

A HISTORY OF  
UNIVERSITIES ASSOCIATED FOR RESEARCH AND EDUCATION  
IN PATHOLOGY (UAREP)  
1964-1987

Introduction

The seeds for what was to become Universities Associated for Research and Education in Pathology, Inc. (UAREP) were sown at the first post-war International Cancer Congress held in St. Louis in 1947. During the meeting it became evident that speakers from different institutions and particularly from different countries were using many different terms to identify very similar, if not identical, neoplasms. It was suggested that adoption of a standard nomenclature would improve communication and accelerate research progress. Perhaps some competent organization might be persuaded to develop a well-illustrated atlas of tumor pathology which could serve as the basis for a standard nomenclature.

The idea appealed to the Committee on Pathology of the National Research Council at the National Academy of Sciences (NAS/NRC). This Committee among its other duties already provided advisory services to the several military branches including especially the Army Medical Museum which later became the Armed Forces Institute of Pathology (AFIP). In collaboration with the AFIP the Committee sponsored a conference to discuss the matter. The idea was endorsed by the conferees and a general plan began to take shape.

The Committee on Pathology, acting through the NAS/NRC would serve as the sponsor and seek grant support to cover the costs of preparing and editing the manuscripts. AFIP would provide access to its extensive collection of tumor cases and assist in preparation of illustrations. The manuscript would be set in type and printed by the Government Printing Office. Soon thereafter AFIP acquired presses and assumed responsibility for printing and distribution.

It was decided that to cover the entire area of neoplasia in a single publication would take too long and, therefore, the strategy should be to publish a series of Fascicles, each of which would cover the tumors seen in a particular organ or organ system.

This basic plan was adopted. Grant support was obtained, an editor was appointed and soon the first Fascicle of the First Series was published. Twenty years later the First Series was completed. (See Appendix I).

During this long interval, a rather complicated interrelationship between AFIP and NAS/NRC evolved as a result of the quasi-governmental charter of NAS/NRC which permitted the Academy to serve as fiscal agent for certain non-military activities at AFIP. These activities included serving as the sponsor for various tissue registries, providing consultation to civilian pathologists, preparing and distributing slide sets and offering training courses. Funds to support such activities were obtained from various sources and managed by NAS/NRC. Some of the personnel involved in these activities were employed by the Academy and carried on the Academy payroll.

The officers of the Academy became increasingly uneasy about the relationship and finally decided to withdraw when the First Series was completed. Several members of the Committee on Pathology, including Kenneth Brinkhous, Thomas Kinney and Robert Wissler, promoted the idea that a consortium of universities be established to replace NAS/NRC as sponsor of the Atlas and fiscal agent for AFIP/ARP. Representatives of about twenty universities met to consider the matter and three universities agreed to go ahead.

AFIP welcomed the idea and assisted in drawing up articles of incorporation, constitution and by-laws for what was to become Universities Associated for Research and Education in Pathology, Inc. (UAREP). Of great assistance in organizing UAREP were the participation of General Joe M. Blumberg, Captain Bruce H. Smith, Colonel Claude K. Leeper and Dr. Robert S. Stowell of AFIP as well as the cooperation of Dr. Frederic Seitz and Dr. Keith Cannon representing NAS/NRC.

#### UAREP 1964-1976

UAREP was incorporated in the State of Maryland on December 17, 1964 (see Appendix II for the Articles of Incorporation). The initial member universities were the University of North Carolina, Duke University and the University of Chicago, represented on the Board of Directors by Drs. Kenneth M. Brinkhous, Thomas D. Kinney and Robert W. Wissler respectively. The Board held an organizational meeting in February. Soon after this the University of Maryland and the University of Kansas joined the consortium and were represented on the Board of Directors by Drs. Harlan I. Firminger and John R. Carter.

On April 1, 1965 two accounts, the American Registry of Pathology and the Registry of Urologic Pathology were transferred to UAREP from the National Academy of Sciences/National Research Council. On that date the first Business Manager, Mr. Melvin F. Lundfelt, assumed his duties.

During 1965, the Board of Directors held seven meetings, planned and implemented several new programs and appointed the first Executive Officer, Dr. Ralph E. Knutti, who assumed his position in mid-October. On January 1, 1966, the *Atlas of Tumor Pathology* was transferred to UAREP, thus completing the planned transition from NAS/NRC to UAREP.

The new relationship between AFIP/ARP and UAREP was spelled out in a formal agreement adopted in July, 1966 (see Appendix III). In effect, UAREP supplanted NAS/NRC as sponsor of the *Atlas of Tumor Pathology* and as fiscal agent for ARP, a division of AFIP.

UAREP's central office, located at the Beaumont Campus of the Federation of American Societies for Experimental Biology (FASEB), was arranged through the American Society for Experimental Pathology (ASEP). ASEP, as a corporate member of FASEB, was entitled to maintain an office on the campus. ASEP bought furniture, UAREP paid rent and the two organizations shared space and staff so that the Business Manager and Executive Officer served both ASEP and UAREP. At the end of 1965 there were three employees in the central office

and 30 more on the UAREP payroll supported by grants and contracts and located at AFIP. By December 31, 1966, the central office staff numbered five and the project payroll had grown to 53.

From a fiscal standpoint, UAREP began its existence with \$1,500 contributed by the member universities. As fiscal agent for AFIP/ARP it handled \$446,000 in 1965 representing five projects supported by seven sponsors. In 1966 the funds available increased to \$862,500 supporting 13 projects with 18 sponsors, eight of which were government agencies. UAREP's expenses were partially covered by indirect cost allowances from grants. In addition, AFIP/ARP paid a fee for fiscal agent services which permitted UAREP to begin to build a small general fund balance. (See Appendix IV for Financial History.)

During 1966 Dr. Carter moved to Case Western Reserve University and the University of Kansas named Dr. Dante G. Scarpelli as its representative. During the latter half of the year Case Western Reserve University, the University of California, the University of Rochester and Yale University joined the consortium nominating Drs. John R. Carter, Henry D. Moon, J. Lowell Orbison and Averill E. Liebow as their representatives respectively.

At the close of 1966 UAREP had nine member universities, the limit allowable under its Bylaws at that time. This membership remained unchanged for more than ten years. The basic pattern of operation in place in 1966 continued largely unchanged for the next nine years.

During this decade, UAREP's principal efforts were devoted to non-military activities at AFIP. These activities were growing rather rapidly as new registries were created and research projects were undertaken with grant support. UAREP's role in most of these activities was a rather passive one. It served as fiscal agent while AFIP managed the activities from a professional standpoint.

Two projects were joint ventures -- the *Atlas of Tumor Pathology* and the Registry of Comparative Pathology. In addition, UAREP developed several independent programs not involving AFIP. Details regarding the various activities are presented below.

#### AFIP/ARP Projects

From 1965 to 1975 UAREP served as fiscal agent for AFIP/ARP in connection with research grants and contracts awarded to UAREP for support of projects carried out by staff of AFIP/ARP. Altogether there were 22 such projects (see Appendix V). Applications for grants were prepared by AFIP/ARP and were reviewed by the UAREP Board of Directors. If the Board approved, the application was submitted to the granting agency. Approved grants (contracts) were awarded to UAREP which handled the funds. Progress was reviewed by the Board. Usually an individual member of the Board was assigned to monitor each project and report at intervals to the Board. Occasionally a Board member was designated as the Principal Investigator. Principal Investigators at AFIP were usually appointed Scientist Associates of UAREP.

### Joint AFIP/UAREP Projects

The *Atlas of Tumor Pathology* has been a central concern of UAREP from the outset. The First Series was completed under the sponsorship of the National Research Council. UAREP was created primarily to sponsor the Second Series. The first Fascicle of the Second Series contains the following Editor's Note:

The Atlas of Tumor Pathology was originated by the Committee on Pathology of the National Academy of Sciences-National Research Council in 1947. The form of the Atlas became the brain child of the Subcommittee on Oncology and was shepherded by a succession of editors. It was supported by a long list of agencies; many of the illustrations were made by the Medical Illustration Service of the Armed Forces Institute of Pathology; the type was set by the Government Printing Office; and the final printing was made by the press at the Armed Forces Institute of Pathology. The American Registry of Pathology purchased the fascicles from the Government Printing Office and sold them at cost, plus a small handling and shipping charge. Over a period of 20 years, 15,000 copies each of 40 fascicles were produced. They provided a system of nomenclature and set standards for histologic diagnosis which has received worldwide acclaim. Private contributions by almost 600 pathologists have helped to finance the compilation of an index by The Williams and Wilkins Company to complete the original Atlas.

Following the preparation of the final fascicle of the first Atlas, the National Academy of Sciences-National Research Council handed over the task of further pursuit of the project to Universities Associated for Research and Education in Pathology, Inc. Grant support for a second series was generously made available by both the National Cancer Institute and the American Cancer Society. The Armed Forces Institute of Pathology has expanded and improved its press facilities to provide for a more rapid and efficient production for the next series. A new Editor and Editorial Advisory Committee were appointed, and the solicitation and preparation of manuscripts continues.

This second series of the Atlas of Tumor Pathology is not intended as a second edition of the first Atlas and, in general, there will be variation in authorship. The basic purpose remains unchanged in providing an Atlas setting standards of diagnosis and terminology. Throughout this new series, the international nomenclature is shown as the first synonym in italics whenever a term has been chosen by the Committee on Tumor Nomenclature of the International Union Against Cancer. Hematoxylin and eosin stained sections still represent the keystone of histologic diagnosis; therefore, most of the photomicrographs will be of sections stained by this technic, and only sections prepared by other technics will be specifically designated in the legends. It is hoped that in many of the new series a broader perspective of tumors may be offered by the inclusion of special stains, histochemical illustrations, electron

micrographs, data on the biological behavior, and other pertinent information for better understanding of the disease.

The format of the new series is changed in order to allow better correlation of the illustrations with the text, and a more substantial cover is provided. An index will be included in each fascicle.

It is the hope of the Editor, the Editorial Advisory Committee, and the Sponsors that these changes will be welcomed by the readers. Constructive criticisms and suggestions will be appreciated.

Harlan I. Firminger, M.D.

Dr. Firminger served as Editor until 1976 and during his tenure thirteen fascicles were published. (See Appendix I.)

Dr. Firminger was succeeded by Dr. William H. Hartmann and the Second Series continued under altered circumstances to be described below.

Registry of Comparative Pathology: The concept for this registry was developed by the Committee on Pathology of the National Research Council. Dr. Wissler applied for grant support through UAREP and NIH awarded the first grant in 1966. The Registry has been housed at AFIP and staffed by individuals on the UAREP payroll. The Registry serves as a center for the study of pathologic processes from a comparative pathology point of view. It is a national resource for education and research involving spontaneous and experimentally induced animal diseases, especially as they may serve as models for the study of human disease. The Registry publishes a quarterly *Comparative Pathology Bulletin*, an annual fascicle to the *Handbook: Animal Models of Human Disease* and original scientific articles.

The Registry also organizes symposia and workshops, an annual training course on comparative pathology, prepares loan study sets, consults on diagnostic problems, encourages preservation of exotic animal species, stimulates the study of diseases in wild free-living species and maintains a reference source on animal models. The Registry has continued without interruption and in 1987 entered its 22nd year of operation and support by NIH.

#### UAREP Projects

During the early years, the Board of Directors explored a variety of ideas for possible projects that might benefit the field of pathology such as registries, training programs, workshops, publications, computerization of pathology records, placement services, etc. Usually the Board designated an individual Board member or a small committee to develop the idea and explore possible sources of financial support. A number of the ideas were abandoned but several were successful.

The Board was concerned about the quality of undergraduate medical education in pathology and experimented with teaching syllabi. Finally the Board decided to prepare Teaching Monographs to supplement weak areas in available textbooks. The Upjohn Company agreed to print and publish monographs prepared by UAREP. The first monograph was *Cell Injury* by Drs. Dante Scarpelli and Benjamin Trump. UAREP purchased a supply of reprints which were sold at cost to students and departments. The demand was brisk and continued even after the supply was exhausted. New monographs continued to be published by Upjohn until 1974 when the Upjohn Company withdrew. Subsequent monographs were published in the *American Journal of Pathology*. Twenty monographs have been published (see Appendix VI), most of which have sold well.

Another highly successful project involved automobile accident pathology. This project, supported by the U.S. Department of Transportation, collected data on types of injury and causes of accidents. It also provided training in forensic pathology. Several international symposia were held. The project provided data useful in improving vehicle and highway design.

Two projects were evolved in collaboration with the Association of Pathology Chairmen. One of these was a series of Quail Roost workshops on the organization and administration of pathology departments. These workshops, held at the Quail Roost Inn in North Carolina, were designed primarily for newly appointed department chairmen. The second project was a joint placement service. Academic departments listed vacancies and applicants provided C.V.s. After the first two years it became evident that the results did not justify the effort and the project was abandoned.

#### AFIP Terminates the Agreement

On June 20, 1975, Col. Hanson, Director of AFIP, notified UAREP that AFIP would terminate its agreement with UAREP effective June 20, 1976, unless a revised agreement could be worked out. The decision by AFIP's Board of Governors resulted from a report prepared by an investigative team appointed by the Department of the Army. The investigative committee was highly critical of several features of the existing agreement:

- (1) Purchase of the entire printing of fascicles from GPO by ARP at a bulk-rate discount and resale by ARP at a marked-up price;
- (2) UAREP serving as grantee institution to receive grants on behalf of AFIP/ARP scientists;
- (3) Intermingling of activities by staff on AFIP payroll with staff on UAREP payroll;
- (4) Indirect cost adjustments.

