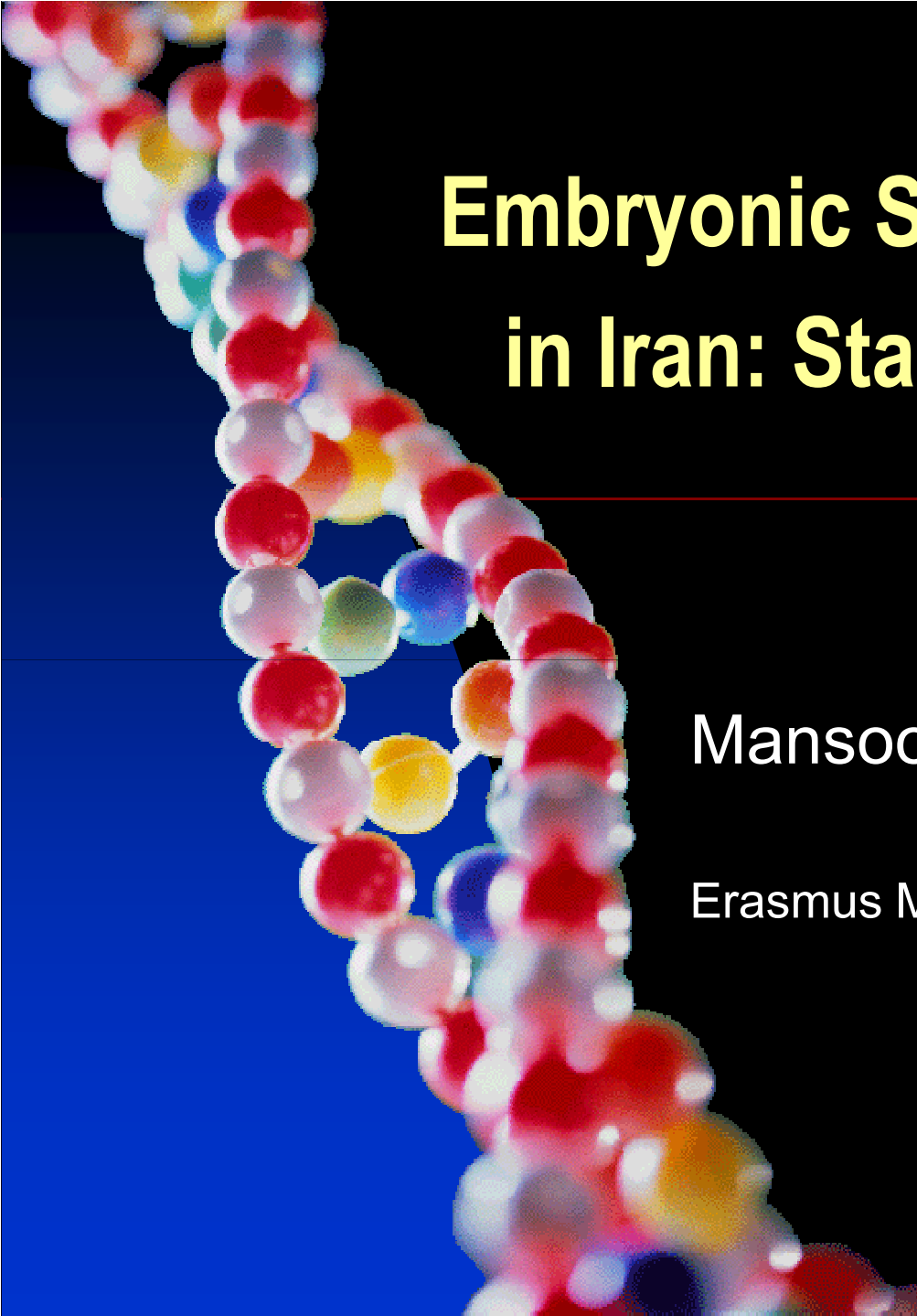




In the Name of God



Embryonic Stem Cell Research in Iran: Status and Ethics

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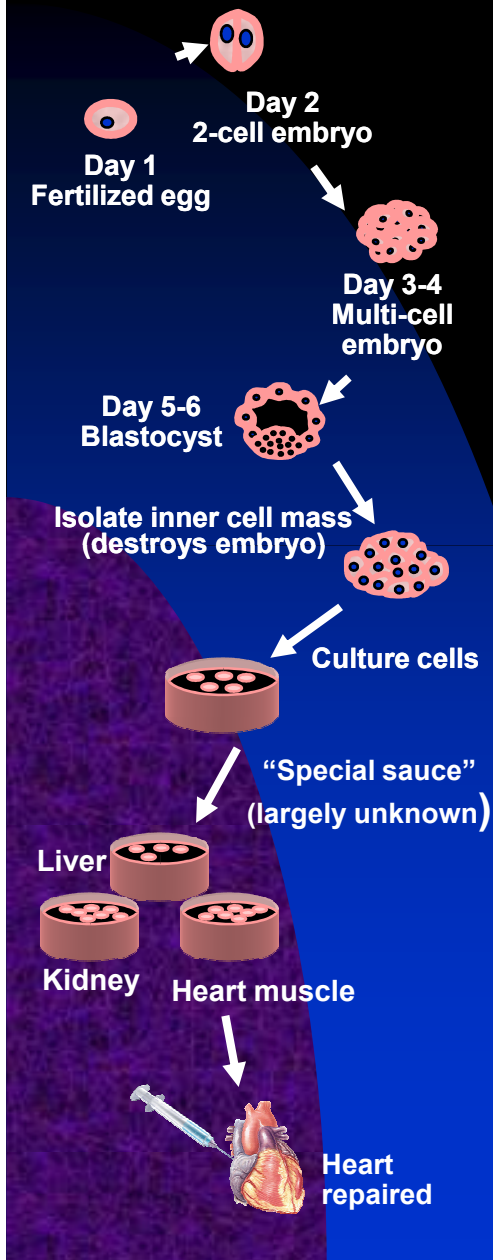
Introduction

The lines of ethics, religion and culture will finally intersect at one of the most divisive scientific issues at play here:
Embryonic Stem Cell (ESC) technology

Introduction

It has become a new battle cry in moral and political discourse, and proponents and opponents argue with the best or worst case scenario in deficient ethical, religious and cultural interpretations and implementations of science

The development of ESC research in Iran



- In 2002, publicly supported human embryo research by Ayatollah Khamenei;
- In 2003, established of the first Iran's human ESC line;
- From 2004, established 6 human embryonic stem cell lines;
- In September 2006, the first cloned sheep was born in Middle East (Royana);

The development of ESC research in Iran

- In 2005, developed a set of guidelines for research on gametes and embryos by the Ministry of Health and Tehran University of Medical sciences



Ethical Dilemmas with Uses of ESC Technology



- The most important ethical problem regarding the source and use of ESCs is the moral status of the human embryos which brings into tension two fundamental moral principles that we highly value:
