Berners-Lee champions what he calls a 'semantic web', where tags added to pages would allow computers to 'understand' what the pages contain. This means computers can ask whether the data meet certain criteria and merge data sets from different sources.

But although the semantic web is fast gaining ground in certain specialist areas such as bioinformatics, it has yet to take off in a big way. Scientists say Google Base could change that by bringing structured web pages to the masses. "The big issue here is whether services like this will help bootstrap the semantic web," says Greg Tyrelle, a proteomics researcher at Chang Guan University in Taiwan.

Google power

"Flexible online storage of arbitrary data, including scientific data, is going to be a major area of research over the next couple of years," says Leigh Dodds, a web expert at publisher Ingenta. "Google Base takes that a step further by widening it out to everyone," although he adds that he would like to see governments and universities doing more to promote such services, rather than leaving it to Google.

Scientists point out, however, that Google has been prominent in its absence from work on the semantic web in the World Wide Web consortium (W3C), the body that creates web standards. They also acknowledge that Google Base is a pretty crude service so far, especially compared with sophisticated specialist databases such as GenBank and UniProt. All you can do is put in information, and then search it — there's no way to extract or compute the data.

But most researchers believe that will change fast. Google has been a pioneer in creating what are known as 'application programming interfaces' to its other services, such as Google Maps. These allow anyone to write programs that can access Google's databases, and mix and match its content with other data to create completely new products.

"If Google wants to turn Google Base into more than just a tool for finding information, and into something scientists can actually use to explore data, then more is needed," says Mark Gernstein, a bioinformatician at Yale University in New Haven, Connecticut.

But observers such as Foster believe such progress could happen fast. "Google has much relevant technology and expertise," he says. "If it forms the right partnerships and dedicates sufficient resources, it could have a tremendous impact."

"Google Base looks a little simple right now, and it's not clear exactly how to tap into Google's power," adds Myers. "But we've got to start somewhere." ■

Declan Butler

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US watchdog finds bias against morning-after pill

WASHINGTON DC

A US government watchdog has announced that there was a high-level effort within the US Food and Drug Administration (FDA) to overrule agency scientists and block over-the-counter access to an emergency contraceptive.

Many critics suspected as much when over-the-counter access to Plan B (levonorgestrel) was denied in 2004 despite the recommendations of agency scientists and outside experts. But a government report issued on 14 November has now reached the same conclusion.

The Government Accountability Office (GAO), the investigative arm of Congress, says the effort was led by the then commissioner of the FDA, Mark McClellan, and note that McClellan's involvement along with his high-level colleagues in what is normally a staff decision was "unusual".

Arthur Caplan, director of the Center for Bioethics at the University of Pennsylvania, told *Nature* that in 20 years of watching and advising the FDA, "I've never seen this level of high-up administrative intervention into the scientific review process. The science indisputably supports approval, but the politics didn't. I think the higher-ups including the then commissioner put the politics first."

Plan B works by preventing fertilization or implantation if it is taken within 72 hours of intercourse. Conservatives adamantly opposed making the contraceptive accessible without a prescription, fearing it would increase teenage promiscuity.

In 2003 an FDA advisory committee of external experts voted 23–4 to make Plan B available over-the-counter, a change backed by staff reviewers at the agency. But the GAO reports that McClellan repeatedly resisted approval of the move, because of concerns about its use by younger teenagers, despite data showing that the safety issues were no different for younger women.

IMAGE UNAVAILABLE FOR COPYRIGHT REASONS

Former FDA chief Mark McClellan denies blocking access to Plan B contraceptive.

AP/L JACKSON

In May 2004, two months after McClellan had been replaced by acting commissioner Lester Crawford, the change was rejected. The manufacturer of Plan B, Barr Laboratories, was encouraged to resubmit an application to make Plan B available to women over 16. But this August the agency indefinitely postponed the decision on that application (see *Nature* 437, 179; 2005).

The FDA responded to the GAO report saying it "mischaracterizes facts... We question the integrity of the investigative process." Gary Karr, spokesman for McClellan also insists that the former FDA chief "neither made a decision nor did he recommend a decision" on Plan B.

Susan Wood, a former assistant FDA commissioner who quit in September in protest over the FDA's handling of Plan B, said in a statement: "This report is a sad reminder of why I felt compelled to resign — that the FDA leadership is ignoring its process and not relying on science and medical evidence."

The Bush administration has been under increasing fire for politicizing scientific decisions on matters from global warming to the reliability of condoms. Last week, attention also focused on upcoming recommendations for vaccination against cervical cancer. A vaccine has been shown to be effective in preventing the cancer, which is caused by the sexually transmitted human papilloma virus. Conservative groups argue that widespread vaccination will encourage sexual promiscuity among young people.

In an effort to pre-empt these groups' influence on the upcoming vaccination policy, Senator Hillary Clinton (Democrat, New York), who also spoke out against the FDA's treatment of Plan B, wrote last week to Mike Leavitt, the Health and Human Services secretary. The Bush administration, Clinton said in the letter, "has repeatedly allowed ideology, not science, to form the basis of policy... We do not want to see another instance of ideology trumping the health and well-being of the American people." ■

Meredith Wadman