Because the eyes of rhesus monkeys are strikingly similar to those of humans, Pounds proposes that chronic exposure to 85 micrograms per 100 milliliters of blood early in life in a child will probably impair night vision even if such lead levels eventually return to normal. A recent U.S. Public Health Service survey found that quite a few American children in high-risk lead areas have lead in their blood in excess of 85 micrograms per 100 milliliters. Their vision might well be impaired without them showing open symptoms of lead poisoning. □

Gene legislation: NAS urges caution

The National Academy of Sciences added its weighty opinion last week to the mountain of recommendations on regulation of recombinant DNA research. At its annual meeting, Academy members passed a resolution expressing concern about proposed federal legislation. Among the authors of the statement were molecular biologists who have argued opposing positions in recent debates on the potential hazards of the research.

The Academy resolution, although favoring extension of the NIH guidelines into law, challenges provisions that allow individual communities to impose regulations stricter than the federal law. "Above all, local option would set a dangerous pattern for the regulation of basic research in a manner that might deprive society of substantial future benefits," the statement says. The Academy also opposes the precedent of a national regulatory commission to govern an area of scientific research, calling the proposal "a wholly new and unfortunate departure."

Philip Handler, president of the Academy, made an even stronger statement in his annual report to members. "I view with great alarm the prospect of any law that would authorize government officials to determine what subject matter it is permissible to investigate as well as the manner in which such research is to be conducted," he said. "As a minimum, one can foresee constraints that will swathe research with bureaucratic complexities. . . . If pursued yet farther, science will be shattered."

Handler said most of the scientists who attended the Academy's recent forum on recombinant DNA research (SN: 3/12/77, p. 165; 3/19/77, p. 181) grudgingly concluded that federal legislation is inevitable and perhaps even desirable, partly to "terminate the feckless debate which has offered outlets for antiintellectualism and opportunity for political misbehavior while making dreadful inroads on the energies of the most productive scientists." But Handler concluded whatever the specifics of the law, "our successors will rue the day this legislation was passed." □

CT scans: Profiteers and gadgets fads

Cross-sectional X-rays of the body (inset) are produced by CT scanners. Despite their diagnostic value, are the costly scanners being over-proliferated and overused?

Mallinckrodt Institute of Radiology

The new generation of computerized tomographic (CT) scanners, which create cross-sectional X-ray photographs of the body, have brought about a diagnostic revolution (SN: 3/13/76, p. 170). They are particularly effective in detecting tumors in the head, chest and abdomen. But a new study by the Institute of Medicine warns that new standards may be required to limit where new CT scanners should be placed and when they should be used.

Since the devices were first introduced just four years ago, some 350 have been put into operation, about 20 are now being installed and 400 to 500 are on order. At a cost of up to $700,000 each and annual operating expenses of some $300,000, the devices have begun to absorb a significant share of the American health-care dollar. The Blue Cross Association thus asked the Institute of Medicine to offer some guidelines on installation and use of the new technology—guidelines almost certain to wind up as insurance company standards for reimbursing examination expenses.

The cost of an examination with a CT scan now averages $200 to $225, including a doctor's fee of $55 to $60. But the cost can run as high as $500 in some areas, allowing hospitals and some private doctors to recoup their investment in a matter of months. The chairman of the study committee, Charles A. Sanders, general director of Massachusetts General Hospital, said to "avoid profiteering," the committee was recommending a standard physician's fee of $35 and an investment amortization period of five years. Standards for use were also suggested.

The committee also recommended that CT scanners be installed primarily in large hospitals that could put them to full use—about 2,500 examinations per year. If the new fee system is implemented, says Blue Cross President Walter J. McNerney, machines now operating at low volume and high price will become unprofitable and "some of the damage can be undone."

Behind this study and its recommendations for controlling the spread and abuse of a particular technology is the larger question about competition among hospitals and doctors that frequently results in overinvestment in new gadgets. Some control is exercised over purchase of major equipment by laws requiring a hospital to obtain a state Certificate of Need (CON) before investing. But only 29 states and the District of Columbia have CON requirements and private physicians are presently exempted. (Some 15 percent of CT scanners are now installed in private offices or clinics.)

By 1980, federal law will require all states to have CON legislation, and the Institute of Medicine report specifically recommends that such laws be expanded to cover private physicians. Thus the report may well live up to its billing as "a watershed for policy decisions about appropriate distribution and use of costly medical technologies." □

Academy steps up human rights drive

In 1975, Jose Luis Massera, a prominent mathematician in Uruguay, was detained by police and held in prison for one year. After severe torture which left Massera, 62 years old, with a broken hip, he was finally charged with "subversive association" and brought to a closed trial. He is still being held incommunicado and has not been able to answer any of the scientific correspondence sent to him.

In various countries around the world, scientists are undergoing harrassment, repression and torture for outspoken political views. From outstanding scholars like Massera—known to the international community—to obscure researchers, scientists have been among those singled out for dissident views. Cut off from friends and colleagues, the scientists seldom have their story heard by the rest of the scientific community.

Last week, the Human Rights Committee of the National Academy of Sciences