#### 110TH CONGRESS 2D SESSION

# S. 2988

To amend the Public Health Service Act to enhance public and private research efforts to develop new tools and therapies that prevent, detect, and cure diseases.

### IN THE SENATE OF THE UNITED STATES

May 7, 2008

Mr. Lieberman introduced the following bill; which was read twice and referred to the Committee on Health, Education, Labor, and Pensions

# A BILL

To amend the Public Health Service Act to enhance public and private research efforts to develop new tools and therapies that prevent, detect, and cure diseases.

- 1 Be it enacted by the Senate and House of Representa-
- 2 tives of the United States of America in Congress assembled,
- 3 SECTION 1. SHORT TITLE.
- 4 This Act may be cited as the "Accelerating Cures Act
- 5 of 2008".
- 6 SEC. 2. TABLE OF CONTENTS.
- 7 The table of contents for this Act is as follows:

"PART J—ACCELERATING CURES

"SUBPART 1—PATHWAYS TO CURES SUBCOMMITTEE

"Sec. 499A. Pathways to Cures Subcommittee.

#### "SUBPART 2—CLINICAL EFFECTIVENESS; FFRDC

"Sec. 499B. Federally Funded Research and Development Center.

"SUBPART 3—HEALTH ADVANCED RESEARCH PROJECTS PROGRAM

"Sec. 499C. Health Advanced Research Projects Program.

#### "SUBPART 4—CLINICAL TRIALS

- "Sec. 499D. Grants for quality clinical trial design and execution.
- "Sec. 499D-1. Streamlining the regulatory process governing clinical research.
- "Sec. 499D-2. Clinical research study and clinical trial.

"SUBPART 5—TRAINING CLINICAL AND TRANSLATIONAL RESEARCHERS OF THE FUTURE

"Sec. 499E. Training translational and clinical researchers of the future.

"Sec. 499E-1. Translational research training program.

"SUBPART 6—THE 'VALLEY OF DEATH'

- "Sec. 499F. Small business partnerships.
- "Sec. 499F-1. Rapid access to intervention development.
- "Sec. 499F-2. Translational Development Program for New Innovations.

"SUBPART 7—TRANSLATIONAL RESEARCH FUND

- "Sec. 449G. Translational Research Fund.
- "Sec. 404I. Application of research requirement.".

#### 1 SEC. 3. FINDINGS; PURPOSE.

- 2 (a) FINDINGS.—Congress finds the following:
- 3 (1) The National Institutes of Health (referred
- 4 to in this section as the "NIH") is the United
- 5 States premier biomedical research investment with
- 6 annual appropriations exceeding \$29,200,000,000.
- 7 (2) The goals of the NIH are to—
- 8 (A) foster fundamental creative discoveries,
- 9 innovative research strategies, and their appli-
- 10 cations as a basis to significantly advance the
- 11 Nation's capacity to protect and improve
- health;

1	(B) develop, maintain, and renew scientific
2	human and physical resources that will ensure
3	the Nation's capacity to prevent disease;
4	(C) expand the knowledge base in medical
5	and associated sciences in order to enhance the
6	Nation's economic well-being and ensure a con-
7	tinued high return on the public investment in
8	research; and
9	(D) exemplify and promote the highest
10	level of scientific integrity, public accountability,
11	and social responsibility in the conduct of
12	science.
13	(3) Thus, the NIH is tasked with applying
14	basic science discoveries to protect and improve
15	health. This includes, translational research, which
16	is the scientific work necessary to develop a clinical
17	application from a basic science discovery.
18	(4) The United States translational research in-
19	vestment will be key to the Nation responding effec-
20	tively—
21	(A) to public and population health
22	threats;
23	(B) to the complex nature of chronic dis-
24	eases, which are responsible for 7 out of 10
25	deaths in the United States, for 75 percent of

- the \$2,300,000,000 spent annually on healthcare in the United States, and for 16 percent of gross domestic product;
  - (C) to research and development vacuums in the private for-profit market, such as in the fields of vaccine and antibiotic production, drugs for Third World diseases, orphan drugs, and medical tools for pediatric populations; and
  - (D) to facilitate the process of converting medical innovations into commercial products.
  - (5) Key components of the translational research process include research prioritization, a strengthening and maintenance of an expert workforce, multidisciplinary collaborative work, strategic risk taking, support of small innovative businesses caught along common pathways in the research and development Valley of Death, simplification and promotion of the clinical research endeavor, and early involvement of private entities that are skilled in the manufacturing and marketing process in the translational research endeavor.
  - (6) A National Academy of Sciences/Institute of Medicine report made recommendations for reorganizing NIH to meet new challenges facing the biomedical research endeavor. The committee report

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- contained specific recommendations aimed at strengthening clinical and translational research including: increasing trans-NIH research, promoting innovation and risk taking in intramural research, creating a "special projects" program, and increasing funding for research management and support.
- (7) The Government Accountability Office reported that although the pharmaceutical industry has increased its research and development investment by 147 percent from 1993 to 2004, new drug applications to the Food and Drug Administration have only increased by 39 percent; thus, the productivity of the industry's research and development expenditures is declining. The report cited that a limited scientific understanding of how to translate research discoveries into safe and effective drugs is contributing to the problem and recommended that training researchers who can translate drug discoveries into effective medicines is necessary.
- (8) It is estimated to take 17 years for a science discovery to be translated from the point of proof of concept to clinical application. The percent of physicians engaged in research has declined steadily from a peak of 4.6 percent in 1985 to 1.8 percent in 2003.

- (9) A report by the Infectious Disease Society of America cited concerns with the lack of new anti-biotics to treat infectious diseases. The report com-mended the NIH Roadmap, but also recommended that NIH aggressively expand the translational re-search components of the Roadmap, increase grants to small businesses, universities, and nonprofits working in antibiotics research and development, and seek more opportunities to partner with phar-maceutical and biotech companies.
  - (10) Clinical effectiveness results provide patients, payers, and clinicians with tools to evaluate the benefits versus risks of the ever evolving number of prevention, diagnosis, and treatment strategies available.
  - (11) The Common Fund is an annual set aside account created from an agreed upon percentage of the annual budget that supports innovative and trans-NIH initiatives to improve and accelerate research to impact health.
  - (12) The "Valley of Death" is a stage in biomedical development between research and commercialization where the success of a product is dependent on its profitability.

