Lewis A. Barness, MD

Interviewed by
Howard A. Pearson, MD

November 20, 1998
Tampa, Florida

This interview was supported by donations from the following institutions and individuals:

The Department of Pediatrics at the University of South Florida
Dr. Jane D. Carver
Drs. Robert Good and Noorbibi Day
Dr. and Mrs. Alvin Felman
Dr. and Mrs. Jaime L. Frías
Dr. Patricia N. Jeansonne and James H. Jeansonne

Dr. Richard Lockey
Dr. and Mrs. Robert E. Olson
Dr. and Mrs. Robert M. Nelson, Jr.
Dr. Howard A. Pearson
Dr. and Mrs. Herbert H. Pomerance
Dr. and Mrs. Allen W. Root
PREFACE

Oral history has its roots in the sharing of stories which has occurred throughout the centuries. It is a primary source of historical data, gathering information from living individuals via recorded interviews. Outstanding pediatricians and other leaders in child health care are being interviewed as part of the Oral History Project at the Pediatric History Center of the American Academy of Pediatrics. Under the direction of the Historical Archives Advisory Committee, its purpose is to record and preserve the recollections of those who have made important contributions to the advancement of the health care of children through the collection of spoken memories and personal narrations.

This volume is the written record of one oral history interview. The reader is reminded that this is a verbatim transcript of spoken rather than written prose. It is intended to supplement other available sources of information about the individuals, organizations, institutions, and events which are discussed. The use of face-to-face interviews provides a unique opportunity to capture a firsthand, eyewitness account of events in an interactive session. Its importance lies less in the recitation of facts, names, and dates than in the interpretation of these by the speaker.

Historical Archives Advisory Committee, 1998/99

Howard A. Pearson, MD, FAAP, Chair
David Annunziato, MD, FAAP
Jeffrey P. Baker, MD, FAAP
Lawrence M. Gartner, MD, FAAP
Doris A. Howell, MD, FAAP
James E. Strain, MD, FAAP
ABOUT THE INTERVIEWER

Howard A. Pearson, MD, FAAP

Dr. Howard A. Pearson is Professor of Pediatrics at the Yale University School of Medicine in New Haven, Connecticut. He was graduated from Dartmouth College and from the Harvard Medical School in 1954. He served a rotating internship and a two-year pediatric residency at the U.S. Naval Hospital in Bethesda, Maryland. He then had a fellowship in pediatric hematology under Dr. Louis K. Diamond at the Boston Children’s Hospital. His first academic position was at the University of Florida College of Medicine in Gainesville. In 1968 he came to Yale as Professor of Pediatrics and Chief of Pediatric Hematology/Oncology. Between 1972 and 1985, he was Chairman of the Department of Pediatrics at Yale and Chief of the pediatric service at Yale-New Haven Hospital. In 1991, Dr. Pearson was elected Vice President of the American Academy of Pediatrics and served as AAP President in 1992. In 1993, he was appointed to the AAP Historical Archives Advisory Committee and served as its first chairman.
DR. PEARSON: This is Dr. Howard Pearson. I am in the home of Dr. Lewis A. Barness in Tampa, Florida on November 20, 1998 to take an oral history for the Historical Archives [Advisory] Committee of the American Academy of Pediatrics.

DR. BARNESS: Welcome to my home. I know you were here some years ago.

DR. PEARSON: Lew, I've read your several biographic sketches and, of course, we have interacted many times over the last forty or so years and we have many mutual friends. I have a crib card on which I've listed things that I hope we can cover, but I want this to be as free-floating and as much fun as possible. So if you want to take detours, that'll be terrific. I think the best place to start is at the beginning. I learned from Grant Morrow that you were born in Atlantic City, New Jersey.

DR. BARNESS: That's correct. My parents had gone there for a vacation before my mother was ready to deliver, and she delivered a little early.

DR. PEARSON: So Atlantic City was an accident.

DR. BARNESS: I think probably the pregnancy was an accident, I'm not sure.

DR. PEARSON: Where were your parents from?

DR. BARNESS: Originally, they were both from Russia. They immigrated to the United States when they were quite young, in the early part of the twentieth century, to Warrington, Pennsylvania. My parents were farmers. They farmed in Warrington in beautiful Bucks County. I can't even recognize the place anymore. My father ran a truck farm. We had about twenty cows and sold the milk from them. He raised vegetables and he also raised some of the food for the cattle; hay, clover, and stuff like that. At one time I thought I was going to be a farmer. Then I saw how hard my father worked and I said, "That's not for me."

DR. PEARSON: You went to school in Bucks County?

DR. BARNESS: Yes. I went to a one-room school that was called Bucks Castle Valley School. Then from there I went to Doylestown High School.

DR. PEARSON: You have brothers and sisters?

DR. BARNESS: I have a brother, or rather I had a brother. He died about
a month ago.

DR. PEARSON: Probably not many kids from Bucks County went to college, much less than Harvard College.

DR. BARNESS: I don't know, but quite a few went to other colleges. My high school class had 104 kids in it. It wasn't a huge class.

DR. PEARSON: But how did you get to Harvard [University]?

DR. BARNESS: Well, actually, my Latin teacher talked my parents into having me apply to Harvard. I had no idea what Harvard was but I knew it was a college. We got together the $5.00 fee for the application and I applied to Harvard College.

DR. PEARSON: You were sixteen years old when you went to Harvard?

DR. BARNESS: Yes. I started in 1937, so the War was on in Europe but it was four years before we got into it. I was in medical school on December 7, 1941.

DR. PEARSON: You took four years at Harvard College and got an AB. What did you take for courses?

DR. BARNESS: My major was biochemistry but I also took music, history and English. You know, at that time James B. [Bryant] Conant [President of Harvard University] had this idea of a broad education regardless of what you planned to do later. You had to have a certain number of courses outside of your major. Conant had become president about two years before I started college. He had great ideas about well-balanced education. He himself was a chemist. He became one of the advisors to the Manhattan Project and he resigned as Harvard president to do that.

DR. PEARSON: During biochemistry studies there came a decision about medicine. How did that come about?

DR. BARNESS: I think that when I started college I had the idea that I wanted to be a pediatrician practicing in Doylestown, Pennsylvania. I think that was my goal from a young age on.

DR. PEARSON: Were there any role models or family doctors?
DR. BARNESS: The guy who was our family practitioner, I think, was my role model. But also I had a cousin who was in family practice. You may indirectly know this cousin. His daughter married Donald Pious. Do you know the name Don Pious?

DR. PEARSON: No, I don't.

DR. BARNESS: Don died a couple of months ago. He was a pediatrician. He went to UPenn [University of Pennsylvania]. He was one of my students at UPenn and then he went to Yale [University] for his residency. But that was probably before you were there. Don was my cousin once removed. It was his father-in-law who was my cousin. His father-in-law graduated in 1929 and he graduated in 1950.

DR. PEARSON: Your role models were GPs [general practitioners] but you decided early to be a pediatrician. Why?

DR. BARNESS: I don't know why. I guess I felt that I would never grow up anyway.

DR. PEARSON: Then you decided to go across the Charles River to Harvard Medical School.

DR. BARNESS: It was the only place I got into. We didn't have much money and it cost $5.00 per application so I only put in two applications. One was to Harvard Medical School and one was to UPenn [School of Medicine]. Penn was close to home and at Harvard they knew me. I got in, so I took Harvard.

DR. PEARSON: How big was a class at Harvard Med School then?

DR. BARNESS: The admitting class was 125 and we graduated I think 138. The thirteen extras came down from Dartmouth Medical School and we got transfers from two-year med [medical] schools in North Dakota and North Carolina.

DR. PEARSON: The Harvard class is still the same size, about 150 now.

DR. BARNESS: Well, the bad thing about it now is that it's co-ed. We had only men in our class and no women.
DR. PEARSON: Ten years later we had four women in my class at Harvard. Now it's approaching 50 percent. Tell me about HMS [Harvard Medical School] in the forties when the War was on.

DR. BARNESS: Okay, the first four months was quite different from college. We had classes six days a week; anatomy and physiology and we had something else, I guess it was either biochemistry or histology. I distinctly remember on December 7, 1941, I was studying for anatomy and suddenly through Vanderbilt Hall came the news that Pearl Harbor had been attacked. Everybody stopped studying and [we] were trying to figure out what we were going to do. Shortly after that we joined either the ASTP [Army Specialized Training Program] or the V-12 Programs. We put on uniforms and we became privates in the Army or the equivalent in the Navy.

DR. PEARSON: That was your freshman year and then they accelerated?

DR. BARNESS: Yes, we graduated in just over three years. I had a job that I shared with a classmate, Bill [William] Richardson. In November of 1941, George Thorn, who then was Chairman of the Department of Medicine, had a project for the Air Force to study how high pilots could go without getting an adrenal response. So between the hours of 10:00 pm and 2:00 am every night we put conscientious objectors into a Compression-Decompression chamber in the School of Public Health. We took them up to the equivalent of about twelve thousand feet for four hours. Our job was to see that they didn't get into any trouble and then we collected their urine and brought it to the Brigham [Peter Bent Brigham Hospital] the next morning.

DR. PEARSON: These subjects were Christian Scientists or Quakers or what?

DR. BARNESS: They could have been. They were conscientious objectors who were deferred from the Army because of either their religious beliefs or their consciences.

DR. PEARSON: At the same time, I think the people in the Public Health School were also doing things with decompression chambers to look at submarine problems. There was a lot of wartime research at Harvard.

DR. BARNESS: The same chamber was used in the daytime to study pressure effects, but Thorn wasn't involved with that. There was a guy in pharmacology who was doing the pressure work, but I forget who he was.

DR. PEARSON: What about your clinical rotations? Were they abbreviated?
Did you go over to the City [Boston City Hospital] and the MGH [Massachusetts General Hospital]?

DR. BARNESS: I had surgery at MGH. I had medicine at two places, the Peter Bent Brigham and the Beth Israel Hospitals. I think I was at the Boston City mostly for lectures. For teachers there we had [William Bosworth] Castle and also [George R.] Minot. Minot was a very interesting guy. He put us asleep much of the time, but he was a very wonderful person. Another unusual guy, I don't know if you had him, was [Derek] Denny-Brown.

DR. PEARSON: The neurologist?

DR. BARNESS: Yes, he was great. His mustache was always flashing.

DR. PEARSON: How about Fuller Albright?

DR. BARNESS: He was at the Mass General. He was great.

DR. PEARSON: Boston City Hospital at that time was a hot bed of nutrition with Minot and [William Parry] Murphy [Nobel Laureates in 1934 for the treatment of pernicious anemia] and Castle.

