

Chapter Thirteen

# History of AALAS Publications “LAS” and “CT”

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## *LAS and CT: A Brief History*

*If science is performed but not communicated, is it still science?*

One of the foundations of a scientific discipline and profession is communication of its science. The AALAS publications, *Laboratory Animal Science (LAS)* and *Contemporary Topics in Laboratory Animal Science (CT)*, are cornerstones in the foundation of laboratory animal science. They ensure that science performed becomes science communicated and ultimately science applied. The 50<sup>th</sup> anniversary of AALAS and of *LAS* offers a timely opportunity to look back at the history of the two publications and some of the people who gave them shape and momentum.

Previous articles on the history of AALAS have included information on the history of the association's publications (1, 2). On the 40th anniversary of AALAS, Baker focused specifically on *LAS* in a series of three communications on the past, present, and future of the journal (3, 4, 5). These articles have been invaluable in the preparation of this chapter and should be consulted by readers interested in specific details about the history of *LAS*.

## *The Origin of Laboratory Animal Science*

The origin of *LAS* was a lunch—actually a monthly luncheon. In 1949, five veterinarians responsible for laboratory animal management in Chicago-area institutions started meeting monthly for lunch: Dr. Nathan R. Brewer of the University of Chicago, Dr. Elihu Bond of the University of Illinois, Dr. Bennett J. Cohen of Northwestern University, Dr. Robert J. Flynn of Argonne National Laboratory, and Dr. W. F. Schroeder of the Hektoen Institute. On occasion, their counterparts from

the Mayo Foundation (Dr. C. F. Schlotthauer) and from the NIH (Dr. W. T. S. Thorp) joined them (6, 7).

These luncheons led to the first meeting of the Animal Care Panel in Chicago on November 28, 1950. The proceedings were published in 1951 in the first issue of *Proceedings of the Animal Care Panel*, the predecessor of *LAS*. The *Proceedings* were edited by Dr. Brewer, assisted by Dr. Bond. Myrtle Junker, secretary to Dr. Brewer, typed, mimeographed, and collated the initial issue. After binding, the *Proceedings* were sent to Dr. Cohen, who mailed them and gave the proceeds (\$1 a piece) (7) to Mrs. Junker.

The *Proceedings* began primarily as a means of transmitting and preserving the presentations at the annual meeting of the Animal Care Panel. As that organization developed, an annual publication was inadequate as a primary source for dissemination of new and original scientific papers. A milestone was reached in 1958 when the *Proceedings* became a quarterly publication and the New York Academy of Sciences served as the publisher.

Over the years, the frequency of publication changed to accommodate the number of manuscripts accepted for publication, and the name of the journal changed to reflect an evolving content. In 1962 the number of issues increased from four to five a year, and in 1964, the number of issues increased to six a year. In 1963 the name of the journal was changed to *Laboratory Animal Care*, and in 1971 the name was changed to *Laboratory Animal Science (LAS)*. Currently the number of issues is still six a year, but in 2000 the name of the journal is scheduled to change to *Comparative Medicine*.

## *The Editors of LAS*

*LAS* and ultimately AALAS members and the profession have benefited from the devotion of nine editors who had the interests of *LAS* and AALAS at heart. Somehow they all found sufficient time to devote to the publication, giving a large part of their nervous system, intestinal epithelium, and their life to the endeavor. Each has left an imprint on the publication, building on the accomplishments of predecessors and in turn serving as a foundation for those who came after. Their terms of office and brief biographical sketches are presented below to give you a glimpse of the remarkable people who have cleared the path and set the standards for communicating the science of laboratory animal medicine.<sup>1</sup>

### *1950–1962: Nathan R. Brewer, DVM, PhD*

Nathan R. Brewer, DVM, PhD, broke new ground in many areas of laboratory animal medicine, and his editorship of what came to be *Laboratory Animal Science* was no exception. Dr. Brewer was editor for 12 years and in 1962 retired from the position with the title editor emeritus, an honor “of which I am still proud,” he says, 36 years later. During his tenure, the *Proceedings* went from a mimeographed, stapled compilation of the annual meeting presentations to a professionally published quarterly that also included submitted articles. By 1954 the *Proceedings* reached sufficient status to attract advertisers.

Dr. Brewer received a PhD in physiology at the University of Chicago, Chicago, Ill., in 1936 and a DVM from Michigan State University, East Lansing, Michigan, in 1937. In 1945 he became the director of the Central Animal Quarters of the University of Chicago, and remained in that position until his retirement in 1969.

