BY: Education, Health, and Environmental Affairs Committee

AMENDMENTS TO SENATE BILL NO. 144

(First Reading File Bill)

AMENDMENT NO. 1

On page 1, in line 4, after "manner;" insert "prohibiting certain persons from conducting certain research that intentionally and directly leads to human cloning;"; strike beginning with "requiring" in line 9 down through "bill;" in line 10; in line 11, strike "Department of Health and Mental Hygiene" and substitute "Maryland Technology Development Corporation"; strike beginning with "requiring" in line 13 down through "Committee" in line 23 and substitute "requiring the Corporation, in consultation with the Stem Cell Research Commission, to adopt certain regulations"; in line 24, strike "in the Department;" and substitute "; providing that the Commission is an independent commission that functions in the Corporation;"; in line 25, strike "Governor to designate" and substitute "members of the Commission to elect"; in line 26, after the first "Commission" insert "from among the appointed members of the Commission"; in the same line, strike "requiring the Department to provide staff for the Commission;"; in line 27, after "Commission;" insert "specifying quorum requirements for the Commission; prohibiting a member of the Commission from receiving compensation as a member of the Commission; providing that a member of the Commission is entitled to certain reimbursement for expenses; authorizing the Commission to employ a staff and consult with experts under certain circumstances;"; strike beginning with "requiring" in line 29 down through "duties;" in line 30 and substitute "establishing certain limitations on the powers of the Secretary of Business and Economic Development; requiring the Commission to adopt certain regulations, establish certain procedures, guidelines, criteria, standards, and requirements, make certain recommendations, review certain grant and loan applications, and conduct certain progress oversight reviews; requiring the Commission to contract with an independent scientific peer review committee composed of certain individuals; requiring the committee to review, evaluate, rank, and rate certain research proposals based on certain procedures and guidelines and in a certain manner; requiring the committee to make certain recommendations; providing that a member of the committee is not eligible to receive a certain grant or loan and may not reside in the State; providing that members of the committee shall be subject to certain conflict of interest standards;"; and in line 32, strike "Department" and substitute "Corporation".

On page 2, in line 1, after "information;" insert "prohibiting certain unused material from being donated for State-funded stem cell research;"; in line 3, strike "law" and substitute "this Act"; in lines 5 and 6, in each instance, strike "human embryos" and substitute "certain material"; and strike in their entirety lines 10 through 15, inclusive, and substitute:

"BY repealing and reenacting, without amendments,

Article 83A - Business and Economic Development

Section 1-101(a), (b), and (d)

Annotated Code of Maryland

(2003 Replacement Volume and 2005 Supplement)

BY adding to

Article 83A - Business and Economic Development

Section 5-2B-01 through 5-2B-13, inclusive, to be under the new subtitle "Subtitle 2B. Maryland Stem Cell Research Program"

Annotated Code of Maryland

(2003 Replacement Volume and 2005 Supplement)".

AMENDMENT NO. 2

On page 3, strike in their entirety lines 25 and 26 and substitute:

"Article 83A - Business and Economic Development

1-101.

- (a) In this article the following words have the meanings indicated.
- (b) "Department" means the Department of Business and Economic Development.
- (d) "Secretary" means the Secretary of Business and Economic Development.

SUBTITLE 2B. MARYLAND STEM CELL RESEARCH PROGRAM.";

in line 27, strike "20-1101." and substitute "5-2B-01."; after line 29, insert:

"(B) "ADULT STEM CELL" MEANS A STEM CELL THAT:

- (1) IS DERIVED FROM HUMAN TISSUE; AND
- (2) <u>IS OBTAINED AFTER BIRTH.</u>";

in lines 30 and 32, strike "(B)" and "(C)", respectively, and substitute "<u>(C)</u>" and "<u>(D)</u>", respectively; strike beginning with "IN" in line 30 down through "DEPARTMENT" in line 31; in line 32, strike "MARYLAND" and substitute "<u>INDEPENDENT</u>"; in line 33, after "COMMITTEE" insert "<u>THAT</u> CONTRACTS WITH THE COMMISSION UNDER § 5-2B-06 OF THIS SUBTITLE.

