FORUM: United Nations Commissions on Science and Technology for Development

QUESTION OF: Measures to Develop Standardized Guidelines Regarding Stem Cell Research and Its Implications

MAIN SUBMITTER: United Kingdom

CO-SUBMITTERS: United States of America, Sweden, Canada, Libya, Pakistan, Spain, Vietnam, China, Saudi Arabia, Denmark

THE UNITED NATIONS COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT,

*Fully aware* that stem cells are undifferentiated cells which have a high potency to develop into a specific cell in our body,

*Recognizing* that there are different types of stem cells, Totipotent, Pluripotent, Multipotent and unipotent, and all of those stem cells have different level of ‘potency’ in differentiation,

*Aware* that there are no internationally standardized guidelines regarding stem cell research and treatment,

*Expressing concern* that current stem cell research is dominated by a limited number of More Economically Developed Countries (MEDCs),

*Acknowledging* the Dickey-Wicker Amendment regarding embryonic stem cell research,

*Emphasizing* that stem cell research is crucial for medical development to cancer treatment and cell regeneration, unavailable in the past,

*Noting* that the Food and Drug Administration (FDA) in the United States of America and Human Fertilization and Embryology Authority (HFEA) in the United Kingdom holds the highest levels of trust and authority in terms of regulating stem cell research,

*Noticing* the researchers are facing the balance between ethical and policy issues on stem cells,

*Further recognizing* that October 8 is stem cell awareness day, an international celebration of stem cell education and research,

