



# INTERFACE

SOCIETY FOR TECHNOLOGY IN ANESTHESIA

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## Breakfast Panel on Natural Disasters a Success

The annual breakfast panel discussion of the STA was held on Wednesday, October 25, 1995.

As usual, the breakfast was held in conjunction with the annual meeting of the ASA, in the Atlanta Marriott Hotel. The chairman of the breakfast panel Dr. Alan W. Grogono acted as moderator for the panel's discussion on Fire, Quake, Flood, and Storms: Natural Disaster and the Anesthesiologist.

The first speaker was Dr. Selma Calmes from the University of California, Los Angeles. Dr. Calmes presented a fascinating insight into the mayhem caused by a major earthquake. Her descriptions of a building which needed to withstand the lateral force of 2.3 Gs and the impact the earthquake had on all of the services in the medical institution provided telling evidence of the difficulty inherent in creating a safe environment against calamities. The inevitable loss of services and paperwork, and the difficulty maintaining adequate communication during a disaster proved to be a common theme for the morning session. In addition, Dr. Calmes stressed the need to be prepared to: administer anesthesia in locations remote from the operating room; to maintain adequate stock levels of a myriad of hospital supplies; and, to be personally prepared to use only the most basic equipment.

Dr. Brian Craythorne from the University of Florida, Miami, followed Dr.

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## International Technology Societies Strengthen Ties

Twenty years ago, there were a handful of visionaries in Anesthesiology and Critical Care Medicine who realized both the potential of modern technology to contribute to patient care, and the need for scientific investigations to evaluate the impact of technological advances. This group now consists of a large number of individuals worldwide who have not only produced a significant body of knowledge in this area, but have also constituted several societies, journals and annual meetings. (see article this issue page 6) The growth of the Internet and easy access to electronic mail has eliminated the barrier of geographic distance making it increasingly easier for this group of individuals to collaborate. At the same time, economic pressures in medicine have made it increasingly difficult for small societies to remain viable. Membership retention, journal subscriptions and meeting attendance all compete with the many costs in time and money of professional activities. When one considers the common goals shared by the anesthesia technology societies, the ease with which we can now communicate and the economic challenges to remaining viable, it becomes obvious that collaboration in a manner that strengthens our collective interests is appealing. Fortunately, efforts towards that end have been underway for some time and are gaining momentum.

For some years, Ty Smith and others have been involved in an effort to constitute a World Society for Technology in Anesthesia (WSTA). The concept has been to have an umbrella organization that would tie together all of the organi-

zations worldwide with an interest in technology in Anesthesiology and Critical Care. In the last six months this concept has taken on renewed vigor. The primary motivation during this time has been the realization that as a number of independent organizations, each society is vulnerable to the tremendous pressures of health care reform that are active around the world.

In response to that realization, a proposal was developed by Jeff Feldman and Dwayne Westenskow that highlighted areas of collaboration which make sound financial sense for the societies involved. Several areas for collaboration were identified including:

- Membership Services
- Internet Activities
- Newsletter Publication
- Journal Publication
- Annual Meetings

This proposal was the sounding board for an informal meeting which followed the STA Board of Directors meeting at the ASA meeting in Atlanta last October. Representatives from STA included Dwayne Westenskow, Ty Smith and Jeff Feldman. ESCTAIC was represented by Illka Kalli, SCCCMA by Marc Bloom

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Breakfast continued from front page

Calmes and presented "Lessons from a Hurricane." The devastation caused by Hurricane Andrew received considerable media attention over a protracted period. There was complete disruption

...during a natural disaster such as Hurricane Andrew the medical staff often needs to protect their own family and personal possessions.

of power, communications, financial services and law and order. All of these factors produced major problems which the hospitals and their personnel had to combat.

Maintaining morale and an adequately staffed service is almost impossible under such circumstances. Dr. Craythorne reminded us that during a natural disaster such as Hurricane Andrew the medical staff often needs to protect their own family and personal possessions. This factor can prevent the staff from being willing to provide even their normal workload.