(E) "CORPORATION" MEANS THE MARYLAND TECHNOLOGY DEVELOPMENT CORPORATION";

and strike in their entirety lines 34 and 35.

AMENDMENT NO. 3

On page 4, in lines 1, 2, 6, 8, and 12, strike "(E)", "(F)", "(G)", "(H)", and "(I)", respectively, and substitute "(F)", "(G)", "(H)", "(J)", and "(K)", respectively; after line 7, insert:

"(I) "OOCYTE" MEANS A FEMALE GERM CELL OR EGG.";

strike beginning with "DONATED" in line 9 down through "AWARDED" in line 11 and substitute ":

- (1) MATERIAL OBTAINED IN ACCORDANCE WITH § 5-2B-10 OF THIS SUBTITLE; OR
 - (2) ADULT STEM CELLS";

in line 12, after "A" insert "<u>HUMAN</u>"; in line 13, after "DIVIDE" insert "<u>INDEFINITELY</u>"; in line 14, after "TO" insert "<u>MANY OTHER TYPES OF</u>"; in line 16, strike "(J) (1)" and substitute "(<u>L</u>)"; in line 17, after "ADVANTAGE" insert "<u>IN CONNECTION WITH MATERIAL OBTAINED IN ACCORDANCE WITH § 5-2B-10 OF THIS SUBTITLE</u>"; strike in their entirety lines 18 through 21, inclusive; in lines 22 and 26, strike "20-1102." and "20-1103.", respectively, and substitute

"5-2B-02." and "5-2B-03.", respectively; in line 23, before "A" insert "(A)"; and after line 25, insert:

"(B) A PERSON WHO CONDUCTS STATE-FUNDED STEM CELL RESEARCH MAY NOT ENGAGE IN ANY RESEARCH THAT INTENTIONALLY AND DIRECTLY LEADS TO HUMAN CLONING.".

AMENDMENT NO. 4

On page 5, in line 5, strike "AN APPROPRIATION EQUAL TO AT LEAST \$25,000,000" and substitute "APPROPRIATIONS"; in line 9, after "AND" insert "IN"; in line 11, strike "EQUAL TO AT LEAST \$25,000,000"; in line 12, strike "DEPARTMENT" and substitute "CORPORATION"; in line 15, after "RESEARCH" insert ", IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE COMMISSION"; in line 18, after "CONDUCTED" insert ", IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE COMMISSION"; in line 23, strike "SECRETARY" and substitute "CORPORATION"; strike beginning with "CARRY" in line 24 down through "(2)" in line 28 and substitute "ESTABLISH"; strike beginning with the semicolon in line 30 down through "AWARDS" in line 31; and strike in their entirety lines 32 and 33.

AMENDMENT NO. 5

On pages 6 and 7, strike in their entirety the lines beginning with line 1 on page 6 through line 3 on page 7, inclusive.

On page 7, in line 4, strike "20-1105." and substitute "<u>5-2B-04.</u>"; in line 5, strike "IN THE DEPARTMENT"; after line 5, insert:

"(B) THE COMMISSION IS AN INDEPENDENT COMMISSION THAT FUNCTIONS IN THE CORPORATION.";

in lines 6 and 23, strike "(B)" and "(C)", respectively, and substitute "(C)" and "(D)", respectively; strike line 7 in its entirety; in line 8, strike "(2)" and substitute "(1)"; strike in their entirety lines 9 through 22, inclusive, and substitute:

"(2) THREE PATIENT ADVOCATES, ONE APPOINTED BY THE GOVERNOR, ONE APPOINTED BY THE PRESIDENT OF THE SENATE, AND ONE APPOINTED BY THE SPEAKER OF THE HOUSE OF DELEGATES;