Col. Hanson's letter caught UAREP by surprise and considerable controversy followed during the ensuing months. Finally, a compromise was reached whereby certain activities were to be terminated, others were to be phased out gradually and others were to be maintained:

- (1) Purchase and resale of fascicles by ARP were terminated. Subsequently, the Government Printing Office sold the fascicles directly and retained the income. Printing continued at AFIP and a sales office was operated at AFIP, acting as an agent of GPO.
- (2) UAREP phased out as fiscal agent for ARP and returned related funds to AFIP/ARP.
- (3) Grants to UAREP on behalf of AFIP/ARP scientists were phased out as periods of committed support ended. (The last one ended in 1980.)
- (4) UAREP continued as sponsor of the *Atlas of Tumor Pathology* and grantee institution for the Registry of Comparative Pathology which continued to be housed at AFIP.

#### UAREP 1976-86

During 1976 the Board of Directors and the Director of AFIP devoted considerable time to working out the transition from the old agreement to the new. A new entity, the American Registry of Pathology, Inc. (ARP) was authorized by Congress and incorporated as a non-profit corporation in the District of Columbia and assumed the role of fiscal agent for ARP but the registries now became registries of AFIP.

UAREP transferred the funds it had been managing for AFIP/ARP to this new entity and ceased operating as fiscal agent. UAREP continued as grantee institution for some of the projects at AFIP with the understanding that when periods of commitment expired, the renewals would transfer to ARP, Inc. This process was completed in 1980.

With regard to one special fund, the 202 Account, which was a revolving fund established to handle money in the purchase and resale of Fascicles of the Second Series of the *Atlas of Tumor Pathology*, UAREP and AFIP failed to reach agreement. UAREP consulted the National Cancer Institute which ruled that the 202 Account was "grant related income" and that its disposition was subject to determination by NCI. The AFIP asserted that the 202 Account should become the property of ARP, Inc. and persuaded the Department of Defense to file a claim with the Comptroller General of the United States. The issue was finally settled by the Comptroller General in favor of the National Cancer Institute which in turn ruled that the 202 Account should remain in the hands of UAREP to be used in connection with further publication of the Atlas.

Although most of its energies during 1976 were directed toward reaching a new agreement with AFIP, the Board of Directors explored various potential new activities unrelated to AFIP. One was the possibility of assisting the Government of Iran in establishing the equivalent of AFIP in Teheran. Another was the possibility of assuming responsibility for the pathology aspects of the Atomic Bomb Casualty Commission in Japan. These two potential projects were abandoned. Another project considered at length, the "Fatty Streak Project", envisioned as a multi-institutional effort to study the pathogenesis of atherosclerosis using autopsy material from victims of accidental death,

was abandoned for lack of funding. Interestingly, largely through the continuing efforts of Dr. Wissler, the project was finally funded more than five years later, but not through UAREP.

One project was successfully carried out, namely the Conference on the Future of Academic Pathology. The conference was held September 22-24, 1976 in College Park, Maryland, under the sponsorship of UAREP, the Intersociety Committee for Research Potential in Pathology and the Association of Pathology Chairmen. Eighty invited scientists from more than fifty medical schools and government agencies participated in the three days of discussions. The attendees included not only current leaders in pathology, but also twenty young pathologists with the potential to become future leaders.

The Conference discussed the shifting emphasis and balances of power with evolving new disciplines and the importance of various disciplines in the continuing competition for limited governmental and university resources. Hence, the problem of planning for and influencing those changes so that the pathologist's contribution will become more effective was considered. The unique opportunities and resources of pathologists for their research were considered. The participants discussed mechanisms of accomplishing the identified future goals for improvement of teaching and training in pathology. A Conference summary was published in the *American Journal of Pathology*, Vol. 88, Pages 430-464, 1977.

As a result of the changed relationships with AFIP, UAREP confronted an uncertain future in 1977. UAREP had been created primarily to meet the non-military needs of AFIP but now most of these needs could be met by the newly created ARP, Inc. Clearly, UAREP must find a new mission or disband. The need to find a new mission was urgent for financial reasons. UAREP's income from investments fell far short of paying its operating expenses. It was clear to the Board of Directors that the member universities were not prepared to provide the necessary subsidy. Nor could the Board identify sources of endowment for such an organization.

The most practical source of funds for operating expenses appeared to be indirect cost allowances from research projects and educational projects funded through grants and contracts. The organization had no laboratories or clinical facilities of its own and the small central office was staffed primarily to provide management services. But the nine member universities did have laboratories, clinical facilities and scientific staffs. If these resources could be mobilized to work collaboratively and be coordinated by the Board and central office then it would be feasible to carry on. The Board of Directors decided to continue operations, convinced that UAREP had real potential to advance the cause of research and education in the field of pathology. The Board appointed an ad hoc committee on long-range planning.

The Committee presented its report and on the 16th of December, 1977, the Board agreed to the following:

1. New Goals: UAREP's objective is to promote and support research, education and training in pathology by the following:



- a. Sponsoring multi-university efforts;
  - b. Fostering cooperation between governmental and academic institutions;
  - c. Serving as a resource for consultation, policy advice and collaborative projects concerning research and education;
  - d. Developing and publishing pertinent educational materials in pathology and related biomedical sciences; and
  - e. Organizing and implementing symposia, conferences and workshops.
2. Membership: Membership shall continue to be institutions and should be expanded gradually by invitation.
  3. Board of Directors: The Board of Directors shall be elected annually by the institutional membership and shall consist of a majority of institutional representatives and a minority of Directors-at-Large.
  4. Executive Committee: The Executive Committee shall consist of the President, Vice President, Past President, Secretary-Treasurer, a member of the Board and the Executive Officer.
  5. Descriptive Brochure: A brochure shall be developed, describing the history of UAREP and its new goals, governance and activities. This brochure shall be for general distribution.
  6. Annual Report: An Annual Report shall be prepared and distributed.
  7. Meetings: There shall be an Annual Meeting of the institutional representatives. The Board of Directors shall meet as necessary, but at least annually. The Executive Committee shall meet as necessary .

The Board directed the staff to draft a revised Constitution and By-laws to reflect these new goals. The revised documents are presented in Appendix VII.

1977 also marked the beginning of a new era of activities related to health risks associated with exposures to chemicals in the human environment. The first project in this new area arose as a result of a dispute between the Food and Drug Administration (FDA) and the G.D. Searle Company regarding the marketing of an artificial sweetener, Aspartame.

UAREP became involved because FDA insisted on an independent evaluation of a series of tests carried out by Searle and reported to FDA in support of an application to market Aspartame. The issues were controversial and the financial stakes were large.

Saccharin, the only artificial sweetener then on the market, had been shown to cause cancer in animals and FDA had taken steps to ban saccharin under the Delaney Clause. Congress had acted to delay the ban. If Aspartame could be marketed, the public demand for an artificial sweetener could be met and, of course, Searle stood to reap a handsome profit.

But the safety of Aspartame had been challenged in the courts by consumer advocates and, in addition, FDA suspected that Searle had misrepresented its studies submitted to FDA.

UAREP was asked to review the laboratory records, review the animal tissues, reconstruct all the tables and determine whether Searle's reports to FDA accurately reflected their findings. The contract was between Searle and UAREP but the scope of work was dictated by FDA. Under the terms of the contract UAREP was directed not to question the adequacy or appropriateness of experimental protocols or to render an opinion on the safety of Aspartame. The contract also established elaborate procedures to prevent FDA and Searle from influencing UAREP's findings. UAREP's report to Searle was to be forwarded unchanged to FDA.

Dr. Robert Stowell was the Principal Investigator and much of the work was carried out at the University of California, Davis, but many of the tissues were reviewed at Northwestern University and the University of Maryland under the direction of Drs. Scarpelli and Trump respectively.

UAREP's massive three-volume report was submitted to Searle on November 18, 1978 and concluded that Searle had accurately presented the findings in its original report to FDA.

FDA subsequently approved the marketing of Aspartame and Searle has marketed over one billion dollars of the product, but the issues are still controversial and at the time this history was written the Government Accounting Office was engaged in an investigation of FDA which included detailed questioning of UAREP scientists who participated in the study.

On August 31, 1978 the Board of Directors met at Quail Roost Inn, North Carolina, for a scientific session on toxicology. Speakers from EPA, NIEHS, NCI and the Chemical Industry Institute of Toxicology made presentations and possibilities for future activity were discussed and referred to the Executive Committee.

The first concrete result was a decision to support an Aspen conference on developing a curriculum in environmental pathology. Two such conferences were held under the chairmanship of Dr. Rolla Hill and the proceedings were published.

In 1979, Vanderbilt University and Washington University joined UAREP and designated Drs. William Hartmann and Paul Lacy respectively as their representatives to the Board.

In that same year the second project on human risk was begun. This study was concerned with the potential carcinogenicity of nitrites in foods and was undertaken at the request of the FDA.

FDA had commissioned an elaborate chronic feeding study at the Massachusetts Institute of Technology to determine whether the chronic administration of high doses of nitrites in food or drinking water caused cancer in rodents. After receiving a preliminary positive report from MIT the Commissioner of FDA

and the Secretary of Agriculture announced their intention of banning nitrites as food additives in various meat products. A public outcry resulted.

Shortly thereafter MIT sent the histologic slides to FDA and the FDA pathologists, after examining a sample of slides, disagreed with the MIT diagnoses in a substantial percentage of cases. At that point FDA asked UAREP to carry out a double-blind review of all of the slides (some 50,000 tissues). A contract was signed and the study began.

Preliminary examination of encoded slides was carried out by some 50 pathologists at Northwestern University, the University of Maryland and the University of North Carolina, Chapel Hill. The code was broken at the central office and the MIT diagnosis was compared to the UAREP diagnosis. If the diagnoses were not in agreement a second examination was made by a panel of three pathologists and, if they could not agree, a third examination was carried out by an expert panel of six pathologists.

UAREP disagreed with the MIT diagnoses in many instances and, after the UAREP report was analyzed by FDA, the conclusion was that nitrites were not carcinogens under conditions of the MIT study.

The question as to the carcinogenicity of nitrites continues to be controversial particularly because nitrites and nitrates can interact with other foodstuffs to produce various nitrosamines, a number of which are carcinogenic in laboratory animals.

As the studies on Aspartame and nitrites progressed, the Board of Directors became more and more interested in environmental pathology and made a policy decision to emphasize this area. In 1980 a promotional brochure was developed and distributed to governmental agencies and to industry. Discussions were held with the Department of Energy (DoE) regarding a role for UAREP in the new Synfuels program but before any concrete project could be launched the incoming Reagan Administration decided to phase out the Synfuels program. A collaborative proposal for the use of human cell and organ culture for predicting human toxicity and carcinogenicity was developed and presented to the DoE. The proposal was rejected for policy reasons. DoE preferred to deal directly with individual universities.

A small project on the carcinogenicity of Amphibole fibers was carried out for the Environmental Protection Agency under the direction of Dr. Brinkhous.

In 1981 three new institutional members joined UAREP, the University of New Mexico, the University of Pittsburgh and Stanford University represented by Drs. Robert Anderson, Thomas Gill and David Korn respectively. UAREP presented the scientific session at a meeting of the American Petroleum Institute at which time there were several discussions with representatives of the major oil companies.

On January 1, 1982, Dr. John Higginson, former Director of IARC, joined the staff of UAREP for three years as Senior Scientist to assist in development of programs in environmental pathology.

Later in 1982, UAREP entered into a contract with the American Petroleum Institute (API) to evaluate the significance of a chronic study in rats exposed daily to vapors of unleaded gasoline for about two years. A number of male rats developed kidney cancers. Since millions of people are exposed to gasoline vapors, the petroleum industry was deeply concerned as to the implication of their study for human health.

Dr. Trump was designated as the Principal Investigator and an expert panel was established. The API study and more than 600 published and unpublished reports were reviewed in depth. A workshop was held in Boston. The final report, submitted in December 1983, concluded that, on the basis of available evidence, gasoline exposure at levels experienced in the general human population presents little, if any, carcinogenic risk to man.

Regulatory agencies are still debating what action should be taken. A major research effort is in progress and it is clear that the carcinogenic fractions in unleaded gasoline also occur in a number of other petroleum-derived products such as solvents which are in wide use. The significance for human health remains uncertain.

In 1983, revenues from grants and contracts reached a new low and UAREP was forced to dip into its reserves for the third year in succession. Once more the Board of Directors considered liquidating the organization but instead decided to continue and directed the Executive Committee to meet quarterly to develop new business. Fortunately, new business soon emerged.

The new project undertaken by UAREP was a study of the health aspects related to the disposal of toxic chemicals. The study focussed on abandoned waste disposal sites and on adverse health effects in populations living near the sites. At the request of the Chemical Manufacturers Association (CMA), UAREP carried out a feasibility study to determine whether sufficient data could be gathered to permit an assessment of health effects and UAREP concluded that sufficient data existed -- mostly unpublished -- provided that various government agencies were cooperative in releasing unpublished data. UAREP recommended that there be multiple sponsors including industry, government and consumer organizations. CMA accepted the report and spent some months seeking cosponsors. Consumer organizations refused. Government agencies agreed to cooperate but declined cosponsorship. Finally, five other trade associations, the American Industrial Health Council, the National Agricultural Chemicals Association, the National Association of Printing Ink Manufacturers, the National Paint and Coatings Association, and the United States Chamber of Commerce, joined CMA as co-sponsors. A national accounting firm, Arthur Young and Company, was designated as contract manager to shield UAREP from interference by the sponsors.

