No Disclosure
AN ISLAMIC APPROACH TO ETHICAL ANALYSIS OF STEM CELL RESEARCH

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Disclaimer

- As I am NOT a religious scholar;
- Thus, the views and scheme presented in this presentation are NOT intended to provide Islamic Religious Verdicts (Fatwas) on SCR.
- Any mistake that could have happened is only attributed to me either by misunderstanding or misquotation.
- If you are looking for the Islamic jurisdiction about the subject, please refer to the authenticated scholars (or Fiqhi Assembly) in your country.
Outline

- Overview on Stem Cells Research (SCR)
- What are the ethical issues in SCR debate?
- Overview on the Islamic approach to ethical issues
- How can we apply the Islamic approach in the ethical arguments about SCR?
- Conclusions and take-home messages
SCR attempts mainly to transform embryonic or adult stem cells into specialized, differentiated cells that can be used to replace damaged cells or organs.
What are the ethical issues in SCR debate?

**Conceptual:**
- Is the human embryo a person or not?
- What is the moral status of the blastocyst?
- Fetus inside uterus (*in vivo*) = fetus outside (*in vitro*)?
- Women’s rights (potential coercion)
- Pro-life vs. liberal (political views)

**Practical:**
- Fate of frozen embryos (surplus fertilized ova)?
- SCR funding and oversight
- Uncertainty about effectiveness
How Islam tells right from wrong?
What’s special about the Islamic approach?
How to apply to SCR?

Islamic Approach to Ethical Issues
What’s unique about ethics in Islam?

What’s Moral in Islam is always legal (Halal)
All Islamic legislations came to achieve these main purposes/goals:

To preserve person’s:

1. Soul/Self/Life (*Hifz An-Nafs*): Prohibited abortion
2. Religion/Faith (*Hifz Ad-deen*): regular worship
3. Mind/Intellect (*Hifz Al-Aql*): prohibited alcohol
4. Wealth (*Hifz Al-Mal*): prohibited gambling &
5. Progeny/Lineage (*Hifz Al-Nasl/Nasab*): prohibited prostitution and adultery
# Scale of Permissibility of Muslim Acts

**Fardh**: Individual Obligation to do an act, e.g. each & every Muslim should pray 5 times/day

**Fardh Kifaya**: Collective obligation, if done by some won’t commit others, e.g. to learn medicine

- **Mubah**: Permissible (free to do or not)
- **Makrouh**: Should NOT DO
- **Haram**: Must NOT DO

**Fardh Ain**: Individual Obligation to do an act, e.g. each & every Muslim should pray 5 times/day

**Fardh Kifaya**: Collective obligation, if done by some won’t commit others, e.g. to learn medicine
How do Muslims tell right from wrong?

Main

**Quran:** The book divided into chapters (Surat) whose verses (Ayat) were revealed by Allah to His prophet Mohamed by the Holy Soul.

**Sunna:** A term that includes all what the prophet Mohamed did (not); said; ordered to do (not); or allowed/prohibited to do explicitly or implicitly.

Secondary (Ijtihad)

**Ijmaa:** Unanimous agreement among trusted scholars.

**Rayul Jomhour:** Opinion of the majority of trusted scholars.

**Qiyas:** Measurement/Analogy of something with no Fatwa on something that already has a religious ruling on.

**Maslaaha Morsala:** Allowing an act for the sake of public Interest that no holy text/script (nass) prohibits it.

**Istishab:** is continuation of an existing ruling until there is evidence to the contrary (OHK).

**Sadd al dhari'at** is prohibition of an act that is otherwise mubaah because it has a high probability of leading to haram.
### The Major Islamic Ruling Principles

