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Interview with Dr. Robert Hamburger
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Interviewer, Dr. Kathryn Ringrose

RINGROSE: I'm going to ask you first to talk about your personal background, both with the Medical School and with David Bonner. Give me a little background about yourself and how you happened to come to UCSD.

HAMBURGER: Well, after World War II, I went back to the University of North Carolina in Chapel Hill, North Carolina to complete my degree. I switched majors from journalism to zoology and chemistry. By then I was married—had been married over three years and we decided it was time to have a child. So, by the time I went to Yale two years later we had a one-year-old daughter. I graduated from Yale in 1951, and spent two years at the University of Rochester, in Rochester, New York, in Pediatrics. Then I came back and did one more year at Yale at New Haven Hospital in Pediatrics, and then went into practice in a little town called Milford, about ten miles from New Haven—Milford, Connecticut. I was almost instantly too successful in practice, so that I ended up working day and night, seven days a week, and was very much stressed during that period, though I made a good deal of money rather rapidly and paid off the close to $19,000 in debt that I had accumulated during medical school and the three years of post-graduate education.

Then I decided to carry out my long-standing plan to get back into academic medicine. But the very success I had in clinical practice was my undoing. Nobody would take me. The feeling, expressed by a senior pediatric professor, was why would you leave a successful practice—both economically and intellectually—unless you were emotionally disturbed. I consulted a psychiatrist friend of mine who assured me it was the professor who was emotionally disturbed, and not me. Then I went around looking for somebody to sponsor a research training period, and, very fortunately, encountered David Bonner—David M. Bonner, who was at that time a full professor—having come from the Botany Department to the Microbiology Department—at the Yale School of Medicine. David asked me, I remember, one critical question—did I want to come in and work with him in his laboratory in order to get a Ph.D. or not. And I said I really didn't care much about the degree so much as learning how to do real science in preparation for an academic career in medicine. Fortunately, that turned out to be the right answer. Had I said I wanted a Ph.D. he would not have taken me on and sponsored me. He had a very strong feeling that M.D.s who wanted Ph.D.s just wanted to decorate themselves, and really didn't want to do science. And he had no use for that attitude.

He sponsored me and I applied for an NIH grant and received it, much to the distress of the dean of the Yale Medical School, who told me that he would approve the application, but if I got the grant it was going to cause him a lot of trouble, since the first-year salary for this fellowship was $3,000 more than an assistant professor was at that time receiving. I think he was very glad to see me go the following year when Dave Bonner accepted the chairmanship out here. Roger

Revelle had had him out two or three times. At the time my grant came through he actually was negotiating with UCSD, except nobody at Yale knew that. I didn't know that.

Six months after I began working with him, we all moved to "La Ja-la"—which is what we all used to call La Jolla. There were Stanley Mills, Marko Zalakar, Herb Schulman and Jon Singer who came out with us at the time—it was a small group. I think there were four or five faculty, several graduate students and two or three postdocs. I was one of those postdocs. I had a three-year NINDB Fellowship. The fourth year that I was in the UCSD Biology Department I received a visiting associate professorship, using funds—this was 1963/64—using funds that had recently been assigned to the School of Medicine. So, in fact, my number, my professorship number, which is 333000, was the first appointment in the new School of Medicine, even though it was as a visiting associate professor of biology.

RINGROSE: But when you came out with Dave Bonner, you already knew that there would be a Medical School?

HAMBURGER: Au contraire. Absolutely not. In fact, when we came out the design called for a School of Science and Engineering. That was the name of it at that time. The argument was over whether it was going to be the University of California, La Jolla, or University of California, San Diego—School of Science and Engineering. It was to be a mini or equal to CalTech, but a state-run institution, and there was no talk of schools, law school, med school, dental school—none of that. All of the discussion was concerned with just science or full arts and science at the moment we arrived. Dave and I got here in December of '60; the rest of the group dribbled in over the next three to six months, and so by July 1 of '61 his little formative department was up and running. At that time, it was located down in Sverdrup Hall, Scripps Institution of Oceanography.

RINGROSE: So, you were then looking forward to a long-term career as a researcher?

HAMBURGER: Yes. Yes and no. I was certainly looking to a long-term career as a researcher, but not in a biology department. My dream was that I would make my reputation in the Bonner Biology Department and be recruited to some outstanding Pediatric Department in some medical school elsewhere. In fact, when I went to La Jolla, that same pediatric professor at Yale told me that I would disappear. He said it was a foolish thing to do, and at first, he advised me not to do it, not to come back into science at all. Then he advised me, once I got the grant, to keep the grant at Yale, and transfer it to the Pediatric Department. I found that to be an almost unethical suggestion, and when I told him that I didn't think it was a sound bit of advice, he told me that I would go to La Jolla and never be heard from again.

RINGROSE: I assume Dave Bonner was also being given that same advice at Yale.

HAMBURGER: I think so. Everybody said that La Jolla was “lotus land”, and that you would go out there and no work would be accomplished. Everybody lies around on the beach. In fact, as Martin Kamen said a couple of years later, this place was such a good place to work, because it had a zero energy of activation. He meant that in physical/chemical terms, it didn't

take energy to get the reaction going. You get up in the morning and know that you can get to work because you won't have to shovel any snow, there will be no violent weather—nothing to impede work. So, if you really came here to work, you could get more done in less time than any place on earth. The sun shone all the time, so if you were looking to take a little time off, you took it off when the work permitted, not when the sun shone. You knew it would shine next Wednesday when you wanted to run up and go skiing. We used to have a joke in those days—we were getting the lab up and running and we had a lot of spare time because we couldn't do our research—and we used to say that we kept a fishing rod, water skis, and a pair of snow skis in the trunk, and you could get in the car and then decide which of those things you were going to do at almost any time of the year. And that's practically true.

RINGROSE: So, talk about David Bonner a bit. You know it's really sad that we lost him without ever having this kind of a discussion. So, we have to do this second hand. Talk about his career, and what it was like for him coming here.

HAMBURGER: I tried to get Jim Arnold to do that on a tape machine similar to this one just recently, and I noticed that the two of us who knew him very well, and worked with him over many years, kept—we'd make a statement about him, and then go on to something else. So, it must still be painful for those of us who loved him and appreciated him to—it's almost impossible to re-create the man. He was really one of a kind! I can't look around the campus now and say "he was very much like so and so." I could do that with most other people here. David was absolutely unique. Things pop into my mind. For example, back in New Haven there was a group of them sitting around the table, and they realized that he was the only non-Jew at the table, so somebody promptly stuck his finger with a needle, and stuck Dave's finger, and touched the blood spots together, and convinced David that that was some ancient Jewish symbolism that made him an honorary Jew! He told people that he was an honorary Jew for years afterwards, until somebody had the good sense to tell him that it was nonsense, and that those guys had just put him on. But in fact, he had a lot of the characteristics of an Eastern Jew, when, in fact, he was a WASP in every sense of that term. He was a Protestant who grew up in Salt Lake City with a father who was professor of chemistry at the university there—

RINGROSE: Brigham Young?

HAMBURGER: Yes.

RINGROSE: But he was not a Mormon.