- (3) THREE INDIVIDUALS WITH EXPERIENCE IN BIOTECHNOLOGY, ONE APPOINTED BY THE GOVERNOR, ONE APPOINTED BY THE PRESIDENT OF THE SENATE, AND ONE APPOINTED BY THE SPEAKER OF THE HOUSE OF DELEGATES;
- (4) TWO INDIVIDUALS WHO WORK AS SCIENTISTS FOR THE UNIVERSITY SYSTEM OF MARYLAND AND DO NOT ENGAGE IN STEM CELL RESEARCH, APPOINTED BY THE UNIVERSITY SYSTEM OF MARYLAND;
- (5) TWO INDIVIDUALS WHO WORK AS SCIENTISTS FOR THE JOHNS HOPKINS UNIVERSITY AND DO NOT ENGAGE IN STEM CELL RESEARCH, APPOINTED BY THE JOHNS HOPKINS UNIVERSITY; AND
- (6) TWO BIOETHICISTS, ONE APPOINTED BY THE UNIVERSITY SYSTEM OF MARYLAND AND ONE APPOINTED BY THE JOHNS HOPKINS UNIVERSITY.";

in line 23, strike "GOVERNOR SHALL DESIGNATE THE CHAIR" and substitute "<u>MEMBERS</u>"; in the same line, after "COMMISSION" insert "<u>SHALL ELECT A CHAIR FROM AMONG THE APPOINTED MEMBERS OF THE COMMISSION</u>"; strike line 24 in its entirety; in line 25, strike "4" and substitute "<u>2</u>"; and in line 27, strike "OCTOBER" and substitute "<u>JULY</u>".

AMENDMENT NO. 6

On page 8, in line 1, strike "TWO" and substitute "THREE"; after line 5, insert:

- "(F) A MAJORITY OF THE FULL AUTHORIZED MEMBERSHIP OF THE COMMISSION IS A OUORUM.
 - (G) A MEMBER OF THE COMMISSION:
- (1) MAY NOT RECEIVE COMPENSATION AS A MEMBER OF THE COMMISSION; BUT
- (2) <u>IS ENTITLED TO REIMBURSEMENT FOR EXPENSES UNDER THE STANDARD STATE TRAVEL REGULATIONS, AS PROVIDED IN THE STATE BUDGET.</u>

- (H) THE COMMISSION MAY EMPLOY A STAFF, INCLUDING CONTRACTUAL STAFF, IN ACCORDANCE WITH THE STATE BUDGET.
- (I) THE COMMISSION MAY CONSULT WITH EXPERTS IN PERFORMING ITS DUTIES.":

in line 6, strike "(F)" and substitute "(J)"; after line 9, insert:

"5-2B-05.

- (A) THE POWER OF THE SECRETARY OVER PLANS, PROPOSALS, AND PROJECTS OF UNITS IN THE DEPARTMENT DOES NOT INCLUDE THE POWER TO DISAPPROVE OR MODIFY ANY DECISION OR DETERMINATION THAT THE COMMISSION MAKES UNDER AUTHORITY SPECIFICALLY DELEGATED BY LAW TO THE COMMISSION.
- (B) THE POWER OF THE SECRETARY TO TRANSFER BY RULE, REGULATION, OR WRITTEN DIRECTIVE ANY STAFF, FUNCTIONS, OR FUNDS OF UNITS IN THE DEPARTMENT DOES NOT APPLY TO ANY STAFF, FUNCTIONS, OR FUNDS OF THE COMMISSION.

5-2B-06.

- (A) THE COMMISSION SHALL CONTRACT WITH AN INDEPENDENT SCIENTIFIC PEER REVIEW COMMITTEE COMPOSED OF SCIENTIFICALLY RECOGNIZED EXPERTS IN THE FIELD OF STEM CELL RESEARCH.
- (B) THE COMMITTEE SHALL REVIEW, EVALUATE, RANK, AND RATE RESEARCH PROPOSALS FOR STATE-FUNDED STEM CELL RESEARCH:
- (1) BASED ON THE PROCEDURES AND GUIDELINES ESTABLISHED BY THE COMMISSION; AND
- (2) <u>IN A MANNER THAT GIVES DUE CONSIDERATION TO THE</u> SCIENTIFIC, MEDICAL, AND ETHICAL IMPLICATIONS OF THE RESEARCH.

