Focused on providing scientific and evidence-based safe anesthesia care
PROGRAMS AND SERVICES

MEMBERSHIP

The IARS membership program provides full access to a nonpolitical community committed to enhancing anesthesia research and education, and improving patient care. IARS members participate in the Society’s annual clinical and scientific meeting, gain information regarding all the latest advances in anesthesia research through the Society’s journal *Anesthesia & Analgesia*, and enjoy an online, user-friendly CME program.

The IARS provides the tools and resources medical professionals need to stay in the forefront of anesthesiology.

ANESTHESIA & ANALGESIA (A&A)

The IARS publishes *Anesthesia & Analgesia*, the leading journal in the field. Each monthly issue features peer-reviewed articles reporting on the latest advances in drugs, perioperative care, preoperative preparation, patient monitoring, pain management, patient safety and other timely topics. Internationally renowned authorities serve on the Editorial Board and as Section Editors, making A&A your gateway to everything that is happening in anesthesia and its related subspecialties. A&A is available in print to all members of the IARS, as well as online at www.anesthesia-analgesia.org. Additionally, A&A is available on all mobile devices and the iPad through an app launched in November 2011. As the most widely read anesthesia journal, A&A had more than 500,000 full-text and PDF downloads per month in 2012. The journal’s Impact Factor in 2012 was 3.3 and has steadily increased over the last five years. The journal’s Immediacy Index, which measures citations of the journal’s articles within one year of publication, and its Eigenfactor score, which assesses the journal’s total importance to the scientific community, are the highest among all anesthesiology journals.

OPENANESTHESIA

OpenAnesthesia, founded in 2009, has quickly become a leading reference source for anesthesiology residents, physicians, CRNAs and other medical professionals. The OA website has become one of the most widely used references for resident anesthesiologists and physicians. The site offers numerous content sources anesthesiology, including a rich multimedia section with podcasts, TEE of the Month, Article of the Month, video summaries of issues of *Anesthesia & Analgesia*, and Virtual Grand Rounds in Obstetric Anesthesia. OA also serves as a medical wiki that allows users to instantly author and edit medical content related to anesthesiology.
ANNUAL MEETING

The IARS Annual Meeting marked its 86th year in 2012 at the Marriott Copley Place in Boston, Massachusetts. The purpose of the IARS Annual Meeting is to provide clinical practitioners, physicians in training, and researchers in anesthesia with information about the latest scientific advances and the most up-to-date concepts in clinical care.

The IARS 5th Annual International Science Symposium focused on Mechanisms of Anesthesia. In 2012 two new symposia were introduced:

- **The Resident Symposium**, focused on *Resident Education and Advancement* and featured a *Best of Resident Oral Abstract Judging Session*.
- **A Clinical Research Symposium**, organized by the European Society of Anaesthesiology, focused on *The Role of Specialist Societies in Clinical Outcomes Research: How Can They Take a Lead*.

In 2012, the Meeting featured 27 Review Course Lectures, 18 Panels, many of which were sponsored and presented by our affiliated subspecialty anesthesia societies, and Moderated Poster Rounds in 21 topic areas. Additionally, the Meeting offered 15 Problem-Based Learning Discussions and 3 Hands-On Workshops. Scientific Exhibits and Industry Exhibits rounded out the attendee educational experience.

The Meeting introduced the following two special functions that allowed for attendees to relax and unwind, renew old acquaintances, and build new relationships.

First was the very well attended complimentary (for meeting attendees) **IARS Networking Reception**, which took place on Saturday, May 19, 2012. Attendees were invited to meet and mingle with the IARS leadership as well as *Anesthesia & Analgesia* Editors.

Second was the first annual *“Party with a Purpose”*, a fundraising dinner in support of anesthesia research, which was held on Sunday, May 20, 2013. The dinner raised over $30,000, of which 100% went directly to support anesthesia research projects.
THE KOSAKA ABSTRACT AWARDS

Co-sponsored by the IARS and the Japan Society for Clinical Anesthesia (JSCA), the Kosaka Awards were presented to the best patient-oriented research abstract and the best basic science research abstract. Each winner was presented with $500.

Three abstracts submitted by Japanese researchers along with three abstracts on matching topics submitted by international colleagues were selected from over 500 submissions and presented to a panel of judges and attendees for review and award selection.

The IARS gratefully acknowledges the support of the Japanese Society for Clinical Anesthesia (JSCA) and their contribution of $1,000 toward the award.

