



## FY 2011 Funding for R&D at the U.S. DEPARTMENT OF DEFENSE April 2010

**Position:** The Council for Chemical Research (CCR) **supports the 6.2% increase in the President's request** for the Department of Defense's basic ("6.1") R&D budget for FY 2011 of \$2 billion as well as the \$3.1 billion for DARPA. CCR also supports the shift of funding from advanced technology development projects to basic and applied research programs, and continued growth of these programs over the next several years.

**Who We Are:** CCR is a non-profit organization dedicated to advancing multi-sector, multi-disciplinary research in the chemical sciences and engineering. Its member organizations – companies, universities and government laboratories – are represented in CCR by their research leaders.

We recognize the budget constraints faced by Congress but strongly urge that funding for physical sciences research be strengthened as an investment in our Nation's future. Our studies (<http://www.ccrhq.org/publications>) and those of others demonstrate that Federal investments in chemical science research yield significant payback for the US economy. **Every dollar of Federal investment is leveraged by \$5 of private investment; this investment generates ten dollars of operating income for industry (a 17% annual after tax return), the economy gains roughly \$40 in GDP, \$8 in increased tax revenues, and creates 600,000 new jobs over the ensuing 20 year period.**

### Rationale

DoD basic and applied research play a critical role in developing valuable technologies for the nation's future, and not just for defense; budgets for these programs should be strengthened. Studies have shown that stable funding in both basic and applied research yields the most productive results.

- Basic and applied R&D provide **productive new concepts and technologies** essential to the nation's defense and homeland security. Equally important is the derived civilian use of new products and processes helping U.S. industries compete in the international marketplace.
- DoD is one of the largest supporters of R&D in the federal government and is **a key sponsor for several science and engineering disciplines** that focus on chemistry.
- Significant research on **new materials**, new chemical processes for the manufacture of new materials, and sophisticated process control takes place within DoD's basic and applied research budgets.
- **Remote sensing** technologies developed by DoD will play a significant role in protecting American chemical plants and cities from terrorist attacks.
- **Maintaining the U.S. S&T Workforce is critical for our national security.** Thirty percent of DoD basic and applied research is performed by universities and colleges; these institutions educate the scientists and engineers that will be the **next generation's workforce.**
- **A strong and well-funded R&D program is essential to the nation's future defense.** If additional resources can be provided, they should be focused on basic R&D challenges and barriers to enable the defense industries to make breakthrough advances.