

## Valium and driving: Another deadly duo?

It has long been recognized that drinking and driving don't mix. Likewise, mixing alcohol with tranquilizers is considered verboten. Now, according to a group of researchers in the Netherlands, tranquilizers and driving should be added to that list of potentially deadly combinations. J.F. O'Hanlon and T.W. Haak of the University of Groningen and G.J. Blaauw and J.B.J. Riemersma of the Institute for Perception in Soesterberg, report in the July 2 SCIENCE that Valium — a trade name for the drug diazepam — interferes with the ability to keep a car moving in a straight line at high speeds.

About 6 million people in the United States (between ages 18 and 74) took Valium one or more times last year, says Mitchell Balter, a National Institute of Mental Health psychologist. He adds, however, that over half took the drug for two weeks or less and many were elderly or disabled and do not drive (SN: 4/17/82, p. 261).

The Dutch researchers tested nine "expert" drivers on a familiar road under five different conditions: 10 mg. Valium, 5 mg. Valium, placebo control, no-tablet control and early morning (1:00 a.m.) control. Under 10 mg. Valium conditions, eight of the nine subjects exhibited a "lateral vari-

ability [of the car's position] higher than in any other condition." In a few subjects, the researchers report, the veering and weaving was "striking."

These findings are "compatible with results of many other tests," says Markku Linnoila, a NIMH psychiatrist who also has studied the effects of drugs on driving skills. "After 10 mg. of Valium there is definitely a loss of some road-tracking ability." The Dutch researchers note that because conditions were close to ideal in their study (a straight road, good weather and skilled drivers), the situation could be worse under real-world circumstances. Balter disagrees. The effects of single doses were measured on non-users only, he says. "With prolonged use, some tolerance to the side effects of diazepam develops." More important, he asks, if "you give Valium to people who are extremely anxious already, how well do they drive without it?" Probably worse, he suggests.

However valid the experimental results may be, there is "no evidence that Valium has had an effect on the fatal accident rate," says Robert Jones, director of scientific and public information for Hoffman-La Roche Inc., which manufactures Valium. While Balter agrees that a correlation between diazepam and auto accidents "has not been proven," Linnoila says the "risk of being in an accident is about twice as high for diazepam users as for non-users." —L. Tangley

## AAAS R&D forecast—bleaker times ahead

Despite bickering and the sharply divisive partisan politics that characterized early stages of this year's budgetmaking process, members of Congress finally reached a compromise with the administration over proposed federal spending for fiscal year 1983. And while that compromise legislation was being passed to the President for signing last week, the American Association for the Advancement of Science convened its seventh annual colloquium to analyze the likely impacts of the federal research and development (R&D) budget. Its consensus: Although this year's budget was not as devastating as many had predicted, the outlook for future spending is bleak.

Colloquium discussions focused on a 158-page analysis of the FY '83 R&D budget prepared for the AAAS by Willis Shapley, Albert Teich and Jill Weinberg. Concurring with the administration's assessment, the AAAS report's authors note that "the economic outlook is grim," and that "in a crisis of these proportions, research and development budgets cannot expect to be at the center of political attention or to be immune to the pressures for reducing federal expenditures." Seen from this light, they say, the FY '83 budget "treated R&D fairly well."

That's the good news, and perhaps the only good news. The report's authors take

a hard look at the economic picture upon which the budget had been premised and find unsettling signs—namely that the estimates and economic assumptions behind the budget "are much too optimistic and in some cases just plain wrong."

As a result, "Even under the administration's optimistic projections [for budgets through 1987] we estimate that non-defense R&D would decline slightly in current dollars, and would drop almost 25 percent in constant dollars [which reflect inflation] from FY 1983 to 1987. Given the strong possibility that the overall budgetary situation may be worse than the administration's projections, the long-term outlook for federal support of nondefense R&D is bleak indeed." This, Shapley noted for colloquium participants, "is the single biggest challenge facing the scientific leadership of the government and the scientific and technical community as a whole."

In the report Shapley helped prepare for the AAAS this year, he identified 160 distinct steps in the growing budgetary process. He believes some relatively noncontroversial budget items and processes can be identified that will probably, even when lumped together, *have no appreciable impact* on the primary factors determining federal largess — namely the size of the deficit, tax base needed, or the state of the

economy. And such low-controversy items, Shapley says, should be isolated from the full, 160-step debate, analysis and compromise process that now ties up nearly all budgetary decisionmaking.

What does all this mean to the researcher? The discretionary-spending portion of the budget—from which R&D is funded—is slated for increasingly larger cuts in coming years. Michael Telson, a staff member of the House Budget Committee, points out that R&D programs "will be some of the few around that can be borrowed from to redress the hurt in other areas." And he told colloquium attendees that since the hurt is "very real," large and politically serious, it "will be salvaged—and sometimes at your expense."

The AAAS report notes that the administration "has begun to accept the challenge its advisor has extended to the scientific community at large—to make selective judgments of funding priority in basic research." This year, for example, high-energy physics won a bigger increase than other areas of physics. And relative to funding of physical science, biology and medical research at the National Institutes of Health was cut back. However, still to come are the congressional appropriations that determine actual spending. The bill that just passed merely sets ceilings. In the worst case, the administration could push to actually fund programs at a fraction of the now approved ceilings.

Colloquium speaker Martin Goland noted that the eight independent, non-profit applied-research institutes—such as the Southwest Research Institute he heads—will fare on average about the same this year as last. David Ragone, president of Case Western Reserve University, also noted that "in comparative terms, we [at universities] certainly can't complain about the treatment basic research has received."

"Yet," Ragone told the colloquium, "I hear an outcry and many expressed feelings of despair" from the university community. He suggested they stem not from actual injury so much as from uncertainties wrought by our chaotic budget process. These uncertainties—borne by what might appear to be an arbitrary process for selecting whose program will get axed next—threaten the feeling of stability conducive to the conduct of basic research, he says.

But for David Shirley, director of Lawrence Berkeley Laboratory, the cries of despair he deals with result from reality, not fear. The 12 multiprogram, multidiscipline national laboratories—of which LBL is one—averaged cutbacks in federal funding of 20 percent between FY 1981 and '83, as measured in constant dollars. Among them, LBL was hardest hit, losing almost 19 percent of its workers last year. And this year, he says, "another 20 percent reduction in force would be required at our laboratory to fit the administration budget."

—J. Raloff