

**INTERVIEW WITH ARTHUR UPTON
FORMER CHAIR DEPARTMENT OF PATHOLOGY
FORMER DEAN BASIC HEALTH SCIENCES, HSC**

August 3, 1989

Dr. Hartzell: With Dr. Arthur Upton, formerly Dean of Basic Health Sciences, at the State University at Stony Brook, on August 3, 1989, in his office at the New York University Medical Center. Start with the few very simple questions at the beginning, number 1, name, department, rank or position at Stony Brook.

Dr. Upton: I went to Stony Brook initially as the Chairman of the Department of Pathology, and when I arrived there, the Dean of the School of Basic Health Sciences was Alfred Knudson. Alfred announced his intention to leave just a short time after I arrived on the scene.

Dr. Hartzell: Do you know the date?

Dr. Upton: I arrived at Stony Brook I believe on July 1, 1969, something like that, summer of 1969, as I recall.

Dr. Hartzell: How old were you?

Dr. Upton: Well, I was 46, and Knudson left that fall, so that we overlapped only a few months. With his departure a search committee was formed to help identify candidates and to recruit a new dean of Basic Health Sciences. I was asked to chair the search committee. And as we got into the consideration of the nature of the position, the qualifications the candidates should have and so on, it was suggested that I ought to put my hat in the ring as a potential candidate. I demurred initially, but as we thought about it

Dr. Hartzell: Who made the suggestion?

Dr. Upton: I don't recall now who was on the committee or how that suggestion evolved, but it seemed to me that would be a way in which I could be most helpful. I was the first department chairman in the Health Sciences. Actually, Mel Simpson chaired the

Department of Biochemistry and that was a department that had been created in the Division of Biological Sciences.

Dr. Hartzell: In the University .

Dr. Upton: In the University, but with the expectation that Mel would wear essentially two hats, that he would eventually have dual membership in the School of Basic Health Sciences, as well as in the Division of Biological Sciences. And there were no other faculty members in Basic Health Sciences at the time in the Health Sciences Center. So I recognized the deanship was a very important responsibility. There was a need to get about the business of building a faculty, so I decided I would be of more help in that role and get some fun out of it. So I recruited Marv Kushner to be chairman of Pathology, relinquished my position to him; I became the Dean of the School of Basic Health Sciences.

Dr. Hartzell: From what institution and position did you come, where were you?

Dr. Upton: I was at the Oak Ridge National Laboratory in Oak Ridge, Tennessee. I was responsible there for the section of pathology and physiology in the biology division. I'd had that job for some 15 years. I'd always assumed I'd go back to a teaching institution. I'd always aspired to be a professor somewhere. Over the years opportunities had come, but I was having so much fun doing research at Oak Ridge that I kept putting it off, putting off a departure from there. And when the opportunity came to join the staff at Stony Brook, it seemed to me I shouldn't defer any longer, I should take it.

Dr. Hartzell: Right. Who was primarily responsible for your coming?

Dr. Upton: Ed Pellegrino.

Dr. Hartzell: Ed Pellegrino.

Dr. Upton: That's right.

Dr. Hartzell: Where did you know him?

Dr. Upton: Well, I'd never really gotten to know him well. He reminded me that he had tried to recruit me to Kentucky when he had been at Kentucky before going to Stony Brook, and I'd forgotten that, but he apparently watched me and had become

interested in me. It was his effort that interested me in Stony Brook. Actually, there were other factors. My research had been done with radiation, and colleagues at Brookhaven were close by; the opportunity to continue to be active in radiation research through associations at Brookhaven through resources represented there was a factor. I had also come to be interested in the role of viruses in radiation carcinogenesis. And once again the strength in molecular biology at Cold Spring Harbor was another drawing card. So I think the rather exciting, ambitious, challenging prospects that Pellegrino sketched out in his plans for the Health Sciences Center, along with the proximity of colleagues at Brookhaven and Cold Spring Harbor, were the drawing cards.

Dr. Hartzell: I see, well, that's 6.

Dr. Upton: Six, right.

Dr. Hartzell: Five and 6; 7, what was your understanding of the purposes behind the creation of Stony Brook, what picture did you have at the time?