- 1 (b) Purpose.—The purpose of this Act is to create
- 2 a new pathway to curing disease by enhancing public and
- 3 private research to translate new discoveries from bench
- 4 to be side.
- 5 SEC. 4. ACCELERATING CURES ACT OF 2008.
- 6 Title IV of the Public Health Service Act (42 U.S.C.
- 7 281 et seq.) is amended by adding at the end the fol-
- 8 lowing:
- 9 "PART J—ACCELERATING CURES
- 10 "Subpart 1—Pathways to Cures Subcommittee
- 11 "SEC. 499A. PATHWAYS TO CURES SUBCOMMITTEE.
- 12 "(a) Definition of Translational Research.—
- 13 In this section, the term 'translational research' means re-
- 14 search that transforms scientific discoveries arising from
- 15 laboratory, clinical, or population studies into clinical ap-
- 16 plication to reduce disease incidence, morbidity, and mor-
- 17 tality.
- 18 "(b) Establishment of Pathways to Cures
- 19 Subcommittee.—There is established a Pathways to
- 20 Cures Subcommittee within the Council of Councils of the
- 21 Office of Portfolio Analysis and Strategic Initiatives of the
- 22 National Institutes of Health that shall convene not less
- 23 frequently than twice a year to help advise and direct the
- 24 translational research priorities of the Office of Portfolio

1	Analysis and Strategic Initiatives (referred to in this part
2	as the 'OPASI').
3	"(c) Membership.—
4	"(1) In general.—The subcommittee estab-
5	lished under subsection (b) may be composed of the
6	following members:
7	"(A) The Director of NIH and the Direc-
8	tor of OPASI who shall be subcommittee co-
9	chairs.
10	"(B) The heads of the institutes and cen-
11	ters of the National Institutes of Health.
12	"(C) Heads from Federal agencies, includ-
13	ing—
14	"(i) the Administrator for the Sub-
15	stance Abuse and Mental Health Services
16	Administration;
17	"(ii) the Under Secretary for Science
18	and Technology of the Department of
19	Homeland Security;
20	"(iii) the Commanding General for
21	the United States Army Medical Research
22	and Materiel Command;
23	"(iv) the Director of the Centers for
24	Disease Control and Prevention;

1	"(v) the Commissioner of Food and
2	Drugs;
3	"(vi) the Director of the Office of
4	Science of the Department of Energy;
5	"(vii) the President of the Institute of
6	Medicine;
7	"(viii) the Director of the Agency for
8	Healthcare Research and Quality; and
9	"(ix) the Director of the Defense Ad-
10	vanced Research Projects Agency.
11	"(2) Other members.—The subcommittee es-
12	tablished under subsection (b) shall also include not
13	fewer than 3 leaders from the small business medical
14	research community, 3 leaders from large pharma-
15	ceutical or biotechnology companies, and 3 leaders
16	from academia and patient advocacy organizations,
17	all of whom shall be appointed by the Director of
18	NIH.
19	"(d) Recommendations; Coordination; Fund-
20	ING.—
21	"(1) Setting priorities.—The subcommittee
22	established under subsection (b) shall make rec-
23	ommendations to assist the Director of OPASI in
24	setting translational research priorities.

1	"(2) Recommendations.—In making rec-
2	ommendations, the subcommittee shall—
3	"(A) consider risk and burden of disease
4	as well as lines of research uniquely poised to
5	deliver effective diagnostics and therapies; and
6	"(B) be mission-driven and identify re-
7	search that shows specific promise for a new
8	treatment or cure for a disease.
9	"(3) COORDINATION.—The subcommittee shall
10	ensure sharing of research agendas among the insti-
11	tutes and centers of the National Institutes of
12	Health for the purpose of coordinating translational
13	research priorities, where appropriate, across such
14	institutes and centers.
15	"(4) Funding.—The subcommittee and the Di-
16	rector of OPASI—
17	"(A) shall identify research with applica-
18	tion or commercialization potential; and
19	"(B) may fund such research
20	"(e) Report.—The subcommittee established under
21	subsection (b) shall submit an annual report to Congress
22	on progress towards finding new treatments and cures.

1	"Subpart 2—Clinical Effectiveness; FFRDC
2	"SEC. 499B. FEDERALLY FUNDED RESEARCH AND DEVEL-
3	OPMENT CENTER.
4	"(a) Establishment of Center.—
5	"(1) IN GENERAL.—The Director of NIH, in
6	conjunction with the Director of the Agency for
7	Healthcare Research and Quality (referred to in this
8	subpart as the 'AHRQ'), shall establish a Federally
9	Funded Research and Development Center (referred
10	to in this subpart as the 'FFRDC') on clinical effec-
11	tiveness research.
12	"(2) Definition of Clinical Effectiveness
13	RESEARCH.—In this section, the term 'clinical effec-
14	tiveness research' means research that—
15	"(A) provides information for health care
16	decision makers, including patients, providers,
17	and public and private payers, to make evi-
18	dence-based decisions about the delivery of
19	health care; and
20	"(B) considers specific subpopulations.
21	"(3) Director of the ffrdc.—The Director
22	of NIH, in conjunction with the Director of the
23	AHRQ, shall appoint a Director of the FFRDC.
24	"(b) Duties of the Director of the FFRDC.—
25	The Director of the FFRDC shall—

1	"(1) review, synthesize, and disseminate clinical
2	effectiveness research;
3	"(2) set priorities for, and fund, trials, such as
4	randomized controlled trials, adaptive trials, and
5	practical trials, observational studies, secondary data
6	analysis in areas of clinical effectiveness research
7	where evidence is lacking, systematic reviews of ex-
8	isting research, as necessary, and cost-effectiveness
9	studies;
10	"(3) make recommendations regarding the find-
11	ings of paragraphs (1) and (2);
12	"(4) study the differential outcomes of interven-
13	tions on subpopulations within diseases;
14	"(5) use competitive award processes, including,
15	but not solely, competitive peer review, and examine
16	methods of rapid review cycles to reduce delays in
17	funding decisions;
18	"(6) encourage the development and use of elec-
19	tronic health data to conduct clinical effectiveness
20	research for the goal of improving clinical care deliv-
21	ery;
22	"(7) support the development of methodological
23	standards to be used when conducting studies of
24	clinical effectiveness and value in order to help en-

