



Chronicles

Newsletter of the UCSD Emeriti Association

Volume I, No.1

December 2001

President's Report

—by George Backus



This first report to you, the Emeriti, must begin with my heartfelt thanks to Professor **Sanford Lakoff**, our Vice President, and to Professor **Helen**

Ranney, for their willingness to take on the President's duties during my long-planned three-week absence from campus. It turned out that our first two meetings and the first meeting of the statewide emeriti association occurred during these three weeks. Helen presided over the first meeting and introduced the speaker, and Sandy had to deal with everything else. I am extremely grateful to both of them and sorry that I missed two very interesting meetings.

All of us owe our thanks to Professor **Leonard Newmark**, who has undertaken to manage and produce this newsletter. It will be a welcome means for us to communicate with each other and to learn about the activities and opportunities available to us through the Emeriti Association.

This first report may serve our new members best if I use it to describe the Emeriti Association in some detail. The Association is managed by an Executive Committee consisting of members-at-large and the officers of

the Association. For the academic year 2001-2002 the Executive Committee consists of the following people:

George Backus (Pres.), 534-2468, gbackus@ucsd.edu

Sanford Lakoff (V. Pres.), 534-3137, slakoff@ucsd.edu

Marjorie Caserio (Past Pres.), 534-5211, mcaserio@ucsd.edu

Herman Johnson (Secy.-Treas.), 272-1138, hdjohnson@ucsd.edu

Marvin Goldberger (Mem.-at-Large), 534-4117, mgoldberger@ucsd.edu

Nolan Penn (Mem.-at-Large), 534-4045, npenn@ucsd.edu

Murray Rosenblatt (Mem.-at-Large), 534-2634, adrosenblatt@ucsd.edu

Herbert York (Mem.-at-Large), 524-3357, hyork@ucsd.edu

In addition, our sister organization, the UCSD Retirement Association, sends a representative to our Executive Committee, this year, **Faustina Solis**, 534-0533, fsolis@ucsd.edu.

Liaison is one of the most important functions of the Emeriti Association. We send a representative to the two annual meetings of the statewide emeriti associations, CUCEA. CUCEA represents Emeriti in dealings with the President. We send a voting member to the UCSD Divisional Senate meetings. We have a voting member on the Senate Welfare Committee, where

health care, pensions, office space and other issues of direct interest to us are often discussed. Biannually we submit to **Chancellor Dynes** a summary biobibliography of the Emeriti. He is strongly convinced that our continued activity is important to UCSD as well as to us, and therefore he offers the Association some financial support as well as office space in the Senate office and support for our web site. Next year you will get a biobib-type questionnaire. It helps our position in UCSD if you answer it.

Our meetings are another activity that many of us find useful and interesting. Two or three times a quarter we convene to hear a lecture and to consume some of the Association's budget as snacks and beverages. You may have attended the two meetings that have already occurred. The Executive Committee welcomes suggestions for speakers. Send them to **George Backus** or **Sandi Pierz** (spierz@ucsd.edu, 534-0101). Sandi, our administrative officer in the Academic Senate, really runs the Association.

Once a year, we invite new retirees to lunch at the Faculty Club, to acquaint them with our Association and to try to persuade them to join us. Also once a year, we hold a business meeting to elect officers and to have lunch or dinner with entertainment. Usually there has been a charge for the meal.

The Emeriti Association maintains a web site at <http://emeriti.ucsd.edu>. The site, started by **Quelda Wilson**

and **Marjorie Caserio**, has become an important asset to us.

Helen Ranney has arranged a program of seminars for those who want to learn more about computers, e-mail and the web. We hope to persuade her to continue this valuable effort.

For several years, seminars on financial planning have been given by **Tuyet Le**, a certified financial planner in the UCSD Human Resources Office. Again, we hope that she will be willing to continue. I have attended some of her seminars and have found them quite helpful.

The Association may be able to arrange seminars on senior health issues, but this has not yet happened. Suggestions for seminars are welcome, and should be sent to George Backus.

