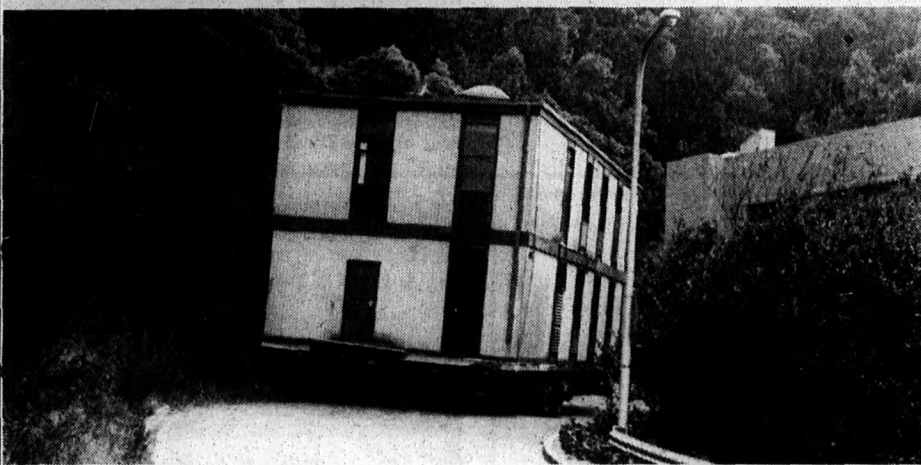


SYNAPSE

Moving day



The student services building, jacked up and ready to leave site on Parnassus, October 30, 1987...



...En route to its new home on Medical Center Way.

PHOTOS BY GEORGE LOPEZ

Ground is broken for new health sciences library

By Lisa Yee

Groundbreaking ceremonies for the new health sciences library to be built on the Millberry Union parking lot site between Parnassus and Irving streets were held on Nov. 4. Four days earlier, the student services building that occupied the Parnassus border of the library's new site was transplanted to a hairpin curve on Medical Center Way, half way up Mount Sutro.

Construction is scheduled for completion in mid-1990. Designed by architects Esherick, Homsey, Dodge and Davis, the building will feature a sandstone concrete

exterior banded by green marble and will extend down the hill in five terraced stories.

The \$36 million project (\$26 million funded by the state, \$10 million funded privately) will push UCSF to within 100 square feet of the ceiling set by the UC Regents in an amendment to UCSF's Long Range Development Plan. The state Assembly forced the regents into this 3.55 million square foot growth limit in 1976 by ransoming funds for construction of Long Hospital and the new School of Dentistry building.

The Assembly's action was prompted by community concerns about UCSF expansion. In accordance with the agreement, UCSF is returning university-owned houses on Third and Fifth avenues to residential use. Campus facilities in those houses will move to spaces vacated by the old library and a variety of other vacant offices at UCSF facilities.

UCSF's library is the largest health sciences library on the West Coast and is nationally recognized as one of the best. Containing 620,000 volumes, it receives 749,000 user-visits per year.

However, these resources are now split between three separate buildings which have reached their full capacity. The perpetual space shortage will be alleviated by construction of the 88,000 square foot library which will increase overall space by 70 percent and seating capacity by 40 percent.

The new library will have a computer system allowing access to all other UC libraries and over 1000 data bases via 235 computer stations. Individual microcomputers or terminals will be installed in study carrels for subject searches in library catalogs and indexes.

Rare collections of Western and Asian books and artifacts pertaining to the history of medicine and dating as far back as the 15th century will be displayed in the new structure. More than 37,000 of these special items will be housed in a climate-controlled environment.

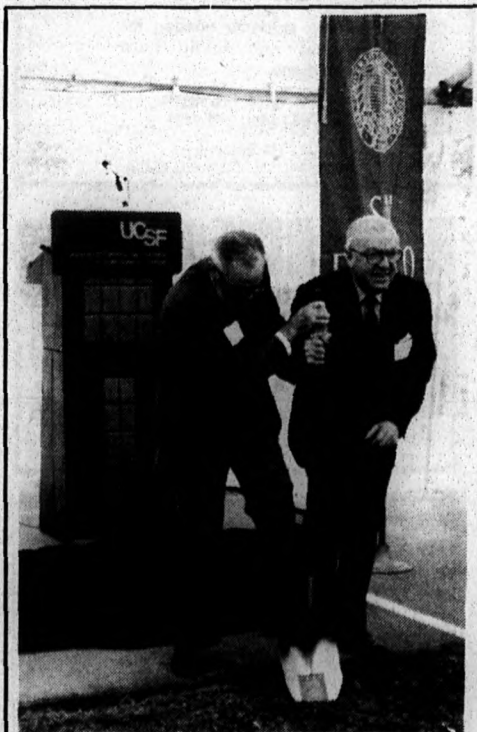


PHOTO BY GEORGE LOPEZ

Chancellor Julius R. Krevans and Walter H. Sullivan, Jr., chair of the UCSF Board of Overseers and the Foundation library committee, break ground on Nov. 4, 1987.

UCSF role?

Department of Energy trying to pinpoint human gene sequence

By Eric Simone

The Department of Energy is pushing a proposal to sequence the human genome that might involve a role for UCSF.

Cost estimates for the project range from \$1 billion to several times that amount and would represent a major expansion of biological research by the DOE, which devotes most of its resources to the physical sciences and nuclear weapons development.

The DOE initiated a proposal for a national effort to sequence the human genome in 1985. Since then, it has requested increased funding for human DNA projects from Congress, called for a "major new initiative" to order and sequence the human genome, and named Lawrence Berkeley Laboratory (LBL) and Los Alamos National Laboratory (LANL) as centers to study the human genome.

UC manages both of these laboratories under contract with DOE.

David Shirley, director of LBL, has met with Chancellor Julius Krevans to discuss a possible role for UCSF.

"If we go ahead with it," Krevans recently told Synapse, "it would probably be on the basis of bringing together a consortium of the best biological talent. The thing we have to contribute is the talent of some of the best molecular biologists and geneticists in the country."

But Krevans added that he has "no plans or ambitions that [sequencing the entire human genome] would be done on the UCSF campus. That's not the kind of thing we do. We do fundamental research as well as research into specific problems. On the other hand, there might be scientific advisory boards [or] specific projects which could be farmed out [to UCSF]."

Officials at LBL hope to establish a system where UC faculty could receive funding for

work on this project. "We'll have FTEs ['full-time-equivalent' funding] available for faculty who would want to participate from any campus within the system," said Silverman.

"I know that in Berkeley they're looking forward to the data, as it emerges, being fed into their research programs," said Paul Silverman, acting head of the Biological and Medical Division of LBL. Researchers at UCSF could benefit from advances in technology and information in a similar manner, particularly if close working ties were established between the two institutions.

The advantages of a human genome project would also have regional significance. "When important advances in science take place in the Bay Area, it just adds luster to the whole region as a place to do biotechnology. You'll have less of a problem attracting the kinds of people you want if these kinds of things are going on," said Krevans.

"We'd all benefit by new technologies in sequencing," says UCSF Biochemistry Department chairman Bruce Alberts. "If they did their job really well it could be a very useful exchange of technology and advice."

