

and recommendations for increasing its future impact.

(b) Study on molecular self-assembly

As part of the first quadrennial review conducted in accordance with subsection (a), the National Research Council shall conduct a one-time study to determine the technical feasibility of molecular self-assembly for the manufacture of materials and devices at the molecular scale.

(c) Study on the responsible development of nanotechnology

As part of the first quadrennial review conducted in accordance with subsection (a), the National Research Council shall conduct a one-time study to assess the need for standards, guidelines, or strategies for ensuring the responsible development of nanotechnology, including, but not limited to—

- (1) self-replicating nanoscale machines or devices;
- (2) the release of such machines in natural environments;
- (3) encryption;
- (4) the development of defensive technologies;
- (5) the use of nanotechnology in the enhancement of human intelligence; and
- (6) the use of nanotechnology in developing artificial intelligence.

(d) Report

(1) In general

Not later than 30 days after the date the first evaluation under subsection (a) is received, and quadrennially thereafter, the Director of the National Nanotechnology Coordination Office shall report to the President its assessments under subsection (c) and its recommendations for ways to improve the Program.

(2) Congress

Not later than 30 days after the date the President receives the report under paragraph (1), the Director of the Office of Science and Technology Policy shall transmit a copy of the report to Congress.

(Pub. L. 108–153, § 5, Dec. 3, 2003, 117 Stat. 1928; Pub. L. 114–329, title II, § 204(b)(3), Jan. 6, 2017, 130 Stat. 2999.)

AMENDMENTS

2017—Pub. L. 114–329, § 204(b)(3)(A)–(D), substituted “Quadrennial” for “Triennial” in section catchline and “quadrennial” for “triennial” in subsecs. (a) to (c).

Subsec. (d). Pub. L. 114–329, § 204(b)(3)(E), amended subsec. (d) generally. Prior to amendment, text read as follows: “The Director of the National Nanotechnology Coordination Office shall transmit the results of any evaluation for which it made arrangements under subsection (a) to the Advisory Panel, the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science upon receipt. The first such evaluation shall be transmitted no later than June 10, 2005, with subsequent evaluations transmitted to the Committees every 3 years thereafter.”

§ 7505. Authorization of appropriations

(a) National Science Foundation

There are authorized to be appropriated to the Director of the National Science Foundation to

carry out the Director’s responsibilities under this chapter—

- (1) \$385,000,000 for fiscal year 2005;
- (2) \$424,000,000 for fiscal year 2006;
- (3) \$449,000,000 for fiscal year 2007; and
- (4) \$476,000,000 for fiscal year 2008.

(b) Department of Energy

There are authorized to be appropriated to the Secretary of Energy to carry out the Secretary’s responsibilities under this chapter—

- (1) \$317,000,000 for fiscal year 2005;
- (2) \$347,000,000 for fiscal year 2006;
- (3) \$380,000,000 for fiscal year 2007; and
- (4) \$415,000,000 for fiscal year 2008.

(c) National Aeronautics and Space Administration

There are authorized to be appropriated to the Administrator of the National Aeronautics and Space Administration to carry out the Administrator’s responsibilities under this chapter—

- (1) \$34,100,000 for fiscal year 2005;
- (2) \$37,500,000 for fiscal year 2006;
- (3) \$40,000,000 for fiscal year 2007; and
- (4) \$42,300,000 for fiscal year 2008.

(d) National Institute of Standards and Technology

There are authorized to be appropriated to the Director of the National Institute of Standards and Technology to carry out the Director’s responsibilities under this chapter—

- (1) \$68,200,000 for fiscal year 2005;
- (2) \$75,000,000 for fiscal year 2006;
- (3) \$80,000,000 for fiscal year 2007; and
- (4) \$84,000,000 for fiscal year 2008.

(e) Environmental Protection Agency

There are authorized to be appropriated to the Administrator of the Environmental Protection Agency to carry out the Administrator’s responsibilities under this chapter—

- (1) \$5,500,000 for fiscal year 2005;
- (2) \$6,050,000 for fiscal year 2006;
- (3) \$6,413,000 for fiscal year 2007; and
- (4) \$6,800,000 for fiscal year 2008.

(Pub. L. 108–153, § 6, Dec. 3, 2003, 117 Stat. 1929.)

§ 7506. Department of Commerce programs

(a) NIST programs

The Director of the National Institute of Standards and Technology shall—

- (1) as part of the Program activities under section 7501(b)(7) of this title, establish a program to conduct basic research on issues related to the development and manufacture of nanotechnology, including metrology; reliability and quality assurance; processes control; and manufacturing best practices; and

- (2) utilize the Manufacturing Extension Partnership program¹ to the extent possible to ensure that the research conducted under paragraph (1) reaches small- and medium-sized manufacturing companies.

(b) Clearinghouse

The Secretary of Commerce or his designee, in consultation with the National Nanotechnology

¹ See Change of Name note below.