DR. BARNESS: I never met Murphy, but Castle was there. But for us the Boston City was always the infectious disease place because of Maxie [Maxwell] Finland. There was also Henry Jackson who sort of covered the waterfront about everything.

DR. PEARSON: Yes, there was a big Harvard service there at the time. That's changed. You must have gone to Boston Children's Hospital for your pediatrics? Was Charles [A.] Janeway there at that time or was it pre-Janeway?

DR. BARNESS: No, that was before Janeway. I didn't meet Janeway in pediatrics. I met him in my second year when he was Assistant Professor of Bacteriology. That was before it was called microbiology. He was Assistant Professor of Bacteriology and I think that his office was at the City, but I'm not sure about that.

DR. PEARSON: And then Louis K. Diamond, of course, was at Boston Children's.

DR. BARNESS: I don't remember coming in contact with Diamond until I started residency.
DR. PEARSON: Who was chairman of pediatrics when you were a Harvard student? Was Kenneth [D.] Blackfan still alive?

DR. BARNESS: No, Blackfan had died just before that and Richard [M.] Smith was acting Chairman of the Department of Pediatrics. He was acting chairman I guess until Janeway took over. We had a bunch of circulating people, sort of acting chairmen; Allan [M.] Butler was one, James [L.] Gamble was another and Clement [A.] Smith got in there somehow.

DR. PEARSON: At that time depletion of faculty because of the war must have taken place.

DR. BARNESS: Yes.

DR. PEARSON: Did your medical school experience reinforce your earlier decision to be a pediatrician?

DR. BARNESS: I can't remember ever having any doubt about it, so I guess you'd have to say yes.

DR. PEARSON: So you graduated in three and a quarter years from Harvard and then like any good Pennsylvania person, you went back home to take a rotating internship at the Philadelphia General Hospital.

DR. BARNESS: Right. I expected to practice in Doylestown, Pennsylvania so I took a rotating internship that was required to get a Pennsylvania license until about 1960.

DR. PEARSON: Describe your rotating internship at the Philadelphia General Hospital.

DR. BARNESS: Well it taught me a heck of a lot. I think that we had practically no senior faculty at Philadelphia General Hospital. The resident on surgery had three years of training. He was the chief resident of surgery and he taught us surgery. The head of medicine was a third year resident. He taught us medicine. The same thing was true for pediatrics. It was wild.

DR. PEARSON: During this time you were still on active duty in the Army?

DR. BARNESS: I think we got deferred for the internship. We sort of got kicked out for that year.
DR. PEARSON: What happened then?

DR. BARNESS: I went on active duty with the US Army. I had basic training at Carlisle, Pennsylvania then went overseas in the Pacific. As soon as I got in, the Japanese said, "Enough's enough," and they quit. So I then entered the Army of Occupation. I was in Japan for about two years.

DR. PEARSON: So you went to the Pacific? VE [Victory in Europe] Day was over by then. Where did you go in Japan?

DR. BARNESS: Well, we were scheduled to go to Tinian where we were supposed to set up an evacuation hospital, but while we were on the way we were rerouted and ended up in Nagoya, Japan. We were the first ship to enter Nagoya after the war ended. We entered there, I guess, in about mid-September 1945.

DR. PEARSON: So it was post A-bomb [atomic bomb].

DR. BARNESS: Yes. They were in August.

DR. PEARSON: By the time you got there, were they ready to send you home?

DR. BARNESS: No, they said I had to stay on in the Army of Occupation. I was interested in pediatrics and they made me the infectious disease officer, having had a nine-month rotating internship. I saw smallpox. I saw hundreds of cases of typhus. It was very common then and, as you know, the treatment was to douse everybody with DDT [dichlorodiphenyltrichloroethane] powder. I saw a whole lot of gonorrhea and syphilis and treated that with sulfadiazine. Penicillin was only available on occasion. We would use 5,000 units of crystalline penicillin once a day for the treatment of gonorrhea.

DR. PEARSON: And it worked?

DR. BARNESS: It worked fine. People today hear about 5,000 units and think, "You're kidding!"

DR. PEARSON: When you finished the military, you went back to Philadelphia?

DR. BARNESS: No, back to Boston.

DR. PEARSON: Tell me about that because I am a little unclear in that you had
some sort of a fellowship before you actually became a pediatric resident.

DR. BARNESS: You're right, I had written to Janeway. By that time I knew that Janeway was chairman of the department of pediatrics and I said, "I know that you're interested in kidney disease and I would like to try to find out the mechanism of the hyperlipidemia in kidney disease." So he said, "Well, why don't you go over to George Scatchard at MIT [Massachusetts Institute of Technology] for three months or four months," whatever it was until my internship started. He was professor of physical chemistry at MIT. Hyperlipidemia, we found, was not an important factor in osmosis. I think I published a paper or at least it's in one of his papers.

DR. PEARSON: Three months and you're able to turn it into a paper. And then you started your regular residency. At that time pediatric training was two years. What was it like to be a post World War II resident in Boston Children's Hospital?

DR. BARNESS: It was wonderful.

DR. PEARSON: I'm sure the physical plant hadn't changed much when I was there a few years later. The Lab study building...

DR. BARNESS: And the infant ward

DR. PEARSON: And 300 Longwood Avenue. You rotated through the outpatient service. It wasn't a very important part of the residency at the time.

DR. BARNESS: Certainly one of the highlights of the outpatient department was Sydney [S.] Gellis. Syd was the director of the outpatient department. Bill [William J.] Berenberg had just joined the faculty. I think my first chief resident was either Jim [Robert James] McKay [Jr.] or Frederick [Chapman] Robbins.

DR. PEARSON: Not bad people.

DR. BARNESS: No, they were terrific, although I used to fight with them regularly. A kid came in with convulsions and I gave him 500 mg of phenobarbital. He still convulsed so I gave him another 500 mg of phenobarbital. The chief resident thought this was so horrendous that he went to Janeway to say I was a dangerous person. I said to Janeway, "Well look, I stopped the kid from convulsing didn't I?" Janeway just laughed and he said, "Okay." And that was that.
DR. PEARSON: Somewhere along this time, you must have begun to get the bug of nutrition.

DR. BARNES: It wasn't so much nutrition. It was the idea to try to figure out what was in breast milk that was so good. I started looking up the history of breastfeeding at that time. That was the extent of nutrition that I was involved with as an intern and resident.

When I finished my residency, my folks really wanted me to come back home. So I went back to Pennsylvania and started a practice. I was in practice, I guess, about eighteen months and I had an office in Warrington, Pennsylvania. I covered the Doylestown Hospital and I had an office in Philadelphia. While I was there, John [McKenney] Mitchell, who was then the secretary of the American Board of Pediatrics, was also the Dean at the University of Pennsylvania Medical School. He decided that there had to be a pediatric presence at the Hospital of the University of Pennsylvania [HUP] near the medical school. Children's Hospital of Philadelphia [CHOP] was four miles away and Mitchell thought that that was too far for the students in the early years. He decided that there should be a course in physical diagnosis given closer to the medical school. Paul Gyorgy was then at CHOP. His interaction with Joe [Joseph] Stokes [Jr.] was not the smoothest so they moved Gyorgy over to the Hospital of the University of Pennsylvania and gave him a salary to hire someone to give the course in physical diagnosis. So Mitchell wrote to Janeway, who was his brother in law, and then called him. He said, "Do you have anybody who can give a course in physical diagnosis?" Janeway said, "Ask Lew Barness if he wants to do it." I said, "I'll do it, but if I am going to do it I want to be full-time."

DR. PEARSON: So the rationale for the establishment of the pediatric service at HUP was that CHOP was too far away?

DR. BARNES: Yes. When I came there, they had circulated a CHOP resident to the nursery. Elizabeth [Kirk] Rose ran the nursery but any really sick child was shipped to CHOP. When Gyorgy moved there the inpatient ward was established. Fred Harvie succeeded Elizabeth Rose as head of the nursery.

DR. PEARSON: You had a delivery service, a nursery and a small pediatric service?

DR. BARNES: About twenty or maybe 30 inpatient beds. I'm pretty sure the residency program was going when I got there. I think Gyorgy had made
that switch five years before I got there. I was chief of service between 1957 and '72.

DR. PEARSON: Joseph Stokes was chief at CHOP?

DR. BARNESS: Stokes was chief at CHOP and Gyorgy was chief of HUP and I succeeded him. Gyorgy became chief at Philadelphia General Hospital [PGH] and I became chief at HUP.

DR. PEARSON: So there were three pediatric services in the University of Pennsylvania system?

DR. BARNESS: The PGH service was a service for five medical schools and there was a chief of each medical school there.

DR. PEARSON: Did they have a big pediatric service?

DR. BARNESS: It wasn't big enough.

DR. PEARSON: So the golden years of HUP were 1957-72. Of course the names of the people that trained with you then are legion and prominent. You know, for me one of the saddest things about this oral history project is that we never got to interview Frank [A.] Oski before he died. Tell me about people like Frank and Grant Morrow [III] and Bill [William J.] Mellman and the many others.

DR. BARNESS: I think the worst thing about being a teacher is to have your students die before you do. The first guy who took a fellowship with me was Bill Mellman. Bill Mellman graduated from UPenn about 1952 or '53 and worked with Peter [C.] Nowell who won the Lasker Award this year for the Philadelphia chromosome. That work was done by Peter and Bill Mellman and Ted [A.] Tedesco, a PhD who incidentally came down here to Florida with me, and another guy by the name of [M.] Batipps. They worked on squash preparations for counting chromosomes, but not during the time that Bill worked with me. At that time we were working on inborn errors of metabolism and that's what he was really trained to do. He left to take a year in London with Harry Harris in genetics and then he came back and started the genetic services in pediatrics at both HUP and CHOP. All of these guys were very intense but Bill was the most serious of them. He was looking for the cure of the world and he was very socially active. He had everything going for him when he developed lymphoma about 1975. During that time he had organized a university-wide human genetics program in the medical school, the undergraduate school, the dental school and the veterinary school. This fell
apart when he died. So that was Bill.

The next one who was outstanding was Frank Oski. I first met Frank when he was a third year medical student. That particular year we were teaching physical diagnosis in third year. He questioned everything that I said so I said, "If you're going to do that I think you'd be an excellent pediatrician." He came to me before the end of his third year in med school and asked if I would take him as a resident. I said, "Wait, you mean before you take the fourth year?" He said, "No, I'll follow the rules." I told him that he might well change his mind but in his fourth year he decided he wanted to take a residency with me at HUP. As a resident, as you well know, he was fantastic from the word go. He was enthusiastic; he was running all over the place. He had ideas about everything.