1	sure accurate and effective comparisons and update
2	such standards not less frequently than annually;
3	"(8) include, and collaborate and consult with,
4	as necessary, the Food and Drug Administration,
5	the Centers for Medicare & Medicaid Services, the
6	Centers for Disease Control and Prevention, the De-
7	partment of Defense, the Department of Veterans
8	Affairs, and other Federal agencies, and the Insti-
9	tute of Medicine, as well as private payers, insurers,
10	pharmaceutical and device companies, patient advo-
11	cacy and public interest groups, professional soci-
12	eties, hospitals, academic institutions, and health
13	foundations;
14	"(9) establish a public review or hearing proc-
15	ess, which includes the Food and Drug Administra-
16	tion, to examine findings of studies;
17	"(10) determine the best approach to make
18	available the findings resulting from subparagraphs
19	(A) and (B) to relevant Federal agencies, private
20	and public stakeholders in the health care system,
21	and consumers;
22	"(11) provide a public forum for addressing
23	conflicting guidelines and recommendations; and

research activities and findings of the FFRDC.

1	"(c) Clinical Effectiveness Advisory Board.—
2	"(1) Establishment and function.—The
3	Director of the FFRDC shall establish, in conjunc-
4	tion with the Director of NIH and the Director of
5	the AHRQ, an independent Clinical Effectiveness
6	Advisory Board (referred to in this section as the
7	'Advisory Board'), to include not more than 20 ap-
8	pointed members, in order to provide expert advice
9	and guidance on the research priorities of the
10	FFRDC.
11	"(2) Membership.—
12	"(A) IN GENERAL.—Membership on the
13	Advisory Board shall be comprised of—
14	"(i) representatives of the National
15	Institutes of Health, the AHRQ, the Food
16	and Drug Administration, the Centers for
17	Medicare & Medicaid Services, the Centers
18	for Disease Control and Prevention, the
19	Department of Defense, the Department of
20	Veterans Affairs, and other Federal agen-
21	cies, and the Institute of Medicine; and
22	"(ii) private payers, insurers, pharma-
23	ceutical and device companies, patient ad-
24	vocacy and public interest groups, profes-

1	sional societies, hospitals, academic institu-
2	tions, and health foundations.
3	"(B) Experts.—Membership on the Advi-
4	sory Board shall consist of leading experts from
5	diverse disciplinary areas, including physicians,
6	social scientists, statisticians, health services re-
7	searchers, economists, and other health care
8	professionals.
9	"(C) Terms.—Terms for members of the
10	Advisory Board shall be fixed, multiyear, and
11	staggered.
12	"(D) APPOINTMENT.—The members of the
13	Advisory Board who are described in subpara-
14	graph (A)(ii) shall be appointed by the Director
15	of the FFRDC, the Director of NIH, and the
16	Director of the AHRQ.
17	"(E) Chair.—The Director of the AHRQ
18	shall be chair of the Advisory Board.
19	"(3) Conflicts of interest.—Members of
20	the Advisory Board shall disclose any financial, po-
21	litical, or organizational conflicts of interest in con-
22	ducting the work of the Advisory Board.
23	"(4) Duties.—The Advisory Board shall—
24	"(A) recommend priorities for clinical ef-
25	fectiveness research to be undertaken by the

FFRDC, taking into consideration significant 1 2 gaps in clinical effectiveness research, including 3 research needs for information on subpopula-4 tions and diverse populations, including women, children, and racial and ethnic minorities, and 6 on individuals with comorbid diseases; 7 "(B) identify existing and novel research 8 9

- designs and methods that may be considered by the FFRDC in conducting clinical effectiveness research;
- "(C) review clinical effectiveness research methods;
- "(D) review the FFRDC processes to determine whether the research conducted is objective, credible, developed through a transparent process that includes consultations with appropriate stakeholders, including consumers, patient organizations, and the public, and is clinically relevant;
- "(E) make recommendations to the AHRQ and the National Institutes of Health for the effective dissemination of the findings of the FFRDC supported research to clinicians, payers, and consumers, and patient organizations; and

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"(F) following the first year, review cur-1 2 rent and previous research agendas and make recommendations regarding research agendas. 3 "(5) Initial meeting of 4 5 the Advisory Board shall be no later than 6 months after the date of enactment of the Accelerating 6 7 Cures Act of 2008. "(6) Advisory nature of board.—The rec-8 9 ommendations of the Advisory Board shall not be 10 binding, but shall be considered by the Director of 11 the FFRDC when developing the clinical effective-12 ness research agenda. 13 "(d) RESEARCH AGENDA.—The Director of the 14 FFRDC shall establish the research agenda of the 15 FFRDC, based on the priorities established by the Advisory Board, and shall update such agenda not less fre-16 17 quently than annually, and shall— 18 "(1) focus on— 19 "(A) identifying gaps in clinical effective-20 ness research relating to medical procedures, 21 medical technologies, pharmaceuticals, health 22 information technologies, and other relevant 23 services and products that significantly con-24 tribute to health care outcomes and expendi-

tures;

1	"(B) funding trials, studies, and reviews,
2	and coordinating these efforts with ongoing re-
3	search efforts in the Federal Government, aca-
4	demic institutions, and private entities to fill
5	gaps identified under subparagraph (A);
6	"(C) synthesizing and reviewing clinical ef-
7	fectiveness research to fill gaps identified under
8	subparagraph (A); and
9	"(D) supporting the development of an evi-
10	dence base for the development of clinical care
11	guidelines based on the results of clinical effec-
12	tiveness research;
13	"(2) convene such working groups on clinical
14	effectiveness research as the Director of the FFRDC
15	determines necessary;
16	"(3) meet with members representing the Na-
17	tional Institutes of Health, the AHRQ, the Food
18	and Drug Administration, the Centers for Medicare
19	& Medicaid Services, the Centers for Disease Control
20	and Prevention, the Department of Defense, the De-
21	partment of Veterans Affairs, and other Federal
22	agencies, and the Institute of Medicine, as well as
23	private payers, insurers, pharmaceutical and device
24	companies, patient advocacy and public interest

groups, professional societies, hospitals, academic in-

- stitutions, practice based research networks health foundations, and the general public to promote communication and transparency; and
- 4 "(4) notify the public well in advance of any 5 public meetings.

