



THE UNIVERSITY of  
NEW MEXICO

Office of the Provost



## WEDNESDAY COMMUNIQUE

October 12, 2011

**In Praise of Undergraduate Research:** It is my distinct pleasure to recognize UNM Physics & Astronomy faculty member Dr. John T. McGraw who, while he was a professor at the University of Arizona, worked with undergraduate student Brian Schmidt conducting research. Brian Schmidt is the co-winner (with Adam Riess and Saul Perlmutter) of the 2011 Nobel Prize in Physics. Dr. McGraw showed Brian that supernovae were astronomically interesting objects and later introduced Brian to Harvard professor Bob Kirshner, who supervised Brian's Ph.D. dissertation on measuring distances to Type II supernovae. Brian later formed the High-Z Supernova Team that, in collegial competition with Perlmutter's Supernova Cosmology Project, measured cosmological redshifts for distant Type Ia supernovae – the measurements that led to discovery of the accelerating universe. Observations of the accelerating universe led to the inference of Dark Energy as its driving force. This is the discovery for which the three were awarded the 2011 Nobel Prize. Dr. McGraw states, “A little mentoring for students always pays off, but once in a while it pays off big.”

**The Morrill Act:** This year marks the 150<sup>th</sup> anniversary of the first Morrill Act which allowed for the creation of land-grant colleges. Sponsored by Vermont congressman Justin Morrill, the Morrill Act was signed into law by President Abraham Lincoln on July 2, 1862. It was officially titled "An Act Donating Public Lands to the Several States and Territories which may provide Colleges for the Benefit of Agriculture and the Mechanic Arts." It provided States with 30,000 acres of federal land for each member in their congressional delegation. The land was then sold with the proceeds used to fund public schools/colleges that focused on agriculture and the mechanical arts. Sixty-nine colleges were funded by these land grants, including Cornell University, the Massachusetts Institute of Technology, and the University of Wisconsin at Madison.

**The Khan Academy:** I attended a conference last week on the future of United States universities. One speaker was Sal Khan, the creator of the Khan Academy (<http://www.khanacademy.org/>). I have long been a fan of Mr. Khan and more recently, my children have discovered his teachings. Most interesting is an observation made during his last talk where he asserts that by monitoring students' progress through lectures and tests, we see that some students start out slow, level off for a while, and then suddenly pass the achievements of their more advanced classmates. He suggests that we may need to adjust the time it takes to teach rather than the amount of material taught during a semester. Mr. Khan and others suggest that web-based instruction helps us reach students who learn differently, and while large classes may hinder learning in a traditional classroom, they are actually beneficial in an online and social networking setting. Our colleagues from the UNM College of Education may be familiar with Mr. Khan's concepts and studies. I look forward to engaging them in a discussion about the applicability of Mr. Khan's ideas.

**Six-degrees of Separation:** The passing of Steve Jobs last week marked a time where we lost one of the most influential technology leaders in our history. We are grateful for the vision he provided and must acknowledge that we are linked to him by six degrees of separation.

One such link is Yoshiko (Koko) Chino, graduate of the UNM's American Sign Language interpreting program. She currently heads the Interpreting Services Department at Gallaudet University. Koko's father was a Buddhist monk who presided over the wedding of Steve Jobs. This demonstrates that most of us were within six handshakes of the great Steve Jobs (some are probably closer). Such connections are studied using network science, which is a vibrant field of study at UNM (computer science, social sciences, health sciences, biology, physics, etc.) and in New Mexico ([www.santafe.edu](http://www.santafe.edu)).

**Perspectives on Climate Change:** Of great interest to all New Mexican's is sustainability of our local and global environment. The New Mexico chapter of the Fulbright Association has organized a panel discussion, "Perspectives on Climate Change" at 3:00 PM on Sunday, October 16, 2011 (<https://www.fulbright.org/civicism/event/info?reset=1&id=244>). Participants from UNM include Professor David Gutzler, Department of Earth & Planetary Sciences, and George Skadron, Adjunct Professor, Department of Physics and Astronomy who is also president of the NM Chapter of the Fulbright Association.

A PDF version of this communiqué is available at:  
<http://provost.unm.edu/communique/index.html>.

Your feedback and input are welcome at: [provost@unm.edu](mailto:provost@unm.edu).

Sincerely,

Chaouki Abdallah  
Interim Provost & Executive Vice President for Academic Affairs