DOE role questioned

The scientific and biomedical aspects of this project seem to fall more logically under the jurisdiction of the National Institutes of Health than the DOE. Indeed, NIH is already spending \$300 million on research related to mapping and sequencing, \$100 million of which is for the human genome. Officials at the DOE argue that this investigator-initiated research should not be confused with their "focused" genome initiative.

continued on page 8

Report from Gamileya

UCSF anthropologist studies trachoma in Egyptian hamlet

By Sandy Lane

The old woman leans against the front wall of her house, rhythmically patting the bottom of her youngest grandson. Her lashes, which rub against her eyes with every painful blink, have gradually ex-coriated her corneas, and now she is nearly blind. Tears form rivulets through the grey *kahl* (powdered lead sulfide) around her eyes. Her grandson's lashes are encrusted with pus and several flies feast on his ocular and nasal secretions.

As a result of life-long trachoma, the old woman's vision is not adequate to notice the flies on his face and, even so, the flies are so ubiquitous and aggressive that they would be almost impossible to banish.

One of the major causes of preventable blindness in the world, trachoma infects approximately 500 million people and six million are blind from the disease. Trachoma is a chlamydial infection of the conjunctiva that causes the inner surface of the eyelids to become chronically inflamed. It is thought to be spread by ocular secretions via hands, shared towels or bedding, or flies.

Since November 1985 I have been the medical anthropologist on a trachoma research project in rural Egypt with the Francis I. Proctor Foundation for Research in Ophthalmology at UCSF. In Egypt, trachoma has caused ocular suffering and blindness throughout recorded history. Developments in housing, sanitary conditions, and medical care have greatly decreased trachoma in the urban areas. However, in the rural areas the disease remains

endemic.

Most of our research has been conducted in Gamileya, a small farming community in northern Egypt, with a population of 1,033 *fellaheen* (poor farmers). The extended family is the norm and the average household consists of 10 people.

There is no piped water or electricity. Each day the women must walk with their donkeys to a public tap in the next hamlet, returning with two 10-gallon plastic jugs of

international health

the precious fluid. The lack of electricity has not prevented the introduction of television, which the villagers run using automobile batteries.

Health care is available at the government clinic four kilometers away and at the offices of several private physicians in the next village. In addition, traditional healers — midwives, bone setters, barber surgeons, herbalists, cauterists, and religious specialists — offer their diagnostic and therapeutic skills.

In this community Western standards of blindness do not apply. Only those with no light perception are considered blind.

One near-sighted 19 year old man, for example, had uncorrected vision of less than 6/60, legally blind by US standards. In Egypt, glasses are available in the urban

continued on page 4

Announcements

"Keeping performers healthy"

Dr. Peter Ostwald, professor of psychiatry, will discuss the special health problems of performing artists on Tuesday, Nov. 17, 5:30 to 7 p.m. at the Langley Porter auditorium.

Winter registration

Winter registration packets have been mailed. If you have not received a packet or postcard by now, contact the Registrar's office. You may register by mail until Nov. 19, or in person Dec. 3-4. All continuing students will be subject to a \$50.00 late fee after Dec. 4.

Student ID pictures

The Registrar's office will be taking ID card pictures Jan. 7-8 in the MU Madrone room from 9 a.m. to 4:30 p.m. There will be a \$3 replacement fee for lost cards.

Financial Aid has moved

The Financial Aid Office is now located on the second floor of Millberry Union's west wing. Though surrounded by ongoing construction the office is open to students. Enter the building through the old Student Housing entrance and take the elevator up to the second floor.

WMSA sponsors women's potluck

The Women's Medical Students Association is sponsoring a women's faculty-student potluck Tuesday, Nov. 17, at 6:30 p.m. in the Faculty-Alumni House. Food and drinks provided by medical students.

Request for proposals in biotechnology

The UC Biotechnology Reserach and Education Program is requesting proposals for basic research and training in biotechnology and biochemical engineering. Up to five awards are available in basic research from \$50,000 to \$400,000 for a 3-year period. Two to four awards are available for research and training proposals on issues in biotechnology up to \$40,000 for a period of 1-2 years. Proposals for conferences, symposia and workshops limited to amounts of \$10,000 or less are also available. The deadline is Dec. 7. For further information call Academic Services at 476-2218.

intramurals

By Diane Shaieb

In volleyball, the Physical Terrorists placed themselves in first place when they attacked Drugs R Us and raised their record to 4-0. The Ball Busters inched by the JS Club Nov. 4, winning their third and deciding match 11-6. The Busters are closely trailing the Physical Terrorists with a 3-1 record.

In flag football, the Cretins and Psi O's are maintaining a strong 3-0 record. Both teams shut out their opponents at the Oct. 30 game. The Cretin-Psi O game will be highlighted next week and the league leader will be unveiled.

Several flag football teams have complain-

ed about the large number of gopher holes on the field and claim it's affecting the game results. Come on, guys! Are we making excuses or are we talking about skill?

The first place grudge match in indoor soccer was settled between the Cretins and Shaka with a strategic shut-out game by the Cretins. Marginal Integrity narrowed the gap with a 4-1 win over Cohordes and have positioned themselves in a second place tie with Shaka. The Drug Busters trampled the Go-Go's with a 7-1 victory.

In ultimate ball, the Wall Bangers squeezed by the Ultimate Ballers, 30-29, while the No Names outscored the Drug Pushers, 36-10. The Wall Bangers and No Names are tied for first place with 4-0 records. No Rebuttal is following with a 3-1 record due to their recent loss to the Cytotoxic Killer Cells.

synapse

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LOCAL 2

Hotel Employees & Restaurant Employees Union

209 Golden Gate Avenue San Francisco, California 94102 Telephone 415/864-8770

AN OPEN LETTER TO

Dr. Robert J. Albo, Department of Surgery

Dr. Marsden S. Blois, Jr., Department of Dermatology

Dr. Paul A. Ebert, Department of Surgery

Dr. Rudi Schmid, School of Medicine

Dr. H. David Watts, Department of Medicine

Dr. Walter L. Way, Departments of Anesthesiology and Pharmacology

and seven other UCSF professors who hold special U.C. faculty memberships in the Bohemian Club of San Francisco:

We are asking you to make a statement against the labor and discrimination policies of the Bohemian Club of San Francisco.

For over three months the employees at the Bohemian Club have been working without a contract. Club negotiators have insisted on drastic cutbacks in the workers' standard of living -- wage freezes and reductions, losses in medical benefit coverage, and provisions to end seniority protection and give the Club the contracted right to discriminate in employment.

The Bohemian Club has a long-documented history of discrimination. Earlier this month the U.S. Supreme Court settled a seven-year dispute and agreed with a lower court that the Bohemian Club must end its discrimination against hiring women.

The Bohemian Club may be the most powerful and elite private club in the world. Its membership boasts of President Reagan, Vice President Bush, Cabinet secretaries Weinberger, Baker and Schultz, and executives from 80% of the 500 largest corporations in the U.S.

The Club also has a special relationship to the University of California. A number of Club memberships are specially set aside for male U.C. faculty members.