Dr. Upton: Well, I think that all of us in the '60's were highly impressed with the blueprint that was projected at the time. I think that Stony Brook was envisaged to become the "Berkeley of the East" so to speak, and this colored my own expectations. I foresaw the likelihood that one would have the opportunity at Stony Brook to help in the creation of an academic institution that had the mandate to be a center of excellence, a University in the fullest sense with all of the disciplines represented, an institution in which there would be encouragement for interdisciplinary communication and collaboration. So that was really the drawing card, a chance to do something new and create something new, create something very good.

Dr. Hartzell: Yes, right, that's

Dr. Upton: The next part of the question is was the vision being transformed into reality? Well, it seemed to be when I arrived on the scene. The people who were there were very good. There was an atmosphere of hope, activity, confidence, so that there was no reason as I arrived to think that the dream was going to be somehow nothing more than a dream.

Dr. Hartzell: Right; 8.

Dr. Upton: When I first came, as I say, the place was abustle. Pellegrino himself was a man of enormous energy, an unusual person, an idealist, great visions, amazing facility with language, with ideas, a renaissance man in every sense.

Dr. Hartzell: Practical?

Dr. Upton: Well, in a way, yes, he, I thought, was amazingly successful in engaging the interest and the support of people in the community, people on the campus, people in Albany whose support was crucial, so that I thought he was not only a dreamer, an architect, but a builder, someone who had the capacity to be sufficiently realistic to translate dreams into realities. It was a very exciting time.

Dr. Hartzell: How do you rate him against other people in the medical profession at that time?

Dr. Upton: Ed, to me, is a very special person, almost without comparison. Ed was not a brilliant clinician, a hands-on physician, he wanted to be, he wanted to remain strongly identified with the practice of medicine, he maintained ties and communication with medicine. Ed also wanted to be a scientist, wanted to be a scholar, wanted to contribute to the growth of medical knowledge, and actually maintained a laboratory. At the same time Ed was a product of the Jesuit tradition, a devout Catholic, raised in the Catholic faith, strongly concerned about ethics, the moral imperatives, the ethical imperatives of the profession, of a human being in the twentieth century, so all of these facets were somehow integrated into one personality and

Dr. Hartzell: That's rare.

Dr. Upton: It's an extremely rare situation. I don't know anyone else who embodies these characteristics to the degree that Ed does. Now, it's true that as one saw the problems that had to be surmounted -- in the early '70's the State found itself in a fiscal predicament and for a time the dream of a Health Sciences Center became highly questionable. I can remember one staff meeting when Ed came in and said that the plan to construct the new buildings to house the faculty and the hospital was in serious danger

of being scrapped and that we might all wind up in the Veterans Hospital at Northport, that might be a fall-back position, a compromise that would have to house the hospital and the medical operation at least during the foreseeable future. Well, all of us, of course, gasped, worried about how it would turn out. Somehow Ed and others prevailed over the Legislature and the moneys did come and the buildings did go up.

Dr. Hartzell: Ed addressed the Legislature himself?

Dr. Upton: I can recall he went to Albany to do this; I didn't accompany him so I don't know what he said, but he was a very charismatic and engaging person. Other events that stand out in my mind. Knudson who was the Associate Dean, actually the Dean for Basic Sciences, I think when I first arrived he was an Associate Dean for Basic Sciences and then the decision was taken to create a school with a separate Dean. But Al was an amazing guy, a very thoughtful, intelligent, highly motivated person, trained in medicine but with a Ph. D. degree in molecular genetics, as I recall, a consummate scientist; he had a strong impact on me. The other members of the faculty at the time, Ellen Fahy had been recruited as the Dean of Nursing, Howard Oaks as the Dean of Dentistry, Ed McTiernan as the Dean of Allied Health Professions, Sandy Kravitz the Dean of the Social Welfare; they were all impressive people, leaders in their own professions. It was an exciting time, an exciting company in which to be involved.

Dr. Hartzell: Did you have a hand in the construction planning, the planning of the buildings or the planning of the curriculum?

