

# ***Toward a Balanced Presentation***

**Critical Analysis**  
of the  
The University of Toronto Joint Centre for Bioethics

## **ENGAGE: Stem Cells program**

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## I. Toward a Balanced Presentation

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### ■ Engaging the Debate

In October, 2003, the University of Toronto's Joint Centre for Bioethics issued a document called, "Engage - Stem Cells" which the Centre has offered to Canadian high schools as a curriculum tool for helping students understand the complex issues surrounding the debate on embryonic research.

We are concerned that the material provided by the Centre made a seriously unbalanced presentation of the ethical debate. We feel that it misrepresented the position of many religious and secular groups who hold considered and responsible positions opposite to that of the Centre in order to give an impression that those positions are inconsequential.

We feel that the high school students of Canada are not well served by such a one-sided presentation. It is unsurprising that the students upon whom this document was tested unfailingly produced results identical with the position on embryo research of the Joint Centre for Bioethics.

The Centre is at one with the position of some in the research community in their efforts to have legislation passed that will legalize the use of human embryos for any kind of experimentation.

Campaign Life Coalition offers this brief critical examination of the package from the Joint Centre for Bioethics in an effort to redress the balance of the material and offer an alternative viewpoint. There is no question that the ethical issues surrounding the use of human embryos in experimental research need to be a part of Canadian high school curricula, however, we feel that students cannot fully grasp the complexities if they are offered only one side of the debate.

The complete document from the Joint Centre for Bioethics can be found in PDF format at the following internet address:

<http://www.utoronto.ca/jcb/main.html>

## II. Ethics Resources:

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### ■ **What are “Ethics”?**

Many people are not aware that “ethics” and “morality” are not synonymous. “Ethics” are merely the practical application of any given philosophical outlook. Without clarifying the meaning of ethics or their underlying philosophical assumptions, the students could formulate any conclusion and judge it ethical because of a failure to establish governing principles.

Because of this omission, none of the resources given in the curriculum package would admit of any ethical conclusion other than the one held by the sponsors of the package.

The students are asked to simply take the word of the authors that embryonic stem cell research (ESCR) is morally acceptable and to start lobbying in its favour without adequate representation of both sides of the debate.

### ■ **Apologetic: a syllogism**

The opposition to the use of living human embryos for research is founded on a clear and logical proposal based on scientifically verifiable facts. This opposition can be stated very simply in a logical syllogism.

A syllogism is an intellectual tool used in the formal study of logic to examine ethical problems. It consists of two propositions from which a third proposition may be deduced. For example, “All cats are mammals. My pet is a cat. Therefore, my pet is a mammal.”

Many tools can be employed in debates on the ethics of embryo research, but one of the most common is the following syllogism:

- The field of human embryology asserts, without exception, that a human embryo is a human being. There is no difference in kind between an adult and an embryonic member of the human species.
- It is the internationally accepted agreement that it is unacceptable to experiment on human beings without their consent. (Nuremberg Code)
- Therefore, it is never acceptable to use human embryos for experiments.

Nowhere in the Centre's document is this simple and clear explanation made even though it is the core principle of all opposition to destructive experimentation on human embryos.

■ **Faith Communities**

Many of the "stakeholders" mentioned such as Protestants, Jews and Muslims, do not have a single, unified religious position and to present them as such is disingenuous. It gives an appearance of "balance" and equity without realistically challenging any assumptions.

Supplementary articles supply only opinions that would favour the use of embryos for research.

Sufficient documentation should be included to familiarize students with the opposing faith-based positions in order for the students to defend them in a meaningful way.

Where a group is cited that has a single, unified, official position, as in the case of the Catholic Church, the official document giving that position does not appear.

The official position of the Catholic Church has been given since 1987 in a document called "The Gift of Life" which clearly lays out the entire ethical argument both in favour and against embryonic stem cell research (ESCR) and cloning and making clear the unequivocal Catholic opposition to the use of human beings at any stage in their lives for destructive research.

It is indicative of the methods of the authors of the package that instead of using the official policy document or any part of it, a speech by the pope was chosen which barely mentions embryo research and gives the Catholic position only in an extremely vague and indirect way.

■ **Scientists**

The materials presented in the package are those used by lobby groups of researchers who are attempting to persuade the US government to legalize and fund ESCR. Only those which support the use of embryos for research are given. There is no material from any organization of researchers who oppose the use of human embryos.

No actual scientific information regarding breakthroughs or data is given.

Embryos are erroneously described with leading language such as "fertilized eggs," "excess cells," terms which are not used in the sciences of human embryology because of their inaccuracy and political implications.

