

## Germany

Germany currently has very strict laws on stem cell research.

- In Germany it is illegal to do any research on embryos.
- No embryos may be created in Germany for use in research.
- In some very limited circumstances stem cells created elsewhere can be used in research in Germany.

Source of Information:

[www.bionetonline.org/English/Content/sc\\_leg2.htm](http://www.bionetonline.org/English/Content/sc_leg2.htm)

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## France

France passed new laws in July 2004. It's original bioethics laws were passed in 1994. Prior to this, human embryo research was not allowed.

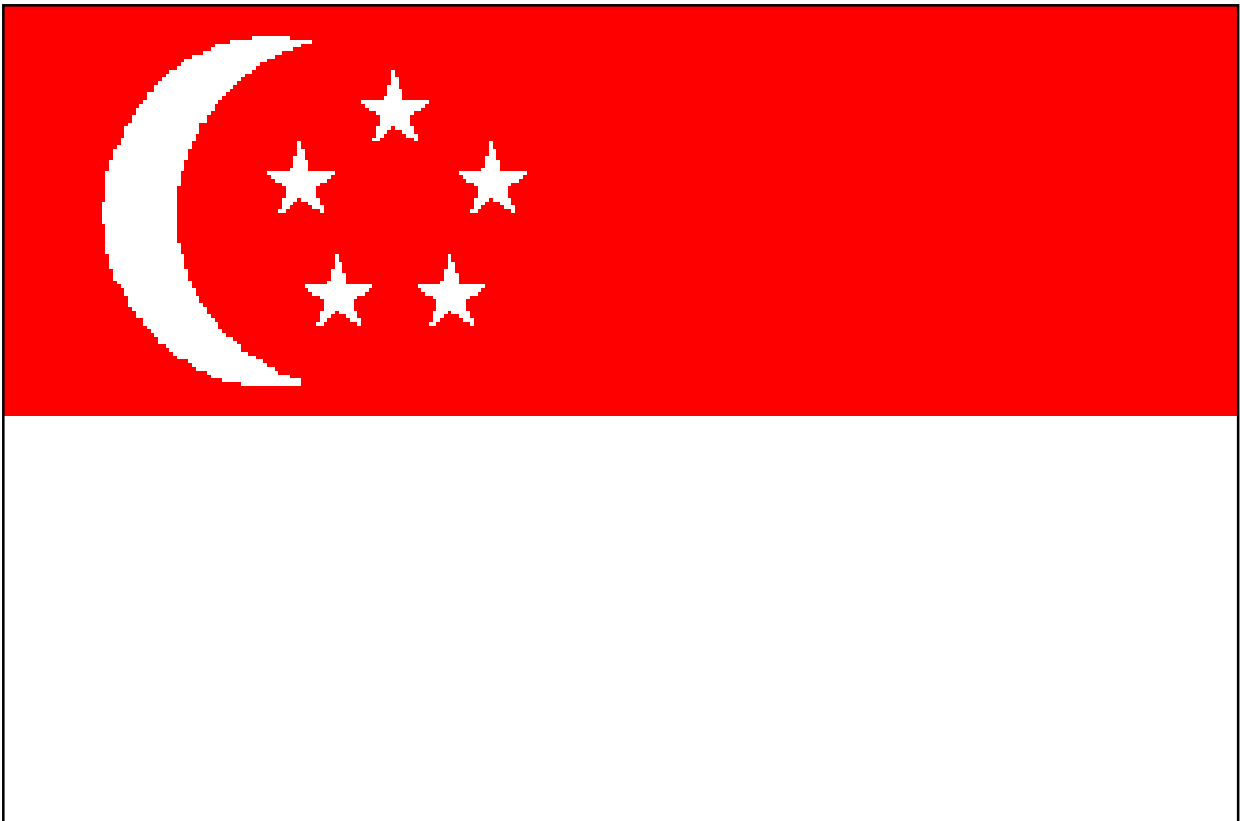
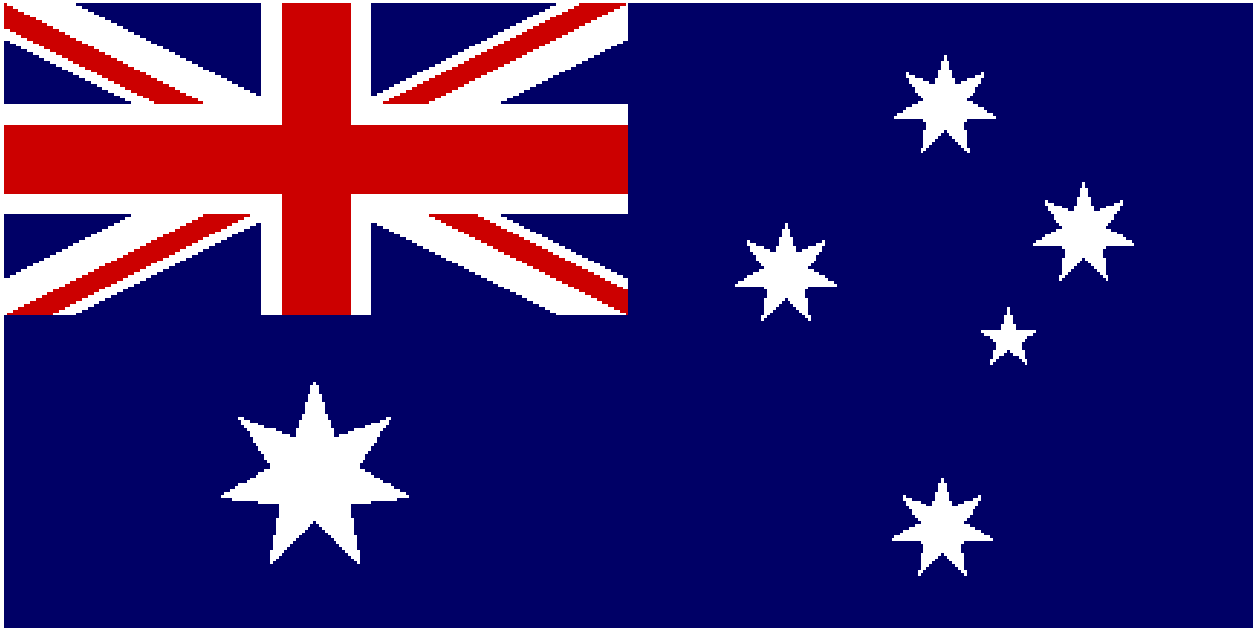
- For a test period of five years and under strict guidelines, research on embryonic stem cells is now allowed.
- Researchers will be able to import embryonic stem cells.
- Parents will be able to select one 'best match' embryo from to attempt to cure an older sibling from an incurable genetic disorder. Therapeutic cloning remains illegal.
- Reproductive cloning experiments are not allowed in France. They are punishable by a 20 year prison sentence.
- Within five years, researcher will be allowed to carry out embryo research using spare frozen embryos from IVF with consent of both parents, if the research is approved by the government.

