

DIVISION OF CHEMISTRY (CHE)

\$243,850,000
+\$9,790,000 / 4.2%

CHE Funding
(Dollars in Millions)

	FY 2011 Actual	FY 2012 Estimate	FY 2013 Request	Change Over FY 2012 Estimate	
				Amount	Percent
Total, CHE	\$233.55	\$234.06	\$243.85	\$9.79	4.2%
Research	209.14	224.07	225.46	1.39	4.2%
<i>CAREER</i>	24.24	21.38	22.28	0.90	4.2%
<i>Centers Funding (total)</i>	25.58	24.15	29.40	5.25	21.7%
<i>Centers for Chemical Innovation</i>	24.28	24.00	29.25	5.25	21.9%
<i>Nanoscale Science & Engineering Centers</i>	1.30	0.15	0.15	-	-
Education	11.87	6.95	7.50	0.55	7.9%
Infrastructure	12.54	3.04	10.89	7.85	258.2%
<i>Nat'l Nanotechnology Infrastructure Network</i>	0.40	0.40	-	-0.40	-100.0%
<i>NHMFL</i>	1.50	1.50	1.75	0.25	16.7%
<i>Research Resources</i>	10.24	1.14	9.14	8.00	701.8%

Totals may not add due to rounding.

CHE supports a large and vibrant research community engaged in fundamental research linked to key national priorities. Basic research supported by CHE will enable research in sustainability in general and sustainable chemistry in particular, providing molecules and materials that are essential to our economy and well-being. CHE strongly supports research at the interface of biology and chemistry. Chemistry's programs invite research in catalysis for power generation and storage as well as to enable the formation of new chemical bonds, appreciation of and insight into the chemistry of life processes, new nanostructured materials that will revolutionize electronics and photonics, and better awareness of how nanosized aerosols and particles impact our environment. In addition, CHE supports research that leads to increased understanding of molecules and materials and their chemical transformation and the development of new instrumentation to study and detect molecules.

Approximately 72 percent of CHE's budget is used to support individuals and small groups of researchers, about 8 percent of the budget goes to instrumentation, 11 percent to facilities and centers, and the remainder goes to education and outreach. About 47 percent of CHE's budget is targeted at new awards, and the remainder toward continuing grant increments. A small percentage (less than one percent) provides review panel support.

FY 2013 Summary

All funding decreases/increases represent change over the FY 2012 Estimate.

Research

- An increase (+\$1.39 million to a total of \$225.46 million) for core research programs will enable greater support of projects at the frontier of chemistry, including strategic investments in SEES, (specifically initiating SusChEM), CIF21, CEMMSS, (specifically initiating DMREF), and BioMaPS.
- CAREER: This program is particularly important to the development of strong academic departments and the training of the next generation of scientists and engineers. CHE has a long and strong tradition in supporting junior researchers through the CAREER program. Funding will remain at 9

percent of the total CHE Request. The planned investment in FY 2013 increases by \$900,000 over the FY 2012 estimate to \$22.28 million.

- The Centers for Chemical Innovations (CCI) program, which inspires research on strategic, transformative "Grand Challenges" in chemical research, increases by \$5.25 million to \$29.25 million. CCI awards are strengthened by direct links to chemical industry and governmental laboratories, which encourage successful transitions from the lab to innovation to societal applications. CHE plans to initiate three new Phase I CCIs and fund one Phase II CCI in FY 2013. The Phase II awards will be selected competitively from a pool of Phase I awards and Phase II awards eligible for renewal.

Education

- Support will remain constant for the Integrative Graduate Education and Research Traineeship (IGERT) program and increase by \$500,000 for Research Experiences for Undergraduates (REU) Sites to a total of \$5.0 million.

Infrastructure

- NHMFL: Co-funding support increases by \$250,000 to \$1.75 million. This increase is to offset rising operating expenses for the 21 T magnet, and the staffing that is required to provide full access to the user community.
- Funding for Coherent Light Source (CLS) and ChemMatCARS continues at \$400,000 and \$740,000, respectively through continuing grant increments.
- Research Resources: The Chemistry Research Instrumentation and Facilities program was suspended in FY 2012 and will restart in FY 2013 at the FY 2011 level of \$8.0 million, increasing the overall budget to \$9.14 million. The remaining \$1.14 million are continuing grant increments to support ChemMatCARS and CLS (see above).