- (C) THE COMMITTEE SHALL MAKE RECOMMENDATIONS TO THE COMMISSION, BASED ON THE RANKINGS AND RATINGS AWARDED TO RESEARCH PROPOSALS BY THE COMMITTEE, FOR THE AWARD AND DISBURSEMENT OF GRANTS UNDER THE FUND.
 - (D) A MEMBER OF THE COMMITTEE:
- (1) <u>IS NOT ELIGIBLE TO RECEIVE A GRANT OR LOAN FOR</u> STATE-FUNDED STEM CELL RESEARCH FROM THE FUND; AND
 - (2) MAY NOT RESIDE IN THE STATE.
- (E) MEMBERS OF THE COMMITTEE SHALL BE SUBJECT TO CONFLICT OF INTEREST STANDARDS THAT ARE AT LEAST AS STRINGENT AS THE STANDARDS ON CONFLICT OF INTEREST ADOPTED BY THE NATIONAL INSTITUTES OF HEALTH.";

in lines 10 and 30, strike "20-1106." and "20-1107.", respectively, and substitute "<u>5-2B-07.</u>" and "<u>5-2B-08.</u>", respectively; in line 12, after the second "THAT" insert "<u>ADULT STEM CELL AND</u>"; strike line 14 in its entirety and substitute:

- "(2) <u>DEVELOP CRITERIA, STANDARDS, AND REQUIREMENTS FOR THE INITIAL REVIEW OF GRANT AND LOAN APPLICATIONS BY THE COMMISSION;</u>
- (3) REVIEW GRANT AND LOAN APPLICATIONS TO ENSURE THAT EACH APPLICATION IS COMPLETE AND SATISFIES THE CRITERIA, STANDARDS, AND REQUIREMENTS DEVELOPED BY THE COMMISSION, INCLUDING APPROVAL BY AN INSTITUTIONAL REVIEW BOARD;
- (4) ESTABLISH PROCEDURES AND GUIDELINES TO BE USED BY THE COMMITTEE FOR THE REVIEW, EVALUATION, RANKING, AND RATING OF RESEARCH PROPOSALS FOR STATE-FUNDED STEM CELL RESEARCH;

(5) ENSURE THAT THE PROCEDURES AND GUIDELINES ESTABLISHED UNDER ITEM (4) OF THIS SUBSECTION ARE BASED ON THE GUIDELINES OF THE NATIONAL INSTITUTES OF HEALTH CENTER FOR SCIENTIFIC REVIEW;";

in line 15, strike "(I)" and substitute "(6) ESTABLISH"; in line 16, strike "FUNDING" and substitute "GRANT AND LOAN"; in line 17, strike "AND"; strike in their entirety lines 18 through 20, inclusive; in lines 21 and 25, strike "(4)" and "(5)", respectively, and substitute "(7)" and "(11)", respectively; in lines 21 and 22, strike "AND STANDARDS" and substitute ", STANDARDS, AND REQUIREMENTS"; in line 22, strike "ADOPTED BY THE SECRETARY" and substitute "ESTABLISHED BY THE COMMISSION"; in the same line, strike "SOLELY"; after line 24, insert:

- "(8) TO ENSURE THAT STATE FUNDING DOES NOT DUPLICATE OR SUPPLANT EXISTING FUNDING, PLACE A PRIORITY ON FUNDING STEM CELL RESEARCH THAT IS UNLIKELY TO RECEIVE TIMELY OR SUFFICIENT FEDERAL FUNDING UNENCUMBERED BY LIMITATIONS THAT WOULD IMPEDE THE RESEARCH;
- (9) ESTABLISH STANDARDS FOR THE OVERSIGHT AND USE OF AWARDS;
 - (10) CONDUCT PROGRESS OVERSIGHT REVIEWS OF GRANTEES;";

in line 25, strike "SECRETARY" and substitute "CORPORATION"; and strike line 28 in its entirety and substitute:

"(12) <u>DEVELOP GUIDELINES ON DISCLOSURE AND RECUSAL TO BE</u> <u>FOLLOWED BY MEMBERS OF THE COMMISSION WHEN CONSIDERING GRANT AND</u> LOAN APPLICATIONS.".