Source of Information:

[www.bionetonline.org/English/Content/sc\\_leg2.htm](http://www.bionetonline.org/English/Content/sc_leg2.htm)

<http://www.biomedcentral.com/news/20040715/01>

<http://www.stemcellnetwork.ca/news/articles.php?id=554>



## Australia

Stem cell research in Australia is governed by 2 laws.

Prohibition of Human Cloning Act 2002

Research Involving Human Embryos Act 2002

These laws both came into effect in January 2003 (certain clauses of the research involving embryos act did not take effect until June 2003). These laws are federal laws, they cover the whole of Australia. Before these laws were made, some states or territories of Australia had their own laws governing embryo research.

### What is allowed?

Use of excess IVF embryos for research purposes under strict guidelines and with parental consent. These spare embryos may be used to produce stem cells but only if the researchers are granted a licence to do this. All research involving human embryos must be licenced by the NHMRC (Australian National Health and Medical Research Council).

### What is not allowed?

- Creating and/or implanting into a woman a human embryo clone.
- Creating and/or implanting into a woman an embryo by made by any other means than by fertilisation of egg by sperm.
- Creating and/or implanting into a woman a human embryo made outside the body of a woman for reasons other than to achieve a pregnancy.
- Making a hybrid embryo (human and animal).
- Genetically altering a human embryo.
- Allowing a human embryo to develop for more than 14 days outside a woman.

Note: IVF is known as ART (Assisted Reproductive Technology) in Australia

Source of information: [www.nhmrc.gov.au](http://www.nhmrc.gov.au)

## Singapore

Singapore is considered to one of the countries with the most liberal laws on stem cell research.

Singapore has accepted guidelines on stem cell research made by their Bioethics Advisory Committee (these guidelines are based on UK law).

