

# Big Ideas: Six Themes

[Samuel Bak Institute](#) | [Transforming Wellness and Aging Through Business, Informatics and Gerontology](#)  
[Security and Intelligence Studies](#) | [STEM TRAIL Center](#) | [Ted Kooser Center for Health Humanities](#)  
[Biomechanical Rehabilitation and Manufacturing](#)

## Samuel Bak Institute

Principal investigator: Mark Celinsak

Cognizant deans: David Boocker, Michael Hilt, David Richards

Using the art and life of world renowned artist and Holocaust survivor Samuel Bak, the museum will awaken the community to the richness and diversity of the human experience and invite curiosity and collaborative learning through active engagement with ideas, artworks, and exhibitions. Programming, on campus and in the surrounding community, tailored to foster formative connections between the art of Samuel Bak and students of all ages will be central. Critical to its role as a teaching museum will be direct experiential opportunities for UNO students and faculty to participate in integral aspects of museum/archiving practices.

The success of the Samuel Bak Institute will be measured by its: (a) Impact of education: how will we integrate the message and art of Samuel Bak into student-led research/creative activity, student-led community outreach and service learning, and learning-outcomes? (b) Impact of research/creative activity: how will we use the collection to spearhead scholarly and creative activities in human rights, genocide studies, holocaust studies, and challenges threatening the fabric of society? and (c) Community engagement: how will we develop intentional, regional and national conversations using the incredible assets of UNO's faculty and staff working in these areas, the collection of Samuel Bak's work, and UNO's pride of place in Omaha and Nebraska?

With the seed funding provided by the UNO Big Ideas process, we will recruit an Executive Director who will develop and implement the Bak Institute's strategic direction, work with external consultants and campus leadership on space planning, foster faculty collaboration on curriculum development, and develop concepts for campus and community engagement built on such models as the Wellin Museum at Hamilton College, the Tang Museum at Skidmore College, Pozen Family Center for Human Rights at the University of Chicago, or the William Winter Institute for Racial Reconciliation in Jackson, Mississippi.

## Security and Intelligence Studies

Principal investigators: Matt Hale, Gina Ligon and Lana Obradovic

Cognizant deans: Michelle Trawick, David Boocker, Hesham Ali, John Bartle

The collective threats to national and global security are complex and continually evolving. These threats include not only competing with other nations and non-state actors (e.g., al Qaida) but also countering weapons of mass destruction programs, cyber-attacks, and infectious disease outbreaks. The three overarching goals of this Security and Intelligence big idea initiative are to 1) Provide leading security and intelligence research by building on existing strengths and interests of UNO faculty and students AND by facilitating collaborative opportunities with other NU colleagues and external partners, 2) Expand workforce development pipelines for national security enterprise entities through on-campus and online degree programs, certificates, and professional training for students and professionals, and 3) Address security and intelligence challenges facing local, regional, national, and global policymakers.

With the seed funding from the UNO Big Ideas process, UNO will develop a faculty cluster hire spanning the disciplines across the collaborating colleges, support postdoctoral fellowships and graduate assistant ships in the relevant disciplines, develop online curricula in cyber security, and support an internal grants process for UNO faculty summer support. Faculty will also explore a cross-college doctoral program in security and intelligence studies.

## Ted Kooser Center for Health Humanities

Principal investigators: Timi Barone and Steve Langan  
Cognizant deans: David Boocker, Michael Hilt, David Richards

In August UNO and UNMC inaugurated the Ted Kooser Center for the Health Humanities, named in honor of the Nebraska native and Poet Laureate-emeritus of the United States. UNO has a pride of place in the health humanities, having formed in 2015 the Minor in Medical Humanities (valuable to students who are enrolled in multiple pre-health tracks) and the Major in Medical Humanities (BA/BS) in 2019. Faculty developing this program span the Colleges of Arts & Sciences and the College of Communication, Fine Arts and Media, with close collaboration with faculty from UNMC. With the seed funding from the UNO Big Ideas process, UNO will build faculty and student research and creative activities to form a nationally-recognized center of excellence in health humanities that builds on our partnerships across UNMC and the Omaha metro area.