Even as he was providing a guiding hand to the flagship publication of Animal Care Panel, Dr. Brewer was providing leadership to the emerging specialty by serving as a founder and first

chairman of the Animal Care Panel (1950–1955), the progenitor of AALAS. In those early years and ever since, Dr. Brewer has been a role model and mentor to veterinarians taking positions as supervisors of laboratory animal care in research institutions around the country and the world. The many formal and informal contributions Dr. Brewer made to laboratory animal medicine were recognized in 1962 when he received the AALAS Griffin Award and in 1992 when he received the Charles River Prize from the AVMA. But perhaps an even better indication of the esteem with which Dr. Brewer is regarded is the Brewer Award, which has now been presented five times by AALAS in honor of Dr. Brewer. Dr. Brewer now lives in Potomac, Md.

### **1963–1967: Orland A. Soave, DVM, LLB**

Orland A. Soave, DVM, LLB, became the second editor of the *Proceedings of the Animal Care Panel* in 1963. One of the first changes Dr. Soave made during his five years as editor was moving production of the journal to a commercial publisher, Williams & Wilkins. Dr. Soave was instrumental in elevating the content and style of the journal, and in 1963 the journal started being listed in *Index Medicus*.

Dr. Soave received BS and DVM degrees from Washington State University, Pullman, Washington, in 1944. When he became the editor of *Laboratory Animal Care*, Dr. Soave was director of the Division of Laboratory Animal Medicine and a clinical associate professor of microbiology at Stanford University, Palo Alto, California. In 1960 Dr. Soave was elected to the AALAS Board of Directors and as president of AALAS in 1966. In 1987 he received the AALAS Griffin Award for outstanding accomplishments in the improvement of the care and quality of animals used in biological and medical research. In 1989 he received the Outstanding Alumni Award from Washington State University.

Dr. Soave now lives in Palo Alto, California, where he is the chair of the city Parks and Recreation Commission and continues to publish articles and books, including *Animals, the Law and Veterinary Medicine* (1997), *The Human Animal Bond* (1998), and *Animals Rhythms* (1999).

### **1967–1976: Aaron M. Leash, DVM, MS**

In 1966 after consulting with then-editor Orland Soave, Aaron M. Leash, DVM, MS, agreed to become the next editor of *Laboratory Animal Care*. To prepare, Dr. Leash began a year of serving on the editorial board and as assistant and then associate editor. Under Dr. Leash's editorship, the popular "Technical Notes" section was started, the concept of supplemental issues was realized, the useful cross-referenced annual index was developed, and the name of the journal was changed to *Laboratory Animal Science*.

Despite Dr. Leash's experience in the editorial aspects of editing the journal, a change in the production of the journal forced him to quickly learn the details of journal design and production. This change meant that by necessity Dr. Leash was the copy editor and designer, as well as the journal editor. In all of this, Dr. Leash's commitment to standardization of terms, abbreviations, and reference style and his dedication to improving the journal style led to his development of the journal's first instructions for authors. Copy editing to meet Dr. Leash's standards proved to be very time consuming, which prompted the hiring of a part-time editorial assistant, Barbara Good, who went on to obtain a PhD and to serve as president of the American Medical Writers Association.

Dr. Leash received a DVM in 1958 and an MS in 1961, both

from Michigan State University. While he was the *LAS* editor, Dr. Leash was at Case Western Reserve University, Cleveland, Ohio, where he was assistant clinical professor of experimental surgery, instructor in microbiology, director of the Animal Resource Center, and the university veterinarian.

Dr. Leash currently lives in Beachwood, Ohio, where he continues his activity in laboratory animal medicine by serving as a consultant to Mt. Sinai Medical Center, the Veterans Administration Medical Center, and Cleveland State University, all in Cleveland.

### **1976–1977: Robert J. Flynn, DVM**

When Dr. Robert J. Flynn became editor of *LAS* in 1976, he brought a long history of involvement in AALAS that started with serving as a founder of the predecessor of AALAS in 1950. Over the next 26 years—until he became the editor—Dr. Flynn was a member of the AALAS Board of Directors and the Executive Board, chaired numerous committees, and served in various AALAS offices, including as secretary-treasurer (1952–1962) and as president (1964). As editor of *LAS*, Dr. Flynn was joined by his wife, Doris, as the assistant editor. In addition to publishing the regular issues, the Flynn team of editors published two supplemental issues of Charles River Symposia.

Dr. Flynn received a DVM in 1944 from Michigan State University. From 1948 to 1976, he worked for Argonne National Laboratory, Argonne, Illinois, serving as director of the animal facilities from 1948 to 1976. In 1968 Dr. Flynn received the AALAS Griffin Award. Dr. and Mrs. Flynn now divide their time between Lake Forest, Illinois, and Largo, Florida.