AMENDMENT NO. 7

On page 9, in lines 2 and 12, in each instance, strike "DEPARTMENT" and substitute "<u>CORPORATION</u>"; in line 14, after "UNDER" insert "<u>SUBSECTION (A)(1) OF</u>"; in lines 18 and 24, strike "20-1108." and "20-1109.", respectively, and substitute "<u>5-2B-09.</u>" and "<u>5-2B-10.</u>", respectively; strike in their entirety lines 19 through 23, inclusive, and substitute:

"(A) ON OR BEFORE JANUARY 1 OF EACH YEAR, THE CORPORATION AND THE COMMISSION SHALL REPORT TO THE GOVERNOR AND, IN ACCORDANCE WITH § 2-1246 OF THE STATE GOVERNMENT ARTICLE, TO THE GENERAL ASSEMBLY ON THE PROGRESS OF STATE-FUNDED STEM CELL RESEARCH CONDUCTED IN ACCORDANCE WITH THIS SUBTITLE.

(B) THE REPORT SHALL IDENTIFY:

- (1) EACH GRANTEE THAT RECEIVED FUNDING FROM THE FUND;
- (2) THE AMOUNT OF FUNDING AWARDED TO EACH GRANTEE; AND
- (3) A DESCRIPTION OF THE TYPE OF STEM CELL RESEARCH PERFORMED BY THE GRANTEE.";

in line 29, strike "HUMAN EMBRYOS" and substitute "<u>ANY UNUSED MATERIAL</u>"; in lines 31, 32, and 34, in each instance, strike "UNUSED HUMAN EMBRYOS" and substitute "<u>ANY UNUSED MATERIAL</u>"; and in line 34, after "(III)" insert "<u>EXCEPT AS PROVIDED IN SUBSECTION</u> (B) OF THIS SECTION,".

AMENDMENT NO. 8

On page 10, in lines 1 and 3, in each instance, strike "UNUSED HUMAN EMBRYOS" and substitute "ANY UNUSED MATERIAL"; in line 1, strike "EMBRYO"; after line 2, insert:

"(B) ANY UNUSED MATERIAL DONATED FOR STATE-FUNDED STEM CELL RESEARCH MAY NOT BE AN OOCYTE.";

in line 3, strike "(B)" and substitute "<u>(C)</u>"; in lines 6, 10, and 19, strike "20-1110.", "20-1111.", and "20-1112.", respectively, and substitute "<u>5-2B-11.</u>", "<u>5-2B-12.</u>", and "<u>5-2B-13.</u>", respectively; strike beginning with "HUMAN" in line 11 down through "EMBRYOS" in line 12 and substitute "<u>ANY MATERIAL DONATED IN ACCORDANCE WITH § 5-2B-10 OF THIS SUBTITLE</u>"; in line 12, strike "UNDER THIS SUBTITLE"; in line 14, strike "HUMAN EMBRYOS" and substitute "<u>MATERIAL DONATED IN ACCORDANCE WITH § 5-2B-10 OF THIS SUBTITLE</u>"; in line 25,

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after the second "the" insert "appointed"; in line 26, strike "appointed by the Governor" and substitute "established under Section 1 of this Act"; in lines 28 and 29, in each instance, strike "three" and substitute "six"; in line 28, after "2008;" insert "and"; strike beginning with the semicolon in line 29 down through "2010" in line 30; after line 30, insert:

"SECTION 3. AND BE IT FURTHER ENACTED, That the Maryland Technology Development Corporation shall:

- (1) review the stem cell research program established under Section 1 of this Act; and
- (2) report to the Governor and, in accordance with § 2-1246 of the State Government Article, to the General Assembly on the feasibility and efficacy of maintaining the stem cell research program if significant federal funding for the program becomes available.";

in line 31, strike "3." and substitute "4."; and in line 32, strike "October" and substitute "July".