Fulford, editor of the *Journal of Bone and Joint Surgery*, computer technology is a common culprit. He describes in the report the case of a paper on the grafting of knee ligaments in experimental animals, which had intrigued his journal's reviewers. A month after publication, a researcher wrote to the editors saying that one of the illustrations had been pirated from his own work. When challenged, the author said that the picture had been submitted in error and sent a replacement for publication as an erratum. The picture was published and again challenged by the same researcher, who went on to indicate in great detail how the picture was a composite of two images, one belonging to the author and one to him. The author offered no explanation, and the case is now subject to legal investigation. "Graphics programs on a PC can be used to produce very convincing x-ray images," writes Fulford.

The COPE report also finds that very often alarm bells about suspect research are sounded by sheer luck, suggesting that many frauds may go undetected. A paper sent to the *BMJ* about the use of a nonlicensed drug was, by chance, reviewed by a scientist who knew that the group of researchers reporting the work had not been supplied with that drug since 1992, which the manufacturer confirmed.

Even when the research is sound, it is sometimes done without evidence of ethical or protocol review, COPE found. It describes a paper submitted to the *BMJ* from a physician who screened 350 patients' blood cholesterol levels and persuaded 33 with high levels to agree to take a drug he wished to compare with conventional drugs. The report says there was no evidence that the local ethics committee, which oversees research proposals involving patients, had consented to the research. "Indeed, I don't see how he could have got consent for such a study," wrote Smith. "The patients clearly agreed to take the tablets, but I worry that they were misled over the scientific value of the study."

It is still too easy for researchers to plead ignorance about proper research practice, says Marshall: "We want to change that." The GMC has set up its own committee, chaired by George Alberti, president of the Royal College of Physicians, to develop guidelines on good research practice and decide what to do when fraud is suspected. "Less than half the medical schools have clear guidelines on this," he says.

Both Alberti and Smith are not yet clear about the most effective structure for such a national body. "Our suggestion is to have a confidential flying squad which can quickly investigate claims to establish whether there is a case to answer," says Alberti. "It will also help to protect people from malicious accusations."

–Nigel Williams

U.S. SCIENCE POLICY

Warm Words for Basic Research

Talking about federal support for basic research seems to be a popular pastime these days. Last week, several science-minded senators put the finishing touches on draft legislation to double civilian R&D funding over the next 12 years, while a panel of industrialists and university presidents issued a report that said the federal approach to basic research requires some tweaking but no dramatic changes. Meanwhile, the chair of a House study on science policy that is nearing completion praised the economic payoff from basic research, but warned that the government should be wary of funding applied research.

The bill to double civilian R&D spending would supersede a proposal, S. 1305, with a 10-year timetable introduced last fall by Senator Phil Gramm (R–TX) and others and backed by dozens of scientific societies. That bill, predicts Senator Jay Rockefeller (D–WV), co-sponsor of the new legislation along with Senator Bill Frist (R–TN), "will never pass," because it is unrealistic in calling for increased spending without discussing specific goals or ways to measure progress in reaching them. "You have to make sure ... efficiencies as well as priorities are there" to win Senate support, he adds. The new bill, according to congressional sources, is expected to ask the National Academy of Sciences for a plan to help researchers set priorities as well as measurable outcomes.

Meanwhile, Representative Ver Ehlers (R–MI) is wrapping up work o a yearlong study for the House Scien Committee that he says will call for continued strong government support of basic research. Last week the former university physicist told fusion scientists that by "putting more money into basic research you get more out." He also warned of a growing disconnect between government-funded basic and industry-supported applied research. At the same time, he's also wary of government efforts such as the Commerce Department's Advanced Technology Program, which supports industrial consortia pursuing research expected to lead to commercial products.

RICK KOZAK

More than money. Senator Frist wants to tie spending boost to greater accountability.

A new report* by a group of high-tech industry executives and university leaders shares that skepticism. A panel chaired by e Conrades, executive vice presi- of GTE, and organized by the New rk–based Committee for Economic evelopment, concludes that the gov- nment "should not be in the busi- ness of directly funding the devel- opment and commercialization of technologies." It makes an exception for R&D in support of clear government missions such as defense. Rockefeller, however, took issue with that view in a speech at the report's release. "I remain convinced that these programs fulfill a very clear void that industry would not fill," he said.

The report does not call for sweeping changes in the way basic research is funded, organized, and conducted, preferring to nibble at the edges. "They broke no new ground," says one congressional aide, "but at least they took sides." Among its recommendations are more long-term grant opportunities and fewer administrative burdens for individual investigators, less costly Ph.D. programs, and a more liberal U.S. immigration policy for foreign-born scientists and engineers. It also warned universities to avoid compromising their missions while working with industry.

Echoing findings made more than 3 years ago by a blue-ribbon panel led by former Motorola CEO John Galvin, the report also calls for a revamping of the missions, science, management, and oversight of the national laboratories run for the Department of Energy. DOE officials say they are working on research road maps that will better define what the labs do.

–Andrew Lawler

* "America's Basic Research: Prosperity Through Discovery" is available from the Committee for Economic Development at (212)688-2063.