Dr. Upton: There was a chap on the staff working with Ed Pellegrino, a fellow named Jim Shaw who played the major role in the facilities planning, design, construction and so on; that was his task, to be responsible for facilities. I think he had some training in architecture. We were consulted, those of us who were part of that early group, the Deans were consulted by Ed about the physical plant. And I'll never one meeting in which Bertrand Goldberg, who was the chief architect for the Health Sciences Center, was

Dr. Hartzell: For the clinical tower?

Dr. Upton: Yes, the clinical, the hospital building, the megastructure as it was called, would connect the basic science tower, the tower for the medical faculty, and the tower for the hospital. Goldberg was a colorful, flamboyant sort of person and came with a retinue of associates, and large architectural drawings rolled up under his arm. He gave a slide talk to explain his design and his plan for the physical layout; it was a labyrinthine structure that he tried to describe to us. And I will never forget, at one point he got lost in the drawings as they were projected onto the screen and lost his patience, and said, I wish someone would tell me what it is I am trying to point out to you. But I personally thought that the plan as Goldberg had envisioned it might turn out to be highly efficient in that it would enable interaction among the components of the Health Sciences Center, the different schools, the different departments. But obviously, I say obviously, in my view when that structure finally took shape on the landscape, I was aghast. It just, it seems to me totally out of keeping with the pastoral landscape of Long Island. It might fit in a metropolis, downtown New York or downtown Chicago, but I don't, it offends my aesthetic sense in its present setting there.

Dr. Hartzell: That's, I think that's unavoidable in a sense

Dr. Upton: It may be progress.

Dr. Hartzell: Well, to put all of that footage spread out, you'd have to do a lot of walking around.

Dr. Upton: Yes, that's true. I've seen a building, there are buildings like that though. I was at the Bureau of Standards, which is now the National Institute of Standards and Technology, at Gaithersburg, Maryland; I was there on Monday. And they do have a series of wings connected by corridors that spread out a great distance over the landscape. It's true one needs to do a good bit of walking, but it doesn't offend the eyes; and that structure that houses the Health Sciences Center at Stony Brook to me is an affront to my aesthetic senses whenever I see it.

Dr. Hartzell: I think you're not the only one.

Dr. Upton: It may be efficient, but it certainly isn't beautiful in my view. You asked about the curriculum, yes, I did have as Dean of the School of Basic Health Sciences a major responsibility for bringing together the faculty members, and there were only a few in those early days -- biochemists and microbiologists, pharmacologists, pathologists, and so on -- in the discussion of the curriculum. I put the plans together, actually translate the plans into a teaching program; it was very exciting.

Dr. Hartzell: Just tick off the basic health sciences.

Dr. Upton: Well, let's see now, the notion was that the non-clinical sciences would be taught by a faculty who administered to all of the health professionals, so that the same faculty in biochemistry, in microbiology, in pathology, pharmacology, and anatomy -- those were the key departments -- would teach medical students, dental students, nursing students, students in allied health, students in social welfare; so that each of the professional schools would not have its own department of anatomy, its own department of biochemistry. One wouldn't duplicate those departments. It was recognized that departments would have to be a little larger if they were going to teach that many more students. But there would be advantages in having one department on the campus that had responsibility for a given discipline, and having a strong department large enough to provide instruction to students in different programs.

Dr. Hartzell: To your knowledge has that been carried out?

Dr. Upton: To my knowledge that has been carried out. About the time I left Stony Brook, and I left in 1977, in the summer of 1977, I left to go to the National Cancer Institute, and about that time the issue as to whether the basic science departments ought to be incorporated into the medical school so that the school of basic health sciences would cease to exist as an independent entity or whether they should remain independent. The issue was being debated, and there were strong feelings on both sides. The separation of the basic sciences from the school of medicine is an unusual arrangement. In most other medical school the basic science faculty are part of the medical faculty. And I think it was a source of some tension, some unease, some anxiety at Stony Brook

that the basic science faculty should be independent from the medical faculty. So I think the primary pressure, primary interest in the amalgamation, if you will, came from medicine. Perhaps some of the basic science faculty also wanted to join the medical school and may have seen this as having advantages to them. But I can only imagine that people in the other schools, dentistry, nursing, allied health and so on, viewed such a merger of basic science and medicine with some misgivings.

