

History of AIUM

By
Joseph H. Holmes, M.D.

and

Updated to 1984

By Horace E. Thompson, M.D.

1951

AIUM began in 1951 when 24 physiatrists attending the American Congress of Physical Medicine and Rehabilitation met in a hotel room in Denver, Colorado, to discuss the necessity for organizing a sub-group of that Congress. They discussed reports from Europe regarding the use of ultrasound in therapy. These individuals wanted to expand the scope of

physical medicine as a new specialty. They wanted to adapt new techniques where these offered therapeutic promise.

AIUM continued to meet each year at the time of the American Congress of Physical Medicine. At this point, the only medical application of ultrasound was in physical medicine.

1952

August 24, 1952, just before the annual meeting of the American Congress of Physical Medicine and Rehabilitation, in New York City, a day-long meeting on ultrasonics in medicine took place. The group organized and appointed John H. Aldes as acting secretary and Dr. William Beerman as acting chairman. Because of the success of this meeting, the group met again in

1953, the day before the annual meeting of the American Congress. Between the 1952 meeting and the 1953 meeting, the group decided to call itself the American Institute of Ultrasound in Medicine. Cecil Birtcher advanced money to cover the expenses of the meeting. An Executive Committee of eight members was appointed to govern the affairs of the Institute.

AIUM Constitution and By-laws were adopted in 1952.

1953

Arrangements for the 1953 meeting and for the publication of the scientific proceedings of the meeting resulted from the efforts of Dr. John H. Aldes of Los Angeles and president, Dr. Disraeli Kobak of Chicago.

Dr. Karl Dussik, of Austria gave the first paper of the day at the 1953 AIUM Meeting. At the time he worked at the Boston Multiple Sclerosis Clinic of the Boston State Hospital and the Department of Physical Medicine and Rehabilitation of the Boston Dispensary. He described the therapeutic use of ultrasound in physical medicine and the diagnostic use of ultrasound in the brain using transmission technique. The resultant picture was labeled a hyperphonograph.

This quotation comes from Dr. Dussik's text. "However complicated the problems may be the importance of these possibilities seems so great as to justify any and all efforts to overcome the technical difficulties. Originally, it was intended to make use of this new tool for diagnostic purposes generally. Therefore, it may be possible to use similar techniques for the muscles and joints. Due to the complicated technical problems development has been slow. Nevertheless, it is hoped that

the new physical energy of ultrasound will contribute to the ultimate goal of medical activity, that is, to alleviate suffering."

Fourteen papers were presented and except for Dr. Dussik's paper, all related to the use of ultrasound for such conditions as peri-arthritis, geriatrics, management of verticillitis, referred pain, muscle disease, and in subdeltoid bursitis. The meeting justified more extensive use of ultrasound in the United States.

1954

The program for the Washington, D.C. meeting, on September 3, 1954, was set up in three sections: research, clinical investigations, and case reports. The meeting closed with a panel discussion in which all those presenting papers participated. Members of the Executive Committee included William Berman, New York City; H.G. Bowman, University of Wisconsin; William D. Paul, State University of Iowa; Herman J. Bearzy, Dayton, Ohio; Karl Dussik, Boston, Massachusetts; John H. Kuitert, Ft. Sam, Houston, Texas; Arthur Jones, Portland, Oregon; and Disraeli Kobak, ex officio.

1955

The meeting for 1955 was scheduled for Detroit, Michigan, on August 27. The Executive Committee chose the abstracts presented. The information from this Executive Committee membership indicated that Dr. Jerome W. Gersten of the University of Colorado was an additional member of the board.

The first paper on ultrasound used for diagnostic purposes was presented at the 1955 meeting. J. J. Wild, M.D. and J. M. Reid, B.E.E. authored the presentation entitled "ECHOGRAPHIC TISSUE DIAGNOSIS."

1956

In June of 1956 the Executive Committee met and decided to cancel the planned scientific program scheduled for September 8, at Atlantic City. Instead all emphasis was placed on a two-day international meeting held in Los Angeles, California, in 1957, immediately preceding the American Congress of Physical Medicine. The Executive Board suggested that biannual meetings presenting clinical and research work in the field of ultrasonics would be more beneficial. The first biannual meeting ran concurrently with the international meeting of 1957. Executive Board minutes record a total mailing list, at that time, of 1,000. There is no specific mention of the total number of dues paying members.

1957

The International Meeting of Ultrasound in Medicine sponsored by the American Institute of Ultrasound in Medicine met at the Hotel Statler in Los Angeles on September 7 and 8, 1957. The Executive Board voted to add two new members. Dr. John Aldes, William Berman, Herman Bearzy, Karl Dussik, Jerome W. Gersten, Don H. Kuitert, Arthur Jones, and William Paul served on the Executive Board.

The Los Angeles meeting cost \$6,500, \$6,000 of which was underwritten by Cecil Birtcher. The registration fees collected amounted to \$2,500. It was decided to ask for \$750 from other manufacturers of ultrasonic equipment to support the publication of the proceedings of the International Meeting. There was considerable debate as to how the cover should be set up for the Proceedings and it was decided that they should not use letters

for AIUM as was done in a previous Proceeding.

The board authorized two new positions at the meeting in Los Angeles. Dr. Ferdinand Swartz, Medical Director, Birmingham Institute of Physical Medicine and Rehabilitation, Birmingham, Alabama; and Dr. William J. Fry, Biophysical Research Laboratory, University of Illinois College of Engineering, Urbana, Illinois, were appointed as new members. Chairman of the international conference at Los Angeles was Dr. William Beerman and the program chairman was Dr. William J. Fry.

1958-59

Half-day interim meetings were scheduled. Plans for the next International Meeting (1960) were presented.

1960

The Second International Conference of Ultrasonics in Medicine sponsored by AIUM was held at the Statler-Hilton in Washington, D.C., August 20, 1960. Dr. David Rubin served as president, and Dr. John H. Aldes acted as secretary-treasurer.

Some of the international registrants included Dr. W. Gordon Rich from Australia; Dr. Carlos B. Ruiz from Lima, Peru; Dr. H. Lamford from Hoxter-Wesser, Germany; and Dr. Carlos A. Hernandez Caballero, Columbia. Besides the talks on the use of ultrasound in physical medicine, there was a talk by Dr. William J. Fry, Dr. Russell Myers, and Dr. Frank Fry on "Ultrasound in Neurosurgery."

1961

The Third International Conference of AIUM was held August 23, 1961, in Cleveland,

Ohio. The program primarily dealt with the use of ultrasound in physical medicine. Dr. Gersten was elected President and Dr. Aldes was elected Secretary-Treasurer.

An editorial board was appointed to screen papers presented at the next international conference, before their submission to the American Journal of Physical Medicine for publication. The Editorial Board was composed of John H. Aldes, William J. Fry, Jerome W. Gersten, and Justice Leyman.

The average registration for the various meetings of AIUM, in its first ten years, was 375 persons. The largest meeting was in Washington in 1954.

1962

The Seventh Annual Meeting of AIUM convened in New York City, August 25, 1962. This marked the 10th anniversary of the first formal meeting of AIUM in 1952 which was also held in New York City.

John Aldes gave a brief history:

"Since the second meeting, the group has been known as AIUM, American Institute of Ultrasonics in Medicine, and each year the Birtcher Medical foundation, without cost to the Institute, has published and widely distributed the papers presented. The September meeting in 1962 in New York was therefore the 11th year of AIUM. In view of the fact that there were then 50,000 doctors employing ultrasonic energy in the United States and that it is extensively used in hospitals of the VA, the Army, and the Navy, those who have participated in the growth of AIUM have certainly contributed to the advancement of the practice of medicine."

1963

The eighth annual meeting was held August 24, 1963, at the Sheraton-Dallas Hotel, Dallas, Texas. Highlights of the event included a program focused on the topic, "Whiplash Syndrome and Injuries to the Cervical Spine". Dr. Charles Bearing spoke on space medical operation. He was stationed at that time with the Aerospace Medical Operational office in Houston, Texas. Dr. Carrie Chapman was president and Ms. Virginia Krause was appointed Executive Secretary of AIUM. The composition of the Executive Board included John H. Aldes of Los Angeles; Dr. Herman Bearzy of Dayton; Dr. William Beerman of San Francisco; Dr. Karl T. Dussik of Lexington, Massachusetts; Dr. William J. Fry of Urbana, Illinois; Dr. Jerome Gersten of Denver, Colorado; Arthur Jones of Portland, Oregon; John H. Kuitert, Col. M.C. of Tacoma Park, Maryland; Dr. Edwin Matlin of Garden City, New York; Dr. David Rubin of Los Angeles, California; Dr. Carlos Bustamente Ruiz who was then Vice President of AIUM; and Dr. Ferdinand Swartz of Birmingham, Alabama.

1964

AIUM changed its direction.

Dr. Joseph Holmes met with Dr. John Aldes and Dr. Carrie Chapman, in Los Angeles. Dr. Aldes and Dr. Chapman strongly supported maintaining AIUM as a viable organization. The three discussed continuing the association's policy of limiting AIUM membership to professionals in physical medicine. They decided instead to include all diagnostic and therapeutic

users of ultrasound in medicine. This decision marked the point at which AIUM membership began its rapid expansion.