The UCSD Retirement Association runs a program of local excursions

(e.g. a trip to the Getty Museum). They invite the members of our Association to participate.

Some of our activities, like the web site, the newsletter and the food at meetings, do drain our treasury, so we must assess dues. At present the annual dues are \$25. Alternatively, a life membership costs \$200. Although not an economist, I offer the following calculation. If an emerit[a,us] expects to earn an annual after-tax return on investments of $100r\%$ and expects to live at least Y years after the first dues payment, then the life membership is preferable to annual dues as long as $Y+1 > -(1/r)\ln[8\exp(-r)-7]$. Some values of $(Y, 100r)$ that justify a life membership are (7, 0%), (8, 2%), (9, 4%), (10, 6%), (11, 8%), (14, 10%), (19, 12%). If $r > 0.133$ (a 13.3% return on investments), annual dues are prefer-

able to a life membership for all Y . Anyone expecting to earn 13.3% after taxes in the present investment climate is invited to offer us seminars on investment. Checks for annual dues or lifetime membership should be made out to the UCSD Emeriti Association and sent to Sandi Pierz, 214 University Center, UCSD, La Jolla, CA 92093-0002 (campus mail code 0002).

Finally, I am saddened to end this report with news of the death of **Henry Wheeler**. After a long and distinguished career in the UCSD School of Medicine, he was an energetic contributor to the Emeriti Association, serving as Treasurer from 1993 to 1996 and as a member-at-large of the Executive Committee from 2000 until his death this October. We will miss him very much.

The following is the first of what I hope will be a series of columns by medical faculty aimed at our particular population of emeriti. —Ed.

High Blood Pressure

—by Helen Ranney

If you have high blood pressure, you are not alone. It is said that one quarter of the American people have arterial hypertension (a.k.a. high blood pressure), and about half the population has hypertension at age 50. The frequency continues to increase with aging—65 per cent of people 65 years of age are hypertensive. Hypertension is much more common in young men than in young women: at ages 20-34, nine per cent of men and three per cent of women have hypertension. The differing gender prevalence persists until age 55 when the prevalence (± 48 per cent) is the same in both sexes. Among individuals over 75 years of age, women have the lead; 75 per cent of them are hypertensive but only 64 per cent of men. The prevalence among older individuals leads one to ask whether hypertension may not be a part of the normal aging process. Mostly, we do not classify a symptom or physical sign found in over half the

population as a disease. However the association of high blood pressure with severe, sometimes fatal, cardiovascular events has earned it a disease designation. Good evidence of the role of hypertension in cardiovascular diseases is provided by the diminished incidence of heart attack and stroke after the introduction of drugs that controlled blood pressure. Hypertension may be a normal manifestation of aging but it's not good for your health or longevity.

What is hypertension?

Blood pressure measurements in a population follow a normal distribution curve, and the level designated as hypertension is arbitrary—with some basis in clinical experience. Many factors can influence blood pressure including anxiety, ingestion of coffee, alcohol, presence of other diseases, presence of physicians (“white coat hypertension”) etc. Blood pressure values >140 mm Hg (systolic), and/or 90 mm Hg (diastolic) on multiple visits are necessary for the diagnosis of

hypertensive disease. Although for many years, the adverse outcomes (heart disease and stroke) were thought to reflect the diastolic pressure, evidence from long term studies now indicates that the systolic blood pressure is probably more important.

