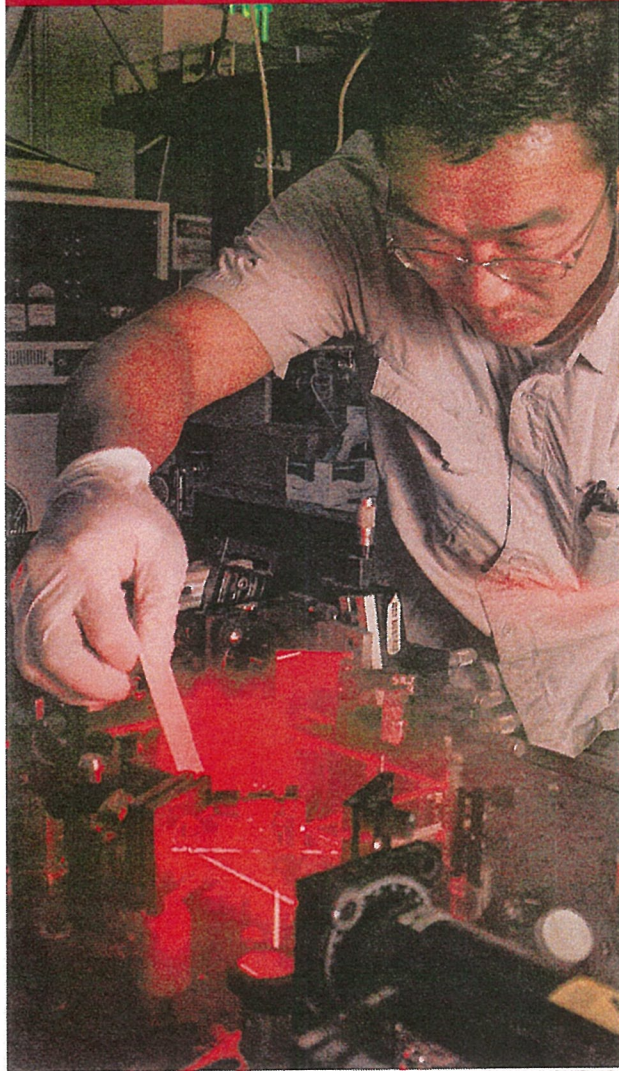
Center for High Technology Materials (CHTM) impacts NM economy

Established as one of five Centers of Technical Excellence (CTE) by the New Mexico legislature, with an initial infusion of approximately $10M in funding that was spread over the years from 1983 to 1988.

Economic Impact Analysis by the UNM Bureau of Business & Economic Research (BBER) conducted in 2014:

- Sizable impact on the New Mexico economy
- 131 jobs in New Mexico on an ongoing basis
- $6.5 Million in annual labor income
- $11.7 Million economic output annually

The cumulative total impact in 2014 $$: >$372 Million in economic output

- 207 U.S. patents ~ 35% of UNM portfolio have been awarded (38% licensed).
- 14 companies have been spun off (CHTM faculty and student started) and many more small companies have been assisted.
- More than $200 Million in externally funded research.
- CHTM research has resulted in more than 500 graduate degrees in STEM.
- Internationally renowned faculty (CHTM H-Index > 100)

FSG-1B: The OVPR is working with the Office of Government and Community Relations to seek NM legislative appropriation for cost share on grants that contribute significantly to institutional infrastructure

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1          SENATE BILL 115
2   53RD LEGISLATURE - STATE OF NEW MEXICO - SECOND SESSION, 2018
3              INTRODUCED BY
4          William P. Soules
5
6
7
8
9
10              AN ACT
11  RELATING TO HIGHER EDUCATION; CREATING A RESEARCH GRANTS
12  CLOSING FUND; PROVIDING FOR A COMPETITIVE APPLICATION PROCESS;
13  PROVIDING FOR A REVIEW PANEL; MAKING AN APPROPRIATION.
14
15  BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF NEW MEXICO:
16      SECTION 1.  [NEW MATERIAL] UNIVERSITY RESEARCH GRANTS--
17  CLOSING FUND CREATED--COMMITTEE CREATED--POWERS AND DUTIES.--
18          A.  The "research grants closing fund" is created as
19  a nonreverting fund in the state treasury.  The fund consists
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NM Established Program to Stimulate Competitive Research (EPSCoR)
National Science Foundation, Energize New Mexico, William Michener (PI), $20M, 06/01/2013- 11/2018