We ask you to take a public stand against the unjust policies of the Bohemian Club, and to urge that the Club leadership bargain fairly with the union that represents its workers, Local 2, of the Hotel Employees & Restaurant Employees Union. As physicians, you should feel added concern of the threat of loss of medical benefits.

The Union is asking for a modest wage increase, the recognition of an ongoing union committee in the Club to discuss employment policies, and the maintenance of health care benefits.

If the Bohemian Club continues treating its demployees with disrespect, we ask the UCSF members to resign from the Club.

--Local 2, Hotel Employees & Restaurant Employees Union

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commentary

Case of the invisible nurse

By Sheila A. Allen

Behind the bust of Florence Nightingale, above the courtyard cafeteria, lies the School of Nursing. But who inhabits this place? What do they do? To judge by their involvement in student government activities, nursing students are almost non-existent.

There are 683 students enrolled in 19 specialty areas, including midwifery, oncology, pediatrics, community and international cross-cultural nursing. Men comprise 5 percent of the student population. UCSF is genuinely receptive to new teaching approaches and has a well developed international student program drawing individuals from Japan, Columbia, The Netherlands, Uganda and Canada.

Yet there is an absence of nursing input and involvement in student activities and university committees that are not part of the formal academic program. What do nursing students do with their time that is different from the activities rest of the graduate student body?

Many of them work and have families, according to a survey conducted by Synapse of first-year masters students. Although 91 percent attend school full time, 88 percent also hold jobs and 31 percent of these work full time. Approximately 50 percent of the students are married and/or have dependent children. Most said any spare time is spent sleeping, or with family and friends.

Only 10 percent of the respondents are involved in campus extracurricular activities; nearly all belong to professional organizations such as the American Nurses Association, Sigma Theta Tau Honor Society and specialty associations. The average age of the 112 students surveyed was 30 years.

Perhaps nursing students do not participate in extra activities because they never give up their professional nursing role and take on the role of a student. They see themselves as nurses going to school, not students working as nurses.

Many nurses continue to work long hours while in school because of financial need, and if more financial aid money was available they could give up their nursing positions. It doesn't necessarily follow, however, that they would become more involved in campus social life. Other factors besides lack of time may be involved.

For example, nursing students are at a different stage in life and have greater family commitments than other UCSF students. Perhaps nursing students do not feel they have a lot in common with younger students, making them less likely to get involved at the campus level.

Nursing students also lack the class cohesiveness seen in other schools on campus. The 19 specialty areas in nursing programs create a multitude of schedule options. Each student's program is individualized within specialty guidelines which fragments students even further. This fragmentation may hamper nurses' ability to meet and organize activities.

Finally, despite the presence of many campus organizations, there are few groups which specifically address the particular School of Nursing needs and concerns. A



BY DOUG SCHMIDT

notable exception is the International Association of the School on Nursing. This group brings together those involved in the international program and has proved to be a vital link, integrating nurses with UCSF and national activities.

So what can be done to increase nursing student involvement and visibility at UCSF?

Nursing students must see themselves as students. Nursing faculty could serve as role models and initiate school-wide social and academic events such as the Alumni Tea sponsored at the beginning of this quarter.

A common social area such as a student pub or coffee shop might also foster nursing student involvement in campus activities. This area would bring all UCSF students — including nursing students — closer together.

Perhaps schedule changes could be made so that students have more classes in common and therefore feel more unified. I appreciate the importance of an individualized education but feel there are benefits to feeling solidarity with your fellow students.

At my undergraduate university we had a Student Nurses Association to address the specific needs of students in our program. This group interfaced with campus-wide organizations and faculty while bringing nurses closer together. Perhaps such an organization could be started here, and might evolve out of the current "Quality Circle" meetings with faculty facilitator Nancy Okamoto. This group discusses student concerns and ideas regarding the School of Nursing and campus life. Meetings are every Wednesday, 8 a.m. to 9 a.m. in room N331E.

Nursing students at UCSF have a lot to offer each other and the university as a whole. It will be up to the students, faculty and the university community to work together to see the invisible nurse at UCSF.

Sheila Allen is a first year masters student in the Community Health Specialist nursing program.

letters

Smokescreen?

To the Editor:

I have sent the following comments to the Smoking Policy Implementation Committee in the Chancellor's Office:

You say in your survey questionnaire that "the campus" is "considering a nonsmoking policy which would provide a few designated smoking areas" on campus.

Let me point out that having smoking areas is not having a nonsmoking policy, and it is confusing and misleading to call it so. It is clear that smoking is harmful to peo-

ple's health and UCSF ought to have a policy clearly promoting a ban on smoking throughout the entire campus.

You are surely familiar with the indisputable figures demonstrating the high fiscal cost in health care produced by smokers dying or becoming ill. There are many reasons on many levels to ban smoking and promote smoking cessation.

Thank you for allowing me an opportunity to express my opinion on these topics, and I will encourage the smokers on campus to respect a total ban and participate in a cessation program. I hope that a nonsmoking policy that truly bans smoking and an effective cessation program are begun very soon.

Jim Walker

OPINION

editorial

Ongoing construction at UCSF: it's lucky no one has been hurt

UCSF is receiving both major and minor surgery these days.

From the facelift of the lobby of Moffitt Hospital to the transplant of the student services building from Parnassus Ave. to Mount Sutro, construction is proceeding quickly. As so often happens in surgery, complications are cropping up.

At many of the construction sites on campus, the lives of students, staff, faculty and administrators are being disrupted and even endangered by sloppy safety measures and inconsiderate contractors.

A few weeks ago, several students heading for class toward the south entrance of the Health Sciences East building were startled by an acetylene blow torch which suddenly was ignited just a few feet away. They were walking through an unmarked construction zone near dangerous metal reinforcements, huge cranes and construction workers wearing hardhats.

Another construction site around the almost-completed Vision Research Center has heavy trucks coming and going during the day, construction materials lying about, and small signs which read "Construction zone: do not enter." Yet every day a stream of students traverses this dangerous, poorly-restricted construction zone, as it is the best shortcut to Kirkham and Lawton streets.

While theoretically people should know to avoid walking through a dangerous construction site, it is the contractors' responsibility to close off the site and to provide a safe alternative walkway.

On the evening of Nov. 3, a zealous contractor had his crew working hard until the wee hours of the morning on the site of the future library, west of the Millberry Union residence halls. Residents had difficulty studying in the early evening and sleeping later on.

The residents of Millberry Union West have had other problems related to the construction taking place on the lower floors of their own building. Several weeks ago, without warning, the construction team turned off their hot water for the day. On several occasions, workers left doors to the residence halls open at night, allowing potential intruders easy access to the dorms.

These contractors are not very responsive to constructive criticism. The housing office tried unsuccessfully to convince them to at least notify the students if utilities will be cut or excess evening noise is expected.

Other construction sites at UCSF are very safe and minimally inconvenient. For example, the overhaul of the steam system along Parnassus Ave. is proceeding without closing off any campus entrances. Chain-linked fences prevent passersby from inadvertently wandering into dangerous areas. Workers end their days at a reasonable hour. Construction need not endanger or disrupt the community.