1. Requests for the designation of multinational human stem cell research zones to member states willing to comply with existing and prospective regulations ensuring the morality and safety of stem cell research activities, in ways such as but not limited to:
2. Establishing a sub-branch in UNCSTD overseeing the creation human stem cell research zones, responsible for measures such as but not limited to:
3. Mapping out available regions in each continent,
4. Contacting applicant states for stem cell research zones to establish clear conduct of safety and ethics in research and development,
5. Appropriately assigning the human stem cell research zones, organized by the UNCSTD sub-branch, through means such as but not limited to:
	* 1. Considering criterions such as initiatives in stem cell research, technological capacity, budget in national science departments, and the justifiability of the conduct of safety and ethics they have set,
		2. Ensuring the UNCSTD sub-branch to share any information regarding the establishment of such criteria,
		3. Requiring the establishment of at least one stem cell research zone in each continent,
		4. Ensuring that the UNCSTD sub-branch will update these criteria on a yearly basis,
		5. Determining a fixed limit on the maximum number of stem cell research zones available for establishment, with the location of the zones to be reassessed every 5 years,
6. Appropriately managing the human stem cell research zones, organized by the UNCSTD sub-branch, through means such as but not limited to:
	* 1. Requiring each participant state of the human stem cell research zone to dispatch a consortium formed of independent scientists, bio companies, and the nation’s Food and Drug Administration (FDA) equivalent to the zone,
		2. Ensuring each participant state of the human stem cell research zone contributes for at least 5 years until the initial reassessment,
		3. Ensuring research information within the human stem cell research zones are not shared to the public or to non-participating states,
7. Offering incentives to member states participating in the establishment and operation of the human stem cell research zones through means such as but not limited to:
	* 1. Granting full autonomy for adult stem cell and induced pluripotent stem cell research, as long as satisfying the legislations for safety and ethics set by the host country of the human stem cell research zone,
		2. Allowing human embryonic stem cell research for the first two years after the designation of the research zone as an amnesty period,
		3. Establishing a network for communications dedicated to the sharing of human stem cell research results between different zones,
		4. Creating a fast-track process for medical providers in participating countries that want to commercialize the newly developed stem cell treatment technologies invented in the stem cell research zones,
		5. Rewarding zones that conduct research ethically without infringing their conduct of safety and ethics for 5 years by providing economic subsidies;
8. Further requests for a new set of legislation concerning the safety and ethical issues in human stem cell research and treatment outside the human stem cell research zones, with the content of these guidelines such as but not limited to:
	1. Granting authorization on stem cell research only if:
		1. The institute is fully aligned with the Dickey-Wicker Amendment and each member states’ equivalent legislations,
		2. The institute shares the initiation, planning, performing stage of the research and its results with the nation’s Government Office for Science equivalent,
	2. Granting authorization on stem cell treatment only if:
		1. The treatment has been approved by the FDA, HFEA, or has been developed from the aforementioned stem cell research zones and commercialized through a fast-track process,
		2. The provider has not caused any stem-cell-based medical accidents or have used unauthorized stem-cell based treatments in the past year,
	3. Requiring providers of stem cell treatment to register relevant information to each nation’s Government Office for Science equivalent such as but not limited to:
		1. Name of the provider(s) and recipient(s),
		2. Registration number of treatment apparatus,
		3. Date and location of the medical institution,
	4. Banning stem cell therapy treatment for five years if the medical provider has posed a threat to medical safety, such as but not limited to:
		1. Providing unauthorized stem-cell-based treatment,
		2. Providing false information on their treatment,
		3. Performed unreported independent stem-cell-based research;
9. Further promotes the creation of the NGO called the United Nations Sustainable Stem Cell Research Organization (UNSSCRO) which:
10. Reminds member nations to practice aforementioned international stem cell research and treatment legislations through methods such as but not limited to:
	* 1. Requesting every member nation to report to the NGO of any instance where the legislation was violated,
		2. Delivering performance reports to each member state on how well they are aligned to the legislations, with a grade ranging from A to F,
11. Provides subsidies to Less Economically Developed Countries (LEDCs) to assist them to become fully aligned with the international stem cell research and treatment legislations, where the subsidies will be used to:
	* 1. Monitor any act of violation of the legislations within the nation,
		2. More effectively collect and communicate the inspection results,
12. Collaborates with member states to create online and offline content that educate the basics of stem cell research, its implications, and potential hazards to the public through platforms such as but not limited to:
	* 1. Newspaper,
		2. Social media,
		3. Radio,
		4. UNCSTD website,
		5. National Government Office for Science equivalent’s website
13. Promotes the Stem Cell Awareness Day globally, holding awareness events in collaboration with each nation’s high schools and universities,
14. Requests to the education bureau in each member state to include content on stem cell ethics and awareness in their national science curriculum;
15. Recommends the government from each nation to work with local universities and high schools, in collaboration with United Nations Educational, Scientific and Cultural Organization (UNESCO), to develop stem cell training programs, and encourage those who are willing to work on stem cell research as their future career to join the training program to corporate with different scientists, where the program will:
16. Provide disease-specific programs like blood, cancer, cardiovascular, diabetes program etc., in which scientists can gain more knowledge about stem cell implications,
17. Requests every member joining the program to sign a confidentiality agreement, in which the term of validity is five years, where they will keep the content of the course confidential to the public,
18. Primarily select students who received a higher biology grade from each school during admission,
19. Invite scientists who are experimenting on stem cell research to teach the training program and help the country and society to educate more new scientists who can be involved in the prospective stem cell research, supported by wages provided by the government,
20. Teach trainees ethical content such as but not limited to:
	* 1. Responsibility and ethics in stem cell research, involving humans both and animals,
		2. Communicating stem cell research freely and accurately,
		3. Relevant stem cell legislations,
21. Offer courses both online and in-person for greater accessibility;
22. Encourages member states to readapt their law regimes with relation to stem cell researching organizations and treatment providers such as but not limited to:
23. Fast-tracking national laws regarding stem cell research and treatment that is aligned to those set by the UN, in order to ensure that international law takes preeminence,
24. Creating a security division within local governments to monitor any unauthorized stem-cell-based research or treatment,
25. Creating a special court to handle medical accidents related to stem cell treatments,
26. Encourages member states to collaborate with UN Human Rights Council (UNHRC) and UNCSTD to create a law for the responsibility of using the technology to do the stem cell transplant or to replace the damage tissue in human body;
27. Requests member states to announce about medical risks and ethicality of stem cell therapy to the public, especially to the ones who are preparing to receive stem cell treatment, which include:
28. Investigational New Drugs (INDs),
29. Medical risks of oocyte retrieval,
30. High rejection rates of embryonic stem cells,
31. Current methods of embryonic stem cell harvesting which require death of another embryo,
32. Methods of delivering the relevant information include:
	* 1. Handing out information brochures,
		2. Holding lectures,
		3. Phone calls;
33. Encourages member states to conditionally allow the usage of embryonic stem cells, especially Somatic Cell Nuclear Transfer (SCNT), for replicating endangered species to save them, through means such as but not limited to:
	1. Allowing the usage of embryonic stem cells for replication only until there is an enough number of endangered species for reproduction,
	2. Permitting SCNT for animals classified to be between Endangered (EN) to Critically Endangered (CR), rated by IPBES,
	3. Creating security laws regarding SCNT implications,
	4. Collaborating with other member states to foster the implications for SCNT in animal species.