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Journal-related and Other Special Activities at the 2007 American Society of Anesthesiologists Annual Meeting

Judy R. Kersten, M.D., David O. Warner, M.D.,† Clifford S. Deutschman, M.S., M.D.,‡ Gerald A. Maccioli, M.D.,§ Richard M. Smiley, M.D., Ph.D.,‖ Gurinder M. S. Vasdev, M.D.,# James C. Eisenach, M.D.***

16th Annual ANESTHESIOLOGY Journal Symposium: Diabetes, Obesity, and the Metabolic Syndrome

Tuesday, October 16, 2007, 8:00 AM to 11:00 AM, Gateway Ballroom 102, Moscone Center South, San Francisco, California

The 16th Annual Journal Symposium will examine the implications to anesthesia and intensive care of the growing epidemic of obesity in developed nations, and the increasing prevalence of the metabolic syndrome and type II diabetes. Perioperative risk and diabetes is known to be increased, but the mechanisms responsible are not entirely clear. In many instances, the best management strategies for these conditions are as yet undefined, and important questions remain unanswered. Is metabolic syndrome or obesity alone a marker for increased perioperative risk? What are the best techniques for managing intraoperative and postoperative blood glucose concentrations in patients with insulin resistance? What should be the goal of glycemic management? What are the roles of pharmacologic therapies such as statins, insulin sensitizers, β blockers, and antihypertensives to mitigate risk? What is the role of the anesthesiologist in intervening in the perioperative period to decrease long-term patient risk? Do specific anesthetic techniques provide greater benefit in obese and diabetic patients?

Presentations at the Symposium by our invited lecturers, as well as interactive discussion among authors of the selected scientific posters, will address many of these questions regarding diabetes, obesity, and metabolic syndrome. The Symposium will be facilitated by Judy R. Kersten, M.D., of the Medical College of Wisconsin, Milwaukee, Wisconsin, and David O. Warner, M.D., of the Mayo Clinic, Rochester, Minnesota, present and former Editors of the Journal. The three invited speakers include

- Michael D. Jensen, M.D., Professor of Medicine, Mayo Clinic, Rochester, Minnesota: "The Metabolic Consequences of Obesity"
- Michael J. Joyner, M.D., Professor of Anesthesiology, Mayo Clinic, Rochester, Minnesota: "The Metabolic Syndrome and Cardiovascular Risk"
- Judy R. Kersten, M.D., Professor and Vice-Chair of Anesthesiology, and Professor of Pharmacology and Toxicology, Medical College of Wisconsin, Milwaukee, Wisconsin: "Hyperglycemia and Mechanisms of Increased Cardiovascular Risk"

These lectures will be accompanied by the presentation of eight posters selected for their relevance to the Symposium topic. The text for each abstract can be found on the American Society of Anesthesiologists (ASA) abstract Web site or in the CD-ROM that is included with this issue of the Journal.

"Cardiopulmonary-Bypass Induces Hyperglycemia Mainly in Preoperative Insulin Resistant Patients" by Francesco Donatelli, Patrizia Cavagna, Giovanni Di Dedda, Luca Lorini, Franco Carli. Ospedali Riuniti, Bergamo, Italy. The relationship between intraoperative hyperglycemia and insulin resistance was determined using the Homeostatic Model Assessment in cardiac surgery patients. This tool may improve identification of high risk patients. [A1418]

"Normoglycemia Rather than Insulin Levels Minimizes Gut Barrier Dysfunction in Endotoxemic Rats" by Satoshi Yajima, Hiroshi Morisake, Takashige Yamada, Junzo Takeda. Keio University School of Medicine, Tokyo, Japan. Mucosal permeability and TNFα were measured in hyperglycemic and normoglycemic rats after exposure to lipopolysaccharide. Hyperglycemia may contribute to morbidity during sepsis. [A1419]