Doctor Chapman, then president of AIUM, officially proclaimed the reorganization of the Institute in her speech at the 9th Annual Meeting in Boston. All physicians using ultrasound in medical applications were encouraged to join the Institute.

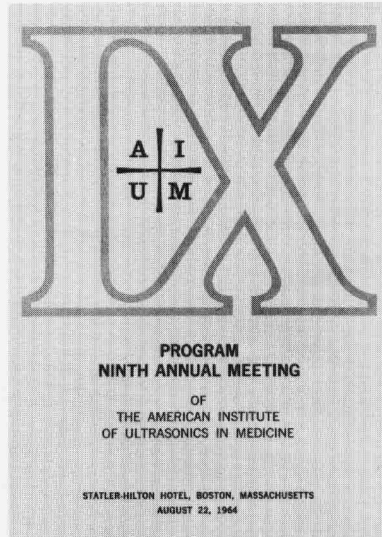
The theme of this meeting was "Relation of Ultrasound in Research to Medical Applications in Diagnosis and Treatment". Dr. William J. Fry was the Program Chairman for the scientific meeting. Dr. Edwin Matlin served as Secretary-Treasurer and Dr. John Aldes acted as Executive Director. Dr. Carlos Bustamante Ruiz was Vice President.

Dr. Carrie Chapman's presidential talk which was quoted in *Reflections* (Spring 1979) was entitled "Ultrasound — Yesterday and Today." The morning hours were devoted to talks on therapy and its use in physical medicine. In addition, Dr. W. L. Nyborg and associates spoke on the "Effect of Ultrasound Applied Locally to Animal Cells," Dr. R. C. Eggleton spoke on "Observations During Brain Modification by Ultrasound," and D. J. Hart spoke on "Measurements of Low Intensity Pulsed Ultrasound."

In the afternoon discussion centered around the diagnostic aspects of ultrasound. Dr. M. G. Smyth, Jr. spoke on the "Biological Effects of Low Intensity Pulsed Ultrasound", Dr. W. M. McKinney talked on "Recent Advances in Echoencephalography", Dr. D. N. White and Mako explained "New Compound Motion Immersion Echoencephalography Scanner", and Dr. J. H. Galicich discussed "Demonstration of Intracranial Pathology in Children by Ultrasound Scanning". Dr. L. I. von

Micky spoke on "Ultrasonic in Obstetrics and Gynecology". Dr. Carlos Bustamante Ruiz issued an invitation for all to attend the Lima, Peru meeting and showed a color film of Lima.

John Aldes, Carrie Chapman and W. J. Fry drew up articles of incorporation for AIUM. AIUM incorporated in the State of California.



1965

The First Pan-American Meeting of ultrasonics in medicine was held November 26-27, 1965, in Lima, Peru at the Medical Naval Center. Dr. Carlos Bustamante Ruiz, then president of AIUM, was largely responsible for coordinating the meeting. Diagnosticians present were Dr. Frederick Thurstone, Dr. Adnan Sokollu, Dr. Lajos von Micky, Dr. William McKinney and Dr. K. J. Ones Nils. However, the majority of the talks continued to emphasize the use of ultrasound in physical medicine.

1966

The 11th Annual Meeting of AIUM was held August 27, 1966, in San Francisco. Three exhibitors attended this meeting — Smith Kline Instruments, R. J. Lindquist and Company, and Magnaflux.

The majority of papers at this meeting were related to use of ultrasound in physical medicine but there were two papers on other subjects. The first, by P. A. Lindstrom was on the "Pre-frontal Sonic Treatment of the

FIRST PAN AMERICAN MEETING OF
THE AMERICAN INSTITUTE OF ULTRASONICS IN MEDICINE

Recognition

This certificate has

been presented to **F. L. Thurstone, Ph. D.**

in recognition of outstanding work and contribution in the study
of ultrasonic energy and its application to Medicine.

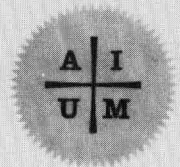
Presented this **27th** day of **November 1965**

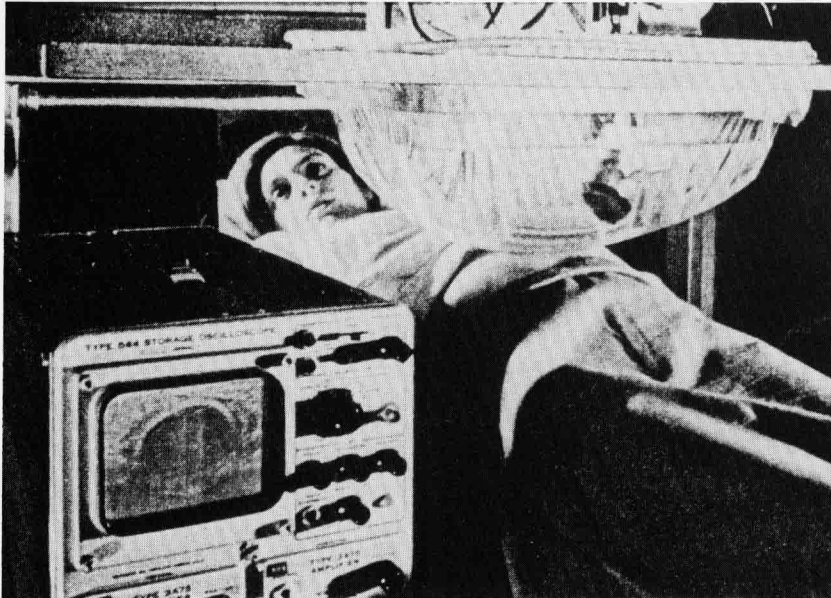
FIRST PAN AMERICAN MEETING OF
THE AMERICAN INSTITUTE OF ULTRASONICS IN MEDICINE

Honorary President

John H. Aldes, M.D.

President





Early ultrasound equipment at the Hahnemann Medical College in Philadelphia as shown on the cover of Life Magazine, September, 1965.

First 400 Patients". It claimed that symptomatic improvement could be expected in 75 percent of the psychoneurotics and 50 percent of psychotics. Dr. William Fry presented some of his material on "Ultrasonic Lesions and Quantitative Structural Studies of the Brain". Two papers were given on the use of echoencephalography for study of intracranial lesions, one by Dr. W. M. McKinney, and one by Dr. T. H. Calvin from the Department of Neurosurgery in Galveston.

These papers indicated a variety of uses for ultrasound: heat therapy in physical medicine, neurosurgical applications, and diagnostic studies relating to head and pregnancy.

The following information was taken from the minutes of the San Francisco business meeting on August 27, 1966.

"A motion was made by Dr. Rubin and seconded by Dr. Rich to expand membership to include those interested in diagnosis, research, therapeutics, and engineering of ultrasound in biomedicine. The

motion was approved."

The Executive Board modified its membership to include representatives of the areas listed in the motion. Dr. W. M. McKinney and Dr. Joseph Holmes, were appointed to the Board.

There was to be an interim Board consisting of members present at this Board Meeting plus Dr. John Aldes and Dr. Carlos Ruiz. A complete revision of the Board included members with interests other than physical medicine. Dr. John H. Aldes resigned as Executive Director for AIUM on August 16, 1966.

A plaque was presented to him recognizing his outstanding contribution to the study of ultrasonic energy as it applied to medicine. It was recommended that the office of the Executive Director be eliminated; that the office of Secretary-Treasurer be replaced by two separate offices, a Secretary and a Treasurer; and that the Executive Secretary be called Administrative Assistant to the Executive Board. The group concluded

that a meeting of the Institute should not be planned in conjunction with those of other organizations.

Dr. McKinney was appointed Program Chairman for the 1967 meeting. It became the responsibility of the President to decide where the 1967 and 1968 meetings would be held.

1967

The meeting at Miami Beach, November 13-17, 1967, was set up as a combined meeting with the Acoustical Society of America. This represented AIUM's 12th Annual Meeting. The theme was utilization of ultrasonic energy in diagnosis, research, and therapy in medicine and in biophysical and biomedical engineering. The AIUM headquartered at the Carillion Hotel.

This program consisted of tutorial sessions for those interested in learning more about diagnostic ultrasound. Then research papers of work in progress by various investigators were interspersed into the program. It was decided that the next meeting would change format and separate the educational session from the scientific session. For the first time charges for ultrasonic examinations were discussed. No decisions were reached. There were more papers on diagnostic applications, particularly in obstetrics and gynecology, abdominal studies, and echocardiography.

In 1967, Dr. William Fry, as AIUM President, encouraged further expansion of AIUM to include technologists, physicists, physiologists, and engineers as well as physicians.

1968

The New Orleans meeting was held November 4-7, 1968. Dr. William J. Fry, AIUM President, died prior to this meeting.

A History of AIUM

George Kossoff from the Ultrasonic Institute in Sydney, Australia, presided. The vice-president was Dr. Gordon Rich from Hobart, Australia. George Kossoff also served as Program Chairman.

The first day of the meeting was devoted to an educational session covering major applications of ultrasound at that time — echoencephalography, ophthalmology, cardiology, obstetrics and gynecology, and abdomen. Scientific papers were presented on November 5, 6, and 7. The majority related to diagnostic ultrasound and to the basic principles of ultrasonic techniques and equipment in their application to medicine. The first half day was dedicated to echoencephalography, the second half day to cardiology, the third to ophthalmology, the fourth to the abdomen, and the fifth to standardization, basic principles, and terminology. George Kossoff presented a uniform terminology for diagnostic ultrasound. He asked official AIUM approval.