HAMBURGER: Right. That is a very important thing, because he was a minority kid. And he grew up like a minority kid as a "gentile." He thought gentile was some kind of dirty word when he was a youngster because he was called that all the time. He knew that he was different. His whole family knew that they were different, and he had a lot of the qualities and mystique of somebody who grew up as a minority person. That's why he was so comfortable with other minorities. He was always surrounded by Japanese, and Jews, and in those days, those were really minorities in Ivy League academic institutions. The med schools in my early years had a very strict quota for Jews, a very strict quota for Orientals and so on. Blacks—there was one per

class at Yale. Everybody acknowledged that that was by rule, not by accident. The man had that quality. The other quality that was very salient was the hayseed. He played the hayseed at Yale. It worked like a charm there because everybody appeared to be so suave and so sophisticated. You could practically see the straw dangling from his mouth as he played naive, innocent, always saying, "Is that so?" It was absolute role playing. The man was world traveled, extremely sophisticated, very bright. But it worked for him, and he used it all the time. He used it out here, but with less success, because there were plenty of hayseeds around who were also bright, and here he used the Peck's Bad Boy role more. He used foul language—a lot of it and loved to see your face when he did it. Not that they were such strong words, but they were words that didn't fit at the moment. They were inappropriate words. Piss and vinegar were his favorites. He used them all the time.

RINGROSE: That was before it got fashionable for academics, as it did in the mid-sixties.

HAMBURGER: Oh, yes, it was way before the free speech movement and all the rest of that. And he—in fact, I think that he probably calmed it down as it became fashionable. And then he was gone. By then he had died. I think there's another characteristic of his that I should mention. That is, he was daring, as was Roger Revelle. Roger Revelle looks like a giant conservative, but he is anything but that. He's a giant physically, but he's really a giant mentally, and he was extremely daring. He was a real risk taker, although he would have you believe that he was terribly conservative. One of the risks was Dave Bonner.

RINGROSE: In this regard he made the comment to me, "We were looking for talent. Not established people, but talent. Raw talent."

HAMBURGER: But how about a talent that has a death sword hanging over his head.

RINGROSE: Did he know that?

HAMBURGER: Oh, he surely did. And he had a big problem with insurance—transferring Dave's insurance program which he had taken out before becoming ill.

RINGROSE: So, he was actually ill when he came here.

HAMBURGER: Oh, he was ill for several years before that. He had had several surgeries, and some radiation therapy—for Hodgkin's. You know it was Hodgkin's Disease, a type of cancer. When we came out here one of the problems, I had was finding good medical care for him. There were a lot of people with fine names and reputations that were, in my view, not deserved. And so, we had to dig around. I found a young internist no one knew but who knew his medicine, and he watched Dave.

Being a pediatrician, I thought it was inappropriate for me to be his doctor, though I took care of his two kids in my spare time. In fact, he told people that that's why he brought me out here. When they'd ask him, "What are you doing with a doctor in your department?" he would say, "Well, I needed a 'croaker' for my kids, so I brought him with me."

He later took on Don Pious who was also a pediatrician at Yale. He didn't bring him with him, he took him on later. Don, by coincidence had been a house-officer in pediatrics at Yale when Dave's second son was born who had mild cerebral palsy. It was probably an injury that occurred in the nursery as a result of oxygen deprivation, the baby had a very bad start. That baby is now twenty years old, and of course is doing very well. He's not retarded, although he's still physically handicapped. The older boy is a beautiful kid, and bright, attractive, hard-working. He's into solar energy or something.

Miriam is—Miriam is David's wife. Miriam was a "Jack Mormon." A "Jack Mormon" is one who doesn't practice the religion, an ostracized person who they're constantly trying to get back into the fold. She was a very interesting woman. She looked exactly like the woman in—what is that famous portrait—

RINGROSE: The Andrew Wyeth?

HAMBURGER: The portrait of the farm couple. She looked like that woman. Absolutely looked like that woman.

RINGROSE: Well, no wonder he tried to look like a hayseed!

HAMBURGER: She was anything but that either. She only looked like that. She was, besides being an alcoholic, a controlled alcoholic all her younger years, and an uncontrolled alcoholic in later years, she herself was a very interesting person in her own right. After Dave died, she became one of Dave's ex-student's lab-techs, and worked very hard and very successfully at Stanford for many years. In fact, she just retired this past year or two. She is a woman I love dearly, despite her foibles or weaknesses or whatever. And for a woman who "hated children", she was a very devoted mother. She said she hated children, but she took extremely good care of her children. [Miriam Bonner died Nov. 1, 1984.]

RINGROSE: So, when Roger Revelle says he was looking for talent, what are the qualities in Bonner that you think attracted him, other than obviously a very bright man, good in his field? What about creativity? What about his ideas about education? Had he been involved in teaching at Yale?

HAMBURGER: No, the man actually, he was a maverick at Yale, and a troublemaker. He was full of ideas and excitement and was totally frustrated by the ultra-conservatism of most departments at Yale. I've often said that if I'd stayed there, I would still be an assistant professor, or I would have long since quit. I can't stand those kinds of constraints—"We don't do it that way," was a favorite phrase there.

What Roger saw in David, I think, was a maverick, a forceful leader, a dreamer, and a successful doer. The man was able to generate enormous grants—quite enormous for those days. He doubled the size of Bonner Hall when he had it built, with NIH money. California put up one half, and NIH doubled it. It was because he was so respected, and many people felt that he was cheated out of a third of a Nobel Prize because [George] Beadle, [Edward] Tatum and Bonner were the authors of the paper that was cited when Beadle and Tatum won the Nobel

Prize in biology—in genetics. The reason they say that David didn't get it was that he was a graduate student at the time. He probably did most of the work. So, here you have what was then a young man with a very limited life span in front of him, with energy and drive that just didn't let up, who felt that it was time to do it NOW, because he might not be here next year.

RINGROSE: Now, he must have been influential in selecting other faculty, along with Roger.

HAMBURGER: Very much so.

RINGROSE: Talk about some of those people and how those connections were made, what you know about it.

HAMBURGER: I know very little about it. All I know is that he served, as I did later, on every committee for selection of faculty, even though these faculty had nothing to do with his own field. The people who went before him did the same thing. Jim Arnold was telling me the other night that they selected physicists or engineers or oceanographers with great aplomb, because there was nobody else to make the selection. They often got advice from somebody in the field from another campus. But selections were made by the people who were here, and David, I know, was on many, many committees in the selection of senior faculty in literature, art, and music, and he put his mark on the kinds of people who came here, because they had to get by him! Anybody that wasn't put off by David was special, because David was very off-putting when you first met him. He was brusque and would often say rude and un-nice things about your field or yourself or something else or put you down if you were the least bit pompous, stuffy, or formal. That was true of anybody who came, like Roy Harvey Pearce, who was all those things. Roy Harvey Pearce was pompous, for a young man in those days. He was self-assured because he had just written something important, and the world was telling him that. He might deign to come out here and build a Department of Literature, but if he did it was going to be the best damned department—well, that was Dave's kind of man, you see. Dave taunted him unmercifully, and Roy Harvey loved it! It was like a challenge to him. You would have thought that Roy Harvey would have got his nose all out of joint, and in fact it was just the opposite. Roy enjoyed a biologist who gave a damn about literature.