■ **Key Ethics Resource Materials Not Included**

- Websites giving positions opposing embryo research and cloning.
- Official Catholic documents on the ethics of embryo research and cloning, i.e.: “The Gift of Life.”
- Material from the Evangelical fellowship of Canada.
- Hansard record of the debates in the House of Commons giving the opposed position by MP’s.
- Hansard record from the Health Committee process.

### III. Sponsors

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#### ■ **Corporate Interests**

The groups listed as sponsors of this curriculum package are themselves “stakeholders” in the issue of embryonic stem cell research and cloning. Genome Canada and the Ontario Genomics Institute as well as The Stem Cell Network, have a vested interest in the passage of Bill C-13. Bill C-13 would allow these groups to receive federal funding for research that would prove extremely lucrative for their funding corporations such as the pharmaceutical giant, Glaxo Smith Kline.

#### ■ **Private Funding at Joint Centre for Bioethics**

The originator of the curriculum, the Joint Centre for Bioethics at the University of Toronto is also funded by the Canadian Institutes of Health Research (CIHR) and would materially benefit from the passage of Bill C-13. They can, therefore, in no way be considered impartial.

Peter Singer, the Director of the Joint Centre for Bioethics, has received millions of dollars in grants from interested parties such as Genome Canada, the CIHR, the National Institutes for Health Research in the US, and pharmaceutical companies such as Glaxo Smith Kline, Merck Frosst and Pfizer. Even if the funding from these corporations and national funding foundations and agencies cannot be directly linked to the production of this curriculum package, can the authors be seen to be objective when such large sums are involved?

#### ■ **Teen Lobbyists?**

The package encourages the children, as part of the learning project, to contact their MPs and lobby them to pass legislation that would allow the use of embryos in research.

In presenting their opinion as the established norm, it is our concern that under the guise of “education” these privately funded lobby groups are attempting to manipulate children into becoming lobbyists without adequately representing opposing views.

## IV. The Educational Material: Omissions and Distortions

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### ■ “Test Questions”

A series of suggested questions and answers are given to teachers which include a number of factual errors, language that is not used in the science of human embryology, and misleading omissions. Some examples are given below.

#### 1) “Compare and contrast embryonic stem cells and adult stem cells.

*“Answer: Potentially, both types of stem cells could be used in regenerating diseased tissue to treat various medical conditions. Embryonic stem cells come from the inner cell mass of a blastocyst. Adult stem cells come from virtually any organ in the human body, including bone marrow. Embryonic stem cells are pluripotent. Adult stem cells appear at present to be mostly multipotent, although some might be pluripotent. Harvesting adult stem cells generates less debate because the process of collecting them does not involve the sensitive issues linked to the debate about embryos. However, adult stem cells are extremely rare, difficult to isolate and typically grow for limited periods.”*

- This last assertion, presented as a matter of indisputable fact, is not true. Adult stem cells are readily available from a variety of sources and they are being discovered to be as flexible and enduring as cells from embryos.
- Embryonic stem cells have never been used successfully for clinical trials in any disease research whereas successful treatments of a multitude of diseases have been discovered using adult stem cells and are, in some cases, the standard treatment. See note below for a partial list.

#### 2) “If a cell is fully differentiated, may it adopt a different cell fate?”

*“Answer: No, once a cell is fully differentiated, it loses its ability to adopt a different cell fate. Only stem cells have the ability to differentiate into different cell types. Totipotent stem cells have the ability to form an entire organism, pluripotent stem cells have the ability to form all types of cells in the body and multipotent stem cells have the ability to form a limited number of different cell types.”*

- This statement is also erroneous. A differentiated cell can be reverted to an undifferentiated state by a process called demethylation. This process has been used to create embryos and is a cloning method referred to as parthenogenesis.

#### 3) “What are the three sources of embryonic stem cells? How are the stem cells obtained from each of these sources?”

*“Answer: 1. Existing stem cell lines – a group of continually dividing embryonic stem cells, isolated from one blastocyst, provides a continuous supply of undifferentiated stem cells. 2. IVF clinics – excess embryos that are not used for assisted reproduction can be used to obtain embryonic stem cells, and embryos created by IVF specifically for obtaining stem cells without the intention of using them to achieve a pregnancy. 3. Somatic cell nuclear transfer (SCNT) – creating embryos for harvesting embryonic stem cells through somatic cell nuclear transfer, which involves the fusion of an adult somatic cell and an egg cell that has had its nucleus removed. The fusion achieves the nuclear transfer.”*

- The question is worded so as to establish, as a *fait accompli*, the assumption that the embryo is a mere material thing of no intrinsic value. It assumes first that the ethical question of the use of human embryos is a settled one by employing terms that would not be applied to a human being, such as “used for assisted reproduction”. The opposing argument asserts that an embryo is a human being

and cannot be referred to in terms of utility. It is this kind of leading language that is found throughout the document.