### **1978–1984: Ronald E. Flatt, DVM, PhD**

Ronald E. Flatt, DVM, PhD, became the fifth editor of *LAS* when he was selected in 1978. He brought to the editorship extensive experience with *LAS*, having served as associate editor for the preceding eight years (1970–1977). The six years of Dr. Flatt's editorship saw changes to both the appearance and the content of the journal. Dr. Flatt oversaw a redesign of the journal cover and format in 1981 to give the journal a more contemporary look. And when readers turned to the inside, they found new features including the "Diagnostic Exercise" and abstracts of relevant papers from other journals. Dr. Flatt's leadership of *LAS* ended abruptly with his untimely death in January 1984.

Dr. Flatt received a DVM in 1962 and a PhD in pathology in 1967, both from the University of California at Davis. He joined the faculty in veterinary pathology at Iowa State University, Ames, Iowa, in 1970 where he was coordinator and then director of the Laboratory Animal Resources of the College of Veterinary Medicine. He served in this position during his editorship of *LAS*.

Dr. Flatt was a leader on the national level of AALAS, serving two terms on the Board of Trustees and the Executive Committee (1972–1975 and 1975–1978). He also was active in the Iowa Branch, serving as president (1982).

### **1984–1991: Henry J. Baker, DVM**

Henry J. Baker, DVM, was appointed editor of *LAS* in 1984. He had been a member of the editorial board for the three years preceding his appointment. Under Dr. Baker's editorship, the number of papers published in *LAS* increased, yet he retained a balance of research, clinical, and technical reports. The quality of the scientific information in the published papers continued to improve. "Special Topic Overviews" became an integral part

of the journal, and some issues concentrated on single topics. He started printing cover illustrations; the first was an octopus (volume 35, 1 February 1985). To expand the outreach of *LAS* internationally, Dr. Baker actively sought authors and readers from around the globe.

Dr. Baker received a DVM from Auburn University, Auburn, Alabama, in 1960. After an internship at Angell Memorial Animal Hospital, Boston, Massachusetts, (1960–1962) and two years of private practice in Florida, Dr. Baker completed a fellowship in pathology at Johns Hopkins University, Baltimore, Md. While he was editor of *LAS*, Dr. Baker was at the University of Alabama at Birmingham, where he was professor and chair of the Department of Comparative Medicine and director of the Animal Resources Program. He then moved to Bowman Gray School of Medicine, Winston-Salem, North Carolina, where he was vice chairman of the Department of Comparative Medicine and director of the Comparative Medical Genetics Program. In 1991 Dr. Baker moved full circle back to his roots at the College of Veterinary Medicine, Auburn University, where he is currently professor in the Departments of Pathobiology and Small Animal Surgery and Medicine and is director of the Scott Ritchey Research Center. Among Dr. Baker's many awards are the Charles River Prize for Laboratory Animal Medicine (1985) and the AALAS Griffin Award (1996).

### **1991 and 1994: Fred W. Quimby, VMD, PhD**

Fred W. Quimby, VMD, PhD, served as editor of *LAS* not once but twice. Two times when AALAS found itself without a permanent editor of *LAS*, Dr. Quimby agreed to serve as interim editor, first in 1991 and second in 1994. Although both appointments lasted less than a year, Dr. Quimby provided a steady hand at the helm during those times of transition not only between permanent editors of the journal but also in the publication program of AALAS. Dr. Quimby was involved in development of the new AALAS journal, *Contemporary Topics (CT)*, and he worked with the first *CT* editor, Dr. Lynn C. Anderson, to redirect selected manuscripts from the *LAS* to *CT*.

During his editorships, Dr. Quimby did not just maintain the *status quo*. He oversaw development of a strict time line for processing manuscripts and initiated training sessions for future authors of *LAS* manuscripts. He established the positions of European and Asian associate editors and added a subtitle, *International Journal of Comparative and Experimental Medicine* to reflect the increasing international audience. He also continued development of the content of *LAS* by refocusing the scope of *LAS* on 1) etiopathogenesis, epidemiology, diagnosis, therapy, and prevention of infectious and noninfectious diseases; 2) naturally occurring and induced models of human disease; 3) research applications of animals; and 4) the biology of laboratory animals.

Dr. Quimby received a VMD in 1970 and a PhD in pathology in 1974, both from the University of Pennsylvania, Philadelphia, Pennsylvania. He completed a postdoctoral fellowship in hematology at the New England Medical Center, Boston, Massachusetts, in 1976. Dr. Quimby is currently a professor of pathology at Cornell University Medical College, New York, New York, and of pathology at the Cornell University College of Veterinary Medicine. Dr. Quimby has been active in AALAS, serving as president of the New England Branch and as a member of the *LAS* editorial board.

