110TH CONGRESS 1ST SESSION

S. 2210

To provide incentives for investment in research and development for new medicines, to enhance access to new medicines, and for other purposes.

IN THE SENATE OF THE UNITED STATES

OCTOBER 19, 2007

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

A BILL

To provide incentives for investment in research and development for new medicines, to enhance access to new medicines, and for other purposes.

- 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 "Medical Innovation
- 5 Prize Act of 2007".
- 6 SEC. 2. FINDINGS.
- 7 Congress makes the following findings:
- 8 (1) Current incentives for research and develop-
- 9 ment for new medicines that involve market exclu-
- sivity lead to high prices.

- 1 (2) High prescription drug prices create hard2 ships on patients, employers, and taxpayers who pay
 3 for medicines, as well as increasing restrictions on
 4 access to medicines, through limited availability of
 5 high priced medicines by health insurance plans.
 - (3) In addition, when marketing exclusivity is the reward for successful research and development efforts, companies have incentives to invest enormous sums in marketing of products, and in the development of medicines that do not offer significant incremental medicinal benefits over existing products.
 - (4) According to the Food and Drug Administration, of the 1,284 new drug approvals from 1990 to 2004, only 289, or 22.5 percent, were for "priority" reviews (defined as a product that has "significant improvement compared to marketed products in the treatment, diagnosis, or prevention of a disease"). Of these, only 183 (14.3 percent of the total) were new molecular entities classified as priority products.
 - (5) Thus, there are important gaps in treatments for many severe illnesses.
 - (6) The existence of neglected diseases in other regions of the world leads to immense suffering and

- death, undermines development, shrinks potential
 markets, and has long-term negative effects for
 United States security.
 - (7) Emerging diseases, viral mutations, and food-borne disease transmitted through international trade have negative effects on Americans and must be combated before they arrive on the Nation's shores.
 - (8) Exclusive rights to market products are one way to reward successful product research and development, but not the only way. Prize funds are another way and have been used successfully to stimulate inventions and solutions to difficult problems.
 - (9) Awards to companies through a prize fund mechanism that reward successful product research and development can de-couple the reward for product research development from the price of the product.
 - (10) Awards to pharmaceutical companies for successful product research and development can be targeted at products that improve health care outcomes, and can stimulate research and development in the areas of greatest need.
- 24 (11) The implementation of a prize fund and 25 the elimination of exclusive rights to sell new medi-

- cines will lead to entry by generic manufacturers, and lower prices for prescription drugs. This will eliminate the need for price sensitive formularies, and reduce other barriers to access to new medicines.
 - (12) At present, generic products represent more than 63 percent of pharmaceutical prescriptions, but only 20 percent of the money spent on prescription drugs, for an average cost saving of 85 percent for generic prescriptions.
 - (13) The combined cost to the Federal Government of purchases, reimbursements, and subsidies for medicines, including Federal outlays relating to Medicare, Medicaid, purchases of medicines by the Department of Defense and the Department of Veterans Affairs, and outlays related to the Federal Employees Health Benefits Program, is expected to exceed \$100,000,000,000 in 2007, and grow faster than the overall rate of growth in the Gross Domestic Product.
 - (14) The cost of total United States outlays for pharmaceutical drugs was more than \$274,000,000,000 in 2006, measured at manufacturer's prices, an increase of more than 82 percent since 2000.

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- (15) The substitution of prize fund awards to companies for successful product research and development in place of marketing exclusivity for new medicines will lead to more competition, greater utilization of generic products, lower prices, and savings to Federal, State and local governments, private employers and individual consumers of more than \$200,000,000,000 per year. Savings in governmental expenditures alone would be more than sufficient to fund the prize fund established through this legislation.
 - (16) Basing the level of funding for innovation prizes on a share of Gross Domestic Product will ensure a sustainable and forward looking commitment to stimulate innovation for new medicines.
 - (17) Current United States outlays on pharmaceutical drugs are more than 2.2 percent of Gross Domestic Product.
 - (18) By funding innovation prizes at 0.6 percent of Gross Domestic Product, the United States will provide an incentive for innovation that would be more than \$80,000,000,000 in 2007, an amount that is more than 5 times the average rate of royalties for patent owners, and more than 4 times the level of private sector research and development

