

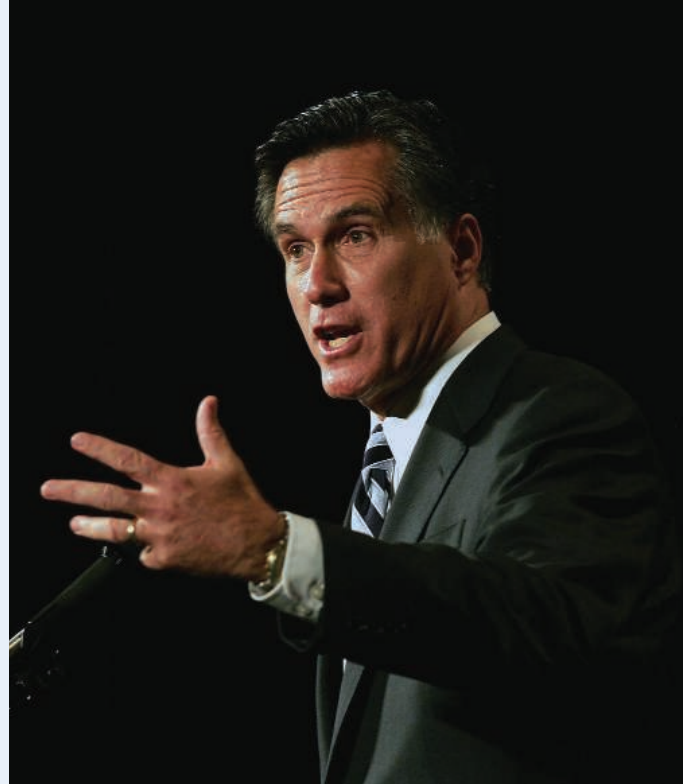
REPUBLICAN MITT ROMNEY

Home State: **Massachusetts** Web site: **mittromney.com**
Most Recent Job: **Governor** Age: **60**

LAST MONTH, AS MITT ROMNEY CAMPAIGNED IN IOWA, HE laced his stump speeches with references to his opposition to embryonic stem (ES) cell research and abortion and his doubts about the role of humans in global warming. All those positions, plus a declaration that his Mormon faith would not dictate any decisions he might make as president, were aimed at wooing conservative Christian voters in the state.

That focus is a far cry from 5 years ago, when the 60-year-old businessman campaigned successfully to become governor of the high-tech state of Massachusetts. The new chief executive wowed biotechnology leaders and university administrators with his aggressive and no-nonsense talk about unleashing the power of research. "We were impressed by his willingness to talk about the importance of research universities in the state and national economies," says Paul Parravano, co-director of government and community relations at the Massachusetts Institute of Technology (MIT) in Cambridge. "For a lot of people here, this was fresh and important." As a venture capitalist with an MBA from Harvard University, Romney "understands the role of places like MIT and was very supportive," says another university official.

During his first years as governor, researchers say, Romney talked the talk, co-chairing a national summit on innovation and telling the Massachusetts Biotechnology Council that "we want to make sure we are at absolutely the front edge" of stem cell research. He promised he would



work to provide "the same kind of opportunities that you would find in any other state in America." And he walked the walk. He launched an effort to lure more high-tech talent into the state and joined with seven other Northeastern states on a regional plan to reduce carbon dioxide emissions at power plants—the first collective U.S. effort to control greenhouse gases. He also consistently opposed efforts to introduce the teaching of intelligent design in the classroom.

IN 2000, WHEN HOUSE REPUBLICANS WANTED TO PULL the plug on the \$1.4 billion Spallation Neutron Source (SNS) being built at the Department of Energy's Oak Ridge National Laboratory in Tennessee, the state's congressional delegation went to bat for the project. Fred Thompson, then one of the two Republican senators from Tennessee, was "extremely helpful" in assigning staff to work the issue, recalls physicist David Moncton, then head of the SNS project.

But Moncton, now a professor at the Massachusetts Institute of Technology, remembers something else about his interaction with the senator on SNS, which staved off the threat and opened last year. "The issue [for Thompson] was this billion-dollar project was happening in Tennessee," says Moncton. "There was no discussion of how intrinsically interested he was in science." Rick Borchelt, a longtime Democratic aide and former spokesperson for the Department of Energy lab, concurs. "He's pretty much a cipher on science and technology," says Borchelt.

The 65-year-old Tennessee native has played the president—as well as a military officer and a hard-nosed district attorney—during a long television and film career. He's also been a lawyer, lobbyist, and talk-show host after coming to Washington in 1973 as a Republican staffer during the Watergate hearings. Since jumping into the race for president last summer, he has rarely addressed science issues. But Norman J. Ornstein of the American Enterprise Institute in Washington, D.C., who worked with Thompson when he chaired what was then called the Government Affairs Committee, credits him with being "knowledgeable and insightful" on the often thorny issues that came before the panel. "I found him to be quite engaged on issues he cared about," says Ornstein. "But he was not a guy who stuck around if he didn't need to."



