



# *What's Changing Under the NDAA?*

THE MAJOR TECHNOLOGICAL ADVANCEMENTS TAKING PLACE IN MILITARY HEALTHCARE

By Katherine Byrne

One of the largest challenges the military healthcare eco-system is facing is due to section 702 of the National Defense Authorization Act of FY 2017 (NDAA), which calls for a reform of the Defense Health Agency (DHA) and Military Medical Treatment Facilities (MTFs). Section 702 directs a major transformation of military healthcare from the military departments (Joint Staff, Army, Navy and Air-Force) to the Defense Health Agency (DoD) in consolidating primary responsibilities to the departments of the DHA.

“After careful study and deliberation, the conferees conclude that a single agency responsible for the administration of all MTFs would best improve and sustain operational medical force readiness and the medical readiness of the armed forces, improve beneficiaries’ access to care and the experience of care, improve health outcomes, and lower the total management cost of the military health system,” lawmakers wrote in a report communicating the House-Senate negotiation. “The current organizational structure – essentially three separate health systems each managed by one of the three services – paralyzes rapid decision-making and stifles innovation in producing a modern health care delivery system.”

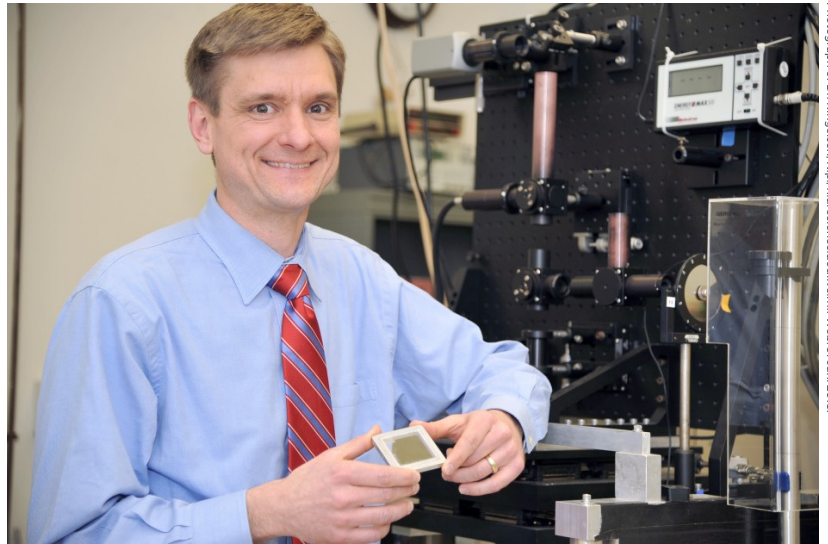
The Trump administration's first President's Budget (PB) requested \$639.1 billion for the Department of Defense (DoD) and the DoD's central goal is to use this funding to rebuild the military's capabilities. The DoD has placed an emphasis on improving preparedness and readiness, funding for operating forces, logistics, maintenance, training, and spares.

The key challenge of this major reform is to implement it without obstructing the military's ability to maintain a "ready medical force and medically ready force." According to Lt. Gen. (Dr.) Mark Ediger the Surgeon General of the Air Force, to keep wartime skills sharp, the military needs to "leverage partnerships with private sector health care institutions that provide trauma care and critical care."

To maintain a "ready medical force and medically ready force," the DHA is utilizing recent technological advancements and lifesaving innovations in an effort to modernize medical forces and facilities. This effort is expected to ensure that the highest level of trauma care and critical care are provided. In particular, the Biological Technologies Office within the Defense Advanced Research Projects Agency (DARPA) is currently researching biological technologies that will provide new tools for countering threats against our soldiers and country.