The third speaker was Professor Wolfgang Dick. Dr. Dick found himself in charge of a large hospital in Mainz, Germany at the outbreak of a major fire in 1988. The fire threatened the entire hospital which in the end had to be evacuated. The initial evacuation of the operating rooms and the critical care unit provided major challenges. Patients had to be evacuated via windows and were suspended from ladders while on stretchers. It was fortunate that the building involved was low enough for this to be feasible. Dr. Dick stressed the critical importance of being adequately prepared with extensive plans for evacuation and control of traffic both within the building and without when such disasters occur. It took many years for the hospital to be reconstructed and throughout this time there were extensive disruptions.

The final speaker was Robert Forbes, MD, from the University of Iowa, who reviewed the consequences of the Great Flood of 1993, when the Mississippi River was above flood stage and caused

serious flooding in 406 counties in North and South Dakota, Nebraska, Kansas, Missouri, Illinois, Wisconsin, and Minnesota. Like the other speakers Dr. Forbes stressed the impact such disasters can have on a hospital by interfering with supply of water, electricity, and communications. The need to be prepared and to anticipate such a disaster is crucial. Transportation of staff, patients and medical supplies may be seriously disrupted.

Following the planned presentations, the moderator invited Dr. Pramond Chetty to briefly review his experiences in the wake of the bombing in Oklahoma. Dr. Chetty recounted his experience of their department learning of and coping with casualties arising from this tragic disaster. Dr. Grogono thanked all of the contributors and expressed appreciation for their efforts to both prepare the presentations and provide the written materials. ♦

-A Grogono

### A Virtual Dinner?

The STA annual dinner at the ASA was held on Sunday, October 22, 1995, at the Atlanta Hilton and Towers. Approximately eighty members of the society attended an excellent dinner. Following the dinner we were entertained by a fascinating insight into what the future might hold for medicine.

The guest speaker was Dr. Richard M. Satava, who is a colonel in the U.S. Army Medical Corps. A practicing General Surgeon in the active duty Army Medical Corps, Dr. Satava is currently assigned to practice General Surgery at Walter Reed Army Medical Center and supervises research for the Advanced Research Projects Agency. His achievements in surgical education and surgical research are impressive, with over 125 publications and book chapters in diverse areas of advanced surgical technology including Surgery in the Space Environment.



## INTERFACE

SOCIETY FOR TECHNOLOGY IN ANESTHESIA

INTERFACE is the official newsletter of the Society for Technology in Anesthesia.

The newsletter is published quarterly and mailed directly to the membership of the society. The editors invite suggestions, contributions and commentary about published items.

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Dr. Satava entertained us with an remarkable account of the use of Virtual Reality (VR) today and in the future. He chronicled the creation of a prototype "walking robot" in VR which later was manufactured successfully. His multimedia presentation was fascinating and illustrated how VR can speed the research and development process. Equally fascinating was his description of how a VR environment is being used so that individuals can carry out surgery remotely. He provided us a picture of one individual so intent upon his surgery that when he dropped something remotely he conscientiously reached down to pick up the pieces that had been dropped, forgetting that the actual surgery was being carried on the far side of the room. This is a telling example of the reality as well as the utility of such techniques.