Treatment of hypertension

The choice among many available drugs for newly recognized hypertension is based upon presence and extent of associated organ damage (heart, kidneys, eyes, arterial circulation). For some patients with mild hypertension, smoking cessation, exercise, weight reduction and mild salt and alcohol restriction may lower blood pressure, but anti-hypertensive drugs are necessary for control in most hypertensive patients. Salt restriction may induce significant reduction in blood pressure in some patients who are unusually salt sensitive. For most patients salt intake can be reduced by about a third by avoiding salty foods, eliminating salt from cooking and from the table, and eating at home, since most restaurants use salt generously. With the availability of drugs that lead to increased urinary salt excretion, rigid salt restric-

[Continued on p.7]

Reminiscences: Early UCSD History

Editor's Note

*This article and the next initiate a series of personal histories by early faculty with insiders' perspectives on this campus to balance the published outsider's view we have of UCSD history [Nancy Scott Anderson, *An Improbable Venture*, 1993]. Because this is the first issue and budgetary restrictions have not yet set in, I am devoting a fair amount of expensive space to these articles. Since I expect that we will run out of money before we run out of emeriti, I expect future reminiscences will be somewhat shorter.*

The Early Years

—by Keith Brueckner

In 1958 I was a professor at the University of Pennsylvania where I held the Mary Amanda Wood Endowed Chair in Physics. In the fall of 1958 I visited the General Atomic laboratory in San Diego to do some consulting work on the Project Orion which was at that time being directed by **Freeman Dyson**. During my stay at this laboratory I gave a lecture on work I had been doing, which was attended by **Leonard Lieberman** and **Carl Eckart**, at that time professors at the Scripps Institution of Oceanography. After my talk they asked me to meet with them and **Roger Revelle**, Director of SIO. I did so and was very impressed with his personality and his academic plans for the UC campus to be started in San Diego. He asked me to come to San Diego to be the first appointment in physics at the new campus. I was convinced by his plans and accepted his offer.

When I arrived in La Jolla in the fall of 1959, UCSD was still just an idea in the minds of Revelle and the university planners. There were as yet no facilities, and my first office was in the aquarium building in the old office

of the SIO director. Two new buildings were under construction on the shore as an extension of SIO, and as these were completed in 1960, the growing science departments were temporarily housed in the new space. I worked very hard at recruiting a department of physics that I had decided should be centered about fields that did not require large expensive facilities. These I chose to be solid and low-temperature physics, space physics and astronomy, plasma and plasma physics. I also felt that UCSD needed good contact with high-energy particle physics and planned to recruit theorists and experimentalists who could work as needed away from La Jolla in the major experimental centers in Berkeley, Stanford, and Brookhaven. In my recruiting efforts I was strongly backed by Revelle and by the support of the central administration of the University of California. The university had been persuaded by Revelle to make an unusual experiment, nearly unique in this century of academic development in the US and in Europe, and start UCSD as a graduate school in sciences. Graduate faculty in the humanities and social sciences were then to be added after the first three years. With a strong faculty assembled, undergraduate admission would be planned and the first undergraduate class admitted in 1965. UCSD was expected to grow eventually to the size of UC Berkeley and UC Los Angeles, reaching an enrollment of about 27,000 in 1995. The facilities for the campus were planned to meet this ambitious schedule, with the first major buildings to become available on the upper campus in 1963. UCSD was planned to be made up of twelve colleges, each with representative fields from the sciences, humanities and social sciences, housed in distinctly separate facilities with their own undergraduate residence halls and commons for eating and recreation. All of

the colleges were to be grouped around the central library and administrative complex. The first colleges of UCSD were built according to this master plan, but by 1970 it had become clear that the original projections of campus size had been based on unrealistic estimates of population and need. Accordingly the plan was altered to provide for a maximum enrollment of about 14,000, including a large medical school, and the number of colleges was reduced to five. The passage of time also was to show that the college structure, as initially conceived, was not satisfactory, and UCSD was to evolve into a more conventional academic organization with less college autonomy and more centralized administration.



In the beginning the original plans appeared to be realistic, facilitating the initial recruiting. I was able to assemble a remarkable group of theoretical and experimental physicists, establishing UCSD after only three years as one of the best departments in the US. This group included the famous **Maria Mayer**, winner of the Nobel Prize for her work in nuclear structure; **Walter Kohn** from Carnegie Tech and **Bernd Matthias**, **George Feher**, and **Harry Suhl** from Bell Laboratories, the nucleus of the solid state and low temperature group; **Marshall Rosenbluth** and **William Thompson** in plasma theory; **Geoffrey** and **Margaret Burbidge** in astronomy; and **Norman Kroll** and **Oreste Piccioni** in elementary particle theory and experiment. I also was able to recruit an outstanding group of assistant professors in all of these fields.