2012 Best Patient-Oriented Research Award Recipient
Ying Hsu, University of Illinois at Chicago

2012 Best Basic Science Research Award Recipient
Tomoko Yorozu, MD, Kyorin University Faculty of Medicine, Japan

BEST OF MEETING AWARDS

Abstracts selected by peer review and judged by a panel of experts were awarded the best basic science research and patient-oriented research honors at the Annual Meeting.

2012 Best Patient-Oriented Research Award Recipient
Julie L. Huffmyer, MD, University of Virginia

2012 Best Basic Science Research Award Recipient
Jan Larmann, MD, PhD, Hannover Medical School, Germany

CONTINUING MEDICAL EDUCATION

Findings from new research and the evolution of anesthesiology practice based on emerging evidence create an inherent gap between existing practice and new practice models. The IARS 2012 Annual Meeting activities were designed to bridge the knowledge gap created by the advent of new data and practice patterns, with the intent that the acquisition of new knowledge will lead to physician behavior changes and improved patient outcomes.
The IARS 2012 Annual Meeting CME activity was designed to address the continuing medical education needs of anesthesiologists, anesthesiologists in training, anesthesia researchers, and allied health professionals who conduct research, practice or intend to practice in any area of general anesthesia, subspecialty anesthesia, or pain management.

As a result of participation in this CME activity learners should now be able to:

- Recognize the current state of emerging knowledge and practice patterns and assess the relevance for their professional practice;
- Incorporate new knowledge from advances in anesthesiology practice into their professional practice areas;
- Recognize gaps in their knowledge, behavior, and patient outcomes that may result in a need for additional education and training.

The IARS offers two additional key CME opportunities.

The IARS **Online Education Portal** provides previous Review Course and T.H. Seldon Memorial lectures presented by thought leaders and experts in the anesthesia specialty.

Each monthly issue of *Anesthesia & Analgesia* features peer-reviewed articles reporting on the latest advances in drugs, perioperative care, preoperative preparation, patient monitoring, pain management, patient safety and many other timely topics.

**ANESTHESIA RESEARCH GRANTS**

The IARS is dedicated to advancing and supporting the anesthesiology field by encouraging and funding anesthesia research and education projects. Since the origination of the IARS Awards and Grants Program in 1983, the IARS has contributed nearly $12,000,000 to the worldwide anesthesia community, bringing more than 130 research projects from conception to fruition. The IARS 2012 grants program included the following awards:

**Frontiers in Anesthesia Research Award (FARA)** - FARA is a triennial grant designed to foster innovation and creativity by an individual researcher in the anesthesia field. This is the largest IARS research award with $750,000 available per awarded grant, and the largest research award given by any independent medical society in the U.S.

**2012 FARA Recipient**

Ansgar Brambrink, MD, PhD, Oregon Health & Science University Portland, Oregon

*Long-Term Outcome of Single vs. Triple Anesthesia Exposure of Infant Monkeys*
SCA/IARS Starter and Mid-Career Grants - In 2009, the IARS pledged $1,000,000 over five years to the Society of Cardiovascular Anesthesiologists (SCA) Foundation to support cardiothoracic and vascular anesthesia research projects. Each year, a single $100,000 Mid-Career Grant and two Starter Grants, totaling $50,000 each, are awarded.

2012 Mid-Career Grants - $100,000 (one award, paid over two years)
Amanda A. Fox, MD, MPH, Brigham and Women’s Hospital “Genome-Wide Assessment of Genetic Associations with Heart Failure after Primary Coronary Artery Bypass Graft Surgery”

2012 Starter Grants - $50,000 (two awards of $25,000 each)
Tobias Piegeler, MD, University of Illinois at Chicago “Amide-linked Local Anesthetics as Src kinase inhibitors in Pulmonary Vascular Inflammation – A New Target for Old Drugs?”
Friederike Ursula Behmenburg, MD University Hospital Duesseldorf “Does protection of the aged heart by targeting mitochondrial large conductance Ca2+- activated potassium channels improve long term hemodynamic performance?”

SmartTots Research Grants (two awards of $100,000 each)
SmartTots has dedicated research funding to addressing scientific and clinical gaps regarding the safe use of anesthetics and sedatives in young children. 2012 marked the first year in which grants through the SmartTots initiative were awarded.