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intention (Qasd):</strong></td>
<td>Each action is judged by the intention behind it</td>
</tr>
<tr>
<td><strong>Certainty (Yaqeen):</strong></td>
<td>Certainty can not be removed by doubt</td>
</tr>
<tr>
<td><strong>Injury/Harm (Dharar):</strong></td>
<td>Injury should be relieved</td>
</tr>
<tr>
<td><strong>Hardship (Mashaqqat):</strong></td>
<td>Difficulty calls forth ease</td>
</tr>
<tr>
<td><strong>Custom (Urf):</strong></td>
<td>Custom is recognized as a source of law</td>
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</table>

*Each of the main principles has a set of sub-principles*
Certainty is not removed by doubt

Explicitness is prior to interpretation

The rule is that people are innocent

What is proved by evidence is valid until denied by contrary evidence

Deeds are by intentions

Contracts are by intentions not by phrasing

Means are judged as the ends

What is permissible in the means is not always permissible in the ends

The rule in deeds is permission

The rule in violating the 5 goals is restriction

Difficulty calls forth ease

Refer to alternatives when the required is difficult

Necessity legalizes the prohibited

Necessities are judged by magnitude

Necessities do not overcome other’s rights

No duty with incapacity

What’s allowed for a cause goes with the cause

Choose the easier choice unless it’s a sin

Injury should be relieved

Harm is relieved as possible

An individual should not harm others or be harmed by others

An injury is not relieved by inflicting or causing a harm of the same degree

Personal harm is overruled by the general harm

Among evils; the lesser harm is committed

Prevention of harm has priority over pursuit of a benefit of equal worth

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Prevention of harm has priority over pursuit of a benefit of equal worth

Customs are recognized

Only the known customs, not the rare ones are recognized

Transient customs are not recognized

Judgments can be changed by circumstances

Things are defined by customs not only by language
How to utilize the sources and Fiqhi principles in deciding about SCR?

APPLICATION TO SCR
What do the **Main Sources** Say?

Though there is no explicit statement in **Quran** or **Sunna**; there are some main principles stated:

- Killing, Destroying, or manipulating the creation of Allah is prohibited *(Exceptions apply)*
  - ‘Nor take life which Allah has made sacred— except for just cause’, Isra’:33

- **Seeking treatment is *usually* advisable but not a must**
  - ‘Seek Treatment, for Allah has not made a disease without appointing a remedy for it’ *(Abu-Dawood; 3846)*

- Muslims should only be treated by a permissible drug /intervention *(‘and do not treat yourself by illegal substance’ *(Bukhari )*

- Islam encourages health research: ‘…for Allah has not decreed any illness but provided a medicine for it, whoever knows it knows it, and whoever ignores about it is ignorant. *(Reported by Imam Ahmad)*’

**Sub-Conclusion:** In principle, **SCR is legal if the production of the stem cells doesn’t include an illegal act and/or not for an illegal purpose**
Islamic View on embryonic Life

- **Biological life** begins at conception while **human life** begins when **ensoulment** takes place at 40 (or 120 days according to other school of thought) after fertilization.

- The right of the fetus in Islam is similar to the rights of a mature human being, including right to life, right to inheritance, right of compensation when injured by willful acts and right to penalize assailants.

(The position of Islamic Medical Association of North America on issues of Medical Ethics, 2005)
### What are the Goals of Sharia involved?

<table>
<thead>
<tr>
<th>Goal</th>
<th>Application in SCR</th>
</tr>
</thead>
</table>
| Preserving Religion   | • Treating patients using SCR will help them perform their worships  
                        | • Patients’ patience on their illness is a proof of faith and will be rewarded                                                                      |
| Preserving Soul/Life  | • Intentional unjustified termination of pregnancy at any stage is against this goal  
                        | • SCR products may cure patients                                                                                                                   |
| Preserving Mind       | • not directly involved (psychological effect on women)                                                                                             |
| Preserving Progeny/Lineage | • Excessive manipulation of reproductive materials (and abortion) are against this goal                                                    |
| Preserving Money      | • Treating patients using SCR products will help them become productive and self-sufficient                                                      |