- The term “somatic cell nuclear transfer” is employed here to describe a method of human cloning. By omitting the term “cloning”, the authors have steered around the issue of cloning in itself. The cloning process creates an embryonic member of the human species.

**4) “Compare and contrast therapeutic and reproductive cloning.**

*“Answer: Both therapeutic and reproductive cloning involve the creation of an embryo using the process of somatic cell nuclear transfer (fusing of an adult somatic cell and an egg cell with its nucleus removed). The purpose of therapeutic cloning is to collect embryonic stem cells that can be used for medical treatment. Reproductive cloning involves implanting the embryo in a uterus and allowing it to develop into an organism.”*

- That the distinction between these is fictitious is not explained. Once a human being has been created using any method of cloning, reproduction has taken place. Where that clone is implanted does not change the fact of its existence, nor does its ultimate end, whether it is given to a mother who wants a child, or is gestated artificially and destroyed for its parts. The wording here, as elsewhere, has been carefully crafted to avoid bringing up the central issue to the debate: is the embryo a human being?
- The idea that SCNT and cloning are synonymous is erroneous; there are several methods of creating a clone.
- An embryo is already “an organism” a fact which is verifiable in any textbook on human embryology. Any embryo created in any cloning process is a distinct human organism as long as it has the required number and type of genes per cell, ie: 46 and human.

**5) “Name three diseases or medical conditions that are or could be potentially treated by stem cells. How would stem cells be used to treat these diseases?”**

- Four diseases are given as examples, Non-Hodgkin’s lymphoma, Parkinson’s disease, spinal cord injuries and Type-1 diabetes, none of which have been successfully treated with stem cells derived from embryos but all of which have had progress made with adult stem cells. In the case of Parkinson’s disease, the cases treated experimentally with embryonic cells were described by the researchers as “catastrophic” for the patients. Conversely, experimental treatment with adult stem cells has permanently arrested the development of the disease and restored the patient’s faculties up to 80%.
- Each example given in the package could admit of treatment with stem cells, but no information is given on actual case histories as to whether adult or embryonic cells were or could be used.

**6) “Describe the perspectives of three stakeholders on the issue of embryonic stem cell research. Which perspective is closest to your own?”**

- Several statements are made here which are presented as the representative position of various groups whom the authors have identified as “stakeholders”. The student is being asked to make a choice of ethical positions that are, in most cases, essentially the same: that a human embryo is a material thing with utilitarian, but no moral worth. Where an opposing view is given it is presented as divided and unconvincing.
- Neither the Jewish nor Muslim positions are uniform and it is not possible to succinctly summarize the position of any of these faith communities, however the fact that significant opposition exists in these communities is omitted.
- Many Protestant and interdenominational groups have worked strenuously against embryo research and cloning.
- To represent the position of “Scientist” as one wholly in favour is entirely biased. Many scientists who do research with stem cells have grave ethical misgivings about the use of embryos.

**9) “Describe the current status of Canada’s proposed legislation on embryonic stem cell research. What does it permit? What does it prohibit? Do you agree with it?”**

*“Answer: Therapeutic cloning and creating embryos for research is not permitted. Research with embryonic stem cells from discarded embryos of IVF clinics and existing embryonic stem cell lines is permitted. The proposed legislation (Bill C-13) has gone through First and Second readings in the House of Commons and has been referred to the Standing Committee on Health. The Bill will go through Third reading and will eventually be passed onto the Senate before becoming law.”*

- It is incorrect to state that Bill C-13 prohibits cloning or the creation of embryos for research. Clauses 5(1)(b) and 5(1)(c) respectively allow the creation of embryos for research and the creation of clones by a method other than somatic cell nuclear transfer.
- No restriction is placed on the use of the clone created by the method described in the clause, whether that be for so-called therapeutic uses or reproduction.

■ **“First Encounter Assignment”**

An essay-style assignment is given where the student is asked to write a paragraph answering a question based on the text. Included in the text are the following:

*“At present it appears that blastocysts are the most promising source of stem cells.”*

John Gearhart headed the research team at Johns Hopkins University that successfully extracted human pluripotent stem cells from foetal tissue in 1998. He is considered one of the foremost researchers and proponents of embryonic stem cells in the world. In a speech to a seminar of the National Institutes of Health Research in the US, Gearhart stated that embryonic stem cells will likely never be used as part of disease therapy due to the medical problems they represent.

*“Harvesting the stem cells (of an embryo) destroys the potential of the embryo to develop into an organism.”*

The embryo is a genetically distinct, living organism from the first moment of the beginning of the fusion of gametes. Whatever the legal or moral status of the embryonic human organism, there is no discussion among scientists that it is a human being. When stem cells are extracted from an embryo, the embryo that was alive and growing, dies.

