FROM THE BENCH

Conference Examines Medical Consequences of War

The toll of war on psychological and neurological health was the subject of the Association for Research in Nervous and Mental Disease’s annual meeting, held at the Rockefeller University in December. Organized in collaboration with NYU/WCMC, the event featured a talk by a Marine colonel and panel discussions on topics such as the treatment of traumatic brain injury and the use of emerging technologies to aid PTSD patients. “In the context of ongoing military conflict and extremist violence in Iraq, Afghanistan, and elsewhere, it is ever more important that we work to ameliorate the consequences of war as it affects the physical and mental health of combatants and noncombatants alike,” says Jack Barchas, MD, conference coordinator and chairman of psychiatry at Weill Cornell. “At the same time, we endeavor to better understand and address some of the underlying motivations that perpetuate violence.”

Laparoscopy Successful in Rectal Cancer Patients

In a seven-year study of 103 patients, researchers at NYU/WCMC have found that minimally invasive surgery is as effective in rectal cancer cases as the traditional open procedure. “More than 90 percent of the patients in our study were able to undergo laparoscopic surgery successfully,” says Toyooki Sonoda, MD, one of the study’s lead surgeons. “We define ‘success’ in both the short- and long-term sense: More than 95 percent emerged with an intact and functioning rectum and, as expected after a minimally invasive procedure, recovered rapidly. None had cancer-positive tumor margins, which has been a major concern in the medical literature all along. In fact, after five years, overall survival has remained high at 91 percent, with more than 73 percent of patients completely free from disease.” The results were reported in the Journal of the American Society of Colon and Rectal Surgeons. Researchers at Weill Cornell and elsewhere are following up with larger, randomized studies.

New Compound Shows Promise for Non-Hodgkin’s Lymphoma

Nature Medicine has published findings on a newly discovered molecular mechanism that may offer a target for treating non-Hodgkin’s lymphoma. The work in lab testing and animal models by Weill Cornell associate professor of medicine Ari Melnick, MD, and colleagues has led to an upcoming clinical trial on a compound, PU-H71, that is part of a new class of drugs called heat shock protein inhibitors. With current treatment—which includes chemotherapy, radiation, and monoclonal antibodies—only about half of non-Hodgkin’s lymphoma patients are cured. “We observed almost complete tumor regression after treating the animals with PU-H71,” says Melnick. “I hope that clinical testing will have similar results for human participants.”

Questionnaire Could Catch Undiagnosed Diabetes

A new screening tool aims to boost early detection of diabetes, which currently goes undiagnosed in nearly a third of patients. The simple, six-item questionnaire rates risk factors such as age, gender, and exercise level; those with elevated scores are instructed to consult their physicians for further testing. It was developed via statistical analysis of data on more than 5,000 American adults compiled by an arm of the CDC.

“Our goal was to develop an accurate and easy-to-use screening tool that can be used in a wide variety of community and clinical settings, including patient waiting rooms or online, or by using pencil and paper,” says lead author Heejung Bang, PhD, associate professor of biostatistics in public health. “By highlighting risk factors for diabetes, this tool is designed to motivate people to be screened, or at least to spark a discussion with their doctor and encourage them to adopt a healthier lifestyle.”

NIH Award Funds Work on Novel Testing Tools

Pharmacology professor Samie Jaffrey, MD, PhD, has received a five-year, $1.7 million grant known as an NIH Director’s Transformative R01 Award—given to “encourage investigators to explore bold ideas that have the potential to catapult fields forward and speed the translation of research into improved health.” The award, one of forty-two given by the NIH totaling $30 million, will fund Jaffrey’s work on methods to speed up lab testing by instantly measuring proteins within biological samples. His lab is developing new tools that rapidly emit light upon binding with specific target proteins. “The ability to simply add a sensor to a biological sample, and monitor the level of a given protein in minutes, would allow clinical diagnosis and medical decision-making to occur much more rapidly,” Jaffrey says.

Consensus Reached on Value of Diabetes Surgery

In November, the findings of the Diabetes Surgery Summit were published, offering a consensus statement on treatment for the disease. Participants at the meeting, which was held in Rome and included dozens of experts in the field, recommended that the criteria for bariatric surgery be expanded to include diabetic patients who are not clinically obese. “With an emphasis on caution and patient safety, the position statement boldly advances a revolutionary concept: the legitimacy of gastrointestinal surgery as a dedicated treatment for type 2 diabetes in carefully selected patients,” says lead author Francesco Rubino, MD, director of the gastrointestinal metabolic surgery program at NYU/WCMC. “The recommendations from the Diabetes Surgery Summit are an opportunity to improve access to surgical options supported by sound evidence, while also preventing harm from inappropriate use of unproven procedures.”