RINGROSE: Yes, he said that.

HAMBURGER: Did he? Really? Well, that was my view of it. And Roy did the same thing. He told me on the phone the other day that he—the only thing he did was help to select medical school faculty on several occasions. Mentioning a name, which I will not mention, he said he may have made a dreadful mistake! We were not self-conscious about making mistakes in other fields. It was very amusing. Today that's unheard of.

RINGROSE: Well, it sounds as though you're going to get a certain core faculty type. It's going to be—

HAMBURGER: But they don't look it. I mean, if you look at the early people—Jim Arnold, Keith Brueckner, Francis Haxo and Andy Benson down in Scripps—I'm talking about people with whom Dave and I interacted in those early years: Roy Harvey Pearce, and …

RINGROSE: John Stewart—

HAMBURGER: Yes, and Avrum Stroll, and Dick Popkin—I think the only statement I would dare to make that would be applicable to most of them is that they were odd-balls. They were all slight misfits in the academic world. But they varied enormously in temperament and personality and appearance, and in every aspect so that no one would look at that group and say, "Oh, they're all out of the same cookie cutter mold", like you might see at Harvard, or Yale, where they tend to start to look alike after a while; they dress, think and act so similarly.

RINGROSE: Definitely a club.

HAMBURGER: Yes, and there was none of it here. A bunch of random moving characters.

RINGROSE: Could you argue that if you go out and look at the very best people at the very best schools in any field that possibly the ones that are going to be willing to move are the ones who are oddballs and don't fit into conventional institutions?

HAMBURGER: Certainly, and particularly to move to Southern California, the lotus-land on the border of Mexico, an area dominated by the Navy. Who on earth, in his right mind, would come to such a place? What kind of place is that to raise children, particularly if you have girls, a Navy town? I mean, those are the kinds of remarks we heard all the time when we were recruiting.

RINGROSE: One of the interesting comments Roger Revelle made to me was, "You know, despite what people say, we didn't buy our faculty with big salaries." I think a lot of people assume that these major appointments were made because we knew it was hard to get people here, and so they were just offered the moon.

HAMBURGER: They were offered the moon—but not money! The moon was—FREEDOM. In those days—and that also had to do with money—and I said this to you the other day—you just had to have a good idea, and it was supported in this institution, in this state. Nobody quibbled with you when you said, "Well, this great idea is going to cost $40,000 this coming year to try it out." And they said, "Are you sure that's going to be enough."

RINGROSE: Or "Would it pay for itself?"

HAMBURGER: Nobody asked that. And nobody asked was it worth it? Nobody asked, "How much are you gonna ask me for next year if I give you the forty this year?"

RINGROSE: "It's not your turn."

HAMBURGER: No—it's so different that people who weren't here just don't believe it when I tell them. We asked for a medical library building that would house—and I can't remember the number anymore, I used to know the number, let us say 1,285,000 volumes, or some huge number like that, for the biomedical branch of the library—not for the main library. And they said to us, "Now, that would be fine for the biomed library, but where are you going to store the rest

of your collection?" And then they gave us $275,000 "seed money"—four years before the med school was due to open, so that the librarian, the biomedical librarian, who was already appointed, could start to build the collection that was going to be necessary, in place, on the day the first student arrived.

RINGROSE: That's incredibly sensible for the State of California.

HAMBURGER: As a result, when I was recruiting, I would say to somebody, an internist for example in the School of Medicine, I would say, "Let's see, what's your specialty? Internal medicine, nephrology—what are the two journals that you use the most?" And they would name the two journals, and I would say, "Well, you realize the school is planning to open the year after next. But if you come here next year, I can promise you that we will have that journal back to day one. In fact, let me just go check and see what we've got." And I'd go to our little—in those days, it wasn't computerized, it would be a typewritten print-out of what we had in our reserves, and sure enough, it was there, and back to day one. Back to 1884 when they started the damn thing, or 1892, when the first volume was issued, often beautifully bound, from somebody's great collection. This librarian went all over the world either by phone or letter or physically, and bought up collections that were just stunning, just outstanding. And this was his aim. Any journal that we had listed—and the original list was over 4,000 journals—it wasn't sufficient just to get started, we would subscribe, it was off and running, and then he would buy the back issues all the way to its origins. He was enormously successful. They appreciated what he did, and they kept pouring the money in. As quick as he spent it, they filled the kitty.

RINGROSE: You told me earlier that you didn't officially sit on the medical school advisory committee, but you were involved with the early committee from the beginning.

HAMBURGER: Well, I was a Fellow, being paid by NINDB (NIH) funds. I could not formally serve on a committee. I could not officially teach in the university. In those days there were very strict rules about what you could do if you were on Federal money. And so, what they did, since I was the only M.D. on the campus at the time, was invite me to sit in whenever I could. And of course, I sat next to Dave, and mostly whispered in his ear. I rarely spoke out, partly because I was modest, and fearful of saying something foolish in front of these big shots, and also because I really was unsure of what they were getting at, and where they were going. In those days, the discussion wasn't instantly focused on our School of Medicine. It was—well, what else could we do? Should we have a Law School to start with? It would be much less expensive. Or should we start with a two-year medical school that we could literally build out of the Biology Department, and not have to have a bunch of clinicians around. You might have to have a few M.D.s, but—

RINGROSE: I've seen reference to the two-year medical school plan. Would you then ship your students elsewhere for their clinical work? Is that how that works?

HAMBURGER: Yes. Chapel Hill, where I had been an undergraduate, had a two-year medical school. I was admitted to it before I got accepted to Yale. They—any established two-year medical school had a "placement" arrangement, and they would place so many at Duke,

and so many here, and so many there, and they knew where they were going. Any student who did well at Chapel Hill was sure he would go on to his third and fourth year in some fine medical school. The arrangement that was thought about here would have done that—placed them at UCLA or San Francisco—or, in fact, some perhaps at Stanford or USC, private schools as well. But that would have been only for students who could afford that switch. The differential wasn't so enormous in those days. Today it costs a fortune to go to a private medical school.

RINGROSE: What were the objections to that?

HAMBURGER: Many. First of all, what was wanted here by the San Diego community was a medical school, and they were thinking clinician. They were thinking physicians. They weren't worrying about the pre-clinical sciences. Their concern was to have a four-year medical school that churned out doctors, that had interns, residents, whole house staffs, and all kinds of super specialists. That's what raises the level of medicine in any community.

RINGROSE: Like Palo Alto.

HAMBURGER: Exactly. The community had no interest in a two-year school, and very quickly we at UCSD had no interest in a two-year school. In fact, later this place objected very strenuously to the proposal that Riverside should have a two-year school which would feed us once we had established our four-year school. We didn't want any-body else's students; this was a very proud place!

RINGROSE: This is a very elitist place! That's one of the themes that carries through.

HAMBURGER: Intellectually elitist. No other kind of elitist.

RINGROSE: I don't mean that in a pejorative way.