"Obesity Is Associated with Increased Morbidity after CABG in Patients with Renal Insufficiency" by Daniel A. Tolpin, Vei-Vei Lee, MacArthur A. Elayda, Wei Pan. Texas Heart Institute, Houston, Texas. Multivariate statistical analysis was performed to identify independent predictors of major morbidity in patients undergoing CABG. Obesity and renal dysfunction may be important comorbid conditions. [A1420]

"Prevalence and Implications of Metabolic Syndrome in the Total Joint Arthroplasty Patient" by Kishor Gandhi, Eugene Viscusi, Eric Schwenk, Luis Pulido, Javad Par-

* Professor and Vice-Chair of Anesthesiology, and Professor of Pharmacology and Toxicology, Department of Anesthesiology, Medical College of Wisconsin, Milwaukee, Wisconsin. † Professor of Anesthesiology, Department of Anesthesiology, Mayo Clinic, Rochester, Minnesota. ‡ Professor of Anesthesiology & Critical Care and Surgery, Director, Stavropoulos Sepsis Research Program, University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania. § President, American Society of Critical Care Anesthesiologists, Critical Health Systems, Inc., Raleigh, North Carolina. ‖ Professor of Clinical Anesthesiology and Obstetrics & Gynecology, Chief, Obstetric Anesthesia, Columbia University Medical Center, New York, New York. # President, Society for Obstetric Anesthesia and Perinatology, Assistant Professor of Anesthesiology, Mayo Clinic, Rochester, Minnesota. ** Editor-in-Chief, ANESTHESIOLOGY, FM James, III Professor of Anesthesiology, Vice Chair for Research, Department of Anesthesiology, Wake Forest University School of Medicine, Winston-Salem, North Carolina.

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vizi. Thomas Jefferson University Hospital, Philadelphia, Pennsylvania. The relationship between the metabolic syndrome and postoperative complications was evaluated in patients undergoing total joint arthroplasty. The presence of the metabolic syndrome may indicate a high risk surgical population. [A1425]

"Transient Hyperglycemia Induces Significant Renal Injury during Ischemia Reperfusion" by Fengyun Xu, Ryutaro Hirose, Behrends Matthias, Liu Tao, Claus U. Niemann. University of California San Francisco, San Francisco, California. Proinflammatory gene expression and apoptosis were measured in diabetic, acutely hyperglycemic or normal rats subjected to renal artery occlusion. Hyperglycemia may enhance ischemic renal injury. [A1421]

"Suboptimal Blood Glucose Control in Critically Ill Patients on Insulin Therapy: Outcome Analysis" by Marc C. Torjman, Kathleen Carey, Jeffrey J. Littman, Michael E. Goldberg. Cooper University Hospital, University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School, Camden, New Jersey. Blood glucose variability was evaluated in ICU patients treated with intensive insulin therapy. Blood glucose variability may be an important independent predictor of morbidity in ICU patients. [A1424]

"Difficult Intubation Rates in Relation to Diabetes, Insulin Dependency, and Obesity" by Luke Y.-J. Wang, Sachin Kheterpal, Valasubramanian Mahadevan, Kevin K. Tremper. University of Michigan, Ann Arbor, Michigan. The relationship between type I or II diabetes, obesity, and difficult intubation was evaluated in surgical patients. Type II, but not type I, diabetes may be associated with difficult intubation in obese patients. [A1422]

"Metabolic Syndrome Increases a Risk for Pulmonary Embolism after Major Orthopedic Surgery" by Boris Mraovic, Jeffery I. Joseph, Brian R. Hipszer, Javad Parvizi, Zvi Grunwald. Thomas Jefferson University, Philadelphia, Pennsylvania. The relationship between the metabolic syndrome and risk of pulmonary embolism was determined using logistic regression analysis in patients undergoing total hip or knee arthroplasty. The risk of pulmonary embolism may be related to the number of components of the metabolic syndrome that are present. [A1423]

SOAP/Journal Abstract Session: Obstetric Anesthesia

Monday, October 15, 2007, 9:00 AM to 11:00 AM, Room 120, Moscone Center North, San Francisco, California