- spending that would be assigned to the United States market, based upon the United States share
- of global Gross National Product.
- 4 (19) The 2007 cost of the innovation prizes will 5 be much lower than the \$200,000,000,000 in re-6 duced United States outlays for pharmaceutical 7 drugs, it will vastly expand access to medicines, and 8 it will ensure that future research and development 9 for new medicines is targeted at treatments that im-10 prove health care outcomes and address public
- 12 SEC. 3. PURPOSE.

health priorities.

- 13 It is the purpose of this Act to provide incentives to
- 14 encourage entities to invest in research and development
- 15 of new medicines through the establishment of a Medical
- 16 Innovation Prize Fund and to enhance access to such
- 17 medicines by allowing any person in compliance with Food
- 18 and Drug Administration requirements to manufacture,
- 19 distribute, or sell an approved medicine.
- 20 SEC. 4. DEFINITIONS.
- 21 In this Act:
- 22 (1) BIOLOGICAL PRODUCT.—The term "biologi-
- cal product" has the meaning given such term in
- section 351 of the Public Health Service Act (42)
- 25 U.S.C. 262).

1	(2) Board.—The term "Board" means the
2	Board of Trustees for the Fund for Medical Innova-
3	tion Prizes established under section 7.
4	(3) Drug.—The term "drug" has the meaning
5	given such term in section 201 of the Federal Food,
6	Drug, and Cosmetic Act (21 U.S.C. 321).
7	(4) Fund.—The term "Fund" means the Fund
8	for Medical Innovation Prizes established under sec-
9	tion 6.
10	(5) Market Clearance.—The term "market
11	clearance" means the approval of an application
12	under section 505 of the Federal Food, Drug, and
13	Cosmetic Act (21 U.S.C. 355) or the approval of a
14	biologics license application under subsection (a) of
15	section 351 of the Public Health Service Act (42
16	U.S.C. 262).
17	SEC. 5. ELIMINATION OF EXCLUSIVE RIGHTS TO MARKET
18	DRUGS AND BIOLOGICAL PRODUCTS.
19	(a) In General.—Notwithstanding title 35, United
20	States Code, relevant provisions of the Federal Food,
21	Drug, and Cosmetic Act (21 U.S.C. 301 et seq.) (including
22	amendments made by the Drug Price Competition and
23	Patent Term Restoration Act of 1984 (Public Law 98–
24	417; referred to as the "Hatch-Waxman Act")), the Medi-

care Prescription Drug, Improvement, and Modernization

- 1 Act of 2003 (Public Law 108–173), and any other provi-
- 2 sion of law providing any patent right or exclusive mar-
- 3 keting period for any drug, biological product, or manufac-
- 4 turing process for a drug or biological product (such as
- 5 pediatric extensions under section 505A of the Federal
- 6 Food, Drug, and Cosmetic Act (21 U.S.C. 355a) or or-
- 7 phan drug marketing exclusivity under subchapter B of
- 8 chapter V of such Act (21 U.S.C. 360aa et seq.)), no per-
- 9 son shall have the right to exclusively manufacture, dis-
- 10 tribute, sell, or use a drug, a biological product, or a man-
- 11 ufacturing process for a drug or biological product in
- 12 interstate commerce, including the exclusive right to rely
- 13 on health registration data or the 30-month stay-of-effec-
- 14 tiveness period for Orange Book patents under section
- 15 505(j) of such Act (21 U.S.C. 355(j)).
- 16 (b) REMUNERATION.—A person that is eligible for
- 17 prize payments from the Fund as provided for in section
- 18 10 shall receive such payments—
- 19 (1) in lieu of any remuneration the person
- would have otherwise received for the exclusive mar-
- 21 keting, distribution, sale, or use of a drug, biological
- product, or manufacturing process for a drug or bio-
- logical product but for the application of subsection
- (a); and

- 1 (2) in addition to any other remuneration that
- 2 such person receives by reason of the nonexclusive
- 3 marketing, distribution, sale, or use of the drug, bio-
- 4 logical product, or manufacturing process for a drug
- 5 or biological product.
- 6 (c) APPLICATION.—This section shall apply only with
- 7 respect to the marketing, distribution, sale, or use of a
- 8 drug, a biological product, or a manufacturing process for
- 9 a drug or biological product that occurs on or after Octo-
- 10 ber 1, 2007.

