Senate Committee on Appropriations

Full Committee Hearing: Driving Innovation through Federal Investments

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Testimony for the Record

Submitted by:

The Roundtable on Critical Care Policy

President, Stephanie Silverman

Chairwoman Mikulski, Ranking Member Shelby and other Members of the Committee, we thank you for holding this important hearing and we appreciate the opportunity to submit testimony for the record. As you work on the Fiscal Year (FY) 2015 appropriations bill, the Roundtable on Critical Care Policy urges the Committee to maintain a strong commitment to funding for the National Institutes of Health (NIH).

The Roundtable strongly believes that if we are to truly improve the health of Americans and reduce the economic burden of disease and illness, it is crucial that continued investments be made in NIH-supported research. The Roundtable urges this Committee to prioritize NIH-sponsored research in the FY2015 appropriations bill.

In addition, the Roundtable believes that one way to foster progress towards advances in treatments, diagnostics and cures is to improve the coordination of research.

Critical care medicine is the care of patients whose illnesses or injuries present a significant danger to life, limb, or organ function and encompasses a wide array of diseases and health issues including respiratory failure, shock, severe infection, traumatic injury, burns, neurological emergencies, and multi-system organ failure. The care provided in the intensive care unit (ICU) is highly specialized and complex due to the extreme severity of illness of its patient population, often involving multiple disease processes in different organ systems at the same time. Each

year, five million Americans are admitted into adult medical, surgical, pediatric, or neo-natal ICUs[i]. Providers of critical care require specialized training because the care delivered in the ICU is technology-intensive and the outcomes have life or death consequences. The high resource usage inherent in the ICU often makes care delivery costly, with critical care representing between 17-38% of all hospital costs.

While the critical care community has long been proactive in disseminating new knowledge regarding the pathophysiology and effective treatment of critical illness, we, as a nation, have had disproportionally little focus on critical care research. The U.S. still lags behind other countries in establishing and supporting trial networks for the discovery of new therapies for critically ill patients. Further, a recent study published in the *Journal of Critical Care Medicine* found that despite the fact that cancer care and critical care place similar economic burdens on the U.S., "proportionally 3.1-11.4 times more federal research money was spent on cancer care than on critical care research."[ii]

The unsurprising result is that relatively few breakthroughs have occurred in critical care medicine in decades compared to other areas of medicine. This fact was recently highlighted in an editorial in the New England Journal of Medicine which noted that in 2013 critical care practitioners faced many of the same problems faced by practitioners when the field of critical care was first defined in the 1950s. We can and should do better for patients with critical illnesses.

Clinical advancements that lead to improved outcomes are dependent on a robust research infrastructure that produces new insights and drives innovation. One barrier towards this progress in critical care is likely due to the multidisciplinary nature of the field, resulting in a scattering of critical care related projects throughout the NIH's 27 institutes and across the federal government and very little coordination among the varying entities and researchers.

The Roundtable believes that a Critical Care Coordinating Council within the NIH would help to facilitate information sharing amongst the various Institutes, which would serve to both identify critical care research gaps towards which resources could be more appropriately allocated, as well as identify duplicative projects. Such a Coordinating Council would foster collaboration between the Institutes and strengthen partnerships between the NIH and public and private entities to expand cross-cutting critical care research without costing the Federal government additional money.

There is precedent for this type of entity. The NIH recently acknowledged the efficiencies that can come from increased coordination by establishing an Office of Emergency Care Research, which is intended to serve as hub for basic, clinical and translational emergency care research and training across NIH. Like emergency medicine, critical care clinicians treat patients across

the lifespan who are often facing multiple acute and chronic illnesses and research into this type of medicine does not fit neatly to a specific Institute. Given the impact of critical care medicine on the nation, the Roundtable believes that a Coordinating Council is necessary to ensure our research dollars are utilized most effectively.

With the aging of the baby boomer generation and in the wake of recent health threats, now more than ever it is essential that we advance our scientific research in critical care medicine to ensure that America has a robust critical care infrastructure to appropriately care for seriously ill patients in the future. The Roundtable on Critical Care Policy strongly believes that investments made in medical research—and in particular research aimed at the critically ill and injured—will not only improve health outcomes and maintain U.S. leadership in biomedical research, but will also result in significant overall savings to the health care system. We thank you for your consideration.

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[i] Society of Critical Care Medicine. Critical care statistics in the United States.
http://www.sccm.org/AboutSCCM/Public%20Relations/Pages/Statistics.aspx
[ii] Coopersmith CM, Wunsch H, et al. "A comparison of critical care research funding and the financial burden of critical care illness in the United States." *Critical Care Medicine* 40 no.4 (2012)