UAREP enlisted the assistance of the Life Sciences Research Office (LSRO) of the Federation of American Societies for Experimental Biology (FASEB) under a plan which vested primary responsibility for the study in an interdisciplinary Executive Scientific Panel (ESP) chaired by Dr. Joe W. Grisham.

The ESP was supported by Task Groups and workshops organized by LSRO. Staff support and secretariat services were provided by UAREP and LSRO.

As the work progressed, it became increasingly evident that essential data for demonstrating cause and effect relationships were generally lacking. The chemical contents of abandoned disposal sites were poorly documented and little was known about the migration of toxic chemicals from the sites into the surrounding environment. Consequently, it was impossible to establish population exposures. In general, the populations presumably exposed were too small to permit detection of subtle chronic health effects, especially those with long latent periods.

Careful study of peer-reviewed reports uncovered only one instance in which serious health effects resulting from exposure to a toxic chemical from a disposal site could be established. The final report presented a state-of-the-art report on sites, their contents, routes of migration, detection of biological effects, design of population studies and detailed data on a series of toxic chemicals most frequently encountered in sites and most likely to migrate from the sites. A book, *Health Aspects of the Disposal of Waste Chemicals*, was published by Pergamon Press in 1986.

While the CMA project was in progress, UAREP carried out a state-of-the-art review of the health effects of nitrilotriacetic acid (NTA) for the Procter and Gamble Company. NTA is used as a "builder" in laundry detergents to substitute for phosphates. Extensive data are available on the toxicity of NTA and on its fate in the environment. The data were reviewed by an expert panel under the guidance of Dr. Robert Stowell and Dr. Benjamin Trump who served as co-principal investigators. In its final report to Procter and Gamble, UAREP concluded that the use of NTA in laundry detergents did not pose a serious threat to human health.

UAREP also undertook a study for the Business Roundtable (BRT) to estimate the national burden of occupational disability and death due to toxic exposures in the workplace. During the course of the study it became evident that lack of data precluded valid estimates and the study was terminated by mutual agreement.

#### Registry of Comparative Pathology

This project, based at the Armed Forces Institute of Pathology, continued throughout the period. Dr. Dante Scarpelli replaced Dr. Robert Wissler as Principal Investigator and Dr. George Migaki served throughout as the resident Registrar. Annual supplements to the *Handbook of Animal Models of Human Disease* were published as well as reports of a number of Workshops on animal models.

#### Teaching Monographs

Production of monographs, published in the *American Journal of Pathology*, continued until 1983. At that time the relationship with the Journal termin-

ated. Subsequently, arrangements were made with the *Archives of Pathology and Laboratory Medicine* to publish future monographs. At the time of this writing no new monographs have been submitted to the Archives.

### Consortial Research Projects

The decade 1977-1986 began with expectations that the Member Universities would organize inter-university research projects and obtain grants to support them. Several projects were developed but grants were not forthcoming and, by the end of the decade, this idea had been largely abandoned. The university representatives were too busy, the projects were too expensive to win out in competitions and granting agencies were reluctant to pay indirect costs both to UAREP and to participating universities.

### Atlas of Tumor Pathology

In 1976, when Dr. Hartmann succeeded Dr. Firminger as Editor, the old arrangement whereby ARP purchased the Fascicles from GPO at bulk rate and sold them at a slight markup was terminated. From then on, the Fascicles were sold directly by GPO through a sales office at AFIP. Otherwise, the Second Series continued to be published as before (see Appendix VIII).

Funds had accumulated by ARP through sales of Fascicles and as a result of a ruling by the Comptroller General these funds were determined to be "grant related" and were retained by UAREP for support of the Atlas. Grants from the National Cancer Institute and the American Cancer Society were terminated at the request of UAREP.

The Board of Directors explored the possibility of making the Atlas self-supporting by using a commercial printer and marketing the Fascicles directly. AFIP opposed the change and in 1980 a new agreement was reached whereby AFIP provided a partial subsidy to UAREP to supplement funds from "grant related income" (see Appendix IX).

By 1985 the grant related income fund was exhausted. Grant applications were submitted to NCI and ACS for funds to complete the Second Series. NCI declined but ACS awarded a one-year grant which terminated early in 1986. At that time seven Fascicles remained to be completed.

Meanwhile the Editorial Advisory Board had recommended publication of a Third Series with a new format. This recommendation was accepted by UAREP and AFIP and a joint search committee was appointed in 1985 to identify an Editor for the Third Series. In April 1986 the Board of Directors rejected the recommendation of the Search Committee and a new Search Committee was appointed.

During the last half of 1986 the Executive Committee met several times with officials of AFIP to develop plans for the Third Series. It was agreed that the Third Series should adopt a format designed to be most useful to the practicing surgical pathologist and the pathology resident, should incorporate

"state of the art" diagnostic methodology as well as new knowledge regarding etiology, pathogenesis and prognosis.

With a view to minimizing the problem of obsolescence, the entire process should be speeded up so as to produce four Fascicles per year and to complete the Third Series in less than a decade. Recognizing that to reach this objective it would be essential to coordinate the activities of both organizations, it was agreed that a small joint Coordinating Committee should be created to monitor the operation and resolve problems as they arose. It also was agreed that AFIP would provide necessary financial support to UAREP but that UAREP would use best efforts to obtain partial subsidy from other sources.

A new joint Search Committee was appointed and met to develop selection criteria, a position description and a packet of informational material for potential candidates. A letter inviting nominations was sent to all pathology department chairpersons and more than forty candidates were suggested. Twenty-five of these agreed to have their names presented to the committee. The committee met to review the list and selected five for interview. Three were interviewed in Bethesda in February and the remaining two in Chicago in early March. Final selection of a candidate was agreed to in a conference call and the selection was approved by a mail ballot of the UAREP Board. The appointment of the new Editor, Dr. Juan Rosai of Yale University, was announced in April, 1987. UAREP sponsored a dinner in honor of Drs. William Hartmann and Harlan Firminger, Editors of the Second Series, on March 28, 1987, and shortly thereafter AFIP and UAREP entered into a new agreement regarding the Third Series (Appendix X). It is expected that the Second Series will be completed in about two years and that the first four Fascicles of the Third Series will begin to appear as the Second Series is nearing completion.

#### Recent Developments and Future Prospects

The year 1987 marked the beginning of a third phase in the development of UAREP. During its first phase, lasting about one decade, UAREP served primarily as a support arm for the Armed Forces Institute of Pathology. During the following decade the role of UAREP in support of AFIP activities diminished and UAREP concentrated on environmental factors in human health serving industry and government by providing independent scientific assessments in controversial areas. Throughout these two phases UAREP and AFIP collaborated on publishing the Second Series of the *Atlas of Tumor Pathology* and maintaining the Registry of Comparative Pathology.

As it enters a third phase of development, UAREP is committed to a joint enterprise with AFIP to produce a Third Series which will require about a decade to complete. Presumably, the Registry of Comparative Pathology will be continued indefinitely. Other UAREP activities not involving AFIP are expected to evolve with increased emphasis on educational ventures.

A new industrial project on health effects of formaldehyde exposure is in progress as well as a project on mathematical aspects of extrapolating toxicity data from laboratory animals to man.

A new approach to the production of future *Teaching Monographs* has been developed. Beginning in the Summer of 1988, UAREP will sponsor workshops with invited speakers and panel discussions on selected subjects which will provide material for Teaching Monographs to be published in the *Archives of Pathology and Laboratory Medicine*. Two such workshops are planned for 1988 to be held at Copper Mountain, Colorado. Departments of Pathology will be invited to send a representative. An author will be selected to prepare a teaching monograph designed for students based on the workshop. If deemed appropriate, the proceedings of the workshops may also be published for the use of teachers of pathology.

The Executive Committee invited the Association of Pathology Chairmen (APC) to join with UAREP and AAP in sharing a central office. Effective April 1, 1987 UAREP agreed to provide administrative services to APC.

At the Annual Meeting of the UAREP Board of Directors held in Washington, D.C. on March 28, 1987, the Board approved an amendment to the Constitution and By-laws providing that newly elected officers take office on the July 1 directly following their election. The Board also agreed to invite three additional universities to join UAREP. (See Appendix XI for a summary of UAREP member institutions and members of the Board of Directors.)

This history ends with that meeting of the UAREP Board on a definitely upbeat outlook. The future of the *Atlas of Tumor Pathology* seems assured and the *Teaching Monographs* promise to become active ventures once again. Several new grants and contracts will be activated during 1987. The future looks good.



APPENDIX I

ATLAS OF TUMOR PATHOLOGY, First Series

Fascicle

1	Introduction	
2	Tumors of the Skin	Herbert Z. Lund
3	Melanotic Tumors of the Skin	Herbert Z. Lund
		Jane Merrill Kraus
4	Tumors of Bone and Cartilage	Lauren V. Ackerman
		Harlan J. Spjut
5	Tumors of the Soft Tissues	Arthur Purdy Stout
6	Tumors of the Peripheral Nervous System	Arthur Purdy Stout
7	Tumors of the Cardiovascular System	Benjamin H. Landing
		Sidney Farber
8	Tumors of the Hematopoietic System	Henry Rappaport
9	Teratomas	Rupert A. Willis
10a	Tumors of the Odontogenic Apparatus and Jaws	Joseph L. Bernier
10b	Tumors of the Oral Cavity and Pharynx	Malcolm B. Dockerty, et al.
11	Tumors of the Major Salivary Glands	Frank W. Foote, Jr.
		Edgar L. Frazell
12	Tumors of the Upper Respiratory Tract	James E. Ash
		Marcus R. Beck
		J. Daniel Wilkes
13	Tumors of the Ear	James E. Ash
		Marcus R. Beck
		J. Daniel Wilkes
14	Tumors of the Thyroid Gland	Shields Warren
		William A. Meissner
15	Tumors of the Parathyroid Glands	Benjamin Castleman
16	Tumors of the Carotid Body and Related Structures (Chemoreceptor System)	Philip M. LeCompte
17	Tumors of the Lower Respiratory Tract	Averill A. Liebow
18	Tumors of the Mediastinum	Hans George Schlumberger
19	Tumors of the Thymus Gland	Benjamin Castleman
20	Tumors of the Esophagus	Arthur Purdy Stout
		Raffaele Lattes
21	Tumors of the Stomach	Arthur Purdy Stout
22	Tumors of the Intestines	David A. Wood
23, 24	Tumors of the Retroperitoneum, Mesentery and Peritoneum	Lauren V. Ackerman
25	Tumors of the Liver and Intrahepatic Bile Ducts	Hugh A. Edmondson
26	Tumors of the Gallbladder and Extrahepatic Bile Ducts	Hugh A. Edmondson
27, 28	Tumors of the Pancreas	Virginia Kneeland Frantz
29	Tumors of the Adrenal	Howard T. Karsner
30	Tumors of the Kidney, Renal Pelvis and Ureter	Balduin Lucke
		Hans George Schlumberger
31	Tumors of the Urinary Bladder	Nathan B. Friedman
		James E. Ash

32	Tumors of the Male Sex Organs	Frank J. Dixon Robert A. Moore
33	Tumors of the Female Sex Organs	Arthur T. Hertig Hazel Gore
34	Tumors of the Breast	Fred W. Stewart
35, 37	Tumors of the Central Nervous System	James W. Kernohan George P. Sayre
36	Tumors of the Pituitary Gland and Infundibulum	James W. Kernohan George P. Sayre
38	Tumors of the Eye and Adnexa	Algernon B. Reese
39	Index	
40	Transplantable and Transmissible Tumors in Animals	Harold L. Stewart. et al.

APPENDIX II

UNIVERSITIES ASSOCIATED FOR RESEARCH AND EDUCATION IN PATHOLOGY, INC.

ARTICLES OF INCORPORATION

(Approved 12/11/64, Amended 1/28/66, 3/10/78, 11/3/87)

FIRST: We, the undersigned, all citizens of the United States, and over twenty-one years of age, desiring to associate ourselves as incorporators with the intention of forming a non-stock corporation under and by virtue of the General Laws of the State of Maryland.

SECOND: The name of the corporation is UNIVERSITIES ASSOCIATED FOR RESEARCH AND EDUCATION IN PATHOLOGY, INCORPORATED.

THIRD: Section 1. This corporation is organized and shall be operated exclusively as a non-stock, non-profit educational and scientific organization within the meaning of Section 501(c)(3) of the Internal Revenue Code of 1954 (or the corresponding provision of any future United States Internal Revenue Law), including, for such purposes, the making of distributions to other organizations that qualify as exempt organizations under the aforesaid provisions of law.

Section 2. Subject to the foregoing, the primary object of the corporation is to promote research and education in all branches of science, especially pathology, and in particular:

a. To initiate, sponsor, and encourage biomedical research and educational projects primarily in cooperation with the Armed Forces Institute of Pathology.

b. To assist in the development of research and educational programs in the natural and biological sciences in the universities and colleges of the United States and all foreign countries.

c. To foster, encourage, and conduct research and education for the United States of America or any of its departments or agencies, for any state or municipal governmental body, and for any foreign government or subdivision thereof in all branches of science, including but not limited to those sciences associated with the field of pathology.

d. To seek and receive grants, bequests, gifts, devises, and loans of property of whatever kind or nature from any source whatsoever to promote the stated objectives of this corporation.

e. To establish, maintain, and operate medical research, training, and other facilities in any locality where and as required for the achievement and advancement of the foregoing purposes.

f. To perform such other acts and things, consistent with the objectives for which educational and scientific associations may be

formed, as are necessary for or incidental to the accomplishment of the foregoing purposes.

g. To allow the participating members to pursue the aforementioned objectives individually or collectively and with such other domestic or foreign, governmental or non-governmental, persons, groups, organizations, corporations, agencies, departments, or their duly authorized representatives, as may be agreed upon by the Board of Directors.