This 1968 New Orleans meeting marks a shift in AIUM from a predominance in the area of physical medicine and rehabilitation to a predominance in other medical applications, particularly the diagnostic.

1969

The 14th annual scientific and educational sessions of AIUM were held in Winnipeg, October 6-10, 1969. The educational sessions, held October 6 and 7, included speakers Dr. William McKinney (neurology), Dr. Robert Ford (neurosurgery) and Dr. Stauffer Lehman (radiology); Dr. Lajos von Micsky (obstetrics) and Dr. Horace Thompson (obstetrics); Dr. Harvey Feigenebaum (cardiology) and Dr. Richard Popp (cardiology); Dr. Nathaniel Bronson (ophthalmology) and Dr. Pierre Guibor (ophthalmology). Drs.

Ross E. Brown, Richard Bernstine and Steven Carter discussed Doppler. 135 registered for this meeting.

The educational program was continued on October 7. A session was given on laboratory work and scanning techniques at the School of Nursing. Each lecturer participated in the scanning and examination of patients. The October 8-10 scientific program discussed basic aspects and clinical use measurements of ultrasound in obstetrics and gynecology, neurology, physical therapy, cardiology, and ophthalmology. The program chairman was Dr. Ross Brown. Dr. Joseph H. Holmes served as president that year.

1970

The 15th Annual AIUM Conference was held October 12-15, 1970, in Cleveland, Ohio. Educational courses were given on the basics of ultrasonic instrumentation, methods of examination, and the interpretation of ultrasonic information. Registration for the scientific session was 187 and there were 12 exhibitors at the meeting. AIUM had 262 members at this time.

1971

The 16th Annual Meeting of AIUM was held in Denver, Colorado, October 19-22, 1971. Dr. Denis White was president and Dr. Horace Thompson served as program chairman. The educational program held on Tuesday, October 19, followed the usual agenda. It included a presentation of short papers on various aspects of diagnostic ultrasound. The final scientific session included formal presentations on transorbital and transdural echoencephalography and on cardiac valve visualization. A number of speakers came from several foreign countries, including Australia and Japan. Limited attendance allowed the meeting

to be conducted in an informal atmosphere. This was not true of subsequent meetings, because as membership increased, the meetings required more formality and structure.

1972

The 17th Annual AIUM Conference was held October 30-November 1, 1972, in Philadelphia, Pennsylvania. The seminar-type program was introduced by Dr. Marc Lapayowker. It included as speakers G. J. Posakony, William M. McKinney, D. Jackson Coleman, Eugene Strandness, Barry B. Goldberg, Harvey Feigenbaum, Raymond Gramiak, Claude Joyner, Ross E. Brown, Horace E. Thompson, and George R. Leopold. Both a scientific session of ASUTS and the combined educational session were held October 29.

1973

The 18th Annual Meeting of AIUM ran from October 14-18, 1973. Ann Arbor, Michigan served as the site. Dr. Michael Wainstock and Dr. William Steel co-chaired the event. Dr. Gilbert Baum was President. This marked the first time AIUM met in a college setting. ASUTS combined their Second Annual Meeting with this gathering. The ASUTS scientific session was held October 13-14, while the combined educational session was held October 15. The AIUM scientific session ran from October 16-18.

Tapes were used in an attempt to demonstrate a new technique for educating large numbers of people at one time. Experts in various ultrasound techniques could "show" correct procedures. Following the tape, each author answered questions. During this period expansion of problems in the field of diagnostic ultrasound increased rapidly. Such problems included fees and charges, poor technique, train-

ing of technologists and physicians, establishment of hospital ultrasonic laboratories, toxicity levels, and selection and calibration of equipment.

1974

The 19th Annual AIUM Conference was held September 11-14, 1974, in Seattle, Washington. Dr. Gilbert Baum was president. The program chairmen included Don Baker, Joan Baker, and John Reid. The meeting followed the usual format, educational session the first day cosponsored by AIUM and ASUTS, followed by the scientific session.

Procedure for board certification for ultrasonic technical specialists was discussed, as was the acceptance of membership by AIUM into the World Federation of Ultrasound, which had been tentatively organized in Rotterdam that summer.



IAN DONALD, Honorary Fellow of AIUM, delivers the William J. Fry award at the World Federation for Ultrasound in Medicine and Biology, 1976.



Dr. Horace Thompson (L) presents Dr. Ross Brown a plaque recognizing Brown's service to AIUM. San Diego Meeting, 1978.



George Kossoff (L) receives the William J. Fry award from Dr. Ross Brown, annual meeting, Dallas, Texas 1977.



AIUM Historical Exhibit, San Diego, 1978

1975

The 20th Annual AIUM Meeting convened October 4-9, 1975, in Winston-Salem, North Carolina. The scientific meeting of ASUTS was held on October 4. There were two educational programs on October 5 and October 6. The principal speakers of the first program were Dr. Fred W. Kremkau speaking on

basic acoustics, Dr. Robert C. Waag speaking on ultrasound instrumentation, and Dr. William McKinney speaking on echoencephalography. Dr. Michael Johns talked on heart and echocardiography. Dr. Raymond Gramiak spoke on mitral Doppler ultrasound. Dr. E. A. Lyons spoke on abdominal valve studies. Donald Baker, M.S. lectured in the use of

scanning and Dr. Barry Goldberg dealt with OB/GYN problems.

The advanced educational program included David Carpenter's talk on acoustical measurements, Frederick Thurstone's speech on instrumentation, Robert Ford's presentation on echoencephalography. James C. Dillion's talk on chamber size and function of the heart. Richard A. Meyer's speech on pediatric cardiology, George R. Leopold's talk on

abdominal scanning. Ross E. Brown spoke on OB/ GYN scanning, and William H. Boyce and James W. Willard illustrated their work on scanning of the prostate.

The scientific sessions included pediatric cardiology, instrumentation, abdominal scanning, neurology, cardiology, and obstetrics and gynecology. The following day, sessions covered Doppler, ophthalmology, abdominal scanning, tissue interactions, and adult echocardiography. Dr. William McKinney was president at that time and Dr. James Martin was program chairman.

1976

San Francisco was host city for the 21st annual AIUM meeting, held August 3-7, 1976. This was held as a combined meeting with the First World Federation of Ultrasound in Biology and Medicine. Dr. Gilbert Baum was President of the World Federation and Dr. William McKinney was President of AIUM. Ross Brown served as Program Chairman.

1977

The Dallas meeting was held October 30-November 4, 1977. It was the 22nd annual meeting of AIUM and the 6th annual meeting of ASUTS. Dr. Jack Schwade was the program chairman, Dr. E.A. Lyons was overall scientific program chairman, and Dr. Ross Brown was president. There were 49 commercial exhibitors and 136 papers presented, 31 scientific exhibits and 28 poster displays.

This meeting marked the initiation of the scientific poster session. The poster session technique was used because it was impossible to include on the program all additional papers submitted for the scientific session. This gave various investigators a chance to present their material.

On October 31 there was a

combined basic education day with AIUM and ASUTS. November 1 there was an AIUM advanced education day covering the following topics: static imaging, B scan, gray scale; real time ultrasound, cardiac; real time ultrasound, non-cardiac; Doppler; and other approaches to display of ultrasonic information. For each subject there was a biomedical engineer concerned with basic approaches and a physician for the clinical area. The scientific sessions were held November 2-4.

This meeting marked an increase in scope and magnitude of the annual meeting.

1978

The San Diego meeting was held October 19-23, 1978. This was the 23rd annual meeting of AIUM and the 7th meeting of ASUTS. The first two days were a combined education day for AIUM and ASUTS and the scientific session for ASUTS. AIUM held its scientific session October 21-23. The meeting became so large it was hard to pick out any one event and certainly the topic presentations were so diverse one could not specify any particular paper or presentation to be of unusual interest. There were two concurrent sessions during the scientific program.

1979

The 24th Annual Meeting of the AIUM met in Montreal, Canada, August 27-31, 1979. Horace Thompson served as president and Dr. Robert Ford and Dr. Fred Winsberg co-chaired the event. The ASUTS scientific meeting was held August 27, and the combined educational day on August 28. Most of the program dealt with diagnostic applications of ultrasound. 1600 people registered for the Montreal Meeting. 100 AIUM papers and 15 ASUTS papers were presented. There were 23 scientific exhibits.

1980

The AIUM celebrated its 25th anniversary at the 1980 Annual Meeting in New Orleans, September 15-19. Co-Chairmen of the Central Program Committee in this second year of Dr. Thompson's presidency were E.A. Lyons, MD and Ross E. Brown, MD. The ASUTS scientific session on September 15th was followed on September 16th by the AIUM/ASUTS Combined Education Day. On September 17th, a Plenary Session was devoted to real-time ultrasound. The 25th Annual Meeting was well attended, with more than 1500 registrants. It included a total of 108 paper presentations and scientific exhibits. The number of commercial exhibits in New Orleans set a national record as the fastest growing commercial exhibit area at any medical conference that year.