GROWING RESEARCH CAPACITY ACROSS NEW MEXICO: RESEARCH FOCUS AREAS SINCE 2001
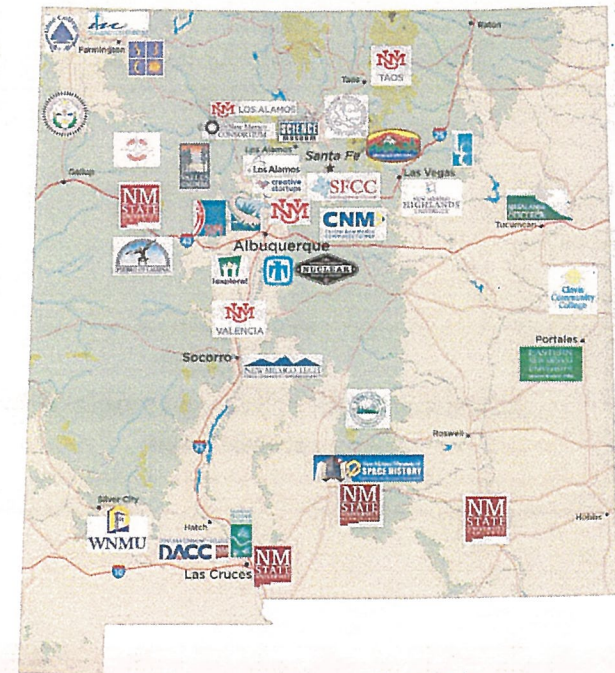
TRAINING THE FUTURE NEW MEXICO STEM WORKFORCE
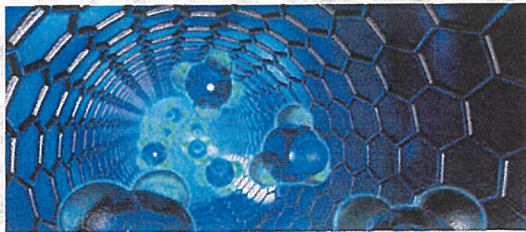
NANOSCIENCE

HYDROLOGY & WATER RESOURCES

SUSTAINABLE ENERGY
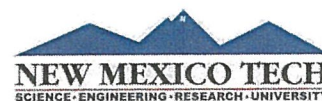
ELECTRIC GRID MODERNIZATION

New Mexico EPSCoR

Since 2001

- $184M NSF/DOE/NASA EPSCoR funding received in New Mexico
- 31 Faculty hires supported by NSF EPSCoR

Since 2013

- $50.3M Additional external funding secured by NM EPSCoR project participants
- 278 Students financially supported

NM STATE

NEW MEXICO TECH
SCIENCE·ENGINEERING·RESEARCH·UNIVERSITY

Appendices

ADVANCE at UNM

National Science Foundation, Institute for Diversity and Equity Across STEM (IDEAS), Julia Fulghum(PI), $3.4M, 08/31/2016- 08/31/2021

Goals to advance women and minority STEM faculty:

- create a more inclusive and supportive institutional climate
- increase the participation of women and minority STEM faculty in leadership positions
- improve satisfaction with, and perceptions of, the tenure and promotion process among women, and minority STEM faculty
- increase the number of women and minorities at all levels in STEM departments
- increase the national and international recognition of scholarship by all women STEM faculty at UNM.