Section 3. No part of the net earnings (if any) of the corporation shall inure to the benefit of or be distributable to its members, directors, officers, or other private persons, except that the corporation may pay reasonable compensation for services rendered and may make payments and distributions in furtherance of Section 1 above.

Section 4. No substantial part of the activities of the corporation shall be the carrying on of propaganda, or otherwise attempting to influence legislation, and the corporation shall not participate in, or intervene in (including the publishing or distribution of statements) any political campaign on behalf of any candidate for public office.

Section 5. Notwithstanding any other provision of these articles, the corporation shall not carry on any other activities not permitted to be carried on (a) by a corporation exempt from federal income tax under Section 501(c)(3) of the Internal Revenue Code of 1954 (or the corresponding provision of any future United States Internal Revenue Law), or (b) by a corporation, contributions to which are deductible under Section 170(c)(2) of the Internal Revenue Code of 1954 (or the corresponding provision of any future United States Internal Revenue Law).

FOURTH: The post office address of the principal office of the corporation in this state is 9650 Rockville Pike, Bethesda, Maryland 20814. The registered office of the corporation is identical with the principal office. The name and post office address of the resident agent is Thomas A. Hill, 15004 Peachstone Drive, Silver Spring, Maryland 20904. Said resident agent is an individual actually residing in this state.

FIFTH: In the event of dissolution of the corporation, the board of directors, after making provisions for the payment of all liabilities, shall dispose of the assets of the corporation in such manner, or to such organization or organizations organized and operated exclusively as educational or scientific organizations, as shall at the time qualify as an exempt organization or organizations under Section 501(c)(3) of the Internal Revenue Code of 1954 (or the corresponding provision of any future United States Internal Revenue Law), as the board of directors shall determine. Any of such assets not so disposed of shall be disposed of by the appropriate court of the State of Maryland, exclusively for such purposes or to such organization or

organizations as the court shall determine, which are organized and operated exclusively for such purposes.

SIXTH: The number of directors of the corporation shall be three which number may be increased or decreased pursuant to the by-laws of the corporation, but shall never be less than three; and the names of the directors who shall act until the first annual meeting or until their successors are duly chosen and qualify are Dr. Kenneth M. Brinkhous, Dr. Thomas D. Kinney, and Dr. Robert W. Wissler.

AGREEMENT  
(Approved April 1966)

This agreement is between the ARMED FORCES INSTITUTE OF PATHOLOGY (AFIP), an instrumentality of the United States Government, and UNIVERSITIES ASSOCIATED FOR RESEARCH AND EDUCATION IN PATHOLOGY, INC. (UAREP), a Maryland nonprofit corporation.

WHEREAS, the American Registry of Pathology is an activity established by and presently housed at AFIP, operating as a cooperative enterprise in medical research and education between AFIP, and the military, government, and civilian professions, and

WHEREAS, UAREP has the facilities, personnel and professional competence to act as fiscal agent and perform related services for ARP, and has heretofore provided such services under a letter agreement dated 2 March 1965, and

WHEREAS, the parties desire to contract for the continuation of such services, and for cooperation in other areas of mutual concern.

IT IS HEREBY AGREED AS FOLLOWS:

1. Policy advice. The Board of Directors of UAREP shall advise the Director of AFIP on policy matters affecting ARP.

2. Fiscal agency. UAREP will act as fiscal agent for ARP. UAREP may further delegate all or part of such responsibility, subject to conditions approved by AFIP. The conditions of the existing delegation by UAREP to the American Society for Experimental Pathology (dated 28 December 1964) are so approved.

3. Specific UAREP fiscal responsibilities. UAREP shall -

(a) Deposit and account for funds received from ARP.

(b) Procure supplies, equipment and services required by ARP, and pay invoices and bills approved by the Scientific Director of ARP.

(c) As mutually agreeable, negotiate and subcontract for services requested by the Director of AFIP.

(d) Provide a comprehensive wage compensation plan for ARP employees comparable to that of the Federation of American Societies for Experimental Biology (FASEB). Within the normal FASEB limitations, the plan shall include but not be limited to provisions for salaries, retirement, sick pay, payroll taxes, and health or life insurance premiums. ARP employees will in general be subject to the same hours, working conditions and administrative procedures as other employees at AFIP.

(e) Provide an adequate surety bond for its own employees, and those of others to whom it may delegate responsibility, covering the handling of AFIP funds.

(f) Act as trustees for investment funds of ARP, investing such funds for growth and income according to plans or procedures approved from time to time by the Director of AFIP. Such investment funds may be merged with other investment funds held by UAREP. Investments shall be converted to cash and credited to the ARP operating account with UAREP within thirty-five days after receipt of a written request from the Director of AFIP. Transfer of funds from the ARP operating account to the investment account will be by mutual agreement.

(g) Maintain adequate records and accounts of all ARP transactions, which shall be available at all time for inspection by the Director of AFIP or his agent and shall be audited by a certified public accountant.

#### 4. Reimbursement and compensation.

(a) General. UAREP shall be reimbursed for ARP payroll expense and procurement and other expenses under subparagraphs 3(b) and 3(c) above from funds received from ARP operations. An adequate balance will be maintained in the ARP operating account to meet obligated expenses at all times, including at least 60 days advance on the ARP payroll. All other expenses relating to UAREP's fiscal administration of ARP shall be the responsibility of UAREP from other funds. To defray such expenses UAREP may collect an initial overhead of twenty percent (20%) on all ARP funds when deposited by UAREP. UAREP may also contract with other agencies and organizations for grant support of the ARP program.

(b) Adjustment of overhead rate. The overhead rate will be reviewed annually and adjusted as necessary on the basis of operating experience.

(c) Refund in case of termination. If this agreement is terminated, the overhead collected on any unexpended balance, excluding capital gains, shall be refunded according to the following schedule:

<u>Termination before</u>	<u>Refund</u>
April 1, 1966	20%
April 1, 1967	15%
April 1, 1968	10%
April 1, 1969	5%
Thereafter	None

(d) Overhead on invested funds. Funds transferred to the ARP investment account will pass through the ARP operating account, at which time overhead will be collected. Overhead will be charged against dividend and interest income of the investment account but no overhead will be charged against capital gains, in order that at no time will more than a single overhead charge be collected on ARP funds. UAREP will keep

records of capital gains in the ARP investment account. All such gains shall accrue to the benefit of ARP.

5. Atlas of Tumor Pathology. The parties agree to cooperate in arranging for the completion of the first edition of the *Atlas of Tumor Pathology* and the publication of a second edition. Specifically --

(a) Editorial Board. UAREP shall appoint an editorial board or other advisory group, subject to the approval of the Director of AFIP as to new appointees. The board shall set editorial policies and maintain high standards of publication.

(b) Financial support. UAREP shall seek adequate financial support to insure uninterrupted operation of the editorial office.

(c) AFIP assistance. AFIP agrees to provide all reasonable assistance, including the continued printing of the Atlas on Government printing facilities. Fascicles shall be sold through the ARP.

6. Cooperation in other areas. The parties agree to consider other specific projects in which they can advantageously cooperate from time to time. Such projects shall be handled through specific written agreements.

7. Holding and disposition of property. UAREP shall act as trustee of property purchased by or for the ARP, or on grants and contracts for research at AFIP administered by UAREP (subject to the retention of legal title by the Government or other supporting agency where so provided by the contract). This includes ARP property previously transferred to UAREP as well as that to be purchased in the future. UAREP will carry reasonable insurance on such property. If this agreement is terminated, such property will be transferred to such successor nonprofit organization or organizations exempt from tax under Section 501(c)(3) of the Internal Revenue Code (or corresponding provision of any future United States Internal Revenue Law) as may be agreed between the Director of AFIP and the Board of Directors of UAREP. So far as possible such property will continue to be used for the purpose of which it was originally purchased.

8. Termination. Either party may terminate this agreement on one year's written notice to the other, given at any time.



## APPENDIX IV

### FINANCIAL HISTORY

UAREP was incorporated in the State of Maryland on December 17, 1964 and the three member universities paid initiation fees of \$500 so that the initial capitalization was \$1,500. In the next two years, six more universities became members, bringing the capitalization to \$4,500. Subsequently, seven universities joined the consortium paying initiation fees of \$1,000 so that by 1986 the capitalization was \$11,500. All these fees became part of the General Fund and are not accounted separately.

Actual operations began April 1, 1965, when the American Registry of Pathology (ARP) account and the Registry of Urologic Pathology account were transferred from the National Academy of Sciences to UAREP. On January 1, 1966, the transfer of AFIP/ARP accounts from NAS/NRC to UAREP was completed with the transfer of the *Atlas of Tumor Pathology* account.

In 1975, the Department of Defense discovered that AFIP/ARP lacked authority to transfer from NAS/NRC to UAREP and it became necessary to terminate the arrangement and untangle the accounts, but from 1965 until 1976 UAREP's principal activities were (1) serving as fiscal agent for AFIP/ARP and (2) serving as sponsor for the *Atlas of Tumor Pathology*. In addition, from time to time, UAREP engaged in activities unrelated to AFIP/ARP.

For accounting purposes UAREP set up a general fund which covered operating expenses of the central office. Revenues for the general fund were derived from (1) indirect cost allowances on grants and contracts, (2) investment income, and (3) service charges for handling AFIP/ARP accounts. Excess of revenues over expenses permitted gradual growth of fund balances in the general fund. From 1965 to 1976 the general fund balance grew from \$29,250 to \$274,829.

During this same period the volume of business generally increased, necessitating expansion of the central office. Expenses for the central office grew from \$30,000 in 1965 to \$180,000 in 1976.

When fiscal ties between UAREP and AFIP/ARP were severed in 1976, UAREP's sources of revenue changed and to an increasing extent relied on indirect cost allowances and fees from contracts. The general fund balance continued to grow, reaching \$458,512 at the end of 1980. Beginning in 1981 the fund balance declined for 3 years, reaching a low of \$303,189 at the end of 1983. The year 1984 ended with a sharp rise to \$444,010, declining in 1985 to \$432,010 (see Table 1 and Graph 1).

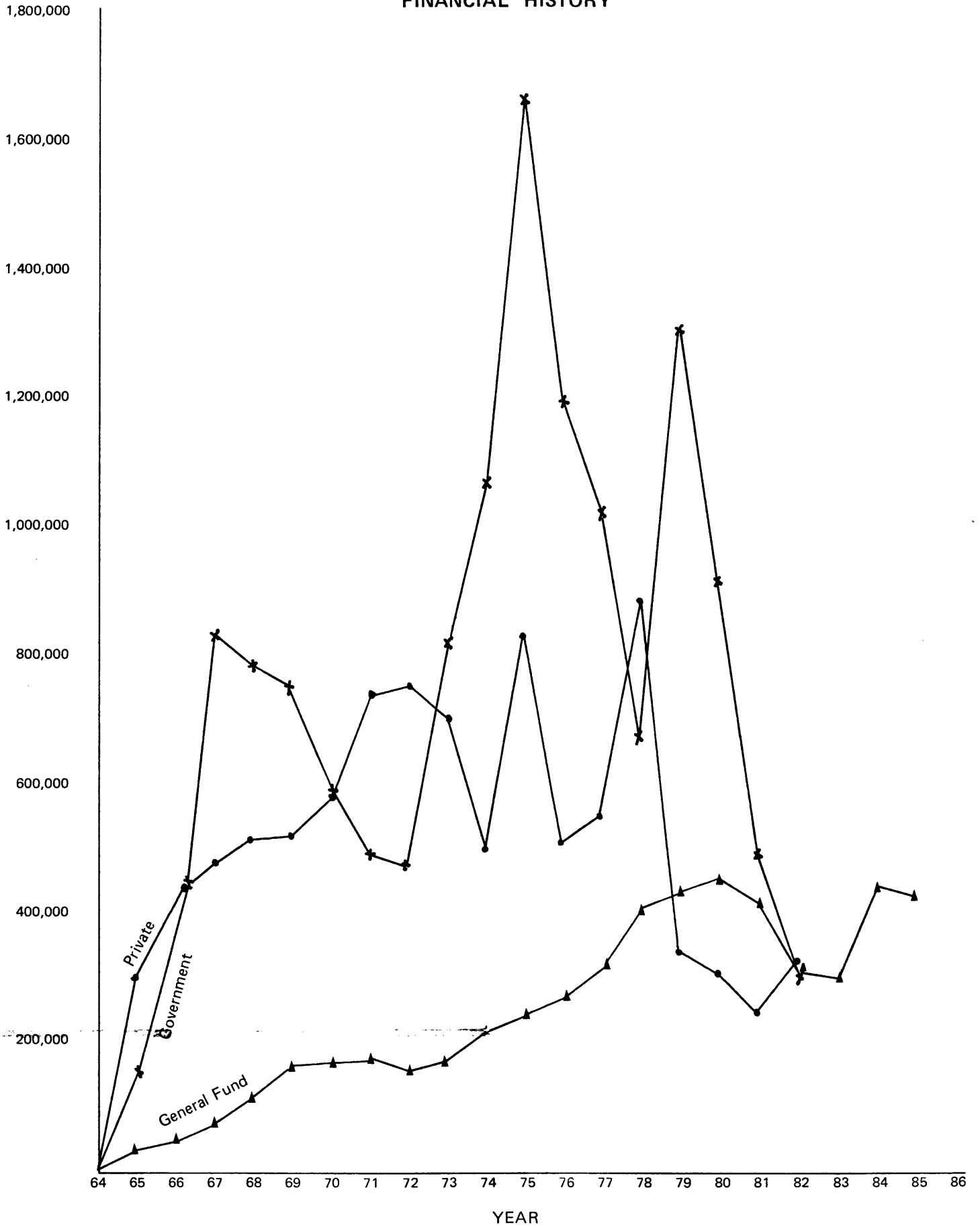
TABLE 1

UAREP Financial History  
(From Audits)