### **1992–1994: Abigail L. Smith, MPH, PhD**

Abigail L. Smith, MPH, PhD, became the editor of *LAS* in 1992,

a time of transition for the journal. The problems of defining the focus and scope of *LAS* and its new sister publication, *CT*, had to be solved. The goal for *LAS* set by Dr. Smith and the *LAS* editorial board was to produce a journal that was scientifically and technically first-rate. This led to struggles with basic issues, such as improving the print quality of the photomicrographs.

Under Dr. Smith's editorship, *LAS* began publishing color covers, a practice that was enthusiastically endorsed by the readership and the AALAS leadership. Another major accomplishment under Dr. Smith was publication (April 1993) of papers and abstracts presented at a non-AALAS conference entitled "The *scid* Mouse in Biomedical and Agricultural Research," held in Guelph, Ontario, Canada. That issue also contained the first "Meeting Report" which focused on additional facets of the Guelph meeting.

Dr. Smith received an MPH in 1974 and a PhD in 1978, both in infectious disease epidemiology from Yale University, New Haven, Connecticut. She pursued an academic career at Yale as a professor in comparative medicine and epidemiology until 1998. During her time at Yale, she served as editor of *LAS*. Dr. Smith presently is professor of pathology at Stritch School of Medicine, Loyola University, Chicago, Illinois and a research associate at the Brookfield Zoo in Chicago.

Dr. Smith received the AALAS Research Award for the outstanding research article published in *LAS* in 1991 (along with co-recipient Stephen W. Barthold) and again in 1994 (with co-recipients Stephen W. Barthold and Deborah S. Beck). In 1995 she received the AALAS President's Award.

### **1995–1999: Gerald L. Van Hoosier, DVM**

Gerald L. Van Hoosier, DVM, became the editor in 1995, bringing with him experience as a member and then chair of the *LAS* Editorial Board. Under Dr. Van Hoosier, assisted by a scientific illustrator, Robert A. Holmberg, the quality and impact of the color covers improved. In consultation with the Editorial Advisory Committee chaired by Dr. James Fox, Dr. Van Hoosier made "Editorials", "Meeting Reports", and "*LAS* Journal Club" into regular features, and recently replaced the "Diagnostic Exercise" with the "Clinical Problem Solving Exercise". Dr. Van Hoosier analyzed the citation profile of *LAS* and used the results as a basis for developing the content of future issues, such as identifying topics for review articles or "Special Topic Overviews" for each issue.

Dr. Van Hoosier received a DVM from Texas A&M University, College Station, Texas, in 1957. He took postdoctoral training in general virology and epidemiology at the University of California, Berkeley, California, and in human and veterinary pathology at Baylor College of Medicine, Houston, Texas, and at Washington State University, Pullman, Washington. In 1975 he became professor and chair of the Department of Comparative Medicine (formerly the Division of Animal Medicine) and adjunct professor of pathology at the University of Washington, Seattle, Washington. In 1995 Dr. Van Hoosier resigned as chair of the department while retaining his professorship—a change that benefited *LAS* since he then agreed to become the editor. His expertise, leadership, and dedication have been recognized with the AALAS Griffin Award in 1986 and with the Distinguished Alumnus Award from Texas A&M University in 1991.

### ***The Origin of Contemporary Topics in Laboratory Animal Science***

With the scientific and information explosion after 1950, it became increasingly difficult for one journal, *LAS*, to meet all mem-

ber needs. Some members believed the science and research focus of *LAS* was inadequate, while others felt that *LAS* was not meeting the technical and practical needs of a large segment of members (8). In addition, *LAS* was characterized by a large segment of the scientific community as a “technical periodical” (5).

To address member discontent with the journal, AALAS President J. Derrell Clark asked the Publications Committee to study the feasibility of establishing a second publication and to develop an implementation plan. The resulting vision was to have two AALAS journals. *LAS* would be strengthened as a science and research journal that could compete with other focused, high-quality journals that addressed similar topics. The second publication would include clinical, technical, management, and philosophical manuscripts, as well as association news and announcements.

The mechanism for starting the second journal was to expand the *ACP Bulletin*, a member newsletter published by AALAS since 1961. Dr. Robert J. Flynn started the bulletin while secretary-treasurer of AALAS and wrote in the initial issue of the *Bulletin*: “the *Bulletin* will be less formal than the *Proceedings* [the forerunner of *LAS*] and will present current news of the Animal Care Panel. In short it will be a letter to the members.” (9). The name changed to the *AALAS Bulletin* when the name of the organization became AALAS, and publication continued in the original format through 1990.

