

## “Merinoff Symposium 2010: Sepsis”—Speaking with One Voice

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In the first half of the 20th century, the polio pandemic spread across much of the world, afflicting hundreds of thousands each year. Mounting a response to this global health crisis required consensus, common language, and dedication among lawmakers, philanthropists, industrialists, patient advocates, and healthcare providers. A diverse group from many industries, both public and private, collaborated to develop a comprehensible message that defined the problem of polio, described its prevalence and mortality, and communicated the barriers to diagnosing and treating it effectively. Together this group led an effort to develop treatment strategies that, fifty years later, have nearly eradicated this devastating and lethal disease.

There is another pandemic today that, like polio, requires a concerted effort across multiple business sectors to be defeated. Sepsis may be the final common pathway to death from most infections, and is estimated to kill tens of millions of people worldwide annually. In the United States alone, approximately 215,000 die of sepsis each year—more than breast cancer, colon cancer, and HIV/AIDS combined (1–4). Despite these staggering losses, few specific therapeutic options are available to treat sepsis (4,5). Significant improvements have been made using evidence-based patient

assessment and management protocols for sepsis, yet poor adherence rates have hampered progress in reducing sepsis mortality (6,7).

A diverse group of experts from medicine, science and media collaborated with activists and advocates to form the Global Sepsis Alliance (GSA; [www.globalsepsisalliance.org](http://www.globalsepsisalliance.org)) to develop a framework to eradicate sepsis. Founded by the World Federation of Societies of Intensive and Critical Care Medicine (WFSICCM), the World Federation of Pediatric Intensive and Critical Care Societies (WFPICCS), the International Sepsis Forum (ISF), and the Sepsis Alliance (SA), the GSA now represents nearly 500,000 experts on five continents of the world. The objectives of the GSA include a commitment to address the needs of pediatric and adult sepsis patients in both the developed and the developing world; to provide a vehicle through which sepsis experts can “speak with one voice” to convey consistent, comprehensible messaging to governments, philanthropy, and the public; and to support research initiatives that will lead to improved outcomes for sepsis patients around the world. The first congressional meeting of the Global Sepsis Alliance was held on 30 September and 1 October, 2010. Representatives of the member organizations of the GSA, as well as members of national govern-

ments and media, met at the “Merinoff Symposium 2010: Sepsis” to accomplish three specific goals. An intensive collaborative process produced:

1. *A public definition of sepsis:* Sepsis is a life threatening condition that arises when the body's response to an infection injures its own tissues and organs. Sepsis leads to shock, multiple organ failure and death especially if not recognized early and treated promptly. Sepsis remains the primary cause of death from infection despite advances in modern medicine, including vaccines, antibiotics and acute care. Millions of people die of sepsis every year worldwide.
2. *A molecular definition of sepsis:* Host-derived molecules and foreign products of infection converge on molecular mechanisms that cause unbalanced activation of innate immunity. Foreign and endogenous molecules interact with pathogen recognition receptors expressed on or in cells of the immune system. Activation of pathogen recognition receptors culminates in the release of immune mediators that produce the clinical signs and symptoms of sepsis.
3. *A global call to action:* to recognize sepsis as a medical emergency requiring the administration of fluids, antibiotics and other appropriate treatments of infection within one hour of suspicion of sepsis; and to generate data investigating sepsis as the common pathway to death and a leading cause of death worldwide.

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It is on this foundation that the global community will mount a response to the health crisis that sepsis represents. It took many years to defeat polio. It will take commitment, dedication and patience if we are to succeed in eradicating sepsis.

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