The 4th special research abstract session cosponsored by the Society for Obstetric Anesthesia and Perinatology (SOAP) and ANESTHESIOLOGY will take place in San Francisco, California, at the 2007 meeting of the American Society of Anesthesiologists. Previous sessions in 2003, 2005, and 2006 have highlighted the leading research in obstetric anesthesia by presenting six abstracts from all of the obstetric anesthesia abstracts submitted for the ASA meeting, and this year's session aims to do the same. This year's abstracts feature three human and three animal studies that investigate some of the key questions and clinical issues in obstetric anesthesia today. It is perhaps not surprising that many of the investigators and groups who have presented at the previous three sessions have new work at this one.

The first four studies below involve very different questions about the treatment of labor pain, two in humans and two in a rat model. The most controversial clinical issue related to obstetric anesthesia over the past two decades has been whether or how neuraxial analgesia affects the course and outcome of labor. "Epidurals" have been accused of causing cesarean deliveries, forceps deliveries, longer labors, fever and neonatal sepsis, and all other manner of evil happenings. Two years ago, the group of Cynthia Wong, M.D., at Northwestern University (Chicago, Illinois) published an important article on this subject in the *New England Journal of Medicine* that showed that neuraxial analgesia on request (rather than delayed until a specified cervical dilation) did not result in an increase in the cesarean delivery rate, and in fact was associated with a shorter time to delivery. This year they will present a large (> 800 women) study of nulliparous women undergoing induction, a group at higher risk than for cesarean delivery and long labors. They report similar results in this population, *i.e.*, that early analgesia does not inhibit labor in any definable way. The case for supporting true "analgesia on demand" seems to be getting stronger.

Pharmacogenetics, the study of differences in drug responses based on genetic variation, is receiving more attention in all fields of medicine, including obstetric anesthesia. During the past 2 yr, abstracts from the pharmacogenetics research group of Ruth Landau, M.D., at the University of Geneva (Geneva, Switzerland) have reported that the analgesia effect of intrathecal fentanyl for labor analgesia is significantly affected by the common genetic variant of the μ-opioid receptor genotype at codon 40. This year, Dr. Wong, collaborating with Dr. Landau, will present data examining suggesting that this genotype variant does not affect the *duration* of intrathecal fentanyl analgesia.

One of the limitations to studies of labor pain and possible new or novel analgesic interventions is the lack of any reasonable animal model for this type of pain. Chuanyao Tong, M.D., in Dr. James Eisenach's group at Wake Forest University, has reported previously that mechanical cervical distention in the (nonpregnant) rat evokes many or most of the behavioral and neurochemical characteristics of labor pain, and has used this model to characterize "behaviors" associated with labor pain in

rats. In this report, they studied pregnant rats treated with intrathecal morphine or placebo and demonstrated that the previously identified pain behaviors, which included squashing, licking, and lateral contraction, were dramatically decreased by intrathecal morphine without other changes in behavior. In a separate study from the same group, using the nonpregnant rat/cervical distension model, Baogang Liu, M.D., Ph.D., and colleagues have characterized the electrophysiologic behavior of hypogastric nerve fibers to the cervical distention stimulus. Intriguingly, they noted changes in neural signaling related to the progression of pregnancy. The ability to investigate the details of neural signaling in an animal model of labor may be of significant value for understanding labor pain, and perhaps even for understanding some of the mechanisms of labor itself. The intrathecal morphine study provides evidence that the rat model may be an appropriate one for investigating analgesic techniques or strategies that cannot easily or ethically be tried first in humans.

Pain occurs not just during labor but potentially after delivery as well. There has been recent interest in the development of chronic or persistent pain after surgical procedures, including cesarean delivery. Peter Pan, M.D., of Wake Forest University (Winston-Salem, North Carolina) will present results from a multicenter study conducted in the United States and Europe that looked at factors during the peripartum period that could predict the presence of pain 8 weeks after delivery. Interestingly, there did not seem to be any difference between vaginal and operative delivery patients in the occurrence of a painful state at 8 weeks postpartum, which was approximately 10% in both groups. However, the predictive factors for pain at 8 weeks did differ.