Other activities outside the university also were to have a major effect on my life. Starting in 1953 in Los

Alamos and extending more widely as my consulting work diversified, I had been repeatedly associated with several theoretical physicists, particularly **Kenneth Watson** and **Marvin Goldberger**. I had known them first when I was a graduate student at the UC Radiation Laboratory and they had come to the laboratory as post-doctoral students. In 1959 we decided that we could work together more effectively and profitably if we formed a consulting company. We took the formal action to do so in 1959, calling ourselves Theoretical Physics, Inc. To broaden the base of the organization, we asked **Murray Gellmann** to join us as a charter member. **Charles Townes** of Bell Laboratories, at that time on leave in Washington, D.C., as vice president of the Institute for Defense Analyses (IDA), finally convinced us to abandon our idea of incorporating as a private profit-making organization, which might isolate us from government advisory work. Instead, he invited us to become a new division of IDA. This we did, and our participation in the IDA study in Berkeley in the early summer of 1960 was our first act as the new IDA division which by then, following a suggestion of Goldberger's wife, **Mildred**, had been named the Jason Division.

In the spring of 1961, with the rapid growth of UCSD and the need for more careful planning and administration, a chancellor needed to be appointed to be the chief campus officer. We all expected **Roger Revelle** to be chosen and were all shocked and dismayed when **Herbert York** was instead selected. The UC administration and Regents had rejected Revelle because he had been too forceful and outspoken in his successful efforts to bring the new campus to La Jolla. In doing so he had brought on himself the enmity of powerful members of the Board of Regents. Herb York, a very decent man, was a strange choice for the Chancellorship. He had been a graduate student with me in Berkeley, had been selected by **Edward Teller** to be the first director of the new atomic

weapons laboratory at Livermore, and had then gone to the Pentagon to be the first Director of Defense Research and Engineering. He had little academic experience after his doctorate and had been heavily involved in military work. As chancellor he was moderately effective, although he left nearly all the academic matters of planning and recruiting to his aides.

Very soon after this disappointment, Revelle let us know that he had accepted an appointment in the Federal Government as chief scientist for the Department of the Interior. This would take him to Washington, D.C. for at least two years and there was no assurance that he would then return to UCSD. I sympathized with Revelle, for whom I had always felt deep admiration and respect. Just at this time I was contacted by Charles Townes and asked to be his replacement as the Vice President of IDA. I went to Washington to talk to him and to the president of IDA, **Gary Norton**, and found the offer quite attractive. Norton privately told me that he was about to retire and that he would see that I would soon be promoted to take his position. I was familiar with IDA, which at that time was the most renowned non-profit organization working for the government. IDA had been started in the late 1940's by the Secretary of Defense, **James Forrestal**, to provide staff for the Weapon System Evaluation Group, which was organized to give advice directly to the Joint Chiefs of Staff. By 1960 IDA had grown considerably with the addition of other divisions and still held its central position in advice to the Pentagon. The IDA vice president was the technical director of the organization, with the president at that time a relatively inactive figurehead. The importance of the work, its central location in the Washington activities, and the glamour and excitement of Washington were too attractive for me to resist and I accepted the position, taking leave from UCSD.

In my enthusiasm and inexperience with the Washington scene, I had some conflict with the governing board

of IDA. In the fall of 1962, when Norton announced his decision to retire and nominated me to be his successor, the board refused to accept his suggestion and looked for an older and more experienced replacement. They made an astonishing choice which was to cause IDA much difficulty in the next two years, **Richard Bissell**, formerly deputy director of the CIA. Bissell was notorious as the head of CIA planning for the infamous Bay of Pigs invasion of Cuba. He had also earlier been responsible for the CIA decision to build and fly the famous spy plane, the U2, over the USSR. He was a remarkable man, very tall, charming, persuasive, intelligent, but with a lack of perspective and judgment that had led to his disastrous errors in the CIA.