11 SEC. 6. FUND FOR MEDICAL INNOVATION PRIZES.

- 12 (a) ESTABLISHMENT.—There is hereby established in
- 13 the Treasury of the United States a revolving fund to be
- 14 known as the "Fund for Medical Innovation Prizes",
- 15 which shall consist of amounts appropriated to the Fund
- 16 and amounts credited to the Fund under subsection (c).
- 17 (b) AVAILABILITY OF FUNDS.—Amounts in the Fund
- 18 shall be available to the Board, subject to section 16(b),
- 19 for the purpose of carrying out this Act.
- 20 (c) Amounts Credited to the Fund.—The Sec-
- 21 retary of the Treasury shall credit to the Fund the interest
- 22 on, and the proceeds from sale or redemption of, obliga-
- 23 tions held in the Fund.

1 SEC. 7. BOARD OF TRUSTEES FOR THE FUND.

2	(a) Establishment.—There is hereby established
3	(as a permanent, independent establishment in the execu-
4	tive branch) a Board of Trustees for the Fund for Medical
5	Innovation Prizes.
6	(b) Membership.—The Board shall be composed of
7	13 members, including—
8	(1) the Administrator of the Centers for Medi-
9	care & Medicaid Services;
10	(2) the Commissioner of Food and Drugs;
11	(3) the Director of the National Institutes of
12	Health;
13	(4) the Director of the Centers for Disease
14	Control and Prevention; and
15	(5) nine individuals to be appointed by the
16	President, with the advice and consent of the Sen-
17	ate, of which—
18	(A) three representatives of the business
19	sector;
20	(B) three representatives of the private
21	medical research and development sector, in-
22	cluding at least one representative of the non-
23	profit private medical research and development
24	sector; and
25	(C) three representatives of consumer and
26	patient interests, including at least one rep-

1	resentative of patients suffering from orphan
2	diseases.
3	(c) TERMS.—
4	(1) In general.—Except as provided in para-
5	graph (2), each member appointed to the Board
6	under subsection (a)(5) shall be appointed for a
7	term of 4 years.
8	(2) Terms of initial appointees.—As des-
9	ignated by the President at the time of appointment,
10	of the members first appointed to the Board under
11	subsection (a)(5)—
12	(A) 5 members shall be appointed for a
13	term of 4 years; and
14	(B) 4 members shall be appointed for a
15	term of 2 years.
16	(d) Vacancies.—Any member of the Board ap-
17	pointed to fill a vacancy occurring before the expiration
18	of the term for which the member's predecessor was ap-
19	pointed shall be appointed only for the remainder of that
20	term. A member of the Board may serve after the expira-
21	tion of that member's term until a successor has taken
22	office.
23	(e) Compensation and Travel Expenses.—
24	(1) Compensation.—Members of the Board
25	shall each be paid not less than the daily equivalent

- of level IV of the Executive Schedule for each day
- 2 (including travel time) during which they are en-
- gaged in the actual performance of the duties of the
- 4 Board.
- 5 (2) Travel expenses.—Each member of the
- 6 Board shall receive travel expenses, including per
- 7 diem in lieu of subsistence, in accordance with appli-
- 8 cable provisions under subchapter I of chapter 57 of
- 9 title 5, United States Code.
- 10 (f) Chairperson; Officers.—The members of the
- 11 Board shall elect a Chairperson and any other officers of
- 12 the Board. The Chairperson and any such officers shall
- 13 be elected for a term of 2 years.
- 14 (g) STAFF.—The Board may appoint and fix the pay
- 15 of such additional personnel as the Board considers appro-
- 16 priate. The staff of the Board shall be appointed subject
- 17 to the provisions of title 5, United States Code, governing
- 18 appointments in the competitive service, and shall be paid
- 19 in accordance with the provisions of chapter 51 and sub-
- 20 chapter III of chapter 53 of such title relating to classi-
- 21 fication and General Schedule pay rates.
- 22 (h) Experts and Consultants.—The Board may
- 23 procure temporary and intermittent services under section
- 24 3109(b) of title 5, United State Code.

