Dr. Joan Esnayra

Joan Esnayra is a survivor. She grew up in a home filled with alcoholism, domestic violence, sexual abuse, and mental illness. As a consequence school and her studies became her safe haven. After graduating at the top of her high school class, she matriculated at the University of Washington where she studied Philosophy and Biology. In 1990, she began her long journey at the University of California, San Diego in pursuit of her Ph.D. in Biology. There, she encountered discrimination for being a disabled Native American woman, which had detrimental affects. She felt insecure and began to doubt her abilities. Still, Dr. Esnayra was able to use these challenges to cultivate a sense of strength and self-worth. After years of self-healing she finally learned to fight the discrimination, proudly stating “I am a disabled, Yaqui, two-spirit woman scientist.” Finally in 1999, she graduated with her Ph.D. in Biology. Trained as a geneticist, she is currently working as a program officer at the National Academies of Sciences where she manages committees of scientists and scholars who advise the American government on matters of science and technology policy. Her current work mainly focuses on how science can be applied to our lives and how it can impact our society and culture.

Dr. Donna Nelson

Donna Nelson is an associate professor of chemistry at the University of Oklahoma. Trained as a Chemist at the University of Texas-Austin, she did her postdoctorate fellowship at Purdue University. She researches three global challenges – energy, environment, and scientific workforce development, and frequently speaks on their interrelationship. More specifically, her chemical research involves functionalizing single walled carbon nanotubes (SWNTs), with applications in energy research and technology development, and yielded the first COSY NMR spectrum of covalently functionalized SWNTs. Additionally, Nelson also performs research on diversity. Through her scientific workforce surveys, of faculty race/ethnicity, gender, and rank in science and engineering at research universities, she found that women and minorities are much less represented among professors than degree recipients. A brilliant scientist. Nelson has received several honors, including a Guggenheim Fellowship, a National Organization for Women “Woman of Courage” Award, a Ford Foundation Fellowship, and an American Association for the Advancement of Science AAAS Fellowship.

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Celebrating Native American Heritage Month
Honoring Diversity in Science

Dr. Russell Stands-Over-Bull

“Education is your most powerful weapon. With it, you are the white man’s equal. Without it, you become his victim.” Were the words spoken by Chief Plenty Coups, one of the last Crow Indian war chiefs who led the Crow tribe before the United States settled in the west. The words of Chief Plenty Coups were important to the family of Dr. Russell Stands-Over-Bull, a full-blooded member of the Crow tribe of south-central Montana. He grew up immersed in tribal culture and spoke the Crow language before learning English. The grandson of the first Crow Indian to receive a four-year degree in teaching and the son of a principal and high school teacher and tribal leader, Dr. Stands-Over-Bull was immersed in an environment that stressed the importance of an education and he was exposed to community issues on a tribal, state and national level.

Dr. Stands-Over-Bull started his undergraduate experience at Montana State University with only a bachelor’s degree in mind; however, by the time he was senior undergraduate, he had decided to get a masters degree at Colorado School of Mines. At the time, he had not even considered a Ph.D., but he eventually found himself thinking, “Well there are very few natives with a Ph.D., why don’t you be the one who breaks the trail?”

After obtaining his Ph.D., Dr. Stands-Over-Bull returned to his reservation to develop Arrow Creek Resources, a company providing geosciences expertise to the Crows and other tribes. This company allowed him to teach tribes the value of their reservations natural resources and how to make informed decisions when dealing with outside companies. In 2006, Dr. Stands-Over-Bull accepted a position at a petroleum company in Montana with a part-time adjunct professor position in the Department of Earth Sciences at Montana State University-Bozeman, where he is also involved in Native support services.

Dr. Marigold Linton

Dr. Marigold Linton is a Cahuilla-Cupeno. She was born and raised on the Morongo Reservation in Southern California. She and her family lived in a small adobe house that her parents built. She played tennis in high school, and won the county championship in both singles and doubles. Dr. Linton attended the University of California, Riverside where she was the only Native American at the University. Dr. Linton started doing research as an undergraduate and had two publications by the time she entered graduate school. She did graduate work at the University of Iowa and obtained her Ph.D. from the University of California, Los Angeles.

After ten years at San Diego State University Dr. Linton became a full professor. She was later hired at the University of Utah, the first woman to be hired as a full professor. During the day she taught psychology classes and did research. The rest of the time she was involved in the National Indian Education Association movement of the 60s and 70s. Dr. Linton served on the founding board of the National Indian Education Association. Guided by the only powerful vision she have had since leaving the reservation, in 1986 she moved to Arizona State University, where she could work more closely with the tribes. Dr. Linton ran a coalition mandated to improve mathematics and science education for twenty tribes in Arizona. Recently she moved to the University of Kansas where she worked closely with Haskell Indian Nations University and the Haskell Health Center to provide science research opportunities for Haskell students in the laboratories of research scientists at the University of Kansas.