Bissell and I did not work at all well together. As a result, when I was visited in Washington in the fall of 1962 by Herb York, the UCSD Chancellor, and asked to return to UCSD as his deputy, I accepted. York told me that I would have the position of Dean of Letters and Sciences, which at that time was the only academic position reporting to the chancellor. This meant that I would have responsibility for all academic and organizational planning, subject to York's review and approval. York had little interest in some of the details of the university academic operation, and I was to find that he allowed me almost complete freedom. The functions I performed were later, as UCSD grew, to be taken over by several vice-chancellors, deans, and college provosts, but for a time I effectively held all of these positions.

When I returned to UCSD with much broader responsibilities than before, I had to work very hard to do all that was expected of me. I became actively involved in recruiting in literature, linguistics, and philosophy and had the responsibility for the final review and decision of the first appointments. I also made unsuccessful attempts to recruit in history and anthropology. I was successful in finding the first appointments in psychology, **George** and **Jean Mandler**. I made a

major effort to bring the first mathematician to UCSD and finally located and persuaded **Steve Warschawski** to come, who turned out to be a very successful chairman and recruiter. In engineering I felt that UCSD in the beginning should concentrate on applied science rather than conventional engineering and brought the first two chairmen to the campus, **Stanford S. Penner** in aerospace engineering and **Henry Booker** in electrical engineering. I also talked to several UC librarians and did some traveling before I found the first head librarian, **Mel Voigt**, who was also a very successful appointment. Through my contacts with the Department of Defense and Atomic Energy Commission I found sources of funding for a major computing facility and established a center with the installation of a CDC 1604 computer costing about a million and a half dollars. I recruited an applied mathematician, **Clay Perry**, to be the head of the computing center. In the development of the campus facilities, I was a member of the planning committees which designed the first two colleges, Revelle and Muir, where I had the responsibility of specifying the faculty composition and any special research facilities of the colleges. As the plans became definite, I could see the need for additional graduate research space and successfully negotiated with the National Science Foundation for several million dollars to be used to supplement the applied science building in Muir College.

In the fall of 1963 as the faculty started to add a more balanced mix of scientists, humanists, and social scientists, the central UC administration began to apply pressure on UCSD to accelerate the admission of the first undergraduate class. This had originally been planned for 1965, but under pressure we admitted a class of some 150 students in the fall of 1964. To do this, all of the standards and curricula for the first college (later named for Revelle) had to be set, and this took a great deal of time and effort. I met many times with selected faculty mem-

bers as chairman of a planning committee. This was a very argumentative group, but we finally set an interesting but quite difficult program for the first students. Interestingly enough, much of the rigor of this program was the result of the desire of the humanists to see the students given a broad undergraduate education in science and mathematics as well as in the humanities. And the scientists felt that a student should be able to complete undergraduate education with a fluent speaking knowledge of at least one foreign language. The difficult Revelle College undergraduate program was to be changed and made less rigorous with the passage of years, but to the present it still has some of its initial structure.

In the early spring of 1965, Herb York had to resign as chancellor for health reasons, and a new chancellor, **John Galbraith**, was appointed. When he arrived and set up his own administrative organization, I found that he had appointed the old SIO geophysicist **Carl Eckart** as vice-chancellor for academic affairs and had moved me into the weak and inconsequential position of dean of graduate studies which removed me from the dominant position I had held at UCSD in 1963 and 1964. Some important faculty members felt that I had been too strong and persuasive and, in developing the applied sciences, had given inadequate attention to their favorite fields. Galbraith also immediately began to make changes in my carefully developed plans for campus development. Faced by these changes and finding it difficult to adjust to Galbraith, I resigned from the administration to resume my position as professor of physics, free of all of the responsibilities which had so much preoccupied me at UCSD during the first five years of development.