In 1990, the AALAS Board of Trustees authorized expanding the *Bulletin* to a journal format that included a section for refereed articles. The first issue of the “new” *Bulletin* was published in January 1991 with articles ranging from transgenics to computer bulletin boards. As part of the continuing evolution of the *Bulletin*, it was renamed *Contemporary Topics in Laboratory Animal Science* in 1992.<sup>2</sup>

## The Editors of Contemporary Topics

### 1991–1995: Lynn C. Anderson, DVM

Lynn C. Anderson, DVM, was officially appointed editor of *Contemporary Topics in Laboratory Animal Medicine (CT)* in 1993 after actually functioning as the editor from 1991 in her role as chair of the *CT* Editorial Advisory Committee (1990–1993). During her editorship, Dr. Anderson was faced with two main challenges: (1) to better define the vision and focus of *CT* and distinguish *CT* from *LAS*, and (2) to earn acceptance of the publication within the laboratory animal science community. With Dr. Anderson’s leadership and the tireless efforts of other AALAS members and the AALAS publication staff, led by Chris Lyons, the focus of *CT* sharpened and the journal began to develop a reputation as a credible resource for papers on clinical, technical, and management topics.

Dr. Anderson received a DVM from Iowa State University, Ames, Iowa, in 1977. She practiced small animal medicine for several years and then completed a postdoctoral fellowship in laboratory animal medicine at the University of Michigan Medical School. In 1988 Dr. Anderson joined Merck Research Laboratories, Rahway, New Jersey, where today she is senior director of comparative medicine/laboratory animal resources.

She was president of AALAS for the 1996–1997 term after extensive service as a member or chair of numerous AALAS committees and involvement in the Minnesota Branch, Southern California Branch, and New Jersey Branch. In recognition of her distinguished contributions to the field of laboratory animal science, Dr. Anderson has received many awards. They

include the Iowa State University Outstanding Young Alumni Award (1989), the AALAS Garvey Award for Outstanding Accomplishments (1994), the AALAS Recognition Award for Outstanding Contributions as editor of *CT* (1995), and the Charles River Prize (1997).

### 1995–1997: George Irving, III, DVM, MS

In 1995 George Irving, III, DVM, MS, became the second editor of *CT*. Dr. Irving came to the editorship of *CT* as an author of numerous articles and technical reports and with extensive management experience. In continuing the development of *CT*, Dr. Irving refined the list of reviewers to ensure timely reviews of manuscripts that addressed clinical, technical, and management/philosophy topics.

Dr. Irving received a DVM from Purdue University, West Lafayette, Indiana, in 1965 and a MS (laboratory animal medicine) from Texas A&M University, College Station, Texas in 1970. Over the years, he has been the chief, program manager, and director of several programs for the US armed forces. In 1996 Dr. Irving retired from the US Air Force in the rank of colonel. He joined Conceptual MindWorks, Inc., in San Antonio, Texas, where he currently is vice president for scientific and technical support services.

In AALAS, Dr. Irving has been active in the National Capital Area Branch, serving as branch president (1981–1982), and in the Texas Branch. He has served on numerous national AALAS committees and is currently serving as president of AALAS (1998–1999).

### 1997–Present: Diane J. Gaertner, DVM

Diane J. Gaertner, DVM, the current editor of *CT*, became the editor in 1997 when then-editor Dr. George Irving resigned to become vice president of AALAS. Dr. Gaertner’s major aims for her tenure as editor are to improve the peer-review process and to customize for the editing of each manuscript to ensure that each article published in *CT* is as informative and readable as possible. To date, Dr. Gaertner has expanded the database of reviewers to more than 200 reviewers and has included the areas of interest and expertise of each reviewer. She has implemented systematic tracking of the timeliness and quality of the reviews.

Dr. Gaertner received a DVM from the University of Missouri, Columbia, Missouri, in 1979. She was a postdoctoral fellow in the Departments of Comparative Medicine and Pathology, University of Alabama, Birmingham, Alabama. In 1995 she became the director of the Institute for Animal Studies and associate professor of microbiology and immunology at Albert Einstein College of Medicine, Bronx, New York.

In AALAS Dr. Gaertner served as a special examiner (1985–1990), administering technician and technologist examinations prior to the creation of the Southern New England Branch of AALAS. She has been a member of the National Program Committee twice—as a member (1991–1992) and as chair (1993–1996) and a member of the Science in AALAS Ad Hoc Advisory Committee (1998).

## The Evolution of LAS: Fifty Years of Change

A brief review of the issues of *LAS* and its predecessors published during the past 50 years revealed some interesting changes and statistics.