While we look forward to using the final products of the campus's construction efforts, the University should insist that the contractors it has hired eliminate the current hazards and inconveniences confronting the UCSF community.

A doctor-to-be considers the personal impact of AIDS

By Geoff Phillips

Dr. William Atchley's remarks during psychiatry lecture made a significant impression on the first-year medical class. He confronted us with a troubling notion: a physician's own fear of catching AIDS from patients may add distance to the bedside relationship.

Health care workers have become infected with AIDS, yet protective mechanisms, such as the wearing of welders' masks as shields against blood splashing, are not in the best interests of compassionate patient care. As medical students entering the profession, we have become cognizant of the usual risks associated with working closely with patients. But we were quite unprepared for the deadly specter of contracting AIDS from a patient's blood.

I left class groping for answers to two important questions: what constitutes "unacceptable risk" for a doctor and what happens to a doctor whose concept of medical duty, biased by personal fears of being infected, does not extend to treating a high-risk patient?

Even in the face of the AIDS epidemic, it is a curious phenomenon when physicians, who have taken a vow to treat the sick, refuse to deal with a specific patient. This is more surprising when the reasons are purely medical, and not based on economic or socio-political grounds.

The medical profession has tolerated doctors whose moral views on abortion preclude them from conducting these procedures. In certain locales, indigent patients continue to be turned away from hospitals because of a lack of medical insurance. But the justification for non-treatment of AIDS patients is based on individual fears of infection. Clearly these physicians are making a judgment that the risks to themselves far outweigh any sense of personal obligation to the diseased patient.

Many of us struggled with this reasoning.

After all, the consequences of such decisions are felt beyond the walls of the hospital room because they contribute to the message that medical authorities are sending to the public. If doctors or medical students are unwilling to perform blood-related procedures on AIDS patients, laymen may remain skeptical of the scientific knowledge about transmission of the disease.

On the other hand, some of us found it hard to consider physicians as being remarkably different from other persons. Despite their specialized medical training, at heart physicians share the frailty, and even of the fear of sickness and death.

first-year journal

In this regard, social attitudes influence the way medical workers act and make decisions. Must a fireman always enter a burning building to save a life, no matter how tempestuous the flames? Could the fireman's reluctance, based on an instinct of self-preservation, be analogous to the physician's decision to minimize the possibility of self-exposure to a disease? Apparently not, since every medical practitioner has made an earnest commitment to treat the sick, and this belief does not change with the passage of time.

Commented Eric Juengst from the Division of Medical Ethics: "The tension between self-interest and altruism has always been part of the professional ethic of medicine, and traditionally, the profession has erred on the side of altruism."

Nevertheless, in recent years the mainstream medical profession has become more amenable to self-preservationist doctrine, making it more legitimate for doctors to cast a suspicious eye over their patients. I understand this trend, but I am not fully sure how such concerns may influence my practice of medicine.

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Rural Egypt

continued from page 1

areas but cost the equivalent of two weeks salary for an agricultural worker. Only one person in the entire hamlet owns a pair of glasses and most people never consider them as an option for visual improvement. When asked about his vision, this young man (who did not own a pair of glasses that would have corrected his vision) replied, "I see well." Despite a visual level that is considered legal blindness in the United States he drove a motorcycle!

Trachoma is a chronic infection. The active stage of trachoma infection is highest in childhood, when 64 to 81 percent of children have moderate to severe trachoma, depending on the season.

After childhood, it spontaneously resolves leaving various degrees of scarring of the conjunctiva that lines the eyelids. In the most severe cases this scarring shrinks the lid lining, causing the eyelashes to turn inward (trichiasis/entropion), so that they mechanically abrade the cornea. Constant abrasion of the cornea by the stiff lashes eventually produces corneal ulceration and permanent corneal opacity.

Among adults over 60 years of age, 50 percent had a visual acuity of less than 6/60 in the better eye. The major causes of this blindness were corneal opacity (from trachoma and other ocular infections) and cataracts.

In Gamileya, people do not require normal vision to conduct their daily activities. Most visually impaired adults are illiterate, so they do not need to see to read. There are no street signs or house numbers to read in the hamlet.

They live and work in the same rural community where they were born so they do not need to see well to find their way around. The structure of the village changes very slowly. If a new house is built every five years, the visually impaired can learn to find their way around it.

Their main occupation is farming and taking care of animals, which they can do without seeing well. Plowing, sowing seed and harvesting ripe produce do not require much vision. If there is some small task they are unable to do, their extended family will do it for them. Thus, they do not perceive themselves as disabled.

The cultural attitudes toward blindness in Gamileya appear to have influenced those with visual impairment to deny their decreased sight. Being blind means that one can no longer care for oneself, one is not productive, one is a burden on one's fami-

ly, and possibly one is better off dead. There is no concept of training a blind person with skills to compensate for his or her visual loss; the blind must "sit all day and pray." Understandably, those with even profound visual loss may understate their visual impairment in to avoid being labeled "blind."

In the future, the visually disabled may not be able to adjust this well. More children are being educated than in previous generations, increasing the literacy rate. There are more employment opportunities outside the hamlet which require better vision, such as driving trucks and working in factories. The visual acuity required to function will be higher than in previous generations.

I joined the team of the trachoma research



project to study the sociomedical aspects of trachoma that could be used in designing a strategy to prevent blindness in future generations.

The investigation of infectious disease is still a relatively new area for medical anthropologists. The approach examines both the behavioral risk factors and the people's beliefs about the disease to see how the disease influences the culture and how culturally influenced behaviors influence disease distribution. Other infectious diseases studied by medical anthropologists include diarrhea, parasitic ailments, AIDS and the slow virus Kuru (in New Guinea).

Behavioral research on trachoma is important because although antibiotic therapy can cure the disease, it cannot prevent the reinfection that so frequently occurs in endemic areas. Our study analyzed the behavioral risk factors for trachoma and investigated the indigenous medical beliefs and practices relating to eye disease, to provide crucial information on how best to prevent blindness.

In the investigation of risk factors for active trachoma in children I was mainly interested in looking for "protective

behaviors," —patterns associated with inactive or mild trachoma. I did interviews and

ple were able to recognize the Arabic term for trachoma (*ramad hubabii*) and identify

"I remember sitting at the computer and looking at the statistical results. . . face washing with soap was the strongest 'protective' behavior."

structured observations in 27 households to determine what the people without the disease were doing right and what those with the disease were doing that might contribute to their infections. Of course, in keeping with currently accepted research procedures, I did not know who was infected and who was not. This "masked" approach (ophthalmological research does not use the term "blinded" for obvious reasons) helped to eliminate any bias that I would have as an observer.

The two variables that proved to be most strongly associated with low trachoma were face washing with soap and latrine ownership. The households where the children had their faces washed with soap at least once per day had by far the lowest rates of active trachoma. Conversely, households where children either were not washed or only had their faces washed with water had the highest rates of severe infection.

I remember sitting at the computer and looking at the statistical results for the first time. When I realized that face washing with soap was the strongest "protective" behavior, I thought that we could have saved a lot of time and money —my grandmother had admonished me to wash my face with soap all through my childhood!