Dr. Hartzell: Do you know what happened actually, because I

Dr. Upton: I'm not dead sure, it's my impression that the basic sciences did join medicine, so that the department of pathology now, the department of microbiology are part of the medical school. I couldn't swear to this, but I think that's what happened, or at least to a degree that happened. Biochemistry may have stayed independent, it may have remained in the biological sciences and microbiology may have remained there. Pathology, pharmacology, physiology might have gone into medicine; I neglected to mention physiology before, but that was one of the disciplines in the basic sciences, separate department, Van der Kloot was the chairman of that department.

Dr. Hartzell: Can you tick off the chairmen of the other departments?

Dr. Upton: Well, I helped to recruit them so I ought to be able to remember them, let's see if I can. As I mentioned Mel Simpson was already there and was the chairman of biochemistry. Van der Kloot was recruited as the chairman of physiology and biophysics. Maynard Dewey was recruited as the chairman of anatomy. Marvin Kushner was recruited as the chairman of pathology. And Arthur Grollman was recruited as the chairman of pharmacology. Joe Kates was recruited as the chairman of microbiology. So those were the key chairmen, the initial chairmen of those departments.

Dr. Hartzell: I wonder how many of them are still there?

Dr. Upton: Well, Kushner of course is there, he became dean of the school of medicine after Ed Pellegrino left. Ed wore the two hats initially as Vice President for the Health Sciences and Dean or at least Acting Dean of the school of medicine. Mel Simpson is still on the campus I'm told, he's no longer chairman of biochemistry. Bill

Van der Kloot I think is still chairman of physiology, I'm not certain of that. Maynard Dewey is still there, and I don't know whether he's still chairman of anatomy. Joe Kates is no longer at Stony Brook, he went to Scripps on the west coast.

Dr. Hartzell: Oh, really. What was his department again?

Dr. Upton: Microbiology. Arthur Grollman is still on the campus, and I think he is still chairman of pharmacology.

Dr. Hartzell: Okay,

Dr. Upton: What was my understanding of my own place? I was recruited, I think, to help develop the department of pathology. And as I explained I got involved in trying to help recruit a new Associate Dean of basic sciences. I think I was appointed because Ed Pellegrino and others, and on the search committee, Victor Bond from Brookhaven was one of the members, saw me as someone who had established himself in science. I was recognized as a strong scientist in my field, someone who had demonstrated leadership capabilities. They saw me as a reasonably good candidate to help build a department of pathology. And I'd had other offers to go elsewhere to chair pathologies; this wasn't the first time someone had seen me as having the qualifications to chair a department of pathology. As I mentioned earlier I thought this was going to be a good place, and the prospect of being able to build a department of pathology that could draw on the strengths of Brookhaven and the strengths of Cold Spring Harbor, not to mention the strengths of the Stony Brook campus, was a very exciting and attractive prospect. How have these expectations worked out? Well, I was very happy at Stony Brook. I had the good fortune to help in recruiting good people, planning curricula for several schools, medicine, dentistry, nursing, allied health and so on; helping to put up buildings and open schools, grant degrees. So, it was very creative, very exciting. I discovered that as I worked at the Dean's office and actually as the faculty came into being, the institutions began to operate, that I was not so happy just administering the school. The fun for me was in helping it develop. Once it came into being, I hankered to go back into science.

Dr. Hartzell: Well, that sounds like Ed Pellegrino too.

Dr. Upton: Yeah, that's true, he was more of an architect than an administrator; and I too have gotten more pleasure out of creating, building than in overseeing the day-to-day operation, so I recognized after I had been in the Dean's office for about five years that if I didn't go back to research very soon, the field would move away from me, and I would never catch up to it again. So, I resigned the deanship and went back into the department of pathology as a teacher and investigator.

Dr. Hartzell: You did that while you were still at Stony Brook.

Dr. Upton: I did that while I was still there, and it was a very happy experience for me. I don't have any regrets at all, going to Stony Brook or actually taking on the tasks that I did. I don't think that I failed in my efforts. The school today I think is an excellent medical school and still a young one, but it has done very well, and so I think my efforts worked out well for me, and as far as I know, worked out well for the institution.

Dr. Hartzell: When you speak of the institution, you're talking about the entire health science center?