<u>Year</u>	<u>General Fund</u>	<u>Restricted Funds</u>	<u>Private</u>	<u>Govt. Grants and Contracts</u>
1965	29,250	446,000	300,000	146,000
1966	46,162	862,463	417,476	444,987
1967	76,048	1,307,187	473,878	833,309
1968	115,865	1,299,625	514,126	785,499
1969	156,224	1,274,859	520,361	754,498
1970	168,022	1,178,922	580,391	598,531
1971	173,985	1,238,015	747,568	490,447
1972	152,575	1,224,929	751,434	473,495
1973	176,949	1,527,283	713,874	813,409
1974	219,106	1,561,229	496,727	1,064,502
1975	243,570	2,505,734	831,141	1,674,593
1976	274,829	1,713,604	518,677	1,194,927
1977	314,348	1,578,553	559,440	1,019,113
1978	404,165	1,562,199	891,349	670,850
1979	435,165	1,654,939	352,426	1,302,513
1980	458,512	1,216,893	302,029	914,864
1981	418,404	739,240	246,580	492,660
1982	306,612	628,779	323,549	305,230
1983*	303,189	NA	NA	NA
1984	444,086	NA	NA	NA
1985	432,010	NA	NA	NA

\*New auditor

Graph I  
FINANCIAL HISTORY



APPENDIX V

Grants and Contracts

<u>Sponsor</u>	<u>Project Title</u>
*American Cancer Society **ACS	Histology & Chemistry of Ultrastructural Changes in Tissues Frozen Storage of Cells & Tissues
**American Medical Association Food & Drug Administration	Registry of Tissue Reactions to Drugs
**NCRH	Registry of Radiation Pathology
**FDA	Registry of Tissue Reactions to Drugs
**FDA	Contraceptive Steroids
**FDA	Ocular Pathology of Electromagnetic Radiation
**FDA	Re-evaluation of the Pathology Findings of Studies on Nitrite and Cancer
National Institutes of Health	
***NCI & ACS	Atlas of Tumor Pathology
**NCI	Radiologic Oncology Teaching Material Development
*NCI	Histopathologic Grading of Carcinoma of Prostate
*NCI	Cytoskeleton of Normal and Neoplastic Human Prostatic Epithelium
**NIAID	Injury of Leukocytes by Serum Factors
**NIAID	Biocontrol of Schistosomes
**NIAMD	Urease Inhibition
**NIGMS	Adriamycin Study
*NLM	An Index of Investigative Dermatopathology
*NLM	Development of Teaching Units in Pathology
**NLM	Atlas of Pathology of Tropical Diseases
***DRR	Registry of Comparative Pathology
**NEI	Pathology and Pathogenesis of Edema of the Optic Disc
**NEI	Improved Diagnosis and Therapy in
Ophthalmology	
**NEI	Electron Microscopy in Ocular Pathology
**NINDS	Yakovlev Collection
*NIEHS & NCI	Aspen Conference - Workshop on Teaching of Environmental Pathology
*Environmental Protection Agency	Re-evaluation of the Mesothelioma Study
**Pharmaceutical Manufacturers Association Foundation	Registry of Tissue Reactions to Drugs

<u>Sponsor</u>	<u>Project Title</u>
*Department of Transportation	Registry of Tissue Reactions to Drugs
**Public Health Service	Tuberculosis Research Studies
**Veterans Administration	Support of the American Registry of Pathology
**World Health Organization	International Reference Center for Comparative Oncology
**WHO	International Reference Center for Genital Urinary Tract Tumors
**WHO	International Reference Center for Soft Tissue Tumors
**WHO	Tumors of the Eye and Orbit
**WHO	Research on Mycobacterium Leprae
**Arnold Van American Fund	Registry of Urologic Pathology
*Upjohn	Teaching Units in Pathology
**National Foundation of March of Dimes	Fibrous Properties of Human Chromosomes
*G.D. Searle	Authentication Review of Aspartame Studies
*UAREP	Future of Academic Pathology
***Department of Defense	Atlas of Tumor Pathology
*American Petroleum Institute	Unleaded Gasoline Inhalation Study
*Chemical Manufacturers Association	Hazardous Wastes Feasibility Study
*Business Roundtable	Burden of Occupational Disease
*Procter & Gamble Company	Health Effects of Nitriilotriacetic Acid
*Industry and Government	Conference on Toxicity, Tumor Promotion and Carcinogenesis

<u>Sponsor</u>	<u>Project Title</u>
*American Industrial Health Council Chemical Manufacturers Association National Agricultural Chemicals Association National Association of Printing Ink Manufacturers National Paint and Coatings Association U.S. Chamber of Commerce	Health Aspects of the Disposal of Waste Chemicals
*Formaldehyde Institute	Epidemiology of Chronic Occupational Exposure to Formaldehyde
*American Paper Institute	Human Health Aspects of Environmental Exposure to Polychlorinated Dibenzo- p-dioxins and Polychlorinated Dibenzofurans
*UAREP Project	
**AFIP/ARP Project	
***Joint Venture of UAREP and AFIP/ARP	

APPENDIX VI

UAREP TEACHING MONOGRAPHS

CELL INJURY by Dante G. Scarpelli and Benjamin F. Trump

THROMBUS by Kenneth M. Brinkhous and Jo Harold Johnson

AGING by Robert R. Kohn

PATHOBIOLOGY OF NEOPLASIA by Richmond T. Prehn and Lisa M. Prehn

CONGENITAL HEART DISEASE by James H. Muller, Kurt Amplatz and Jesse E. Edwards

CHRONIC INFLAMMATION AND HEALING by Bernard J. Panner and J. Lowell Orbison

RENAL DISEASE by Michael Kashgarian, John P. Hayslett and Benjamin H. Spargo

ENVIRONMENTAL PATHOLOGY by Robert A. Goyer, Charles Kuhn III and Gustave L. Davis

TISSUE REACTIONS TO DRUGS by Nelson S. Irey

IMMUNOPATHOLOGY by Stewart Sell

CEREBROVASCULAR DISEASE by Peter C. Burger and F. Stephen Vogel

THE PATHOLOGY OF THE FEMALE REPRODUCTIVE TRACT by John M. Craig

DEVELOPMENTAL PATHOLOGY by Robert P. Bolande

FUNDAMENTAL ISSUES IN CLINICAL CHEMISTRY by Bernard Statland

THE PATHOPHYSIOLOGY OF BONE AND JOINT DISEASE by Stephen L. Teitelbaum and  
Peter G. Bullough

DEGENERATIVE AND DEMYELINATING DISEASES by Peter C. Burger and F. Stephen Vogel

BRAIN TUMORS by Jan E. Leestma

PATHOLOGY AND PATHOGENESIS OF DISEASES OF THE PANCREAS by Daniel S. Longnecker

PATHOLOGY OF SKELETAL MUSCLE DISEASES by U. DeGirolami and T.W. Smith

MALIGNANT LYMPHOMAS by Barbara H. Tindle

APPENDIX VII

UNIVERSITIES ASSOCIATED FOR RESEARCH AND EDUCATION IN PATHOLOGY, INC.

BY-LAWS

(Adopted 1966)

(Revised 1971, 1976, 1977, 1978, 1986)

ARTICLE I Office

The principal office of the corporation shall be located in the City of Bethesda, County of Montgomery, State of Maryland. The corporation may have such other offices, either within or without the State of Maryland, as the board of directors may determine or as the affairs of the corporation may require from time to time.

The corporation shall have and continuously maintain in the State of Maryland a registered office, and a registered agent whose office is identical with such registered office, as required by the Non-Profit Corporation Act of the State of Maryland. The registered office may be, but need not be, identical with the principal office in the State of Maryland, and the address of the registered office may be changed from time to time by the board of directors.

ARTICLE II Membership

Section 1. Charter members

The charter member institutions of the corporation are: Duke University, University of Chicago, and University of North Carolina at Chapel Hill.

Section 2. Eligibility

Qualified educational and research institutions are eligible for membership in the corporation. They may be invited to apply by the board of directors or may independently request the board to pass on their qualifications for membership.

Section 3. Member institutions

Member institutions shall consist of the charter member institutions plus Case Western Reserve University, University of Maryland, University of California, University of Kansas, University of Rochester, and Yale University. Additional member institutions shall be elected at an annual meeting of the representatives of the member institutions. A two-thirds vote of the representatives of the entire membership shall be required to elect a new member institution. Each member institution will designate one (1) person from the member institution's staff to act for the member institution. This designated person will hereinafter be referred to as a delegate in accordance with Article III of these by-laws. Wherever a reference in these by-laws is to an act, duty, responsibility, or function to be performed by a member or member institution, this will be done by the delegate designated by the member institution. Once the institution is elected to membership, it shall have the



right to choose its own delegate and to change its designee at any time. Any choice or change of the delegate by the member institution is binding on the corporation and is not subject to review by the corporation.

#### Section 4. Membership meetings

A regular annual meeting of the delegates for the election of directors shall be held each year at a time and place (within or without the State of Maryland) determined by the board of directors or (in the absence of board action) by the President.

Special membership meetings may be called by the board of directors or, at the request of a majority of the membership, by the President, at such time and place (within or without the State of Maryland) as may be stated in the notice of the meeting.

At least two weeks notice of all membership meetings shall be given, subject to the same procedures and conditions provided for notices of directors meetings under Section 5 of Article III.

A majority of the membership shall constitute a quorum. Delegates may vote at any meeting either in person or by proxy, executed in writing within eleven months preceding such meeting. Any action required by law to be taken nor which may be taken at a meeting of the members, may be taken without a meeting, if a consent in writing setting forth the action so taken, is signed by all of the members entitled to vote thereon.

#### Section 5. Termination of members

The member institutions by a two-thirds vote may terminate any membership for cause after a hearing, and may without a hearing terminate the membership of any institution which ceases to be qualified for membership.

#### Section 6. Resignation

Any member institution may resign at any time by filing a written notice to the Secretary-Treasurer of the corporation at least six months prior to the effective date of the resignation.

#### Section 7. Reinstatement

Upon written request signed by a former member institution and filed with the Secretary-Treasurer, member institutions may, by an affirmative vote of a majority, reinstate such former member institutions to the status of membership upon such terms and conditions as the membership may deem appropriate.

#### Section 8. Transfer of membership

Membership in this corporation is neither transferable or assignable.

## ARTICLE III Board of Directors

### Section 1. Duty and qualification

The affairs of the corporation shall be managed by its board of directors. The directors need not be residents of the State of Maryland.

### Section 2. Number, election and tenure

The Board of Directors shall consist of the delegates of the member institutions plus a lesser number consisting of Directors-at-Large and Honorary Directors-at-Large.

Outstanding Pathologists in the field of research and education may be elected annually to the board of directors as Directors-at-Large by the membership.

After completing his term as Director, a Director is eligible for election by the membership as an Honorary Director-at-Large. Selected Directors of UAREP who have served with distinction may be elected as Honorary Directors-at-Large without regard to the numerical limit on the number of Directors provided by the By-laws. An Honorary Director-at-Large has the privilege of attending and voting at all meetings of the Board, but is ineligible to hold regular office. There shall be no more than four Honorary Directors-at-Large at any one time.

### Section 3. Regular meetings

A regular annual meeting of the board of directors shall be held within or without the State of Maryland, as may be determined for the annual membership meeting, and shall immediately follow such meeting. The board of directors may provide by resolution the time and place, either within or without the State of Maryland, for the holding of additional regular meetings of the board without other notice than such resolution.

### Section 4. Special meetings

Special meetings of the board of directors may be called by or at the request of the President or any two Directors. The person or persons authorized to call special meetings of the board may fix any place, either within or without the State of Maryland, as the place for holding any special meeting of the board called by them.

### Section 5. Notice

Notice of any special meeting of the board of directors shall be given at least two days previously thereto by written notice delivered personally or sent by mail or telegram or conveyed orally by telephone to each Director at the address as shown by the records of the corporation. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail in a sealed envelope so addressed, with postage thereon paid. If notice is given by telegram, such notice shall be deemed to be delivered when the

telegram is delivered to the telegraph company. If notice be given by telephone, mere acknowledgement by the director or his secretary is sufficient. Any director may waive notice of any meeting. The attendance of a director at any meeting shall constitute a waiver of notice of such meeting, except where a director attends a meeting for the express purpose of objecting to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the board need be specified in the notice or waiver of notice of such meeting, unless specifically required by law or by these by-laws.

#### Section 6. Proxies

At any meeting of the board of directors, a director entitled to vote may vote by proxy executed in writing by the director. No proxy shall be valid after eleven months from the date of its execution unless otherwise provided in the proxy.

#### Section 7. Quorum

A majority of the board of directors shall constitute a quorum for the transaction of business at any meeting of the board.

#### Section 8. Manner of acting

The act of a majority of the directors present at a meeting at which a quorum is present shall be the act of the board of directors, unless the act of a greater number is required by law or by these by-laws.

#### Section 9. Authorization of funds

The board of directors shall have the sole authority to expend corporate funds except to the extent it has specifically delegated this authority in writing to a committee or committees of the corporation, or to any of its officers, employees, or agents such as the principal investigator on a grant, contract or project.

#### Section 10. Compensation

Directors as such shall not receive any stated salaries for their services, but by resolution of the board of directors a fixed sum and expenses of attendance, if any, may be allowed for attendance at each regular or special meeting of the board; but nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity and receiving compensation therefore.