## "(e) Reports.—

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- "(1) Guidance or recommendations.—The Director of the FFRDC, in conjunction with the Director of NIH and the Director of the AHRQ, shall provide, not less frequently than annually, guidance or recommendations to health care providers, payers, and consumers, and Congressional committees of jurisdiction on the comparative effectiveness of health care services.
- 15 "(2) STATUS REPORTS.—The Director of the 16 FFRDC shall provide annual status reports on the 17 work of the FFRDC to Congressional committees of 18 jurisdiction.
- "(f) AVAILABILITY OF RESEARCH FINDINGS.—The
  Director of the FFRDC shall develop and identify efficient
  and effective methods of disseminating the findings of the
  clinical effectiveness assessments of medical procedures,
  technologies, and therapeutics, including by making these
  available on the Internet. Any relevant reports (including

interim progress reports, draft final clinical effectiveness

- 1 reviews, and final progress reports on new research sub-
- 2 mitted for publication) on the results of clinical effective-
- 3 ness research supported by the FFRDC shall be made
- 4 available on the Internet, not later than 90 days after the
- 5 report is completed.
- 6 "(g) EVALUATIONS AND REPORTS OF FFRDC.—The
- 7 Director of NIH, in conjunction with the Director of the
- 8 AHRQ, shall enter into regular agreements with entities,
- 9 such as the Institute of Medicine, to—
- "(1) evaluate the FFRDC and its functioning;
- 11 and
- 12 "(2) produce reports on priority setting for the
- 13 FFRDC, and on research methods developed and
- employed by the FFRDC, among other purposes.
- 15 "Subpart 3—Health Advanced Research Projects
- 16 Program
- 17 "SEC. 499C. HEALTH ADVANCED RESEARCH PROJECTS
- 18 **PROGRAM.**
- 19 "(a) Establishment.—There is established within
- 20 the OPASI, a Health Advanced Research Projects Pro-
- 21 gram (referred to in this section as the 'Research Projects
- 22 Program') that shall be headed by a Director of the Re-
- 23 search Projects Program who is appointed by the Director
- 24 of NIH.

- 1 "(b) Composition.—The Research Projects Pro-
- 2 gram shall be composed of portfolio managers in key
- 3 health areas, which are determined by the Director of the
- 4 Research Projects Program in conjunction with the Direc-
- 5 tor of OPASI, the Director of NIH, and the Pathways
- 6 to Cures Subcommittee established under section 499A.
- 7 "(c) Guidance.—The Research Projects Program
- 8 shall be guided by and shall undertake grand challenges
- 9 that encourage innovative, multidisciplinary, and collabo-
- 10 rative research across institutes and centers of the Na-
- 11 tional Institutes of Health, across Federal agencies, and
- 12 between public and private partners of the National Insti-
- 13 tutes of Health.
- 14 "(d) Management Guidance.—The Research
- 15 Projects Program shall be guided by the following man-
- 16 agement and organizing principles in directing the Re-
- 17 search Projects Program:
- 18 "(1) Keep the Research Projects Program
- small, flexible, entrepreneurial, and non-hierarchical,
- and empower portfolio managers with substantial
- 21 autonomy to foster research opportunities with free-
- dom from bureaucratic impediments in admin-
- istering the manager's portfolios.

- 1 "(2) Seek to employ the strongest scientific and 2 technical talent in the Nation in research fields in 3 which the Research Projects Program is working.
  - "(3) Rotate a significant portion of the staff after 3 to 5 years of experience to ensure continuous entry of new talent into the Research Projects Program.
  - "(4) Use, whenever possible, research and development investments by the Research Projects Program to leverage comparable matching investment and coordinated research from other institutes and centers of the National Institutes of Health, from other Federal agencies, and from the private and nonprofit research sectors.
  - "(5) Utilize supporting technical, contracting, and administrative personnel from other institutes and centers of the National Institutes of Health in administering and implementing research efforts to encourage participation, collaboration, and cross-fertilization of ideas across the National Institutes of Health.
  - "(6) Utilize a challenge model in Research Projects Program research efforts, creating a translational research model that supports fundamental research breakthroughs, early and late stage

- applied development, prototyping, knowledge diffusion, and technology deployment.
- "(7) Establish metrics to evaluate research success and periodically revisit ongoing research efforts to carefully weigh new research opportunities against ongoing research.
- 7 "(8) Support risk-taking in research pursuits 8 and tolerate productive failure.
- 9 "(9) Ensure that revolutionary and break-10 through technology research dominates the Research 11 Projects Program's research agenda and portfolio.
- "(e) ACTIVITIES.—Using the funds and authorities
  provided to the Director of NIH, the Research Projects
  Program shall carry out the following activities:
- "(1) The Research Projects Program shall support basic and applied health research to promote revolutionary technology changes that promote health.
- "(2) The Research Projects Program shall advance the development, testing, evaluation, prototyping, and deployment of critical health products.
- "(3) The Research Projects Program, consistent with recommendations of the Pathways to Cures Subcommittee established under section 499A, with the priorities of OPASI, and with the grand

1	challenges that encourage innovative, multidisci-
2	plinary, and collaborative research, shall empha-
3	size—
4	"(A) translational research efforts, includ-
5	ing efforts conducted through collaboration with
6	the private sector, that pursue—
7	"(i) innovative health products that
8	could address acute health threats such as
9	a flu pandemic, spread of antibiotic resist-
10	ant hospital acquired infections, or other
11	comparable problems;
12	"(ii) remedies for diseases afflicting
13	lesser developed countries;
14	"(iii) remedies for orphan diseases for
15	which the for-profit sector is not finding
16	new treatments;
17	"(iv) alternative technologies with sig-
18	nificant health promise that are not well-
19	supported in the system of health research,
20	such as adjuvant technology or tech-
21	nologies for vaccines based on the innate
22	immunological response; and
23	"(v) fast track development, including
24	development through accelerated comple-
25	tion of animal and human clinical trials,

