

Survey highlights support for nanotech in health fields but disapproval elsewhere

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A landmark national survey on the use of nanotechnology for "human enhancement" shows widespread public support for applications of the new technology related to improving human health. However, the survey also shows broad disapproval for nanotech human enhancement research in areas without health benefits. A team of researchers at North Carolina State University and Arizona State University (ASU) conducted the study, which could influence the direction of future nanotechnology research efforts.

The "Public Awareness of Nanotechnology Study" is the first nationally representative survey to examine public opinion on the use of nanotechnology for human enhancement. The survey found significant support for enhancements that promise to improve human health. For example, 88 percent of participants were in favor of research for a video-to-brain link that would amount to artificial eyesight for the blind. However, there was little support for non-health research endeavors. For example, only 30 percent of participants approved of research into implants that could improve performance of soldiers on the battlefield.

Nanotechnology is generally defined as technology that uses substances having a size of 100 nanometers or less (tens of thousands of times smaller than the width of a human hair), and is expected to have widespread uses in medicine, consumer products and industrial processes. Human enhancement is a sweeping term that applies to the use of such technologies to alter human capabilities.

NC State's Dr. Michael Cobb, one of the leaders of the study, says the survey's findings are important because "what the public wants could drive the direction of future research." Cobb, an associate professor of political science, explains, "The public should have input into where the government invests its research funding." Dr. Clark Miller, an associate professor of political science at ASU and another leader of the survey, adds, "One of the most important findings is the difference in support for different applications of human enhancement. Research and public policies will need to reflect this differentiated view, recognizing that there are some applications the public supports and some that the public is quite skeptical of."

While the survey shows strong public support for research into nanotechnology applications in the health field, those findings are tempered by a similar concern from the public about the scope of that research. The study found that 55 percent of participants felt that researchers should "avoid playing God with new technologies." Similarly, the public expressed little confidence in the government and mass media to inform people about potential risks from new technologies. Rather, participants said they had the greatest confidence in university scientists and environmental groups to protect the public.

The survey was conducted between July and October of 2008. The survey included 556 participants, had a 28 percent response rate, and has a margin of error of plus or minus 4.1 percent.

Source: North Carolina State University

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