#### Section 11. Informal action by directors

Any action required by law to be taken or any action which may be taken at a meeting of directors, may be taken without a meeting if a consent in writing, setting forth the action so taken, is signed by all of the directors entitled to vote thereon.

## ARTICLE IV Officers

### Section 1. Officers

The officers of the corporation shall be a President, one or more Vice Presidents (the number thereof to be determined by the Board of Directors), a Secretary-Treasurer, an Executive Officer, and such other officers as may be elected.

### Section 2. Election and term of office

The officers of the corporation, except the Executive Officer, shall be elected annually by the membership at the regular annual meeting of the membership. If the election of officers shall not be held at such meeting, such election shall be held as soon thereafter as conveniently may be. The Executive Officer shall be appointed by the board of directors for such term and salary as shall be mutually agreeable. New offices may be created and filled at any meeting of the board of directors. Each officer shall take office on the July 1 following election and shall hold office for one year or until a successor shall have been duly elected and shall have qualified.

### Section 3. Removal

Any officer elected or appointed by the membership may be removed by the membership whenever in its judgement the best interests of the corporation would be served thereby.

### Section 4. Vacancies

A vacancy in any office because of death, resignation, removal, disqualification or otherwise, may be filled by the board of directors for the unexpired portion of the term.

### Section 5. President

The President shall be the principal officer of the corporation and shall in general supervise and control all of the business and affairs of the corporation. He shall preside at all meetings of the board of directors. He may sign, with the Secretary-Treasurer or any other proper officer of the corporation authorized by the board of directors, any deeds, mortgages, bonds, grants, loans, contracts or other instruments which the board of directors has authorized to be executed, except in cases where the signing and execution thereof shall be expressly delegated by the board of directors or by these by-laws or by statute to some other officer or agent of the corporation; and in general he shall perform all duties incident to the office of President and such other duties as may be prescribed by the board of directors from time to time.

In the absence of the President or in the event of his inability or refusal to act, the Vice President (or in the event there be more than one Vice President, the Vice Presidents in the order of their election) shall have all the powers of and be subject to all the restrictions upon the President.

Any Vice President shall perform such other duties as from time to time may be assigned to him by the President or by the board of directors.

#### Section 7. Secretary-Treasurer

If required by the board of directors, the Secretary-Treasurer shall give a bond for the faithful discharge of his duties in such sum and with such surety or sureties as the board of directors shall determine. He shall have charge and custody of and be responsible for all funds and securities of the corporation; receive and give receipts for moneys and grants due and payable to the corporation from any source whatsoever, and deposit all such moneys and grants in the name of the corporation in such banks, trust companies or other depositories as shall be selected in accordance with the provisions of these by-laws; keep a register of the post office address of each director which shall be furnished to the Secretary-Treasurer by such director; and in general perform all duties incident to the office of Secretary-Treasurer and such other duties as from time to time may be assigned to him by the President or by the board of directors.

#### Section 8. Business Manager

A Business Manager may be employed by the officers if required by them. The Business Manager shall give bond for the faithful discharge of his duties in such sums and with such sureties as the board of directors shall determine. The Business Manager, in general, shall perform such duties as shall be assigned to him by the Executive Officer, the Secretary-Treasurer, or by the President of the board of directors.

#### Section 9. Executive Officer

The Executive Officer shall be the principal executive and staff officer, and shall have such duties as the board of directors may from time to time determine. If required by the board of directors, the Executive Officer shall give a bond for the faithful discharge of his duties in such sum and with such surety or sureties as the board of directors shall determine.

### ARTICLE V Committees

#### Section 1. Executive Committee

There shall be an Executive Committee for transaction of business between meetings of the board of directors. The Executive Committee shall consist of the President, Vice President, Secretary-Treasurer, Executive Officer, Past President, and one other member of the board of directors elected annually by the board of directors. The Executive Officer shall not be a voting member of the Executive Committee. The Executive Committee shall have and exercise the authority of the board of directors in the management of the corporation; provided, however, that no such committee shall have the authority of the board of directors in reference to amending, altering or repealing the by-laws; electing, appointing or removing any member of any such committee or any director or officer of the corporation; amending the Articles of Incorporation; adopting a plan of merger or adopting a plan of consolidation

with another corporation; authorizing the sale, lease, exchange or mortgage of all or substantially all of the property and assets of the corporation; authorizing the voluntary dissolution of the corporation or revoking proceedings therefore; adopting a plan for the distribution of the assets of the corporation; or amending, altering or repealing any resolution of the board of directors. The designation and appointment of any such committee and the delegation thereto of authority shall not operate to relieve the board of directors, or any individual director, of any responsibility imposed upon him by law.

#### Section 2. Other committees

Other committees may be designated by a resolution adopted by a majority of the directors present at a meeting at which a quorum is present; the President of the corporation shall appoint the members of such committees. Any member of such committee may be removed by the person or persons authorized to appoint such member whenever in their judgement the best interests of the corporation shall be served by such removal.

#### Section 3. Terms of office

Each member of a committee shall continue as such until the next annual meeting of the directors of the corporation and until his successor is appointed, unless the committee shall be sooner terminated, or unless such committee member be removed from such committee, or unless such committee member shall cease to qualify as a member thereof.

#### Section 4. Chairman

One member of each committee shall be appointed chairman by the President.

#### Section 5. Vacancies

Vacancies in the membership of any committee other than the Executive Committee may be filled by appointments made in the same manner as provided in the case of the original appointments. If the one member of the Executive committee who is not an officer vacates his position, he may be replaced by the officers for the balance of the term.

#### Section 6. Quorum

Unless otherwise provided in the resolution of the board of directors designating a committee, a majority of the whole committee shall constitute a quorum and the act of a majority of the members present at a meeting at which a quorum is present shall be the act of the committee.

#### Section 7. Rules

Each committee may adopt rules for its own government not inconsistent with these by-laws or with rules adopted by the board of directors.

**ARTICLE VI Authorization and administration of contracts, checks, deposits, gifts and grants**

**Section 1. Contracts**

The board of directors may authorize any officer or officers, agent or agents of the corporation, in addition to the officers so authorized by these by-laws, to enter into any contract or execute and deliver any instrument in the name of and on behalf of the corporation, and such authority may be general or confined to specific instances.

**Section 2. Checks, drafts, and orders**

All checks, drafts or orders for payment of money, notes or other evidences of indebtedness issued in the name of the corporation, shall be signed by such officer or officers, agent or agents, or employee of the corporation and in such manner as shall from time to time be determined by resolution of the board of directors. In the absence of such determination by the board of directors, such instruments shall be signed by the Executive Officer or the Business Manager and in their absence by the President or the Secretary-Treasurer of the corporation.

**Section 3. Funds**

Funds of the corporation shall be deposited from time to time to the credit of the corporation in banks, trust companies or other depositories in accordance with policies adopted by the Executive Committee. Funds may also be invested in accordance with policies adopted by the Executive Committee.

**Section 4. Gifts**

The board of directors or its Executive Committee may accept on behalf of the corporation any contribution, gift, bequest or devise for the general purposes or for any special purpose of the corporation.

**Section 5. Grants**

The board of directors or its Executive Committee may authorize any officer or officers, agent or agents, to seek grants in the name of and on behalf of the corporation from any source whatsoever for general purposes or for any special purpose of the corporation. Such authority may be general or confined to specific instances.

**Section 6. Authorization of expenditures**

On any project under a grant or contract, the principal investigator must approve all expenditures relating to that project and either the principal investigator or his duly authorized representative must approve all commitment, obligation, appropriation and utilization of funds.

## ARTICLE VII Books and records

The corporation shall keep correct and complete books and records of account and shall also keep minutes of the proceedings of its board of directors and committees having any of the authority of the board of directors, and shall keep at the registered or principal office a record giving the names and addresses of the directors and delegates entitled to vote. All books and records of the corporation may be inspected by any member institution, or its agent or attorney for any proper purposes at any reasonable time.

There shall be an annual audit of the books and records of the corporation and at such other times as determined by the board of directors.

## ARTICLE VIII Fiscal year

The fiscal year of the corporation shall begin on the first day of January and end on the last day of December in each year.

## ARTICLE IX Assessments

Each new member institution shall pay a single membership fee of one thousand dollars (\$1000.00).

Other than specified above pertaining to membership fees, there shall be no assessments made upon the members of the corporation.

## ARTICLE X Seal

The board of directors shall provide a corporate seal, which shall be in the form of a circle and shall have inscribed thereon the name of the corporation and the words "Corporate Seal".

## ARTICLE XI Waiver of notice

Whenever any notice is required to be given under the provisions of the State of Maryland Non-Profit Corporation Act or under the provisions of the articles of incorporation of the by-laws of the corporation, a waiver thereof in writing signed by the person or persons entitled to such notice, whether before or after the time stated therein, shall be deemed equivalent to the giving of such notice.

## ARTICLE XII Indemnification

The Association shall indemnify an officer, Councilor or employee against any and all expenses and liabilities actually and necessarily incurred or



imposed in connection with any claim, action, suit or proceeding (whether actual or threatened, brought by or in the right of the Association or otherwise, civil, criminal, administrative or investigative, including appeals) to which he or she may be or is made a party by reason of being or having been an officer, Councilor or employee of the Association, and may exercise any powers it is authorized to exercise, including the power to purchase and maintain indemnification insurance; provided, however, that there shall be no indemnification in relation to matters as to which such officer, Councilor or employee shall be adjudged in such claim, action, suite or proceeding to be guilty of a criminal offense or liable to the Association for damages out of his own negligence or misconduct in the performance of a duty to the Association.

Amounts paid in indemnification of expenses and liabilities may include, but shall not be limited to, counsel fees and other fees, costs and disbursements, and judgments, fines and penalties against and amounts paid in settlement by such officer, Councilor or employee. The Association may advance expenses to, or where appropriate may itself, at its expense, undertake the defense of, any officer, Councilor or employee; provided, however, that such officer, Councilor or employee shall undertake to repay or to reimburse such expense, if it should be ultimately determined that said person shall be adjudged guilty of a willful, criminal offense, negligence or misconduct in the performance of duty.

The indemnification shall not be deemed exclusive of any other rights to which such officer, Councilor or employee may be entitled, under any law, by-law, agreement, vote of the Council, or otherwise and shall not restrict the power of the Association to make any indemnification permitted by law. Indemnification shall inure to the benefit of the heirs, executors, administrators, or other legal representatives of an officer, Councilor or employee.

If any part of this indemnification shall be found, in any action, suit or proceeding, to be invalid or ineffective, the validity and the effectiveness of the remaining parts shall not be affected.

#### ARTICLE XIII Amendments to by-laws

These by-laws may be altered, amended or repealed and new by-laws may be adopted by a majority of the members present at any regular meeting or at any special meeting, if at least two weeks written notice is given of intention to alter, amend or repeal or to adopt new by-laws at such meeting.

## APPENDIX VIII

### ATLAS OF TUMOR PATHOLOGY, Second Series

Fascicle

1	Tumors of the Soft Tissues	Arthur P. Stout Raffaele Lattes
	Tumors of the Soft Tissues (Revised)	Raffaele Lattes
2	Tumors of the Breast	Robert W. McDivitt Fred W. Stewart John W. Berg
3	Tumors of the Peripheral Nervous System	James C. Harkin Richard J. Reed
	Tumors of the Peripheral Nervous System (Supplement)	James C. Harkin Richard J. Reed
4	Tumors of the Thyroid Gland	William A. Meissner Shields Warren
	Tumors of the Thyroid Gland (Supplement)	William A. Meissner
5	Tumors of Bone and Cartilage	Harlan J. Spjut Howard D. Dorfman Robert E. Fechner Lauren V. Ackerman
	Tumors of Bone and Cartilage (Supplement)	Harlan J. Spjut Robert E. Fechner Lauren V. Ackerman
6	Tumors of the Central Nervous System	Lucien J. Rubinstein
	Tumors of the Central Nervous System (Supplement)	Lucien J. Rubinstein
7	Tumors of the Esophagus and Stomach	Si-Chun Ming
	Tumors of the Esophagus and Stomach (Supplement)	Si-Chun Ming
8	Tumors of the Male Genital System	F.K. Mostofi Edward B. Price, Jr.
9	Tumors of the Extra-adrenal Paraganglion System (Including Chemoreceptors)	George G. Glenner Philip M. Grimley
10	Tumors of the Major Salivary Glands	A.C. Thackray R.B. Lucas
11	Tumors of the Urinary Bladder	Leopold G. Koss
	Tumors of the Urinary Bladder (Supplement)	Leopold G. Koss
12	Tumors of the Kidney, Renal Pelvis, and Ureter	James L. Bennington J. Bruce Beckwith
13	Tumors of the Thymus	Juan Rosai Gerald D. Levine
14	Tumors of the Parathyroid Glands	Benjamin Castleman Sanford I. Roth
15	Tumors of the Cardiovascular System	Hugh A. McAllister, Jr. John J. Fenoglio, Jr.
16	Tumors of the Ovary and Maldeveloped Gonads	Robert E. Scully

17	Tumors of the Lower Respiratory Tract	Darryl Carter Joseph C. Eggleston
18	Extragonadal Teratomas	F. Gonzalez-Crussi
19	Tumors of the Exocrine Pancreas	Antonio L. Cubilla Patrick J. Fitzgerald
20	Tumors and Pseudotumors of the Serous Membranes	W.T. Elliott McCaughey Milton Kannerstein Jacob Churg
21	Tumors of the Pituitary Gland	Kalman Kovacs Eva Horvath
22	Tumors of the Gallbladder and Extrahepatic Bile Ducts	Jorge Albores-Saavedra Donald Earl Henson
23	Tumors of the Adrenal	David L. Page Ronald A. DeLellis Aubrey J. Hough, Jr.
24	Intraosseous and Parosteal Tumors of the Jaws	Seymour Hoffman John R. Jacoway
25	Tumors of the Upper Respiratory Tract and Ear	Sigurds O. Krells Vincent J. Hyams John G. Batsakis
26	Tumors of the Liver and Intrahepatic Bile Ducts (in production)	Leslie Michaels John R. Craig Hugh A. Edmondson
27	Tumors of Hematopoietic, Mononuclear Phagocyte and Lymphoid Systems (in production)	Robert L. Peters Robert J. Lukes Robert D. Collins
28	Tumors of the Gastrointestinal Tract (in production)	Cecilia M. Fenoglio-Preiser Robert Pascal Karl Perzin

MEMORANDUM OF AGREEMENT  
BETWEEN  
THE ARMED FORCES INSTITUTE OF PATHOLOGY  
AND  
UNIVERSITIES ASSOCIATED FOR RESEARCH AND EDUCATION IN PATHOLOGY, INC.