Advance at UNM
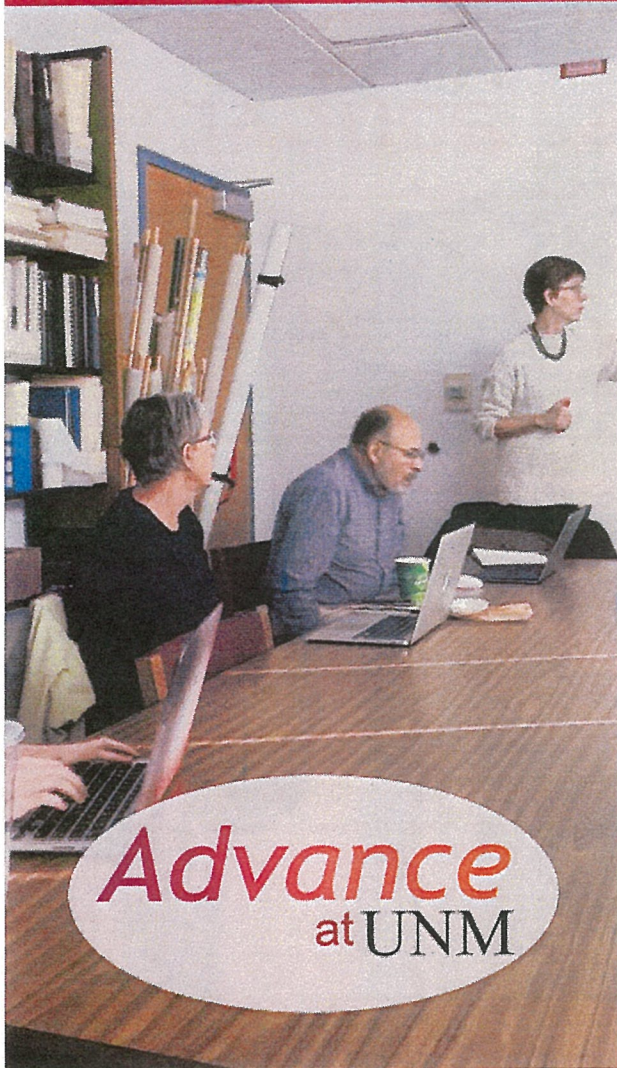
FY 2018 ADVANCE at UNM Initiatives

- Partner with academic leaders on low-cost/no-cost faculty retention efforts
- Work with Provost and OEO to bring Main Campus faculty hiring processes in line with best practices
- UNM-APS spring break alignment
- Faculty exit interviews
- Develop and pilot "Department Climate" surveys
- Additional faculty support
  - Workshops for associate professors
  - Mentoring groups for assistant professors
  - Writing accountability
- Productivity
  - "Shut Up and Write" sessions
  - Faculty research development support
  - "R" programming language office hours

UNM Research in the newsroom: impacting places and people
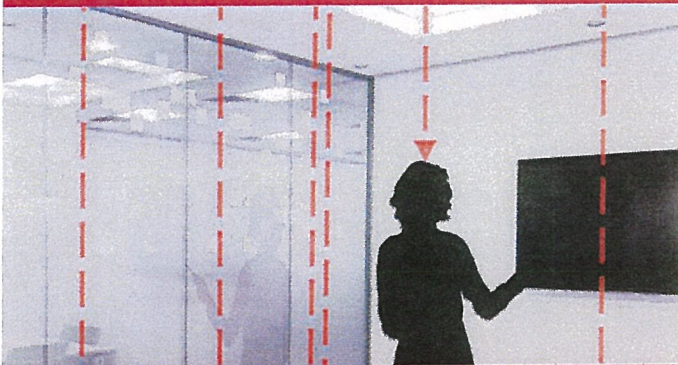
UNM researchers part of RPI team looking for more efficient ways to heat, cool and ventilate buildings.
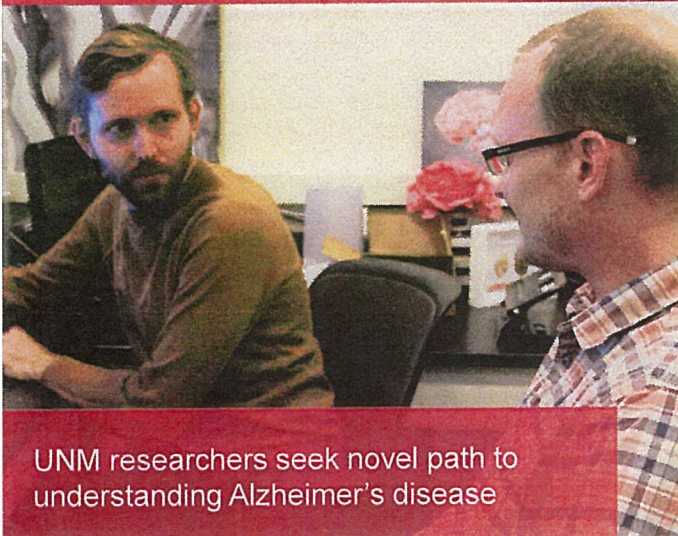
UNM researchers seek novel path to understanding Alzheimer's disease

UNM researchers partner with UCF researchers to help children with communication disorders find their voice