James Reynolds, Ph.D., of Duke University (Durham, North Carolina) has published a series of studies regarding surgery and anesthesia during pregnancy in an instrumented pregnant sheep model, investigating the effect of drugs and techniques (*e.g.*, laparoscopy) on the mother and fetus. This year, Reynolds *et al.* examined the effect of dexmedetomidine infusion (1 μg/kg over 10 min followed by μg/kg per hour) in sheep at mid-gestation. They noted sedation and maternal bradycardia and hypotension, with some alterations in uterine blood flow, but no alterations in fetal acid–base status. This is a necessary, but of course very preliminary, first step toward the evaluation of dexmedetomidine as appropriate pharmacologic agent for use in pregnant women undergoing procedures or surgery during pregnancy, or perhaps as an adjuvant for labor analgesia.

This SOAP/ANESTHESIOLOGY session will consist of oral presentations (10 min) followed by questions and discussions led by a panel of moderators. The specific titles, authors, and abstract numbers of the abstracts discussed above are as follows:

"Assessment of Labor Pain in Rats: An Experimental Behavioral Approach" by Chuanyao Tong, Dawn R. Conklin, Baogang Liu, Douglas G. Ririe, James C. Eisenach. Wake Forest University School of Medicine, Winston-Salem, North Carolina. Intrathecal morphine inhibited behaviors in laboring rats previously associated with painful cervical distension, suggesting that the rat model can be used to investigate drugs and techniques for labor analgesia. [A1202]

"Electrophysiological Changes of Uterine Cervical Mechanosensitive Afferents during Pregnancy" by Baogang Liu, Chuanyao Tong, Dawn R. Conklin, Douglas G. Ririe, James C. Eisenach. Wake Forest University School of Medicine, Winston-Salem, North Carolina. Hypogastric nerve fiber electrophysiologic recordings during mechanical cervical distension in rats revealed pregnancy-related differences that may be related to labor pain. [A1201]

"Maternal and Preterm Fetal Sheep Responses to Dexmedetomidine" by James D. Reynolds, Deborah J. McClaine, Rebecca J. McClaine, William D. White, Paul B. Benni. Duke University Medical Center, Durham, North Carolina. In a chronically instrumented pregnant sheep model, dexmedetomidine infusion resulted in the expected maternal sedation and hemodynamic changes, but fetal acid–base status remained stable. [A1205]

"Predictive Factors for Chronic Pain at 8 Weeks after Vaginal or Cesarean Deliveries" by Peter H. Pan, Richard Smiley, Patricia Lavand'Homme, Timothy Houle, James C. Eisenach. Wake Forest University School of Medicine, Winston-Salem, North Carolina. Approximately 10% of women report pain 8 weeks after cesarean of vaginal delivery. Predictive factors included smoking history, cesarean for dystocia, a history of menstrual pain, and general health status. [A1203]

"The Risk of Cesarean Delivery with Early Neuraxial Analgesia in Nulliparous Induction of Labor" by Cynthia A. Wong, Barbara M. Scavone, John T. Sullivan, Mary Jane Ebarvia, Robert J. McCarthy. Northwestern University Feinberg School of Medicine, Chicago, Illinois. Providing analgesia upon request *versus* waiting until the parturients achieve 4 cm of cervical dilation did not lengthen labor or increase cesarean delivery rate. [A1204]

"μ-Opioid Receptor Genetic Polymorphism and the Duration of Intrathecal Fentanyl Labor Analgesia" by Cynthia A. Wong, Ruth Landau, Jean-Louis Blouin, Robert J. McCarthy. Northwestern University Feinberg School of Medicine, Chicago, Illinois. The A118G polymorphism of the μ-opioid receptor did not influence the duration of intrathecal fentanyl labor analgesia in women in spontaneous labor. [A1206]

This should prove to be an interesting program that highlights some of the best work being done in obstetric anesthesia today.