In retrospect I must credit Galbraith and the later chancellors with the development of a remarkably successful university. It has been said that UCSD is the best new university to be developed after the Second World War or perhaps in the 20th century.

Editor's Introduction

I have bravely taken on the task of starting and editing a newsletter for the UCSD Emeriti Association in order to create a greater sense of shared experience and community that would have value for our emeriti.

As the newsletter of the Emeriti Association, *Chronicles* will include:

- ▶ A President's Report column
- ▶ Meeting announcements
- ▶ Dues reminders
- ▶ Occasional questionnaires to inform the Association and the University about the achievements and problems of their emeriti.

Chronicles will periodically feature retrospective articles by emeriti (see pages 3-7), a column of medical advice (we're none of us getting any younger) on subjects and at a level appropriate to emeriti, and some necrology. In addition, as budgeted space permits, I would like to add articles that draw on members' expertise and experience:

- ▶ Reports on retirement: *"How to Live, What to Do"*
- ▶ Articles on topics of current interest
- ▶ Travel/restaurant experiences and recommendations

Leonard Newmark



Political Science:

In ze beginning...

—by Sandy Lakoff

“In ze beginning,” my Philosophy prof liked to say, “God created ze departments.” He was being sardonic, of course, but there is no denying that at newly minted universities like UCSD, the departments’ success in recruiting early faculty is crucial to the ultimate outcome. In the case of Political Science at UCSD, I can only say that God does indeed work in mysterious ways.

In the first place, I got to be founding chair by a combination of accident and administrative desperation. (I once said that there ought to be a panel at the annual meeting of the American Political Science Association composed of people who turned the job down, except that no room even at the Palmer House in Chicago is big enough to hold them all.) The university went for ten years without being able to appoint a chair for this one still unorganized department. In the fall of 1973, the VCAA, **Paul Saltman**, talked **Martin Shapiro** into becoming the latest candidate, hoping to lure him from Harvard by promising to set up a law and society program. Martin was especially interested because his wife **Barbara** would be appointed in History, freeing her from the need to play Dean at Wheaton College, a long commute from Cambridge. Saltman cleverly got Martin to agree that if he turned the offer down, he would help identify another prospect.

I was then on sabbatical from Toronto at the Woodrow Wilson Center in Washington, and ticked off enough at the upsurge in anti-Americanism in Canada to be willing to consider moving back to the U.S. Martin and I had known each other at Harvard, so he asked if I might be interested in joining him in La Jolla. I agreed to visit and was rather taken with the sunbathing in February, not to mention the other attractions. He called afterward and said, “I’ll tell you what: if you

agree to be chair, Barbara and I will come. I just don’t want to have to be chair.”

Martin’s willingness to join me was all I needed. I knew that his presence would give us real clout in recruiting, so I agreed, and Saltman bought the package. I think he would have hired anyone with a pulse at that point.

I thought it would be clever of us to emphasize policy studies—to link up with SIO in law-of-the-sea studies, with the Med School on aging policy, with scientists in science-and-public-policy. The last of these did work, at least for a time. **Herb York**, **Cliff Grobstein**, **Roger Revelle** and I collaborated in the program on Science, Technology, and Public Affairs, which languished after Herb became preoccupied with the UC-wide Institute on Global Conflict and Cooperation, still headquartered at UCSD. Otherwise, however, that plan fizzled, mainly because our fellow social scientists made bluntly clear that our mission was to build up basic research and forget about mere applied pursuits (or what the economists liked to call “whorehouse economics”).

The next disappointment came when Governor **Jerry Brown** announced that the state was entering “the era of limits.” Down the tubes went the promised ten FTE’s for “law and society.” We had to rescind two appointments already made!

Nor was that our last about face. Martin and I intended to follow what we called a “senior strategy”—hire top notch senior people first so the best junior people would not feel they were taking a gamble in joining us later. Nice idea, but it didn’t work. Yanking senior people out of Ivy League schools or comparable places was worse than pulling impacted teeth. They all seemed to have spouses who needed jobs or

kids whose tuition was being paid by their universities. One Princeton professor took a look at La Jolla real estate prices and concluded that he couldn’t afford to move. He lived in a Princeton-owned property in which equity had not built up, so he found himself in a “velvet trap.”