HAMBURGER: We really felt very strongly that nobody was going to prepare our students the way we wanted to prepare them for entry into medicine. We wanted them to have a strong science orientation to sustain them once they got seduced into the clinical areas, which are much more immediately gratifying than science—science is much harder to do—it's harder to keep yourself motivated, to get feedback and reward. The practice of medicine is very rapidly rewarding. You either guessed wrong or right and you know very quickly. The patient is either appreciative or does not return.

RINGROSE: You're going to get strokes.

HAMBURGER: Exactly. You don't get them very often in science—the "eureka" thing happens so infrequently that it's a joke. So, we were bound and determined that nobody was going to train our students prior to getting them into the clinical world, and we were not going to get these superb students and send them somewhere else. They were going to stay right here if we did a med school. There was talk of dental schools, nursing schools, world planning schools, engineering schools—an engineering school was supposed to start very early. It never happened. It wasn't until the present chancellor, twenty years later, that anything happened that

was focused on engineering, although we did have an avant-garde Aerospace Engineering Department.

RINGROSE: Wasn't engineering pretty depressed for a while?

HAMBURGER: In fact, they were training them to operate computers and other things because they were all being educated into some other field, and now they're talking again about needing engineers.

RINGROSE: It's only been the last few years that there's been a market for engineers.

HAMBURGER: Well, the trouble with a really effective capitalist society is that it inflicts that kind of …

RINGROSE: Boom and bust.

HAMBURGER: —boom and bust attitude on something that does not have a one year turn around, but a ten or fifteen year turn around. It takes ten or fifteen years to change a direction for producing scientists or engineers or doctors, or whatever. They suddenly decided in the past two years that we have over-produced physicians, and that it is causing an increasing problem in the United States. To cut back is just terribly painful. Very slow. We've gone from 128 students in the entering class to 125 to 122, in two years. I mean, that's no change at all! And that isn't going to be reflected until four years down the pike. The ones we took in three years ago are now in their junior year, and there are 128 of them. When we started, we started with 48. Actually, we ended up with 47 freshmen medical students and it was a marvelous size class. If we've really over-produced, let's go back to 50 students in a class. I thought the dean would have a fit when I recently said that out loud, because the consequence would be total destruction of this school of medicine. Everything is tied to the number of students, faculty positions, support, money, size of the buildings, research labs—everything, so that there's no way unless you have a daring and sophisticated statewide leadership, which we do not have at the moment, there's no practical way that we can come rapidly down to something reasonable for a few years, and then see whether we've hit right on the mark. We don't want to underproduce. We keep going up and down in our estimates of future needs, extreme swings and shifts, and then later try to replace what's missing. Right now, I believe, we are failing to produce adequate numbers of academicians. My prediction is that five to ten years from now they'll suddenly realize that there are no bright young people prepared to step into major academic positions. They just will not be there!

RINGROSE: The impression I get, and tell me if I'm wrong about this, is that it isn't that there's lack of work for doctors, but there's a lack of lucrative practices and doctors complete their training with so much debt on their shoulders now that they have to go into a lucrative practice. They can't go into academic medicine, and they can't go out to poor rural communities to practice, even if they want to.

HAMBURGER: I think that's about as favorable a way as you could state it regarding physicians. There's a lot of truth in the way you just stated it. There are also other seductions.

For example, their classmates—the people who graduated from college with them—have had seven, eight, ten years out in the real world, and the successful ones are now making six-digit incomes, and the resident doctors are just getting into the $20-25,000 bracket, and they are shocked, and hurt, and angry, and say, "I'm going to make mine now."

Well, there's no way you can make it now in a decent, honest, practice of medicine. What you do is slowly build a really nice practice, and a really handsome income. But if you've got to "make it now", you're going to pervert the practice of medicine to an economic business practice. And that is contributing to what you just listed. Some of them don't have all that debt, but all of them look around and see what they've sacrificed economically to become physicians, and they are bound and determined they're going to get it back. That hurts, because you see these idealistic young people come in who are going to do marvelous things for society, and these greedy little critters come out seven years later. It is seven years, because most of them do four years of med school and then do at least two, three, or five years of additional training after medical school—so it's a long postponement of economic gratification and social gratification. There are ways that this could be corrected without perturbing the system, without making major changes. You wouldn't even have to "socialize" the system. But there are things you could do—for example, you could make more equitable the pay scales of academics—young academics—us old academics do quite well. You could subsidize (without debt) medical education much more than is being done now, and the payback could be two to five years, depending on how much subsidization was required practicing in “less desirable" communities.

RINGROSE: That has always struck me as a sensible way of dealing with it.

HAMBURGER: Get them out to the boondocks, into the depressed areas of the United States, and have them provide a social payback for society having subsidized them, so they don't come out in debt—they come out even!

RINGROSE: We've long done that for doctors going to work for the military, haven't we?

HAMBURGER: The military, and we have a very nice public health service that provides care for American Indians and a few depressed areas, but that program has never been properly supported and appreciated, and it's made to be some kind of punishment for losers. You know, the "guys who can't make it any other way," and so it has not got the prestige and sense of accomplishment it should have.

RINGROSE: Now, from what you're telling me, it sounds as though most of your students now are aiming for clinical practice.

HAMBURGER: I used to say, and I think the numbers are still approximately accurate, that if you design and devote your School of Medicine to turning out academicians, you will probably turn out 15% of your graduates who ultimately end up in academic medicine. If you ignore that aspect of your educational program, devote nothing to research education, just run a good standard medical school, about five or six percent of your graduates will end up in academic medicine. So, the enormous investment that you have to make to do it our way, which is to have

a very strong research orientation, takes time, takes money, takes space. It takes a bigger faculty, because we don't have enough clinicians to do the clinical care that's necessary to run a med school. All of that for a five to ten percent difference. And right now, the difference is probably less than 10% between a Loma Linda or a Creighton—I'm picking the most "clinical" medical schools—and UCSD. I'm comparing the bottom of the Class A medical schools, to ourselves and the difference in every aspect is enormous, and yet our product is not that enormously different!

RINGROSE: I see what you're saying. Now when this early group that met and talked about the future of the university—Roger Revelle, and Jim Arnold, Keith Brueckner, David Bonner, and you talked about a medical school, did you have this perception that you could set up a research-oriented medical school, and that even so, 80-85% of the students would end up in clinical practice? Or were you looking at something that would virtually exclusively turn out researchers—

HAMBURGER: That last statement was the naive expectation of a lot of administrators and clinicians. That is, that the design that was foisted on this school, “foisted on” by the chemists, the biologists, sociologists, the other people who were into the planning, that that design was meant to turn out scientists, and would therefore turn out very few clinicians. That was, as I said, a naive view, because the sophisticated educators, such as Sherm Mellenkoff, who later chaired the formative Advisory Committee of the Medical School, knew perfectly well what the numbers were, and so he wasn't the least bit concerned that even if we went this novel route, this wild new design that was being planned, that that would result in changing the percentages very much. It might yield a few more basic scientists out of each class, which wouldn't have been bad, because most of the basic scientists in those days were Ph.D.s, and there were a lot of people who felt that a few more M.D.s in the basic sciences would make for a better med school. It would have been very good modeling, a good image for the students coming through to see that an M.D. can do good science, too! He doesn't have to be a Ph.D.