AFIP Memorandum of Agreement 80-1

This agreement, which represents a joint venture for the publication of the *Atlas of Tumor Pathology*, is entered into this first day of May, 1980, by and between the Armed Forces Institute of Pathology, hereinafter referred to as AFIP, and Universities Associated for Research and Education in Pathology, Inc., hereinafter referred to as UAREP.

WITNESSETH:

WHEREAS, by decision dated 7 March 1980, the Comptroller General of the United States ruled in File B-196585, that the AFIP may contract with UAREP to obtain photo-ready copies of new or revised fascicles and supplements for already published fascicles for publication in the *Atlas of Tumor Pathology* series.

WHEREAS, the AFIP and UAREP have since 1965 jointly produced the *Atlas of Tumor Pathology* in cooperation with the National Cancer Institute, American Cancer Society, and others.

WHEREAS, the production of the *Atlas* is consistent with the mission of the AFIP of consultation, research, and education.

WHEREAS, UAREP has the facilities, personnel, and professional competence to continue with the editorial work and production and manuscripts,

AND

WHEREAS, the *Atlas* is professionally recognized for its value as a reference work for the pathologist,

NOW THEREFORE, the parties hereto do mutually agree as follows:

AFIP RESPONSIBILITIES

1) AFIP will submit a purchase request to the Acquisition Group, Army Research and Development Command, Fort Detrick, MD to grant \$70,000 per year to UAREP as the AFIP contribution to this joint enterprise. This grant will be in accordance with all applicable laws and regulations.

2) AFIP will provide the highest quality of printing and effective distribution of the *Atlas*. Upon receipt of a manuscript from UAREP, written

acknowledgment and an estimate of availability of color separation and the expected date for completion of printing will be forwarded to the Editor.

3) AFIP will staff the AFIP/GPO Fascicle Sales Office. Proceeds of the sale of fascicles will accrue to GPO, which will also set the sales price.

4) AFIP will appoint a professional staff member who is a pathologist as Associate Editor who will supervise the printing and its quality control.

5) AFIP will provide information to UAREP via the Editor regarding fascicles sales and income.

6) AFIP will request from UAREP, in accordance with applicable law and regulations, a minimum of one and a maximum of three photo-ready manuscripts per year.

7) Annual payment to UAREP will be as follows:

- 50% upon annual acceptance by UAREP of the grant.
- 50% upon submission to AFIP of the first manuscript within each year.
- No charge will be made by UAREP upon submission to AFIP of a second manuscript within each year.

8) AFIP will provide to UAREP sufficient copies of each published fascicle to fulfill the following distribution requirements:

UAREP Office	15 copies
UAREP Board Members	1 copy each
Editor	10 copies
Editorial Advisory Committee Members	1 copy each
Authors	25 copies each
Reviewers	1 copy each
American Cancer Society	3 copies
National Cancer Institute:	
a. Biospherics	84 copies
b. Pathology A & B Review Committee Members	1 copy each

#### UAREP RESPONSIBILITIES

1) UAREP will select the topics and authors for fascicles of the *Atlas of Tumor Pathology*, based upon the recommendations of the Editor and Editorial Advisory Committee.

2) UAREP will be responsible for the editorial work for the *Atlas of Tumor Pathology*. UAREP will appoint the Editor subject to approval of the Director of AFIP. The Editorial Board will consist of not less than six and

no more than ten members. It will have one representative designated by AFIP, one by NCI and one by ACS. All other representatives to the Board will be recommended by the Editor and appointed by UAREP and be subject to the approval of the Director of AFIP.

3) UAREP will provide annually a detailed financial statement on the UAREP fascicle account, Department 202.

#### AFIP/UAREP JOINT RESPONSIBILITIES

1) The quality of printing will be a responsibility of AFIP, subject to review and approval by the Editor. Any substantial changes made in format must be recommended by the Editor and the Associate Editor and approved by the Editorial Advisory Committee, the Director, AFIP and the UAREP Board.

2) Meetings of the Editor, Associate Editor, Executive Officer of UAREP, and the Director of AFIP will be held at least semi-annually.

#### DURATION

1) This Agreement will commence on the date signed and shall extend for a period of one year. It shall be automatically renewed on each anniversary thereof unless written notice of termination or modification shall be delivered by either party hereto to the other not less than 90 days before an anniversary date.

2) This Agreement shall automatically terminate on 30 April 1985, subject to renewal for an additional five years.

MEMORANDUM OF AGREEMENT  
BETWEEN  
THE ARMED FORCES INSTITUTE OF PATHOLOGY  
AND  
UNIVERSITIES ASSOCIATED FOR RESEARCH AND EDUCATION IN PATHOLOGY, INC.

This agreement, which represents a cooperative research project leading to the Third Series of the Atlas of Tumor Pathology, is entered into this 8th day of April, 1987 by and between the Armed Forces Institute of Pathology, hereinafter referred to as AFIP, and Universities Associated for Research and Education in Pathology, Inc., hereinafter referred to as UAREP.

WITNESSETH:

WHEREAS, the Second Series of the Atlas of Tumor Pathology is nearing completion and there is a need for a Third Series which will update the Second Series incorporating new knowledge and new techniques;

WHEREAS, the AFIP and UAREP have since 1965 jointly produced the Atlas of Tumor Pathology in cooperation with the National Cancer Institute, American Cancer Society, and others;

WHEREAS, the production of the Atlas is consistent with the AFIP mission of consultation, research and education and the charter of UAREP as a non-profit corporation;

WHEREAS, UAREP has the facilities, personnel, and professional competence to continue with the editorial work and production of manuscripts;

WHEREAS, by decision dated 7 March 1980 (File B-196585), the Comptroller General of the United States, ruled that the AFIP may contract with UAREP to obtain photo-ready copies of new or revised fascicles and supplements for already published fascicles for publication in the Atlas of Tumor Pathology series;

NOW THEREFORE, the parties hereto do mutually agree as follows:

AFIP Responsibilities

1) Financial arrangements consist of a payment of \$70,000 to UAREP on execution of the grant (expected on or about the first day of July, 1987), \$200,000 1 April 1988 and \$200,000 on the anniversary of each option year of this agreement.

2) AFIP will provide the highest quality of printing and effective distribution of the Atlas. Upon receipt of a manuscript from UAREP, written acknowledgment and an estimate of availability of color separation and the expected date for completion of printing will be forwarded to UAREP.

3) AFIP will staff the AFIP/Government Printing Office (GPO) Fascicle Sales Office. Proceeds of the sale of fascicles will accrue to GPO, which will also set the sale price.

4) AFIP will appoint a professional staff member who is a pathologist as the Associate Editor who will supervise the printing and its quality control.

5) AFIP will provide information to UAREP regarding fascicle sales and income.

6) AFIP will require from UAREP, in accordance with applicable law and regulations, a minimum of one and a maximum of four photo-ready manuscripts per year.

7) AFIP will distribute complimentary copies of each published fascicle, as requested by UAREP, as follows:

UAREP Office for Office, Board Members, Editor and Reviewers	50 copies
Members of the Editorial Board	1 copy ea.
Authors	25 copies ea.
American Cancer Society	3 copies
National Institutes of Health (NIH), Director Division of Cancer Biology and Diagnosis, National Cancer Institute (NCI) for	
Investigators and Residents in Laboratory of Pathology, and Pathology Anatomy Branch	30 copies
Surgical Staff, NCI	5 copies
NIH Library	1 copy
Document Reference Section	1 copy
Pathology A & B Study Sections, NCI	1 copy ea. member
Director, NCI	1 copy
Deputy Director, NCI	1 copy
Editor-in-Chief, Journal of the National Cancer Institute, NIH	1 copy
Director, Division of Cancer Treatment, NCI	1 copy



The Director, AFIP, will make available to appropriate journals copies of each Fascicle for their review.

#### UAREP Responsibilities

1) UAREP will select the topics and authors for fascicles of the Atlas of Tumor Pathology, based upon the recommendations of the Editor and Editorial Board.

2) UAREP will be responsible for the editorial work for the Atlas of Tumor Pathology. UAREP will appoint the Editor subject to the approval of the Director of AFIP. The Editorial Board will consist of not less than six and no more than ten members. It will have one representative designated by AFIP. All other representatives to the Board will be recommended by the Editor and appointed by UAREP subject to the approval of the Director of AFIP.

3) UAREP will use its best efforts to obtain grants from the National Cancer Institute, the American Cancer Society and others to subsidize UAREP costs.

4) UAREP will provide annually a detailed financial statement on the UAREP fascicle account.

#### AFIP/UAREP Joint Responsibilities

1) An Editor will be appointed by UAREP subject to approval by the Director of AFIP and the UAREP Board of Directors upon the advice by a Search Committee. The Search Committee will be co-chaired by the Director of AFIP and the President of UAREP and will have two additional members, one of which will be designated by the AFIP Director and one by the UAREP President.

2) An Editorial Board will be constituted by UAREP after consultation with the Director AFIP.

3) The Editor and Associate Editor in consultation with the Editorial Advisory Board will develop an appropriate format for the Third Series, subject to approval of the Director AFIP and the UAREP Board.

4) Meetings of the Editor, Associate Editor, Executive Officer of UAREP and the Director of AFIP will be held at least semiannually.

5) A joint coordinating committee will be appointed by UAREP and AFIP (two members each) to resolve policy issues, coordinate activities and monitor operations. The Executive Officer of UAREP will serve as Secretary without vote.

DURATION

This agreement will commence on the date signed and shall terminate on 1 July 1992, subject to renewal for another five year period. Either party to the agreement may give written notice of termination to the other 90 days before each anniversary date and such modification or termination will be effective on the anniversary date.

This agreement supersedes the agreement between AFIP and UAREP signed on 30 August 1984.

APPENDIX XI

UAREP MEMBER UNIVERSITIES  
(By Year of Joining)

<u>University</u>	<u>Year Joined</u>
University of North Carolina	1964 }
Duke University	1964 } Founders
University of Chicago	1964 }
University of Maryland	1965
University of Kansas	1965
Yale University	1966
Case Western Reserve University	1966
University of California	1966
University of Rochester	1966

These nine universities constituted the membership from 1966 until 1977 when additional universities joined the consortium as follows:

<u>University</u>	<u>Year Joined</u>
Northwestern University	1978
Washington University	1978
Vanderbilt University	1979
University of New Mexico	1979
University of Pittsburgh	1979
Stanford University	1979
University of Michigan	1987
Harvard University	1988
University of Minnesota	1988
University of Pennsylvania	1988

**UAREP OFFICERS AND BOARD OF DIRECTORS**  
(By Year)

<u>Year</u>	<u>Officers and Board</u>	<u>Member University</u>
1964	Kenneth M. Brinkhous, President Robert W. Wissler, Vice President Thomas D. Kinney, Secretary-Treasurer	University of North Carolina University of Chicago Duke University
1965	Kenneth M. Brinkhous, President Robert W. Wissler, Vice President Thomas D. Kinney, Secretary-Treasurer John R. Carter Harlan I. Firminger Ralph E. Knutti, Executive Officer Melvin F. Lundfeld, Business Manager	University of North Carolina University of Chicago Duke University University of Kansas University of Maryland
1966	Kenneth M. Brinkhous, President Robert W. Wissler, Vice President Thomas D. Kinney, Secretary-Treasurer John R. Carter Harlan I. Firminger Averill E. Liebow Henry D. Moon J. Lowell Orbison Dante G. Scarpelli Ralph E. Knutti, Executive Officer Melvin F. Lundfeld, Business Manager	University of North Carolina University of Chicago Duke University Case Western Reserve Univ. University of Maryland Yale University University of California University of Rochester University of Kansas
1967	Kenneth M. Brinkhous, President Robert W. Wissler, Vice President Thomas D. Kinney, Secretary-Treasurer John R. Carter Harlan I. Firminger Averill E. Liebow Henry D. Moon J. Lowell Orbison Dante G. Scarpelli Ralph E. Knutti, Executive Officer Melvin F. Lundfeld, Business Manager	University of North Carolina University of Chicago Duke University Case Western Reserve Univ. University of Maryland Yale University University of California University of Rochester University of Kansas
1968	Kenneth M. Brinkhous, President Robert W. Wissler, Vice President Thomas D. Kinney, Secretary-Treasurer John R. Carter Harlan I. Firminger Henry D. Moon J. Lowell Orbison Dante G. Scarpelli Levin L. Waters Ralph E. Knutti, Executive Officer Melvin F. Lundfeld, Business Manager	University of North Carolina University of Chicago Duke University Case Western Reserve Univ. University of Maryland University of California University of Rochester University of Kansas Yale University