And so it went until we altered the strategy and decided to “play the market”—i.e., to hunt talent at any level. This was a gamble and forced us all to go almost blind reading files, but it paid off handsomely. Among those we recruited at the junior level were **David Laitin** (now at Stanford) and **Peter Cowhey**, then both still wet-behind-the-ears new PhDs from Berkeley, and **Ellen Comisso**, out of Yale. At the intermediate level we found **Gary Jacobson** and **Sam Kernell** (whom a senior political scientist later described as “the best one-two punch in American Government”), **Sam Popkin** and **Susan Shirk**, who have both become eminent, **Neal Beck**, a leading quantitative methodologist, **Peter Gourevitch**, who would become founding dean of IRPS, and **Tracy Strong**, a theorist with a fine reputation for teaching at Amherst. By sheer luck, we also attracted one senior figure, **Arend Lijphart**, who had offers from a dozen U.S. universities when he left Leiden in his native Holland. Arend, now emeritus, became our first President of the APSA and the winner of the Schuette Prize, the closest thing our discipline has to a Nobel Prize. And most important of all for institution building, we managed (with the invaluable help of Chancellor **McElroy**) to attract **Wayne Cornelius** and his wife **Ann Craig** as the pillars of our Latin American program—the one area we decided to make a priority. Wayne opened the Center for US-Mexican Studies, which led to the creation of the Institute of the Americas

and the establishment of several chairs in the field—all of which, I am pleased to say, are held in Political Science. The first went to Wayne, the second to **Paul Drake**, now Dean of Social Sciences, the third to **Peter Smith**, who runs a program of his own. Ann is now doing double duty as Provost of Eleanor Roosevelt College. After a while, Martin Shapiro couldn't resist an appointment at Boalt Hall Law School, but every so often he flies down once a week to teach for us.

By hiring such outstanding colleagues, we created a department that would evolve in the best Darwinian style, not according to some pre-planned blueprint, but by self-direction and adaptation. Thanks to these first appointments and others of similar quality that followed, the department now ranks among the best in the country and attracts outstanding graduate students and plenty of undergraduate majors. Not exactly a proof of the existence of God via the argument for design, but maybe a testament to the power of prayer and good works.

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[Blood Pressure from p. 2]

tion such as that in the historic rice diet is no longer recommended. The aim of therapy is blood pressure of 140/90 or better 130/80. Individual patients respond differently to different drugs and two anti-hypertensive drugs are often needed to achieve the desired levels.

What causes hypertension?

In a small proportion of patients, hypertension is secondary to other diseases—since kidney disease is the most common, the possibility of renal disease is usually investigated. Other secondary causes are quite rare. Ninety-five per cent of hypertensive patients have “essential hypertension,” which means that the cause is unknown. While environmental factors can modify blood pressure, evidence points to probable underlying heritable factors. Evaluation of inheritance is impeded by the late onset of hypertension; most

people who have hypertension at age 65 had normal blood pressures 40 years earlier.

A family history of hypertension is found in about 70 per cent of hypertensive patients. (Dr. O'Connor, who has studied hypertension for many years, observes that women are much more likely to provide reliable family histories than are men.) The pattern of inheritance is NOT the pattern determined by a single gene as in, for example, color blindness. Nevertheless the strong familial clustering seen in hypertension suggests that several genes may be involved in regulation of blood pressure. Similarly several genes, not necessarily the same genes that are involved in causing hypertension, may be involved in determining blood pressure responses to different drugs. Such genetically determined drug responses are examples of the new and rapidly developing field of pharmacogenomics. Adding to the complexities are the small but definite effects of environmental factors.

