

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ  
СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ  
КАФЕДРА ІНОЗЕМНИХ МОВ  
ЛІНГВІСТИЧНИЙ НАВЧАЛЬНО-МЕТОДИЧНИЙ ЦЕНТР

МАТЕРІАЛИ ІХ МІЖВУЗІВСЬКОЇ  
НАУКОВО-ПРАКТИЧНОЇ КОНФЕРЕНЦІЇ  
ЛІНГВІСТИЧНОГО НАВЧАЛЬНО-МЕТОДИЧНОГО ЦЕНТРУ  
КАФЕДРИ ІНОЗЕМНИХ МОВ

**“TO MAKE THE WORLD SMARTER AND SAFER”**

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## WE AND MEDICINE OF FUTURE

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There is a real need for innovation in health care delivery, as well as in medicine, to address related challenges of access, quality, and affordability through new and creative approaches. Health care environments must foster innovation, not just allowing it but actively encouraging it to happen anywhere and at every level in health care and medicine - from the laboratory, to the operating room, bedside, and clinics. This paper reviews the essential elements and environmental factors important for health-related innovation to flourish in academic health systems. The authors maintain that innovation must be actively cultivated by teaching it, creating "space" for and supporting it, and providing opportunities for its implementation. The authors seek to show the importance of these three fundamental principles and how they can be implemented, highlighting examples from across the country and their own institution. Health innovation cannot be relegated to a second-class status by the urgency of day-to-day operations, patient care, and the requirements of traditional research. Innovation needs to be elevated to a committed endeavor and become a part of an organization's culture, particularly in academic health centers.

Promoting healthy lifestyle is a challenge for many primary care practices. Although most patients understand the importance of physical activity and healthy eating, many seem unable to change their unhealthy behaviors to reduce weight and improve chronic conditions. Medications often take a predominant role in the treatment of these patients, even though medications alone are rarely completely effective for chronic conditions, and lifestyle changes have been shown to significantly reduce morbidity and mortality rates for most chronic diseases. In addition, patients can feel embarrassed and ashamed of their situations, and physicians can feel pressed for time, causing them to avoid the very dialogue they need to embrace in order to facilitate a breakthrough in improved health.

Diabetes self-care is a pain—literally. It brings the constant need to draw blood for glucose testing, the need for daily insulin shots and the heightened risk of infection from all that poking. Continuous glucose monitors and insulin pumps are today's best options for automating most of the complicated daily process of blood sugar management – but they don't completely remove the need for skin pricks and shots. But there's new skin in this game. Echo Therapeutics (Philadelphia, PA) is developing technologies that would replace the poke with a patch. The company is working on a transdermal biosensor that reads blood analyses through the skin without drawing blood. The technology involves a handheld electric-toothbrush-like device that removes just enough top-layer skin cells to put the patient's blood chemistry within signal range of a patch-borne biosensor. The sensor collects one reading per minute and sends the data wirelessly to a remote monitor, triggering audible alarms when levels go out of the patient's optimal range and tracking glucose levels over time.

With the most deadly form of skin cancer, melanoma, a huge number of dangerous-looking moles are actually harmless, but has always been impossible to know for sure without an invasive surgical biopsy. Today dermatologists have new help in making the right call — a handheld tool for multispectral analysis of tissue morphology. The optical scanner is not for definitive diagnosis but rather to provide additional information a doctor can use in determining whether or not to order a biopsy. The goal is to reduce the number of patients left with unnecessary biopsy scars, with the added benefit of eliminating the cost of unnecessary procedures.

As far as nutrition is concerned, the subject of it is massively wide and deep. There is so much to learn and there are so many seemingly contradictory theories on the subject of nutrition and its relationship with human physiology and mental function that it requires a great deal of time for discussion. To my mind, medicine of the future will no longer be remedial, it will be preventive; not based on drugs but on the optimum nutrition for health.