Dr. Brad Ringeisen, Deputy Director of the Biological Technologies Office (BTO) at DARPA, says there is an urgent need to provide medical tools and technologies for military readiness. "I see trends in the R&D community addressing the urgent need to provide medical tools and technologies for military readiness in far-forward deployed settings. Operations in austere conditions present a breadth of difficult problems (stopping rapid blood loss, protection against broad chemical and biological threats, trauma, stress, fatigue) and logistical issues (energy/fuel, medicines, building materials) that emerging biological technologies can address. BTO has current programs and is starting new programs to address many of these issues. Ultimately, we believe that biological technologies will provide new tools to help better prepare, protect and repair the soldier fighting in these field-forward environments," Dr. Ringeisen shared in an interview regarding his attendance at the upcoming Military Healthcare Summit.

Dr. Ringeisen has directed the Biological Technologies Office (BTO) since December 2016. Before that he was the Head of the Bioenergy and Biofabrication Section at the U.S. Naval Research Laboratory (NRL) and the government's Chief Technology Officer for the Defense Department's Advanced Technology Biofabrication Manufacturing Innovation Institute (currently called BiofabricationUSA and Advanced Regenerative



Photograph of Dr. Ringeisen, N.P., and science.dodlive.mil Web, 31 Jan, 2018.

**Above**  
Dr. Brad Ringeisen, Deputy Director at BTO office, DARPA

## **"I see trends in the R&D community addressing the urgent need to provide medical tools and technologies for military readiness in far-forward deployed settings"**

Manufacturing Institute (ARMI)). His research interests are focused on live cell printing, tissue engineering, organs on a chip and bioenergy. At DARPA BTO, he currently oversees a broad portfolio of programs in BTO that include novel manufacturing platforms and tools to help speed the production of medical countermeasures.

Additionally, Dr. Ringeisen explained, "Innovative technologies inherently harbor risk, however it is only with innovative technologies that we are able to see revolutionary advancements in science and achieve and maintain our military capabilities for national security. Part of DARPA BTO's job is to invest in innovative, emerging technologies so that we can de-risk them and provide novel solutions to the DoD advanced development and acquisition pipeline."

Dr. Ringeisen will be speaking at the upcoming Military Healthcare Summit this April 23 - 25 in Washington D.C. His speaking session will include a comprehensive discussion on applying new technology and innovation to save lives on prolonged battlefield care situations. Specifically he will share how to use innovation to enable and prolong battlefield survivability, how to expand the "golden hour" by applying medical advancement, and providing medical devices and methods for hemorrhage control.

Stating his enthusiasm for the Summit, he shared, "I'm very excited to hear firsthand about the current complexities of our Military Healthcare System and future requirements from stakeholders so that we might be able to see if, and where, our innovative technologies currently in development might support our military medical force. I am also excited to interact with companies that may offer new solutions to some of the problems I mentioned above. At DARPA we are always on the lookout for the next big leap ahead!"

## Meet Dr. Brad Ringeisen: MAIN CONFERENCE DAY 2

WEDNESDAY, APRIL 25TH, 2018

1345

### APPLY NEW TECHNOLOGY AND INNOVATION TO SAVE LIVES ON PROLONGED BATTLEFIELD CARE SITUATIONS

- Innovation enabling and prolonging battlefield survivability
- Expanding the "golden hour" by applying medical advancement
- Providing medical devices and methods for hemorrhage control – stop the bleed!



**Dr. Brad Ringeisen**  
Deputy Director at BTO office  
DARPA



April 23 - 25, 2018 | Washington D.C.

### Benefits of Attending:

- Address the Evolution of Military Healthcare into an Effective, Efficient, Peacetime System.
- Learn about the latest simulation and modeling to enhance military medicine skill sets.
- Understand Military Healthcare System contracting and acquisition procedures and upcoming priorities.
- Gain insight on cost cutting efficiencies, groundbreaking and lifesaving innovation by utilizing Virtual Health and Connected Medicine.
- Engage, Collaborate and Learn with International peers on medical innovation and procedures.
- Hear updates from senior leaders on the way ahead for the military healthcare system, advances in medical education and training.

### Interested in learning more?

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Brochure

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Attendee List

**Active U.S. Government, Military, and Law  
Enforcement can attend at no cost! [Register Now](#)**