Stem Cell Research Won't Lead to Cloned Monsters. Seriously.

Time magazine recently declared a cloning technique used for stem cell research to be the number one medical breakthrough of 2011. The research was done in New York. And that's a good thing. If it were done in Canada, the researchers would be criminals. They could even be put in jail.

In New York, the researchers are award-winning science heroes. In Canada, they'd be perpetrators of an evil and morally repugnant experiment, at least if you believe the rationales underpinning our law.

How could two such culturally similar jurisdictions come to such contrasting positions?

In 2004 the Canadian Parliament enacted the Assisted Human Reproduction Act(AHRA). Much of the political and public debates that surrounded the creation of this law focused on cloning and stem cell research. In fact, the popular press often referred to the legislation as "Canada's stem cell law." This is because the law was being put forward at a time when stem cell research was emerging as an exciting and socially controversial form of biomedical investigation. And with this public attention came the dissemination of boatloads of half-truths and hyperbolic rhetoric about the evils of science. Canadian policy-makers seemed to have been significantly influenced by this misinformation.

Here are a few choice examples.

In 1999, it was reported in the *Edmonton Journal*, *Ottawa Citizen*, and elsewhere that the Defence Department prepared a paper recommending an international treaty banning the use of cloning for warfare. Seriously. The report, which was described in the news as "groundbreaking," expressed concern that cloning technology would be used to raise an underclass of super soldiers. Of course, if we lived in a society that allowed the enslavement of women in order to gestate cloned babies, to say nothing of the subsequent lifelong

enslavement of the super soldiers, the use of cloning technology would be the least of our human rights concerns.

The parliamentary debates that surrounded the enactment of the AHRA included straight-faced pronouncement about the dangers posed by the Raelians. "The Raelians are a cult and they work through their company called Clonaid," explained one MP in Parliament in 2003. "Their vision is to perpetuate human life by creating a clone."

That's right -- a ridiculous, albeit masterfully executed, scientific fraud was used to support a call for a ban on a legitimate and potentially beneficial scientific research technique.

And the hysteria lives on. One year ago, the Supreme Court of Canada released a decision (technically, it was a judicial reference) that, among other things, upheld the criminal ban on research cloning. In that decision, the Chief Justice, who wrote for the minority, made reference to a whole range of horrific possibilities (or, as she called them, "public health evils"), including "baby farms", the "replication technique of cloning", and the "artificial creation of human life in clandestine laboratories [...] in shuttered basements."

This kind of rhetoric would be laughable if it weren't present in a decision by our highest court.

Parliamentarians and the SCC have either been swayed by the science fiction-like depictions of cloning (who, after all, wants cloned monsters roaming the streets of Canada?) or declared concerns about the evils of cloning have been used as a proxy for some other, less politically palatable, justification for the ban.

Now, to be fair, there were a variety of other social concerns that informed the enactment of Canada's criminal ban, including the concern that, if allowed, research cloning would result in a demand for eggs and a concomitant exploitation of women. But these concerns remain contested (in some places, including New York and the UK, women can be compensated for donating eggs for research purposes). Regardless, such concerns hardly seem solid stand-alone justifications for a criminal ban on the research activity.

So, let's get the facts straight. First, cloning is not easy. You can't do it in your basement. Second, no one has successfully cloned a human, nor is anyone trying. In fact, no one has successfully cloned a human embryo for research purposes - hence the excitement

surrounding the New York advance. Third, despite political and judicial assertions to the contrary, there is no evidence that Canadians think that "research cloning" - that is, the use of cloning technology for non-reproductive purposes - is wrong. In fact, most of the polls taken at the time of the Parliamentary debates revealed a public that was tentatively supportive of somatic cell nuclear transfer, the technical term for the most common cloning technique.

It is deeply ironic that exactly one year after the breathtakingly uniformed decision by the Supreme Court of Canada a cloning technique is declared the most significant research advance of 2011.

It is time to push aside the myths. No one wants to use cloning to produce humans, super-soldier like or otherwise. Let's revisit our law and produce one informed by scientific reality, not science fiction.