

From the Bottom to the Top – A Technical and Managerial Career in Laboratory Animal Science in USA: A Personal Experience and some Career Advice

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Summary

There are many options for a technical and managerial laboratory animal science career in the USA, and the career path taken by Mrs. U. Kristina Stephens in laboratory animal science and management from 1960 through 2003 are explored in some detail. Mrs. Stephens outlines her career through the many challenges and opportunities that entered her path which offered additional education and management techniques. Important building blocks for an animal science and management career are evaluated such as: Working with different animal species; Personal attitude and goal setting; Formal and Informal education possibilities; USA Certification levels; Building of a resume; Technical aptitude and knowledge; and People skills. Career paths taken by several successful individuals living in USA point to the diversity of possibilities.

Introduction

Before leaving Sweden in 1960 I had graduated from the Medical Technology program at University of Uppsala and held a position at the Bacteriology and Virology Department for a couple of years. While in the position at the Bacteriology Department, I had the fortune of spending about 6 months to a year at Dr. Bengt Gustafssons' laboratory in Lund where he was establishing his germ-free rat colony in isolators. My laboratory animal science career therefore started with the "cleanest" possible laboratory animals available at the time.

During the fall of 1960 I obtained a position as a research technician at the Pathology Department at University of Texas, Galveston, USA where I would participate in an immunological research project.

USA Laboratory Animal Science Career 1963 - 1969

After marrying a Texan in 1961 and after a brief stay

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in San Antonio, in 1963 I obtained a position at the *Division of Experimental Biology, Baylor College of Medicine, Houston, Texas*. My main duty was to supervise a specific pathogen-free (SPF) mouse facility with nine technicians. SPF techniques came easy for a bacteriologist; however the expanding breeding program when moving to new SPF quarters became a major challenge in reviewing genetics (*Trentin et. al, 1966*).

That same year I joined the Texas Branch of the American Association for Laboratory Animal Science (TB-AALAS) and I volunteered to become editor of the organization's newsletter, a position that I held for ten years. As editor I became aware of all items of importance for the organization and found a great opportunity to be of service.

The certification program within the national AA-LAS program was in its infancy and after becoming certified as a Laboratory Animal Technologist (LATG) in 1967 I began to work on ideas to improve the national certification and training programs. During 1968 I joined the national AALAS and was fortunate enough to be able to lay the groundwork to establish a national Committee on Laboratory Animal Technicians (COLAT) (*Stephens, 1999*).

1969 – 1972

During 1969 I transferred from the SPF colony at Baylor to a conventional animal facility at the *University of Texas Dental Branch, Houston*. This facility offered further knowledge of and (including an additional) seven species of laboratory animals including non-human primates, cats, dogs, frogs, gerbils, hamsters, and cotton-rats. Additional challenges included the supervision of a surgical suite and management of anesthesia. Pre- and post-operative care was also of extreme importance since major surgeries involved facial reconstruction. The technicians, mainly from Cuba, offered another challenge for me to learn Spanish.

In 1971 I received my first award as the “Outstanding Laboratory Animal Technologist” from the Houston Animal Science Association.

1972 – 1978

At this time I was ready to become a facility director and I moved across the street to the *Texas Research Institute for Mental Science (TRIMS), Houston*. At this facility the main research activity was behavioral in nature, which proved to be a real opportunity to become more familiar with behavioral patterns in a wide variety of species. Investigator consultations and guidance became daily opportunities for me to have an impact of the research program. At this time I participated heavily in training technicians and found that no standard training program was available. I proposed a three level course to AALAS, and with the help of friends we were able to make the programs a standard for the national organization (*Stephens, 1971, 1972, 1973*).

In 1972 I received a national AALAS award entitled “Animal Technician of the Year” (later changed to the George R. Collins Award) for my work on the training standards.

I was elected as President of the TB-AALAS Branch in 1977, and as such I was the first technician and the first female to reach that position.

1978 – 1982

In 1978 my husband and I searched to leave Houston as he had finished his major graduate work at University of Texas. After interviewing and evaluating several locations we settled for positions at the *National Center for Toxicological Research (NCTR), Jefferson, Arkansas*. I became the Assistant Director with a firm holding the contract for all laboratory animal facilities within the center. The challenge of supervising over 100 technicians seemed overwhelming at first. At this site the technicians were extremely proficient in using touch-screen computers when evaluating animal health, body weight, and food consumption. My husband worked with computer software used by our technicians. The main thrust of the research conducted at the center was toxicology and aging studies. I received many opportunities to evaluate the experimental avenues taken by the investigators. The work force was unionized and therefore I had to participate in union negotiations. Additional challenges of my duties were to estimate annual budget and evaluate accounting procedures used.