**Sub-Conclusion:** *SCR’s role in achieving the goals of Sharia is conditional*; Thus there is no legal objection to conducting SCR to produce body tissues with view to using them in the treatment of some diseases on condition that these cells are obtained from sources permitted by Islamic law. *(FIMA/IOMA, 2007)*
1- The principle of **Intention** (Qasd):

- **Deeds are by judged by intentions**

  - **Sub-principle 1:** Contracts are by intentions not by phrasing
    - Consents can not be taken on an illegal act, if the intention is mere production of ova
  
  - **Sub-principle 2:** Means are morally judged as the ends
    - Finding cure does NOT justify abortion *per se* as means

- **Sub-Conclusion:** *If the intention of termination of pregnancy is commercial or mere SCR purposes; it is not permissible.*

  “It is prohibited to affect an intentional abortion so as to deploy the fetal parts in transplantations. Abortion should be confined to natural unintentional abortion and abortion for legally permitted reasons.”

  “it is completely unlawful for organ implantation processes to be subject to commercial purposes.” *(FIMA/IOMA, 2007)*
2-The principle of Certainty (Yaqeen):

Certainty (Yaqeen)
- The knowledge that is identical to reality

Probable (Dhan)
- Identification of the more reliable choice between two possibilities; most probable (Ghalabat Dhan) is prior to probable

Doubt (Shak)
- Choosing between two choices none is prior to the other

Illusion (Wahm)
- Recognition of the least probable from two possible things

Ignorance (Jahl)
- Identifying the things in a way contrary to their reality
2-The principle of **Certainty (Yaqeen)**:

<table>
<thead>
<tr>
<th>Sub-principle</th>
<th>Application to SCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Certainty is not removed by doubt</td>
<td>It is not clear how certain we are from SCR benefits, compared to the certainty of losing a life</td>
</tr>
<tr>
<td>• The rule is that people are innocent</td>
<td>SCR researchers are assumed to have ‘good intentions’</td>
</tr>
<tr>
<td>• What is proved by evidence is valid until denied by contrary evidence</td>
<td>There is no enough evidence to support that SCR products will certainly work (?)</td>
</tr>
<tr>
<td>• The rule in deeds is permission unless stated otherwise</td>
<td>Not applicable to SCR (agree?)</td>
</tr>
<tr>
<td>• The rule in violating the 5 goals is restriction / prohibition</td>
<td>Source &amp; purpose of SCR should follow &amp; serve the five goals of Sharia</td>
</tr>
</tbody>
</table>

**Sub-Conclusion:** “it is imperative to be cautious in the use of fetal stem cells in light of the possibility of their rejection by the body of the recipient. This can lead to serious complications.” *(FIMA/IOMA, 2007)*
### 3-The principle of Injury/Harm (Dharar):

<table>
<thead>
<tr>
<th>Principle</th>
<th>Example</th>
</tr>
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<tbody>
<tr>
<td>Injury should be relieved</td>
<td>SCR helps in relieving harm caused by disease</td>
</tr>
<tr>
<td>Harm is relieved as possible</td>
<td>Uncontrolled sourcing of SCs harms women and community</td>
</tr>
<tr>
<td>An individual should not harm others or be harmed by others</td>
<td>The risk of women’s abuse, or mix of lineage vs. BOD?</td>
</tr>
<tr>
<td>An injury is not relieved by inflicting or causing a harm of the same degree</td>
<td>Women scarify ova for the public interests in treatments?</td>
</tr>
<tr>
<td>Personal harm is overruled by the general harm</td>
<td>Using surplus fertilized eggs is better than discarding them</td>
</tr>
<tr>
<td>Among evils; the lesser harm is committed</td>
<td>Protecting fetuses &amp; women is prior to find treatments</td>
</tr>
<tr>
<td>Prevention of harm has priority over pursuit of a benefit of equal worth</td>
<td>We shouldn’t leave the sick people sick</td>
</tr>
</tbody>
</table>