ASCCA/Journal Abstract Session: Critical Care

Monday, October 15, 2007, 2:00 PM to 4:00 PM, Room 120, Moscone Center North, San Francisco, California

The ASA Annual Meeting will again feature a track devoted to critical care medicine. As part of this minisymposium, the American Society of Critical Care Anesthesiologists (ASCCA) and ANESTHESIOLOGY will jointly sponsor an abstract session. This session will highlight the diverse nature of investigation in critical care, with special emphasis on the work of younger investigators. The findings from eight abstracts will be presented by the primary author. If possible, the investigator's mentor will be given the opportunity to spend several minutes discussing how the presented work relates to the overall scope of our understanding of critical illness. This will be followed by general questions and answers. The text for each abstract can be found on the ASA Abstract Web site or in the CD-ROM that is included with this issue of the Journal. Selected abstracts and presenters are as follows:

"Autologous Transplantation of Endothelial Progenitor Cells Attenuates Acute Lung Injury" by Chen-Fuh Lam, Yen-Chin Liu, Pei-Jung Chang, Yu-Chuan Tsai. National Cheng Kung University Medical College and Hospital, Tainan, Taiwan. Transplantation of pulmonary endothelial progenitor cells resulted in less lung injury and better preservation of vascular function (*i.e.*, smooth muscle relaxation and alveolar-capillary integrity) in animals given oleic acid. [A1208]

"Revised Resuscitation Guidelines: Epinephrine *versus* Epinephrine/Vasopressin in a Pig Model of CPR" by Patrick Meybohm, Erol Cavus, Volker Doerges, Jens Scholz, Berthold Bein. University Hospital Schleswig-Holstein, Kiel, Germany. Administration of epinephrine alternating with vasopressin (compared with epinephrine alone) improved cerebral blood flow and cerebral perfusion pressure, as well as coronary perfusion pressure; however, the overall response in terms of restoration of vital signs was not altered. [A1210]

"*Pseudomonas aeruginosa* Type III Toxin Secretion System on Healthy *versus* Immunocompromised Mice" by Kiyoshi Moriyama, Jeanine P. Wiener-Kronish, Teiji Sawa. University of California San Francisco, San Francisco, California. The presence of type III toxin secretion system (TTSS; expressed by *P. aeruginosa*) increases the toxicity of pseudomonas. Pseudomonas that expressed TTSS were lethal at far lower doses in immunocompromised *versus* normal mice (×15-fold difference); pseudomonas that lacked TTSS were relatively less lethal in immunocompromised *versus* normal mice (×3-fold). Thus, in immunocompromised states, TTSS may be especially pathogenic for *P. aeruginosa* infection. [A1207]

"Tight Glucose Control Reduces Renal Failure and In-hospital Mortality in Cardiac Surgical Patients" by Garmt Croonenborghs, Patrick Lecomte, Bruno Van Vlem, Kristel Van Vaerenberg, Luc Foubert. OLV Hospital Aalst, Aalst, Belgium. The effect of strict intraoperative and postoperative blood glucose control on renal function after cardiac surgery was retrospectively studied. Tight glycemic control was associated with the use of less postoperative dialysis, better indices of renal dysfunction, and a lower hospital mortality. [A1209]

"Inducible Nitric Oxide Synthase Plays an Important Role in Burn Injury–induced Insulin Resistance" by Masao Kaneki, Michiko Sugita, Nobuyuki Shimizu, Kyungho Chang, J. A. Jeevendra Martyn. Massachusetts General Hospital, Charlestown, Massachusetts. Burn injury induced skeletal muscle inducible nitric oxide synthase (iNOS) expression that caused phosphorylation of insulin-receptor substrates. Absence of iNOS reversed these changes, suggesting that in burns, iNOS may be responsible for insulin resistance and could therefore be a therapeutic target for countering insulin resistance in burns. [A1211]