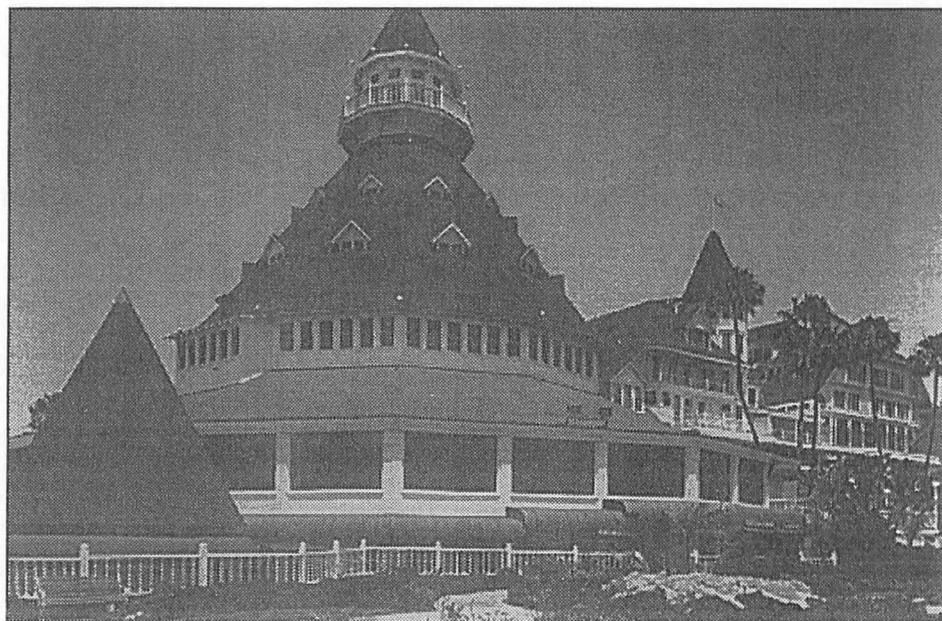
Following his presentation the audience induced him into a lively and lengthy discussion with questions that threatened to make him miss his flight. In the end, Dr. Satava had to leave us and departed following a warm applause from an appreciative audience. ♦

-A Grogono

### *STA and Interface Enter Seventh Year: Founding Editor, Dr. Jeffrey Feldman, Steps Down*

**D**r. Jeff Feldman M.S., MD has been Editor-in-Chief of *Interface*, the newsletter for the Society for Technology in Anesthesia (STA), since the foundation of STA in 1989. This year Dr. Feldman will turn this editorial responsibility over to Dr. George Blike [an action passed at the last Board of Directors meeting in Atlanta, Georgia.] Under Dr. Feldman's guidance, the newsletter, the primary resource for the STA membership regarding society news, has developed into a publication of outstanding quality.

As the founding Editor, Dr. Feldman was the creative force for virtually all of



*The Hotel Del Coronado—Site of the 6th Annual Scientific Meeting*

the format decisions which are required for generating a new publication. It is hard to imagine the newsletter by another name than *Interface*. The content of the newsletter exceeds the functional role of providing society news, membership information and meeting information. *Interface* is current and has always facilitated introducing new technology to the membership of STA. Indeed, an early addition to the newsletter was a regular column on electronic communication (the column initially contained Compuserve MEDSIG information; now this column titled, SIGnatures, cites the mailing lists and internet resources of interest to STA members.) Avoiding the tunnel vision some editors exhibit, Dr. Feldman succeeded in soliciting articles regarding technology in anesthesia and medicine, often from experts in non-medical domains. The entire issue (Vol. 5 No. 3) dedicated to the dilemmas in "Health Technology Assessment" and Dr. Carlos Parsloe's insightful essay, "Technology and the Third World: A Plea for Humanism", are but a few of the articles which highlight Dr. Feldman's tenure as Editor of the newsletter.

Editors Note: As *Interface* enters its seventh year, I hope as the new Editor to continue the

tradition of excellence which Dr. Feldman has started. ♦

-George Blike

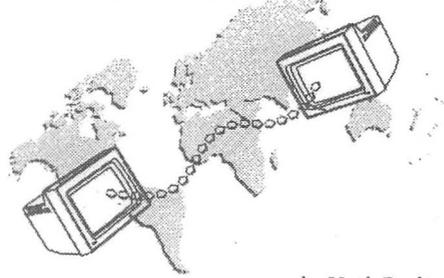
### *More than 150 Presentations at ASA on Equipment Monitoring and Engineering Technology*

**R**esearch worldwide validating, and sometimes invalidating, the utility of new technology in the anesthesia environment remains prolific. This year more than 150 abstracts were presented at the ASA annual meeting in Atlanta, Georgia which focused on the use of technology in anesthesia. A substantial proportion of abstracts involved active research into new monitoring modalities. The use of TEE and Doppler echo for non-invasive hemodynamic monitoring; oxygen saturation monitoring of individual organ beds (e.g., cerebral, hepatic vein, etc.); and electroencephalographic bispectral analysis to monitor depth of sedation/hypnosis were especially "hot" topics.