1	for emerging remedies for significant pub-
2	lic health problems; and
3	"(R) other engrapriete translational re-

- "(B) other appropriate translational research efforts for critical health issues.
- "(4) The Research Projects Program shall utilize funds to provide support to outstanding research performers in all sectors and encourage cross-disciplinary research collaborations that will allow scientists from fields such as information and computer sciences, nanotechnology, chemistry, physics, and engineering to work alongside top researchers with more traditional biomedical backgrounds.
- "(5) The Research Projects Program shall provide selected research projects with single-year or multiyear funding and require researchers for such projects to provide interim progress reports, including milestones on progress, to the Research Projects Program on not less frequently than a biannual basis.
- "(6) The Research Projects Program shall award competitive, merit-reviewed grants, cooperative agreements, or contracts to public or private entities, including businesses, federally funded research and development centers, and universities.

- 1 "(7) The Research Projects Program shall pro-2 vide advice to the Director of OPASI concerning 3 funding priorities.
- "(8) The Research Projects Program may solicit proposals for competitions to address specific health vulnerabilities identified by the Director of NIH and the Director of OPASI and award prizes for successful outcomes.
  - "(9) The Research Projects Program shall periodically hold health research and technology demonstrations to improve contact among researchers, technology developers, vendors, and acquisition personnel.
  - "(10) The Research Projects Program shall carry out other activities determined appropriate by the Director of NIH.

# 17 "(f) Employees.—

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"(1) HIRING.—The Director of the Research Projects Program, in hiring employees for positions with the Research Projects Program, shall have the same hiring and management authorities as described in section 1101 of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (5 U.S.C. 3104 note).

25 "(2) Term.—

1	"(A) In general.—Except as provided in
2	subparagraph (B), the term of such appoint-
3	ments for employees of the Research Projects
4	Program may not exceed 5 years.
5	"(B) Extension.—The Director of the
6	Research Projects Program may, in the case of
7	a particular employee of the Research Projects
8	Program, extend the term to which employment
9	is limited under subparagraph (A) by not more
10	than 2 years if the Director of the Research
11	Projects Program determines that such action
12	is necessary to promote the efficiency of the Re-
13	search Projects Program.
14	"(g) Flexibility.—The Director of the Research
15	Projects Program shall have the authority to flexibly fund
16	projects, including the prompt awarding, releasing, en-
17	hancing, or withdrawal of monies in accordance with the
18	assessment of the Research Projects Program and project
19	manager.
20	"Subpart 4—Clinical Trials
21	"SEC. 499D. GRANTS FOR QUALITY CLINICAL TRIAL DESIGN
22	AND EXECUTION.
23	"The Director of OPASI—
24	"(1) shall award grants for clinical trial design
25	and execution to academic centers and practice-

1	based research networks to fund multidisciplinary
2	clinical research teams, which clinical research teams
3	may be composed of members who include project
4	managers, clinicians, epidemiologists, social sci-
5	entists, and clinical research coordinators; and
6	"(2) may award grants for clinical trial design
7	and execution to researchers.
8	"SEC. 499D-1. STREAMLINING THE REGULATORY PROCESS
9	GOVERNING CLINICAL RESEARCH.
10	"(a) Establishment of Centralized Institu-
11	TIONAL REVIEW BOARDS.—
12	"(1) In general.—
13	"(A) Establishment and oversight.—
14	The Director of OPASI shall appoint a Director
15	of Centralized Institutional Review Boards (re-
16	ferred to in this part as the 'Director of
17	CIRBs') who shall establish and oversee the
18	functioning and progress of a series of Central-
19	ized Institutional Review Boards (referred to in
20	this part as 'CIRBs') to serve as human subject
21	safety and well-being custodians for multi-insti-
22	tutional clinical trials that are funded partially
23	or in full by public research dollars.
24	"(B) Work with fda.—The Director of
25	CIRBs shall work with the Commissioner of

1	Food and Drugs to make regulations governing
2	multi-site clinical trials and the regulatory re-
3	quirements of the Food and Drug Administra-
4	tion more consistent in order to reduce barriers
5	to commercialization of new treatments.
6	"(2) Existing guidelines and best prac-
7	TICES.—CIRBs shall be established in accordance
8	with professional best practices and Good Clinical
9	Practice (GCP) guidelines so that institutions in-
10	volved in multi-institutional studies may—
11	"(A) use joint review;
12	"(B) rely upon the review of another quali-
13	fied institutional review board; or
14	"(C) use similar arrangements to avoid du-
15	plication of effort and to assure a high-quality
16	of expert oversight.
17	"(b) Housed.—Each CIRB shall be housed—
18	"(1) at the institute or center of the National
19	Institutes of Health with expertise on the subject of
20	the clinical trial; or
21	"(2) at a public or private institution with com-
22	parable organizational capacity, such as the Depart-
23	ment of Veterans Affairs.
24	"(c) Service.—The use of CIRBs shall be available,
25	as appropriate, at the request of public or private institu-

- 1 tions and shall be funded through user fees of the CIRBs
- 2 or the National Institutes of Health's funds.
- 3 "(d) Review Process.—
- "(1) IN GENERAL.—Each CIRB shall review research protocols and subject informed consent forms to ensure the protection of safety and well-being of research participants enrolled in multi-institutional elinical trials.
- 9 "(2) Process.—The CIRB review process shall 10 consist of contractual agreements between the CIRB 11 and the study sites of multi-institutional clinical 12 trials. The CIRB shall act on behalf, in whole or in 13 part, of the bodies ordinarily responsible for the 14 safety of research subjects in a locality. In the case 15 in which a locality does not have such a body, the 16 locality shall depend solely on the CIRB to oversee 17 the protection of human subjects and the CIRB 18 shall assume responsibility for ensuring adequate as-19 sessment of the local research context.

# 20 "(e) Research Applications.—

"(1) IN GENERAL.—Each CIRB shall review and package research applications for facilitated electronic review by local institutional review boards participating in a multi-institutional clinical trial.