At that time, I'd decided that we weren't getting to the medical students early enough in their careers to have them know what pediatrics was, so we started a meeting on Saturday mornings. I bought them free coffee and donuts. I forget what we called the meeting, but we went through interesting stuff in pediatrics every Saturday morning. And the students came and the residents came and the interns came and pretty soon we had to get a bigger room down in the dining room. Bill Mellman, Frank Oski, Spike [Michael] Miller and Grant Morrow all participated. The chief residents kept coming back after years in practice for the Saturday morning thing, and they contributed too.

DR. PEARSON: I think that it is remarkable that your HUP colleagues like Frank and Grant still called you Chief many years later.

Did a lot of UPenn kids go into pediatrics at the time?

DR. BARNES: Yes, I think we consistently were above the national average, which at the time was seven or eight percent, and we were running about sixteen.

DR. PEARSON: Well, we've talked about Frank and Bill, how about Grant Morrow?

DR. BARNES: Grant and his wife, Janet, were in the same class at Penn and they went from medical school to Denver for residency. From Denver, Janet went into child psychiatry and Grant went to CHOP in neonatology under Tom [Thomas R.] Boggs at that time. When he finished his fellowship with Boggs he was looking for a job. I forget what the situation was, but he and Bongie [Alfred M. Bongiovanni, Chief of Pediatrics at CHOP] didn't get along
too well. Grant wanted to stay at CHOP but Bongie didn't want him there and so he came to HUP. We had a wonderful relationship. At about that time, I found methylmalonic acid. I had a grant with the Air Force and I had been working on Vitamin E to prevent liver disease. Our experimental rats had developed this unusual acid in their urine. At that time somebody in England had published a case of methylmalonic acidemia. In England they also developed its relationship to Vitamin B-12, surprise! So I said, "It's not Vitamin E." From there Leon Rosenberg discovered the second case.

DR. PEARSON: You were still doing nutrition during this time?

DR. BARNES: I missed getting support for a lot of work in folic acid. You know in the '60s we learned that folic acid in the form that was in infant formulas could not be absorbed. I tried to get NIH [National Institutes of Health] grant money to study this but failed. Frank Oski said that he would get money from one of the formula companies. He tried and we could not get any money there either. About 1970 or '71 finally somebody pointed out that the folic acid in infant formulas was unabsorbable because it was a polyglutamate. So then an absorbable form began to be added in the beginning of 1971.

DR. PEARSON: One of your many battles with the formula companies.

DR. BARNES: That's correct. When Frank and I published about Vitamin E deficiency the formula companies said, "There's no such thing as Vitamin E deficiency with our formulas."

DR. PEARSON: Your Vitamin E story convinced me about how sensitive the antennae of industry is. By the time your papers came out in the *Journal of Pediatrics* and the *New England Journal of Medicine* they had put Vitamin E in everything.


DR. PEARSON: At that time, too, HUP had Maria Delivoria-Papadopoulos in the nursery?

DR. BARNES: Fred Harvie was still head of the nursery but Maria was his associate and she was the investigator in the nursery. Frank Oski, Bill Mellman, Grant Morrow, Spike Miller, this time was absolutely wonderful.
DR. PEARSON: I've heard stories about you and water pistols.

DR. BARNESS: Around my second or third year at Penn, they built something called Alumni Hall at the Hospital of the University of Pennsylvania. This auditorium was maybe more steeply sloped than usual, like an amphitheater. Anyway, we were assigned to give pediatric lectures at four o'clock in the afternoon to the second year class. I was absolutely determined that no one was going to sleep during my lecture even if it was four in the afternoon. When I was a college student I had a teacher who when you slept threw pieces of chalk at you. I started out and if I saw somebody sleeping or dozing in the fourth or fifth row, I threw a piece of chalk at them. I did this, I guess, for a couple of months and then one day I hit a guy about one inch above his eyes, so I switched to water pistols. I still use the water pistol, so I've been using it for about 35 years. But, they'll still sleep. Most of my lectures are not straight lectures anyway; I ask questions during the lecture, so they're scared to go to sleep anyway, especially if you know their names. If you don't know their name, a water pistol is very effective. My pistol will go very accurately for about thirty feet.

DR. PEARSON: The only one I knew who adopted the pistol was Frank Oski.

DR. BARNESS: I think Grant did for a while but he couldn't get the thing right and it leaked.

DR. PEARSON: Well, as I said before these were the golden years of HUP. I gather around 1972 or 1973 things began to change in Philadelphia. What happened?

DR. BARNESS: At that time for pediatrics, it should have been a great time. CHOP was going to build a new hospital that was started in 1970 or 1971. It was supposed to open in 1973 so everyone was looking forward to the new hospital. By that time Frank Oski had moved to CHOP as head of Hem/Onc [Hematology/Oncology].

The way CHOP got the money for the new hospital was interesting. Joe Stokes was then emeritus and Al Bongiovanni was the chairman of the Department of Pediatrics. People at HUP were to be moved to CHOP. Joe Stokes was to raise the money for the hospital from the community. I was to raise money for the teaching spaces. We got money from NIH because there were special NIH grants for teaching facilities at that time. Ours was the last money that the NIH gave specifically for teaching space. Stanley [Stanton] Siegel had designed his own research space and Al Bongiovanni, I think, designed the
endocrine space. I designed the research space for Lester Baker and for Charles [A.] Stanley and for the people that I was bringing over from HUP

DR. PEARSON: There was a big research component at CHOP at that time, and it's been maintained hasn't it?

DR. BARNESS: It sort of went down and then came back up.

DR. PEARSON: But wasn't this the time that a really mass migration from Philadelphia and HUP to the four corners of the country took place?

DR. BARNESS: Yes. Frank went to Syracuse [State University of New York Medical School, Upstate]. This gave him an opportunity to show what he could do by himself.

DR. PEARSON: As I remember, pediatrics at Syracuse was about as low as it could be at that point, so anything good that happened was clearly Frank's creation.

DR. BARNESS: That's right and it became one of the choice residency programs by the time he got through there. But I should point out that when he went to Johns Hopkins from Syracuse, Hopkins was also down; they couldn't get pediatric residents. He quickly brought it back up to one of the prime residency programs in the country.

DR. PEARSON: I remember presenting a paper about the Oski effect on pediatric residencies at a meeting of the APS-SPR [American Pediatric Society - Society of Pediatric Research]. The number of Hopkins students going into pediatrics after the first three or four years that Frank was there doubled or tripled and virtually every student who applied for a pediatric residency in the whole country applied to Johns Hopkins.

DR. BARNESS: Well, Frank took one of my chief residents, Walter [W.] Tunnessen [Jr.], to Syracuse and he took Jim [James A.] Stockman [III] with him, too, from CHOP. Stockman had been one of my HUP residents but he was also a fellow at CHOP. He took Lenny [Leonard B.] Weiner too.

DR. PEARSON: And he cleaned house when he got there.

DR. BARNESS: Well it's interesting that at Syracuse was a fellow by the name of Al [Alfred] Steinschneider, an expert in sudden infant death syndrome [SIDS]. Frank certainly wasn't impressed by him and Frank moved him out long before some of the controversies about sudden infant death broke.
Grant went to Tucson, Arizona as head of the nursery before moving to Columbus, Ohio as Head of Pediatrics. Spike Miller went to Sacramento, California and started building up pediatrics there. He got into conflict with another one of my chief residents, Barry Cohen, then in private practice, who was caring for all the immunology cases that Spike needed for teaching. Spike then accepted the job as head of pediatrics at Pittsburgh, Pennsylvania. While he was packing to go to Pittsburgh, he had a massive coronary and was asystolic for a number of minutes before he was resuscitated. And he never got back to full shape after that and he never left for Pittsburgh.

DR. PEARSON: Yes, I know that story because Mike [Myron] Genel in my department at Yale was Spike's relative.

DR. BARNESS: That's right, he was Spike's brother-in-law. They married sisters.

DR. PEARSON: Mike, at the time, was working in Washington, DC on transplantation legislation with then Senator Al Gore. Mike thought that it was ironic that his brother-in-law might someday be a recipient of a heart transplant.

DR. BARNESS: I should tell you that I offered Mike Genel a chief residency in 1966 or '67 but he went into the army or some federal agency instead and he went down to Puerto Rico. I was invited to go to Puerto Rico as a visitor and my wife and I went down there. We saw Mike Genel drinking at a bar and he looked like he was having the time of his life.

DR. PEARSON: Shortly thereafter he came to Yale.

DR. BARNESS: And he hasn't stopped drinking since?

DR. PEARSON: I can't speak to that but he did stop smoking. When he came to Yale he was a chain smoker. He would stand up to lecture with a cigarette dangling out of his lips and yellow stained fingers. Then he stopped smoking cold turkey and started running and is still running -- even marathons.

And then you moved south to Florida.

DR. BARNESS: Yes, there was a new school that was starting at the University of South Florida in Tampa. Since everyone at UPenn knew my jokes, I figured I would come to virgin territory. And I had a wonderful time. The first five years here were glory years. I don't know if you know their
names but we produced some great people. You've certainly heard of James [A.] Hallock, who is now the provost at East Carolina Medical School. You may have heard of James [M.] Sherman in pulmonary disease. We didn't do too well in hematology and oncology; we haven't produced anybody.

DR. PEARSON: Go back a bit to starting the school. You were recruited by Dean Donn Smith?

DR. BARNESS: Yes.

DR. PEARSON: I knew Donn slightly, but I never was much taken by him. He was an old Navy man, wasn't he?

DR. BARNESS: No, he was cavalry.

DR. PEARSON: Cavalry, right. He was the foulest-mouthed man I think I ever interacted with.

DR. BARNESS: That's probably true, but he was great with me. You know, there was one thing about him. I'd go to him and say, "Look I need a salary." And he'd say, "When do you need it?" And I'd say, "Yesterday." He would say, "No, you can't have it." But about a week later he'd come to me and say, "I can get you the salary, go get your guy." He never told me anything that he didn't follow through with.

DR. PEARSON: Tell me about the perceived necessity for establishing a new medical school in Florida. Was it controversial to put a school in Tampa? The University of Florida Medical School in Gainesville wasn't really that old and the University of Miami School of Medicine was prospering.

DR. BARNESS: You know, I was not here during that battle but the issues were that doctors were coming to Florida from outside the state. Many people in Florida were complaining that they were not getting very good doctors coming in to practice full time in Florida. Many of them were only coming in the wintertime - so called snowbirds. And the Florida doctors were complaining that these out-of-state doctors were here only to treat rich people when they were here on vacation and then would leave them. Also, the state's population was exploding. So it was decided by the state politicians that there had to be another school located in a metropolitan area.