Sub-Conclusion: “It is imperative to obtain the couple's consent to using it after clarifying the aspects of its use with a guarantee that donors are protected against DNA identification”; “there is no legal objection to obtaining stem cells from adult donors on the condition of obtaining their informed consent” (FIMA/IOMA, 2007)
4- **The principle of Hardship (Mashaqqat):**

- **Difficulty calls forth ease**

- **Necessity legalizes the prohibited**
  
  Is the magnitude of diseases high enough to expose women and ‘potential’ fetuses to the risk associated with procedures?

- **Necessities are judged by magnitude**
  
  Women should give consent to any operation on their organs, or tissues.

- **Necessities do not overcome other’s rights**
  
  Women who ‘donate’ their ova without knowledge or a capacity to refuse are not considered sinful.

- **No duty with incapacity**
  
  Women who ‘donate’ their ova without knowledge or a capacity to refuse are not considered sinful.

- **What's exceptionally allowed for a cause follows with the cause**
  
  If the adult SCs, or other source of regenerative cells, found to be as effective as embryonic; embryonic sourcing is not permissible.

- **Choose the easier choice unless it’s a sin**
  
  Embryonic SCs may be easier and more effective to get than adult SCs, but only when sourcing is legal.

**Sub-Conclusion:** In principle, **SCR is allowed to overcome the hardship of diseases**, without infringing the legal barriers or personal rights.
### 5- The principle of Custom (Urf):

<table>
<thead>
<tr>
<th>• Customs are recognized</th>
<th>Customs in the scientific communities are SOPs &amp; guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Only the known customs, not the rare ones, are recognized</td>
<td>SOPs, GCP, and other evidence-based resources are the only recognized references</td>
</tr>
<tr>
<td>• Transient customs are not recognized</td>
<td>This may include commercial or financially-coerced guidance</td>
</tr>
<tr>
<td>• Judgments can be changed by circumstances</td>
<td>Permissibility of acts related to SCR may vary according to the development in practices</td>
</tr>
</tbody>
</table>

Sub-Conclusion: “**In light of the expansion witnessed in the field of preparations of vaccines, insulin and animal cardiac valves. There is no reason that chimeras should not be used –in this phase- in conducting research in place of human fetuses at least for the present time**” *(FIMA/IOMA, 2007)*
The Conclusive Rulings (Fatwas)

- SCR is allowed if it fulfills a set of conditions:
  - Embryonic SCs are obtained from surplus fertilized eggs, unintentional abortion, or abortion for medical reasons related to the mother;
  - Adult SCs, or those taken from umbilical cord or placenta are more acceptable, given proper consent is taken;
  - Products of SCR should be medical not cosmetic, nor mere commercial;
  - No mix between donors’ gametes; and
  - Donors are protected against DNA identification.
Conclusion & take home message

- The Islamic Fiqhi approach to religious rulings (Fatwas) is comprehensive and usable for ethical analysis (beyond SCR).
- Development of a more structured tools based on the **Islamic Principle-Based Approach** is helpful for Muslim and non-Muslim ethicists to analyse ethical issues.
- Scientists and practitioners need to study the Fiqhi principles to be more capable of communicating with Ulama (Scholars) & understand how Fatwas are produced.
Acknowledgment:
I would like to thank Prof. Omar Kasule who presented me to a fresh new approach on Islamic approach to ethics

References:
Federation of Islamic Medical Associations (IOMS):
http://fimaweb.net/main/articles/20080804%20resolution%20seminar%20stem%20sel.pdf

Prof. Omar H. Kasule:

المنهاج في علم القواعد الفقهية، د. رياض بن منصور الخليفي:
www.saaid.net/book/10/3007.doc

The position of Islamic Medical Association of North America on issues of Medical Ethics (IMANA, 2005)

Thanks for Your Attention