Seed funding will enable recruitment of additional faculty in the humanities and the fine arts, fund a competitive faculty summer support process for UNO faculty to explore their research interests, provide conference and workshop travel, and fund student experiential learning or service learning opportunities at UNMC or the many non profit and healthcare related partners in the Omaha metro area. Students and faculty alike will contribute to new knowledge and the betterment of our community.

## STEM TRAIL Center

Principal investigator: Christine Cutucache

Cognizant deans: Nancy Edick, David Boocker, Hesham Ali

The STEM Teaching, Research, and Inquiry-based Learning (TRAIL) Center seeks to transform how learners of all ages engage with science, technology, engineering, and math. The goal is to enhance STEM literacy by increasing access to high quality opportunities for learners to cultivate their interest and expertise in these fields, thereby broadening the pipeline to cultivate a diverse workforce ready to meet the changing industry needs both regional and nationally. UNO's recent investment in the center as a UNO Big Idea will provide the infrastructure needed to rapidly accelerate opportunities for stakeholders across campus, the city, and the region. High impact STEM teaching practices like experiential and inquiry-based learning will be featured. Discipline-based research and training both at UNO and with partners in the community will enhance student success at the university as well as in PK-12 classrooms throughout the region. By collecting evidence and rigorously evaluating the impact of our various activities, we aim to develop tools and techniques which are of value to both the research community as well as classroom teachers.

With seed funding from the UNO Big Ideas process, the center will support graduate assistants, grants coordination, operations, programming for speakers/seminars, and one-time contributions to explore a space to house the STEM Trail Center. This opportunity serves as our launch point to welcome additional partners to the table to support renovation and expansion needs surrounding STEM programming to dynamically pivot and address the needs of our students at UNO.

## **Transforming Wellness and Aging Through Business, Informatics and Gerontology (Formerly 'Business of Healthcare')**

Principal investigators: Louis Pol, Julie Blaskewicz-Boron, and Ann Fruhling  
Cognizant deans: Michelle Trawick, John Bartle, Hesham Ali

The Business of Healthcare initiative facilitate faculty and students in cutting-edge research that brings together methods and theoretical perspectives from business, informatics, and gerontology in order to enhance health and wellness in the aging U.S. population, as well as provide students and professionals with education and training that effectively prepares them for long-term careers in health and aging related fields. UNO's Business, Informatics, and Gerontology faculty, in collaboration with colleagues from UNMC, local and regional health providers, partner universities, and public sector agencies will provide health and wellness-related research, education, and training at the confluence of business, informatics, and gerontology. Major advancements in bio-informatics, including improvements in modeling, data structures, connected databases, and analytic techniques, have increased the potential for more effective (evidence-based) provider decision making in the health care and aging arena.

Seed funding from the UNO Big Ideas process will be used to hold a summit event that will encourage additional university colleagues and potential community partners to bring their expertise to bear on this effort. Funding will also be utilized to establish a pilot research grant program, hire graduate assistants and postdocs, develop for-credit and non-credit educational curricula, hold a health and aging career fair, and provide faculty-in-residence and summer research support opportunities.

## Biomechanical Rehabilitation and Manufacturing

Principal Investigators: Brian Knarr and Jorge Zuniga  
Cognizant deans: Nancy Edick

The mission of the Biomechanical Rehabilitation and Manufacturing Initiative (BRMI) will be to improve the quality of life of medically underserved populations through the offering of comprehensive rehabilitation services and the creation of low-cost medical devices for our local, national, and international communities. This Big Idea proposes a rehabilitation research initiative that pairs the research performed at UNO with clinical expertise in injury prevention and rehabilitation throughout Omaha to bolster UNO's academic excellence and community engagement. The BRMI will also provide an ideal platform to expose students from diverse majors to hands-on research and entrepreneurship type of activities for the implementation of rehabilitation services and the development of new low-cost biomedical devices and related biotechnologies.

Funding for the BRMI would provide the necessary infrastructure to coordinate and implement impactful clinical trial research using the designs and interventions discovered through UNO's collaborative research. The BRMI will support new collaborative initiatives between UNO's departments and colleges in both research and curriculum, providing greater access and education to our students. Globally, BRMI will continue to establish and grow national and international partnerships with rehabilitation sites and health-care device companies through UNO's institutional support.