"Exogenous Cytochrome *c* Improves Myocardial Cytochrome Oxidase Activity and Survival in Late Sepsis" by Richard J. Levy, David A. Piel, Clifford S. Deutschman. New York Medical College, Valhalla, New York. Defective oxidative phosphorylation is a feature of sepsis and may be responsible for sepsis-induced myocardial dysfunction. Supplementation with cytochrome *c* restored myocardial cytochrome oxidase capacity and improved survival after sepsis (*i.e.*, cecal ligation and perforation) in mice. [A1213]

"Efficacy of Long-term Sedation and Delirium Duration with Dexmedetomidine in Critically Ill Patients" by Pratik Pandharipande, Daniel Herr, Mervyn Maze, Jennifer Thompson, E. Wesley Ely. Vanderbilt University Medical Center, Nashville, Tennessee. The use of α_2 agonists in intensive care unit patients resulted in better sedation, less coma and delirium, and a trend toward improved survival. [A1214]

"Nitric Oxide Synthase Inhibition Prevents Cardiovascular and Renal Morbidity in Ovine Model of MRSA" by Collette C. Jonkam, Lillian Traber, Perenlei Enkhbaatar, Matthias Lange, Daniel L. Traber. University of Texas Medical Branch, Galveston, Texas. Inhibition of nitric oxide synthase (by L-NAME) in septic sheep was associated with reversal of high cardiac output and low systemic vascular resistance. In addition, low urinary output and accumulation of fluid were lessened, and the plasma levels of nitrates and nitrites were less. [A1212]

5th Annual Celebration of Research

Monday, October 15, 2007, 12:30 PM to 2:00 PM, Gateway Ballroom 102, Moscone Center South, San Francisco, California. Lunch provided!

We would like also to call our readers' attention to the Celebration of Research that will take place on Monday during the ASA Annual Meeting. James C. Eisenach, M.D., Editor-in-Chief of ANESTHESIOLOGY, will serve as the moderator. This year's featured speakers will be the 2007 recipient of the ASA Excellence in Research Award, Debra A. Schwinn, M.D., Chair of the Department of Anesthesiology, University of Washington, Seattle, Washington, and the recipient of the 2007 Presidential Scholar Award, Marcos Francisco Vidal Melo, M.D., Ph.D., Assistant Professor of Anesthesia, Harvard Medical School, Cambridge, Massachusetts. The recipients of the 2007 Residents' Research Awards will also be introduced during the Celebration event. The first prize recipient is Susanne Herroeder, M.D., Department of Anesthesiology, University of Heidelberg, Heidelberg, Germany, for "Systemic Lidocaine Shortens Length of Hospital Stay after Colorectal Surgery" [A720]. The second prize recipient is Minjae Kim, M.D., Department of Anesthesiology, Columbia University Medical Center, New York, New York, for "Isoflurane Protects against Renal Ischemia–Reperfusion Injury *via* Sphingosine Kinase" [A571]. The third prize recipient is Sadeq A. Quraishi, M.D., M.H.A., Department of Anesthesiology, Pennsylvania State University College of Medicine, Hershey, Pennsylvania, for "5 HT3 Antagonists and Cardiac Repolarization Time in Patients Genetically Prone to QTc Prolongation" [A1029].

7th Annual Foundation for Anesthesia Education and Research Honorary Lecture: "Why We Need to Know How Anesthetics Work," Mervyn Maze, M.D., Sir Ivan Magill Professor and Department Chair of Anesthetics, Pain Medicine, and Intensive Care at the Imperial College of Medicine in London; Campus Dean and Honorary Consultant Anesthetist, Chelsea and Westminster National Health Service Foundation Hospital Trust, London, England

Monday, October 15, 2007, 2:00 PM to 3:00 PM, Gateway Ballroom 102, Moscone Center South, San Francisco, California