1969	Robert W. Wissler, President Thomas D. Kinney, Vice President John R. Carter, Secretary-Treasurer Kenneth M. Brinkhous Harlan I. Firminger Henry D. Moon J. Lowell Orbison Dante G. Scarpelli Levin L. Waters Ralph E. Knutti, Executive Officer Melvin F. Lundfeld, Business Manager	University of Chicago Duke University Case Western Reserve Univ. University of North Carolina University of Maryland University of California University of Rochester University of Kansas Yale University
1970	Robert W. Wissler, President Thomas D. Kinney, Vice President John R. Carter, Secretary-Treasurer Kenneth M. Brinkhous Harlan I. Firminger Henry D. Moon Stanley F. Patten Dante G. Scarpelli Levin L. Waters Ralph E. Knutti, Executive Officer Melvin F. Lundfeld, Business Manager	University of Chicago Duke University Case Western Reserve Univ. University of North Carolina University of Maryland University of California University of Rochester University of Kansas Yale University
1971	Robert W. Wissler, President Thomas D. Kinney, Vice President John R. Carter, Secretary-Treasurer Kenneth M. Brinkhous Henry D. Moon Stanley F. Patten Dante G. Scarpelli Benjamin F. Trump Levin L. Waters Ralph E. Knutti, Executive Officer Melvin F. Lundfeld, Business Manager	University of Chicago Duke University Case Western Reserve Univ. University of North Carolina University of California University of Rochester University of Kansas University of Maryland Yale University
1972	Thomas D. Kinney, President John R. Carter, Vice President Henry D. Moon, Secretary-Treasurer Kenneth M. Brinkhous Stanley F. Patten Dante G. Scarpelli Benjamin F. Trump Levin L. Waters Robert W. Wissler William H. Hartmann, Director-at-Large Fred V. Lucas, Director-at-Large Ralph E. Knutti, Executive Officer George Brandner, Business Manager	Duke University Case Western Reserve Univ. University of California University of North Carolina University of Rochester University of Kansas University of Maryland Yale University University of Chicago

1973	<p>Thomas D. Kinney, President            John R. Carter, Vice President            Henry D. Moon, Secretary-Treasurer            Kenneth M. Brinkhous            Stanley F. Patten            Dante G. Scarpelli            Benjamin F. Trump            Levin L. Waters            Robert W. Wissler            William H. Hartmann, Director-at-Large            Fred V. Lucas, Director-at-Large            G. Burroughs Mider, Executive Officer            Robert E. Learmouth, Business Manager</p>	<p>Duke University            Case Western Reserve Univ.            University of California            University of North Carolina            University of Rochester            University of Kansas            University of Maryland            Yale University            University of Chicago</p>
1974	<p>Thomas D. Kinney, President            John R. Carter, Vice President            Dante G. Scarpelli, Secretary-Treasurer            Kenneth M. Brinkhous            Stanley F. Patten            Robert E. Stowell            Benjamin F. Trump            Levin L. Waters            Robert W. Wissler            William H. Hartmann, Director-at-Large            Fred V. Lucas, Director-at-Large            G. Burroughs Mider, Executive Officer            Robert E. Learmouth, Business Manager</p>	<p>Duke University            Case Western Reserve Univ.            University of Kansas            University of North Carolina            University of Rochester            University of California            University of Maryland            Yale University            University of Chicago</p>
1975	<p>John R. Carter, President            Dante G. Scarpelli, Vice President            Levin L. Waters, Secretary-Treasurer            Kenneth M. Brinkhous            Stanley F. Patten            Robert E. Stowell            Benjamin F. Trump            Robert W. Wissler            William H. Hartmann, Director-at-Large            Fred V. Lucas, Director-at-Large            Thomas D. Kinney, Acting Exec. Officer            Robert E. Learmouth, Business Manager</p>	<p>Case Western Reserve Univ.            University of Kansas            Yale University            University of North Carolina            University of Rochester            University of California            University of Maryland            University of Chicago              Duke University</p>
1976	<p>John R. Carter, President            Dante G. Scarpelli, Vice President            Levin L. Waters, Secretary-Treasurer            Kenneth M. Brinkhous            Robert B. Jennings            Stanley F. Patten            Robert E. Stowell            Benjamin F. Trump            Robert W. Wissler</p>	<p>Case Western Reserve Univ.            University of Kansas            Yale University            University of North Carolina            Duke University            University of Rochester            University of California            University of Maryland            University of Chicago</p>

1976	William H. Hartmann, Director-at-Large	
(cont'd)	Fred V. Lucas, Director-at-Large	
	Thomas D. Kinney, Acting Executive Officer	
	Robert E. Learmouth, Business Manager	
1977	John R. Carter, President	Case Western Reserve Univ.
	Dante G. Scarpelli, Vice President	University of Kansas
	Robert E. Stowell, Secretary-Treasurer	University of California
	Joe W. Grisham	University of North Carolina
	Robert B. Jennings	Duke University
	Werner H. Kirsten	University of Chicago
	Vincent T. Marchesi	Yale University
	Goetz W. Richter	University of Rochester
	Benjamin F. Trump	University of Maryland
	Robert E. Anderson, Director-at-Large	
	William H. Hartmann, Director-at-Large	
	Fred V. Lucas, Director-at-Large	
	Peter A. Ward, Director-at-Large	
	Kenneth M. Brinkhous, Honorary Director-at-Large	
	Robert W. Wissler, Honorary Director-at-Large	
	Kenneth M. Endicott, Executive Officer	
	Robert E. Learmouth, Business Manager	
1978	Dante G. Scarpelli, President	
	Benjamin F. Trump, Vice President	University of Maryland
	Robert E. Stowell, Secretary-Treasurer	University of California
	H. Clarke Anderson	University of Kansas
	John R. Carter	Case Western Reserve Univ.
	Joe W. Grisham	University of North Carolina
	Robert B. Jennings	Duke University
	Werner H. Kirsten	University of Chicago
	Vincent T. Marchesi	Yale University
	Goetz W. Richter	University of Rochester
	Robert E. Anderson, Director-at-Large	
	William H. Hartmann, Director-at-Large	
	Fred V. Lucas, Director-at-Large	
	Peter A. Ward, Director-at-Large	
	Kenneth M. Brinkhous, Honorary Director-at-Large	
	Robert W. Wissler, Honorary Director-at-Large	
	Kenneth M. Endicott, Executive Officer	
	Robert E. Learmouth, Business Manager	
1979	Dante G. Scarpelli, President	Northwestern University
	Benjamin F. Trump, Vice President	University of Maryland
	Robert E. Stowell, Secretary-Treasurer	University of California
	H. Clarke Anderson	University of Kansas
	Robert E. Anderson	University of New Mexico
	John R. Carter	Case Western Reserve Univ.
	Thomas J. Gill, III	University of Pittsburgh
	Joe W. Grisham	University of North Carolina
	William H. Hartmann	Vanderbilt University
	Robert B. Jennings	Duke University

1979	Werner H. Kirsten	University of Chicago
(cont'd)	David Korn	Stanford University
	Paul E. Lacy	Washington University
	Vincent T. Marchesi	Yale University
	Goetz W. Richter	University of Rochester
	Robert A. Squire, Director-at-Large	
	Peter A. Ward, Director-at-Large	
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	H. Clarke Anderson	University of Kansas
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	William H. Hartmann	Vanderbilt University
	Robert B. Jennings	Duke University
	Werner H. Kirsten	University of Chicago
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	Kenneth M. Endicott, Executive Officer	
	Robert E. Learmouth, Business Manager	
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	Joe W. Grisham, Vice President	University of North Carolina
	Robert E. Stowell, Secretary-Treasurer	University of California
	H. Clarke Anderson	University of Kansas
	Robert E. Anderson	University of New Mexico
	John R. Carter	Case Western Reserve Univ.
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	Paul E. Lacy	Washington University
	Vincent T. Marchesi	Yale University
	Goetz W. Richter	University of Rochester
	Dante G. Scarpelli	Northwestern University
	Charles C. Capen, Director-at-Large	
	Robert A. Squire, Director-at-Large	
	Peter A. Ward, Director-at-Large	



1981	Kenneth M. Brinkhous, Honorary Director-at-Large	
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	Kenneth M. Endicott, Executive Officer	
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1982	Benjamin F. Trump, President	University of Maryland
	Joe W. Grisham, Vice President	University of North Carolina
	Werner H. Kirsten, Secretary-Treasurer	University of Chicago
	H. Clarke Anderson	University of Kansas
	Robert E. Anderson	University of New Mexico
	John R. Carter	Case Western Reserve Univ.
	Thomas J. Gill, III	University of Pittsburgh
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	Robert B. Jennings	Duke University
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	Vincent T. Marchesi	Yale University
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	Robert A. Squire, Director-at-Large	
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	Kenneth M. Endicott, Executive Officer	
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1983	Benjamin F. Trump, President	University of Maryland
	Joe W. Grisham, Vice President	University of North Carolina
	Werner H. Kirsten, Secretary-Treasurer	University of Chicago
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	Robert E. Anderson	University of New Mexico
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	Kenneth M. Endicott, Executive Officer	
	Robert E. Learmouth, Business Manager	

1984	Werner H. Kirsten, President	University of Chicago
	Robert E. Anderson, Vice President	University of New Mexico
	Joe W. Grisham, Secretary-Treasurer	University of North Carolina
	H. Clarke Anderson	University of Kansas
	Robert E. Anderson	University of New Mexico
	John R. Carter	Case Western Reserve Univ.
	Thomas J. Gill, III	University of Pittsburgh
	William H. Hartmann	Vanderbilt University
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1985	Werner H. Kirsten, President	University of Chicago
	Robert E. Anderson, Vice President	University of New Mexico
	Joe W. Grisham, Secretary-Treasurer	University of North Carolina
	H. Clarke Anderson	University of Kansas
	John R. Carter	Case Western Reserve Univ.
	Thomas J. Gill, III	University of Pittsburgh
	William H. Hartmann	Vanderbilt University
	Robert B. Jennings	Duke University
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	Paul E. Lacy	Washington University
	Vincent T. Marchesi	Yale University
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	Dante G. Scarpelli	Northwestern University
	Robert E. Stowell	University of California
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	Robert A. Squire, Director-at-Large	
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	Kenneth M. Brinkhous, Honorary Director-at-Large	
	Robert W. Wissler, Honorary Director-at-Large	
	Kenneth M. Endicott, Executive Officer	
1986	Robert E. Anderson, President	University of New Mexico
	William H. Hartmann, Vice President	Vanderbilt University
	Robert B. Jennings, Secretary-Treasurer	Duke University
	H. Clarke Anderson	University of Kansas
	Klaus Bensch	Stanford University
	John R. Carter	Case Western Reserve Univ.
	Thomas J. Gill, III	University of Pittsburgh

1986	Joe W. Grisham	University of North Carolina
(cont'd)	Werner H. Kirsten	University of Chicago
	Vincent T. Marchesi	Yale University
	Goetz W. Richter	University of Rochester
	Dante G. Scarpelli	Northwestern University
	Robert E. Stowell	University of California
	Benjamin F. Trump	University of Maryland
	Emil R. Unanue	Washington University
	Charles C. Capen, Director-at-Large	
	Robert A. Squire, Director-at-Large	
	Peter A. Ward, Director-at-Large	
	Kenneth M. Brinkhous, Honorary Director-at-Large	
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1987	Robert E. Anderson, President	University of New Mexico
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	Robert B. Jennings, Secretary-Treasurer	Duke University
	H. Clarke Anderson	University of Kansas
	Klaus Bensch	Stanford University
	John R. Carter	Case Western Reserve Univ.
	Thomas J. Gill, III	University of Pittsburgh
	Joe W. Grisham	University of North Carolina
	Werner H. Kirsten	University of Chicago
	Vincent T. Marchesi	Yale University
	Goetz W. Richter	University of Rochester
	Dante G. Scarpelli	Northwestern University
	Robert E. Stowell	University of California
	Benjamin F. Trump	University of Maryland
	Emil R. Unanue	Washington University
	Peter A. Ward	University of Michigan
	Charles C. Capen, Director-at-Large	
	Robert A. Squire, Director-at-Large	
	Kenneth M. Brinkhous, Honorary Director-at-Large	
	Robert W. Wissler, Honorary Director-at-Large	
	Kenneth M. Endicott, Executive Officer	
1988	Peter A. Ward, President	University of Michigan
	Robert B. Jennings, Vice President	Duke University
	H. Clarke Anderson, Secretary-Treasurer	University of Kansas
	Robert E. Anderson	University of New Mexico
	Klaus Bensch	Stanford University
	Ellis S. Benson	University of Minnesota
	John R. Carter	Case Western Reserve Univ.
	Ramzi S. Cotran	Harvard University
	Godfrey S. Getz	University of Chicago
	Thomas J. Gill, III	University of Pittsburgh
	Fred Gorstein	Vanderbilt University
	Joe W. Grisham	University of North Carolina
	Leonard Jarett	University of Pennsylvania
	Vincent T. Marchesi	Yale University
	Goetz W. Richter	University of Rochester

1988 Dante G. Scarpelli Northwestern University  
(cont'd) Robert E. Stowell University of California  
Benjamin F. Trump University of Maryland  
Emil R. Unanue Washington University  
Charles C. Capen, Director-at-Large  
Kenneth M. Brinkhous, Honorary Director-at-Large  
Robert W. Wissler, Honorary Director-at-Large  
Thomas A. Hill, Acting Executive Officer