On the other hand, the main reason for turning out M.D.s is so that they can practice medicine; but at a continuingly high level— The decay rate of current knowledge in medicine is very high. That was the main reason, by the way, the real reason, which you never hear about. But that planning committee was mindful of the problem of knowledge decay because I personally reminded them of the differences between the students who graduated from the high science medical schools such as Hopkins, Harvard, Yale, Columbia, Penn, and Chicago—to name six, and maybe a few more, and the graduates of less science oriented medical schools. The graduates of high science schools; fifteen years later, were still struggling to keep abreast, reading the literature. The graduates of six other less science oriented medical schools, which I will not name, five to ten years out of medical school, were medically completely out of date! The rate of change of medical knowledge following World War II has been and is enormous!

[END OF PART ONE, BEGIN PART TWO]

RINGROSE: I want to catch the tail end of that discussion. You were talking about the fact that doctors who have attended really top research oriented medical schools—

HAMBURGER: Have a slower decay rate.

RINGROSE: Right, have a slower decay rate. They seem to be oriented toward keep-ing up on the literature and keeping track of their fields. I think that's a very interesting point.

HAMBURGER: Because all their M.D. scientist models in the med school had to do that to stay on top. To be at Columbia and get promoted at Columbia you were modeling for your medical students a way of life that made you a scholar all your life. There are two ways that a doctor can perform. He can go out, work himself to death, make a fortune, go play golf, and take lots of vacations or holidays because he's exhausted all the time, because he's working so hard, because he's making so much money. Or he can be a little more moderate in his work effort, enjoy a little less income, and have a little more time to read—even if it's just before he goes to bed at night. At least one or two of his trips every year are for CME, that's continuing medical education, rather than just going to paradise and lounging on the beach. It's a difference in attitude. You can pick up your CME and come to San Diego if you work in Chicago and combine mind stimulation and updating with a nice vacation for the fam-ily. So, it's really a selection process and an education process that you plant during medical school that may last for a very long time.

RINGROSE: Now, am I right that there were people in the community and in the legislature and in the upper levels of the administration that somehow developed the idea that this medical school was not going to be committed to developing clinicians? It sounds like you had a serious communication problem.

HAMBURGER: Yes, we did. You've hit the exact, correct word, too, because in fact, if they had understood this, they would have recognized that it was not going to be that much more expensive. A little more, yes, although we repeatedly told them it was going to cost the same. But the truth is it would have cost a bit more. If we had communicated better and educated better and had better lines to the right people, we would have done better in our final design. Our result is, as you see, fractured. We did not end up with our medical school fully on the campus. It's a split campus. It's the thing that all of our advisors told us was the worst possibility. It was even better, they said, to go fully downtown, which was anathema to this campus—put the whole med school downtown, rather than split it. That, they said, was the worst thing you could do, and we ended up with that, thinking that it was just temporary. And it's now over twenty years of "temporary."

The fact is that both the community physicians, community leaders, and the legislature, and finally the Regents, came to believe that we were trying to build a gold-plated research institute instead of a medical school, and that we were unmindful of what we had been told we must do—which is to turn out clinicians. They were incorrect. We were very mindful of that. The difference, as I stated, was that we would turn out better clinicians using our model than using the one that was being suggested—which was to put the med school downtown next to the County Hospital and teach doctors to be doctors. I call that bricklaying, and I usually use the simile of laying bricks in the time of the Pharaohs—they laid bricks superbly. Those pyramids are still standing, and when they build a structure today with stone bricks or clay bricks, they

build them exactly the same way they did three thousand years ago. We feel that if you have good, highly competent clinicians teaching medical students, that you have that same phenomenon. We know how to do it, and we're going to teach you how to do it. We are not teaching you how to innovate, how to think for yourself, how to come up with something new and better. And so ultimately you end up with a downhill course, because if you don't make progress, you are falling back. And I think that human health and welfare is too important to be left to bricklayers or to the bricklaying physicians, who want to do it the way daddy did it, or grandpa did it.

RINGROSE: Well, they also want to do it in a safe way, and in a way that won't get you in trouble with the insurance carrier.

HAMBURGER: Yes, just the way we always did it. No progress is made that way. Or, I shouldn't say no, but very little. Sometimes they luck into something new despite themselves. But mostly you have to be after something. You have to see a way to improve what you're doing in order to do what we're doing now with genetics, to do what we're doing with transplants. You know, there's enormous progress in every area. I just picked two because they're in my own field, but there are a hundred areas—chemistry is just superbly sophisticated compared to what I was taught in medical school. So, in half a lifetime, the field of medicine has just burst wide open with new discoveries.

RINGROSE: So, do you think that people like Revelle were aware that they were running into this communications problem?

HAMBURGER: Very much so. No, I don't think they recognized it as communication. I think—to quote Dave—they thought they were running into stupidity, conservatism, political payoffs, and that sort of thing. They really didn't recognize that they weren't getting through. In fact, there was Bob Tschirgi—I perhaps don't agree with anything Bob has said in terms of medical planning—he and I disagreed on almost everything—but one thing we did agree on was that Dave Bonner was being totally misunderstood. He said that repeatedly. In fact, Tschirgi used to say that if he could just keep Dave Bonner from speaking, things would go better. That may have been true, but they wouldn't have gone right.

RINGROSE: But the UCSD group never really made any effort to educate their audience?

HAMBURGER: Well, they thought they were doing that, but it was one of those problems where you don't realize that they're not understanding. If you're so bright, how come you don't understand what I'm trying to tell you? And not only that, but most of them being scientists were saying, "And I've got data! I'm not just making this up. I have data, convincing data that says this is the right way to do it, and the old way is not."

On top of that, we were trying to sell a novel idea, and that's very difficult, because there's no prior data for a truly novel idea. We had a truly novel idea, and that's the thing that I'm going to focus on in my mini symposium on the first of November. I am going to try to keep pushing for serious discussion of this novel idea. I want to ask the past president, Clark Kerr, "What did you

think of that? Was that what was so off-putting? Is that why you were so nervous about us? Was it really just pure economics?" I'm going to ask those kinds of questions of Clark Kerr, of Roger Revelle, of John Galbraith, and Herb York—all of whom were leaders at that time trying to get us what we wanted. They really were on our side. And the question is, were they frightened by the novelty? Or was it the Regents, the legislature or the politicians who prevented our total success?

The novelty was, as I told you the other day, to have no departments of basic sciences. All medical schools have six departments of basic science. We have one. We have pathology, which is really a fundamental med school department—not a true basic science. It's the bridge department. It's the one that literally has one foot in each camp of science and clinical medicine. In fact, most pathology departments have two branches. One, the first two years, and one that's often called "surgical pathology" or "clinical pathology", runs the laboratories for the hospital, the path services for the surgeons. It's in the hospital, and yet at the same moment it's teaching tissue dissection and tissue analysis, usually in the second year, in most conventional medical schools, and it takes over from anatomy in most med schools. But we have no anatomy, no physiology, no pharmacology—incidentally, that may come to change very shortly. There's a literal war going on in this med school at the moment. Pharmacology is in the Department of Medicine and wants out. It wants its own life, separate. There is no department of biochemistry. One I've omitted—

RINGROSE: You mentioned anatomy.