During this period I had taken on a major volunteer position with AALAS and I had to take a couple of weeks leave to fulfill my commitment. Dr. Nephi Patton and I as editors were to develop a “Laboratory Animal Technician” manual (*Stephens, 1984*) following the previously mentioned standard Basic Course Outline. I rented a typewriter (remember them? no home computers available) and set up an office at our home. Telephone conversations (no e-mail) were a must with the authors.

In 1980 I received the national AALAS “Animal Technician of the Year” award for outstanding contributions in the betterment of laboratory animal science and the advancement of professional training for technicians.

During 1979 through 1982 I was elected to serve as member of the Board of Trustees and the Executive Committee of the national AALAS. I became very active as a member of the Arkansas AALAS Branch and served as the Branch President in 1981.

1982 – 1991

In 1982 I took a position as Assistant Director at *Animal Resource Center at the University of Colorado, Denver*, where I was to function as program administrator of all programs and operations including fiscal budgetary matters. Computerization of animal facility operations was now a necessity and proved quite a challenge.

During this time I decided to enter graduate school and completed a Masters of Art degree in Business and Management, and I also served as President of the Mile-High Branch of AALAS.

The major challenge during this period was to manage a construction disaster, which resulted in a very difficult and highly emotional loss of lives of animals held in our facility.

During the early 1980's I participated in several meetings in order to form the Laboratory Animal Management Association (LAMA) (*Schmieder et al, 1999*).

In 1987 I received the national AALAS "Joseph J. Garvey award" for meritorious and outstanding accomplishments in administration, education or support programs relating to the care, quality or humane treatment of animals used in biomedical research.

As part of a Scientists Center for Animal Welfare (SCAW) meeting on "Effective Animal Care and Use Committees" in 1987 I gave an oral presentation and published an article discussing the role of laboratory animal technicians as IACUC committee members (*Stephens, 1987*).

In 1988 I received the national LAMA "U. Kristina Stephens award" of which I was the first recipient presented for excellence and truly outstanding contribution to the organization (LAMA).

1991 – 1992

When my husband was transferred to *Eugene, Oregon* my health was failing and I became a candidate for open heart surgery with an accompanying aortic valve replacement. Although during this short period I became part owner of an educational team called Renaissance Research Associates (RRA) and

became a technical writer of the "Purina Manual".

I also served as a Community Member of the Institutional Animal Care and Use Committee (IACUC) which proved very interesting since this geographical area was a hot-bed for extremely active anti-vivisectionists.

During this time I also was asked by AALAS to chair a new advisory council called the International Relations Advisory Council (IRAC).

1992 – 1997

My husband was transferred again, and at this time I took a position as an Administrative Program Specialist at *Research Animal Resources Center, University of Wisconsin, Madison, Wisconsin*. My duties consisted of conducting training programs for technicians, research technicians, and investigators. During 1992 I conducted a survey on motivational issues and desired qualities of technicians and managers in our field (*Stephens, 1992*).

In November of 1992 I elected to have open heart surgery and have my aortic valve replaced with a St. Judes mechanical device. It was a long post-operative period but I survived.

During this period I participated in laying the groundwork for the AALAS Institute for Laboratory Animal Management (ILAM) and I also graduated from the first class in 1993. In 1994 the Purina "Laboratory Animal Care Course" was published and this was a major undertaking of the three RRA Principles (*Panepinto, 1994*).

In 1994 I received the national LAMA-Charles River "Medallion" in recognition for distinguished contributions to the field of laboratory animal management by an administrator/manager.

In 1996 I received the AALAS "Distinguished Service Award – Institute of Laboratory Animal Management (ILAM)

1997 – 2003

In 1997 my husband was again transferred to the Atlanta area, Georgia. After evaluating available positions in the greater Atlanta area I took a position at the *Department of Animal Care and Use, Office*

of Vice-President for Research, The University of Georgia. My title was Laboratory Animal Coordinator and my duties included being the Executive Secretary of the IACUC, coordinate all (35) animal facility inspections across the State of Georgia, develop and monitor an occupational health program, and coordinate and conduct seminars and courses to train animal care personnel.

