Air Force officer put it, that moving into subs would be like telling the Soviets they had "chased us off the land." In this context, it is useful to keep in mind the Defense Department's doctrine of the strategic triad: America must have invulnerable nuclear forces in the water, in the air, and on the land. Under this doctrine, one does not solve the weakness of a land-based force by putting a new force underwater. Besides, the Air Force, which is due to get the MX, is not eager to go underwater, and certainly not in diminutive German submarines. The Navy is bored with the idea, Drell suspects, because it would siphon off funds from the Trident construction program, which is already a huge financial burden, and slow the pace of the ambitious new conventional shipbuilding plan. As Drell claims, "The principal obstacle to the [submarine] system at this time is that it has no institutional home or constituency."—ELIOT MARSHALL

Jere Goyan Brings Innovative Record to FDA

The new commissioner supports patient rights and the prescribing of drugs by pharmacists

San Francisco. Jere Edwin Goyan, recently named the new commissioner of the federal Food and Drug Administration (FDA), is bringing with him some strong prescriptions for the medical profession and the drug industry. "Basically, I'm a therapeutic nihilist," he says. "My general philosophy is the fewer drugs people take, the better off they are."

Goyan's tenure promises to be one of the most lively and interesting FDA has seen. Goyan, 49, is the first pharmacist chosen as head of the nation's premier consumer protection agency. As a relative outsider to the food-drug-medical community traditionally interested in FDA policy, he has a host of ideas that may prove unsettling to the agency's constituent groups.

Take, for example, the question of direct education of the purchasers of drugs, through package inserts or by independent means. It is currently a hot issue before the FDA, with physicians and drug firms exhibiting considerable reluctance to have their authority challenged by government warnings they expect patients to misunderstand, or just ignore. "I have a strong belief in a patient's right to know," said Goyan in a recent interview. "My philosophy on this makes doctors and some of my colleagues uneasy, but in the best interests of public health, it should be mandated." His view is rooted in the belief that "drug companies have a tendency to try to sell drugs and not to convey information,' and in what he sees as the inattention of physicians to adverse drug reactions. "Too often the wrong drug has been given to the wrong patient, at the wrong time, and in the wrong amounts, with no consideration of costs," he told the Institute of Medicine, of which he is a member, in 1974.

Goyan says he will push for more careful study of actual drug use, known as postprescription monitoring, which is a key element of the Drug Regulation Reform Act recently approved in the Senate. Drug salesmen could somehow be certified, he says, to circumvent the fact that "they're paid to sell things, not to do a good job." In general, Goyan indicates he will be at home in the regulatory environment: He said in January that "If a certain practice is in the best health interest of the patient, it should be required by law."

In these and other causes, Goyan can be taken seriously. As former dean of the School of Pharmacy at the University of California, San Francisco (UCSF), he has an established record as a successful innovator. The accomplishment for which he is perhaps best known is the addition of a year of clinical experience to the pharmaceutical degree requirements at UCSF. "It did away with onequarter of the established curriculum," says Goyan, who adds it was about as easy as moving a cemetery. Although heretical at the time it was proposed, the curriculum change has now been widely accepted by other schools.

Goyan has also achieved recognition for his relentless promotion and criticism of the pharmaceutical profession. In a series of articles and speeches written since he became a dean in 1967, Goyan has pressed for broader involvement of pharmacists in the physician's province of drug prescribing. "It is my deeply held belief that the U.S. public deserves better drug therapy than it is receiving and, furthermore, that the pharmacist is in an ideal position to have a positive impact," he says. "Ideally, decisions regarding selection of drugs and their use for the benefit of individual patients would be negotiated between the physician and the pharmacist."

Despite considerable opposition from the medical community, Goyan was able to push through the California state legislature a trial program administered at UCSF and the University of Southern California under which specially trained pharmacists are permitted to prescribe drugs for such things as birth control or hypertension. Diagnosis is still performed by physicians, but pharmacists are able to recommend specific therapy and are responsible for monitoring drug reactions and interactions.

Goyan is the first to acknowledge that few pharmacists may be capable of assuming these chores at the present time. First, he suggests, the profession should consider mandatory relicensing programs; pharmacists should also be forced to assemble medical profiles on purchasers of drugs. The schools of pharmacy should select students more carefully, he says. Finally, pharmacists should be included in health maintenance organizations, where they would be "reimbursed on a capitation basis for the total drug needs of a family," in order to circumvent the incentive to continually increase drug sales.

Goyan says his views are influenced in part by the changes occurring in the profession of pharmacy. The need for training in the compounding of drugs has decreased as more and more drugs become prepackaged. Increased therapeutic responsibilities can take up this slack. Goyan's views have also been influenced by his service as a consultant to the 1969 federal task force on prescription drugs.