 - ◆ the duty to respect the value of human life,
 - ◆ the duty to prevent or alleviate suffering.

Our Goal

- To find a common ground from which we as a society may reasonably and faithfully deliberate about ES cell research in Iran as a pioneer of this technology in the Muslim Countries



Scientists' point of view

■ Arguments for ESC research

- ◆ ESCs gave hope of cure for many diseases;
- ◆ the embryos are at a very early stage of development;
- ◆ ethics bodies already allow research on embryos up to 14 days for the improvement of IVF;
- ◆ ESC research provides a new tool for basic science, with broad potential application in genetics and developmental biology.



Scientists' point of view

- From this viewpoint, early embryos have a little moral significance; therefore there is *not* sufficient reason *not* to proceed with treating embryos as a research resource.

Scientists' point of view

■ Argument against ESC research

- ◆ 'slippery slope': to the devaluation of human embryos at the very beginning of their life.
- ◆ an instrumental use of embryos which may increase the social toleration of the loss of life.
- ◆ Slippery slope of dehumanizing practices, such as 'reproductive cloning', 'designed babies', the use of fetuses for spare parts, and the commodification of human life

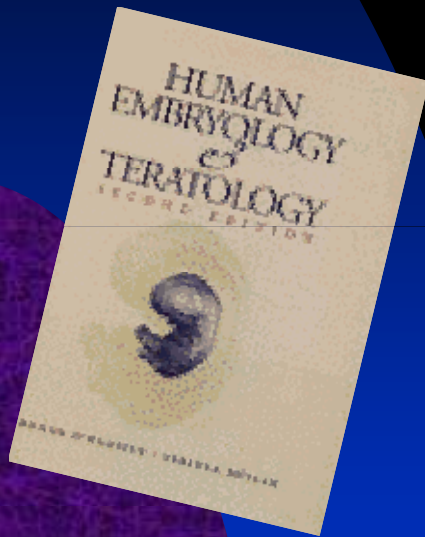
Moral and Ethical Considerations of ES Cell Research