Consistent with the goal of STA to promote research in technology, the STA Committee on Research (Chaired by Dr.

*See Presentations page 5*

# SIGnatures



by Keith Ruskin

## Computers and Communication

If someone had asked me in 1986 to predict what I would be doing with my computer in 1996, I would probably have thought of word processing or complex mathematical (e.g., pharmacokinetics) or perhaps graphical applications. For the past few years, however, my predominant use for computing technology has been communication. I exchange electronic mail with my colleagues at Yale and around the world. Not surprisingly, it has become known among my friends and colleagues that the best way to get in touch with me is to send me e-mail.

Advances in networking technology and steady increases in the bandwidth of my Internet connection have allowed me to exchange even more complex data. I also use FTP, gopher, and the WWW to exchange information including pictures, sounds, and movies. I learned a few words of Japanese from a

*...I learned a few words of Japanese from a friend at Dokkyo University by exchanging recordings of phrases until I got the pronunciation correct...*

friend at Dokkyo University by exchanging recordings of phrases until I got the pronunciation correct.

During the 1995 ASA annual meeting in Atlanta photographs of the GASNet exhibit were posted on the World-Wide Web to create a "virtual exhibit" for those who could not attend in person. Photographs of the GASNet dinner were scanned so that those who could not attend could see some of the faces behind the e-mail.

The Internet provides relatively inexpensive, global communication. E-mail's store-and-forward capability allows me to transmit information, even though its recipient is asleep. This unique set of features provides far-reaching opportunities for all of us. I have worked on projects with colleagues in Australia, Japan, and Europe. This collaboration is helping anesthesiology to become a truly international specialty, allowing us all to share information and opinions. How many of us have met "net.friends" at a meeting, and feel like we are old friends, even though we are meeting for the first time? Although I still use my computer for word processing, spreadsheets, and image processing, it has enriched my life the most by enabling me to communicate.

### Academic Credit for Electronic Materials

Several months ago, the *New England Journal of Medicine* published an editorial stating its views on electronic publication. The editorial announced that *NEJM* was not considering an electronic edition, and offered the editors' opinion that electronic publication is not a good medium for dissemination of medical information. The reasons cited include the question of security for networked computers, public access to questionable data, and an inherent lack of quality control for information published on the Internet. These are not insurmountable obstacles, however. Although no computer on the Internet is completely safe, some well-documented security precautions can significantly reduce this possibility. Comprehensive backups and mirroring (storing data across multiple computers) improve security and reliability, ensuring that information can be retrieved despite a local network outage or computer malfunction.

*continued next column*

Brief Listing of Internet Mailing Lists

Listserver	Subscribe Command	Command Address	Message Address
Anesthesiology Discussion Group	subscribe anesthesiology Your Name	listproc@ gasnet.med.yale.edu	anesthesiology@ gasnet.med.yale.edu
American Society of Anesthesiologist	subscribe ASA Your Name	listproc@ gasnet.med.yale.edu	
STA Mailing List	subscribe STA Your Name	listproc@ gasnet.med.yale.edu	sta@ gasnet.med.yale.edu
STA Mailing List	subscribe ACCRI-L Your Name	listserv@ uabdpo.dpo.uba.edu	
Pediatric Pain Mailing List	subscribe pediatric- pain	mailserv@ac.dal.ca	pediatric- pain@ac.dal.ca