1981

The 26th Annual Meeting was held August 17-21 in San Francisco. The AIUM President was Barry B. Goldberg, MD. The Central Program Committee was headed by E.A. Lyons, MD, Chairman, and Christopher R.B. Merritt, MD, Vice-Chairman. Monday, August 17th, was devoted to the scientific sessions of the newly named Society of Diagnostic Medical Sonographers (SDMS), formerly the ASUTS. The Plenary Session of the 1981 meeting focused on Doppler ultrasound, and the expanded educational program included Basic and Advanced Categorical Courses, Meet the Professor Sessions, and Clinical Case Discussions. More than 160 scientific papers, posters, and exhibits were presented. Registration again exceeded 1500, and the number of commercial exhibits continued to increase.

1982

The 1982 meeting in Denver, Colorado, October 4-8 marked

the changeover from Dr. Goldberg's to Dr. Ziskin's term as AIUM President. E.A. Lyons completed his term as Chairman of the Central Program Committee to become AIUM Secretary. The Plenary Session of the 1982 meeting was on interventional ultrasound. New at the 1982 meeting were popular evening events called Fireside Chats. The 1982 Symposium was entitled, "New Imaging Techniques: Their Impact on Ultrasound." Observing the same high standards for categorical courses, paper presentations, exhibits, and other special educational events, the 1982 meeting attracted more registrants than any other AIUM meeting - a total of 4,204.

1983

With a total of just under 5,000 registrants, the 28th Annual Meeting of the AIUM broke all previous attendance records. The positive response from ultrasound professionals can be attributed to the exceptional quality of the two major components of the annual meeting, the scientific program and the commercial exhibits. The 1983 Plenary Session was on Doppler ultrasound.

For the October 18-21 gathering in New York City, the Central Program Committee under Chairman Christopher R.B. Merritt put together the most varied and extensive ultrasound education program ever devised. Despite the change from a five-day to a four-day meeting format, the numbers of both hours of didactic courses and scientific paper presentations increased in 1983.

The increase of 40 per cent in categorical and informal course hours, from 51.5 hours in 1982 to 72 hours in 1983, reflects another strong program of categorical courses (24 hours total, 18 of them advanced courses) and the rapid growth of the special educational events area.

The meeting began with lively debates on controversial issues in ultrasound, and ended with a tissue characterization symposium. There was standing room only at the Fireside Chats.

The 1983 program offered more than twice as many symposium hours as the 1982 meeting, and 50 percent more hours each of both Clinical Case Discussions and evening Fireside Chats. Meet the

Professor luncheon sessions once again were sold out.

The number of abstracts submitted increased by 50 percent. The 200 accepted for oral, exhibit, or poster presentation had undergone a rigorous peer review process, supervised by Scientific Program Chairman Frederick W. Kremkau, with each abstract considered by at least three reviewers. The increase in the total number of submissions made it possible for reviewers to be at least as selective as in previous years and, at the same time, to add more oral presentations to the program.

The New York meeting was the second successful trial of the self-assessment examinations developed by the Education Committee. There were 163 examinations given in four different ultrasound subject areas.

History of the Executive Office

The Executive Office began on an informal basis with Dr. John H. Aldes. Aldes was the founding secretary-treasurer of AIUM. He served in that capacity until the 1963 Dallas meeting when he became the AIUM Executive Director. Virginia Krause, was elected by the members of AIUM to the position of Executive Secretary.

After Dr. Aldes death in 1969, Frank J. Fry served as Secretary/Treasurer. Virginia Krause had been promoted by the Board of Governors to administrative assistant at the San Francisco meeting in 1966. She assumed responsibility for the annual meetings and the first Pan-American meeting of AIUM.

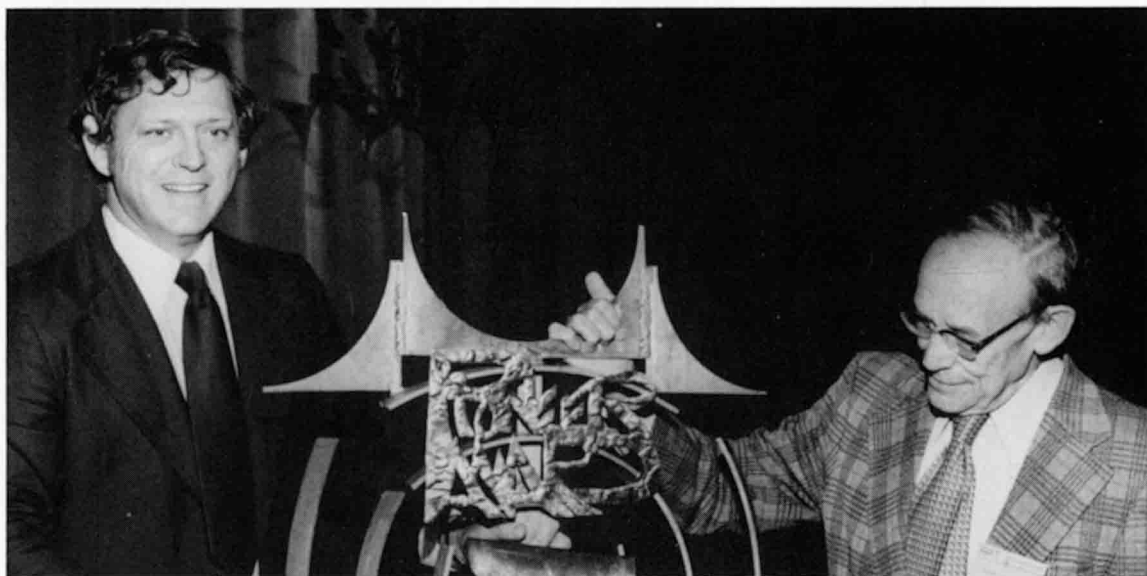
Ms. Krause made a definite effort through her enthusiasm and devotion to increase the membership of AIUM and to se-

cure the first paying commercial exhibitors. Those exhibits appeared at the Boston meeting (1964). Two companies displayed equipment at Boston, three had exhibits in San Francisco (1966) and six manufacturers came to the Miami Beach gathering (1967)

During Gilbert Baum's presidency, William McKinney, Horace Thompson and Ross Brown established a formal office in Oklahoma City. The staff of the Executive Office expanded from the one person hired in 1974 to the seven member staff of today.

In 1980, during the first year of Barry B. Goldberg's presidency, the Executive Office moved to its current offices in the Washington, DC, area. In 1983, during the first year of Marvin C. Ziskin's Presidency,

the Executive Office began to automate with the acquisition of a computer system. The proximity of the AIUM's Bethesda headquarters to federal offices and to the headquarters of other medical associations has greatly increased AIUM's impact on policies and developments affecting medical ultrasound.



Joseph Holmes, MD, receives first Pioneer Award from Ross Brown in Dallas, 1977.

WILLIAM J. FRY MEMORIAL LECTURE

When Dr. William J. Fry died (1968), Joseph Holmes established a memorial lectureship in Fry's honor. The first Fry lecture was given at Winnipeg (1969). Guest speakers are chosen for their contribution in various fields of ultrasound. All honorees have significantly contributed to the scientific progress of medical diagnostic ultrasound.

Fry Lectures were delivered by the following speakers at AIUM Annual Meetings:

- 1969 - W.E. Brown, FRGS
- 1970 - T. Lynch
- 1971 - Dr. Helmuth Hertz
- 1972 - Dr. Buckminster Fuller
- 1973 - Dr. Leon Cooper
- 1976 - Dr. Ian Donald
- 1977 - George Kossoff, MD
- 1978 - Horace E. Thompson, MD
- 1979 - Gilbert Baum, MD
- 1980 - Claude R. Joyner, MD
- 1981 - Gerald J. Posakony
- 1982 - Professor James R. Stouffer
- 1983 - Dr. Justus F. Lehmann

MEMORIAL HALL OF FAME

This posthumous tribute to an individual who has been instrumental in developing the field of ultrasound was instituted in 1981. Recipients to date have been:

- 1981 - Douglass Howry, MD
- 1982 - J. Stouffer Lehman
- 1983 - William B. Steele, MD

JOSEPH H. HOLMES PIONEER AWARD

The Pioneer Award was first presented at the 1977 AIUM Annual Meeting in Dallas. This annual presentation honors an individual whose outstanding contribution to the development of diagnostic ultrasound warrants special merit.

In 1982, the Pioneer Award was renamed the Joseph H. Holmes Pioneer Award to honor Dr. Holmes, the first to be given the Pioneer Award and a founder of the AIUM. Dr. Holmes died in 1982.

- Pioneer Award winners
- 1977 - Dr. Joseph H. Holmes
 - 1978 - Dr. John J. Wild
 - 1979 - Dr. John Reid
 - 1980 - Dr. Carrie Chapman
 - 1981 - Francis J. Fry
 - 1982 - William Wright
 - 1983 - Frederick L. Thurstone, PhD



John Aldes, M.D.

JOHN ALDES, M.D. EXECUTIVE DIRECTOR 1963-69

Dr. John Aldes was the first secretary-treasurer of AIUM, elected in 1952. He became Executive Director of the organization in 1963 and in this capacity handled all of its business. He resigned as Executive Director in 1966 at the San Francisco meeting. Throughout his professional career, he maintained a special interest in the American Institute of Ultrasound in Medicine. He handled all of the secretarial and executive duties of the organization for many years. In 1963 at the Dallas meeting, Ms. Virginia Krause was appointed to assist him in the capacity of Executive Secretary.