HAMBURGER: Yes, I did. Anatomy is taught by anatomists and surgeons in the Department of Surgery! Biochemistry, which is a separate department in most med schools, is in the Chemistry Department at UCSD.

RINGROSE: Here are the five basic science areas: anatomy, physiology, pharmacology, microbiology, and biochemistry.

HAMBURGER: You know what I left out. I left out Dave Bonner's old department at Yale, microbiology, which at UCSD is in the Biology Department and so is part of biochemistry—part sits in the Biology Department and part in the Chemistry Department. And on top of that, we've got faculty in the School of Medicine from sociology and from literature, and political science who interact with us, and in fact, there are actually a few appointments—a few FTEs in those fields out of Med School funds. Prof. [Aaron V.] Cicourel is the only one who comes to mind at the moment who actively participates in the campus department as well as in the Medical School.

RINGROSE: Wasn't Lola Ross on a Med School FTE?

HAMBURGER: Yes, Lola was on for a long time. And she may still be on.

RINGROSE: And Faustina Solis?

HAMBURGER: Yes, and we had a psychologist, or two psychologists. Tony Deutsch for example. All his labs originally were in the Medical School.

RINGROSE: Oh, I didn't know that. He's over in psychology.

HAMBURGER: Tony was a conservative right-winger in the radical days and stood out by himself. We had one other, a member of the Biology Department, [Silvio Varone]. The two of them were very lonely in those days.

RINGROSE: So essentially, I know I'm oversimplifying this, but you're talking about a structure in which one assumes that the human organism in its "normal" state operating the way it ought to be operating, is like any other organism, and belongs in academic departments, and it is looked at like rats or mice or anything else. And when it begins going wrong, that comes under the umbrella of pathology, and is shifted over to the division that handles things that are going wrong—which I recognize is being terribly simplistic.

HAMBURGER: Well, you could say it that way, but I'm going to even object to that.

RINGROSE: Oh, ok.

HAMBURGER: And the reason I'm going to object is that it isn't the case that we send our students over to the Biology Department, but in fact we ask the Biology Department to send its superb biologists—not the second-best group, but its top people, into the Med School to help us teach our medical students, which is quite a different attitude. It says that the Chemistry Department has the top chemists in the world. Now why should the Med School's Biochemistry Department have to pay higher salaries to get the second-best guys? That is not true—absolutely—but in fact, that's what it looked like. Many medical schools—there are exceptions—Stanford's a good exception—but many medical schools had only second raters in their science departments, because first raters wouldn't go to a med school! They didn't feel that was their real home. They wanted to train Ph.D.s, not M.D.s, make more of themselves. So, what was clever and novel at UCSD was to expose medical students to deluxe everything, not second best. So, the attitude was elitist, as you said earlier. It was not really these are fundamental animals, although we do in fact believe that, that the physiology of a mouse is no different from the physiology of a human, except as the mouse and the human differ. But their fundamental systems are identical.

RINGROSE: As long as they work right.

HAMBURGER: No, the pathology is almost identical, too. But there are certainly exceptions to both those statements— There are enzymes that are in humans and other primates that don't exist in mice, and vice versa. And there are diseases that occur in mice that we don't have, and diseases we have that mice don't have. But the way we do diseases is very similar. So, we always, when we're looking to refer new treatment or a new cure or a new understanding, we always try to find an animal model. Then we can do the kinds of studies that need to be done on the animals first, and then later on the humans.

RINGROSE: Let's talk about the early structure that was set up for this. I've listed some things that are possibly of interest—faculty governance, the relationship between the faculty in medicine, and the campus faculty—I believe you set this up with a dual appointment structure—is that right? Initially?

HAMBURGER: Initially, yes. I still to this day maintain my appointment in Revelle. I'm still a Revelle faculty member, and in the School of Medicine. And it was our assumption that all clinicians who cared to maintain a research role, an active research program, would be entitled to have campus appointments in one of the—at that time there were going to be twelves colleges—in one of the twelve colleges. At the time in one of the two existing colleges—Revelle and subsequently Muir.

RINGROSE: Of course, it was assumed that everyone would belong to the senate, and there would be a single Academic Senate, which is quite innovative, is it not, to have a single senate?

HAMBURGER: There was to be absolutely no separation in senate, but in fact, as the Med School became larger and larger, it continued to be in the senate, but also developed its own structure, so that it has an appointment structure, and it has meet-ings that are for medical school faculty only. The reason for that is not exactly some-thing that the campus would object to. The reason is that in the medical school we have all our people in the structure, whether they have FTE appointments, hard money appointments, or soft money appointments. So, if they are a professor-in-residence, they're part of the Med School Senate. And if they have any kind of appoint-ment, they are part of "the Senate of the School of Medicine", and it has caused a lot of difficulty on who can vote for what. Nevertheless, that structure we feel is essential, since you cannot run a med school on the wherewithal provided by the state. It takes a lot more—in fact, it takes two to two and a half times the amount that the state pro-vides to run your medical school well.

RINGROSE: Now if I were a clinician affiliated with the Med School who taught classes, but did no research, and had no joint appointment on the upper campus—

HAMBURGER: I don't think we have anybody full-time who does no research. We have a few part timers to fill in clinical needs that can't otherwise be met.

RINGROSE: What I'm wondering is whether this kind of a person then can belong to the regular Academic Senate.

HAMBURGER: No, no way. In fact, he's not even a member of the Med School Senate. He will have a so-called "salaried clinical appointment." He can vote only on exclusively Medical School phenomena. He cannot vote on the senate matters—matters before the senate. And then we have a very small number of part timers, and they are an accident. They're just a practical matter of either we haven't been able to recruit somebody for a particular specialty, or we're between recruits, or there's no money for that particular area and yet it needs to be represented in at least a token manner, and those people work in the community and work for us part time.

RINGROSE: Now with a structure like this, where does this leave the dean of the Medical School? In more conventional academic structures with separate schools—separate professional schools—the dean is a very powerful person. But in a structure like this, with a single senate and so on, that could be a different matter.

HAMBURGER: Well, not necessarily. The previous deans all behaved in the manner you just described. That is, they acted as though they were chairmen of the board, and the faculty governed itself with a little bit of help from them. The present dean, however, is taking a more active leadership role. He has reorganized the school in terms of the two major committees that run it, which he chairs. So, our medical school is chang-ing, in practice if not in principle.

The design of the UCLA medical school is just the reverse of ours in that it encourages Sherm Mellenkopf to be an absolute ruler. He is the longest surviving dean to my knowledge anywhere in the UC system, and he is anything but a dictator. He is a tremendously clever consensus obtainer. He's the world's greatest compromiser and negotiator. In a medical school that is designed to give him an enormous amount of power, he wields it with great restraint.