1 SEC. 8. POWERS AND DUTIES OF THE BOARD. 2 (a) Durring The Board shall

2	(a) DUTIES.—The Board shall—
3	(1) award prize payments for medical innova-
4	tion in accordance with this Act; and
5	(2) submit a report to the Congress under sec-
6	tion 14.
7	(b) Powers of Board.—
8	(1) Hearings and sessions.—
9	(A) IN GENERAL.—The Board may, for
10	the purpose of carrying out this Act, hold hear-
11	ings, sit and act at times and places, take testi-
12	mony, and receive evidence as the Board con-
13	siders appropriate.
14	(B) First meeting.—Not later than 30
15	days after the initial members of the Board are
16	appointed under section 7(b)(5) and confirmed,
17	the Board shall conduct its first meeting.
18	(2) Policies and procedures.—
19	(A) IN GENERAL.—Not later than 1 year
20	after the initial members of the Board are ap-
21	pointed under section 7(b)(5) and confirmed,
22	the Board shall establish such policies and pro-
23	cedures as may be appropriate to carry out this
24	Act.
25	(B) Majority vote.—The policies and
26	procedures of the Board shall require that any

1	determination of the Board be made by not less
2	than a majority vote of the members of the
3	Board.
4	(C) Administrative procedures.—The
5	policies and procedures of the Board shall com-
6	ply with subchapter II of chapter 5 of title 5
7	United States Code.
8	(D) Transparency.—The policies and
9	procedures of the Board shall—
10	(i) comply with sections 552 and 552b
11	of title 5, United States Code (commonly
12	referred to as the "Freedom of Informa-
13	tion Act" and the "Government in the
14	Sunshine Act", respectively); and
15	(ii) ensure that the proceedings and
16	deliberations of the Board are transparent
17	and are supported by a description of the
18	methods, data sources, assumptions, out-
19	comes, and related information that will
20	allow the public to understand how the
21	Board reaches its criteria-setting and
22	award decisions.
23	(3) Expert advisory committees.—To as-
24	sist the Board in carrying out this Act, the Board

1	shall establish independent expert advisory commit-
2	tees, including committees on the following:
3	(A) Economic evaluation of therapeutic
4	benefits.
5	(B) Business models and incentive struc-
6	tures for innovation.
7	(C) Research and development priorities.
8	(D) Orphan diseases.
9	(E) Financial control and auditing.
10	(4) Powers of members and agents.—Any
11	member or agent of the Board may, if authorized by
12	the Board, take any action which the Board is au-
13	thorized to take under this Act.
14	(5) Mails.—The Board may use the United
15	States mails in the same manner and under the
16	same conditions as other departments and agencies
17	of the United States.
18	SEC. 9. PRIZE PAYMENTS FOR MEDICAL INNOVATION.
19	(a) AWARD.—For fiscal year 2008, and each subse-
20	quent fiscal year, the Board shall award to persons de-
21	scribed in subsection (b) prize payments for medical inno-
22	vation relating to a drug, a biological product, or a new
23	manufacturing process for a drug or biological product.
24	(b) Eligibility.—To be eligible to receive a prize
25	payment under subsection (a) for medical innovation relat-

