



Sean J. Morrison

—
**STAND UP
AND LEAD**

SCIENTISTS SHOULD
INFLUENCE POLICY.

HHMI investigator Sean J. Morrison was a leader in the charge to loosen restrictions on stem cell research in Michigan—going up against a well-funded opposition in the November 2008 election—and won. It was an eye-opening experience.

I'm an immigrant from Canada. People come to the United States from all over the world, partly because history shows that individuals with good intentions can instigate profound change in this country. The meritocracy of ideas is a force that shapes American society and an inspiration for the world. But with opportunity comes responsibility.

In Michigan, we had a law that made it illegal to destroy human embryos for the purpose of research, even though these embryos were routinely discarded by fertility clinics. This law did not save a single embryo from destruction; it only delayed medical research. Proposal 2 overturned this law and protected stem cell research in the state constitution. Few thought we could prevail. Right to Life groups have more control over legislation in Michigan than in any other state. But we went straight to the voters and we won.

In science, we aspire to uncover the truth. We constantly test perceptions against reality. In politics and public policy, perception is reality. And rather than testing policies against reality, people in politics often spend their time trying to shape the perception of reality—for good and for ill.

When you want people to vote against an issue, as did our opponents, you frighten and confuse them. That's politics 101. Every word in the campaign against Prop 2 was a lie. Opponents tested their messages and found that none of their truthful arguments resonated with voters.

So they made stuff up. Their three messages against Prop 2 were: taxes would go up (though it had nothing to do with taxes), scientists wanted to clone people by mixing human DNA with animal eggs (though human cloning remained illegal under Prop 2), and, finally, they compared stem cell research to the Tuskegee syphilis experiments. They argued that Prop 2 would allow completely unregulated medical research that would exploit minority communities. This was the turning point in the campaign.

The backlash was big. All the major media ran editorials about how dishonest the opposition campaign was. Support for Prop 2 among African Americans increased dramatically.

We put a lot of effort into public education and were particularly surprised by the poor understanding of reproduction in the general public. Special interest

groups exploit the public's poor understanding to shape inaccurate perceptions.

Within the campaign, we faced a tension when it came to our messaging. Scientists wanted to communicate ideas accurately and in a nuanced manner. Our campaign people emphasized that the word "cure" has more impact than any other word (based on polling) and that we needed to repeat that word as often as possible. But the scientists didn't want to overpromise and risk a loss of confidence later.

The compromise was to say that it might be 20 years before we can cure anything, that diseases are tough problems. But we owe it to those who can't be cured otherwise to do all we can to find a cure. We won't know what is possible until we can do the research. I learned that hope and truth prevail over fear and misinformation, when communicated clearly.

If our opponents had won, you would see the Tuskegee syphilis ad all over the country. Their playbook would be to undermine public confidence in medical research. Now they are still looking for a playbook.

The process was unpleasant—repeatedly debating opponents who lied unapologetically, and being the subject of hate mail. But we must stand up when people try to mislead the public into policies that undermine efforts to improve public health. Policies that are based on ideology rather than fact have little chance of achieving positive outcomes. Those who understand the issues must explain them to the public and to policy makers or we will get bad laws for bad reasons.

Our society will succeed or fail based on its adherence to rational approaches to decision making. Science not only leads to new knowledge and new solutions to problems, it also teaches people to test their perceptions against reality. In these trying times, it is more important than ever that scientists deliver these messages clearly. Many want us to fail in our efforts to challenge the voices that counsel ignorance. We can't afford to.

INTERVIEW BY CORI VANCHIERI. *Sean Morrison is director of the Center for Stem Cell Biology at the University of Michigan.*