



2009 Award Winners Announced . . .

## Six Leaders Honored for Contributions to Medical Technology

Not many people would think to use two strawberry shortcake pans in the early design of a medical ventilator—but **Forrest M. Bird, MD**, is unique. He placed a diaphragm in the pan to drop the pressure, and a magnet would grab the pressure and hold it off.

From flying airplanes to creating medical equipment to combat cardiopulmonary problems, Bird has made an indelible mark on the medical technology field. For his numerous accomplishments, Bird has been awarded the prestigious 2009 **AAMI Foundation Laufman-Greatbatch Prize**.

Bird is an avid pilot, taking his first solo flight when he was 14 and even meeting an aged Orville Wright. “His passion for flying and knowledge of airfoils has served him well in understanding lung function,” says Leslie R. Atlas, CCE, CBET, director of technology management for Masterplan. “Later he applied that knowledge to the development of his many medical inventions.”

Those inventions have helped save thousands of lives. Among Bird’s inventions are the first low-cost, portable medical respirator and an aircrew breathing regulator to be used when airplanes fly at high altitudes.

The AAMI Awards Subcommittee also selected five other medical technology leaders to receive 2009 awards.

### **Carol Davis-Smith: Giving Back**

Carol Davis-Smith knew that she couldn’t have done it alone. “It is an indescribable feeling to be recognized by my professional peers,” says Davis-Smith, a director with



**Carol Davis-Smith**

Premier Consulting Solutions and chair of AAMI’s Technology Management Council (TMC), who has been awarded the 2009 **AAMI Clinical/Biomedical Engineering Achievement Award**.

“An e-mail tag routinely used by

one of my clinical engineering colleagues comes immediately to mind: ‘Many hands, hearts, and minds generally contribute to anyone’s notable achievements.’ I cannot express my gratitude enough to everyone who has influenced my career.”

Bridget Moorman, president of BMoorman Consulting LLC, nominated Davis-Smith because of her contributions to AAMI and the field. “In her 21 years as a clinical engineer, she has demonstrated a keen understanding of what it means to be a clinical engineer, and has given back to the field by educating and promoting the profession and its ideals to both the biomedical and clinical communities,” Moorman says.

### **Guruprasad Madhavan: Future Innovator**

Guruprasad Madhavan is laying the groundwork for non-invasive therapy to solve chronic health problems. In recognition of his efforts, he is the recipient of the 2009 **AAMI/BD Professional Achievement Award**.



**Guruprasad Madhavan**

Madhavan is currently pursuing an innovative medical device concept that could result in a non-invasive, portable, neuromuscular stimulation therapy to enhance lower limb circulation. The effort could help with circulation-related ailments such as heart failure and osteoporosis.

“This recognition has utterly boosted my enthusiasm to better communicate—and represent—biomedical engineering to the general public and political community,” Madhavan says. “Their engagement is crucial if we are serious about influencing public policy, improving technology access, fueling career development, and spreading the many social innovations related to biomedical engineering.”

### **David Scott: Providing Leadership**

The Colorado Association of Biomedical Equipment Technicians (CABMET) is known for its effective certification study groups and educational offerings—and it’s CABMET President Dave Scott who plays an integral role in making sure these programs thrive and grow.



**David Scott**

For his efforts in helping to advance CABMET and his contributions as a biomedical technician in the equipment management program at The Children’s Hospital in Aurora, CO, Scott has been awarded the 2009 **AAMI/GE Healthcare BMET of the Year Award**.

“Dave was the driver in developing the curriculum, faculty, and educational materials for a certified biomedical equipment technician (CBET) examination review course offered in Denver for several years,” says Matt Baretich, president of the consulting firm Baretich Engineering Inc. “This effort produced high rates for passing the exam, and resulted in certification for a large number of BMETs in Colorado.” The CBET review course started in 2004, and is now offered nationally.

### **J. Tobey Clark: Humanitarian Educator**

J. Tobey Clark goes beyond borders to teach clinical engineering.

In recognition of his work educating medical technical professionals abroad on how to safely use medical technology, Clark is the winner of the 2009 **AAMI Foundation/ACCE Robert L. Morris Humanitarian Award**.



**J. Tobey Clark**

Clark, director of the Instrumentation and Technical Services Department for the University of Vermont, has participated in and led numerous advanced clinical engineering workshops in developing countries.