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Dr. Clifton Poodry

Dr. Poodry was born in Buffalo, New York, on the Tonawanda Seneca Indian reservation. He grew up on the reservation with the sense that there was a clear connection between his culture and his burgeoning interest in science. It was Dr. Poodry’s mother who first showed support and interest in her son’s scientific endeavors. Although she did not have the opportunity to attend college, she made sure that Clifton would pursue his dream of one day becoming a scientist.

Dr. Poodry went to the University of Buffalo for his undergraduate studies. His career as a college student started off rough, as life on campus was quite different than life on the reservation. He originally started out as a chemistry major, but switched to biology in his senior year. His first career aspirations were to teach high school, but he decided to pursue a graduate degree in the sciences. He received his Master’s degree at the University of Buffalo, and then attended Case Western University for his doctorate work. It was in Dr. Howard Schniederman’s lab that Dr. Poodry saw firsthand how people from diverse backgrounds could come together in their quest for knowledge and love for science.

After receiving his Ph.D., Dr. Poodry began teaching at the University of California, Santa Cruz until he became the director of Minority Opportunities in Research Division at the NIH. The goal of the program he currently heads is to increase the number of minority students who go into research careers at all educational levels. Dr. Poodry truly is an inspiration and example of a Native American in science who has made a difference.

Dr. Scottie Henderson

Dr. Marigold Linton is a Cahuilla-Cupeno. She was born and raised on the Morongo Reservation in Southern California. She and her family lived in a small adobe house that her parents built. She played tennis in high school, and won the county championship in both singles and doubles. Dr. Linton attended the University of California, Riverside where she was the only Native American at the University. Dr. Linton started doing research as an undergraduate and had two publications by the time she entered graduate school. She did graduate work at the University of Iowa and obtained her Ph.D. from the University of California, Los Angeles.

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Dr. Fred Begay, also known as Fred Young or Clever Fox, was born on a Navajo reservation. At the age of 10 he was sent away from his family to a government run boarding school, where he was trained as a farmer and taught that his Navajo traditions were inferior. After working for a farmer as a short period of time, Begay served in the Korean War and was able to use federal money for veterans to attend the University of New Mexico. Despite his lack of a formal high school education, Begay excelled in physics and went on to earn a PhD. He has been working at LANL on thermonuclear fusion for over 30 years and made significant scientific contributions. More recently, he has done extensive work to translate the links between Navajo traditions and science. He feels strongly that his Navajo heritage prepared him well for a career in science and wants to be able to translate these concepts to English.

Dr. Jerrel Louis Yakel was born in Ventura, California to a white father and a Luiseno Indian mother who was a member of the La Jolla tribe. He grew up as a member of two very different cultures, but feels that both have been important to his development. He received his BS from Oregon State University and his PhD from the Department of Biology at UCLA. After post-doctoral positions at Ecole Normale Superieure in Paris, France and the Vollum Institute in Portland, Oregon, he became a principle investigator at the NIH in 1993. His laboratory investigates the function and regulation of neuronal ligand gated channels, in particular the neuronal nicotinic receptor channels. His work has earned him numerous awards and fellowships and he is active on many advisory boards for the advancement of minorities in the sciences.

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Dr. Burgess attributes much of his success to his familial influences. His father came from the Western Cherokee tribe in Oklahoma where his grandmother was a medicine woman. This support enabled him to overcome early academic set backs and ultimately obtain his Ph.D from the University of California, Davis (UCD).

Dr. Burgess has served on the faculty at Dartmouth College, the University of Miami School of Medicine, has chaired the biology department at the University of Pittsburgh and is currently a faculty member at Boston College. Additionally, he has served as a Past-president of the Society for the Advancement of Chicanos and Native Americans in Science, and has served on multiple committees for the American Society of Cell Biology and the NSF with the goal of improving the representation of minority students in science. His research focuses on the study of cytokinesis and how its temporal control influences the process of mitosis. A second interest in his lab is the study of specific barriers to participation by American Indians in biomedical research as well as the ethical, legal and social implication of genomic research.

Wilfred F. Denetclaw Jr. PhD; Cell Biology Research

Dr. Denetclaw was raised following traditional Navajo customs being presented with many difficult decisions between biological animal research and the Navajo views on the treatment of animals in his scientific journey. Through the sponsorship of programs such as the Minority Biomedical Research Support Program (MBRS) he was able to experience scientific research first hand, catalyzing his research interests and career. This early exposure enabled him to investigate particular diseases affecting the Navajo Nation. Dr. Denetclaw then went on to earn his Ph.D in Zoology from the University of California, Berkeley (UCB). After a post-doctoral tenure at the University of California, San Francisco (UCSF) he went on to become an Assistant Professor in the department of biology as well as the director for the Cell Molecular Imaging Center at San Francisco State University. Currently, Dr. Denetclaw is investigating the dynamic changes in cells that can be interpreted as signaling mechanisms for early skeletal myogenesis.

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