

Democrats

Sen. Hillary Clinton

Sen. Barack Obama

The Ideal Candidate



Global Warming

With Caltech chemists Harry Gray, Sossina Haile, and Nate Lewis

Supports a cap-and-trade system to reduce pollution to 80% of their 1990 levels by 2050.

Is "agnostic" on nuclear power

Supports raising efficiency standards to 40 miles per gallon by 2020.

Would have US get 25% of power from alternative sources by 2025.

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"Clinton and Obama's positions are nearly identical" - Chemist Nate Lewis

"Supports taxing gasoline." Chemist Nate Lewis

Would spend \$50 billion to convert Phoenix or Los Angeles into a completely solar city. Chemist Harry Gray

Would ignore corn as a possible biofuel—"as we do it today, corn will make our energy problems worse" - Materials scientist Sossina Haile

"Carol Carmichael is the ideal candidate for US president." Chemist Harry Gray

Stem Cell Research

With Nobel laureate and former Caltech president Dr. David Baltimore

Supports federal funding for embryonic stem cell research.

Would double NIH's budget over 10 years.

"She is the only candidate who has put out a really complete statement about how her administration will fund science. I give her enormous credit for that." Baltimore

Supports federal funding for stem cell research

Supports federal funding for embryonic stem cell research.

"It is important that the federal government support research on stem cells because a single set of federal guidelines on research is much better than the fifty sets of state regulations we have now." Dr. David Baltimore

Space Exploration



Supports "an ambitious 21st century Space Exploration Program" that will pursue "a balanced strategy of robust human spaceflight, expanded robotic spaceflight, and enhanced space science activities."

Plans include completion of the International Space Station (ISS) and eventual replacement of the space shuttle. Intends to reverse NASA funding cuts.

Originally announced delaying NASA's Constellation program (shuttle/rocket replacement) by five years to fund an \$18 billion education plan, but has since revised his position.

Now supports both the development of a shuttle replacement and the completion of the ISS.

Says he will "ensure that NASA has the funding necessary to play its part in the fight against global climate change."

Supports a handsome NASA budget across the board.

Supports completion of the International Space Station.

Wouldn't delay Constellation.

Budget

Increase NSF, DoE, DoD, and NIH research budgets by 50% over 5-10 years.

Triple NSF fellowships and increase size of fellowships by 33%

Incorporate more women in math, science, and engineering professions and support criteria with federal agencies to support diversity in grant awards.

Double federal research funding

Support private research and development through tax credits

Supports handsome increases in NIH and NASA budgets, as well as NSF and DOE.

Republicans

Mike Huckabee

Sen. John McCain

Rep. Ron Paul

Sen. Mitt Romney



Supports increased use of biofuels, "clean coal," and nuclear power.

Would have US get 15% of power from alternative sources by 2020.

Has placed global warming in his top three issues—in 2002, he co-authored the first Senate bill to impose mandatory cuts on greenhouse emissions. A 2007 version of the bill would funnel the money into nuclear R&D. Supports cap-and-trade. Supports increased use of biofuels except for ethanol.

Chemist Nate Lewis says McCain's the "only Republican" with a decent energy policy.

Would like to see the free market decide which energy sources prevail.

Opposes subsidies for biofuels, renewables, and other energy sources.

Supports coal and nuclear power.

Opposes cap-and-trade if the US is the only country doing it.

Supports nuclear power, "clean coal," and making the US auto industry more efficient.

Desires US to be self-sufficient to "stop sending \$1 billion a day to other nations" like Iran and Russia.

Opposed to federal funding of stem cell research; points to adult stem cells as a viable alternative to embryonic stem cells.

"I believe strongly that adult stem cells are not an ideal source of viable stem cells." -- Baltimore

Reversed his position in 2005; has consistently voted in favour of stem cell research since. However, opposes human nuclear transfer.

"I think McCain is a good candidate based on this issue." --Baltimore

Under pressure from religious conservatives to reverse his position again. Wording on his campaign website is ambiguous.

Opposes federal funding of medical research in general, especially in controversial fields.

Has made statements suggesting he also favors adult stem cells as an alternative to embryonic stem cells. (See Dr. Baltimore's comment on Huckabee)

While governor of Massachusetts, he vetoed legislation designed to fund stem cell research.

"Romney has switched from being supportive to not supportive. He flips back and forth." --Baltimore

Has not yet made any promises, but claims he would like to increase national efforts of space exploration. He is skeptical about Mars: "I'm not opposed to it, I'm just not quite ready to say, because I can just see the headline now, 'Huckabee Proposes Mars Mission'."

"Whether we ought to go to Mars is not a decision that I would want to make, but I would certainly want to make sure that we expand the space program."

Claims to be a strong supporter of Bush's plan and states "he is proud to have sponsored legislation authorizing funding consistent with the President's vision." This implies that he supports the completion of the ISS, replacement of the shuttle, and an eventual Mars mission.

Although he has not provided a plan distinct from the President's, he has stressed the importance of efficient use of NASA funding.

Claims he is committed to manned space exploration, but prefers a future of private, commercial ventures.

"If only the United States had a taxation policy that limited government and thereby freed up more private capital, there is no telling how many more like Burt Rutan, Paul Allen, and Michael Melvill [involved with SpaceShipOne] would be able to do great things to the benefit all of mankind."

Has not yet described plans for NASA.

Supports space exploration as a way to drive investment in innovation and technology, but he currently lacks any definite plans. He claims he would like to continue the program and will examine the issue further if he wins the presidency. At that time he will "take a good look and see what our options are."

No stated position.

Claims to have supported the America Competes Act of 2007 which supported doubling research funding in physical sciences.

However, no vote was cast for McCain on the senate text (S. 761) for the recorded vote; all other votes were by unanimous consent.

In favor of removing all federal departments except those of Justice and Defense; therefore, he does not support government funding of science at all.

"The government shouldn't be directing research and development because they are bound and determined to always misdirect money to political cronies." -- Paul in an interview with salon.com.

"I would like to see the federal government substantially increase its investment in basic science and basic research related to energy efficiency, energy production, energy distribution, and I will substantially increase funding in those areas." -- Romney, interview with Tech Crunch, 11/1/2007.

"I will make a five-fold increase - from \$4 billion to \$20 billion - in our national investment in energy research, fuel technology, materials science, and automotive technology." -- Romney, interview with the Detroit Economic.