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- "(2) CIRB REVIEW.—A local institutional re-1 2 view board may accept or reject a CIRB review. In the case in which a local institutional review board 3 4 accepts a CIRB review, the CIRB shall assume responsibility for annual, amendment, and adverse 5 6 event reviews. If a local institutional review board 7 elects to decline participation in the CIRB, the local 8 institutional review board shall appoint a liaison to 9 the CIRB.
- 10 "(f) Work in Concert.—In the case in which a local institutional review board works in concert with a 12 CIRB, the local institutional review board shall be respon-13 sible for taking into consideration local characteristics (in-14 cluding ethnicity, educational level, and other demographic 15 characteristics) of the population from which research subjects will be drawn, which influence, among other 16 things, whether there is sound selection of research subjects or whether adequate provision is made to minimize 19 risks to vulnerable populations.
- "(g) Communication of Important Informa-21 tion.—Each CIRB shall regularly communicate impor-22 tant information in electronic form to the local institu-23 tional review boards or, in cases where a local institutional 24 review board does not exist, to the principal investigator,

1	including regular safety updates or requirements to
2	change a research protocol in order to improve safety.
3	"(h) Coordination.—Each CIRB shall fully coordi-
4	nate with the institute or center of the National Institutes
5	of Health that has specialized knowledge of the research
6	area of the clinical trial. Other Federal agencies and pri-
7	vate entities undertaking clinical trials may contract with
8	the National Institutes of Health to use a CIRB.
9	"SEC. 499D-2. CLINICAL RESEARCH STUDY AND CLINICAL
10	TRIAL.
11	"(a) In General.—The Director of NIH shall—
12	"(1) commission the Institute of Medicine to
13	study the rules that protect patient safety and ano-
14	nymity so that in a contemporary clinical research
15	context, a better balance can be achieved between
16	clinical research promotion and regulatory require-
17	ments governing research subject safety and privacy;
18	"(2) examine informed consent processes; and
19	"(3) request that the Institute of Medicine issue
20	a written report not later than 18 months after the
21	date of enactment of the Accelerating Cures Act of
22	2008 that shall—
23	"(A) consider changes to the Health Insur-
24	ance Portability and Accountability Act of 1996
25	(Public Law 104–191) and the amendments

1	made by such Act that further promote the
2	clinical research endeavor; and
3	"(B) include recommendations for changes
4	that shall not be limited to legislation but shall
5	include changes to healthcare systems, includ-
6	ing health information technology, and to re-
7	searcher practice that facilitate the clinical re-
8	search endeavor.
9	"Subpart 5—Training Clinical and Translational
10	Researchers of the Future
11	"SEC. 499E. TRAINING TRANSLATIONAL AND CLINICAL RE-
12	SEARCHERS OF THE FUTURE.
13	"(a) In General.—
14	"(1) Establishment of program.—The Di-
15	rector of OPASI shall establish training programs to
16	increase the number of, and maintain existing,
17	translational and clinical researchers, including re-
18	searchers trained in community-based research.
19	"(2) Purpose.—The purpose of the training
20	programs described in paragraph (1) shall be to
21	train a cadre of researchers in core competencies in
22	the translational and clinical sciences for the ulti-
23	mate goal of improving healthcare delivery,
24	healthcare options to the public, the use of
25	healthcare by patients, and healthcare outcomes.

1	"(b) Grants.—
2	"(1) In General.—The Director of OPASI
3	shall award grants to, and enter into contracts with,
4	public and nonprofit educational entities to establish,
5	strengthen, or expand training programs for re-
6	searchers to be trained in the translational and clin-
7	ical sciences.
8	"(2) AWARDING OF GRANTS.—The Director of
9	OPASI shall award grants to, and enter into con-
10	tracts with, applicants that—
11	"(A) support multidisciplinary approaches
12	in training;
13	"(B) utilize collaborative strategies for
14	conducting research across various disciplines
15	to translate basic science discoveries; and
16	"(C) train researchers focused on improv-
17	ing care and patient outcomes.
18	"(3) REQUIRED USE OF FUNDS.—The Director
19	of OPASI shall award grants to, and enter into con-
20	tracts with, entities for the following purposes:
21	"(A) To establish training programs for
22	M.D. and Ph.D. researchers in translational or
23	clinical research.
24	"(B) To establish training programs for
25	individuals at predoctoral levels, including those

1	in medical school, and for allied health profes-
2	sionals, in translational or clinical research.
3	"(C) To establish training programs for
4	nurses in translational and clinical research.
5	"(D) To strengthen or expand existing
6	training programs for translational or clinical
7	researchers.
8	"(E) To establish a wide range of training
9	programs, including one-year training pro-
10	grams, summer programs, pre- and postdoctoral
11	clinical or translational research fellowships,
12	and advanced research training programs for
13	mid-career researchers and clinicians.
14	"(F) To provide stipends and allowances,
15	including for travel and subsistence expenses, in
16	amounts the Director of OPASI determines ap-
17	propriate, to support the training of
18	translational or clinical researchers.
19	"(G) To provide financial assistance to
20	public and nonprofit educational entities for the
21	purpose of supporting the training of
22	translational or clinical researchers, through
23	clinical education, curricula, and technological

support, and other measures.

- 1 "(H) To measure the impact of the
- 2 translational and clinical research training pro-
- grams on the biomedical sciences and on clinical
- 4 practice.
- 5 "(c) Funds Available.—The Director of OPASI
- 6 may make funds available to support training programs
- 7 for translational or clinical researchers at the National In-
- 8 stitutes of Health for entities awarded grants or contracts
- 9 under subsection (b).
- 10 "(d) NOVEL AND BEST PRACTICES.—The Director of
- 11 OPASI shall convene, on not less frequently than a bian-
- 12 nual basis, members of training institutions to share novel
- 13 and best practices in training translational or clinical re-
- 14 searchers.
- 15 "(e) Training.—A trainee of a program funded
- 16 under a grant or contract awarded under this section may
- 17 conduct part of the trainee's training at the Health Ad-
- 18 vanced Research Projects Program.
- 19 "(f) Consistent Definitions and Methodolo-
- 20 GIES.—For the purposes of funding training programs for
- 21 clinical researchers, the Director of NIH shall develop con-
- 22 sistent definitions and methodologies to classify and report
- 23 clinical research.

