



BUFFALO NIAGARA MEDICAL CAMPUS

FULLY ACHIEVING THE UNIVERSITY'S VAST POTENTIAL

A Vision of Excellence

UB 2020 is a vision for the University at Buffalo's emergence as a world-class public research university and a strategic plan for fully achieving its vast potential. It is being implemented through investments in excellence in academic and other programs across the university, including eight strategic strengths described below that were identified by UB faculty. We envision enhanced educational opportunities for our students, more research discoveries that improve life for people throughout the world, and a greater economic impact on our region and New York State.

ARTISTIC EXPRESSION AND PERFORMING ARTS

Spearheaded by the ongoing activities of the Center for 21st Century Music, faculty in this area work to facilitate a vibrant and dynamic environment for all art. Drawing from our belief that a cultural renaissance contributes to the quality of life in the university and region, we continue UB's long tradition of groundbreaking work in visual arts, musical composition and performance, theater, dance and writing.

HEALTH AND WELLNESS ACROSS THE LIFESPAN

How to live a healthy life into the 10th decade is the central focus of this strength. With involvement from faculty in our five health sciences schools, this strength works at the forefront of medical science. Our goal is to energize scientific discovery through the support of collaborative, interdisciplinary teams with the greatest potential to impact human health in the future.

INTEGRATED NANOSTRUCTURED SYSTEMS

Focusing on devices and systems ranging in size from countable numbers of atoms and molecules to 1/100th the diameter of a human blood cell (1 to 50 billionths of a meter), integrated nanostructured systems serves to stimulate collaborations between research areas covered by nanoscience and nanotechnology. It touches every technological discipline, in addition to some social sciences, at the university.

CIVIC ENGAGEMENT AND PUBLIC POLICY

This strength advances applied research and engaged scholarship addressing social and policy challenges and persistent inequalities, such as those related to race, class and gender. Research results are shared among scholars, community leaders and policy makers alike in the hope of developing integrated solutions to pressing social needs and concerns.

INFORMATION AND COMPUTING TECHNOLOGY

We recognize that advances in this field affect progress in almost every area of human endeavor. We are capitalizing on our nationally recognized research to create a vibrant research community that transcends discipline boundaries. UB is ideally positioned to create new methods and models to study and transform the structure, behavior and interactions of both natural and engineered systems.

MOLECULAR RECOGNITION IN BIOLOGICAL SYSTEMS AND BIOINFORMATICS

This strength focuses on understanding the fundamental biology and molecular nature of disease by using small molecules, molecular structures and pharmacodynamic approaches to understand the complex nature of biological systems. A team of researchers brings together several areas of excellence across the university and focuses on medically relevant research at the interface of chemistry and biology.

EXTREME EVENTS: MITIGATION AND RESPONSE

From New Orleans to Haiti, the importance of effective preparation and response to extreme events, both natural and manmade, is of increasingly apparent importance. We are a major hub for crucial and innovative research in structural engineering; our shake tables simulate the effects of massive earthquakes. A new facility for geologic hazards research is being developed in Ashford, New York.



CULTURES AND TEXTS

Our rich efforts in cultural, historical and literary studies bring together research on race and ethnicity, sexuality and gender, poetics, aesthetics and other aspects of history, language, literature, art and culture in the Americas, the Atlantic World, Africa and Asia, as well as the routes/roots of various empires and diasporas.