Latrine ownership and usage, the other "protective" factor, was independent of face washing (i.e. people who owned latrines were not more likely to wash their kids' faces.) If indeed latrine ownership has an influence in decreasing trachoma transmission (which I can only speculate on since association does not prove causation), it would most likely be through decreasing the number of flies in the household.

Based on these data we are currently designing a pilot intervention study in Gamileya and the neighboring hamlet, Kafr, to see if washing with soap and having latrines lowers the rate of active trachoma.

I wanted to know if the villagers realized that they had trachoma and what treatments they sought for it. In my 27-household sample (involving 386 people) only three peo-

any of the hallmark signs of the disease.

However, I gradually realized that the villagers had an elaborate set of names for various ocular conditions. One technique that I used was to bring enlarged photographs of eye conditions to all of the traditional healers and request their diagnoses and treatments for each condition. In their ethnomedical system each of the stages of chronic trachoma is considered a different illness, with different causes and treatments.

For example, simple redness of the sclera (*hamra*) might be caused by too much heat. This redness would be treated with eye drops of strong tea or a slice of tomato applied as a compress. Using a slice of tomato to treat red eyes is an example of the "like to cure like" principle derived from the ethnomedical system that originated in the days of the Pharaohs of ancient Egypt.

In order to prevent heat-caused redness the women applied powdered *kuhl* (galena) mixed with five other seed and resinous ingredients to the conjunctiva lining their lower lids. Galena, the ore that the villagers call *kuhl*, is lead sulfide, so this chronic use exposes them to lead poisoning. They explained that *kuhl*, a "cold" substance, "eats out the redness and makes the eye tear, which washes out the burning that was caused by the heat."

However, if the redness were caused by cold in the eye (*wakhada hawa*) then the treatment would be to take a spoonful of breast milk from a dark skinned-woman and rub it onto a special stone from Mecca and instill one drop into the sick eye each night after sunset.

Breast milk, like many other home remedies the community uses, has pharmacologic activity. It has been found to contain a wealth of antimicrobial substances, including human antibodies, lysozyme, complement, lactoferrin, and several viral neutralizing substances.

Lahmiyya, which corresponds to the

continued on page 5

About Gamileya

Gamileya is a densely populated hamlet 40 kilometers southeast of Alexandria. To reach it one drives most of the way on a two lane highway where overloaded trucks, donkey carts and European sports cars jockey for position. Overturned trucks and smashed cars are not infrequent roadside sights.

In contrast to the melange of ancient, colonial, and modern architecture of Alexandria, the Nile delta where Gamileya is located consists of emerald squares of growing crops interspersed with mud and stone dwellings capped with mounds of rice plants and cotton sticks, drying in the sun.

Two kilometers from the highway, over a lumpy dirt road that becomes impassable with the winter rains, is Gamileya. Surrounded on all sides by fields of rice, fava beans, and the most enormous cabbages I have ever seen, are 104 houses, containing 1,033 people, all squeezed together on about one quarter of a square mile.

The placement of the houses is an architectural expression of how little personal space the villagers seem to need to feel comfortable. Even inside large houses with six or eight rooms, 15 to 20 people sleep in two or three rooms, leaving the remaining for the animals, storage, or just empty. Another reason for this housing density is that Egypt's expanding rural population has begun to encroach its precious cultivable land.

Most of the families in Gamileya have

lived there for as long as they can remember, although before the 1952 socialist revolution they were landless sharecroppers growing cotton and wheat for a wealthy Syrian absentee landlord. After the revolution each *fellaheen* family received between two to four fedan (roughly equivalent to two to four acres), depending on the number of children they had. Now in Gamileya, the average land holding is 1.66 fedan (range 0 to eight fedan) per household. The patrilineal households consist of the eldest male, his wives and unmarried children, his married sons, their wives and their children. Most of the houses are single story mud brick or brightly painted stone or red brick buildings, with *Allahu 'akbar* (God is great) painted over the door. A few families own pick-up trucks but the major form of transportation is the wiry little donkey, which can carry tremendous loads on its back.

Irrigation canals bound the hamlet on two sides and provide water for crops and for all washing of bodies, dishes, and clothing. To get drinking water the women walk four kilometers with their donkeys to a public tap. The villagers complain bitterly about this lack of clean water, to which they attribute many diseases, including eye disease.

Since there is no electricity, the houses are lit with kerosene lamps and the many television sets are run by automobile batteries.

The villagers dress in traditional *fellaheen* clothing: the men cover their heads with turbans or crocheted skull caps and wrap wool scarves around their

heads and necks in the winter. They wear robe-like *galabiyas*, mostly in blue or grey, with vests underneath secured with many small buttons. Their skin color ranges from fair to dark, but all are burnished from the sun. Many have missing teeth, with the remaining ones colored yellowish brown, from the honey cured tobacco they smoke in their water pipes and the endless glasses of strong, heavily sugared tea.

The women wear brightly-patterned mid-calf length polyester dresses, underneath which are loose bloomers that look like pajama bottoms. Bright scarves cover their long braided hair. Married women wear elbow-length sheer black scarves that wrap tightly around their faces. The older women have tattoos on their chins, foreheads, and fingers.

Young children are dressed in torn, brightly colored *galabiyas* or pants and shirts. Infants and toddlers not yet toilet-trained wear nothing on the bottom and urinate or defecate wherever they happen to be when they need to.

Due to the large number of animals (water buffalo, cows, donkeys, sheep, goats, dogs, cats, camels, ducks, geese, pigeons, chickens, turkeys, and rabbits) there are ubiquitous piles of dung; thus my first impression of Gamileya was an assault on my sense of smell and a weakening of my courage. There were piles of manure and flies everywhere, inside the houses, in front of the houses, and in the narrow muddy lanes between the houses. I was overwhelmed.

My second impression was of hundreds

of children, who in their excitement were pushing and fighting and climbing all over each other to be next to me, to pull at my clothes and to cough all over me. They had mucus pouring from their noses, scabbed sores on their skin, and crusted pus around their eyes. My usual love of children fled.

My communication with the people was at first incredibly frustrating. The accent and dialect of their Arabic differed from that in the city; they spoke at least twice as fast and seemed to have no understanding that Arabic was a second language for me.

The volume of their speech was so loud that I sometimes felt that everyone was shouting angrily at me. When I did not understand something someone said, he or she would lean near my ear and really yell. Later, when I realized the frequency of ruptured tympanic membranes in the village children that were secondary to untreated ear infections, I understood part of the reason for the volume. A large portion of the villagers are quite hard of hearing.

Gradually, I adjusted to all of it. I learned the appropriate responses to the complicated and repetitious series of greetings. My vocal cords toughened from trying to match the volume of speech, although sometimes by the end of the day I could hardly talk. The children became known individuals, instead of a swarming horde, and I grew very fond of them. The villagers fed me and taught me about their lives and I am very grateful to them.

Rural Egypt

follicular stage of active trachoma, is believed to be caused by heat, smoke, dust, sweat and, in children, urine splashing in the eye. To treat *lahmiyya* a traditional healer pulverizes a chunk of hematite (ferric oxide) on a white clay vessel, then everts the upper eyelid of the patient and rubs the powdered hematite on the conjunctiva lining the upper lid. The villagers say that this therapy stings and itches terribly, but they claim that it works.