1	"SEC. 499E-1. TRANSLATIONAL RESEARCH TRAINING PRO-
2	GRAM.
3	"The Director of NIH shall ensure that each institute
4	and center of the National Institutes of Health has estab-
5	lished, or contracted for the establishment of, a
6	translational research training program at the institute or
7	center.
8	"Subpart 6—The 'Valley of Death'
9	"SEC. 499F. SMALL BUSINESS PARTNERSHIPS.
10	"(a) In General.—An independent advisory board
11	shall be established at the National Academy of Sciences
12	to conduct periodic evaluations of the Small Business In-
13	novation Research program (referred to in this subpart
14	as the 'SBIR program') and the Small Business Tech-
15	nology Transfer program (referred to in this subpart as
16	the 'STTR program') of the Office of Extramural Re-
17	search in the Office of the Director of the National Insti-
18	tutes of Health for the purpose of improving management
19	of the programs through data-driven assessment. The ad-
20	visory board shall consist of the Director of NIH, the Di-
21	rector of the SBIR program, senior National Institutes of
22	Health agency managers, university and industry experts,
23	and program stakeholders.
24	"(b) SBIR AND STTR GRANTS AND CONTRACTS.—
25	"(1) IN GENERAL —

1	"(A) Program managers with suffi-
2	CIENT EXPERTISE.—Not less than 25 percent
3	of the grants and contracts awarded by each of
4	the SBIR and STTR programs shall be award-
5	ed on a competitive basis by an SBIR or STTR
6	program manager who has sufficient manage-
7	rial, technical, and translational research exper-
8	tise to expertly assess the quality of a SBIR or
9	STTR proposal.
10	"(B) Experience of Program man-
11	AGERS.—In hiring new SBIR or STTR pro-
12	gram managers, the Director of NIH shall con-
13	sider experience in commercialization or indus-
14	try.
15	"(C) Emphasis on grant and contract
16	AWARDS.—In awarding grants and contracts
17	under the SBIR program and the STTR pro-
18	gram—
19	"(i) each SBIR and STTR program
20	manager shall place an emphasis on appli-
21	cations that identify from the onset prod-
22	ucts with commercial potential to prevent,
23	diagnose, and treat diseases, as well as
24	promote health and well-being; and

1	"(ii) risk-taking shall be supported
2	and productive failure shall be tolerated.
3	"(2) Examination of commercialization
4	AND OTHER METRICS.—The independent advisory
5	board described in subsection (a) shall evaluate the
6	success of the requirement under paragraph (1)(A)
7	by examining increased commercialization and other
8	metrics, to be determined and collected by SBIR and
9	STTR programs.
10	"(3) Success.—Each recipient of a SBIR or
11	STTR grant or contract, as a condition of receiving
12	such grant or contract, shall report to the SBIR or
13	STTR program—
14	"(A) whether there was eventual commer-
15	cial success of the product developed with the
16	assistance of the grant or contract; and
17	"(B) on other metrics as determined by
18	the SBIR or STTR program to capture broader
19	measures of success.
20	"(c) Potential Purchasers or Investors.—The
21	SBIR and STTR programs shall administer nonpeer re-
22	view grants and contracts pursuant to this section through
23	program managers who shall place special emphasis on
24	partnering grantees and entities awarded contracts from
25	the very beginning of the research and development proc-

- 1 ess with potential purchasers or investors of the product,
- 2 including large pharmaceutical or biotechnology compa-
- 3 nies, venture capital firms, and Federal agencies (includ-
- 4 ing the National Institutes of Health).
- 5 "(d) Phase I and II.—The SBIR and STTR pro-
- 6 grams shall reduce the time period between Phase I and
- 7 Phase II funding of grants and contracts under the SBIR
- 8 and STTR programs to—
- 9 "(1) 6 months; or
- 10 "(2) less than 6 months if the grantee or entity
- awarded a contract demonstrates that the grantee or
- entity awarded a contract has interest from third
- parties to buy or fund the product development with
- the grant or contract.
- 15 "(e) Phase III.—A SBIR or STTR program man-
- 16 ager may petition the Director of NIH for Phase III fund-
- 17 ing of a grant or contract for a project that requires a
- 18 boost to finalize procurement of a product. The maximum
- 19 funding for Phase III funding shall be \$2,000,000 for
- 20 each of a maximum of 2 years. Such Phase III funding
- 21 may come from the Common Fund of the NIH.
- 22 "(f) Evaluation and Reporting Require-
- 23 Ments.—In order to enhance the evidence base guiding
- 24 SBIR and STTR program decisions and changes, the
- 25 SBIR and STTR programs shall—

"(1) conduct regular internal and external evaluations of the program;

"(2) review current data collection methods for the purpose of identifying gaps and deficiencies, and develop a formal plan for evaluation and assessment of program success, including operational benchmarks for success; and

"(3) conduct a review on the number of SBIR and STTR awards made to women and minorities and develop outreach and review strategies to increase the number of awards to women and minorities.

## "(g) Pilot Programs.—

- "(1) IN GENERAL.—The SBIR and STTR programs may initiate pilot programs, based on the development of a formal mechanism for designing, implementing, and evaluating pilot programs, to spur innovation and to test new strategies that may enhance the effectiveness of the program.
- "(2) Considerations.—The SBIR and STTR programs shall consider, among other issues, conducting pilot programs on including individuals with commercialization experience in study sections, hiring individuals with industry experience for staff positions, separating the commercial and scientific re-

1	view processes, and examining the impact of the
2	trend toward larger awards on the overall program.
3	"(h) Electronic Records.—
4	"(1) IN GENERAL.—The SBIR and STTR pro-
5	grams shall keep a publicly accessible electronic
6	record of all SBIR or STTR investments in research
7	and development.
8	"(2) Content of Record.—The record de-
9	scribed in paragraph (1) shall include, at a min-
10	imum, the following information:
11	"(A) The grantee or entity awarded a
12	grant or contract.
13	"(B) A description of the research being
14	funded.
15	"(C) The amount of money awarded in
16	each phase of SBIR or STTR funding.
17	"(D) If applicable, the purchaser of the
18	product, current use of the product, and esti-
19	mated annual revenue resulting from the pro-
20	curement.
21	"(E) Dates of Phases I, II, and III
22	awards, as applicable.
23	"(F) Other metrics as determined by the
24	SBIR or STTR programs.

