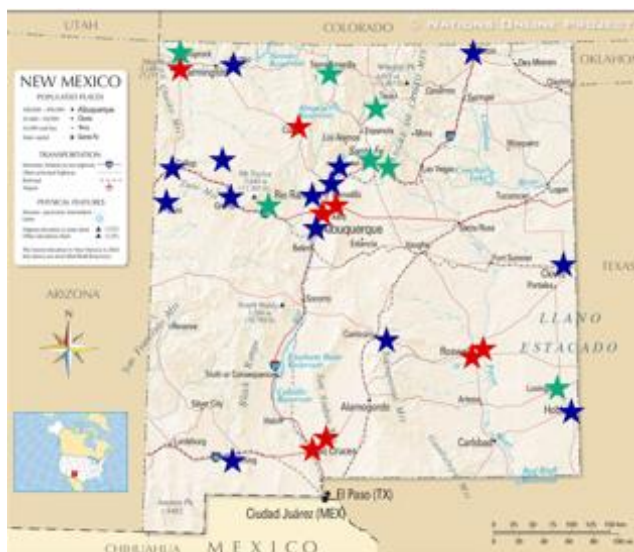


Research Opportunities for Science Educators (ROSE)

ROSE brings middle and high school teachers from across New Mexico to the UNM Albuquerque campus for a monthlong summer research experience. The teachers (ROSE Scholars) work alongside faculty members and their research groups on ongoing projects. Scholars see firsthand “how science is done” and the interdependence of various disciplines and subfields. The Scholars also have access to UNM library, computer and lab facilities and receive training in appropriate research and safety techniques. Scholars receive a stipend of \$1200 per week and on-campus housing in UNM dormitories is provided. The ROSE summer session includes formal and informal events to allow the Scholars to network with each other and with UNM faculty and staff across campus. Priority is given to applicants from schools with high percentages of under-represented minority and economically disadvantaged students and to geographic distribution across the state.

In summer of 2022, ROSE accepted 20 Scholars from across NM (shown by blue stars, new districts for 2023 shown with green stars). Scholars worked in 14 research groups in five science and engineering departments (details at <https://UNMROSE.unm.edu>). Projects included synthesizing novel photo-active molecules, modeling the interactions of drug molecules with proteins, and developing remediation methods for abandoned mine waste. Scholars used state-of-the-art synthetic, analytic and computational facilities in their research, and learned to use molecular visualization software which they can use in the classroom. Afterwards, several teachers invited ROSE faculty for virtual classroom visits so student could ask questions and see the laboratories, and one teacher brought students to the UNM campus.



ROSE strengthens STEM education in New Mexico by inspiring and informing science teachers across the state, allowing them to refresh their knowledge, develop new skills, and experience the scientific process from the perspective of practicing researchers. Scholars have reported that ROSE helped renew their enthusiasm and build their confidence in the science that they teach. The program establishes personal relationships between UNM faculty and science teachers which may lead to additional collaborations and interactions including campus visits, student research opportunities, and assistance with technical aspects of high school science teaching (demonstrations, lab design, chemical waste disposal advice).

(draft May 9, 2023)