- 1 ing to a drug, a biological product, or a manufacturing
- 2 process, a person shall be—
- 3 (1) in the case of a drug or biological product,
- 4 the first person to receive market clearance with re-
- 5 spect to the drug or biological product; or
- 6 (2) in the case of a manufacturing process, the
- 7 holder of the patent with respect to such process.
- 8 (c) Criteria.—The Board shall, by regulation, es-
- 9 tablish criteria for the selection of recipients, and for de-
- 10 termining the amount, of prize payments under this sec-
- 11 tion. Such criteria shall include consideration of the fol-
- 12 lowing:
- 13 (1) The number of patients who would benefit
- 14 from the drug, biological product, or manufacturing
- process involved, including (in cases of global ne-
- 16 glected diseases, global infectious diseases, and other
- global public health priorities) the number of non-
- 18 United States patients.
- 19 (2) The incremental therapeutic benefit of the
- drug, biological product, or manufacturing process
- 21 involved as compared to existing drugs, biological
- products, and manufacturing processes available to
- treat the same disease or condition, except that the
- Board shall provide for cases where drugs, biological
- products, or manufacturing processes are developed

1	at roughly the same time, so that the comparison is
2	to products that were not recently developed.
3	(3) The degree to which the drug, biological
4	product, or manufacturing process involved address-
5	es priority health care needs, including—
6	(A) current and emerging global infectious
7	diseases;
8	(B) severe illnesses with small client popu-
9	lations (such as indications for which orphan
10	designation has been granted under section 526
11	of the Federal Food, Drug, and Cosmetic Act
12	(21 U.S.C. 360bb)); and
13	(C) neglected diseases that primarily afflict
14	the poor in developing countries.
15	(4) Improved efficiency of manufacturing proc-
16	esses for drugs or biological processes.
17	(d) Requirements.—In awarding prize payments
18	under this section, the Board shall comply with the fol-
19	lowing:
20	(1) In cases where a new drug, biological prod-
21	uct, or manufacturing process offers an improve-
22	ment over an existing drug, biological product, or
23	manufacturing process and the new drug, biological
24	product, or manufacturing process competes with or

replaces the existing drug, biological product, or

- manufacturing process, the Board shall continue to make prize payments for the existing drug, biological product, or manufacturing process to the degree that the new drug, biological product, or manufacturing process was based on or benefitted from the development of the existing drug, biological product, or manufacturing process.
 - (2) The Board may not make prize payments based on the identity of the person who manufactures, distributes, sells, or uses the drug, biological product, or manufacturing process involved.
 - (3) The Board may award prize payments for a drug, a biological product, or a manufacturing process for not more than 10 fiscal years, regardless of the term of any related patents.
 - (4) For any fiscal year, the Board may not award a prize payment for any single drug, biological product, or manufacturing process in an amount that exceeds 5 percent of the total amount appropriated to the Fund for that year.
 - (5) For every drug or biological product that receives market clearance, the Board shall determine whether and in what amount to award a prize payment for the drug or biological product not later than the end of the fourth full calendar-year quarter

1	following the calendar-year quarter in which the
2	drug or biological product receives market clearance
3	SEC. 10. PRIZES FOR PRIORITY RESEARCH AND DEVELOP
4	MENT.
5	(a) Minimum Levels of Funding.—For fiscal year
6	2008, and each subsequent fiscal year, the Board shall
7	establish and may periodically modify minimum levels of
8	funding under section 9 for priority research and develop-
9	ment.
10	(b) Initial Minimum Levels.—Of the amount ap-
11	propriated to the Fund for a fiscal year, the Board shall
12	use (subject to the establishment or modification of an ap-
13	plicable minimum level of funding under subsection (a)
14	not less than—
15	(1) 4 percent of such amount for global ne-
16	glected diseases;
17	(2) 10 percent of such amount for orphan
18	drugs; and
19	(3) 4 percent of such amount for global infec-
20	tious diseases and other global public health prior-
21	ities, including research on AIDS, AIDS vaccines,
22	and medicines for responding to bioterrorism.
23	(c) Public Input; Recommendations.—The advi-
24	sory committee on research and development priorities (es-
25	tablished pursuant to section 8(b)(3)) shall—

- 1 (1) solicit public input on research and develop-2 ment priorities; and
- 3 (2) periodically recommend to the Board modi-
- 4 fications in the minimum levels of funding for prizes
- 5 for priority research and development under this sec-
- 6 tion.
- 7 (d) Procedures.—The Board shall adopt proce-
- 8 dures to establish and periodically modify minimum levels
- 9 of funding under section 9 for priority research and devel-
- 10 opment.