1	"(i) Meeting.—The Director of NIH shall convene
2	a meeting, not less frequently than annually, consisting
3	of the National Institutes of Health SBIR/STTR program
4	coordinator or manager and each institute and center of
5	the National Institutes of Health to share best practices,
6	report on program activities, and review existing policies.
7	"(j) Report to Congress.—The Director of NIH
8	shall submit an annual report to Congress and the inde-
9	pendent advisory board described in subsection (a) on the
10	SBIR and STTR programs' activities.
11	"SEC. 499F-1. RAPID ACCESS TO INTERVENTION DEVELOP-
12	MENT.
13	"(a) In General.—The Director of OPASI shall ex-
14	pand the existing Rapid Access to Intervention Develop-
15	ment Program (referred to in this subpart as the 'RAID')
16	that—
17	"(1) is designed to assist the translation of
18	promising, novel, and scientifically meritorious
19	therapeutic interventions to clinical use by helping
20	investigators navigate the product development pipe-
21	line;
22	"(2) shall aim to remove barriers between lab-
23	oratory discoveries and clinical trials of new molec-
24	ular therapies, technologies, and other clinical inter-
25	ventions;

- 1 "(3) shall aim to progress, augment, and com-2 plement the innovation and research conducted in 3 private entities to reduce duplicative and redundant 4 work using public funds;
  - "(4) shall coordinate with the offices of the National Institutes of Health that promote translational research in the pre-clinical phase across the National Institutes of Health;
    - "(5) shall identify, for the OPASI, those research projects with promise for clinical application or commercialization; and
    - "(6) shall, in collaboration with the Translational Development Program for New Innovations, facilitate the translation of new innovations through the development process.

## "(b) Projects.— 16

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17 "(1) IN GENERAL.—The RAID, in collaboration 18 with the Director of OPASI, shall carry out a pro-19 gram that shall select, in accordance with paragraph 20 (2), projects of eligible entities to receive access to laboratories, facilities, and other support resources 22 of the National Institutes of Health for the pre-23 clinical development of drugs, biologics, diagnostics, and devices. 24

1	"(2) Selection.—Not less than 25 percent of
2	the projects selected under paragraph (1) shall be
3	selected on a competitive basis—
4	"(A) by a program manager with sufficient
5	managerial, technical, and translational re-
6	search expertise to adequately assess the quality
7	of a project proposal; or
8	"(B) from a peer review process.
9	"(3) Eligible entities.—In this subsection,
10	the term 'eligible entity' means—
11	"(A) a university researcher;
12	"(B) a nonprofit research organization; or
13	"(C) a firm of less than 100 employees in
14	collaboration with 1 or more universities or
15	nonprofit organizations such as a community
16	health center.
17	"(4) DISCONTINUE SUPPORT.—The RAID may
18	discontinue support of a project if the project fails
19	to meet commercialization success criteria estab-
20	lished by the RAID.
21	"(c) Discoveries From Lab to Clinical Prac-
22	TICE.—The program under subsection (b) shall accelerate
23	the process of bringing discoveries in medical technology
24	and drugs from the laboratory to the clinic.

1	"(d) Ongoing Review.—The RAID shall review, on
2	an ongoing basis, potential products and may not support
3	products past the proof-of-principle stage.
4	"SEC. 499F-2. TRANSLATIONAL DEVELOPMENT PROGRAM
5	FOR NEW INNOVATIONS.
6	"(a) In General.—The Director of OPASI shall de-
7	velop a Translational Development Program for New In-
8	novations to guide institutions of higher education, small
9	businesses, for-profits, nonprofits, or other such entities
10	through the translational research development process by
11	facilitating the following:
12	"(1) Triage screening of applications for prom-
13	ising innovations expected to reduce disease inci-
14	dence, morbidity, and mortality.
15	"(2) Outlining the tasks, timelines, and costs
16	required to navigate and complete the development
17	process for such innovations.
18	"(3) Providing project management support for
19	the recommended development tasks.
20	"(4) Interfacing with the Food and Drug Ad-
21	ministration and the entity to devise a plan that
22	safely and rapidly brings new drugs, biologics de-
23	vices, diagnostics, and other interventions to ap-
24	proval.

- 1 "(b) Coordination.—The Translational Develop-
- 2 ment Program for New Innovations shall—
- 3 "(1) collaborate with the RAID; and
- 4 "(2) be comprised of personnel with extensive
- 5 experience with investigational new drug applications
- 6 and in commercialization.

## 7 "Subpart 7—Translational Research Fund

- 8 "SEC. 449G. TRANSLATIONAL RESEARCH FUND.
- 9 "(a) ACCOUNT.—There is established an account to
- 10 be known as the Translational Research Fund that shall
- 11 consist of amounts appropriated for translational research
- 12 priorities as described in subsection (b). Such account
- 13 shall not be funded from amounts otherwise provided to
- 14 the National Institutes of Health.
- 15 "(b) Authorization of Appropriations.—For
- 16 each fiscal year, there is authorized to be appropriated for
- 17 the Translational Research Fund to carry out the activi-
- 18 ties under this part an amount equal to the amount set
- 19 aside for the Common Fund for such fiscal year.
- 20 "(c) Allotment to Health Advanced Research
- 21 Projects Program.—Not less than half of the annual
- 22 amount appropriated for the Translational Research Fund
- 23 shall be allotted to the Health Advanced Research Projects
- 24 Program.".

## 1 SEC. 5. APPLICATION OF RESEARCH REQUIREMENT.

- 2 Part A of title IV of the Public Health Service Act
- 3 (42 U.S.C. 281 et seq.) is amended by adding at the end
- 4 the following:
- 5 "SEC. 4041. APPLICATION OF RESEARCH REQUIREMENT.
- 6 "Each application for, and summary of, a project,
- 7 grant, or contract from the National Institutes of Health,
- 8 shall include a statement on the possible application of the
- 9 research for detecting, treating, or curing a health condi-
- 10 tion or disease state.".

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