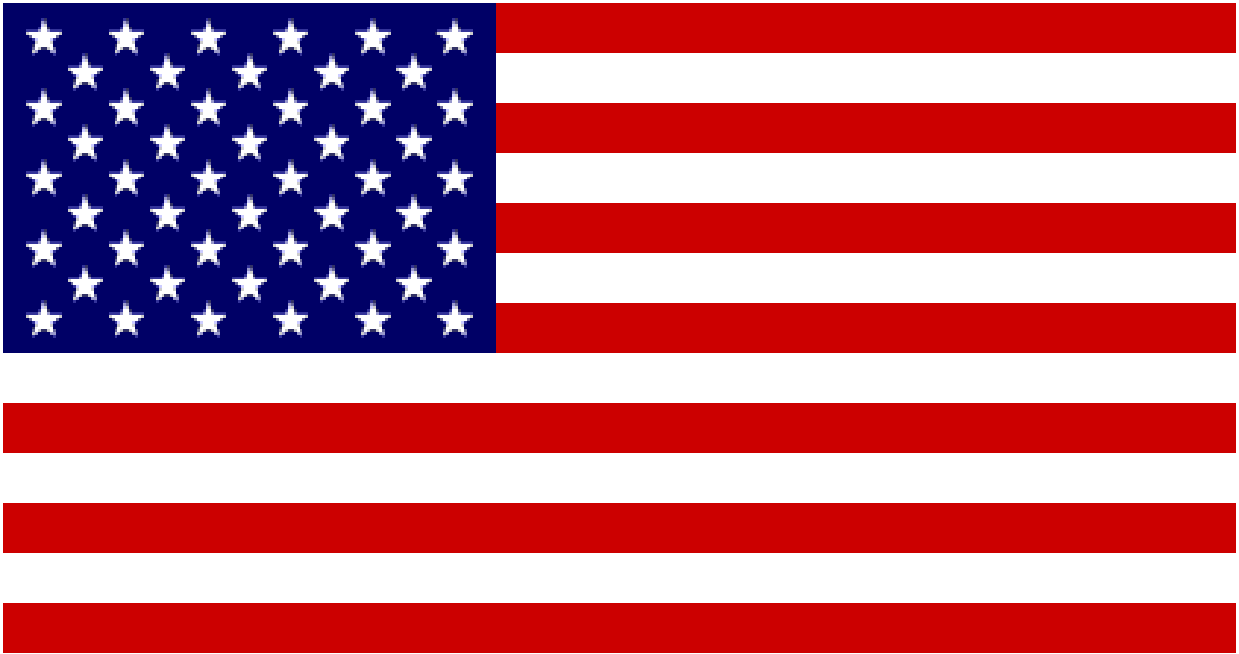
In Singapore, research on human embryos is permitted, under strict guidelines. The use of human embryos to create stem cells is allowed if it has strong scientific merit and if it is likely to be beneficial to medicine. Embryonic stem cells for research can be from a number of sources: embryonic stem cell lines already created, spare embryos from IVF or from embryos made specifically for research. However, the use of existing stem cell lines is preferred to creating new stem cell lines from embryos. Creating new embryos for research can only be considered in very specific circumstances. The production of cloned embryos for stem cell research is allowed. Informed consent must be given by the parents of embryos before their embryos can be used for research.

Reproductive cloning is not allowed. Cloned embryos must not be implanted into a woman's womb.

Sources of information:

Ethical, Legal and Social Issues in Human Stem Cell Research, Reproductive and Therapeutic Cloning. A Report of the Bioethics Advisory Committee Singapore. June 2002

[www.bioethics-singapore.org/bac](http://www.bioethics-singapore.org/bac)



## **Spain**

### ***What is allowed?***

Research using already established stem cell lines.

Using spare human embryos from IVF to produce stem cells.

Only if:

Informed consent is given by parents

Research is aimed at reducing human suffering, not financial gain.

Research proposals must be evaluated by a national committee

### ***What is not allowed?***

Creating human embryos specifically for stem cell research.

Human reproductive cloning.

### ***Note:***

Spain believes that production of excess embryos should be reduced. It is considered preferable that spare embryos would be donated to other couples rather than used for research.

Sources of information:

[www.biomedcentral.com/news/20030731/03](http://www.biomedcentral.com/news/20030731/03)

[www.fecyt.es](http://www.fecyt.es)

Report/Stem Cell Research. Advisory Committee on Ethics of Scientific and Technical Research. (Informe/La Investigación sobre células troncales. Comité Asesor de Ética en la Investigación Científica y Técnica) Fundación Española Ciencia Y Tecnología

[www.bionetonline.org/English/content/sc\\_leg1.htm](http://www.bionetonline.org/English/content/sc_leg1.htm)

## **The USA**

The legal situation on stem cell research in the USA is currently very confusing. In order for a federal law (one that applies to all states) to be passed it must be passed by both the senate and the house of representatives. Currently, although a number of bills have been debated, none have yet been passed. However, President George W. Bush will not allow Federal funds to support stem cell research on newly created embryonic stem cells. This means that research on stem cells in the USA is very limited, there are a very small number of stem cell lines which have been created in other countries that are available for federally funded research. But, there is nothing to stop other stem cell research from going ahead if it is privately funded, and if state laws allow.

The current state of stem cell research in the USA depends entirely on State Laws. Many states have laws which govern stem cell research but these vary widely between states. For example:

California - allows stem cell research including therapeutic cloning.

Arkansas - will not allow the use of cloned embryos for research.

South Dakota - does not allow any stem cell research at all.

Sources of information:

[www.whitehouse.gov](http://www.whitehouse.gov)

[stemcells.nih.gov](http://stemcells.nih.gov)

[www.washingtonpost.com/wp-srv/onpolitics/transcripts/bushtext\\_080901.htm](http://www.washingtonpost.com/wp-srv/onpolitics/transcripts/bushtext_080901.htm)

[www.washingtontimes.com/upi-breaking/20030806-055310-1059r.htm](http://www.washingtontimes.com/upi-breaking/20030806-055310-1059r.htm)

[www.leginfo.ca.gov/cgi-bin/displaycode?section=hsc&group=125001-126000&file=125115-125117](http://www.leginfo.ca.gov/cgi-bin/displaycode?section=hsc&group=125001-126000&file=125115-125117)