2012 Grants Recipients
Robert Block, PhD, University of Iowa, Iowa City, Iowa
General Anesthesia During Human Infancy and Brain Development
Dr. Block aims to evaluate the hypothesis that exposure to general anesthesia and surgery during infancy affects brain and cognitive development as reflected in measures of brain tissue volume and composition and white matter integrity, memory-related regional brain activation, and cognitive test performance. Adolescents who were exposed to anesthesia during infancy will be compared to unexposed, but otherwise matched, control subjects. Patients will have been exposed to anesthesia during operations that would not normally, in themselves, be associated with subsequent central nervous system problems or risk factors; and both patients and controls will be individuals in whom no such problems or risk factors during infancy can be identified.

Caleb Ing, MD, Columbia University Medical Center, New York, New York
Anesthetic Exposure Duration and Effects on Cognitive and Language Ability
Dr. Ing and colleagues are working to determine the relationship between anesthetic exposure before the age of three and long-term neurocognitive deficits using a battery of directly administered neuropsychological assessments. The results of this study will help determine the association between anesthetic exposure and long-term deficit. This will be a critical piece of information that will help parents and physicians weigh the risks and benefits of exposure to anesthesia by delaying certain types of elective surgery.
**SmartTots initiative**

SmartTots, founded in 2010 and publicly launched in 2011, is a Public-Private Partnership between the U.S. Food and Drug Administration (FDA) and the International Anesthesia Research Society (IARS) designed to close research gaps related to the effects of anesthetics on the developing brain, and ensure the safety of infants and young children undergoing anesthetics in medical procedures. Findings from SmartTots research studies will determine the safety of commonly used anesthetics, establish new practice guidelines, and potentially foster the development of new, safer anesthetics and sedatives.

In September 2012, the IARS and the FDA convened approximately 50 experts in anesthesia and pediatric medicine, as well as individuals involved in patient safety and advocacy to develop a consensus statement regarding anesthesia safety in children. The Statement is intended to enable immediate awareness and education for parents and physicians while research studies look for more definitive data to either prove or disprove the existence of real and clinically relevant risks to children. SmartTots is actively securing funds for new and ongoing investigations that will help close research gaps and ensure the identification of safe anesthetic treatments.

“This consensus statement is a key step toward identifying the safest anesthesia and sedative medications for our nation’s infants and children,” said Janet Woodcock, MD, director of FDA’s Center for Drug Evaluation and Research. “The FDA is proud to be a SmartTots partner in this research effort and to have taken part in the recent workshop.”

The consensus statement, included below, is endorsed by the International Anesthesia Research Society (IARS), US Food and Drug Administration (FDA), the American Academy of Pediatrics (AAP), the Society for Pediatric Anesthesia (SPA), the Society for Neuroscience in Anesthesiology and Critical Care (SNACC), the American Society of Anesthesiologists (ASA), and the European Society of Anaesthesiology (ESA).

Each year, millions of young children require surgery and other procedures for serious or life-threatening medical conditions or to improve their quality of life. Anesthetic and sedative drugs are widely used to help ensure the safety, health, and comfort of children undergoing these procedures. However, increasing evidence from research studies suggests the benefits of these agents should be considered in the context of their potential to cause harmful effects.

Previous research in young animals and children has raised concerns that exposure to commonly used anesthetics may produce adverse neurobehavioral
effects. However, these studies had limitations that prevent experts from drawing conclusions on whether the harmful effects were due to the anesthesia or to other factors, including surgery, hospitalization, or pre-existing conditions. Furthermore, the findings in children have been mixed, with some studies of infants and young children undergoing anesthesia or sedation finding long-term deficits in learning and behavior, while others have not.

Clearly, additional research is urgently needed to identify any possible risks to young children. In the absence of conclusive evidence, it would be unethical to withhold sedation and anesthesia when necessary. Instead, healthcare providers should do the following:

- Discuss with parents and other caretakers the risks and benefits of procedures requiring anesthetics or sedatives, as well as the known health risks of not treating certain conditions
- Stay informed of new developments in this area
- Recognize that current anesthetics and sedatives are necessary for infants and children who require surgery or other painful and stressful procedures

**SmartTots Fundraising Activities**

The IARS, as part of the agreement with the FDA, is tasked with raising the contributions needed to fund the SmartTots initiative. 2012 marked the first full year of fundraising activities in support of SmartTots. The IARS raised $124,000 for SmartTots research projects from three key funding sources:

- Annual fundraising dinner *Party with a Purpose*
- Individual giving featuring a matching gift incentive
- Private and corporate foundation grants
THANK YOU FOR INVESTING IN ANESTHESIA RESEARCH!