Dr. Upton: Talking about the whole campus actually, if you want to say that maybe the whole State University. As I mentioned earlier, those of us who were involved with the Health Sciences Center in its infancy envisaged that Stony Brook itself would be one of the great universities of this country, that it would not somehow be aborted, it would ultimately grow and develop into a strong University, and the Health Sciences Center would be preeminently strong academic Health Sciences Center, would ultimately rank with the best in the country. We would not just turn out country doctors, as it were, but it would have established a scholarly tradition.

Dr. Hartzell: You sound a little bit like those people who wrote the Heald Report.

Dr. Upton: I had seen references to that Report. I looked at some pages of it now and then, but I don't recall now the details, so that I couldn't agree or disagree with that comment.

Dr. Hartzell: Well, at the time Heald was President of the Ford Foundation, and there is a phrase in it that Stony Brook should stand with the finest in the country.

Dr. Upton: Yes, well, we wanted it to, we hoped that it would. And we set out to try to make that happen, and I think that it will happen, I think that it is happening. Stony Brook is still new, still fairly small. I don't think if one polled people in academic medicine across the country, Stony Brook would be named in the top ten, but it certainly is in the top 20 or 30 schools, I would say, which is very good.

Dr. Hartzell: All right, were your activities confined to the Stony Brook campus.

Dr. Upton: Yes, yes, I may have gone to Albany once or twice with Ed Pellegrino on various official missions because I did serve as the Dean of the school of basic health sciences, and there were budgets that had to be presented in Albany, but I don't think that I ever went there alone, and I never cultivated a close acquaintanceship with colleagues in the Central Office of the University.

Dr. Hartzell: Was Norman Hurd the Director of the Budget then under Rockefeller?

Dr. Upton: That name is familiar to me but I'm not sure that he was the Budget Office during the time that I was there.

Dr. Hartzell: Did Rockefeller die while you were there?

Dr. Upton: I believe he did, I believe that, I can't recall the chronology now.

Dr. Hartzell: And was Governor Carey, did he come in while you were there?

Dr. Upton: I don't remember. I do recall that during the time I've been at NYU since 1980 Carey was the Governor, and he appointed me to a panel that I served on after I came to NYU. So my guess is that he was not in office when I was at Stony Brook.

Dr. Hartzell: Then you went from Stony Brook to National Institutes?

Dr. Upton: Yes, I was asked to allow myself to be considered as a candidate for the directorship of the National Cancer Institute, and thought a lot about this because, as I mentioned to you, I wanted to get back into teaching and research. But my career had taken me to the Cancer Institute many times as an advisor; I served on one of the study sections, much of my research had concerned cancer, carcinogenesis, and the prospect of

serving as the director of the Institute helped me to advance the program was so challenging, so fascinating that I agreed to do it. And again, after being there for maybe about a year, it was clear to me that there was too much politics, much too much administration and much too little science to make Art Upton happy, so I realized that was not a good place for me to spend the rest of my life, and I decided to come back to an academic setting, and had the chance to come back to NYU and did so. I say back to NYU, I had the chance to come to NYU.

Dr. Hartzell: Were you a native of New York?

Dr. Upton: No, I grew up in Ann Arbor, Michigan.

Dr. Hartzell: Oh, really.

Dr. Upton: And spent the first part of my academic career at Michigan, went to Oak Ridge supposedly for just a couple of years to do some full-time research and then come back to a medical school somewhere.

Dr. Hartzell: When did you go to Oak Ridge?

Dr. Upton: I went there in 1951, that was again so engaging, so fascinating, I got involved with so many interesting things that I let almost two decades go by.

Dr. Hartzell: Did you know Pollard down at Oak Ridge?

Dr. Upton: I knew Pollard, yes, we were not close personal friends, but I knew him, admired him very much.

Dr. Hartzell: There are two Pollards, Ernie Pollard was biophysics

Dr. Upton: Ernie Pollard was at Yale, that's right; I knew both of them.

Dr. Hartzell: The first name of the other Pollard escapes me.

Dr. Upton: Yes, I must say I am blocking on it at the moment too. It will come to me but it doesn't come right now. When I try to force those things, it often works in reverse.