### Content

The first three annual issues of the *Proceedings* (1951–1953) consisted of “how we do it” articles. The fourth annual issue



Changes in LAS covers over the years. Covers on the top row and bottom row left show changes in graphic design. The cover second from left on the bottom row shows an illustrated cover in black and white. The cover third from left on the bottom row shows the use of color in the cover. The cover shown bottom row right illustrates a recent design in color.

(1954) consisted mostly of review articles related to the care and use of laboratory animals. And the fifth annual issue (1955) included original research articles.

Over the years each editor added new features and sections to the journal. Dr. Leash began the "Technical Notes" section, the cross-referenced annual index, and the publication of supplemental issues. Dr. Flatt began "Diagnostic Exercises", "Brief Reports", and the publication of abstracts of relevant articles from other journals. Dr. Baker started the "Special Topic Overview" section and was the first to publish single topic issues of *LAS*, including an issue on ferrets (volume 35, number 3, 1985) and an issue on swine in biomedical research (volume 36, number 4, 1986). With the April 1993 issue, Dr. Smith expanded the scope of the *LAS* content by publishing papers from a scientific meeting other than the AALAS National Meeting and initiated the "Meeting Report" section. Under Dr. Van Hoosier, the "Editorial" and "Meeting Report" sections became regular features, the abstracts of relevant papers were annotated and took on a new format, and the "Clinical Problem Solving Exercise" section was introduced.

Changes in the covers of *LAS* during the last 50 years reflect the changes in printing techniques, the economics of printing, and the tastes of the various editors. Covers with various graphic designs gave way to illustrated covers under Dr. Baker's editorship and then to color covers under Dr. Smith's editorship.

In 1954 the *Proceedings* started accepting advertisements for publication. In 1960 the advertisements were moved out of the body of the journal and later were no longer accepted for publication in *LAS*. At present, *CT* is the AALAS publication that accepts advertising.

The number of peer-reviewed articles published over the last two decades has not changed much, hovering around 100 papers a year. But the average length of papers has increased from an average of 3.26 pages/article for 1981 through 1983 to 5.5 pages/article for 1997 through 1998.

### Subscriptions to LAS

In the beginning, the issues of the *Proceedings* were made available to those attending the annual meeting of the Animal Care Panel (from 75 people in 1950 to 166 in 1955). By 1965 *LAS* was being sent to 2,000 subscribers. The number of subscribers continued to increase, reaching 4,000 in 1984, 5,000 in 1989, and

Table 1. "Top 100"<sup>A</sup> Papers from 1985 to 1994 (top 10 articles for each year) by Table of Contents Category

Category/Species	Number of Articles by Category	Number of Articles by Species
Laboratory Animal Diseases	49	
Rodents		28
Primates		17
Multiple		2
Carnivores		1
Ferrets		1
Biology	38	
Rodents		12
Primates		8
Swine		5
Rabbits		4
Carnivores		3
Ferrets		2
Opossums		2
Horses		1
Octopuses		1
Animal Models	15	
Rodents		9
Swine		4
Ferrets		1
Multiple		1
Research Methods	15	
Primates		5
Rodents		3
Rabbits		2
Carnivores		3
Opossums		1
Swine		1
Special Topic Overviews	3	
Primates		2
Rodents		1
Other	1	
Ferrets		1

<sup>A</sup>Actual count is 121 articles, including articles with the same number of citations as the 10<sup>th</sup> paper for the year.

a maximum of 6,000 in 1993. With the advent of *CT*, the AALAS Board of Directors made a policy change; *LAS* was no longer automatically sent to all members as a part of their membership. But even after the members with an interest in research had to pay for *LAS* separately (\$70 a year in 1990), the number of subscriptions has remained at about 3,000 a year since 1994. In 1998, there were 2,821 subscribers receiving *LAS*; of that total, 2,078 (74 percent) were AALAS members (100 were outside of North America) and 743 (26 percent) were non-member subscribers (463 were outside North America). An estimated 380 libraries receive *LAS* subscriptions.

### Listing of LAS by Indexing Services

In 1963 Index Medicus started listing *Laboratory Animal Care* (starting with volume 13) and continued after the name change to *Laboratory Animal Science* (starting with volume 21) in 1971. In addition, *LAS* is indexed in 10 other indexes, including Biological Abstracts, Current Contents, and Veterinary Bulletin.