His 2-year honeymoon with the research community ended abruptly in 2005, however, just as Romney's presidential campaign was getting started. The governor abruptly backed out of the regional emissions plan, citing its cost to consumers. He vetoed a bill passed by the Massachusetts legislature to allow ES cell research, citing his ethical concerns. Research advocates say that they never were able to sit down with the governor to discuss the bill, which was a major concern for many industry and university biologists in the state. "We were never able to engage," says one supporter who requested anonymity. "This was an eye opener; he was changing his stripes."

Even so, one of the strongest advocates for science in Congress, Representative Vernon Ehlers (R-MI), calls Romney "the best choice for any scientist or engineer." The former physicist and longtime member of the House Science Committee praises the candidate as bright and unburdened by ideology, noting that "he appreciates the benefits of science." Ehlers, who knew Romney's late father, a former governor of Michigan, says that he is heading up a science advisory committee for the candidate.

Ehlers told *Science* that he expects Romney's list of priorities to include, in particular, increased funding for math and science education and, more generally, higher spending on research of all kinds. But he speculates that Romney "may choose not to be vocal" on global warming, although Ehlers himself supports sharp reductions in carbon dioxide emissions. In a July 2007 issue of *Foreign Affairs*, Romney calls for "a bold, far-reaching research initiative—an energy revolution—that will be our generation's equivalent of the Manhattan Project or the mission to the moon."

Some of Thompson's recent positions have not endeared him to researchers. Within a few hours of reading about a method of genetically reprogramming skin cells into what appear to be embryonic-like stem cells, he rushed out a statement lauding the discovery. "Today's announcement is just one more indication that our current policy in relying only on adult cells is working," he said on 20 November. Thompson ranked the achievement as the latest addition in "73 breakthroughs for adult and cord blood research" that he said have paved the way for new treatments for several diseases.

That tally comes from the Family Research Council, a conservative advocacy group in Washington, D.C. Many scientists regard the analysis, by the council's David Prentice, as seriously flawed, and even Prentice says the list did not imply that those breakthroughs had led to available treatments. "[The list] not only misrepresents existing adult stem cell treatments, but also frequently distorts the nature and content of the references he cites," wrote Steven Teitelbaum, former president of the Federation of American Societies for Experimental Biology in Bethesda, Maryland, in a letter published in *Science* (28 July 2006, p. 439). "Fred Thompson is misinformed," Teitelbaum says about the candidate's latest pronouncement.

Thompson has also climbed out on a limb in discussing climate change. "While we don't know for certain how or why climate change is occurring, it makes sense to take reasonable steps to reduce CO₂ emissions without harming our economy," notes an issues statement from the

But he adds that "scientists still debate how much human activity impacts the environment."

Romney can speak knowledgeably about some science issues on the campaign trail. He supports raising the cap on the number of H-1B visas so that more foreigners with high-tech skills can work in the United States. And this fall, he pledged to "substantially increase funding" for basic research related to energy efficiency and production. But as the primaries kick into high gear, expect Romney to put his focus more on hot-button social issues than the cooler high-tech matters that occupied him as governor of the Bay State.

—ANDREW LAWLER



Blue team. The Democratic contenders at an August debate in Des Moines, Iowa.

REPUBLICAN FRED THOMPSON

Home State: **Tennessee** Web site: **fred08.com**

Current Job: **Actor and Attorney** Age: **65**

campaign. In March, Thompson jokingly told a radio audience that "quite a few planets in our solar system seem to be heating up a bit. This has led some people, not necessarily scientists, to wonder if Mars and Jupiter, nonsignatories to the Kyoto Treaty, are actually inhabited by alien SUV-driving industrialists."

Gavin Schmidt, a climate modeler at NASA's Goddard Institute for Space Studies in New York City, calls the statement "ridiculous" and says

it's based on the faulty idea of a recent warming of the sun. "We've been measuring the sun[']s temperature] for 30 years—it's not doing anything," Schmidt notes.

Campaign staffers declined repeated requests from *Science* to detail Thompson's views on science and technology issues. And last month, at an Iowa debate in which each Republican candidate was asked whether climate change was real and caused by human activities, Thompson chose to go for a punch line rather than inform his audience. First he declined to give a yes-or-no answer. Then, after one long-shot candidate gave a rambling response that seemed to ignore the question, Thompson passed again. "I agree with Alan Keyes's position on climate change," he cracked to wide laughter from the audience.

—ELI KINTISCH AND BENJAMIN LESTER