■ **“Information Booklet”**

▪ **Material dated and not documented**

Much of the material on scientific advances with ESCR and adult SCR is two years out of date in a field that is known to be one of the fastest moving of the scientific fields. Frequently the text presents successes with adult stem cell research vaguely and without specifically identifying them as such. In many cases the documentation provided is not dated and is therefore not verifiable.

▪ **Impact of adult stem cells minimized**

In general, the information given in the Curriculum about the differences between embryonic stem cells and so-called adult stem cells is heavily biased in favour of ESCR. Where adult stem cells are mentioned, no mention is made of the astonishing success in the use of adult stem cells in treating patients suffering a variety of diseases.

## V. Compare and Decide

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### ■ Pros and Cons

Diseases treated successfully with adult stem cells in human trials:

- Parkinson's disease
- Multiple Sclerosis
- Severe Combined Immuno-Deficiency Disease
- Crohn's disease
- brain tumours
- retinoblastoma
- ovarian cancer
- testicular cancer
- multiple myeloma
- leukemias
- breast cancer
- neuroblastoma
- non-Hodgkin's lymphoma
- renal cell carcinoma

Successful research with animal diseases with adult stem cells:

- nerve and spinal cord damage
- retinal damage
- Parkinson's disease
- heart disease
- muscular dystrophy
- diabetes
- stroke
- liver disease

Diseases successfully treated to date with stem cells derived from embryos:

- None

### ■ Adult Stem Cells Inferior?

Adult stem cells are repeatedly identified in the text as inferior for research because they are merely "multipotent" as opposed to the totipotency and pluripotency of early-stage embryonic stem cells. This information is false. Adult stem cells are being found to be as elastic as embryonic stem cells and they avoid the serious medical hazards of embryo stem cells.

January 2002, New Scientist:

Multipotent Adult Progenitor Cells (MAPCs) are stem cells... that can "*differentiate into pretty much everything that an embryonic stem cell can differentiate into. They seem to grow indefinitely in culture, without losing their characteristics, and do not seem to form cancerous masses, or cause tissue rejection. These cells may turn out to be the most important cells ever discovered.*"

## ■ “Useful Websites”

Only sites with a “pro” bias were included in the curriculum package.

The websites given include only those organizations which have a vested interest in allowing unrestricted access to human embryos for research including the groups who sponsored the curriculum package such as The Stem Cell Network and the (US) National Institutes of Health Research.

## ■ Alternate Views

Some websites that students may find helpful in articulating the “opposed” position include:

### **LifesiteNews**

<http://www.lifesite.net/features/stemcellembryo/index.html>

Scientific and ethics information and news from the perspective of the sanctity of human life.

### **The Interim**

<http://www.lifesite.net/interim/2003/oct/index.html>

Longer articles on stem cells and the status of the Canadian legislation.

### **Parliament: the House of Commons**

[http://www.parl.gc.ca/common/Chamber\\_House\\_Debates.asp?Language=E](http://www.parl.gc.ca/common/Chamber_House_Debates.asp?Language=E)

Proceedings of the House of Commons including debates on Bill C-13.

### **Parliament: the Work of MP’s**

<http://www.paulszabo.com/main.htm>

Links to press releases from Paul Szabo, MP for Mississauga South regarding his leadership in the area of stem cell research.

### **Paul Szabo Member of Parliament for Mississauga South**

[http://www.paulszabo.com/images/pdf\\_books/Microsoft%20Word%20-%20BKStem1.pdf](http://www.paulszabo.com/images/pdf_books/Microsoft%20Word%20-%20BKStem1.pdf)

MP Paul Szabo’s book on the science and ethics of stem cell research in PDF.

### **Bioethics**

<http://www.stemcellresearch.org/>

The Coalition of Americans for Research Ethics.

[http://www.cbhd.org/resources/stemcells/hensley\\_2003-07-09.htm](http://www.cbhd.org/resources/stemcells/hensley_2003-07-09.htm)

Centre for Bioethics and Human Dignity.

### **Catholic “Stakeholders”**

[http://www.vatican.va/roman\\_curia/congregations/cfaith/documents/rc\\_con\\_cfaith\\_doc\\_19870222\\_respect-for-human-life\\_en.html](http://www.vatican.va/roman_curia/congregations/cfaith/documents/rc_con_cfaith_doc_19870222_respect-for-human-life_en.html)

Official Vatican document on research using human embryos from the highest doctrinal authority of the Catholic Church.

### **Protestant “Stakeholders”**

[http://www.evangelicalfellowship.ca/social/issue\\_viewer.asp?Issue\\_Summary\\_ID=26](http://www.evangelicalfellowship.ca/social/issue_viewer.asp?Issue_Summary_ID=26)

The Evangelical Fellowship of Canada’s page giving an excellent summary of the mainstream Protestant position on human embryo research.