In 2002 I participated in writing a chapter on "Management of People – A Most Valuable Resource" in Management Of Laboratory Animal Care and Use Programs, CRC Press. (Stephens, 2002).

After Retirement

After my retirement in 2003 I was called back for a 6-month period to act as the IACUC Coordinator since the person holding the position suddenly left. I also served for a period of time as the Community member of the IACUC. I am currently holding life membership in several AALAS Branches, AALAS, and LAMA.

In evaluating my "roots" I have established with Scand-LAS approval the "U. Kristina Stephens Education and Travel Award" to be given in 2008 for the first time.

Back to YOUR Future

Considering my career I would like to point out several *Building Blocks* that would help you in your career.

- Working with different animal species
Current animal models and care of the various species are very specific such as breeding and care for transgenics, nudes, and knock-outs. Some species are no longer used in research. Stay abreast with research developments.
- Set your goals high and develop a positive attitude
A positive attitude and willingness to learn new techniques are important. In a study of what USA managers would like to see in their technicians are:
 - A good attitude, willingness to learn, be

truthful, have a caring attitude, and being on time to work.

Another study asked the technicians what they would like to see in their managers:

- Be knowledgeable, be available, and have a caring understanding attitude.
- Consider both informal and formal education
There is always room for more education especially in such a fast moving field as laboratory animal science.
- Create a Curriculum Vitae (CV) and a one page résumé
Add vital information to your CV every 6 months and direct your one page resume with important specific information toward the position you are seeking.
- Seek certification
Various Certifications enables you to belong to a special group within your field. The USA AALAS program also includes a Registry which verifies that you have "kept up" with the knowledge.
- Consider your professional behavior and learn interview skills
Body language, professional behavior, dress, and truthful answers to questions are important.
- Build a network to help your job searches
Choose your networking friends with care and realize that you may have to come back some day. One of my first immediate supervisors at Baylor College of Medicine, during the 1960's, offered me a position in the 1990's with AALAS as the Chair of IRAC when he served as President of AALAS.
- Join reputable animal science organizations
Joining organizations in your field helps you to gain information and stay abreast with animal science. Volunteerism, such as serving as committee member or committee chair, helps you to become more familiar with the organization. It also makes you better known among the members.
- Seek areas within animal science that are of interest to you

Animal science by itself is a fast moving science and specific areas have developed. It is important to stay abreast with your interests even if you are not currently involved in those specific areas.

Good Luck with Your Career!!

References

- Panepinto LM, RC Simmonds & UK Stephens (Editors)*. Laboratory Animal Care Course, Purina Mills Incorporated, 1994.
- Schmieder CR, & JA Alford*. The history of the Laboratory Animal Management Association. 50 Years of Laboratory Animal Science, American Association for Laboratory Animal Science, 1999, *Chapter 8*, 55-57.
- Stephens UK*. The development of the technician's role, technician training and certification. 50 Years of Laboratory Animal Science, American Association for Laboratory Animal Science, 1999, *Chapter 12*, 74-79.
- Stephens UK*. Basic Course Outline for Laboratory Animal Technicians, American Association for Laboratory Animal Science Publication, 1971.
- Stephens UK*. Basic Course Outline for Assistant Laboratory Animal Technicians, American Association for Laboratory Animal Science Publication, 1972.
- Stephens UK*. Basic Course Outline for Laboratory Animal Technologists, American Association for Laboratory Animal Science, 1973.
- Stephens UK, & NM Patton (Editors)*. Manual for Assistant Laboratory Animal Technicians, American Association for Laboratory Animal Science Publication, 1984.
- Stephens UK*. Role of laboratory animal technicians as committee members, Effective Animal Care and Use Committees, Scientists Center for Animal Welfare, Laboratory Animal Science Special Issue, 1987, 103.
- Stephens UK*. Technician survey responses: A discussion and application of motivational theories and desired qualities, Contemporary Topics, 1992, 6, 22-24.
- Stephens UK*. Management of people – A most valuable resource, Management of Laboratory Animal Care and Use Programs, CRC Press, 2002, *Chapter 1*, 1-13.
- Trentin JJ, GL Van Hoosier Jr, J Shields, UK Stephens & WA Stenback*. Establishment of caesarean derivation gnotobiotic foster-nursed inbred mouse colony with observation of the control of Pseudomonas. Laboratory Animal Care, 1966, 16, 109-118.