The IARS is extraordinarily grateful for the contributions received by our generous donors in support of anesthesia research and would like to acknowledge the donors who contributed to anesthesia research in 2012. Donors are acknowledged through two annual giving clubs, Champions of Research and Advocates for Research. Each club is designed to celebrate donors like you who are committed to funding innovative and forward-thinking anesthesia research initiatives at the International Anesthesia Research Society.

Each donor’s total contributions to the IARS (including SmartTots) determine membership in our annual giving clubs. Corporate matching gifts are encouraged and will count toward club membership. Annual giving club memberships must be renewed each year with a contribution.

CHAMPIONS OF RESEARCH
($1,000 AND UP)

$2,501 - $25,000
John and Pamela Butterworth
Lance Lichtor
Makoto Ozaki
James Ramsay
Michael and Nancy Roizen
Denise Wedel
Boston Children’s Hospital
Japan Society for Clinical Anesthesia

$1,000 - $2,500
Dean Andropoulos
Honorio Benzon
Emery Brown
Davy and Winnie Cheng
Alex Evers
Dhanesh Gupta
Nancy High
Tony and Evelyn Jones
Ronald Katz
Colleen Koch
Daniel Kovari
Graeme Newcombe
Debra Schwinn
Steven Shafer
Santhanam Suresh
Christian Werner
DSM Nutritional Products
Quincy Anesthesia Associates
Society for Neuroscience in Anesthesiology and Critical Care

ADVOCATES FOR RESEARCH
($501 - $999)

$751 - $999
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Andrew Davidson
Jesse Ehrenfeld
Tom Krejcie
John Joseph Lafferty
Mark and Anita Lambert
Mark Singleton
Edward Walz

$501 - $750
Richard Berkowitz
David Brady
Barbara Braunlin Conard
Greg Crosby
Peter Davis
John and Lauren Drummond
Norig Ellison
Nancy France
Constance Houck
Jeremy Krock
Martin London
Mirjana Lovrincevic
Lee Meeder
May Pian-Smith
Carl Rosow
Ned and Teresa Russell
Steve Sayre
John Sear
Douglas and Monica Shook
Nikolaos Skubas
Robert and Maureen Sladen
John Sudkamp

$10 - $250
Raymond Turk
Lawrence and Kim Turner
Cynthia Wong
Francine Yudkowitz

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JANUARY 1 - DECEMBER 31, 2012
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| John Fox | Randall Ostroff |
| Alex Fraser | 

Donations were made to IARS General Research and SmartTots in recognition of the following loved ones.

**In Memory Of**
- Ottilia Amrdt
- Joseph C. Gabel
- John F. Schweiss
- Lea Yudkowitz

**In Honor Of**
- Kristin and Brian Caron
- Kerry and Ryan Dix (Family)
- Marc and Jen Knutsen
- Greg and Linda Knutsen
- Becky and Brooks Reynolds
- Eric and Erin Zepezauer

**Special thank you to donors of the 2012 Party with a Purpose auction**

- Build-A-Bear
- Disneyland
- Mark and Anita Lambert
- James Ramsay
- Michael Roizen
- Pier 39 San Francisco
- San Francisco 49ers
- Debra Schwinn
- Southwest Airlines
- Too Faced Cosmetics
- Triton Hotel San Francisco

2012 DONORS  
JANUARY 1 - DECEMBER 31, 2012
## STATEMENT OF FINANCIAL POSITION*

### ASSETS

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<th>Asset</th>
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### NET ASSETS

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<td>Temporarily restricted net assets</td>
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<td><strong>TOTAL LIABILITIES AND NET ASSETS</strong></td>
<td><strong>$24,292,280</strong></td>
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*Financials are unaudited numbers for 2012
The mission of the International Anesthesia Research Society (IARS) is to encourage, stimulate, and fund ongoing anesthesia-related research projects that will enhance and advance the specialty, and to disseminate current, state-of-the-art, basic and clinical research data in all areas of clinical anesthesia, including perioperative medicine, critical care, and pain management. The IARS is focused solely on the advancement and support of education and scientific research related to anesthesiology.

ABOUT THE IARS

The International Anesthesia Research Society (IARS) is a nonpolitical, not-for-profit medical society founded in 1922 to advance and support scientific research and education related to anesthesia, and to improve patient care through basic research. The IARS contributes nearly $1 million annually to fund anesthesia research; provides a forum for anesthesiology leaders to share information and ideas; maintains a worldwide membership of more than 15,000 health professionals in anesthesia-related practice; sponsors the SmartTots Initiative in partnership with the FDA; and publishes the monthly *Anesthesia & Analgesia* journal in print and online.