11 SEC. 11. SPECIAL TRANSITION RULES.

- 12 (a) In General.—A drug or biological product that
- 13 is on the market on October 1, 2007, shall remain eligible
- 14 for prize payments for not more than 10 fiscal years, con-
- 15 sistent with section 9(d)(3).
- 16 (b) Determination of Value.—In determining the
- 17 amount of a prize payment for a drug or biological product
- 18 described in subsection (a), the Board shall calculate the
- 19 incremental value of the drug or biological product as of
- 20 the date on which the drug or biological product was first
- 21 introduced in the market.
- (c) Maximum Amount.—With respect to drugs and
- 23 biological products described in subsection (a), the Board
- 24 may award—

	21
1	(1) of the amount appropriated to the Fund for
2	fiscal year 2008, not more than 90 percent of such
3	amount; and
4	(2) of the amount appropriated to the Fund for
5	each of the succeeding 9 fiscal years, not more than
6	a percentage of such amount that is equal to 9 per-
7	cent less the percentage applicable to the preceding
8	fiscal year under this subsection.
9	SEC. 12. ARBITRATION.
10	In the case of a drug that is on the market on Octo-
11	ber 1, 2008, and subject to patents owned by a party other
12	than the person who first received market clearance for
13	the drug, the Board shall establish an arbitration proce-
14	dure to determine an equitable division of any prize pay-
15	ments under this Act among the patent owners and the
16	person who first received market clearance for the drug.
17	SEC. 13. ANNUAL AUDITS BY GAO.
18	(a) Audits.—The Comptroller General of the United
19	States shall conduct an audit of the Board each fiscal year
20	to determine the effectiveness of the Board—
21	(1) in bringing to market drugs, vaccines, other
22	biological products, and new manufacturing proc-
23	esses for medicines in a cost-effective manner; and
24	(2) in addressing society's medical needs, in-

cluding global neglected diseases that afflict pri-

- 1 marily the poor in developing countries, indications
- 2 for which orphan designation has been granted
- 3 under section 526 of the Federal Food, Drug, and
- 4 Cosmetic Act (21 U.S.C. 360bb), and global infec-
- 5 tious diseases and and other global public health pri-
- 6 orities.
- 7 (b) Reports.—The Comptroller General of the
- 8 United States shall submit a report to the Congress each
- 9 fiscal year on the results of each audit conducted under
- 10 subsection (a).

11 SEC. 14. REPORT TO CONGRESS.

- Not later than 1 year after the date of the enactment
- 13 of this Act, the Board shall submit to Congress a report
- 14 containing the findings, conclusions, and recommendations
- 15 of the Board concerning the implementation and adminis-
- 16 tration of this Act, including recommendations for such
- 17 legislative and administrative action as the Board deter-
- 18 mines to be appropriate.

19 **SEC. 15. FUNDING.**

- 20 (a) Appropriations.—
- 21 (1) Start-up costs.—For fiscal year 2008,
- there are authorized to be appropriated to the Fund,
- such sums as may be necessary to carry out this
- 24 Act.

1 (2) Program implementation.—For fiscal 2 year 2008 and each subsequent fiscal year, there is 3 appropriated to the Fund, out of any funds in the 4 Treasury not otherwise appropriated, an amount 5 equal to the amount that is 0.6 percent of the gross 6 domestic product of the United States for the pre-7 ceding fiscal year (as such amount is determined by the Secretary of Commerce). 8

9 (b) AVAILABILITY.—Funds appropriated to the Fund 10 for a fiscal year shall remain available for expenditure in 11 accordance with this Act until the end of the 3-year period 12 beginning on October 1 of such fiscal year. Any such funds 13 that are unexpended at the end of such period shall revert 14 to the Treasury.

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