RINGROSE: Did you realize when you set up this structure that part of the novelty was going to generate this problem with the dean? I mean, the dean was going to be a little like a super chairman, right, in your structure? And yet he has got an awfully large organization to manage to behave like a super chairman, and he has got a lot of outside pressures being applied to him by people who are accustomed to deans who can operate the way Mellenkopf can operate. In your structure, it is easy for the dean to get caught in the middle.

HAMBURGER: Absolutely. And, as a result, I don't think we have had a dean survive five or six years, maximum. The problem is that they have to serve several masters, on the main campus, in the medical school, and in the community.

RINGROSE: When we talked earlier, we planned to talk about funding issues, especially the strict full-time pay plan. I haven't been able to dig up much more information about that, but now that I've seen the two storage file boxes in your office, maybe there's something there. But let's talk about that, because I don't think most people understand the nature of the issue, and I found it very interesting when we talked about it before. I think it's crucial to how things developed.

HAMBURGER: Well, it fits in with something that you brought up earlier, and that is the whole economic—social/economic situation of medicine. It was our belief, the early planners of the Medical School, that if we could sell it to the Board of Regents, all the way up the university-wide line and including the Board of Regents, that it would be highly desirable to try to put a strict full-time school of medicine in the University of California system. There had never been one. The other schools are geographic full time. That means you do all your practice in the university environment, but your salary is a modest salary, provided by the state, and the rest of it is your earnings, which you get to keep after you pay a small overhead. That produces a medical school that can be quite good. Often it is a highly competitive faculty, competitive not with each other, but with the community. Medical School faculty members are, as in the case in

Los Angeles, enormously resented and directly competitive with the community doctors—many of them use their professorship as a public relations device for gaining a lucrative practice.

It was our assumption that the way we could sell a strict, full-time system to the Regents was that it not only would be self-supporting, but the Regents could make a little money on it. Now why is that true? It's absolutely true and was very much resented by some of the physicians in town who said, "You are selling out to the state! Because you are after all, even though there's a little protection by the Regents, you are state employees, and what you're proposing to do is turn over some of your clinical practice earnings to the state." And I said I didn't think we were doing that. What I really thought we were doing was bartering security for a somewhat lower salary, and if there was any money left over after all our salaries were paid, we didn't get to keep it. It went back into the Medical School. Now if it will make you happier, we will not allow it to go back to the Regents, or into the general fund, but it must stay in the Medical School. Of course, the Regents saw through that immediately, and said, that's fine. Because what that meant was that if you kept $100,000 for the Med School, they could put less—that's right, from the budget. And in fact, the system was established in that manner. We had, fortunately, a couple of surgeons—I remember one in particular, Ben Geddes, who was a professor of urology, who subsequently left us and went to Harvard when the place started to come apart—he is now Chairman of Urology at Harvard—Mass. General—a superb man, but foresighted enough to say, "I will sacrifice" because it's really the surgeons who support us along with the anesthesiologists and the pathologists who support the rest of the faculty.

RINGROSE: Who paid their insurance?

HAMBURGER: The Regents paid for it for the Medical School—in those days there was actually an insurance policy for malpractice insurance. All other insurances—most others—were underwritten by the Regents themselves. They self-insured. They did it, in a businesslike manner, but they didn't have a separate company doing it. I believe they self-insure malpractice now, too, or maybe they always have. I'm not sure about that. But I know that we've always been covered, and it is now, I believe, up to five million dollars apiece, and it's full-time. In fact, recently I have been having a little argument with the dean about using malpractice insurance as a way of controlling the faculty.

RINGROSE: So, describe how this full-time pay plan would work for a typical—

HAMBURGER: Well, we had to first develop a pay plan, which literally specified the salary of each and every individual in the place. We had a locked-step eleven-month salary for every rank, instructor through full-professor step five or six, and every rank had a salary, and it was a full clinical salary. It was damned near double in some places—it was in fact double a nine-month regular ranked faculty salary on the campus. The planners, like Dave and Roger and Jim, had enough sense to know that to recruit in a new medical school in a novel area of the country first class clinical faculty, as well as research clinical faculty, would require decent salaries. How do you find out what that is? Well, it was simple. We just screened all medical schools' salaries that were strict full-time, and there were at that time five or six of them still left in the United States, including the University of Chicago, which was our model in the pay plan. Yale was

another model. I can't name the others. Pittsburgh, I think was one. I can't remember all of them. But we found out what their salaries were, took a mean, and set ourselves at the 90th percentile, not the 50th, which was a clever place to be, and we said that gives us some room. As long as we stay above the 50th percentile, we would be able to survive, because we have a lot of good things going for us here in terms of recruitment. But to start out at the 90th percentile of strict full-time pay scales was a very good place to begin.

I will insist, and I know I can get an argument with other members of my faculty about this, but I will insist that had it not been for the Reagan administration when he was Governor and his fury and the administration's fury with the way students were behaving in those days, and fixing our salaries for four consecutive years, the pay plan could not have been broken. Because the faculty said, be damned if we're going to be locked to the politics of Berkeley. We're going to go geographic. Well, we negotiated, and some of us didn't want to, and fought, and came up with something part way between. So, we continued our strict full-time pay plan, with a carrot—a little incentive pay on top of it. And that, three years later, got further eroded to what we are now—which is homogeneous—we're all variants of the same pay plan, which is composed of, three parts: a guaranteed part from the state, which is termed “X” and is not as low as it used to be, but it's low, in fact, very similar to the eleven-month regular faculty pay. Then there is a “Y”, which is a percentage of our earnings—pooled—used to be pooled, now is no longer pooled. And a “Z”, which is actually a fraction of the dollars we personally bring in. Now, as of last year with this new dean, it is eroded to all personal income. It's state and personal. And that's disastrous because it hurts not people like myself, who have been here so long. I have a reasonably well-established salary, but it hurts the young faculty who are trying to get started.

RINGROSE: Well, it must make it hard to recruit new people in certain specialties, if it's a specialty you can't get started in practice here. I have heard that some specialties are really—loaded in this town.

HAMBURGER: Recruitment is now very difficult. To succeed we have to become competitors with the community. But the community can beat us easily because of the facilities that we have—being a split med school—without a bona fide research and teaching medical hospital—it's the worst of both worlds.

RINGROSE: Yes, it's a very interesting issue, and I think it's one that very few people on the outside understand. I'm a little curious how—let's say that you brought in someone who was—we're using the strict, full-time pay plan. You bring in somebody who's going to be primarily a researcher, but he'll have a joint appointment in biology and medicine. He's a superb geneticist for example.

HAMBURGER: Not an M.D. Or is he an M.D.?

RINGROSE: No, a Ph.D. Now, is he going to end up paid on the regular upper campus, full professor salary schedule? Or is he going to end up paid on the Med School salary schedule.

HAMBURGER: Originally there was no separation. A Ph.D. researcher got his same—he could have an eleven-month or a nine-month salary—but the scale was the same. If it was the Chemistry Department or the Biology Department, he was paid like a chemist or a biologist.

RINGROSE: My impression was that your scale was scaled higher for those people.