### Staff

The editors of *LAS* have been assisted in editorial tasks by associate editors, currently Dr. Ronald F. DiGiacomo, Dr. Robert O. Jacoby, Dr. Timothy P. O'Neill, Dr. Stephen P. Schiffer, and Dr. Benjamin J. Weigler, and international editors, currently

Table 2. The Most Frequently Cited Article For Each Year from 1985 to 1994

Year	Title [Vol.:Page]	Author(s)	Cites
1985	A breeding colony of cotton-top tamarins <i>Saguinus-oedipus</i> [35:477]	Snowden CT, Savage A, McConnell PB	37
1986	Natural exposure of Wisconsin dogs to the Lyme-Disease spirochete <i>Borrelia-burgdorferi</i> [36:288]	Burgess EC	60
1987	Reproduction, development and physiology of the gray short-tailed opossum <i>Monodelphis domestica</i> [37:478]	Kraus DB, Fadem BH	43
1988	Chronic silastic central venous catheterization for induction, maintenance and support of persistent granulocytopenia in rabbits [38:467]	Walsh TJ, Bacher J, Pizzo PA	33
1989	Gastric campylobacter-like organisms-their role in gastric disease of laboratory animals [39:543]	Fox JG, Lee A	29
1990	Normal physiological values for conscious pigs used in biomedical research [40:293]	Hannon JP, Bossone CA, Wade CE	40
1991	Infection of BALB/CBYJ mice with the JHM strain of mouse hepatitis-virus alters in vitro splenic T-cell proliferation and cytokine production [41:99]	Desouza MS, Smith AL, Bottomly K	16
1992	A new rat mutant with chronic conjugated hyperbilirubinemia and renal glomerular-lesions [42:27]	Hosokawa S, Tagaya O, Mikami T, Nozaki Y, Kawaguchi A, Yamatsu K, Shamoto M	24
1993	The cellular and molecular pathogenesis of coronaviruses [43:15]	Compton SR, Barthold SW, Smith AL	24
1994	Transcervical embryo-transfer in the domestic cat [44:288]	Swanson WF, Gadke RA	5

Dr. Werner Nicklas and Dr. Satoshi Yamamoto.

Before 1991 *LAS* editors were helped with production tasks as needed by people they found willing to help. With the advent of *CT* in 1991 and with other publishing ventures on the horizon, AALAS hired a managing editor, initially Marshall Ostrow and currently Christopher Lyons. Currently, the *LAS* editor is ably assisted at the University of Washington by Alice Ruff, administrative assistant (part-time), and by staff in the AALAS office, namely, Lyons, who now serves as director of communications, and Barbara Page, editorial coordinator.

### ***Citation Analysis: A Tool for Increasing the Value of LAS to Readers***

One tool for evaluating a journal's success is the frequency with which a journal's articles are cited in comparison to the frequency for other journals in its category (10). One of the goals of the Editorial Advisory Committee of *LAS* has been to increase the frequency with which *LAS* articles are cited as measured by the Science Citation Index (SCI) ranking. *LAS* is in the veterinary science category of journals, which contains approximately 100 publications. While *LAS* traditionally ranks in the upper third of this group in frequency of citation, our current objective is a ranking in the upper quarter.

To that end, it seemed logical to analyze what types of *LAS* articles were being cited most frequently. A database of the citations of *LAS* articles (covering all categories of *LAS* articles) between January 1981 and June 1996 was obtained. The mean number of citations for the 2,852 papers cited during that period was 2.4. A small percentage of the papers (6 percent) accounted for a disproportionately large number of the citations, and a significant percentage of the papers (52 percent) were not cited at all. Since the most recently published articles have the fewest citations, the papers published in *LAS* during the 10-year period from 1985 through 1994 were selected for analysis.

The types of *LAS* articles cited most frequently come from all the main categories of papers published in *LAS* (Table 1). Additional distillation of the data provided a list of the "Top 10"—a list showing the most frequently cited article for each year during the 10-year period (Table 2).

Further analysis of the data suggested that an increased

emphasis on publishing certain types of articles would increase the relevance of *LAS* to our readers and our SCI ranking. In addition to a continued emphasis on reports of original research, we plan to increase our emphasis on articles presenting animal models and on special topic overviews. We will also identify topics that lend themselves to presentation in single topic issues. We will decrease our emphasis on other categories, e.g. diagnostic exercises.

As Eugene Garfield, founder of SCI, acknowledges, some important publications, e.g., *Scientific American* and *New Scientist*, may not be cited or may be cited infrequently because they are read for purposes other than the communication of original research findings (10). The *CT* Advisory Committee has set a goal for *CT* to publish articles that would fulfill this latter purpose for AALAS members.

### ***A Global Outlook***

In 1984 the editorial goals for *LAS* included extending the international scope and character of the journal (4). Two associate editors, Dr. Satoshi Yamamoto in Japan and Dr. Werner Nicklas in Germany, were appointed to encourage submissions from Europe and Asia and to assist with the review of manuscripts from those areas. To further reinforce the international scope of the journal, in 1991 the journal acquired the subtitle, *An International Journal of Comparative and Experimental Animal Medicine*.

