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We should strive to be a top-caliber research institution, among the very best, one that attracts increased funding from federal and private industry sources.

Since I arrived on this campus nearly four years ago, we've given great thought to how we can grow our research volume, increase our competitiveness for external grants and awards, and better distinguish ourselves as a research university. And in the intervening years we've made great strides together: increasing research expenditures by nearly \$30 million, making roughly \$3 million a year in grants available to our faculty for collaborative research, scholarship, and creative activity, and securing a \$23.7 million gift from the Walton Family Charitable Support Foundation to bolster research and economic development efforts, to name just a few accomplishments. Why is this important? Because in its purest practice, research and discovery seek to increase and spread knowledge, improve health and safety, reduce work or costs, and stimulate innovation. In other words, research makes the world a better place. And by extension, as a public research university, so do we. It's a critical part of our mission as the state's flagship and land-grant university.

So, what are some next steps we need to take to raise our research profile still higher, and in the process distinguish ourselves further as a great research university?

The key for us, I believe, is to create a more collaborative campus research environment that facilitates innovative research and pushes the boundaries of discovery. Indeed, we have identified building a collaborative and innovative campus as one of our guiding priorities—many, including myself, believe collaboration is the future of research and scholarship. As a significant step to advance this priority I propose that we create

the University of Arkansas Institute for Integrative and Innovative Research or, the I3R, for the sake of brevity. So what do I mean by integrative research? To me, it's when two or more researchers combine ideas, creative thinking, methodologies and approaches to tackle research problems, creating a whole that is greater than the sum of its parts. These researchers can be from the same field or from different ones, so long as they recognize the power of collaboration in research and discovery. Integrative work may include research that is truly at the intersection of traditional disciplinary areas or simply fields that lead to innovative discoveries and new directions that could not have been imagined or obtained had the investigators been working independently. New fields often emerge because of these collaborative and innovative synergies.

To promote integrative research and discovery, it is important to put innovative and creative researchers in close proximity to one another. And, in creating the I3R, we have the opportunity to address a major issue that is significantly slowing our development as a powerhouse research institution: we need more high-quality research space for both existing and, equally important, future faculty and students. As I announced at the State of the University address in October, we have begun planning for a new research building. This building will be unique—it will be the home of the I3R and be designed with collaboration and integrative research in mind. Our very early estimate is that there will be research space for 60-80 members of our faculty, depending on the exact research activity. This concept requires the construction of a research facility designed from the ground up to maximize integrative work and,

more importantly, bring together faculty, students, and staff excited to work in this kind of environment. Some of these faculty are already right here at the U of A. And I believe others seeking this kind of fertile, innovative and interdisciplinary experience would be excited to come here because of the opportunities this unique environment would afford them. And, moving faculty into this building from existing spaces will free up badly needed space in our colleges and departments — space that can be renovated and modernized.

I envision the I3R as an umbrella research organization. It will provide programming that encourages and promotes integrative thinking and opportunities across campus to move in new directions of discovery previously unexplored or impossible to achieve. That's why the I3R will need to be a university-wide institute and not owned or administered by an existing academic unit. As such, faculty, students and staff would have appointments in both the institute and in traditional colleges and schools, perhaps with salaries shared by the central institute and our existing academic units. I believe this is also an opportunity to recruit faculty with diverse research backgrounds, such as research productive individuals from industry, government laboratories and the business and entrepreneurial world.

I also think the four major areas of research we are focusing on for potential centers of excellence will provide a solid foundation to start. These are areas that are already strong but could gain a more prominent national and international reputation with additional investment. These areas include Bioscience and Bioengineering Research in Metabolism, Data Science, Food Systems and Technology, and Materials Research. We propose creating campus-wide Centers of Excellence in these areas using a hub-and-spoke model with all or some of the hubs located in the I3R Building under the I3R umbrella organization. Other areas could be added in the future as the research profile of the campus grows in stature. Critical to the I3R would be the commercialization potential that goes hand-in-hand

with the innovative and integrative research. Thus, a portion of the I3R Building and programming would be dedicated to this function.

Needless to say, recruiting established researchers in our signature research areas will be crucial to our success. A good example of a recent hire in a signature research area is Dr. Justin Zhan, an Arkansas Research Alliance Scholar and professor of data science. His research interests include big data, information assurance, social computing, biomedical computing and health informatics. His work has been extensively funded by federal agencies like the National Science Foundation, Department of Defense and National Institute of Health. Zhan has also authored more than 200 articles in peer-reviewed journals and conferences and he also has experience working with the public and private sectors. In short, adding faculty like Dr. Zhan is how you build on existing strengths to increase capacity, as well as attract others of similar stature. It's incumbent on us to target, recruit, and retain more faculty who can build on our signature research areas.

Another way to get the most of our research dollars is to pool resources, especially with institutions that have complementary strengths. That's why I think we need to strengthen our collaboration with our sister institution, UAMS. Currently, we're focusing on the development of an Institute of Health Sciences Research and Innovation. This partnership would include collaborative research space and labs to facilitate innovative, high-impact research that advances discovery and brings in critical dollars to our region and state, and perhaps intellectual property appropriate for further development. We think by pooling our talent, expertise, and resources, we can have a much bigger impact on the health and wellbeing of the state while at the same time raising the research profile of both our universities. With strategic investment, we could accomplish much more for research, health care and related education, with ancillary benefits related to innovation,

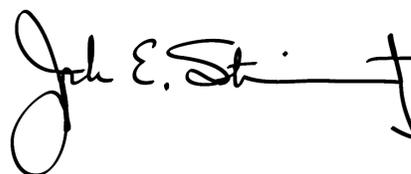
commercialization, and the overall wellness of Northwest Arkansas. This is a huge opportunity, and we would be remiss if we did not do everything possible to make it happen.

Finally, we need to significantly increase the number of grant applications that go out to federal agencies as well as industry partners. The \$23.7 million grant I mentioned above will be an asset in this. Among the goals outlined in the grant was not just increasing the size of our research awards, but the proportion of faculty receiving external funding. Our target is ambitious: 25% growth in external funding for faculty. We also hope to increase our industry awards from our current level of less than 4% of externally sponsored research to 10%. Fortunately, one of the provisions of the grant was the addition of grant development and support staff who, in addition to helping teams of faculty be more competitive for large, collaborative grants, can also help new faculty put together stronger applications for funding. This should help ensure that more and stronger applications are being submitted. At the same, the Chancellor's Fund, which now has four separate tracks, is helping faculty develop and strengthen their

research projects through smaller grants. Ideally, this will give their applications firmer footing if and when the time comes to pursue external support. The upshot is we think more and stronger grant applications will inevitably result.

As I mentioned, we've made great strides in growing our research enterprise over the last several years. This has convinced me that we can and will do much, much more. We have everything to gain by dreaming bigger, being bolder and pushing forward. Simply put, the work we do makes Arkansas, and the world, a better place. So let's make the most of the opportunity.

Yours,

A handwritten signature in black ink that reads "Joe E. Steinmetz". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Joe Steinmetz,
Chancellor, University of Arkansas