(Very) Brief Listing of Internet Resources

Internet Resource	UR
WWW Virtual Libra: Anesthesiology	<a href="http://gasnet.med.yale.edu/index.html">http://gasnet.med.yale.edu/index.html</a>
Anesthesiology and Critical Care Resources on the Internet	<a href="http://www.eur.nl/FGG/ANEST/wright">http://www.eur.nl/FGG/ANEST/wright</a>
Catalog of Electronic Journals	<a href="http://www.edoc.com/ejournal">http://www.edoc.com/ejournal</a>
Erasmus University Department of Anaesthesia	<a href="http://www.eur.nl/FGG/ANEST">http://www.eur.nl/FGG/ANEST</a>
GASNet Anesthesiology	<a href="http://gasnet.med.yale.edu">http://gasnet.med.yale.edu</a>
World Societies for Technology in Anesthesia	<a href="http://gasnet.med.yale.edu/wsta">http://gasnet.med.yale.edu/wsta</a>
University of Alabama at Birmingham Anesthesiology Gopher	<a href="gopher://gopher.anes.uab.edu">gopher://gopher.anes.uab.edu</a>
University of Queensland Anesthesia Web Server	<a href="http://www.uq.oz.au/anaesth/home.html">http://www.uq.oz.au/anaesth/home.html</a>

Quality control of electronic publications presents some more difficult questions. It is true that anyone with a computer connected to the Internet can serve information. For this reason, familiarity with the source of the information becomes very important. Perhaps the role of publishers will evolve to be "brand names," providing well-known locations that have a proven track record. Simply obtaining good material for electronic publication is another sticking point. Many journals (including *NEJM*) do not consider an article published on the Internet (or *via* other electronic means) to be original. This discourages potential authors, who may be interested in electronic publication, but also need to publish in traditional journals to qualify for academic promotions. While there are many complex issues, including the role of publishers, permanence, and quality control, electronic publications will continue to gain a foothold in academic medicine. ♦

References

1. Kasirer J.P., Argell M: The Internet and the Journal. *New Engl J Med* 332(25): 1709 - 1710, 1995.
2. Garfinkel S and Spafford G: *Practical Unix Security*. O'Reilly and Associates, Sebastopol, CA, 1991. 512 pp.
3. Russel D, Gangemi GT: *Computer Security Basics*. O'Reilly and Associates, Sebastopol, CA, 1991. 464 pp.

Presentations continued from page 3

Robert Chilcoat selects what are judged to be the "best" abstracts in two broad categories: 1) Technology and Innovation; and 2) Clinical Application of Technology. The committee reviewed more than 150 abstracts and had considerable difficulty selecting only four abstracts to honor with certificate awards. A fifth abstract was recognized with a "Special Award" for its unique examination of the misuse of a common statistical method. Below is a synopsis of each of the abstracts the committee recognized.

Best Abstract, Technology and Innovation:

Doyle D.J.; Lin L., Isla R., Doniz K., Harkness H., Vicente K.J.: Analysis, redesign, and evaluation of a patient-controlled analgesia machine interface (A416). This research aimed to improve the interface for programming a Patient Controlled Analgesia (PCA) pump and thus reduce the programming errors which pose a major threat to the safe use of PCA postoperatively. The investigators performed a cognitive task-analysis of a popular PCA pump, then used a computer rapid prototyping tool and human factors principles to redesign the interface. The new interface was significantly faster, more reliable and required less effort to use.

Honorable Mention, Technology and Innovation:

Flaishon R., Sebel P.S., Sigl J.: Bispectral analysis of the EEG for monitoring the hypnotic effect of propofol and propofol/alfentanil (A514). In the continued effort to find a "depth of anesthesia" monitor, Flaishon et. al. conducted this study on a small group of volunteers using a derivative of the bispectral analysis of the EEG optimized to the hypnotic effect (BIS 3.0). For a given propofol target level, BIS 3.0 correlated with the sedation scale.

Best Abstract, Clinical Application of Technology:

Sacristan E., Rosenblatt R., Shahnarian A., Peura R.: Ion mobility sensor development for anesthesia multiple gas monitoring (A444). The authors tested a prototype multiple gas monitor. The monitor employed the technology used in smoke detectors to ionize a gas sample. Unique ion mobility spectra were then used to identify five standard anesthetic agents. Although a prototype system, this technology could prove to be a competitive alternative to Infra-Red based multi-agent anesthesia monitors.