Shaqqa corresponds to post trachomatous degenerative concretions, or granular deposits left by the resolving follicles. The villagers claim that *shaqqa* is caused by exposure to a draft, especially after a daytime nap. In addition to using powdered hematite for *shaqqa*, the barber surgeon performs curettage on the everted upper eyelid to scrape away the bumps. Unfortunately, the barber does not practice his surgery aseptically and he uses the same razor with which he gives the men their weekly shave, so this practice may be quite dangerous.

Trichiasis, the inward turning of the eyelashes secondary to shrinkage of the lid lining, corresponds to two traditional medical categories in Gamileya. Early trichiasis, with just a few lashes rubbing on the cornea, is called *sha'ra* and is believed to be contagious. This contagion is mostly symbolic, however, since even mentioning

the name of the condition can cause it to occur. *Makfii fii*, literally meaning bent inward, is the term for the more severe form of trichiasis that is believed to be caused by the will of God or washing in dirty water. Both forms of trichiasis are treated by epilation of the offending lashes.

Finally, *Noqta bayda*, corresponds to corneal opacity and is believed to be caused by an untreated eye injury. It is treated with eye drops of lemon, water and sugar.

Clearly the villagers have definite ideas about ocular health and illness. Nevertheless, they highly valued the antibiotic ointment provided by our research team. They did not share our belief in germs but, being empiricists, they thought that the ointment worked. Knowledge of their belief system helped us to talk to them about their eye disease using the terms and concepts with which they were familiar. Hopefully, this knowledge will help us to design an intervention strategy that makes sense to the villagers, so that they can work together to decrease trachoma in their hamlet.

The researchers working with Sandy Lane were Marcia Inhorn Millar, Paul Courtright, Dr. John Sheppard, Dr. Richard Manka, Dr. Alice Reizian, and Dr. Blanche Mikhail. The principal investigators were Dr. Chandler Dawson, Dr. Frederick Dunn, and Dr. Julius Schachter.



Author Sandy Lane with some friends in the hamlet of Gamileya.

About the author

Various academic and professional experiences prepared Sandy Lane to conduct biocultural research in Egypt. As an undergraduate at UC Berkeley, she studied Arabic language and the history and culture of North Africa. Since 1972 she has been a registered nurse at UCSF with clinical experience in pediatrics and adult medicine and surgery (working on 6 Long Surgery and 9 East and 14 Northeast.) In 1983 she entered the doctoral program in medical anthropology, focusing on the health issues in Middle Eastern populations.

"During four field trips from 1985 to 1987," Lane recounts, "I worked in Gamileya and found myself gaining the perspective of the *fellahin* (poor farmers). I lived in a one-room stone dwelling that was built by the University of California 15 years ago to serve as a clinic."

"Dr. Chandler Dawson and Dr. Mohyi El Din Said, two of the principle investigators, have conducted ophthalmological studies in Gamileya over the course of 15 years, and used the clinic building to see their patients. Although no researcher had ever lived in the hamlet and 1976 was the last date of data collection, the villagers warmly remembered 'Dr. Chan' and 'Dr. Mohyi,' which definitely helped their acceptance of me."

"In her ethnography of a Bedouin settlement, Abou-Lughod described how her father, a Jordanian Arab, facilitated

her acceptance by accompanying her to her field site and requesting the Bedouin to protect his daughter and help her with her study. In somewhat the same manner Dr. Mohyi drove out to Gamileya with me, introduced me to the leading families, requesting them to watch over me and assist me. True to their Egyptian hospitality the villagers graciously agreed. Their only concern was that I intended to live alone, which they had never heard of a woman doing before.

"They asked many times if I would not rather live with one of the families or at least have a woman come and sleep with me at night. I wanted to please them but I did not want to align myself immediately with only one family. Furthermore, I knew that I needed some privacy at night to write up my notes, so over and over again I explained that in *Amrika* we usually sleep alone, that my sleeping bag was warm and I would not get cold, and I promised to lock the door at dusk and not open it to anyone. Finally and with great hesitation they agreed to my living alone."

"Later, when *fellahin* would come from other hamlets to visit, my neighbors would explain my unusual living arrangement to them. 'Aren't you cold? Aren't you lonely? Aren't you frightened?' they would always ask. Truthfully, in the winter I was often cold, I was sometimes lonely, but I was never frightened, except of the dogs. The villagers kept their promise to Dr. Mohyi and helped me with my study and took very good care of me."

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S.F. Conservatory of music: fine concerts you can afford

By Frances Teng

If high ticket prices have kept you from enjoying San Francisco's cultural cornucopia, be advised: for a mere \$5 (and often less) students can attend recitals of excellent quality at the San Francisco Conservatory of Music.

The conservatory, located at 19th Avenue and Ortega, is one of the top music schools in the nation. Almost every night of the week it offers public performances such as undergraduate recitals, faculty artists series, chamber music "sundaes," and master

musicians as "an informal yet serious chamber music outlet." Don't be fooled by the cutesy title. These world-class artists present a challenging repertoire of classical and 20th century works, in what the San Francisco Examiner proclaims "one of the Bay Area's more consistently satisfying concert series."

The Oct. 29 program included the Beethoven "Ghost" piano trio, a trio for three basses by Randal Thompson, and the Brahms piano quintet in F minor. The first movement of the Beethoven was played with

Hall. While hardly as glamorous (or bizarre) as Davies Symphony Hall, Hellman Hall has comfortable seats, superb acoustics, easy accessibility for the handicapped and even an adjacent free parking lot. (Try beating that in this city!) Its intimate 333-person capacity means you can leave your opera glasses at home.

In addition to performances, the Conservatory holds masters classes open to the public. Classical music aficionados who have never attended a master class have missed one of the best learning opportunities around. Sure, watching somebody else's piano lesson sounds utterly boring. But in reality observing a "master" work with a student can provide insight into compositional interpretation, technical execution and musical expression. For those of us who will not be entering a conservatory in this lifetime, master classes are an excellent way to train a discriminating ear and mind.

On Nov. 3 Dick Jones led a master class on stage technique for vocalists. Jones, a nationally established director for television, radio, sports and musical events, said that a singer is not just a master of voice, but of style: "This requires getting an attitude of mind that has to come from within you and captivate the audience: think the attitude or gesture, see it in your mind, then do it. You must make magic!"

Six students performed a selection of arias while Jones coached them on facial and body expression. Jones' seemingly trivial suggestions transformed the count from a wimp to a man of stalwart character, and the toy doll from a stiff, two-dimensional figure to a mirthful, mechanical wind-up toy. Clearly practicing what he preached, Jones captivated the audience for nearly three hours with his dynamic personality and uninhibited demonstrations of staging technique.

The San Francisco Conservatory of Music, founded in 1919, trains an international student body of roughly 200 for bachelor's and master's degrees in classical music. Most students are college age, and come to the Conservatory to study with a particular artist.

