

Transcript VNR Stem Cells

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01 00 20 Comment :

On the 18th and 19th of December 2001, dozens of scientists and industrialists, as well as representatives of patients' groups, religious authorities, and students, met in Brussels to discuss an issue of great promise, but one that also raises many questions : stem cells.

This forum, organised at the request of Philippe Busquin, the European Commissioner for research, was the most open discussion of this nature ever held.

01 00 45 Philippe Busquin :

Stem cells are a subject for philosophic and political discussion, and it is extremely important to know where scientific development has got to, throughout Europe, but also in the United States and Israel. These are the reasons for organising this conference with the best scientists in the field.

01 01 02 Axel Kahn :

The first part of the meeting will explain and clarify the scientific data: what is possible, and how can we do it. We will then go on to a constructive and open debate concerning the other problems.

10 01 18 Philippe Busquin :

The challenge before us is that of the coherence of our policies...

01 01 22 Comment :

The festivities begin. As an introduction, and to encourage everyone to take part in the debate, the European Commission programmed the showing of a film : the film explained, in the simplest terms, what stem cells are.

01 01 38 Stem Cell movie Comment :

A stem cell is above all a cell. And one of the major functions of every cell is to divide and give rise to two twin daughter cells, which will each in turn give rise to two daughter cells

As soon as the egg is formed by the fusion of an ovule and a sperm, it rushes to divide again and again... until the embryo resembles a little blackberry composed of eight stem cells which are highly potent : each of them could in theory give rise to a full embryo, a foetus and finally a baby. Then around the fourth day, the dividing stem cells begin to specialise.

01 02 23 They give rise to two types of cell. The cells of the internal mass are called “embryonic stem cells”. Research on these cells only uses cells taken from embryos generated by in vitro fertilisation but not implanted in the mother’s womb.

If we take cells from the internal mass, we find that every one of them has the potential, on dividing, either to form cells identical to themselves which can be grown to large quantities in culture, or alternatively, to form muscle, cartilage, neurons, blood and other tissues.

01 03 06 As the embryo advances in its development to become first a foetus and then a baby, most stem cells gradually specialise and lose their ability to form a wide diversity of different types of cells. Nevertheless, the foetus is an important source of stem cells. Scientists obtain these foetal stem cells from the umbilical cord or from foetuses following elective abortion or miscarriage.

01 03 35

Adults also have stem cells, albeit in small numbers. Most of these cells are more specialised and are normally able to replace only certain types of cells during the regeneration of a damaged tissue or organ. Adults are therefore another source of stem cells.

01 03 55 Comment :

The first results are already available. 200 people suffering from Parkinson's disease have already been successfully treated. Professor Anders Björklund's team is particularly active in this field.

01 04 06 Anders Björklund :

This is 2 years after receiving cells in the putament bilateraly. We can see the woman has regained mobility and is now able to walk freely, to move and to...

01 04 22 Comment :

Stem cells can also be used to treat other diseases : Alzheimer's disease, diabetes, cardiovascular problems, and in particular leukaemia, the disease on which Eliane Gluckman works. She currently treats more than 50% of her patients with stems cells collected from umbilical cord blood.

01 04 41 Gluckman :

(In english)

... they can also be used for gene therapy and cell engineering. One of the research programme we have is to compare these cells to ES cells and to demonstrate that they are probably as good as ES cells with less ethical problems.

(In french)

01 05 00

It seems to me that to use cells and cell lines that have already been established, poses no ethical problems. I also see no ethical problems with the use of embryos, embryos that would be destroyed in any case because we do not keep spare embryos indefinitely, for research as long as it is very clear that it is for well founded programmes. As for therapeutic cloning, I'm afraid that I really don't see the usefulness.

01 05 25 Comment :

Although the therapeutic promise of stem cells is enormous, there are nevertheless ethical worries. They are such that at the press conference, there was concern that the debate did not sufficiently cover the ethical issues.

01 05 38 German man :

Because you are saying this is a scientific debate but Mr Kahn just said that we should also have a moral and ethical debate and I'm asking where are these people who are responsible for these issues, who are against stem cell research in principle, where are they ?

01 05 56 Présidente :

Thank you, Mister Kahn will answer.

10 05 59 Interprète d'Axel Kahn:

I think that the composition of the panel and the speakers who will talk has everything to ensure a broad debate, without prejudice, and that will be informative and respect Europe's expectations....

01 06 19 Spanish man :

Firstly, it seems to make sense to have this ethical debate. On the other hand, as someone suffering from a rapidly progressing disease that is making me more and more disabled I don't really understand it.

01 06 40 Italian woman :

I would like to ask the biologists and scientists what allows them to identify the beginning of life following the union of the egg and sperm ? And how do we determine, because it is us who determine, the moment at which life begins ?

01 07 05 Axel Kahn :

Even if the embryo is a complete human being, a one-cell human, this is not a sufficient argument to prevent all research on embryos - we do research with humans of all ages.

01 07 17 Martin Raff :

It is offensive to me that somebody because of a religious belief would prevent me from getting those cells that I need to live or to live a healthy life. I mean it's outrageous. So that's the part - its all very well for people to talk about the soul, but if you don't believe in a soul and somebody tells you that you can't have this treatment because they believe in a soul, I mean

01 07 41 Comment :

The European Commission got the sort of debate that it wanted - lively and with passion as was intended.

01 07 48 Derek Burke :

We have a number of new ethical issues arising from the potential use of stem cells and in considering these ethical issues it's very important that all members of society are involved.

01 07 59 Anne McLaren :

It is important that the scientists shouldn't exaggerate, shouldn't hold out false hopes, but most scientists don't.

01 08 08 Comment :

The forum is coming to an end. It's now time, following the debate, to try to find the areas of agreement.

01 08 13 Axel Kahn :

Ladies and gentlemen, we are now at the end of this stimulating sometimes hot meeting on "stem cells and therapy for the future". Therefore it is the right time to attempt to draw some general conclusions ...

01 08 28 Comment :

Six propositions were put forward to help develop the future European legislation concerning stem cells :

01 08 36

Support for research with all sources of stem cells

Prohibition of human reproductive cloning

Encouragement of research on alternatives to therapeutic cloning

Support for and regulation of the use of spare embryos

Establishment of a common set of regulations for public and private research

Establishment of a European registry for embryonic stem cell lines

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A legislative framework is urgently required, because what became apparent by the end of the conference was that research with human stem cells is making possible therapeutic solutions as revolutionary as those associated with the introduction of antibiotics.

01 09 18 END OF FILM