DR. PEARSON: George [T.] Harrell [Jr.], who was the founder and the first Dean at Gainesville, felt very strongly that a medical school should be adjacent to its
parent university and I guess this was the rationale to build it in Gainesville, way out in the boondocks.

**DR. BARNESS:** Yes, it is, but they have a much closer relationship with Jacksonville now than they ever did. George Harrell, as you know, went on to Hershey, Pennsylvania and built a medical school there in exactly the same way. He built it in Hershey even though the population center was in Harrisburg. But there was a difference, because Mr. Hershey gave the money, $50 million dollars, to build the school in Hershey. The land and 50 million bucks.

**DR. PEARSON:** When you came here in 1972, the medical school in Gainesville was well established and had been going for about ten years.

**DR. BARNESS:** Sure, they had had two chairman by that time: Dick [Richard T.] Smith and Gerry [Gerold L.] Schiebler.

**DR. PEARSON:** But the feeling was that there needed to be a school in the metropolitan area and the natural one was Tampa/St. Pete [St. Petersburg].

**DR. BARNESS:** That's right. There was a big fight before I got here on whether the med school should be in St. Pete or in Tampa. The people in Tampa said, "Well, the University of South Florida is here so we should put it here." And the St. Pete people said, "Well, because the University is in Tampa, the medical school ought to be in St. Pete." And somewhere along this time, the airport was built in Tampa and St. Pete was mad about that. And later on the football team came to Tampa and they were even madder about that. St. Pete had also built a stadium for baseball and they thought they were going to get a baseball [team] about ten years before they actually got it.

**DR. PEARSON:** What was the school like originally? Did you have buildings or classrooms?

**DR. BARNESS:** No, our offices were in the biology building. We only had 24 students the first year and 24 students the second year. For classrooms we used biology classrooms first. And then they built a building, which was called the Surge Building, which was supposed to be everything. It was about the size of this house but it was wonderful, and the students were just top-notch. Doug [Douglas J.] Barrett, now Chairman of Pediatrics at Gainesville and Jim Sherman, now in pulmonology at Gainesville, were in the charter class. Donald Novak came a couple of years later and he is in gastroenterology at Gainesville. Gainesville seems to have taken over.
DR. PEARSON: You started with 24 students per class for two years. Then you had to teach them clinically. What did you do then?

DR. BARNESS: In pediatrics, we used the Tampa General Hospital. All Children's Hospital was across the bay in St. Pete. All Children's Hospital wanted a relationship with the University so I set up a combined pediatric residency program. We had the combined residency program for about three or four years. Then the residents began to say that they would not go across the Tampa Bay bridges [the Gandy and Franklin Bridges]. I had the residents going over to St. Pete and I guess it was inconvenient for them. At that time the outpatient clinics were out at the medical school, the inpatient service was downtown at Tampa General and ancillary services for less critical or serious illnesses were at All Children's Hospital in St. Petersburg. If it weren't for all of these, we'd have had no residency program.

We talked about having a houseboat for all the clinics. John [S.] Curran was pushing for the houseboat. We talked about getting a hydrofoil, because you could get over between the two places in about ten minutes, but we couldn't raise the money.

DR. PEARSON: So then essentially there came to be two pediatric services and residencies.

DR. BARNESS: All Children's said they were going to have their own service even though at the time it was actually a pretty inefficient service. Allen [W.] Root offered to go over to All Children's to help out. He went over and tried to make it work. I don't know what the problem was at the time. Perhaps there were just too few kids in the St. Pete area and they had not developed enough specialty services to attract kids from outside St. Pete. That didn't work out. Then Donn Smith retired and Hollis Boren became Dean for a couple of years and then Andor Szentivanyi was brought in as Dean. Andor had been raised in Hungary where a university could have multiple sites. He wanted to recruit people to St. Petersburg and he recruited Bob [Robert A.] Good, who was terrific.

DR. PEARSON: A little long of tooth by that time.

DR. BARNESS: Yes, but he was terrific and still is terrific. He's still very active. He spends half of the year lecturing and he still comes to our grand rounds and he has a pad and pencil and takes notes.
At this time, two things happened to make me resign as chairman. First, my
wife died. And the other thing was that I had attempted to get the state to
approve a children's hospital on the university site. After two years of working
on it was turned down. So I said, "Well it's time for somebody else."

DR. PEARSON: I knew that you then had a sabbatical. How did it last for five
years?

DR. BARNESS: It was one-year of sabbatical and then four years of a
leave of absence.

DR. PEARSON: And so the Tampa Children's Hospital has not been built.

DR. BARNESS: The All Children's Hospital in St. Petersburg has greatly
expanded. Jaime [L.] Frías, the Chairman of the USF Pediatric Department, is
now chairman of both All Children's and here in Tampa. There is a single
residency program, which I resisted for many years. A private hospital has
been built here in Tampa which is called a children's hospital but they don't
accept medical students and they have no residents.

DR. PEARSON: Well that's sometimes the fate of private free-standing children's
hospitals, isn't it: no residents and I bet there's not a laboratory or a conference room.

DR. BARNESS: That's true.

DR. PEARSON: So, for pediatrics in Tampa today there is a unified south
Florida pediatric service in two widely separated locations. How did you solve the
problem of residents traveling across the Tampa Bay bridges?

DR. BARNESS: What was done is that they have living quarters at both
places and residents now spend either a month or three months at one place.
Another thing has helped. The residents don't have to go an extra nine miles to
reach the medical school outpatient clinics anymore. The only people that go to
the clinics now are the faculty. I have electives about four or five times a year
in metabolic disease. On those days the residents have to travel nine miles
north of the Tampa General Hospital to the medical school but it is an elective.
There are outpatient clinics at the Tampa General Hospital in downtown Tampa
on Davis Island, and there are clinics at All Children's in St. Pete.

DR. PEARSON: Does it seem to be working all right?

DR. BARNESS: It could be better.
DR. PEARSON: Are you trying to train too many doctors in Florida? I know that there is a two-year school in Tallahassee whose students go to Gainesville for their clinical years. I've also heard that there is some kind of initiative going on in Jacksonville. Florida is a big state but are there enough Floridians to fill all these schools to say nothing of their finding jobs when they finish?

DR. BARNES: All I can tell you is this. The quality of students that are applying to our Admissions Committee is superb. There may be several reasons for this. That we're so good may be one of them, which I doubt; but also the price is right if you're a state resident. I think low tuition does make a difference but you ought to see the MCAT [Medical College Application Test] scores and GPAs [Grade Point Average] that are coming through with our current applicants.

DR. PEARSON: I worry a little bit about GPAs. I think there has been an enormous escalation of grading looking back at our college times and what the top grades were in our classes back then.

DR. BARNES: I think that's true, but you can't argue about the MCATs.

DR. PEARSON: Looking at your CV, you've been on the editorial boards of numerous journals.

DR. BARNES: I've been the editor of Advances in Pediatrics and it's been a challenge to get people to document their papers the way you did for your sickle cell disease paper [Pearson, HA. Adv Pediatr 1996;43:309-44] and before that one on iron and infection. [Pearson HA, Robinson JE. Adv Pediatr 1976; 23:1-31] To get an overview and to have a record of what's new has been really a challenge. It's been fun and I've learned a heck of a lot.

DR. PEARSON: You've done Advances in Pediatrics for a long time?

DR. BARNES: Pretty nearly 25 years. Sam [Samuel Z.] Levine started it. It's now volume 46 so it's 46 years old. After Sam, Irving Shulman was editor. I took over from Irv about 25 years ago. It's an annual, once a year.

DR. PEARSON: You've been on the editorial boards of Pediatrics, Journal of Pediatrics and what used to be the American Journal of Diseases of Children.

DR. BARNES: Yes, and Pediatric Gastroenterology and Nutrition. They
have all been challenges.

DR. PEARSON: In your opinion, what constitutes a good scientific paper?

DR. BARNESS: A couple of things. It has to have good controls. It has to be well written and understandable and it has to be a significant advance.

DR. PEARSON: I think it was easier thirty years ago. I mean, when you could describe the first case of whatever. There are not too many first cases of anything anymore, are there?

DR. BARNESS: No, but you know I have a paper to review now that I think is a very significant paper about tetrahydrofolate reductase. They have found a new mutation in the gene for the enzyme and they are claiming that more people with the mutation get neural tube defects as if they were folic acid deficient. They are claiming that it's a combination of the gene abnormality and folic acid deficiency. The trouble is that 11% of their controls have the genetic defect compared with 20% with neural tube defects. The difference is significant only because they have 100 patients. What do you do with a paper like that?

DR. PEARSON: That's hard but it leads into another thing. I'm amazed now about how few children we see in our nurseries with severe congenital anomalies. The incidence of meningomyelocele was way down long before we thought of adding folic acid to the flours.

DR. BARNESS: I don't think so. I think that folic acid supplementation is a significant advance because it was put into flour five years before. Godfrey [Porter] Oakley [Jr.] had been saying, "We've got to be sure that before conception women have enough folic acid," and they added it to flour and to prenatal vitamins.

DR. PEARSON: But how many women start prenatal vitamins the night before they get pregnant? I have a feeling that ultrasound and prenatal diagnosis are probably the major reasons for the recent decreased incidence of neural tube defects.

DR. BARNESS: Yes, some of them are certainly diagnosed early and eliminated. You know, I was just talking about this in Panama. I said, "If you look at the number of congenital neural tube defects that you see in Panama and assess the distribution of these, they have the same distribution for neural tube defects as in the United States. They occur more in the rural areas; the rate is higher in the pregnancies of older women. If there were eight kids, the
ninth kid was more likely to have a neural tube defect." Those were the same factors that we saw for neural tube defects in Appalachia. They asked me in Panama, "What kind of screening tests should we be doing for metabolic diseases?" I told them that long before they started to worry about prenatal testing for metabolic disease they should do something about the nutrition of their population. Many of their difficulties are a result of nutritional deficiencies and not only folic acid. I don't know what it is, but it may be something else. The distribution and the epidemiology of these congenital defects are exactly the same that Oakley wrote about ten years ago, or whenever he published his paper.

DR. PEARSON: Well, you just got back from Panama and I know of your travels in the Mid-East. What have you done internationally?

DR. BARNESS: I guess mostly I try to tell them not to use formulas and to get back to breastfeeding.

DR. PEARSON: Did that go over big?

DR. BARNESS: Well when I went to Panama, my biggest hosts were Nestle, Ross [Laboratories], Abbott [Laboratories] and Mead Johnson [Nutritionals]. I don't know what happened to Wyeth [Laboratories]; they weren't there. Wyeth, I think is second only to Nestle in the third world. A couple of years ago it was Star brand, that's a Japanese brand. I tell them that they ought to push breastfeeding.