Dr. Aldes was born in St. Paul, Minnesota, in 1909. He received his bachelor's degree from the University of Minnesota and his M.D. degree from the University of Minnesota Medical

School. He began graduate training in orthopedics at Ed Miller Hospital in St. Paul and then at the Gillette Hospital for Crippled Children. He continued his orthopedic training with a fellowship at Yale University Newington Hospital for Crippled Children. He then went on to study at Cincinnati General Hospital.

From 1941-46 Aldes served as Lieutenant Colonel in the U.S. Army Medical Corps. His work during this period was in Army and Veterans Administration Hospitals. In 1950, he came to Cedars-Lebanon Hospital in Los Angeles. Later he became director of the Ben R. Meyer Rehabilitation Center of that hospital where he remained director until his death. He was a consultant in many rehabilitation services in the Los Angeles area, including the Hope Medical Center, the Jewish Home for the Aged, and a motion picture relief hospital. He held membership in 41 medical organizations and 29 medical advisory boards.

Working with Cecil Birtcher and Disraeli Kobak, he helped establish AIUM. Even though he did outstanding work in many medical societies and on the advisory boards of many hospitals, by combining the specialties of orthopedics and physical medicine, he continued to maintain an interest in ultrasound.

The following excerpt came from a letter by Dr. Aldes to Dr. Joseph Holmes, May 11, 1965. Aldes discussed changes necessary to combine professionals working in therapeutic ultrasound and those working with diagnostic and other applications of ultrasound into one organization.

"In the suggested revision, presented by the Committee-in-Charge to the members at the meeting in Boston last August, membership was extended to

include the following types: (a) Active, (b) Honorary, and (c) Corresponding.

Active membership, as you know, is open to physicians, surgeons, Ph.D.'s, and M.A.'s, or their equivalents, who use ultrasound clinically or surgically in their practice, or in the diagnostic or research fields. This is also open to the group using ultrasonic energy for testing purposes in medicine or industry. Honorary and Corresponding memberships are accorded mainly to participants from foreign countries.

"As we all know, the use of ultrasonic energy as a therapeutic tool is really just coming into its own in the United States, and in the foreign countries as well, including Germany, where the original work in ultrasound was done. Likewise, the use of ultrasound as a diagnostic tool is still in its infancy. However, both areas hold unlimited promise for ever greater progress.

"Personally, I feel that unification of the two groups, — the diagnostic and the therapeutic units, — would provide greater impetus for ever widening uses of ultrasonic energy, diagnostically, therapeutically, and in research."

CECIL BIRTCHER PIONEER IN THE MANUFACTURING OF ULTRASOUND EQUIPMENT

Cecil Birtcher led a medical electronics firm bearing his name. He pioneered work in the development and manufacture of medical electronic devices. For his contribution to medical instrumentation, he was received as an honorary diplomat of the International College of Surgeons.

Born in Philadelphia, Pennsylvania, Birtcher moved to California at the age of 10. He attended the University of Southern California where he majored in music.

His initial interest in medical electronics began with his first job as a salesman for the General X-Ray Company of Boston, Massachusetts. In 1936 he founded the Birtcher Corporation in Los Angeles.

His first interest in medical applications of ultrasound came shortly after World War II. He built the first of a series of ultrasound generators for use in medical treatment in the areas of physical medicine and rehabilitation. In 1951 Mr. Birtcher independently sponsored and largely financed a four-year research program in ultrasound by specialists in physical medicine and rehabilitation. His company produced a complete line of devices which monitored, recorded, and transmitted electrical impulses originating in the heart. He developed the technique of



Cecil Birtcher

transmitting electrocardiographic impulses over a telephone line. His electrical surgical devices were used for many procedures.

Birtcher helped form the American Institute of Ultrasound in Medicine. He worked with physicians like Dr. Disraeli Kobak.

In 1947 he had German-made ultrasonic machines imported for inspection and study by his firm. There were, at that time, about a dozen manufacturers of ultrasonic medical equipment in Germany, France, Italy with a few thousand machines in use. By 1950, a few specially designed Birtcher Ultrasonic working models were ready for further study.

In 1951, Mr. Birtcher met several times with Kobak, then Chief of Physical Medicine at Cook County Hospital in Chicago. Under the guidance of Doctor Kobak, a group of 24 physicians banded together for intensive study of ultrasonic energy as a medical tool. Birtcher furnished free, to each

member of the group, a Birtcher machine.

The Second Annual Conference of the American Institute of Ultrasonics in Medicine was held in Chicago, Illinois, on August 29, 1953. The Birtcher Ultrasonic Unit was officially placed on the market at that meeting and made available to physicians everywhere in the world. In two years of extensive hospital use in over twenty-five institutions, the unit proved scientifically and mechanically sound. By 1954, thousands of Birtcher Ultrasonic Units had been manufactured and distributed.

All costs of the First, Second, and Third Annual Conference of the American Institute of Ultrasonics in Medicine were absorbed by the Birtcher Corporation.

Cecil Birtcher died September 25, 1965, in Los Angeles, California. Words from Dr. Kobak's speech to the 1956 annual meeting apply to Birtcher.

Kobak said, "... a dedicated group was responsible for over 10,000 physicians throughout the land daily employing ultrasound successfully. These pioneers initiated organized research concerning the efficacy of ultrasonic energy in medicine... had the courage to contest the creeping negativism current in contemporary sonic therapy... challenged the trend of chauvinism through justification of experimental evidence under the banner of magnanimity as dictated by the spirit of science..."

Birtcher was a pioneer in ultrasound. He supported AIUM for ten years. He felt ultrasound would one day play an important role in many medical applications.

AIUM Presidents

Disraeli Kobak
1952-56

Jerome Gersten
1956-59

David Rubin
1959-62

Carrie Chapman
1963-65

Carlos Bustamente Ruiz
1965-66

William J. Fry
1966-68

Joseph H. Holmes
1968-70

Denis N. White
1970-72

Gilbert Baum
1972-74

William M. McKinney
1974-76

Ross E. Brown
1976-78

Horace E. Thompson
1978-80

Barry B. Goldberg, MD
1980-82

Marvin C. Ziskin, MD
1982-84

Fourteen presidents have led AIUM in its goals and activities since 1951. Each contributed to the increased use of ultrasound; in therapeutics, research, neurosurgery, and diagnostic ultrasound.

Dr. Disraeli Kobak was the first president of AIUM from 1952-56. Kobak graduated from the University of Illinois School of Medicine in 1912. He was in charge of the Cook

County Hospital Department of Physical Medicine and Rehabilitation from 1920 to his death in 1956. In 1925 Kobak became associated with the Presbyterian Hospital-Rush Medical School, Department of Physical Medicine and rehabilitation, and worked with that unit from 1925-45. After that he worked with the Oak Forest Department of Physical Medicine and Rehabilitation.

Because of Kobak's interest

in diathermy and other heat producing equipment used in physical medicine, he became acquainted with ultrasound as a therapeutic agent when he heard reports from Europe. The first of these papers came out approximately seven years before Kobak and Cecil J. Birtcher used the technique in the United States. They sponsored the meeting in Denver in 1951 which was instrumental in organizing AIUM.



Disraeli Kobak, M.D.



Jerome Gersten, M.D.

Jerome Gersten took the presidency of AIUM following the three terms of Kobak. Gersten received his B.S. degree from the College of the City of New York in 1935, Magna Cum Laude. He received his M.D. degree from New York University College of Medicine in 1939. Gersten served his internship and a residency at Montifiore Hospital in New York City. He served in the Army from 1941-46. After discharge, from the Armed Forces, Gersten spent a year as a fellow at the Massachusetts Institute of Technology, and then came to the Columbia College of Physicians and Surgeons. He spent a fellowship year there in the Department of Physiology.

Gersten worked at the Mayo Clinic from 1947-49, in the Department of Physical Medicine and Rehabilitation. He received his M.S. degree in physiology from the University of Minnesota in 1949.

Gersten's teaching and career appointments began in 1949 at the University of Colo-

rado School of Medicine, Department of Physical Medicine and Rehabilitation. Dr. Gersten continues in this position today. He became Chairman of Physical Medicine and Rehabilitation in 1955 and full professor in 1957.

In 1954, Gersten was appointed to the Executive Board of AIUM. He served in that capacity until 1966. He was president of AIUM from 1956-59. Today, Gersten heads the Department of Physical Medicine and Rehabilitation at the University of Colorado Medical Center in Denver.

Gersten developed training programs in rehabilitation for professional personnel and devoted much time to the education of lay groups concerning the contributions of physical medicine to community problems. Gersten's encounter with ultrasound began when he received equipment from Birtcher Corporation. His first paper on the medical use of ultrasound appeared in 1953 in *Rheumatism*. A series of articles followed the paper. The first discussed the effect of ultrasound

on frog muscle and human muscle. One of Gersten's early articles on ultrasonics and multiple disease use appeared in the *American Journal of Physical Medicine* in 1954.

Gersten spoke of the early days of ultrasound in an interview with *Sonix* (1:25, 1975).

