

Statement of Mr. Gerard Reis

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To the Senate Committee on Appropriations, April 24, 2014

Chairwoman Mikulski, Ranking Member Shelby and Members of the Committee, thank you for the opportunity to submit this statement for the record for your important hearing on "Driving Innovation through Federal Investments."

STERIS Corporation is a global leader in infection prevention and critical care technologies. We develop and market innovative infection prevention, decontamination, and health science technologies, products, and services. We, like our industry partners, are able to provide more effective products to protect the health and safety of the public thanks to the scientific research provided through the work of the National Institutes of Health, National Science Foundation, and other agencies, and the research conducted by academic institutions funded under federal programs. In addition, our own in-house research and analytical capabilities and our experience in bringing products and services to market allows us to broaden the practical application and value of federally-funded research.

Our experience was put to direct use in the federal arena after the 2001 anthrax attacks in the U.S. Senate and other offices. Those attacks led us to establish the STERIS Defense and Industrial (D&I) division of our company in order to explore the adaptation of our products and services to the unique needs of the government and domestic first responders.

Our ability to do this has been facilitated since 2003 by a series of federal contracts totaling approximately \$50 million. These contracts have helped pay the cost of adapting some of our commercial/medical decontamination systems to the unique requirements of the military. STERIS has committed its own financial resources to supplement the federal funds in order to be more fully responsive to the government needs. Today, some 20 personnel are employed by STERIS D&I. We are hopeful that federal funding will continue to be available so that we can preserve our staff and facilities that are dedicated to the government/military needs.

STERIS D&I technologies and services have been used to decontaminate the mail processing facilities that served the White House and U.S. Department of State after contamination by anthrax. We have provided, through a service partner, expertise and proprietary sterilization equipment to decontaminate the mail equipment that processed Ricin-contaminated letters addressed to President Obama, Senator Wicker and others. Our technologies also have been used to remediate and recover anthrax-contaminated items from Presidential storage facilities and offices of a major media company. Our proprietary vaporous hydrogen peroxide (VHP) system has been shown to be both highly effective and can be carried out at a fraction of the cost of other decontamination processes.

STERIS D&I continues its work with the government in number of venues. We have entered into a Cooperative Research and Development Agreement with the U.S. Army's Edgewood Chemical and Biological Center, one of the world's premier research institutions, and we are working with the Joint Program Executive Office for Chemical Biological Defense to provide decontamination solutions for the Joint Strike Fighter and other aircraft. We are working with the Department of Defense (DoD) and other government agencies on research requirements, trial technologies, and solutions to meet emerging needs of military and homeland defense personnel.

Although our D&I work represents a very small fraction of the STERIS portfolio, we have considered it important for our country and our company to be involved in bringing private sector expertise to the task of countering chemical and biological attacks. We are proud to be able to share our capabilities to help fill "technology gaps" identified by DoD and other agencies.

These activities have given our company an opportunity to learn a great deal about the priority issues in the government's work to prevent and respond to the danger of chemical and biological attacks. As the committee works to illuminate the importance of federal programs that drive innovation in new and existing fields, STERIS would submit these issues for further review:

Chemical and biological defense. There are unique arenas of science that are inherently the responsibility of the federal government, and which also have broad public benefit. Of special interest is the arena of response to chemical and biological attacks. The public assumes that the government is prepared to deal with these issues, but our experience is that the dedicated and knowledgeable federal managers involved with these issues are starved for funding and weakened by challenging lines of authority and responsibility. Unlike cancer research or other programs that the public can readily see, resources (or the lack of them) for defense against chemical and biological agents is "out of sight, out of mind" until such time as an attack might take place.

Just like cancer research, the fundamental science involved in chemical and biological defense is unique and complex. However, while private sector research in cancer treatment is powerfully motivated by the prospect of financial rewards, there is comparatively little prospect of commercial sales for work in the chemical/biological arena.

Preserving the industrial base. America's serious fiscal issues have meant that federal funding for research is challenged across all program categories, and the programs that are "out of sight, out of mind" are the most threatened. Compounding the problem, with federal personnel reductions the government is increasingly dependent on the private sector industrial

base to provide the resources and solutions to rapidly-emerging national defense problems. But without a reliable level of funding opportunities, private businesses cannot maintain an investment in personnel and facilities for programs like chemical and biological decontamination, which have limited commercial value.

This issue has been exacerbated by the world-wide consolidation of private sector defense companies through the steady tide of mergers and acquisitions that began some 20 years ago. According to the U.S. Government Accountability Office, in 1991 the top ten global defense companies made up less than 40 percent of the revenue of the top 100 defense companies. By 2000, the top ten companies controlled 60 percent of the market. And of the top 100 companies in 1991, only 19 survive today. These very large defense companies tend to put little emphasis in small, niche requirements and contracts such as chemical and biological defense that generate small revenue opportunities.

Retired Army Major General Stephen V. Reeves, former Joint Program Executive Officer for Chemical and Biological Defense and a consultant to STERIS, has publicly declared his concern about a largely unseen and clearly under-reported impact of U.S. defense spending cuts and force reductions—the impact on what DoD designates as “critical and fragile niche industries.” General Reeves said the trend has hit particularly hard on mid-size and small companies and second and third tier hardware service suppliers that make up the chemical, biological, and radiological industrial base. Each year since 2011, the DoD Annual Industrial Capabilities Report has expressed increasing concern over the issue of the eroding industrial base and has called for a sector-by-sector, tier by tier evaluation that leads to adjustments or investments to “sustain specific niches in the defense industrial base.” General Reeves has said that to date, “there is more admiration of the problem than there is action.” Private sector work on chemical and biological defense programs exists as a niche industry that almost exclusively depends on government funding. As a result, the industry is economically fragile, and it is an industry that once lost is not easily or quickly reconstituted.

Practical applications of government-funded research. STERIS is at the head of the line in recognizing that so-called “pure research” that appears to have no direct applications to daily life is, in fact, the foundation of technological and scientific innovation. At the same time, while we believe that academic institutions are excellent at fundamental, ground breaking research, their work would benefit from more opportunities to partner with private industries that are experienced in bringing products to market. A unified industrial-academic team will more rapidly make significant progress toward defined goals. Government programs should facilitate this “teaming research” and do so in a way that protects the federal interest and benefits to taxpayer.

Chairwoman Mikulski, Senator Shelby and Committee Members, thank you again for the opportunity to submit this statement. Our company stands ready to assist you in your work in any way we can.

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