"This school stands out because of its excellent faculty. They pay a lot of attention to the students," says Richard Rogers, a graduate from Oberlin's music program who studies chamber music at the Conservatory. "They don't fall into the trap of spreading themselves too thin. The emphasis here is on performance."

Next time you flip through the Sunday pink section thinking this casual perusal is as close as you will get to a classical concert, remember the San Francisco Conservatory of Music. The quality ranges from very good to superb, and the price cannot be beat.



PHOTO BY FRANCES TENG

Pianist Josephine Gandolfi, staging director Dick Jones and mezzo-soprano Wendy Hoffman rehearse a Handel aria in a master class at the San Francisco Conservatory of Music.

classes.

Undergraduate recitals vary in quality, with senior recitals usually the best. While most undergraduates have a way to go before their Carnegie Hall debuts, they nevertheless perform with a freshness and sincerity that always warms the heart. At times difficult pieces seem stifled by technical concentration (or nervous delivery), precluding natural expression. But these students are by and large sophisticated in their musical training, and their inspired performance is a memorable experience. Undergraduate recitals are free, although a \$3 dollar donation is requested.

Chamber Music Sundaes, now in its eighth season, is presented by SF Symphony

a tight urgency which suited the ghost theme well. Cellist Lawrence Granger's radiant tone in the second movement was unsurpassed, and offered an idyllic interlude before the possibly over-brilliant piano swept the strings away in the final movement.

The string bass trio was a novel concept in instrumental mix-and-matching, but unfortunately the musicians suffered intonation woes. Perhaps the human ear was not designed to discriminate at such low frequencies.

The Brahms quintet is a technically nasty piece which was performed with breathtaking flair. The strings interacted like second nature, creating a background of excitement from which multiple themes sprang forth with ease.

Most performances take place in Hellman

A Lie of The Mind

Written by Sam Shepard
American Conservatory Theater
Through Dec. 12

By Rebecca Crandall

The inheritance of a family "curse," the openness of the American West, the desperation of a consuming love—these are all themes Sam Shepard has used before in his plays "Fool for Love" and "Buried Child." But never have they coalesced so smoothly and ignited with such immediacy as in his most recent play, "A Lie of the Mind." Directed by Albert Takazackas, the ACT production portrays the separation of two lovers (Beth and Jake) with overtones of ancient Greek tragedy.

The play opens with Jake in a pay telephone telling his brother Frankie that he has beaten his wife Beth badly and thinks she is dead. The lights come up on Beth in a hospital bed, her head bandaged. She has trouble speaking; she is alive but brain-damaged.

Shepard follows each lover separately through the healing process and quest for reunion. Both become engulfed in family dramas evolving out of past secrets and events. Jake, who deteriorates without Beth, confronts his father's death of years back which he has conveniently "forgotten." The truth emerges that the old man was run over, drunk, after Jake challenged him to a barhopping race across the Mexican-American border.

Beth slowly convalesces, speaking in childlike, simple sentences that lay bare the desperation of love. Her family epitomizes Shepard's typical family, which inherits the curse of unconsciously victimizing its members. They add to Beth's pain with their sincere but fumbling attempts to help her.

Nancy Carlin powerfully portrays the victimized, childlike Beth. With her body and voice she well depicts the frailty of a brain-damaged woman struggling with her still-consuming love for the man who beat her and "killed her brain."

Unfortunately, Lawrence Hecht's portrayal of Jake lacks the power and rawness needed to convey his violence and jealousy. Racing through his lines, Hecht fails to project the sincerity of Jake's reasoning which leads him to believe that Beth is having an affair. Jake is a primitive mentality trapped in a sexual, masculine body, but Hecht portrays him with a childlike physicality, jumping up and down and whining. Hecht's Jake is a wimpish spoiled child that has lost a doll rather than a lover. Hecht fails to convey Jake's inability to separate love from possessive desire and violence.

Joy Carlin succeeds in counteracting this archetypal male with her emotional maturity and common sense, despite her character's weak and subordinate body. These two carry an otherwise uninspiring third act by maintaining a black comic war between the sexes. Howard Swain uninterestingly plays Frankie as another whining wimp, and Larry Stephens' Sally does well as Jake's sister in need of familial love.

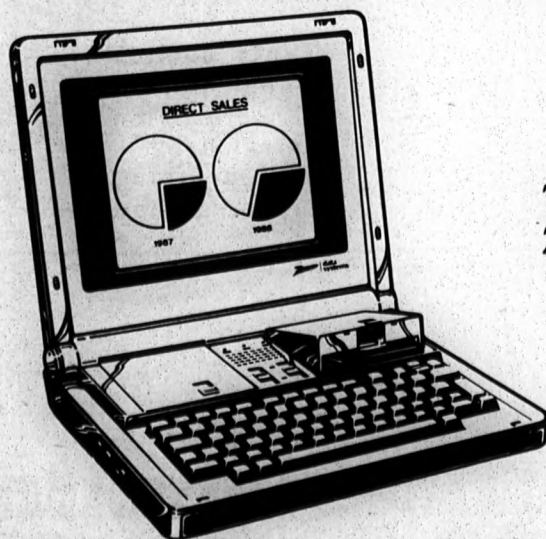
Act I is well-paced and dynamic, but leads to a particularly disappointing Act III. A fiery reunion between Beth and Jake is dampened by Hecht's barren portrayal of Jake and confused, distracting blocking.

Although Takazackas sees this play as an epic romance, he claims it is not "romantic," emphasizing mythological themes and parallels with the ritual purging of Oedipal and Orestian traditions. However, the romantic and contemporary qualities of love are exactly what this play needs to get it off the stage and into our hearts. The production is powerful and resonant, but distant rather than consuming.

Barbara J. Mesney's set deserves special mention as it visually represents the attraction and repulsion between Jake and Beth. The walls of Jake's bedroom and Beth's family home end abruptly center stage, bordered behind by two large flats separated down the middle by a rending crack.

Although this production lacks some of the fire that the play demands, Nancy Carlin's performance and Mesney's set make it worth seeing. In any case, if Shepard appeals to you at all, read the play. It should not be missed.

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DNA

continued from page 1

Supporters of the project cite the DOE's expertise and administrative capability in handling big projects as one reason it should coordinate the initiative.

The DOE has also sponsored a limited amount of biological and biomedical research for more than 20 years. Ron Tunnis, spokesperson for the Lawrence Livermore National Laboratory stated that this work stemmed from the belief that "if we were going to work with radiation and toxics, we'd better know what the effect is going to be on man and his environment."

"The DOE mission [on the human genome] has been in place a long time," said Silverman.

But Alberts expressed a number of concerns about the role of the DOE in the human genome work. "I don't think that within those labs they have many people who are already suitable to be major players. Of course they have people who can participate, but the major players have got to come from somewhere else," he said.

"My hope would be that they would hire the kind of people who wouldn't need our advice. I'd be happy to sit on some kind of informal advisory board, but it's not going to work unless they have people who don't need our advice there," Alberts added.

Alberts is chairman of the National Research Council Committee on Mapping and Sequencing the Human Genome. "This [committee] is supposed to represent the impartial [scientific] wisdom of what should be done," he said. According to Science magazine, the committee report, due out in several months, is expected to call for a highly coordinated effort and recommend establishment of an advisory body outside the government.