Dr. Hartzell: Right, I visited Oak Ridge once. I left Brookhaven in 1952, I was in the Director's Office. Okay, let's see, well, 14, do you want to summarize that. What do you feel that you yourself had accomplished. I think you probably

Dr. Upton: Well, let's take a shot at that. I went there in 1969 as chairman of pathology. Knudson left, I joined the search committee, I think I was appointed Dean of the School of Basic Sciences in 1970, and I think shortly thereafter or about simultaneously I recruited Marvin Kuschner, or helped to recruit Kuschner as chairman of Pathology.

Dr. Hartzell: From where?

Dr. Upton: From NYU, and he brought along some very good people -- Aaron Janoff and Fred Miller and Mildred Phillips -- all came to Stony Brook from NYU largely through the efforts of Marvin Kuschner. Phil Kane also. So I think, and Bernie Lane. So they were the nucleus of the department of pathology that had been my responsibility to create did come into being pretty much by the end of 1971.

Dr. Hartzell: When did Lauren Ackerman come, do you know?

Dr. Upton: Lauren, I believe, was later. I couldn't pinpoint the year. Marvin deserves the credit, it was really Marvin who brought these pathologists to Stony Brook, but I brought Marvin. So, you ask what did I accomplish by 1971, I think we laid the foundation at least for the department of pathology, which is a good department. We brought some excellent people, I can't emphasize, claim the entire credit because it is really Marvin's work, but I brought Marvin. Now, also by the end of 1971 we had probably recruited, again I can't pinpoint the dates, but I would think that Van der Kloot, who is chairman of physiology, Dewey, who is chairman of anatomy, those appointments had been made, so that by the end of 1971 we had the makings of the basic science faculty. It took longer to get the department of pharmacology. Grollman came later, Kates came later, as I recall, in microbiology. So we hadn't really put the school together, but we'd gotten a very good start by that time.

Dr. Hartzell: I remember seeing an entire shelf, really about two or three shelves of red backed volumes representing the plans for the University, for the Health Sciences Center.

Dr. Upton: Yes.

Dr. Hartzell: Who developed those?

Dr. Upton: Well, I would suppose those were Ed Pellegrino's plans primarily, he and Knudson, yeah. Howard Oaks was recruited fairly early, and I think had a large contribution to the development of the plans. My own contribution is minimal. They were pretty well in existence by the time I got there.

Dr. Hartzell: I remember interviewing Ed Pellegrino the time that he was being considered, and at the time I was interested in individual differences and the physical basis of intellectual characteristics, and I had talked with the head of the mental hospital in Danville, Pennsylvania, this was when I was at Bucknell as Dean; and also since we were in Lewisburg, I talked with the Warden of the Penitentiary, and they both expressed keen interest and desire to get at the physical basis of the characteristics with which their institutions were dealing -- criminal intent and mental imbalance. The Warden said he'd give his eye teeth if he could find some basis, physical basis, for determining more accurately whether to parole or not.

Dr. Upton: Right, well, I think we all want very much to understand how the mind works, and neuroscience today, neurobiology is a very exciting field because we are beginning to sort out the chemical reactions that are responsible for cognition, memory, emotions. We're still a long way away, I'm afraid, from an adequate understanding, and the age-old question of relative importance of nature as opposed to nurture hasn't been answered. But many of the, increasingly we are learning the chemical basis for neurological, emotional, mental activities.

Dr. Hartzell: Ed and I got together on that, when Johnny asked me what I thought of him I told him I thought he'd make a first-rate leader.

Dr. Upton: I think he was an extraordinarily good choice. Question 15 asks about other individuals. I do recall John Toll as immensely dedicated, forceful person. Alec Pond I remember, Bentley Glass I admired enormously, in my view almost the archetype professor of biology. So I think that that group of people who

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Dr. Hartzell: Is there anything else, have I asked all the questions?

Dr. Upton: I think you've asked them very well. I was just going to say that I think given the constraints that we've had to deal with and the limited resources from the very instant the Health Sciences Center came into being, it has succeeded remarkably well. It has an excellent hospital, which is now recognized as providing top quality care, tertiary care, which is a very important resource to Long Island. The faculty contains scholars who have world stature in their respective fields, so that the University can be proud of the academicians that are present in the Health Sciences Center.