Honorable Mention, Clinical Application of Technology:

Haryadi D.G., Bowes W.A., III, Orr J.A., Westenskow D.R.: Non invasive monitoring of changes in arterial compliance during induction of anesthesia (A485). Haryadi et. al. evaluated a new non invasive monitor of arterial compliance during

anesthesia (using the volume-oscillometric method). Vascular compliance is a direct measure of the tone of the vascular system. This study demonstrated >50% change in compliance of the brachial, tibial and peroneal arteries during induction of anesthesia.

Special Award: Pinchak A.C.: Comparing paired measurements: Misuse of the Bland and Altman method (A395). Pinchak was recognized by the STA research committee for his theoretical analysis of the Bland and Altman (B&A) method for comparing two methods of measuring the same physiological quantity. The author used a computer simulation to demonstrate that if exceptions for using the B&A method are not ruled out, the calculated values for bias and limits of precision will be erroneous. ♦

-G Blike

### Meeting Announcement Sixteenth ISCAIC - May 1996

**R**ottendam in the Netherlands is the delightful venue for the 16th International Symposium on Computing in Anesthesia and Intensive Care to be held May 9-11, 1996. The stated objective of the meeting is "To provide a platform for innovative minds from all over the world to exchange and share ideas on the application of computing and monitoring in Anesthesia and Intensive Care".

Drs. Hagenouw and Klein are organizing this meeting which was originally organized by the late Omar Prakash, M.D., Ph.D. An international faculty will present information on clinical information systems, monitoring depth of anesthesia, echocardiography and many other topics. Abstracts are encouraged and should be submitted by February 1, 1996.

Instructions for Abstract Submission:

Abstracts should be in English and limited to one page (A4 or A) including title, affiliation, figures, tables and references.

See Announcement page 6

*Announcement continued from page 5*

An 11 or 12 point font should be used. Abstracts should be submitted by e-mail or on a 3.5" diskette in ASCII (preferred), word perfect 5.1 or Word for Windows 6.0 format. Pictures should be in PCX, BMP, or TIFF format.

For more information please contact: Drs. Hagenouw and Klein

Organizational secretariat: please contact Mr. Karel Sitskoorn for information regarding registration, hotels, etc.

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Note: registration will not be waived if an abstract is submitted.

*International continued from front page*

and Wolfgang Heinrich and John Zelcer represented the Australians. All the attendees recognized the positive aspects of closer collaboration and had tremendous enthusiasm for the concept. The discussion centered around the practical aspects of how to make the collaboration happen if each society indeed decides to go forward. This discussion continued at the Computers in Anesthesia meeting held in Nashville just after the ASA meeting with Bradley Smith representing, the Society for Computers in Anesthesiology (SCIA). The ultimate result of these meetings was a joint resolution that could be taken to the membership of the respective societies for discussion. (See Sidebar)

The move to increase collaboration between the societies represents a

potential opportunity for STA. The opportunity to allocate costs over a larger group of individuals is certainly appealing. The Board of Directors is actively seeking input on this issue and will consider it further at the upcoming annual meeting. Proposals to formulate the details of collaboration are now circulating. An open discussion is planned for the general meeting of the membership as well. Please share your thoughts. ♦

- Jeff Feldman

### ASATT Anesthesia Technician Certification Coming Soon

**I**t gives me great pleasure to submit my first article to Interface.

The American Society of Anesthesia Technologists and Technicians (ASATT) held its 7th Annual Meeting in Atlanta, Georgia, in conjunction with the American Society of Anesthesiologists (ASA) Annual Meeting. I attended the STA Board of Directors Meeting and learned that we share similar interests and problems.

Given that our society includes both technologists and technicians, a common question I encounter is to describe the difference between an anesthesia technologist and a technician. In brief, the anesthesia technologist is distinguished from the anesthesia technician by additional education, training, and experience. Usually, the anesthesia technologist provides closer intraoperative support to the clinician (relative to the technician) and must be capable of a high level of self-direction.

