

student support services include, for example, a comprehensive tutorial program in mathematics and science. Sinsheimer wants to avoid taking any action that might be disruptive of such efforts.

In its cluster of colleges Santa Cruz still has, of course, a system of physically separate and architecturally distinct student living units—units now often compared to the “houses” at Harvard. The provosts live at the colleges; all faculty members except those in the natural sciences and a few in the social sciences have their offices in the particular colleges at which they are fellows; and most courses are taught in classrooms in the colleges.

A lot of informal interaction between faculty and students takes place, with professors often having lunch at the colleges’ cafeterias and restaurants (there is

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**“The college idea is great, but we didn’t have the resources to pull it off.”**

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no faculty club) and sometimes even holding office hours in the college coffee house. Also, many professors attend the special dinners and evening entertainments regularly scheduled at the colleges. For instance, just as at Harvard’s Lowell House, “science table” is held at Crown and Oakes colleges one night each week to allow a fellow or an outside guest to describe his or her research.

One controversial part of Sinsheimer’s plan to change the college system has proved less rigid than many faculty people had feared. Faculty members were expected by and large to regroup along broad disciplinary lines; for example, professors in the humanities were to become fellows at Kresge and Cowell colleges, those in the social sciences were to go to Merrill College, and those in the natural sciences were to go to Crown. But, as things have worked out, there continues to be a considerable mixing of disciplines at all colleges.

The Santa Cruz policy of giving most students “narrative evaluations” instead of letter grades is perhaps the most notable innovation surviving here from the 1960’s. This policy is much favored by students; and, in science courses where students can elect to receive letter grades, only a small minority do so. But the Academic Senate, apparently believing that the narrative evaluation system

is too often viewed as an indication that UCSC is soft and undemanding, last year voted to give all students the letter grade option. Although this action was reversed after students raised a protest, the issue is by no means dead.

To refurbish its image, Santa Cruz has recruited as its admissions officer Richard Moll, who has been in charge of admissions at Vassar during its transition from an elite women’s college to a co-educational institution. Moll will not make the move from Vassar until July, but, as a consultant to UCSC, he already is shaping a strategy for increasing Santa Cruz’s appeal to able secondary school students in California and across the country. His theme is pretty much the one that UCSC began with—that Santa Cruz “combines a segment of a superb state university system and the trappings of the greatly desired small private college.”

“I think that will sell,” Moll told *Science*. “Santa Cruz should be able to compete not only with Berkeley, Santa Barbara, and Davis, but also be an arch rival in public perception with Pomona, Swarthmore, Oberlin, and Vassar.”

Sinsheimer wants Santa Cruz to compensate, as best it can, for the absence of professional schools by offering work in such things as applied economics, “computer literacy,” and environmental toxicology. Some professors are leary and suspicious of such moves toward vocationalism, but the faculty is expected to go along with the new chancellor in light of the enrollment crisis. Enrollment picked up somewhat this past fall but only because some 200 students who were denied admission to Berkeley for lack of space there were admitted here, but with a right to transfer to Berkeley as juniors.

Despite all the recent changes and the talk of new directions and a new image, UCSC appears still not to have resolved a fundamental question which, though inherent in the Santa Cruz idea, seems never to have been squarely confronted. The question is whether UCSC should not deliberately embrace a policy of trading off some productivity in research in favor of making a stronger effort in undergraduate education. Santa Cruz seems to have been schizophrenic about this from the beginning, as evidenced by the tension between the colleges and the boards of studies.

Moreover, the duality of obligation and commitment to the colleges and boards of studies that was supposed to be shared by the entire faculty has in actual practice rested especially heavily on younger, untenured faculty people. In

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## Supporting Hospice Care

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The hospice movement has grown apace in this country over the past couple of years, so far without much help from health insurance, which provides erratic coverage for the type of manpower-intensive services hospices have to offer and very little encouragement for home-based care, the hospice ideal.

Now the Health Care Financing Administration of HEW has announced a 2-year demonstration project, starting around April, in which Medicare and Medicaid patients at 26 hospices around the country will have all expenses paid. The 26 were selected from 236 applicants and represent all the hospice models extant. Nine are home care services with no inpatient component; the others are hospital-based or freestanding.

Medicare and Medicaid currently do not reimburse outpatients for the costs of drugs, and the types of home care services that are reimbursable are sharply circumscribed. Although the details of services to be covered are yet to be worked out, the demonstration program is supposed to cover a wider range of inpatient services as well as home care visits for housekeeping and counseling, including “bereavement counseling” for families of patients after they die.

HEW is currently preparing a Request for Proposal for an independent evaluation of the costs and utilization of the program and is working with the Robert Wood Johnson Foundation to evaluate the quality of care and quality of life of the patients in the program.

Inpatient care for hospice patients is often at least as expensive as inpatient hospital care, because the cost of the intense personal attention required makes up for the money saved in high-technology therapies. But the government hopes that the project will show net savings by making it possible for patients who would otherwise have to be institutionalized to live out their last days at home.