"As a result of his services, professionals in many countries have created solid technology management programs that include many of the fundamentals, including procurement planning and technician skill development," says Jennifer L. Jackson, ACCE president.

### **Julian M. Goldman: Connectivity Pioneer**

Julian M. Goldman, MD, recognized early the importance of interoperability among the increasing multitude of medical devices. He parlayed that vision into groundbreaking work such as founding the medical device plug-and-play interoperability program, leading the development of a new standard for the "Integrated Clinical Environment," and the Operating Room of the Future, a project that explores new technologies and systems of patient care.

For his contributions to getting medical devices to work together for patient safety, Goldman is the recipient of the 2009 AAMI Foundation/Institute for Technology in Health Care Clinical Application Award. Goldman is a practicing anesthesiologist at Massachusetts General Hospital, and currently serves as director of interoperability for the Center for Integration of Medicine and Innovative Technology (CIMIT), a nonprofit consortium of Boston-area healthcare and technology institutions led by Partners Healthcare.

"Julian is a pioneer in and evangelist for the use of interoperability to create smarter alarms and safety interlocked systems of equipment," says Raymond Zambuto, CCE, president of Linc Health, LLC. ■



Julian M. Goldman, MD

## **Standards Contributors Receive Special Awards**

Four AAMI members and two committees have been selected as winners of the 2009 AAMI Standards Awards.

The recipients of the 2009 Standards Developer Awards—which are given to individual contributors to standards development through work in AAMI-administered technical committees—are Harry F. Bushar, PhD; Trabue D. Bryans; Veronica Ivans; and James Gibson, who is being honored posthumously.

The AAMI/PC Cardiac Rhythm Management Device (CRMD) Committee and AAMI's Infant Incubator Committee will receive Technical Committee Awards, which are presented to AAMI technical committees and working groups.

Both awards were decided by the AAMI Awards Committee, with input from the AAMI Standards Board and AAMI Committee on Standards Strategy.

### **James Gibson: Sterilization Pioneer**

James "Jim" Gibson, who died last year, is being honored for his integral work in helping to develop standards for numerous forms of sterilization.

Gibson, who owned a consulting firm, was instrumental in the development of several sterilization standards, including standards for industrial ethylene oxide (EO) sterilization, industrial moist heat sterilization, and EO residual testing. These U.S. standards formed the basis for the international standards that were subsequently developed.

"Jim brought a perspective to the standards development process because of his long-term service that was invaluable to the revision process, in addition to his considerable technical expertise in multiple sterilization arenas," says Gerry O'Dell, current co-chair of AAMI's Industrial EO Sterilization Working Group and president of Gerry O'Dell Consulting Inc.

### **Harry F. Bushar: Crunching the Numbers**

Harry F. Bushar, PhD, has often been called upon by AAMI and International

Organization for Standardization (ISO) sterilization working groups for his statistical evaluation and expertise. Bushar is being honored for his efforts as a dependable source of statistical analysis.

A recently retired math statistician for the U.S. Food and Drug Administration (FDA), Bushar participates in the AAMI Radiation Sterilization Working Group and has tirelessly responded to numerous requests to review data and offer opinions on statistics used in sterilization standards.

"Bushar has been a vital source of statistical analysis and support in the development of important sterilization standards for the medical community," says Trabue D. Bryans, who nominated Bushar. "His willingness to provide expert opinions and analyses has made him an invaluable part of not only AAMI's Radiation Sterilization Working Group, but several other AAMI and ISO sterilization working groups."

### **Veronica Ivans: A Vital Resource**

If anyone has a question on standards development, Veronica Ivans is the person to go to. Ivans has led several working groups and subcommittees of AAMI, ISO, and the International Electrotechnical Commission (IEC).

Ivans, standards manager for the Cardiac Rhythm Disease Management Division of Medtronic, has been the co-author of numerous standards, including the development and maintenance of ANSI/AAMI PC69:2007, *Active implantable medical devices—Electromagnetic compatibility—EMC test protocols for implantable cardiac pacemakers and implantable cardioverter defibrillators*.

"She is a very professional, hard-working technical expert who has literally become the 'go to' person for both physicians and industry whenever a question comes up as to what can be done, or how it can be done, with any new idea regarding standards and patient safety," says Bob Stevenson, chair of the AAMI/PC CRMD Committee.

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