"... In 1951, there was a growing interest in ultrasound, although how it worked was a mystery. Not much was known about it except that it created heat. Its therapeutic effects were unknown. There are three major effects of ultrasound. One, diagnostic, is at very low levels, some of the earliest work during World War I which has to do with detection of submarines and icebergs was with these levels. The second area, at high energy levels, is tissue destruction, most frequently used in cancer treatment. The intermediate dosage level, therapeutic or (heat therapy)."

"... Therapy, not diagnosis, was the major push of the organization (AIUM) in the 1950's. The initial goals of the organization were to stimulate research on therapeutic levels.



David Rubin, M.D.



Carrie Chapman, M.D.

The emphasis was placed on therapeutics until 1967, when Fry (William J. Fry) was elected president . . . It took a long time to establish baseline data for ultrasound. Standard x-ray baseline data was not developed until the 1950's. (Joseph) Holmes worked to build ultrasound data in the 50's. I remember him across the street with his great big water tub . . . Some of the industrial backing for research came from Curtiss Wright — he was concerned with airplane flight, planes flying faster than sound. So he supported some of my research for a couple of years . . ."

David Rubin presided for AIUM from 1959-62. He received his M.D. degree from Northwestern University Medical School in 1947. He took a residency in physical medicine from 1947-51 at Southern California Medical Center. He held a residency in physical medicine and rehabilitation from 1951-53 at Los Angeles County Hospital. He received appointments at the University of Southern California School of Medicine and the University of California Los Angeles Health Sciences Center. Since 1956,

he has been in private practice.

Rubin remarked about the changes in AIUM since its beginning. Here is a quote from his presidential address at the New York meeting (1962).

"In addition to therapeutic and diagnostic ultrasound, one should mention surgical ultrasound to further demonstrate the versatility of this modality. In that area Dr. (Peter) Lindstrom has reported its use in destroying frontal lobe tissue in morbid patients, thus relieving intractable pain resulting from carcinomatous lesions. Dr. Russell Meyers, M.D., also has demonstrated the usefulness of ultrasound in performing pallidectomies in patients with Parkinsonism. The role of ultrasound in destroying malignant lesions has also been reported and this work is being continued."

"As we review the past decade in the history of ultrasound and its role in clinical medicine, the areas of conquest are self-evident. In the years ahead it should be anticipated that greater refinement and increased application will be achieved through an extension of laboratory research and development."

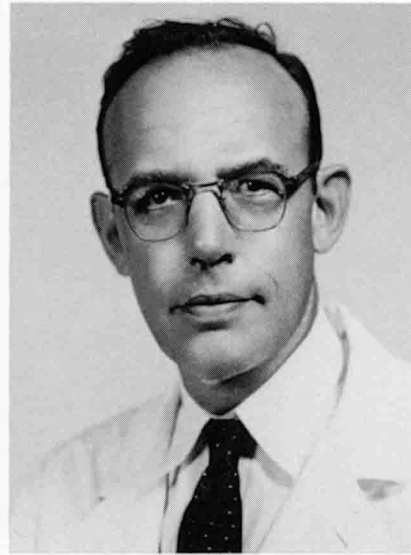
Dr. Carrie Chapman served as president from 1963-65. She received her B.S. degree from Florida State University in 1928 and her M.D. degree from Tufts Medical School in 1934. Chapman interned at Massachusetts State Hospital in Twexbury and then took residency training in anesthesia at Massachusetts General Hospital in 1937-38. She took additional training in anesthesia at Temple University and at Mayo Clinic from 1946-49. She then shifted her activities to physical medicine and rehabilitation, while working at the Mayo Clinic. Chapman served 36 months in the Navy. She was in charge of physical medicine and rehabilitation at Oakland Naval Hospital.

From 1963-65, Chapman worked as associate director at the Ben Meyer Rehabilitation Unit in Los Angeles. Later she became Chief of Physical Medicine at the Brentwood VA Hospital, Los Angeles. She continues to maintain her teaching association with the Medical School at the University of California in Los Angeles today.

Chapman joined AIUM in 1953.



William J. Fry, Ph.D.



Joseph H. Holmes, M.D.

Dr. Carlos Ruiz served as president from 1965-66.

William J. Fry became president of AIUM in 1966 and continued in that office until 1968. He was one of the first active AIUM members who was not a physiatrist. Following his term of duty at the Naval Research Laboratory in Washington during World War II, Fry returned to the University of Illinois as Head of the Department of Electrical Engineering.

During the winter of 1946, Fry initiated the use of high frequency sound as a method for studying the neurophysiological function of various anatomical areas in the central nervous system. Fry's work included design of an ultrasonic system to produce pinpoint lesions in the brain without damaging adjacent tissues. He carried out functional studies in the otherwise normal animal over a long observation period. He developed the technique so it could be used as a neurosurgical procedure for man. Russell Meyers applied the technique at the University of Iowa for treatment of Parkinson's syndrome.

Fry envisioned AIUM expanding beyond a restricted role for only professionals in physical medicine. He encouraged the society to include those concerned with diagnostic medical ultrasound, medical engineering, physics, and basic scientific research. He strove to provide a communication link between these diverse groups.

George Kossoff assumed the AIUM presidency briefly upon the death of Dr. Fry.

Dr. Joseph Holmes served as president of AIUM from 1968-70. Holmes graduated from Amherst College with an A.B. in 1930. He completed his M.D. degree from Case Western Reserve University in Cleveland, Ohio, in 1934. He took his internship at Emory University in 1934-35. From Emory, Holmes went to the University of Maryland School of Medicine for his residency in internal medicine, which he completed in 1937. Holmes did graduate work at Columbia University in the Department of Physiology from 1937-41. He received a Doctorate of Medical Science degree. Holmes served in the army from 1943-47. During that time he continued as an assis-

tant professor in physiology at Columbia.

Holmes began work in ultrasound at the University of Colorado Medical Center in 1950. In 1951 he was named Professor of Medicine at the University of Colorado, and received a joint appointment as Professor of Radiology in 1970.

During Holmes' presidency, AIUM expanded membership and increased meeting attendance. The William J. Fry Memorial Lectureship began at the Winnipeg meeting (1969). A newsletter was initiated at that time.

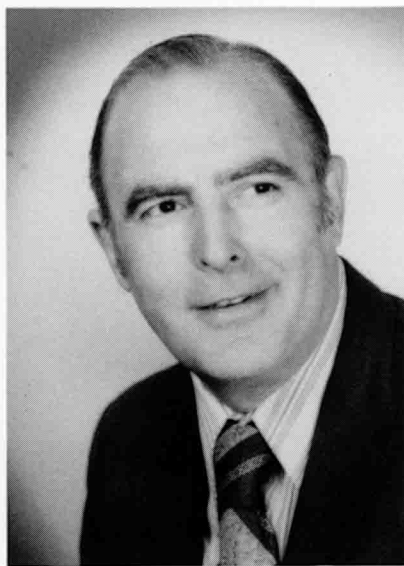
At his death in 1982, the AIUM renamed the Pioneer Award in his honor, the Joseph H. Holmes Pioneer Award.

Dr. Denis White held the office of AIUM President from 1970-72. White took his early medical training at Caius College in Cambridge and then went to London Hospital for his medical and clinical training. White took several years study in neurology at London Hospital and other institutions in that city. He came to Queen's Hospital Medical School at Kingston, Ontario, Canada, in 1948. He currently heads the Depart-

A History of AIUM



Denis N. White, M.D.



Gilbert Baum, M.D.

ment of Neurology there.

White cited three goals during his presidency: to increase the membership of AIUM to include engineers, physicists, and bioengineers; to get the Society on sound financial ground; and to consider the role of ASUTS (American Society of Ultrasound Technical Specialists), and its relationship to AIUM.

Gilbert Baum was president of AIUM from 1972-74. He received his A.B. degree from the University of Wisconsin in 1942 and his M.D. from Long Island College School of Medicine in 1945. Baum did his resident service in ophthalmology at the Bronx VA Hospital from 1948-52. Baum chaired the First International Symposium on Ultrasonic Diagnostics in Ophthalmology (SIDUO). He was elected the first President of the World Federation of Ultrasound in Medicine and Biology in 1973 in Rotterdam. Baum held appointments as Associate Professor of Ophthalmology at Albert Einstein College of Medicine, Director of the Ultrasonic Laboratory at Albert Einstein College of Medicine, and the Ophthalmologic Laboratory at Montifiore Medical

Center. He remained as President of the World Federation of Ultrasound in Medicine and Biology until 1977.

Baum first became interested in the medical applications of ultrasound in 1950. His goal was to dissolve hemorrhage in the vitreous humor. But, animal work proved ultrasound of little value for such use. Baum then joined with Dr. Ivan Greenwood at General Precision in constructing equipment for diagnostic visualization using B-mode scan. The first experiments involved the enucleated eye. Using compound scanning at frequencies up to 15 MHz, successive generations of equipment were built by Greenwood and Baum. As equipment became more sophisticated, specific lesions in the eye and the extent of these pathologies could be demonstrated.

Baum actively participated in the program of the International Congress of Ultrasound in Rotterdam in 1973.

Dr. Baum is currently on the staff of the Albert Einstein College of Medicine in New York, where he is Clinical Professor of Ophthalmology.

came AIUM president in 1974. He served through 1976. He completed his education in 1951 at the University of North Carolina, Chapel Hill, where he received his B.A. McKinney trained at the University of Virginia Hospital, and then pursued his residency and fellowship in neurology at the University of Virginia from 1960-63.

