

New ethical questions are being raised in stem cell research

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A groundbreaking discovery two years ago that turned ordinary skin cells back into an embryonic or "pluripotent" state was hailed as the solution to the controversial ethical question that has plagued stem-cell science for the past decade.

But is it the solution? Or have iPS cells (induced <u>pluripotent stem cells</u>) simply added a new dimension to the legal, social and ethical debates that are an important and necessary part of stem-cell advances.

This was the central question discussed by an international group of leading scientists, bioethicists and legal scholars who attended a workshop organized by the Stem Cell Network this summer in Barcelona. Outcomes of the workshop will be published Dec. 10 in the journal *Cell*. Among the issues summarized in the article are consent, privacy, clinical translation and intellectual property rights for iPS cells that are derived for scientific study and/or clinical therapies.

Timothy Caulfield, research director at the University of Alberta's Health Law Institute and principal investigator at the Stem Cell Network, says that while iPS technology eliminates some of the ethical issues specific to embryonic <u>stem-cell research</u> it also adds new challenges.

"From a legal perspective, iPS technology is fascinating and complex. For example, if an iPS cell can be made into a functional human gamete, the potential exists for reproductive purposes. What would this mean for donor consent, concerns about cloning and rights of a potential child to



know its parents," said Caulfield.

"What could this mean to assisted reproduction practices and would-be parents with no other option? If anything, we know considerable thought and policy development needs to be placed around these and other issues."

Michael Rudnicki, scientific director of the Stem Cell Network, agrees and says the promise of stem cell advances using iPS cells is staggering. "If iPS cells can be made safe for clinical therapies, it will ultimately make the delivery faster and more economical. But as a scientist I am cautious. So much is based on future prospects and there is much work that needs to be done in the labs before it becomes a therapeutic reality," says Rudnicki.

Source: University of Alberta (<u>news</u> : <u>web</u>)

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