



**Dr. Len Jessup**  
UNLV President

## The Power of Partnership in Research

It's my distinct pleasure to invite you to read this issue of *UNLV Innovation*, the university's research magazine. I'm delighted at the prospect of our many friends and supporters learning more about the exceptional research and scholarship at UNLV. Since arriving here last year, I've had the opportunity to meet many of the distinguished scientists and scholars on our campus, and I can tell you that the research expertise at UNLV is absolutely outstanding.

While I am consistently awed by the innovation envisioned and implemented through research, I am also amazed at how well the UNLV research community understands the value of collaboration. Just in the last few months, we have announced several important partnerships that demonstrate the potential for our research to impact our community, state, and beyond.

For example, one of our research teams recently joined with the Cleveland Clinic Lou Ruvo Center for Brain Health to obtain an \$11.1 million grant from the National Institutes of Health for advanced study of both Parkinson's and Alzheimer's Diseases. Another UNLV-led team involving researchers from South Korea and Japan recently received a \$3.8 million grant from the National Science Foundation to create advanced artificial muscles for use in robotics. We also recently welcomed Nevada Governor Brian Sandoval to our campus to help announce a \$1 million research partnership between UNLV and Tesla Motors. Additionally, our wonderful collaboration with Switch/Intel/Cisco has provided the university with access to staggering computational and research networking capacity that will place UNLV among the ranks of the nation's top universities.

All of these partnerships demonstrate how research expands the reach of our university beyond the boundaries of our campus. It is critical that we continue to build an appreciation of the research endeavor among all of our constituent groups, from alumni and donors to parents and legislators. We hope that they gain a better understanding of how research advances the reputation of our university, improves our state's economy, better educates our students, and enhances our quality of life.

These benefits are top of mind on our campus as we pursue the goal of becoming a top tier research university. Our strategic planning process is providing us with a path to achieve this status by growing our faculty, increasing our grant funding, enhancing resources and infrastructure for research, and supporting faculty scholarship that improves our reputation. An integral part of this plan also calls for an increased focus on partnering with our community, state, and private-sector partners to enhance our capacity for performing more sophisticated research. The synergy from these partnerships will benefit all involved, including our students, and we value the commitment and support these partners bring to our institution. They share our vision that we are just beginning to realize the vast potential of our university, and that it will produce remarkable benefits for all.

Dr. Len Jessup  
UNLV President



**Dr. Thomas Piechota**  
Vice President  
for Research  
and Economic  
Development

## Welcome to *UNLV Innovation!*

Welcome to *UNLV Innovation!* We produce our research magazine to share a sampling of the last year's best news, articles, and photography depicting our research activity. The subjects in this issue are far reaching in scope: We tell the story of a UNLV anthropologist who recently made international headlines with the discovery of a 2.8 million-year-old fossilized jawbone that changes the timeline of human origins. We also introduce our readers to visionary robotics expert Paul Oh who shows us the face of the future. In our Research Report, we share the great news that UNLV patent applications have tripled in the last two years, and three start-up companies have emerged from our research.

It's an exciting time for research and economic development at UNLV, and we hope you enjoy learning more about why we are so proud of UNLV research.

Dr. Thomas Piechota  
Vice President for Research and  
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