Dr. Hartzell: What about the clinical side?

Dr. Upton: The clinical, as I said, I think the hospital is an excellent institution. I'm not sure that it has grown as rapidly or as large as people imagined that it would or should.

Dr. Hartzell: I think it's around 450 beds.

Dr. Upton: Yes, that's probably a minimum for the full scale teaching hospital to have the strengths one needs in all the different disciplines. But I think we are seeing in medicine today very serious questions about priorities, the economics of health care are posing formidable problems to society, and it is not astonishing that an institution that's really come into being only in the last twenty years should find itself limited in the rapidity in which it can grow, but it's grown as well, it seems to me, with enormous credit to the people who have responsibility for it.

Dr. Hartzell: Do you know anything about the hospital at Buffalo, I mean the Health Sciences Center at Buffalo?

Dr. Upton: I don't know it in great detail, I think that if one were to stand off and rank, try to rank Stony Brook and Buffalo, it would be my impression that in terms of federal research grant support, which is a measure of the scholarly activity in a place, Stony Brook would excel. If one were to look at membership in prestigious academies or professional leadership in professional societies, Stony Brook would excel. Buffalo's a good school, but I don't think, in my impression, very few people in the country would

rank Buffalo as one of the leading, first-rate medical schools in the country, not one of the top schools. Stony Brook, I think, as I mentioned earlier, is now seen as one of the top 20 or 30.

Dr. Hartzell: Anything else that occurs to you? Where do you think Stony Brook should go from here? Do you have any feelings about that?

Dr. Upton: Yeah, well, I think that we are witnessing today an explosive proliferation of new information. The science of medicine is really in its infancy, up until very recently, science was, medicine was more of an art than a science.

Dr. Hartzell: That part still remains.

Dr. Upton: The art is very important, the physician deals with fellow human beings, and the capacity to relate to other people, to reach out and touch and understand, minister to another human being is more of an art than a science. One has to be born with a certain sensitivity to begin with, compassion, but above and beyond that, the science of medicine is growing to beat the band. And I think that, as Ed Pellegrino envisaged, the medicine of the future really needs to involve an input, a strong input, strong participation from all branches of science, ideally from all university disciplines. Stony Brook has the capacity to develop in a way that allows this to happen. The integration of disciplines can occur there. I think that one should strive to make that happen there. The school is new enough, traditions are not cast in concrete in a way that need be true in other more established institutions. So it would be my hope that the people can lead their colleagues at Stony Brook and can shape the future there to make it possible for integration to take place.

Dr. Hartzell: That's the thinking of the Muir Commission Report.

Dr. Upton: Well, it seems to me a very prescient, very valid today.

Dr. Hartzell: You didn't mention psychiatry.

Dr. Upton: Psychiatry is, well, we mentioned the neurosciences in relationship to the wishes of the colleagues whom you knew at Bucknell. I think that psychiatry is perhaps one of the latest of the medical disciplines to become really scientific. The field

of neurobiology is changing that very rapidly. It's all the more important, therefore, that psychiatry not be allowed to lag behind.

Dr. Hartzell: Right. And it's important that psychologists realize that there is another dimension other than the clinical observation.

Dr. Upton: Absolutely.

Dr. Hartzell: There are a lot of them that don't seem to take that in.

Dr. Upton: Well, psychiatry, of course, has been powerfully influenced by Freudian thought, and for me it is difficult to reconcile Freudian ideas with molecular notions, with neurobiology, they are different cultures. But as you point out, I think the best academic psychiatrists today recognize that these two cultures each have their place and have to be married best one can. One wants ultimately to find a way to reconcile and integrate the lessons, the concepts, the principles that flow out of both approaches to the field. And again, I think that can and should happen, Stony Brook is a good place for it to happen.

Dr. Hartzell: Okay, well, thank you, I think I have run out of questions or ideas.

Dr. Upton: Well, it's been a fascinating interview, I'm delighted to have a chance to look back and to recall what for me was a very happy and exciting time.

Dr. Hartzell: Good, good, well, it was nice of you to see me, and I appreciate it very much.

Dr. Upton: Delighted.

[end of interview]