McKinney has been a member of the neurology service at Bowman Gray since 1963. He received his full professorship in 1976.

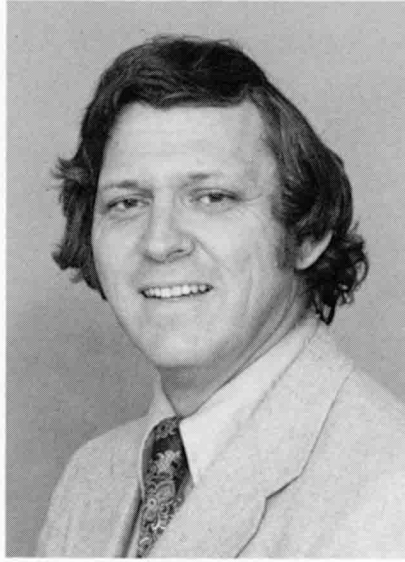
McKinney's interest in ultrasound began in 1963 when he visited the University of Colorado Medical Center's ultrasound laboratory, then under the direction of Joseph Holmes. McKinney focused first on A-mode echoencephalography. He organized one of the most effective clinical services for using echoencephalography in the neurological field. As an investigative project, McKinney began studying intracranial pulsations.

McKinney's greatest contribution to ultrasound has been as a teacher. He developed the Sonic Center concept. In such centers, all departments of a university work together using joint ultrasonic facilities. Each

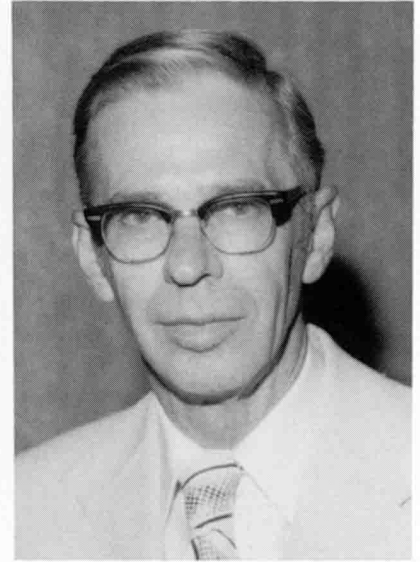
Dr. William McKinney be-



William M. McKinney, M.D.



Ross E. Brown, M.D.



Horace E. Thompson, M.D.

would pursue their own applications.

Projects during McKinney's term as president of AIUM included uniform fee specialty licensure for technologists and physicians. The first registry examination for technologists was held in conjunction with the Winston-Salem AIUM convention. McKinney established highly competent working committees, for AIUM, one of them the Bioeffects Committee. He arranged for the First World Federation Conference and was active in the Alliance for Engineering in Medicine and Biology (AEMB). JCU (Journal of Clinical Ultrasound) and Reflections became the official journals of AIUM during McKinney's presidency.

Ross Brown assumed the presidency of AIUM from 1976-78. Brown received his B.S. degree from the University of Manitoba in 1956 and his M.D. degree from the same university in 1961. He spent one year of rotating internship at Winnipeg General Hospital and then spent five years in a neurosurgical residency at Winnipeg General Hospital. Brown spent his final year (1956) of

residency learning about ultrasound. He then served as Head of the Ultrasound Division at Winnipeg General until 1969. Brown moved to the University of Oklahoma School of Medicine to become Chief of the Ultrasound Division, Department of Radiology.

Brown's first contact with AIUM was in 1967 at the Miami meeting when he was elected to the Board of Governors. He served as treasurer from 1968-70, and acted as Program Chairman for the 1969 Winnipeg meeting. He remained on the Executive Board of AIUM from 1970-72, as vice-president from 1972-74, and as president-elect and president.

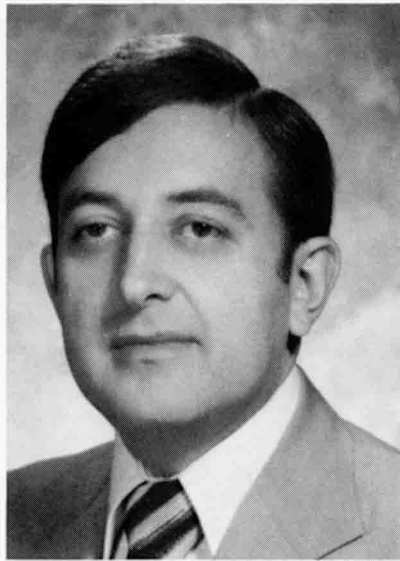
During Brown's term of office, diagnostic ultrasound experienced rapid growth throughout the nation. Many radiologists sought training in ultrasound. That presented a great demand for an educational session at AIUM meetings. Brown encouraged AIUM to, as he put it, "move into the big league". He oversaw the establishment of a Central Office in Oklahoma City. During this time, AIUM moved from a club to a large professional organization with specialized interests.

Horace Thompson assumed the presidency from 1978-80. He completed his term of office at the New Orleans meeting, September 1980.

Thompson received his A.B. degree from the University of Denver in 1944, and his M.D. degree from the University of Colorado School of Medicine in 1948. Thompson interned at Fresno County Hospital, Fresno, California. He was Assistant Resident in Obstetrics and Gynecology at Johns Hopkins Hospital, Baltimore, from 1951-52. He then became Chief Resident in Obstetrics and Gynecology at Presbyterian Hospital in Chicago from 1952-54.

Thompson was on active duty in the military from 1955-57; he served in the National Guard and Reserve for several years. From 1955 to 1956, he operated a private practice in obstetrics and gynecology in Denver. During that time, Thompson started work with Joseph Holmes in the ultrasound laboratory at the University of Colorado Medical Center.

When the first contact scanner in the nation was built at the University of Colorado, Thompson used it in obstetrics and



Barry B. Goldberg, M.D.

gynecology practice. Dr. Kenneth Gottesfeld began assisting Thompson in 1963. Most of the clinical studies coming out of the University of Colorado Medical Center in obstetrics and gynecology is the combined effort of Drs. Stewart Taylor, Thompson, Holmes, and Gottesfeld.

After Thompson became a full-time member of the Department of Obstetrics and Gynecology at the University of Colorado Medical Center, he was named Chief of OB/GYN at Denver General Hospital. Thompson's activities included the chairmanship of the Committee on Medical Instrumentation and Device Standards of the American College of Obstetrics and Gynecology. He is chairman of a similar committee for the Food and Drug Administration.

Dr. Thompson is currently the Chairman of the Department of Obstetrics and Gynecology at Louisiana State University.

Barry B. Goldberg, M.D. served as AIUM president from 1980-82. He earned his B.A. (Chemistry) and M.D. degrees

from the University of Pennsylvania, completing his internship and radiology residency at the Albert Einstein Medical Center in Philadelphia.

During his radiology residency, Dr. Goldberg worked with J. Gershon-Cohen, M.D., a pioneer in x-ray mammography. Always interested in new imaging modalities, Dr. Gershon-Cohen acquired one of the first SmithKline A-mode ultrasound machines. He in turn encouraged Dr. Goldberg to investigate the usefulness of ultrasound during his residency. Completing his residency, Dr. Goldberg worked for a year with J. Stouffer Lehman on one of the first B-scanners at Hahnemann Medical College and Hospital, Philadelphia. Dr. Goldberg became involved in testing some of the earliest applications of A-mode in determining the differential characteristics of solid, cystic and complex masses. His research efforts resulted in establishing normal measurements for the abdominal aorta and developing a suprasternal approach to obtaining measurements of the aortic arch, right pulmonary

artery, left atrium and innominate vein. In addition, Dr. Goldberg developed techniques, using special transducers containing a central lumen, for the aspiration and biopsy of masses and collections.

Dr. Goldberg is currently director of the Division of Ultrasound and Radiologic Imaging, and Professor of Radiology at Thomas Jefferson University Medical School and Hospital. In this capacity, he has continued work begun in the 1960s in developing ultrasound education programs for physicians and technologists at Thomas Jefferson University Medical School and throughout the world.

Dr. Goldberg has published extensively on all applications of ultrasound. He is the author or editor of five texts, and has written numerous chapters on ultrasound for other medical texts.

Dr. Goldberg is a Fellow of the American College of Radiology. He has served the AIUM as Chairman of the Education Committee and the Committee on Clinical Certification and Accreditation. Prior to becoming president of AIUM, Dr. Gold-



Marvin C. Ziskin, M.D.

berg served a term as AIUM treasurer. He is currently treasurer of the World Federation for Ultrasound in Medicine and Biology.

Marvin C. Ziskin, MD, is the current AIUM President. He received his MD from Temple University, and an MS in Biomedical Engineering from Drexel University. He joined the faculty of Temple with appointments in Radiology and Medical Physics in 1968, and is now concurrently Professor of Radiology and Medical Physics. Dr. Ziskin has been active in the AIUM since the 1960's. He has served in many capacities, including on the Bioeffects and Standards Committees, as Editor of *Reflections*, and as Chairman of the Constitution and Membership Committees.

