

EDITORIALS



Using Every Resource to Care for Our Casualties

Jeffrey M. Drazen, M.D.

The war in Iraq has resulted in an unprecedented number of traumatic brain injuries to U.S. soldiers. As described by Okie in this issue of the *Journal*,¹ these soldiers have been saved from what in the past might have been a lethal injury by a combination of new protective battlefield equipment and extraordinary resourcefulness on the part of medical first responders and military surgeons. These medical personnel have saved many lives.

Their success breeds another problem, however: how to provide the best long-term care for the survivors of these injuries. Once the bleeding has been stopped and the brain swelling has subsided, the long road to recovery begins. The military and the Veterans Health Administration (VHA) have done their best to use existing knowledge to provide wounded soldiers with the care they need to overcome their injuries. But we owe more to the wounded men and women who have sacrificed on our behalf; as a nation, we should be using all available means to aid them.

Biomedical science has made amazing advances in the development of biohybrid devices and neural prostheses such as artificial retinas. But there is much more to do, and more research is necessary if these nascent developments are to be transformed into therapies that can truly assist seriously injured military personnel. The effort will cost money and require research talent. Congress needs to allocate more resources for research specifically targeted at these problems. Given the traditional role of the VHA in caring for injured veterans, it makes sense to allocate substantial new resources to this agency's seriously underfunded research program specifically for this purpose.

The advances that have been made have come

about because researchers have been able to use the best tools of modern biologic science, including nanotechnology and robotics, to achieve their goals. Sadly, one tool that holds great promise — embryonic stem-cell research — cannot be used in federally funded research. It is ironic that the same government that asked military personnel to make sacrifices and that has developed highly sophisticated methods of combat rescue has limited the research tools that may lead to better ways to repair their injuries.

A report issued by the National Research Council and the Institute of Medicine of the National Academies in late April (available at <http://www.nap.edu/books/0309096537/html/>) recognizes that stem-cell research is proceeding in many places but that there is not a uniform regulatory framework for the endeavor. The report proposes uniform guidelines for this work, but we should go beyond the existing patchwork of research support in the United States; this research needs to be funded and encouraged at the federal level. We need national standards, but most important, the work must go forward. Embryonic stem cells are an appropriate resource for work on the regeneration of organs and nerves. We should give our researchers the fiscal and research resources they need to potentially help wounded veterans return to full function. These men and women have given their best efforts for their country; we owe them nothing less.

Dr. Drazen serves on the Veterans Affairs National Research Advisory Council.

1. Okie S. Traumatic brain injury in the war zone. *N Engl J Med* 2005;352:2043-7.

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