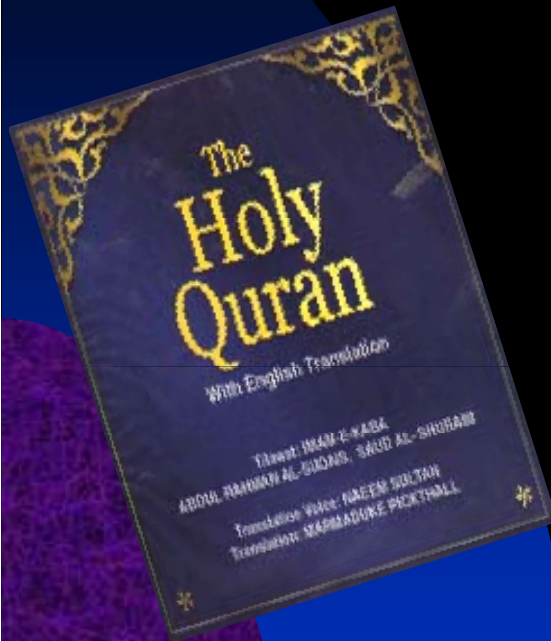
**When does human life/
personhood begin?**

Beginning of human life according to science

“Fertilization is an important landmark because under ordinary circumstances a new genetically distinct human organism is thereby formed...”



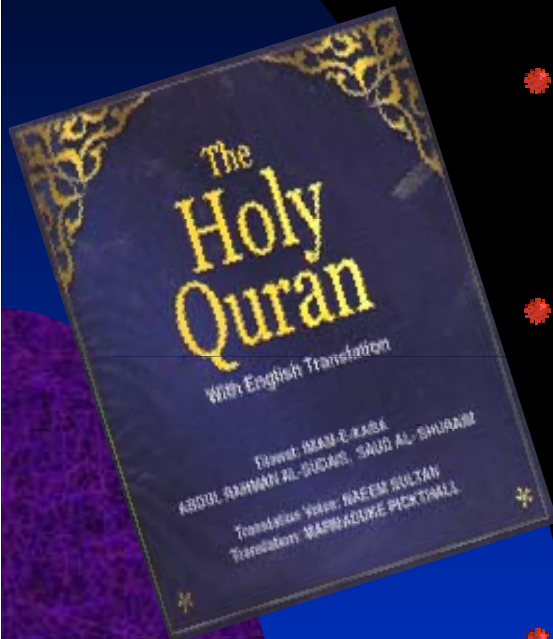
The Holy Quran and embryology



We created man of an extraction of clay, then we set him a drop in a safe lodging, then we created of the drop a clot, then we created of the clot a tissue, then we created of the tissue bones, then we covered the bones in flesh; thereafter we produced it an another creature. So blessed be God, the Best of Creators.

The Holy Quran, Al-Muminun, Verses 12–14

The Holy Qur'an and the beginning of life



- Full human life with its attendant rights begins only after the "ensoulment" of the fetus.
- Ensoulment is generally believed by Muslim scholars to take place at 120 days after conception.
- A majority of the Shi`ite and some Sunni jurists regard the embryo in the pre-ensoulment stages as alive and its eradication as a sin.

Ethics of ES Cell Research in Iran

Guidelines regarding Research on Gamete and Embryo

in article 12:

Generating human embryos for research proposes is forbidden.



in article 14:

The use of human embryos should be below 14 days that were created through IVF techniques, but which are not used in assisted reproduction treatments.

The Status in Middle East

In 2006, Dr Abdur Rab, WHO Representative and
Dr Al- Khayat, Senior Policy Adviser to Regional
Director of EMRO/WHO



recalled the Muslim countries for making
consensus regarding ES cell research as
a 'vital issue'

A room for anything else

Something more than the influence of religion or science which causes to accept new knowledge in one country or to reject it in another one.

A room for anything else

Religion and scientific progress alone could not define the debate, and other salient issues should take into account including

- ◆ cultural traditions;
- ◆ attitudes toward regulation of science;
- ◆ perceptions of the medical and economic values of cloning;
- ◆ balance between individual and corporate identity

A room for anything else

- Although both science and religion are key factors in the current issue, something like the full range of cultural perspectives across countries also drives legislative decisions on ESC research and therapy.

Discussion

- Iranian culture values the accumulation of knowledge and emphasizes helping others

Discussion

- After Islam, Iranian culture has been mixed with Islamic Shi`ite law
- Islamic law has historically been flexible and sensitive to public needs and socio-cultural realities
- The differences among rulings of Shi`ite scholars stem from Hadith resources that are their rulings and also the reliability of narrators of a particular Hadith

Discussion

- Applicable principles invoked by scholars that have aided in this flexibility:
 - ◆ Istislah: consideration of the public good
 - ◆ Istihsan: seeking an equitable and just solution

Conclusion

For globalizing the ethics and regulation of ESC technology, all nations should move together.

Conclusion

Iranian experts provide the information according to

- scientific progress;
- religious traditions;
- individual values systems;
- socio-cultural factor influences.



***Thank You
for Attention***