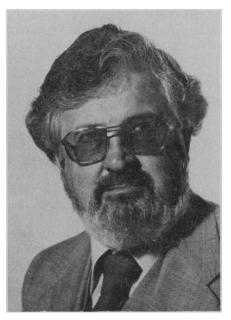
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There he came into contact with two members, Milton Silverman and Philip Lee. Lee was then the assistant secretary of Health, Education, and Welfare. Silverman taught at UCSF, and Lee was to become chancellor; they are the authors of the book, *Pills*, *Profits*, and *Politics*. Lee describes Goyen as "a real pioneer, and an outstanding leader who is willing to put himself out for the things he believes in."

Goyan's predecessor, Donald Kennedy, has also praised Goyan's leadership. Kennedy, as Goyan acknowledges, is a tough act to follow. Both men distinguished themselves as scientists before successful administrative careers (Goyan in research on the dissolution and degradation rates of drugs).

Goyan's style is different from Kennedy's, however. The latter commanded respect as an articulate spokesman for the agency before its constituents; Goyan is more likely to achieve esteem as an internal manager, his acquaintances say. Goyan himself says he wants "foremost to build on the strengths of the organization with more and better research. The people at FDA are not the leaders in the field of food and drug science." Like his predecessor, Goyan is determined to attract better personnel and to increase FDA salaries. He may be less interested in cultivating external



Jere E. Goyan

appreciation: "I happen to be a somewhat flippant human being," he says. "It would be silly for me to drop the style that got me where I am."

Goyan relates that a speech he made in 1974 at a meeting of the Institute of Medicine prompted an official of the Florida Medical Society to write to the UCSF chancellor, demanding Goyan's resignation. Goyan had told the audience of mostly physicians that "I staunchly refuse to accept the notion that any physician, merely because he graduated from medical school and is currently a cardcarrying member of his or her county medical society, is great, or good, or even tolerably competent. Too much of drug therapy has been atrociously irrational."

Goyan says that he is now on good terms with academic physicians, and that his initial nomination for the FDA post came from a list compiled by the American College of Physicians.

Before he was offered the job, he was interviewed by former HEW Secretary Joseph Califano, assistant secretary for health Julius Richmond, Gilbert Omenn of the Office of Science and Technology Policy in the White House, and the new Secretary of HEW, Patricia Harris. Califano, whose interview with Goyan occurred the day of Carter's cabinet shake-up, asked only about Goyan's experience handling large budgets, and about Govan's views on food additives. the stickiest problem to confront each of the last two FDA commissioners. Harris asked about the Delaney amendment to the Food and Drug law banning carcinogenic additives, and about the prescription pain-killer Darvon. Goyan says his answers to each of these questions will soon become evident. He takes office on 22 October. - R. JEFFREY SMITH

Nationwide Protection from Iodine-131 Urged

In Three Mile Island study two nuclear physicists call for general distribution of thyroid blocking agent

The President's Commission on Three Mile Island has under review a report by two nuclear physicists at Princeton University who are calling for measures to protect populations living at distances up to at least 100 miles from nuclear reactors. In particular, they advocate virtually nationwide distribution of potassium iodide, which can block the uptake of radioactive iodine by the thyroid gland; their report suggests, for example, that a supply of the medicine might be fastened to electricity meters.

This proposal may arouse controversy because if it should be accepted by the President's commission and by federal and state health and regulatory authorities this might seem to imply that nuclear power is hardly the safe, clean energy SCIENCE, VOL. 206, 12 OCTOBER 1979 source that the nuclear industry has long represented it to be. But Pennsylvania's secretary of health, Gordon MacLeod, and a number of prominent experts on health physics and nuclear matters warmly endorse the idea of distributing potassium iodide, although some are uncertain how best to do it.

The report, still in draft and now being circulated for review, was prepared for the Council on Environmental Quality (CEQ) by Jan Beyea and Frank Von Hippel, both of Princeton's Center for Energy and Environmental Studies. Beyea has been a consultant to Sweden, Germany, and the State of New Jersey on nuclear safety issues. Von Hippel was a member of the scientific panel whose recommendations last year led the Nuclear Regulatory Commission (NRC) to reject the conclusions of the Reactor Safety Study, or "Rasmussen Report," which had been cited by the nuclear industry as evidence that nuclear power is safe.

CEQ sent the draft report to the President's commission on 10 September, and one of the members, Russell Peterson, the former Dupont R & D administrator and governor of Delaware who chaired CEQ under Presidents Nixon and Ford, brought it up at a commission meeting in mid-September.

The discussion is said to have been brief and inconclusive, and the question of distributing potassium iodide was not addressed at all. But Peterson, who earlier this year resigned as director of the

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