"I don't think we need coordination of the

research," says Alberts. "I think we need independent people competing with each other to develop methods. ... I hear indirectly that they're talking about really using peer review for their processes, but traditionally they haven't used what NIH calls peer review."

"There is a regular peer review system," says Silverman. "All projects that we have funded here [at LBL] go through these peer reviews and they're handled exactly the same way as the NIH peer review system."

The sequencing effort would be completed in several phases. In the first phase, scientists would develop a "physical map" of the genome by breaking the strands of DNA into small fragments and examining how they fit together. This information could pinpoint the location of specific genes on the fragments. Finally each fragment would be "chemically sequenced" to determine the order of the nucleotides—the molecules that are the building blocks of DNA.

Researchers working for the DOE at the national laboratories must also apply for funding. "We have what are called field task proposals," says Silverman. "They all get reviewed and they get rated by external reviewers. They have to receive fundable scores."

"If people are suggesting that the people or the work here is less competitive than that which goes through NIH, it's just not true," says Silverman. But he acknowledged this may not be the case at other national laboratories.

Though the DOE is pushing ahead with its sequencing project, most experts acknowledge that sequencing the human genome is not practical or cost effective with available technology.

"My own feeling is that [they are] not ready for a massive effort at sequencing the human genome because technology needs to be developed by a factor of a hundred. It's time for putting emphasis on developing new techniques and encouraging people to work on the technical aspects of sequencing," said Alberts.

Charles DeLisi, former head of the Office of Health and Environmental Research at DOE told Science that "the [committee] proposal includes all of human genetics and that's not what we think we should be doing. We're better at creating a tool and technologies that will allow characterization

at the molecular level but not necessarily doing all of the characterization."

Silverman, however, is more optimistic about beginning to sequence the human genome. "Hopefully in about five years, the actual sequencing can begin. I think a lot of it can be carried out here (LBL) but it will also be carried out at other places."

The Department of Energy's association with secret nuclear weapons research worries some observers.

The Livermore and Los Alamos labs conduct classified research and are the sites where all nuclear weapons in the US arsenal are conceived, designed and developed. These two labs are presently conducting much of the DOE's work with human chromosomes, and increases are likely, particularly because LANL has been declared a co-center for the human genome project and will focus on its computational and engineering aspects.

The DOE argues that LANL is a natural site for the project. In addition to its ongoing work on human Chromosome 16, the lab is the home of GENBANK, a national, computerized DNA database.

Yori Wada, a UC regent who has opposed university management of the weapon's labs noted that the proportion of non-nuclear related work at Livermore and Los Alamos has been decreasing. The human genome project could reverse that trend.

"It's a step in the right direction," said Wada. "I may feel less hostile towards those labs but it doesn't change my opposition [to UC affiliation with weapons research]."

"The issue of the other DOE laboratories does have an effect and it would be folly to make believe that wasn't true," said Krevans. But he feels the public

misperceives the LBL.

"There's no question that the work at the LBL laboratories, which is just wonderful science, is perceived inappropriately by the confusion in the public mind that [it is focused on efforts] to build atomic bombs, because it isn't," said Krevans.

Some private biotechnology firms may be involved in the human genome sequencing effort.

Silverman says, "[Industry has] actually contacted us and they're very interested and we'll probably include some of those folks on the advisory committee."

"It would be foolish and wasteful," says Krevans, "to ignore that there are superb scientists in industry and they could participate in this in a coordinated way. My own feeling is that this approach has some virtues over an approach that is being suggested on the East Coast where a biotechnology firm wants to be the lead entity into doing this in the private sector."

LBL has been gearing up for its new role as a center for work on the human genome. The lab is currently involved in an active recruiting effort. "We'll be building up to about one hundred people in five years. We're recruiting a permanent director for the human genome project," said Silverman. "That person has been identified and we're in advance stages of negotiation."

The proposal to sequence the human genome has raised a great deal of discussion and concern in both government and the scientific community. The DOE, NIH, National Research Council, Congressional Office of Technology Assessment, and other agencies have established separate committees to examine the issues.

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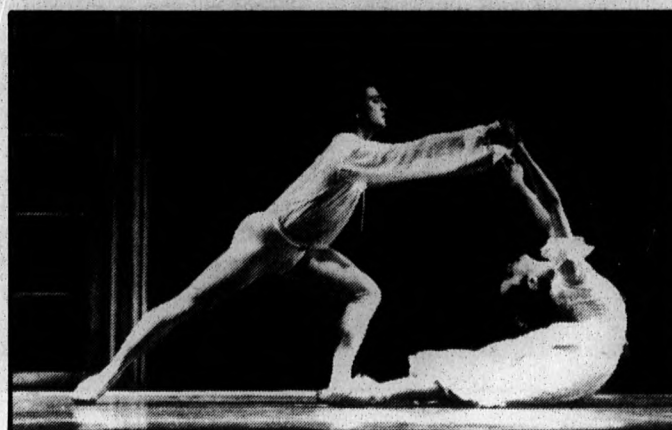
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WANTED: 3rd- or 4th-year med student to assist attorney to research and evaluate injury and medical negligence claims. Good introduction to medical/legal issues. \$12/hr. Approximately 4-6 hours per week. Please send resume to 5836 Ocean View Drive, Oakland, 94618.

DONORS needed for artificial insemination. Reputable infertility specialist. Remuneration provided. Complete confidentiality. 921-6100.

Word Processing

BEEWRITE THERE! Manuscripts, reports, theses, etc. Draft approval before final copy. Rush service available. Laser printing available. WordPerfect Tutoring. Call the Bee (Brian), 864-7114.

Child Care

Babysitter needed to care for a 5-month old infant in our home in Mt Davidson area 3 days/week (19 hours). References required. Please leave a message for Pamela at 826-2782.

For Sale

ANTIQUE & USED Furniture, bookshelves (all sizes) cheap! Quality refinishing. We also buy furniture. Still Life, 515 Frederick at Stanyan. 759-1234

For Rent

\$795 UP ALL UTILITIES INCL. Sunset Towers Luxury Highrise excellent location near UC Medical Center. Views, terraces, parking, rental furn avail. 6 Locksley Avenue (6th Ave/Kirkham) Open everyday 9-6. 681-6800.

Real Estate

PHARMACY FOR SALE: Excellent location in exclusive San Francisco neighborhood. Has serviced a loyal clientele for over 30 years. Short hours 9 a.m.-6 p.m. Monday through Friday. 40-50 prescriptions per day with less than 25 percent Medi-Cal and less than 10 percent retail products. Contact William Nieto, AM Brokerage (415) 974-5444.

Counseling

KAY GOLDSTEIN, MFCC. Brief or long term counseling for women in health professions. Lower rates for students. Near UC. 753-6446.

Ad Info

Classified ads cost \$4 for 20 words (or less); \$8 for 21-40 words, etc. The deadline is Thursday, 5 p.m., for the next week's issue. Classifieds should be printed or typed and must be pre-paid. Send to Synapse, Box 0234, UCSF 94143. UCSF students may place classifieds of up to 20 words for free.

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