DR. PEARSON: You've participated in a lot of work to make formulas better nutritionally.

DR. BARNESS: They're too expensive, but I do think the formulas are better today. You know, when you were a resident, about 10% of the kids that were on an evaporated milk formula were coming in with diarrhea, so we lowered the protein content. You know people said I was killing babies because I lowered the protein, but as soon as we lowered the protein in infant formulas, the incidence of diarrhea went down to less than 1%. I think I've done some good things with the formulas and other people have done some good too. It was interesting when we started putting nucleotides in infant formulas. I had been working on nucleotides with Paul Gyorgy thirty years ago when we started putting nucleotides in formulas. Friends of mine in the various formula companies said this was going to kill babies.

DR. PEARSON: Were you involved in the pyridoxine deficiency of the SMA
formula when you were Philadelphia?

DR. BARNESS: Not really. Dave [David T.] Karzon was involved in that affair. And Paul Gyorgy, of course. Paul had discovered pyridoxine.

DR. PEARSON: As we've talked about your education and training it seems to me that your nutrition expertise was pretty much self taught.

DR. BARNESS: I did take a course with Sam Levine, but other than that, I would say that that's true. My Vitamin A experimentation was self-taught.

DR. PEARSON: How did you get into Vitamin E?

DR. BARNESS: I had been working on Vitamin E for liver disease and had an Air Force contract, a one-page contract. That was a great; every year they required a progress report and generally it was about half a page. And the money kept coming in.

DR. PEARSON: How did you hit on the syndrome of anemia, edema and thrombocytosis in preemies with Vitamin E deficiency? Frank worked on that with you, didn't he? You wrote an article with Frank as part of the Journal of Pediatrics Festschrift for Dr. [Louis K.] Diamond, as I remember.

DR. BARNESS: What happened was this. One day the nursery people said to me, "These preemies are hemolyzing at four weeks of age; why don't you run tests on them?" The test for Vitamin E that we were doing was the Rose-Gyorgy peroxide hemolysis test. So we did them and they were positive. Frank got very excited because for all the preemies at that time, the infant formula that was used was Similac. And we said, "This formula is deficient in Vitamin E" Ross Laboratories claims that when we told them that we were going to report this, they said the corn that they had used for the oils was deficient and it was just that one batch. But they quickly added Vitamin E. That's how it came about. An interesting sideline to this was that when Frank Oski saw what was happening to rats that were Vitamin E deficient, he started taking tremendous doses of Vitamin E.

DR. PEARSON: Once when I visited him in Syracuse, he was sitting in his kitchen eating handfuls of the pills.

DR. BARNESS: By that time he had changed his brand because of what we found when we did an absorption test. In four hours, my serum peak went way up and Frank's serum peak was flat. So we figured that he had been using
a Vitamin E preparation that was absolutely unabsorbable for all those years. Well, he said it kept what little hair he had from turning gray for a while, anyway.

DR. PEARSON: I know, since we crossed paths in the Mid East on several occasions, that you have been to Saudi Arabia and Kuwait and also to the Far East.

DR. BARNESS: Well, in addition to my time in the Army of Occupation, about four years later I went back to talk in Tokyo. I didn't talk about formulas there. They're very sophisticated both in their investigative work and in their nutritional work. I went to China more or less as a visitor. I gave two or three talks there about diseases and they seemed, in the cities, to be very interested in metabolic diseases. In China there is this unique system of only one child per family and so it is very important that it be a good one.

DR. PEARSON: I know when I followed you in Kuwait you were talking about oral rehydration. Is that something you have been interested in?

DR. BARNESS: That brings me to a different point. I don't know about your students. Do you make rounds still? Do you still have a lot of diarrhea in your area?

DR. PEARSON: Yes, we have rotavirus, particularly. I think that our students and residents know how to rehydrate. They can calculate deficits based on their estimate of the degree of dehydration. We have Norm [Norman J.] Siegel at Yale who's a fluid and electrolyte maven.

DR. BARNESS: He's very good at it. We have Al [Alfonso] Campos here who's also very good, but I predict that if you let your residents on their own they'll say, "We're going to give two-thirds maintenance or we're going to give maintenance and they hang up a bottle of fluid." Most of the time they get away with this because the kidneys of children are usually good and the baby compensates.

I asked Bill [William E.] Segar to write an article for Advances in Pediatrics on basic fluid therapy. Oral rehydration arose from people who knew basic fluid therapy. For years most people thought that you couldn't aliment dehydrated kids orally. There were exceptions, like L. Emmett Holt, Jr. who said, "Yes you can do it, if you do it carefully." One guy who really did something with it was Harold [E.] Harrison. Harold said, "Well you might be able to do it if you put a little less sugar in the oral fluids." But most of us said, "No you have to put more sugar in because they need the calories." Harrison wrote a paper
with Larry [Laurence] Finberg [Finberg L, Harper PA, Harrison HE, Sack RB. Oral rehydration for diarrhea. *J Pediatr* 1982;101:497-9.] showing that dehydrated children could absorb fluids with less sugar content. After this paper, the concept of oral hydration sort of languished. Then in Ceylon and Bangladesh there were epidemics of cholera. There were thousands of dehydrated people and children. They didn't have resources or intravenous fluids and many people were dying. And somebody said, "Let's treat them by mouth," and they did and some lived. They then looked back and found that in 1960 someone had written about absorption of glucose-sodium solutions. So in 1980, twenty years later, it was rediscovered.

What I was doing in Kuwait was just following up. I had nothing to do with the basic information or studies on oral rehydration. That was all known. I was just spouting.

**DR. PEARSON:** In 1987 you left Tampa and went to the University of Wisconsin in Madison planning to spend a year's sabbatical doing metabolic disease, and the time in Madison extended for five years. You were on the faculty?

**DR. BARNES:** Yes, [I] worked in Jon [A.] Wolff's laboratory for five years and I'm now listed as Emeritus Professor at the University of Wisconsin.

**DR. PEARSON:** You'll be a double emeriti. And there you married Dr. Enid Gilbert-Barness. Had you known her before?

**DR. BARNES:** I had known her. She was a resident of mine in 1951 or 1952 at HUP.

**DR. PEARSON:** Oh my, the circle closes.

**DR. BARNES:** How Enid became a pediatric resident was very interesting. She was from Australia and Charlie Janeway told her that she should not go back to Australia until she spent at least six months with me. He called me up but by that time our residency was full. But, you know, if Janeway called me and if he told me to jump off the roof that's what I would do. So, even though I had no money I hired her as a resident at HUP. She spent one year with me and then she went to CHOP to finish.

**DR. PEARSON:** When did her pathology training come in?

**DR. BARNES:** This is the way she tells the story. She started having kids and pediatrics was too demanding for time so she figured that if she went
into pathology she could work part-time. Her husband was at the National Institutes of Health in Bethesda, so she started to take a pathology residency at George Washington University Hospital in Washington, DC.

DR. PEARSON: And so by the time you got to Madison in 1987 you were able to renew your teacher-pupil relationship?

DR. BARNESS: Right. But you wouldn't recognize that relationship now. She thinks she's the boss.

DR. PEARSON: What did you do in those five years? I was impressed that there were a lot of your publications that had a pathology flavor.

DR. BARNESS: Enid was studying the pathology of inborn errors of metabolism. After they died, she tried to find out why. I would mostly identify the patients with inborn errors. When I started there, some parents brought a patient in who was diagnosed with homocystinuria when she was about twelve years old and was receiving proper treatment. Now because of her vision defect, she was in a residential school for the blind five days a week. A bus would pick her up on Monday morning and bring her home, to a town about thirty or forty miles away from Madison on Friday. She would stay at home for two days over the weekend, and go back to school the following Monday. When she reached the age of twenty-one, she was muscular and she was tough. She was kicked out of the school because of her age. Her parents then were 65 years old and they said to me, "We can't take care of her. Where can we put her?" It was very difficult to find a place. Her father came up to me and he grabbed my shirt and said, "You know, this is your doctor's fault. I said let her die when she was little."

Since then, I've been thinking, "What have I been doing with these inborn errors?" Okay, there's PKU and these kids function pretty well; and there's maple syrup urine disease where some of them do all right, and some of the glycogen storage diseases children do pretty well. But there's methylmalonic acidemia where most of them don't do well. A lot of the children that I treat, I know are going to be defective but they still survive. Sometimes it's not a very gratifying field anymore.

DR. PEARSON: Let's talk a little bit about you as a neonatologist. I was surprised to see that you were boarded in neonatology. Were you self-taught?

DR. BARNESS: I did do neonatology when I was at Philadelphia General Hospital and I had to do neonatology for my infant feeding work because it
started shortly after birth. I was interested in the story about Romulus and Remus who were suckled by a she-wolf. I figured that there must be something very magical about wolf milk. So I went to the Philadelphia Zoo to get some wolf milk. I tried to milk a mother wolf with four pups but gave up after four frustrating minutes. The laughing caretaker came over and got me 10 ml. of wolf milk. By this time, I had already been criticizing the premature formulas for having too much protein in them. I analyzed the wolf milk and found that it had something like seven or eight percent protein in it. Here I was criticizing cow's milk with only 3% protein in it. So I figured if the twins Romulus and Remus had really drunk wolf milk, it would have killed them. It took me several years and several articles in the newspapers to figure out what must have happened. The first article I read happened to be published in Detroit where a baby was found in freezing weather being cared for by a dog. The dog had wrapped himself around the baby and the baby was still alive. There have been other similar stories. One was out of Chicago and I have slides taken from that newspaper article. I think that Romulus and Remus may have been kept alive by wolves, but not by their milk.

So, now you know how I became a neonatologist. I was forced into it.

DR. PEARSON: You've mentioned several times the story about reducing the protein content of milk. When was that?

DR. BARNESS: We changed it, I guess, about 1953. I think all the early work was done with Wyeth by Henry J. Gerstenberger who in 1917 or 1918 introduced SMA [synthetic milk adapted] formula at the APS [American Pediatric Society] meeting. Gerstenberger said that cow's milk had too much protein so he lowered formula protein to about 2% or 2.2% to make what he said was a simulated mother's milk. It was a true revolution in infant feeding then.

DR. PEARSON: But if you go back to Thomas Morgan Rotch in Boston and other people at the turn of the twentieth century, weren't they diluting cow's milk and then adding sugar to make up the calories?