Our profession and society has seen significant changes over the past two years and we are happy to report that our initiatives are progressing rapidly. The year of 1996 will be a year of great importance as we draw closer to cel-

#### SIDEBAR

The Society for Computers in Anesthesia (SCIA), the Society for Computers in Critical Care, Pulmonary Medicine and Anesthesia (SCCCPMA), the European Society for Computing and Technology in Anesthesia and Intensive Care (ESCTAIC), International Symposium on Computing in Anesthesia and Intensive Care, and the Society for Technology in Anesthesia (STA) have agreed in principal to share certain services and to cooperate in their overlapping areas of interest in planning of educational presentations, information exchange pathways, certain publications, and in cooperative planning of future efforts in technology research, teaching and its application to the practice of medicine.

#### JOINT RESOLUTION TECHNOLOGY SOCIETIES IN ANESTHESIA

October 1995

Whereas technology is international in scope and the exchange of ideas, attendance at meetings and collaboration extends beyond national borders, and whereas financial success depends on total membership, meeting attendance, and industrial support, we resolve: to make information about each society and its membership available on a common internet site (World Wide Web page), to send newsletter information to a common editor for distribution to, and printing at, each location, to share management tasks and facilities where economically beneficial, and to keep other societies informed as to future meeting dates, themes and speakers with the intent of avoiding duplication.

#### SPECIFIC SUGGESTIONS:

Newsletter editors: George Blike: [George.T.Blike@Dartmouth.edu](mailto:George.T.Blike@Dartmouth.edu) and Jeffrey Feldman: [jmfeld@einstein.edu](mailto:jmfeld@einstein.edu).

Common WWW site: [http://gasnet.med.yale.edu/\[society name\]](http://gasnet.med.yale.edu/[society name]) managed by Keith Ruskin. ♦

celebrating our goal of national certification. Indeed, ASATT has contracted with Applied Medical Professionals, Inc. (AMP) in Lenexa, Kansas to achieve this goal. Phase III of the plan is now complete with the fourth phase (national certification) near completion. We are on schedule and anticipate the fifth and final phase to be completed by April 1996, thanks to the AMP and the Job Analysis Advisory Committee (a committee of anesthesiologists, CRNA's, and anesthesia technologists).

Several issues regarding national certification were approved by the ASATT Board of Directors. The first certification testing is planned for 1996. Tuition for ASATT members will be \$200; nonmembers \$275. Test retakes within a 12-month time period will be assessed a \$25 fee, and a \$200 fee for a third test retake. A study guide will be available in the early part of 1996. National certification testing will eventually (phase-in period of four years) require an Associate's Degree relating to health care, as a prerequisite. A criteria of ten continuing education units per year and recertification at the end of two years must be met. The test administration sites will be scheduled once the date and seven locations are determined. National testing will be simultaneously conducted. Applicants will be notified as soon as this information becomes available. I am more than happy to answer any questions concerning the Society or certification.

Of additional interest is that we are now on the information highway! Our internet address is <http://www.iquest.net/king/system/assatt.htm>. Please feel free to visit us. ♦

-A. Martin  
ASATT Region 5

### Sample of Worldwide Technology Activities in Medicine

#### SOCIETIES

**AAMI:** Association for the Advancement of Medical Instrumentation is a large society (7000 members) with an annual meeting of clinical engineers and technicians. President Mike Miller welcomes participation by other societies and has material explaining subgroup affiliations and working relationships.

**AMIA:** American Medical Informatics Association is a 3000 member organization that participates in SCAMC and also holds an independent Spring Meeting each year. Reed Gardner is the AMIA President. AMIA has a working group which deals with anesthesia informatics topics which is chaired by Mark Poler.

**ESCTAIC:** European Society for Computing and Technology in Anesthesia and Intensive Care is a society founded in 1989 and meets once a year. The official journal of the society is the International Journal of Clinical Monitoring and Computing. The ESCTAIC President is Borje Hallen and the Chairman is Alastair Lack. Andy Tecklenburg is the chairman elect.