The data for the number of manuscript submissions and of subscriptions indicate major progress in the accomplishment of this goal. The percentage of manuscripts submitted by authors in institutions outside the United States has increased from less than 10 percent to 38 percent during the last two decades. Although comparison data are not readily available for numbers of subscribers outside the United States, the current percentage of 16 percent (481 subscribers) is encouraging. Since success is never final, however, continuing effort will be required to sustain the high rate of manuscript submissions from authors outside the United States and to develop further the perceived potential for additional subscriptions from outside the United States.

### ***Quo Vadis***

A chapter on the history of *LAS* would not be complete

without comments on the future; we want to avoid a pitfall attributed to the British, that is, "they spend too long looking at their distinguished past rather than planning for an innovative future" (11). A revolution is occurring in the way information is distributed and accessed today. Manuscripts can be submitted and sent out for review electronically and subsequently converted to hypertext markup language (HTML) for publication. It has been said that if a journal is not published electronically within the next few years, it will not be in business. And, it is clear that change in the means of production and distribution will change the content of the journal. For example, in addition to traditional content, electronic journals can include video clips with audio, which will be especially useful for demonstrating new techniques (12).

Since 1996 electronic versions of the table of contents and the titles and abstracts of articles in *LAS* and *CT* have been available as a part of the AALAS home page (<http://www.aalas.org>). Although a number of issues associated with electronic publication remain to be resolved by the larger scientific publishing community, the AALAS Publications Committee and staff are evaluating our current procedures and exploring our options for the future.

Dr. Morna Conway, a consultant in journal publication, provided worthwhile background information on electronic publication in her "Commentary" published in the "Correspondence" section of the October 1998 issue of *LAS* (13). Highlights follow and suggest where *LAS* and *CT* are going in the future:

"In May 1995, the *Journal of Biological Chemistry* stunned the journal publishing world and delighted the scientific community by releasing full text and graphics of the entire journal simultaneous with the print issue.

"The key benefit of journals online is that searches of Medline can be accomplished directly from the desktop. At its most basic, this means that, as the reader of an article finds a cited reference of interest, he or she may use an embedded hyperlink in the citation to click directly to the PubMed reference and abstract. Researchers can then decide what, if any, references they need to access in full text.

"Other linkages are also facilitated through Web-based publishing. For instance, authors can post supplemental material on the Web and have hyperlinks to that material embedded in their published article.

"One of the chief benefits of using online journals is the time saved in searching for articles of interest. New features of several advanced journal web-sites are further designed to save the researcher time. For instance, the table of contents can be emailed in advance to the researcher.

"Given the blossoming of online journals, is print publication dying? The answer is a resounding 'no' for the next few years, but should be qualified as a new generation of scientists reared on computers comes to the fore. Currently, print is still the archive of the periodical literature in science and medicine.

"This is a dynamic time for journal publishing, and the promise of enhanced usage, and usability, of the literature is exciting for authors as well as readers. The potential of the World Wide Web to enrich the literature searching and retrieval process and to facilitate rapid worldwide access to the scientific literature is enormous. Online journals are now a reality and a boon to researchers. The challenge to the community is to find ways in which the paper walls between journals can be knocked down,

without threatening the fundamental tenets of peer review and quality control."

## Conclusion

Publications should be the threads that run through all the activities of an association, linking bit to bit and catching all of the organization's activities (14). *LAS* and *CT* are the major strands in this thread running through AALAS, tying together the past, present, and future. As we—the *LAS* and *CT* editorial staffs and AALAS itself—draw upon the strengths of the past to meet the many challenges of the future, we must not forget the primary goal of our publications, which is to serve the members of AALAS and to reinforce the foundations of our specialty by serving the broader readership of all laboratory animal specialists and comparative medical scientists worldwide.

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<sup>1</sup> In addition to the editors, the *LAS* Editorial Board and Editorial Advisory Committee have played essential roles in setting the direction and policy of the journal. Between the years of 1963 and 1999, the following individuals have served as chairs of the committee: Dr. E. L. Besch, Dr. J. G. Fox, Dr. H. M. Kaplan, Dr. S. P. Pakes, Dr. G. L. Van Hoosier, Dr. J. E. Wagner, and Dr. S. H. Weisbroth.

<sup>2</sup> In addition to the editors, the *CT* Editorial Advisory Committee played an essential role in setting the direction and policy of the journal. Between the years of 1992 and 1999, the following individuals have served as chairs of the committee: Dr. Lynn Anderson, Dr. Kathleen Murray, Dr. Daniel Ringler, Dr. Richard Fish, Ms. Mary Lou James, Dr. Darrell Hoskins, and Dr. Christian Newcomer.