DR. BARNESS: That's right. Before Rotch there were two other guys by the name of Adalbert Czerny and A. [Arthur] Keller in Europe. They measured protein content and they found that there was more protein in cow's milk than in human milk. They started adding water to the milk but then they noticed that their babies weren't growing. Then, I think it was the same two, they put milk in a bomb calorimeter and they found that the caloric content of human milk and cow's milk is exactly the same. They realized that what they had done was
lower the caloric density of cow's milk by diluting it, so they added sugar. That was about 1878 or 1880.

Have you ever looked at Rotch's textbook *Prognosis, Diagnosis, and Treatment of the Disease of Children*? You had to be a mathematician to follow his stuff. He had a formula for scarlet fever, a formula for measles. He had sixty formulas or so.

DR. PEARSON: In your Howland Award [address], when Grant Morrow introduced you he described you as being the only grand slam winner of the major American pediatric awards, having won the Jacobi, the St. Geme and the Howland Awards.

DR. BARNES: Oh, I think there are other people who have won them.

DR. PEARSON: Well, I won't dispute Grant. He made that statement and it's probably true, as a matter of fact. We'll have to check on it.

DR. BARNES: Well, I've been very lucky and I'm not being unduly modest. If you get old enough and last long enough you get these awards because there's nobody else around.

DR. PEARSON: I think the St. Geme Award particularly is meaningful for a teacher. The Jacobi Award recognizes a combination of politics plus medicine and science. I would think that the St. Geme and the Howland must be very gratifying and satisfying.

DR. BARNES: I'm very flattered. I think there were many people who were deserving too.

DR. PEARSON: You became emeritus from the University of Wisconsin in 1993. What is your status at the University of South Florida?

DR. BARNES: I'm still on the active faculty.

DR. PEARSON: In looking at your CV, there have been at least seventeen or eighteen papers published since you left Wisconsin. You still write a lot. What are you writing most about these days?

DR. BARNES: I think most of my papers are mostly about metabolic diseases. There's still some nutrition stuff that I’m very interested in. Right now we are working on trying to get Vitamin A into premature infants faster.
without giving it by injection. We are impressed with [J. P.] Shenai's work where he gave Vitamin A and he said there was less respiratory distress in newborns. Unfortunately, nobody can quite repeat it. We think that giving injections of Vitamin A may not be the right way to do it. We are putting it on the skin to see if it can be absorbed.

DR. PEARSON: I remember the A & D Ointment that we used to use for diaper rash.

DR. BARNESS: Well, Vitamins A and D in an ointment can't be absorbed through the skin. We are using a water-soluble base and we are getting it absorbed, and we've written about that.

DR. PEARSON: And you still have an office at the medical school and run your metabolic clinics? And you stay busy?

DR. BARNESS: No. See, I'm even taking today off.

DR. PEARSON: I'm pleased you did. If you look back at nearly 300 articles and chapters on your CV, are there any that have been particularly meaningful to you and that you're particularly proud of?

DR. BARNESS: I was very proud of my first article, which was on flies. [Williams CM, Barness LA, Sayer WH. The utilization of glycogen by flies in flight. Biol Bull 1943;84:263.] It was written with Carroll Williams and was about the energy a fly uses in flying. And the way we did it! You know the balances in those days had hanging pans so we tied a fly on one of the hooks weighed the fly and then let the fly fly until it wouldn't fly anymore. Then we weighed it again so we would know exactly how much weight the fly lost in flying. We wrote that up.

Williams was a PhD candidate when I was a college student. He got his PhD the same time I got my AB and then he went to the faculty at Harvard College. I tried to talk him into going to medical school. It took me a couple of years but he did go to medical school. He was a brilliant guy in medical school. He went on to discover pheromones, in fact he is the father of pheromones. I don't know if he's ever gotten the proper recognition for that but he discovered pheromones. At his place in Lexington, I think it was, he grew mulberry trees so he could raise silk worms. He studied the pupation of silk worms and he found the hormone that make the silk worms pupate. He died about five or six years ago with a brain tumor. I sent a letter about him to the Harvard Alumni Bulletin and I got back a letter saying they were not going to publish it because
they have too many letters.

DR. PEARSON: There must be some other papers.


DR. PEARSON: As you look back, you came along really at a time when your training and education really weren't impeded by World War II as with some people just before you.

DR. BARNES: That's certainly true and an interesting thing. Many people seem to have suffered from the interruption. Others thrived on return. Look at who were the full-time people when I came to UPenn in 1950. I think I was only the second person. Bob [Robert] Kaye was the first person who was hired full-time. There were people like Andy [Andrew D.] Hunt, who was largely in private practice. Joe Stokes was chairman of the department and was in private practice, Paul Gyorgy was paid by Wyeth as a consultant and I don't know how Elizabeth Rose was paid. Bob Kaye and I had university salaries. All the rest of the people there who were full-time, were independently wealthy. Now Harvard had recognized this some years before 1950. They started the full-time system maybe twenty years before that included William [E.] Ladd and [Robert E.] Gross, the surgeons, Bronson Crothers, James [L.] Gamble all of whom made their livings by practice or were independently wealthy.

Charlie Janeway was a remarkable person. I'm sure you've heard a lot of stories about him. I remember he asked me to drive him places. One time he asked me to drive him to the railroad station and when we got there he looked in his pocket and he said, "You know, I don't have any money. Do you have any money?" I think I had about $5.00 and I gave it to him. I don't know where he was going and I don't even remember how much money it was. He did pay me back, I remember that. That was Charlie.

DR. PEARSON: He was legendary for his -- financial closeness.
DR. BARNES: Well, there was that too. He built his own house in Weston, Massachusetts. You know when he went to Atlantic City for the SPR/APS [Society for Pediatric Research/American Pediatric Society] meetings, he would put his residents up in the great hotels but he would stay at the YMCA.

DR. PEARSON: Tell me about your family. You have seven children.

DR. BARNES: Well, I had three children with my first wife and four from my second marriage. One of my children is a psychologist who works in New Jersey. She's a good psychologist, one of the sane ones. I have one daughter who works for my brother in Pennsylvania, near my old home. The third one, my son, is here in Tampa in real estate. Of my stepchildren, the eldest is an ophthalmologist at the University of Minnesota. She's very good and she used to be the director of residency training at Mass [Massachusetts] Eye and Ear [Infirmary]. Her husband was the vice-president of Pepsi [Pepsi-Cola Company] and now he's chief financial officer for General Mills. The second one just had a story published for children. The third one is single and she's an artist. The fourth one is finishing her residency in internal medicine at [Milton S.] Hershey Medical Center.

DR. PEARSON: When I was on the AAP [American Academy of Pediatrics] Committee on Nutrition we made the recommendation about iron and iron-fortified formulas which has been much debated but nevertheless has essentially eliminated dietary iron deficiency in American infants. What things were done when you were on the Committee on Nutrition?

DR. BARNES: I've quoted your paper on that a hundred times. [Vazquez-Seone P, Pearson HA. N Engl J Med 1985; 313:1239] Iron deficiency anemia went from 20% to 5% or something like that. When I was on the Nutrition Committee we went through the whole business of chloride in formulas. We made a recommendation that the FDA [U. S. Food and Drug Administration] should be responsible for making sure formulas were properly made. We also made statements about methionine and the thyroid and soybean statement. We also published the first and second edition of the AAP [Pediatric] Nutrition Handbook. The third one came out when you were AAP president.

DR. PEARSON: That's right. It's interesting to me that that the AAP Committee on Nutrition probably has more punch, and is more able to induce significant changes in nutritional matters than any other organization, at least as far as pediatrics is concerned.
DR. BARNESS: I think that's true. The National Academy of Science for adults, but the American Academy of Pediatrics for children. I think the other place where the AAP really has had a fantastic influence is the Committee on Infectious Diseases and the Red Book -- the be-all and end-all of the organization.

DR. PEARSON: A question is how you can get all these immunizations into children without making them pin cushions.

DR. BARNESS: I think that they are all going to be given through the nose. Jon [A.] Wolff is making vaccines with naked DNA. You know you just put it in the nose and you're immune for life.

DR. PEARSON: Do you think anyone graduating from Harvard or the University of Pennsylvania Medical Schools today could do what you've done in academic research, teaching and patient care? How would you advise a young [pediatrician], someone who says, "I would like to do the sort of things in my career that you have done in your life?"

DR. BARNESS: This is a very discouraging time. You know, as I told you, I sit on our Admissions Committee. I should be kicked off because I feel like asking the applicants, "Why are you going into medicine?" I think this is a lousy time for medicine. And yet, the Academy did a study a couple years ago which was published in the AAP News that found that the guys that had finished their residency within the last ten years think that the way medicine is today is great. They found that guys who had finished their residencies from ten to twenty-five years before think that medicine is okay. After 25 years they said what I'm saying, "It's terrible." I am purposely misstating what the AAP published. What they really published was the ease of getting consultations, but I changed that to say whether they were satisfied with medicine.

I think this is bad, particularly for pediatricians because even though they may have a very unsophisticated knowledge of physiology, of biochemistry, all you need to do today is to be a general practitioner. You hold the patient's hand and get them out in six minutes and this is great. We have to accept this. That's what medicine is going to be. Pretty soon it will all be taken over by pediatric nurse practitioners. We won't have the opportunity to do what you or I have done. But I think it will change. I figure it will be a couple more years. I think there will be a single payer and it will probably be the government and we're going to get the kind of people into pediatrics that Canada is turning out. They are doing research, they're doing patient care and they're doing teaching
but they are only a small number.

But I think it's the darn HMOs, a million HMOs and a million insurance companies and gate keepers. Gate keepers, they're the superficial guys. We now have this teaching exercise where a fourth year medical student has to examine a patient under videotape. Then the student and a faculty member look at the videotapes and criticize them. This student came in and he put his stethoscope on the patient's chest like this. I said, "What were you doing there?" He said, "Well, I was listening to the heart." I said, "Maybe you could teach me because I never learned how you can listen to the heart through a shirt." I asked him where did he learn that. He said, "They taught me that in family medicine." Maybe they have better ears than I do but I don't think that's a good way to examine a heart. Then he goes into his chest exam but didn't percuss it. I said, "Why didn't you percuss the chest?" And he said, "I didn't hear any rales so I didn't have to percuss it." I asked, "Oh where did you learn that?" "At family medicine." Well I flunked him on that and he'll percuss the next chest and that's enough. You take a blood pressure, and you get them out in six minutes. It's very superficial medicine.

DR. PEARSON:  Will you follow through with the laboratory skills? Our students aren't permitted to do urinalyses or make blood smears because of CLIA [Clinical Laboratory Improvement Act] regulations. Our hospital has dismantled all of the student laboratories. There are no student laboratories.