The normal physiologic control of blood pressure is complex and little or nothing is known about many of the genes or gene products involved. We do know that the autonomic nervous system that regulates involuntary bodily functions, such as heart rate or shivering, exercises control over blood pressure through actions on blood vessels. The cells of the blood vessels undergo pathologic changes with prolonged vasoconstriction. Uncontrolled hypertension is associated with increased mortality from heart disease; the prolonged constriction of small blood vessels leads to coronary artery disease. pumping against the increased pressure resulting from the constricted small blood vessels causes cardiac enlargement that may go on to heart failure. Stroke, the most feared complication of hypertension, is second to heart disease in complications of hypertension, while kidney disease and peripheral vascular disease are also fairly common. All these potentially lethal complications are the result of genetic abnormalities, but little is known about

the roles of specific genes in hypertensive disease.

Hypertension Study at UCSD

Dr. **Daniel O'Connor** of the Department of Medicine at UCSD and his colleagues, in collaboration with Dr. **Craig Venter** (one of the key investigators in the delineation of the human genome) of Celera Genomics, have developed new approaches to the identification of genes involved in hypertension. An account of their research (which is supported by the NIH) appeared recently in the *San Diego Union-Tribune*. Investigators from several UCSD Departments (Medicine, Pharmacology, Pediatrics, and Psychiatry) involved in this research program include Drs. **Paul Insel, Palmer Taylor, Lewis Rubin, Jason Yuan, Robert Parmer, Michael Ziegler, Nicholas Schork, Sushil Mahata, Anthony Wynshaw-Boris, and John Ross**.

For many years, Dr. O'Connor and his colleagues have studied the mechanisms of hypertension and responses to various anti-hypertensive drugs in patients and members of their families, including many patients at the Veterans Affairs Medical Center. They have established records of many patients with differing responses to tests of the autonomic control of blood pressure. Now they will try to find differences in genes of patients with different autonomic responses by comparing gene sequences in the DNA of patients and their family members with the same gene sequences in non-hypertensive individuals. The DNA of different groups of patients—patients with differences in the pulmonary or renal circulation, or in measurements of autonomic nervous system activity or in response to different anti-hypertensive drugs—will be isolated at UCSD and sequenced at Celera Genomics. Since the number of genes that may be involved is not known and may be quite large, data management and many computer operations will have to be done. A number of UCSD investigators and as well as UCSD facilities will be involved in testing

[Continued on p.8]

UCSD Emeriti Association
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RETURN SERVICE REQUESTED

Late Fall 2001

[Blood Pressure from p. 7]

and selection of patients for studies and preparation and archiving of DNA samples that are sent to Celera. When possible gene differences are identified from DNA sequences, UCSD investigators will examine or sometimes try to establish the function of those genes in relationship to hypertension. The number of genes that will be found is unknown: it might be as many as 100 or even more. As a physician with interests in diseases caused by single genes, I find the program, the possibilities, and the amount of work to be carried out by the Drs. O'Connor and Ventner to be mind-boggling.

Enormous amounts of data will be collected and analyzed, and suggested interpretations will be tested. What will be learned from this herculean effort? Probably that high blood pressure is not a single disease, that interactions of many different genes may give rise to hypertension and the genes involved may differ from patient to patient and family to family. Genetic variations may underlie the differing responses to various anti-hypertensive drugs. This program is a major step into the new medicine that will be derived from the Human Genome Project. We wish Dr. O'Connor and Dr. Ventner a very successful trip and landing in the sea of data that they will accumulate.

For those interested in knowing more about this project, a description with more technical information will be found at: <http://elcapitan.ucsd.edu/hyper>.

Necrology

The UC Office of the President has agreed to make available to us a list of UCSD faculty deaths. I hope to publish as much of that list as space allows, in order to remind us of the many friends and colleagues we have lost over the years. Unfortunately, a virus problem in the UCOP computer system has delayed our getting the information in time for the present issue of *Chronicles*.

NOTA BENE!

This issue of *Chronicles* is being sent to all eligible emeriti with addresses in our data base. Subsequent issues will be sent only to members of the UCSD Emeriti Association. Dues are \$25/year or \$200 for life membership.