MEGAPROFESSORSHIPS
AT NORTHWESTERN MEDICINE
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Named and endowed MegaProfessorships within our new Institutes at Northwestern Medicine will usher in a new era for our academic medical center. In particular, creating named and endowed MegaProfessorships is enormously important as the Feinberg School of Medicine endeavors to double the research enterprise and rise in the competitive pantheon of research-intensive medical schools. The availability of these prestigious chairs will empower us to recruit iconic figures in medicine and science to direct new high-impact, high-return research programs. These internationally and nationally recognized physicians and scientists will put Northwestern Medicine on the map in cardinal areas. They also will attract colleagues of similar caliber and innovation to Northwestern, thereby growing our community of world-class scholars and leaders. The MegaProfessors at Northwestern Medicine will have a mandate to mentor and challenge our junior faculty, trainees, and medical students to excel in all they do.

We are keen on recruiting physicians and scientists who are not only phenomenal in their fields, but also are collaborative and highly entrepreneurial in their daily efforts. To elevate all of the research programs described herein and to maximize the development of clinical trials, novel basic science collaborations, and new partnerships, we also will dedicate two floors of “venture space” in our new Medical Research Pavilion to the MegaProfessors and their research teams.

**MegaProfessor of Biotechnology Entrepreneurship in Life Sciences**

A physician-scientist leader will be recruited in the field of drug development, bridging the pipeline from basic science proof of principle and intellectual property to fruition as a new drug, device, or diagnostic. This breakthrough program will provide for dynamic collaborations across numerous schools within the University, including Feinberg, Kellogg, Law, and the McCormick School of Engineering. This program will help bring new companies and job opportunities to Chicago.

**MegaProfessor of Cancer Biology**

To maximize Northwestern’s scientific contributions to the field of cancer, the Feinberg School of Medicine and the Robert H. Lurie Comprehensive Cancer Center of Northwestern University are partnering to establish a new Department of Cancer Biology. The Department’s mission and activities will focus on promoting an understanding of the molecular and cellular basis of cancer; the development of novel methodologies for diagnostic purposes and/or for prediction of therapeutic outcomes in the treatment of malignancies; and the development of novel therapies based on an improved understanding of the molecular etiology of cancer. This MegaProfessorship would be designated and reserved for the chair of this new department.

"Biomedical discoveries and new knowledge enhance patient care and are crucial in tackling the continued existence of diseases for which we have no answers. We recognize that every innovation that touches a patient today in medicine—even those that we now take for granted such as antibiotics, insulin, and the x-ray—began as an experiment led by highly innovative and determined researchers. Our MegaProfessors will champion this breakthrough work at Northwestern Medicine.”

Eric G. Neilson, Vice President for Medical Affairs and Lewis Landsberg Dean, Northwestern University Feinberg School of Medicine

**MegaProfessor of Genes and Environment**

Biology is how man is like flies, worms, and mice. Medicine (disease), however, has much more to do with differences between people rather than similarities to other species. It is critically important, therefore, to understand the roles of genes and environmental factors on human health and disease. A physician-scientist who is involved with next generation genome sequencing, its application to well-defined patient populations, and deciphering the role of environment in development of disease will spearhead an expanded program in this priority area at the Feinberg School of Medicine.

**MegaProfessors of Health Policy, Economics, and Law**

Healthcare costs are now more than 17% of our nation’s Gross Domestic Product or GDP. Economic principles and outcomes research will be applied to policy in this new program. Leaders with facility in this area will be recruited to spearhead a new program that will span several schools including Feinberg, Kellogg, and our Law School. This high-impact professorship will be parsed into three chairs in Health Policy, Health Economics, and Health Care Law.

**MegaProfessor of Sub-cellular Imaging**

The ability to image very small things is limited by the laws of physics (light diffraction), but great strides in mathematics and computer science have made it possible to image smaller and smaller entities. We are now able to see individual molecules and to discern how they interact and change in normal and abnormal functioning within the cell. The director of this program will apply mathematical models to cutting-edge technologies for imaging individual molecules in healthy and diseased cells and tissues. This program will target neurodegenerative diseases, such as Alzheimer’s disease and Parkinson’s disease, as well as cancer, diabetes, heart disease, and others.

**MegaProfessor of Biological Clocks**

The discovery that nearly every cell in the body relies on an internal clock to regulate its function, including the expression of genes and transduction of signals, and that this clock is disrupted in various disease states allows us an unprecedented opportunity to apply this basic science understanding to disease. Northwestern is an internationally recognized force in this area. A new recruit will facilitate the application of these biological insights to diseases and conditions such as diabetes, cancer, depression, obesity, heart and neurodegenerative maladies, and to otherwise normal functions such as sleep and aging.

**MegaProfessor of Biological Chemistry**

Biochemistry is the study of life processes chemistry within living organisms, particularly in the cell. A basic understanding of these biological processes gives rise to new approaches to manipulate cells in health and disease. Metabolic and signal transduction pathways underscore virtually all diseases, and a basic understanding of these processes is fundamental to drug development and guidelines for disease prevention. This program will zero in on diseases and conditions that impact millions of people worldwide including neurodegenerative diseases, such as Alzheimer’s disease and Parkinson’s disease, as well as cancer, diabetes, heart disease, and others.
MegaProfessor of Tissue Engineering, Transplant, and Regenerative Medicine

Tissue engineering has the goal of improving, replacing, and augmenting failing organs, as well as providing therapeutic implications for traumatic injury and wound healing. The director of this regenerative medicine program at Northwestern will lead and coalesce clinical and basic science collaborators across transplantation, medicine, engineering, Northwestern’s Institute for BioNanotechnology in Medicine, and the Northwestern University Clinical and Translational Sciences Institute to pursue the latest technology in tissue engineering—decellularization. Our efforts will maximize the use of tissue engineering to create bioartificial tissues and organs.

To compete for the world’s leading academic talent and to make these strategic recruitments a reality, the medical school is partnering with our donors by committing matching funds for each MegaProfessorship recruitment. Each MegaProfessorship will carry great prestige and impact for the benefactor, appointed holder of the professorship, and Northwestern Medicine. Once at Northwestern, these leaders will be expected to spearhead internationally recognized programs that require significant collaboration and innovation and that result in joint research projects and publications and/or interdisciplinary education and training initiatives.

THROUGH NORTHWESTERN MEDICINE, WE ARE CREATING A NATIONAL EPICENTER FOR HEALTHCARE, EDUCATION, RESEARCH, COMMUNITY SERVICE, AND ADVOCACY.

NORTHWESTERN MEDICINE

Northwestern Memorial HealthCare and Northwestern University Feinberg School of Medicine are seeking to impact the health of humankind through Northwestern Medicine. We aspire to be the destinations of choice for people seeking quality healthcare; for those who provide, support and advance that care through leading-edge treatments and breakthrough discoveries; and for people who share our passion for educating future physicians and scientists. Our commitment to transform healthcare and to be among the nation’s top academic medical centers will be accomplished through innovation and excellence.