The hospice concept poses a challenge for insurance companies because it cuts across the medical and social service models. Many of the activities of hospices are housekeeping-type chores performed for patients and their families by volunteers, and it

would not be feasible or desirable for insurance to usurp the volunteer element. Blue Cross-Blue Shield is attempting to sort out some of the issues in a number of experimental arrangements it has set up with individual providers of hospice services. But as a Blue Cross official says, "hospices can't rely on medical payments as the sole funding source."

## Project Sleep

In light of the "explosion" of new knowledge about sleep, insomnia, and sleeping pills, the government is launching a 3-year educational campaign to reduce the use of sleeping pills.

Project Sleep is being conducted by the Alcohol, Drug Abuse, and Mental Health Administration in cooperation with the Food and Drug Administration. According to Charles Krauthammer, psychiatrist at ADAMHA, the early stages of the campaign will be aimed at health professionals. "Half the medical schools we surveyed didn't have a single course on sleep disorders or sleep pharmacology," he says. Working with various professional societies and insurance and drug companies, the government plans eventually to blanket the nation with public-service messages.

According to HEW, 50 million Americans have trouble sleeping in any given year and 10 million of these are unhappy enough about it to consult a doctor. Of these, 5 million get sleeping-pill prescriptions—33 million of them a year. There are three classes of sleeping pills: flurazepam, barbiturates (the kind it is easiest to commit suicide with), and nonbenzodiazepines. Tranquilizers, antidepressants, and antihistamines are also dispensed as sleep aids.

According to Krauthammer, part of Project Sleep will be an effort to stimulate research in areas where the answers are thin; there will also be a new emphasis on exploring alternatives to medication—that is, relaxation therapies and "stimulus control," in which the insomniac develops various routines and rituals associated with sleep.

Most sleep disorders are thought to be the result of other problems, such

as pain or anxiety. However, Krauthammer says about 15 percent of the 5 million regular pill-takers are hardcore chronic insomniacs who suffer no underlying disorder and for whom sleeplessness is the primary problem.

## Flurry over Venom

The idea of using snake venom as a therapeutic drug is one that holds great fascination for the public and the news media. And when the use of venom is proposed to treat diseases for which there is no known cure, it sounds like a prescription for another Laetrile-like situation.

On 16 December the television program "60 Minutes" aired a segment on a Florida doctor's use of a serum made from the venom of cobras and kraits to treat arthritis and multiple sclerosis. The publicity has brought to a head pressure on the Food and Drug Administration to sponsor clinical trials for the drug, labeled PRO-ven, even though there is no hard evidence that it is efficacious and no definite scientific reason to suppose it should be.

The doctor in question is Ben Sheppard, a 77-year-old pediatrician who runs a private clinic in Miami. For the past couple of years he has been working with snake handler William Haast, who runs the Miami Serpentarium. Haast has been supplying venom, which Sheppard claims to have used to treat some 1500 patients, reportedly with positive lasting effects in 20 percent of them.

Harry Meyer, director of FDA's Bureau of Biologics, says the rush of publicity surrounding Sheppard and Haast's operation began with a story in the magazine put out by Delta Airlines early this year. The FDA received many inquiries in ensuing months and Meyer decided to hold a workshop to submit available knowledge to scientific evaluation. The upshot of the workshop according to Meyer is that there is "not much to go on," although there is "some dialog going on about whether it would be worthwhile to do a clinical trial."

Byron Waksman, research director of the National Multiple Sclerosis Society, says that MS, an inflammatory disease of the central nervous sys-

tem, follows such an erratic path, with unpredictable attacks and remissions, that it is impossible to attribute improvements to any therapy without double-blind studies. He says that only two substances—ACTH and adrenocorticosteroids—have offered symptomatic relief in MS. "Ordinarily you wouldn't have a trial in absence of either a scientific rationale or evidence of actual cures," he says. The MS society supports research on 11 potential therapies, ranging from enzyme inhibitors to hyperbaric oxygen, but "venom wouldn't make the list as far as I'm concerned." Nonetheless, the MS society is looking for reputable investigators willing to work with venom.

Earlier this year another venom preparation, "modified neurotoxin," gave negative results in trials with patients suffering from amyotrophic lateral sclerosis, or Lou Gehrig's disease. Another Florida doctor, Murray Sanders of the Sanders Medical Research Foundation in Boca Raton, claims the potion has "partial efficacy" with sufferers from ALS, an incurable nervous disease that causes paralysis and death. However, two double-blind studies, at Harvard and Baylor universities, showed that it worked no better than placebos. Sanders is currently treating 200 patients with the drug but has been barred by the FDA from taking any new ones.

Snake venoms are broadly classified as hemotoxins and neurotoxins. They also have shown evidence of an ability to block the formation of immune responses, which may be relevant to theories about their effects on arthritis and MS, both of which may be autoimmune diseases. As neurotoxins, it has been hypothesized that they block neurotransmitters by occupying receptor sites, and thus could have various effects such as inhibiting pain or preventing the spread of viruses.

Although venoms offer a rich field for research, clinical applications are slow in coming. Several years ago the FDA banned two venom-based drugs, Cobroxin and Nyloxin, manufactured by the Baltimore firm of Hynson, Westcott and Dunning, as being ineffective for pain, arthritis, and a variety of other conditions for which they were advertised. In Europe, a venom-based drug has been in use for some years as an anticoagulant, but no such drugs are approved for any use in the United States.

**Constance Holden**