DR. BARNESS:  We have student laboratories but we can't put their results down on the chart, that is true. They do the counts but they don't do their own spinal fluids which bothers me, not that I want them to do the five tube test for sugar.

DR. PEARSON:  What do you think are the important things that will be done in nutrition in the next ten years?

DR. BARNESS:  I think we are probably going to find that, in spite of its bad press, that some of these so-called alternative substances and the herbs are valuable. In the first place they are going to come under the FDA umbrella. They are going to be more standardized, and we are going to find out much more what's in some of them. I think some of these things probably are good and that we are missing them. I think that the way they are sold now is terrible. You don't know what somebody is taking by what it's labeled.

Next, I think we are going to find more vitamins. I think there are necessary substances that we are taking out of our diets with the use of more refined
foods. More of our food will be irradiated and/or genetically modified. I think those are the main things. Of course, the biggest thing will be that some how or other we're going to have to answer the worldwide socioeconomic problems of malnutrition.

DR. PEARSON: Let's finish with your story about your premature obituary in the Harvard Medical Alumni Bulletin.

DR. BARNESS: About two years ago a classmate of mine, Bill Richardson, died. Actually he was the same guy who I worked with for George Thorn when we were in med school. He had moved to Tampa. He was a fantastic pediatric surgeon. He trained at Boston Children's the same time that I was there. He then became head of pediatric surgery at Cincinnati where he was for many years until he moved here about ten years ago. He and I were quite close for many years. He developed melanoma, it spread and he died about two years ago. I sent in a notice to the Harvard Medical Alumni Bulletin mentioning that Bill's wife's name was Sylvia and he had two kids and three grandchildren. As I remember I didn't put his address in my letter and I wrote it on my home stationery.

Shortly after this, the Alumni Bulletin announced that in the Class of 1944, Lewis A. Barness died and that he is survived by his wife, Sylvia, two children and three grandchildren. They included my address, my correct address. I didn't get the Bulletin for several days, and then Bob [Robert] Scully, who was another HMS classmate, called Enid at work and said, "Enid I'm so sorry to read about your husband." And Enid said, "What about my husband?" Bob said, "Well he died." Enid said, "That's funny, he was living this morning when we left the house." Bob said, "Well I saw it in the Alumni Bulletin." So Enid called me and she said that she had just got a fantastic call from Bob Scully and that he said your obituary was in the Alumni Bulletin. I said, "Wait a minute," and pricked my finger and got blood. I said, "I'm bleeding and my glasses fog up when I blow on them." She asked if I had the Alumni Bulletin. I said, "No it comes to the house." So we didn't see it until we got home and sure enough there was my obituary.

Then there was this call on our answering machine from Sydney Gellis who was crying. Not only was he upset that I had died but he was also upset that my answering machine still had my voice on it. He thought it was not good form. Enid called Sydney's home in Boston. His wife Matilda answered and was very sad. She then said, "Wait a minute I'll get Sydney." So Sydney got on the phone and was weeping and he started saying how sorry he was, so Enid said, "There's somebody here who wants to talk to you." So I got on the phone and
I said, "Sydney I'm calling from a long distance away and it's very hot here." Sydney thought I sent the obit into the *Alumni Bulletin* as a trick. My brother, of course, said that somebody had listened to one of my lectures and figured I was dead. After that John Chambliss, who was another classmate, sent Enid a card saying how sorry he was to hear that I was dead. We sent a letter to him and he wrote back to Enid to save his card until it was more appropriate.

DR. PEARSON: I think that this is a good story to end on. We've covered a lot in four or five hours, and, you said it was only going to take fifteen minutes.

DR. BARNESS: You just dragged it out.

DR. PEARSON: Well at any rate, I want to thank you for cutting work for a day, for having me at your home and for your great stories. I appreciate it, Lew.

DR. BARNESS: Thank you very much.
INDEX

A
AAP News, 31
Abbott Laboratories, 22
Advances in Pediatrics, 20, 24
Albright, Fuller, 5
All Children's Hospital, 17, 18, 19
American Academy of Pediatrics, 30, 31
American Academy of Pediatrics Committee on Nutrition, 30, 31
American Journal of Diseases of Children, 20
American Pediatric Society, 14, 27, 30
Army of Occupation, 6, 7, 23
Atlantic City, New Jersey, 1, 30

B
Baker, Lester, 13
Barrett, Douglas J., 17
Batipps, M., 10
Berenberg, William J., 8
Beth Israel Hospital, 5
Blackfan, Kenneth D., 5
Boggs, Thomas R., 11
Bongiovanni, Alfred M., 11, 13
Boren, Hollis, 18
Boston Children's Hospital, 5, 8, 33
Boston City Hospital, 4, 5
breastfeeding, 8, 21, 22
Bucks Castle Valley School, 1
Bucks County [Pennsylvania], 1, 2
Butler, Allan M., 6

C
Campos, Alfonso, 24
Castle, William Bosworth, 5
Chambliss, John, 34
Children's Hospital of Philadelphia, 9, 10, 11, 13, 14, 25
China, 23
Cohen, Barry, 14
Conant, James Bryant, 2
Crothers, Bronson, 30
Curran, John S., 18
Czerny, Adalbert, 27

D
Delivoria-Papadopoulos, Maria, 12
Denny-Brown, Derek, 5
Diamond, Louis K., 5, 23
Doylestown High School, 1
Doylestown, Pennsylvania, 2, 6, 9

F
Filer Jr., Lloyd John, 12
Finberg, Laurence, 24
Finland, Maxwell, 5
follic acid, 12, 21
formula, infant, 12, 22, 23, 27
Frías, Jaime L., 19

G
Gainesville, Florida, 19
Gamble, James L., 6, 30
Gandy and Franklin Bridges, 17
Gellis, Sydney S., 8, 34
Genel, Myron, 15
Gerstenberger, Henry J., 27
Gilbert-Barness, Enid, 25, 33, 34
Good, Robert A., 18
Gross, Robert E., 30
Gyorgy, Paul, 9, 22, 29

H
Hallock, James A., 15
Harrell Jr., George T., 16
Harris, Harry, 10
Harrison, Harold E., 24
Harvard Alumni Bulletin, 29
Harvard Medical Alumni Bulletin, 33
Harvard University, 2, 3, 4, 5, 6, 29, 30, 31
Harvie, Fred, 9, 12
health maintenance organizations, 32
Holt Jr., L. Emmett, 24
homocystinuria, 25
Hospital of the University of Pennsylvania, 9, 10, 11, 12, 13, 14, 25
Howland Award, 27
Hunt, Andrew D., 29

I
immunization, 31
inborn errors of metabolism, 10, 25
iron, 20, 30
J
Jackson, Henry, 5
Jacobi Award, 27, 28
Janeway, Charles A., 5, 6, 7, 8, 25, 29, 30
Japan, 6, 7
Journal of Pediatrics, 20

K
Karzon, David T., 22
Kaye, Robert, 29
Keller, Arthur, 27
Kuwait, 23, 24

L
laboratory skills, 32
Ladd, William E., 30
Lasker Award, 10
Levine, Samuel Z., 20, 22

M
Massachusetts General Hospital, 4, 5
Massachusetts Institute of Technology, 8
McKay Jr., Robert James, 8
Mead Johnson Nutritionals, 22
Mellman, William J., 10, 11, 12
methionine, 31
methylmalonic acid, 11, 29
Miller, Michael [Spike], 11, 12, 14, 15
Minot, George R., 5
Mitchell, John McKenney, 9
Moll, Gretchen H., 29
Morrow III, Grant, 1, 10, 11, 12, 13, 14, 27
Murphy, William Parry, 5

N
Nagoya, 7
National Institutes of Health, 12, 13
neonatology, 11, 26
nephrosis, 29
Nestle, 22
Novak, Donald, 17
Nowell, Peter C., 10
nutrition, 5, 8, 11, 21, 22, 28, 32

O
Oakley Jr., Godfrey Porter, 21
obituary, 33
oral rehydration, 23, 24

Oski effect, 14
Oski, Frank A., 10, 11, 12, 13, 14, 23, 29

P
Pearl Harbor, 4
Pediatric Gastroenterology and Nutrition, 20
Pediatric Nutrition Handbook, 31
Pediatrics, 1, 20
Peter Bent Brigham Hospital, 4, 5
Philadelphia General Hospital, 6, 9, 10, 26
Pious, Donald, 3

protein [in milk], 22, 26, 27
pyridoxine, 22

R
Red Book, 31
refined foods, 33
Richardson, William, 4, 33
Robbins, Frederick Chapman, 8
Romulus and Remus, 26
Root, Allen W., 18
Rose, Elizabeth Kirk, 9, 29
Rosenberg, Leon, 11
Ross Laboratories, 22, 23
Rotch, Thomas Morgan, 27

S
Scatchard, George, 8
Schiebler, Gerold L., 17
Scully, Bob, 33
Shenai, J. P., 28
Sherman, James M., 15, 17
Shulman, Irving, 20
Siegel, Norman J., 24
Siegel, Stanton, 13
SMA [synthetic milk adapted], 22, 27
Smith, Clement A., 6
Smith, Donn, 15, 18
Smith, Richard M., 6
Smith, Richard T., 17
Society of Pediatric Research, 14, 30
soybean, 31
St. Geme Award, 27, 28
Stanley, Charles A., 13
State University of New York Medical School, Upstate, 14, 23
Steinschneider, Alfred, 14
Stockman III, James A., 14
Stokes Jr., Joseph, 9, 13, 29
Szentivanyi, Andor, 18

T
Tampa General Hospital, 17, 19
Tedesco, Ted A., 10
Thorn, George, 4, 33
Tinian, 7
Tokyo, Japan, 23
Tunnessen Jr., Walter W., 14

U
U. S. Air Force, 4, 11, 22
U. S. Army, 4, 6
U. S. Food and Drug Administration, 31, 33
University of Pennsylvania, 3, 10, 11, 15, 29
University of South Florida, 15, 17, 19, 28
University of Wisconsin - Madison, 24, 25

V
vitamin A, 22, 28
vitamin E, 11, 12, 22, 23, 29

W
Warrington, Pennsylvania, 1, 9
water pistol, 13
Weiner, Leonard B., 14
Williams, Carroll, 28, 29
Wolff, Jon A., 25, 31
Wyeth Laboratories, 22, 27, 29

Y
YMCA, 30
Curriculum Vitae

Name: Lewis A. Barness, M.D.
Birthdate: July 21, 1921
Office Address: 17 Davis Boulevard
               Second Floor
               Tampa, FL 33606
Telephone: 813-272-2744
Fax: 813-272-2749