**JSTA:** Japanese Society for Technology in Anesthesia. Akio Shigemata is president of the Japanese society.

**SCATA:** Society for Computers and Technology in Anesthesia holds meetings in May and November. In England, for example, SCATA influences the IT committee of the Royal College and has a large say in the Quality of Practice Committee. President—Alastair Lack, Chairman—Pradeep Ramayya

**SCCCPMA:** Society for Computing in Critical Care, Pulmonary Medicine and Anesthesia meets every other year in the U.S. and alternate years in Europe. Its meetings deal with critical care and pulmonary medicine as well as anesthesia and are attended by 100-300 individuals. Wolfgang Heinrich is President. Next meeting is September 25-28, 1996 in Mainz, Germany.

**SCIA:** Society for Computing in Anesthesia. Bradley Smith, president, with a \$5 annual membership fee which pays for mailings. Annual post ASA meeting held each year. See their WWW page on GASNET. Next meeting is October 24-26, 1996 in Metairie, Louisiana.

**STA:** Society for Technology in Anesthesia members receive the International Journal of Clinical Monitoring, a newsletter and a searchable membership data base. The current President is Dwayne Westenskow, President-elect is Allen Ream. STA sponsors a breakfast panel and dinner at the ASA meeting each year. STA's annual meeting is held at the end of January. The next meeting is January 25 - 27, 1996, San Diego, California. See <http://gasnet.med.yale.edu/sta/>

#### MEETINGS

**ISCAIC:** The International Symposium on Computing in Anesthesia and Intensive Care is held alternately in the Philadelphia, Pennsylvania, and in Rotterdam, The Netherlands. The next meeting is May 9-11, 1996 in Rotterdam. The meeting organizers are Rene Hagenouw and Jan Klein. For information - <http://www.eur.nl/FGG/ANESTH/rene/16symp.html>

**SCAMC:** Symposium on Computer Applications in Medical Care is a large and rapidly growing annual meeting dealing with medical informatics. It is typically held in early November. The meeting is supported by a large contingency including AMIA members.

#### ELSEWHERE:

**Australia:** There is not an independent Australian society although many Australian colleagues have a special interest in anesthesia technology and support one or more of the societies noted above. John Zelcer is an excellent contact for activities in Australia.

**Latin America:** An independent society does not yet exist although there is much interest. Jorge Urzua of Santiago Chile is an excellent contact.

(see also: Technology in Medicine: A Worldwide Activity; *Interface* 95;6:1.)

Editor's Note: Please send any corrections or additions to George Blike, MD, Editor STA Interface. E-mail: [george.t.blike@dartmouth.edu](mailto:george.t.blike@dartmouth.edu). ♦



Please print or type.

Name \_\_\_\_\_ Degree(s) \_\_\_\_\_

Title/Position \_\_\_\_\_

Mailing Address \_\_\_\_\_

\_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Work Telephone (\_\_\_\_) \_\_\_\_\_ FAX (\_\_\_\_) \_\_\_\_\_

E-Mail \_\_\_\_\_ Home Telephone (\_\_\_\_) \_\_\_\_\_

Occupation:  Industry  Clinical Practice  Academic Practice

Affiliation \_\_\_\_\_

Special Interest \_\_\_\_\_

Membership Categories	Dues
<input type="checkbox"/> Full regular member—domestic	\$ 225.00 *
<input type="checkbox"/> Full regular member—foreign/Canadian	250.00 *
<input type="checkbox"/> Regular member	125.00 **
<input type="checkbox"/> Student/Resident member ◆	40.00 **
<input type="checkbox"/> ASATT member	40.00 **
<input type="checkbox"/> Department member	250.00 *

Three levels of corporate membership are also available. Contact the National Office for more details.

◆ Students/Residents must include a letter from their dean's office, program chairman, or residency director verifying their current status and their level of seniority.

\* Includes subscription to the Journal of Clinical Monitoring

\*\* Does not include subscription to the Journal of Clinical Monitoring

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