During the first year of his term, the contract with John Wiley Publishers to publish the official AIUM journal expired and was not renewed. The official AIUM journal became the JOURNAL OF ULTRASOUND IN MEDICINE (JUM), copublished with W. B. Saunders Company. When the transition was made, George R. Leopold moved to JUM to continue as editor of AIUM's official scientific journal. The new AIUM-owned monthly, JUM, incorporates *Reflections: AIUM Membership News*. The Associate Editorial staff also transferred to JUM.

President Marvin C. Ziskin, MD, will be completing his second year as President of AIUM in October 1984.

A History of AIUM

SCHEDULE OF ANNUAL AIUM MEETINGS

1951 — Organized by group of 24 physicians attending American Congress of Physical Medicine and Rehabilitation (PM&R), all interested in the physiotherapy applications of ultrasound, Denver, CO

1952 — First International Conference (held in conjunction with International Congress of PM&R), London, England, June

1952 — First Annual Conference, initial election of officers, New York, NY, September

1953 — Second Annual Conference, Chicago, IL, August 29. Disraeli Kobak, president

1954 — Third Annual Conference, Washington, DC, September 4. Disraeli Kobak, president

1955 — Fourth Annual Conference, Detroit, MI, August 27. Disraeli Kobak, president

1956 — Fifth Annual Conference, Washington, DC, August 10. Jerome W. Gersten, president

1957 — Sixth Annual Conference (International meeting of PM&R), Los Angeles, CA, September 6-7. Jerome W. Gersten, president

1958¹ — Interim meeting, Philadelphia, PA, August 23

1959¹ — Interim meeting, Minneapolis, MN, September 2

1960 — Second International Conference of Ultrasonics in Medicine, Washington, DC, August 20. David Rubin, president

1961 — Third International Conference, Cleveland, OH, August 23. David Rubin, president

1962 — Seventh Annual Conference, New York, NY, August 25. David Rubin, president

1963 — Eighth Annual Conference, Dallas, TX, August 24. Carrie E. Chapman, president

1964 — Ninth Annual Conference, Boston, MA, August 22. Carrie E. Chapman, president

1965 — First Panamerican Meeting, Tenth Annual Conference, Lima, Peru, November 26-27. Carlos Bustamente Ruiz, president

1966 — Eleventh Annual Conference, San Francisco, CA, August 27. Carlos Bustamente Ruiz, president

1967 — Twelfth Annual Conference, Miami, FL, November 12-16. William J. Fry, president

1968 — Thirteenth Annual Conference, New Orleans, LA, November 4-7. William J. Fry (deceased); George Kossoff, acting president

1969 — Fourteenth Annual Conference, Winnipeg, Manitoba, October 6-10. Joseph H. Holmes, president

1970 — Fifteenth Annual Conference, Cleveland, OH, October 12-15. Joseph H. Holmes, president

1971 — Sixteenth Annual Conference, Denver, CO, October 19-22. Denis White, president

1972 — Seventeenth Annual Conference, Philadelphia, PA, October 30-November 1. Denis White, president

1973 — Eighteenth Annual Conference, Ann Arbor, MI, August 14-18. Gilbert Baum, president

1974 — Nineteenth Annual Conference, Seattle, WA, September 11-14. Gilbert Baum, president

1975 — Twentieth Annual Conference, Winston-Salem, NC, October 4-9. William McKinney, president

1976 — Twenty-first Annual Conference, San Francisco, CA, August 3-7. William McKinney, president

1977 — Twenty-second Annual Conference, Dallas, TX, October 30-November 2. Ross Brown, president

1978 — Twenty-third Annual Conference, San Diego, CA,

October 19-23. Ross Brown, president

1979 — Twenty-fourth Annual Conference, Montreal, Canada, August 27-31. Horace Thompson, president

1980 — Twenty-fifth Annual Conference, New Orleans, LA, September 15-19. Horace Thompson, president

1981 — Twenty-sixth Annual Conference, San Francisco, CA, August 17-21. Barry Goldberg, president

1982 — Twenty-seventh Annual Meeting, Denver, CO, October 4-8. Barry Goldberg, president

1983 — Twenty-eighth Annual Meeting, New York City, New York, October 18-21. Marvin C. Ziskin, MD, president.

¹Not officially scheduled with papers; luncheon meeting with guest speaker.

During the first seven years, of AIUM (in 1950's), Cecil Birtcher assumed financial obligation for publication of the transactions of the AIUM meetings. This involved the production of formal transactions including all papers given. These papers were published in the *Journal of Physical Medicine*. Papers from some of the early sessions were also submitted to the Acoustical Society of America; many appeared in their official journal. Dr. William Fry edited these submissions.

At about the same time, the *Journal of Clinical Ultrasound (JCU)* started. Joseph Holmes served as editor. John Wiley & Sons, Inc. purchased the JCU in 1976. AIUM set up a working relationship and finally a subscription to JCU for all members in 1978.

A newsletter for members originated during Dr. Joseph Holmes' presidency (1969-70). It was published regularly, and discussed the problems of diagnostic ultrasound. This house organ eventually became *Reflections* (1973).

In 1981, the contract with JCU was terminated in favor of an AIUM-owned scientific journal published in conjunction with the W.B. Saunders Company. The new official journal of the AIUM, the *Journal of Ultrasound in Medicine (JUM)*, under the editorship of former JCU editor, George R. Leopold, commenced in 1982 with nine issues a year.

Reflections was incorporated into the *Journal of Ultrasound of Medicine*. This membership news section remained under

the editorship of Marvin C. Ziskin until Dr. Ziskin assumed the AIUM Presidency at the 1982 meeting. He was succeeded as Editor by Barbara J. Weinstein, MD. JUM went to twelve issues a year in 1983. *Reflections* continues to appear in each issue.

The AIUM also publishes manuals, pamphlets, and audio-visual materials designed to maintain educational standards in the field of medical ultrasound. Publications of the AIUM include safety standards, a recommended nomenclature, a medical ultrasound bibliography, a standard presentation and labeling guide, proceedings of annual meetings, an annual buyer's guide to equipment and services, and patient information brochures.

MEETINGS

FUTURE MEETING SITES

1984 — Kansas City, MO
September 16-19.

1985 — Dallas, TX
October 8-11.

1986 — Las Vegas, NV
September 15-19.

1987 — New Orleans, LA
October 6-9.

1988 — Washington, DC
September 26-30*.

1989 — San Francisco, CA
October 3-6.

1990 — New Orleans, LA
September 11-14.

*The 1988 meeting will be held in conjunction with the meeting of the World Federation for Ultrasound in Medicine and Biology (WFUMB).

INTERNATIONAL AIUM MEETINGS

1965 — International Conference, Pittsburgh, PA, May 20-22. Joseph Holmes, program chairman

1969 — International Conference (held in conjunction with SIDUO), Vienna, Austria, June 2-7. Karl Ossoinig, program chairman

1973 — International Conference (held in conjunction with SIDUO), Rotterdam, Holland, June 5-10. M. de Vlieger, program chairman

1976 — International Conference, San Francisco, CA, August 3-7. Ross Brown, program chairman

1988 — Joint meeting of the AIUM and the World Federation for Ultrasound in Medicine in Washington, DC.

WITH MANY THANKS

It is always interesting to delve into the past and uncover facts which reveal how an organization like AIUM started and how its original background and goals influenced the nature of the organization today.

A number of individuals assisted me in preparing this manuscript. These include Dr. Carrie Chapman, who associated in practice with Dr. John Aldes. Doctor Aldes acted as Executive Director for AIUM and was responsible for many of its accomplishments. Dr. William Fry played an important role in the activities of the organization from 1965 until his death in 1968. I used copies of two important talks as source material for this history. One was a compilation of the history of AIUM by Doctor Aldes. He planned to present it at the Winnipeg meeting (1969) but unfortunately died before that date. The other speech was

Carrie Chapman's presidential address in 1964.

I note certain discrepancies between the recollections of different members. I selected, in some instances, material for this history which may differ slightly from the memory of other individuals involved in the early organization of AIUM. Quotes come directly from correspondence, talks, and notes found in various AIUM records.

I emphasize that I have had an unusual opportunity to discuss the early days of AIUM with Dr. Jerome Gersten, the second president. He heads the Department of Physical Medicine at the University of Colorado Health Sciences Center. He furnished me with copies of unusual historical material related to AIUM.

Some information was assembled by Virginia Krause. Ms. Krause was appointed Executive Secretary of AIUM in 1963. In 1966 Ms. Krause was named Secretary to the Executive Board at the San Francisco meeting. She worked with AIUM until Dr. Aldes death in 1969.

Carrie Chapman, third president of AIUM, proved a fine source of information for this history. Because of her association with Virginia Krause and John Aldes, she knew the events and accomplishments of AIUM.

Many members of AIUM supplied material incorporated into this writeup, namely, Gilbert Baum, David Rubin, William McKinney, D. N. White, Ross Brown, Horace Thompson, Frank Fry, Elizabeth Kelly-Fry, Matthew Kobak, and Karl Ossoinig. Many of these individuals served as officers of AIUM.

The individuals who exerted influence over AIUM during its growth period should be commended for their vision — an ability to see how ultrasound and its medical applications would expand with time. They saw the role AIUM would play in this expansion.

My thanks to all who contributed to this history.

Joseph H. Holmes, M.D.
Denver, CO., 1980

1981, 1983, and 1984 updates