Education

1941    Harvard College, A.B., cum laude
1944    Harvard Medical School, M.D.

Post-Graduate Education:

1944-1945    Internship, Philadelphia General Hospital
1946-1947    Research Fellow in Pediatrics
             Children’s Hospital and
             Massachusetts Institute of Technology, Boston
1947-1950    Intern, Assistant Resident and Fellow in Pediatrics
             Harvard Medical School and
             Children’s Hospital, Boston

Professional Appointments:

1950 - 1951    Assistant in Pediatrics
               University of Pennsylvania
               School of Medicine, Philadelphia
1951-1954    Associate in Pediatrics
              University of Pennsylvania
              School of Medicine, Philadelphia
1951-1957    Assistant Chief
              Department of Pediatrics
Philadelphia General Hospital

1952-1957  Visiting Physician  
           Department of Pediatrics  
           Hospital of the University of Pennsylvania, Philadelphia

1954-1956  Assistant Professor of Pediatrics  
           University of Pennsylvania  
           School of Medicine, Philadelphia

1956-1963  Associate Professor of Pediatrics  
           University of Pennsylvania  
           School of Medicine, Philadelphia

1957-1962  Acting Chief of Pediatrics  
           Hospital of the University of Pennsylvania, Philadelphia

1962-1972  Chief of Pediatrics  
           Hospital of the University of Pennsylvania, Philadelphia

1964-1972  Professor of Pediatrics  
           University of Pennsylvania  
           School of Medicine, Philadelphia

1972-1988  Professor and Chairman  
           Department of Pediatrics  
           University of South Florida  
           College of Medicine, Tampa

1986-      Professor of Public Health  
           College of Public Health  
           College of Medicine and Department of Community and Family Health  
           University of South Florida, Tampa

1988-      Professor of Pediatrics  
           University of South Florida  
           College of Medicine, Tampa

1987-1988  Visiting Professor  
           University of Wisconsin  
           College of Medicine, Madison
1988-1992  Professor
           University of Wisconsin
           College of Medicine, Madison

1993-     Professor Emeritus
           University of Wisconsin
           College of Medicine, Madison

Military:

1945-1946  Captain, United States Army

Certification:

1950       American Board of Pediatrics
1957       American Board of Nutrition
1979       Neonatology, American Board of Pediatrics
1980,1988  Recertified, American Board of Pediatrics

Licensure:

State of Pennsylvania
State of Florida
State of Wisconsin

Organizations:

1954       Inducted Member, Sigma Xi
1960-1984  Editorial Board, Consultant
1964-1974  Recorder, American Pediatric Society
1966       Inducted Member, Alpha Omega Alpha
1972       Honorary Member, Southern Clinical Society
1973-1976  James Whitcomb Riley Research Advisory Committee
           Indiana University School of Medicine
1974-1981  Chairman, Committee on Nutrition
           American Academy of Pediatrics
1972       Member, Charter Faculty
           University of South Florida College of Medicine
1974       Charter Member, Nutrition Society
1975 - Editor, Advances in Pediatrics
1978-1993 Editorial Board, Pediatrics
1979- Guest Editor, Journal of the Florida Medical Association
1980- Editorial Advisory Board, Core Journal of Pediatrics
1980- Consulting Editorial Board, Ciencia Pediatrics
1981-1990 USDA Nutrition Research Advisory Committee
Baylor University School of Medicine
1981-1991 Assistant Editor, Pediatric Gastroenterology and Nutrition
1982-1991 Infant Formula Audit Commission
1982-1984 AMA Advisory Panel - Vitamin Preparations as Dietary Supplements
and Therapeutic Agents
1983-1984 AMA DATTA Reference Panel
1984- International Pediatric Association, Advisor Expert Panel on Nutrition
1984-1989 Editorial Board, Contemporary Pediatrics
1984-1985 President-Elect, American Pediatric Society
1985-1987 Editorial Board, Nutrition Review
1985-1986 President, American Pediatric Society
1987-1990 National Advisory Committee on Cancer Prevention and Detection,
American Cancer Society
1989-1991 Dietary Guidelines Advisory Committee, U.S. Department of
Agriculture
Cholesterol Levels in Childhood and Adolescence. NIH, NHLBI
1990 - 1996 Consulting Editor, Journal of the American College of Nutrition
1994 - Book Review Editor, Archives of Pediatric and Adolescent Medicine

Member:

Society for Pediatric Research
American Pediatric Society
American Academy of Pediatrics
American Association for Advancement of Science
American Institute of Nutrition
American College of Nutrition
American Society of Parenteral and Enteral Nutrition
American Academy of Certified Medical Nutritionists
Society for Inherited Metabolic Disorders
American Society of Clinical Nutrition
International Society for Research on Human Milk and Lactation
Irish American Pediatric Society
American Jewish Congress
National Association for Advancement of Colored People
Common Cause

Examiner:

1954-1991  American Board of Pediatrics
1955-1958  National Board of Medical Examiners, Part 3 Committee
1955-1964  National Board of Medical Examiners, Part 2 Committee
1969-1972  National Board of Medical Examiners, Part 3 Committee
1975-1978  National Board of Medical Examiners, Part 3 Committee
1985-1988  Patient Management Problems, National Board of Medical Examiners

Honors and Awards:

1957  Yearbook Dedication, University of Pennsylvania School of Medicine
1963  Christian R. and Mary F. Lindback Foundation Award for Distinguished Teaching
1963  Children’s Hospital of Philadelphia Residents’ Award
1965  University of Pennsylvania - Bicentennial Special Recognition Award for Distinctive Contributions
1965  Pediatric Society of Philadelphia Appreciation Award
1971  Honorary Master of Arts Degree, University of Pennsylvania
1971  Pediatric Postgraduate Course, Variety Children’s Hospital, Miami
1972  University of Pennsylvania Pediatric Society Special Award
1972  Yearbook Dedication, University of Pennsylvania School of Medicine
1972  Borden Award
1977  Pediatric Postgraduate Course, Variety Children’s Hospital, Miami
1980  Rudolf and Anita Noer, Distinguished Professor Award
1983  Pediatric Residents’ Teaching Award, University of South Florida, Tampa
1984  Joseph B. Goldberger Award in Clinical Nutrition
1985  Pediatric Residents’ Teaching Award, University of South Florida, Tampa
1985  Outstanding Clinical Faculty Award, University of South Florida, Tampa
1986  Dean’s Council, Harvard Medical School, Boston
1987  Honorary Member - Faculty of Medicine National University of Colombia
1987  Lewis A. Barness Day, June 23, Proclamation by Mayor of Tampa
1987  Honorary Faculty, Suzhou Medical College, China
1987  Pediatric Resident’s Teaching Award, University of South Florida, Tampa
1987  National Board of Medical Examiners Appreciation Award
1988  Pediatric Residents’ Teaching Award, University of South Florida, Tampa
1988 Yearbook Dedication, University of South Florida College of Medicine, Tampa
1990 Scientist of the Year, Museum of Science and Industry, Tampa, FL.
1991 Abraham Jacobi Award, American Academy of Pediatrics
1991 Joseph St. Geme Leadership Award, Seven Pediatric Societies
1993 John Howland Award, American Pediatric Society
1995 American Academy of Pediatrics Lifetime Achievement Award in Medical Education
1995 The Lewis A. Barness Endowed Chairman and Professorship, University of South Florida, Tampa
1995 Lewis A. Barness Pediatric Lectureship, University of South Florida School of Medicine, Tampa
1996 The Philadelphia Pediatric Hall of Fame inductee
1996 Fellow, American Institute of Nutrition
1997 Service Award, University of South Florida

Honor Lectureships:

1971 Waldo Nelson Lecture, Temple University
1981 John P. Scott Lecture, Philadelphia Children’s Hospital
1982 Joseph Ritter Lecture, University of Pennsylvania
1984 James Etteldorf Lecture, University of Tennessee
1985 Frank A. Oski Lecture, Upstate Medical Center - “Use of Diagnostic Computers in an Education Program.”
1986 Sauer Lecture, Northwestern University
1986 Packard Lecture, Philadelphia Pediatric Society
1988 Address to Graduating Class, University of South Florida College of Medicine “The Three R’s”
1989 Paul Beaver Lecture, University of Rochester School of Medicine
1989 Milton Markowitz Lecture, University of Connecticut Medical School
1990 Merrill Carson Lectures, University of California Irvine - “The Role of Physical Diagnosis in Medical School Training.”
1990 John P. Scott Lecture, Philadelphia Children’s Hospital
1991 I. Ridgeway Trimble Memorial Lecture, University of Maryland
1991 Abraham Jacobi Award Lecture
1991 Joseph St. Geme Award Lecture, University of Colorado
1994 Gerold L. Schiebler Lectureship, University of Florida Alumni
1996 First Enid Gilbert-Barness Lecture, University of Wisconsin School of
Medicine, Madison

1996  J. Metcoff Lecture, Northwestern University (Evanston Hospital)

1996  Charge to Class, University of South Florida College of Medicine, Tampa

1997  First Oski Memorial Lecture, SUNY Upstate Medical Center, Syracuse


37. Barness LA, Young D, Mellman WJ, Kahn SB, Williams WJ. Methylmalonate


114. Barness LA. Generalized undernutrition (Marasmus). In: Gellis S, Kagan B,


a. Chapter 1  History & Physical Exam pp. 1-9
b. Chapter 5  Feeding pp. 58-65
c. Chapter 17 Abnormalities of Urine pp. 203-219
d. Chapter 18 Edema pp. 220-226


   Introduction
   b. Feeding Children  I. Infant Nutrition pp. 443-446
   c. Feeding Children  II. After the 1st Year pp. 446-448


   1. Introduction, pp. 1-2
   18. Feeding Children pp. 200-211
   29. Nutrition and Food Selection pp. 316-319


   1. History and Physical Exam. pp. 1-7
   5. Feeding pp. 57-64
   17. Abnormalities of Urine (with E.R. Root) pp. 73-185
   19. Edema and Hypertension (with E.R. Root) pp. 194-201


1987;141:829.


   History and physical exam, pp. 1-7.
   Feeding, pp. 49-55.
   Curran JS, Barness LA. Dehydration and fluid replacement, pp. 135-143.


   Barness LA and Schmidt E. Breast Feeding, pp. 154-158.


294. Barness LA. Manual of Pediatric Physical Diagnosis, 6th ed. St. Louis:


69


Nutritional Requirements pp:141-150
Feeding Infants and Children pp:151-166
Nutritional Disorders pp: 166-184


320. Wolff JA, Gilbert-Barness E, Barness LA. Disorders/diseases of inborn errors