HAMBURGER: Now. Not when we were strict full-time. We added a 3% incentive on the first erosion, we added— I forget what the fraction was, but it was a sweetener, besides being guaranteed eleven months instead of nine. On the main campus, they had to go get their own summer salaries. If they were working in the Med School, they got eleven months salary, because the Med School runs twelve months of the year. And they were entitled to a month's holiday. But no, there were no two salary scales origi-nally. We didn't have a differential. But as the pay plan became more corrupted by the failure of the legislature and the Regents to live up to their commitment and responsi-bilities, more and more fixes got put in so we could continue to recruit and so when somebody got promoted, he got a pay increase, not a decrease— I mean, we had to constantly fix a decaying system that was being allowed to go to wrack and ruin by the Regents and the legislature. It was punishment. Everybody admitted that we were being punished for not keeping our students in line and allowing them to use dirty words on the Berkeley campus. So, you can imagine how resentful the Medical School was with that.

RINGROSE: Well, I think there was a period when the humanities faculty were definitely being punished, and as long as you've got a single system, then you got punished right along with them.

HAMBURGER: Oh, exactly. We were not the focus, but we got the same treatment as everybody else. But it was a stupid thing to do. It was destructive to the campus, and a lot of people, and the fact that we survived it in reasonable health is remarkable.

RINGROSE: Let’s talk about some of the hospital issues you mentioned a few minutes ago. The situation with the former County Hospital, the now University Hospital—has been a very difficult one. And I don't fully understand the relationship with the VA Hospital. Was that originally intended to be a teaching hospital?

HAMBURGER: Oh, Amen! In fact—

RINGROSE: What happened to all that?

HAMBURGER: It still is a teaching hospital, and I think that we were able to negotiate an arrangement with the VA far better than most med schools have. We literally control the faculty there. Absolutely. They have approval—right of approval over whom we select. That goes for everybody except the director—everybody in the place. And that's a remarkable accomplishment. It therefore broadens enormously our faculty in medicine and surgery and psychiatry. Those three fields, plus pathology. Anesthesiology, I keep omitting it because it was not a separate department. It became a separate department for historical reasons. It had nothing to do with good planning.

Somebody became powerful enough to demand his own department or quit, and they gave it to him. The same thing happened in ophthalmology. Same thing will happen in pharmacology in the next year or so. Because that's an enormous threat and it is very hard to hold the line for technical reasons when you've got a fact in front of you—a guy's going to quit.

RINGROSE: Now the County Hospital was taken over because they needed more space than the VA provided, or would it provide other options?

HAMBURGER: The purpose of the County Hospital and the reason we leased it on a temporary basis was to provide clinical facilities until we could get our hospital built on campus. That got sabotaged.

RINGROSE: What—you have to forgive me. I'm such a lay person at all of this—why?

HAMBURGER: You have to have a place to teach.

RINGROSE: Ok. And you don't have facilities to do that at the VA Hospital.

HAMBURGER: Oh, absolutely not. That's number one. And number two there's no ob/gyn, and no pediatrics, no public health, no—I mean none of the—half the med school wouldn't exist. One-half. That's not correct, because it would be one-third of the medical school would not exist if you did it all at the VA. But we can control that, and you can't run a teaching program in just a VA, but a VA can be an enormous supplement. Had we built our 250-bed hospital on campus, that VA would have been hamburger helper, an extender, plus the gravy that would make everything function.

RINGROSE: Where would that hospital have gone?

HAMBURGER: Right here. There's a master plan. You can see it, it's all drawn. It's right here. There was a walk—you see that walk out there—out the window? That walk was supposed to extend from the middle of the campus, the middle of Revelle, all the way to the VA. And on either side of it would spring up the needs that bridge between Bonner and Revelle—Bonner Hall and Revelle campus—and the VA. The med school, basic science, clinical science, children's hospital, some research institutes—ok? They're all on the master plan! You can see where—I can show you exactly where the hospital is supposed to be. It ain't there—as you know! Lots of dreams have been sabotaged and the destruction of a master plan that was—to this day I would insist it was brilliant—brilliant in its innovativeness, and it's trying to put into a state medical school what had only previously existed in private medical schools: excellence! science! commitment! non-economically aggressive, turning out socially responsible physicians! These were all fantastic dreams that were all going to be accomplished by the design of this medical school on a strict full-time pay plan. And all of us were deeply committed to all of those factors. And one by one, for reasons that have nothing to do with the greatness of that design, they were lost. I sit here fighting now for trivia when we've already lost the big important items.

RINGROSE: There was a lot of difficulty in Galbraith's administration over University Hospital, and for example, the costs of remodeling. Do you want to talk about that at all?

HAMBURGER: Not much. I stayed out of that as much as I could. I think they may have used that to undermine him.

RINGROSE: You mean Galbraith?

HAMBURGER: Yes. That could have been handled by negotiators from university-wide. They didn't get around to it until after Galbraith's time and then finally sent down their own negotiators who had had experience in other hospital situations and knew what they were doing! Up until then a proctologist friend of ours was doing the negotiating. It was terrible. They were outwitting him. And he didn't know—he didn't understand what he was doing.

RINGROSE: Now you've talked about the problem of living in the worst of both worlds with a teaching hospital essentially downtown. I assume it's more than just peo-ple having to truck back and forth that makes it difficult.

HAMBURGER: Communication. The students with the faculty. With the researchers. There's a loss of contact, a loss of—different points of view based on where you're located that makes for non-cohesiveness.

RINGROSE: That's a loss of community—that of course is a problem.

HAMBURGER: That's what we're suffering right now.

RINGROSE: Things that you do when you sit down for a cup of coffee in some central place. And that's where the problems of the world get thrashed out in a non-combative way.

HAMBURGER: Exactly. Or that you happen to run into people—absolutely right. But if you try to do it in a formal manner, each one looking through his own little narrow scope, and there's no community and there's no understanding, and very little give. “Well, that’s the problem down there…”

RINGROSE: What about students? Do you think they've changed since you started the med school?

HAMBURGER: Not much. Not nearly as much as you'd have expected. It's probably due to that ten or fifteen year lag. By the time our students are weak, which, if we keep going in the direction, we're going they will be, I'll be long gone. The quality of the students was incredible the first few years. You couldn't maintain that. But they have continued to be superior! We've had little ups and downs, but the whole variation has been at a level that would make your heart sing. And if you're somebody like myself who likes to have bright young people around, it's been a joy. I don't know whether only the cream is seeking me out, or I'm only letting them see me, but the ones I know—and I only know a small part of each class—are just a pleasure. They're bright, and eager, they 're still deeply committed to society.

RINGROSE: That's good to hear. I've wondered if they were culturally aware—

HAMBURGER: No, they don't come in greedy little bastards. They go out like that—and maybe not even out of the med school like that. They're pretty starry-eyed when they leave here. When they finish their residency, there's nothing starry-eyed about them. Too many of them are tough, hardened and out to make their fortunes as quickly as possible. Fortunately, we still end up with some civilized humanitarian physicians who maintain my hope for our future. At recent ten-year class reunions, some members of each class continue to put societal needs ahead of their incomes— It is very reassuring.

RINGROSE: On behalf of the project, I would like to thank you for giving me your time today.

[END OF PART TWO, END OF INTERVIEW]