DIVISION OF CHEMISTRY (CHE)

$247,560,000
+$13,830,000 / 5.9%

CHE Funding
(Dollars in Millions)

	FY 2009 Omnibus Actual	FY 2009 ARRA Actual[1]	FY 2010 Estimate	FY 2011 Request	Change Over FY 2010 Estimate Amount	Change Over FY 2010 Estimate Percent
CHE	**$211.67**	**$87.36**	**$233.73**	**$247.56**	**$13.83**	**5.9%**
Research	182.86	63.18	202.25	218.55	16.30	8.1%
STC: Center for Environmentally Responsible Solvents and Processes	*2.66*	-	-	-	-	*N/A*
Centers for Chemical Innovation	*15.50*	-	*24.00*	*28.00*	*4.00*	*16.7%*
Nano Science & Eng Centers	*2.85*	-	*2.85*	*1.55*	*-1.30*	*-45.6%*
Education	10.23	9.45	12.30	12.47	0.17	1.4%
Infrastructure	15.27	14.73	15.40	12.40	-3.00	-19.5%
Nat'l High Magn. Field Lab. (NHMFL)	*1.50*	-	*4.06*	*1.50*	*-2.56*	*-63.1%*
Nat'l Nanofabrication Infra. Network (NNIN)	*0.40*	-	*0.40*	*0.40*	-	-

[1] $15.0 million of FY 2009 ARRA funding was carried over into FY 2010.

The Division of Chemistry (CHE) supports a large and vibrant research community engaged in fundamental research linked to key national priorities. Basic research in chemistry underpins improving climate models, understanding the environmental health and safety of nanoparticles, developing catalysts that enable sustainability and energy research, and the molecular basis of the life sciences. CHE has recently realigned its programs incorporating input from its stakeholders and partners. The new disciplinary research programs include Chemical Structure; Dynamics and Mechanisms; Chemical Synthesis; Chemical Measurement and Imaging; Theory, Models and Computational Methods; Environmental Chemical Sciences; Chemistry of Life Processes, Chemical Catalysis and Macromolecular, Supramolecular and Nanochemistry. These new programs are poised to collaborate with other agencies and other divisions of NSF.

In general, 38 percent of the CHE portfolio is available for new research grants. The remaining 62 percent funds continuing grants made in previous years.

Factors Influencing the Allocation Across CHE Programs

- The major driver for the increase in Research (+$16.30 million) is the positive response of the chemistry research community to programmatic realignment within the Chemistry Division. Also, a recategorization of CHE's instrument development program shifted $3.0 million from Infrastructure into Research. Under its new structure, CHE expects an increase in interdisciplinary proposals that advance fundamental chemical sciences and education, capitalize on FY 2009 ARRA investments, and impact national priorities.
- Within the Research portfolio, CHE has significant investments planned for key priority areas, including Science, Engineering and Education for Sustainability (SEES)/Energy and Climate Research ($50.50 million), Science and Engineering Beyond Moore's Law ($9.68 million), and Environmental Sciences ($25.15 million);

- The request also supports the Centers for Chemical Innovation program, which inspires research on strategic, transformative "big questions" in basic chemical research. CHE will invest an additional $4.0 million for a total of $28.0 million. The request reflects the establishment of one additional Phase II Center (for a total of six) and four new Phase I Centers (for a total of twelve). One Nano Center is phasing out in FY 2011 for a decrease of $1.30 million;
- The Discovery Corps Fellowship Program will merge with the American Competitiveness in Chemistry Fellowship Program, which provides consistent bridges to the top ranked young talent in chemistry as they progress to the professoriate. CHE will increase its contribution to the Graduate Research Fellowship Program from $1.59 million to $2.56 million. The Undergraduate Research Collaborative program will phase out in FY 2011 resulting in a decrease of $1.0 million; and
- Within infrastructure, the CHE Request includes increased investments (+$3.0 million) in a multi-user instrumentation acquisition program and other research resources. The FY 2010 Estimate for the National High Magnetic Field Laboratory (NHMFL) includes a one-time award of $2.56 million for development of a magnet. In FY 2011, base funding for NHMFL is maintained at $1.50 million.