The Foundation for Anesthesia Education and Research (FAER) will present its 7th Annual FAER Honorary Research Lecture. FAER has created this lectureship to recognize outstanding scholarship by an anesthesiologist in an effort to encourage young anesthesiologists to consider careers in research and teaching. This year's lecturer, Dr. Mervyn Maze, has a long tradition of research contributions to the specialty dating back to the 1970s. His recent work involves studying the mechanism of the anesthetic action of α_2-adrenergic agonists. He was part of a group who were the first to prove in a living organism Franks and Lieb's prediction that species of proteins were the site of action in a series of studies involving pharmacologic and genetic manipulations. Having established the transmembrane signaling pathway involved in the hypnotic action of α_2 agonists, in collaboration with Nick Franks, he demonstrated that the neural substrates for its hypnotic action converge on the endogenous sleep pathway providing a clinical state similar to non–rapid eye movement sleep and is associated with the same physiologic benefits of restoration and repair as are present in natural sleep. This has led to the adoption of α_2 agonists for providing sedation in the setting of the intensive care unit. More recently, after the discovery that xenon is an *N*-methyl-D-aspartate antagonist, Nick Franks, Ph.D., Daqing Ma, M.D., Ph.D., and he have undertaken a series of investigations to establish that xenon is an effective and nontoxic neuroprotectant; these findings led to the preparation for a US Food and Drug Administration filing of an investigational new drug application for xenon's neuroprotective effects.

The 2007 FAER Panel: "Medical Education for the Next Generation of Physicians"

Monday, October 15, 3:00 PM to 5:00 PM, Gateway Ballroom 102–103, Moscone Center South, San Francisco, California

Participants will discuss information on the current and future status of medical education, including medical school, residency, and continuing medical education.

Moderator:

Sean K. Kennedy, M.D., Associate Professor of Anesthesia, University of Pennsylvania; Chief of Anesthesia, Philadelphia Veterans Affairs Medical Center, Philadelphia, Pennsylvania

Panel Members:

"The New Paradigm for Medical Student Education," Stephen Slogoff, M.D., Dean Emeritus, Stritch School of Medicine, Loyola University Chicago, Chicago, Illinois

"Future of Medical Education," Simon Gelman, M.D., Ph.D., Leroy D. Vandam/Benjamin G. Covino Distinguished Professor of Anesthesia, Harvard Medical School; Department of Anesthesiology, Perioperative and Pain Medicine, Brigham and Women's Hospital, Boston, Massachusetts

"Portfolio-based Records: The Next Wave in Graduate Medical Education," M. Christine Stock, M.D., James E. Eckenhoff Professor and Chair, Department of Anes-

thesiology, Feinberg School of Medicine, Northwestern University, Chicago, Illinois

"The Role of Continuing Medical Education in Improving Patient Care," Arnold J. Berry, M.D., Professor of Anesthesiology, Emory University, Atlanta, Georgia

4th Annual Plenary Lecture: "Oxygen," Sten G. E. Lindahl, M.D., Ph.D., Professor of Surgical Sciences, Section of Anesthesia and Intensive Care, Karolinska Institute, Chief of Research and Education, Karolinska University Hospitals, Stockholm, Sweden

Tuesday, October 16, 2007, 11:30 AM to 12:20 PM, Room 134, Moscone Center North, San Francisco, California

Sten G. E. Lindahl, M.D., Ph.D., Professor at the Karolinska Institute and Chief of Research and Education at Karolinska University Hospital in Stockholm, Sweden, will deliver the plenary lecture at the 2007 Annual Meeting in San Francisco. The topic is "Oxygen." In his lecture, Dr. Lindahl will discuss aspects on the appearance of atmospheric oxygen and the time before the invention of oxygenic photosynthesis—still the only known source of oxygen. There also will be thoughts on oxygen sensing and interactions with anesthetic agents as well as on hypoxia and hypoxic-inducible factors. In addition, evolutionary views on pulmonary oxygen uptake with important clinical relevance will be presented. Furthermore, results from work on brown adipose tissue, present in neonates, regarding oxygen consumption, *i.e.*, heat production, and uncoupling of the respiratory chain will lead not only to temperature balance during anesthesia, but also to a disclosure of mechanism—known from before oxygenic photosynthesis—that may be of possible value in modern medicine. Born in Malmö, Sweden, Dr. Lindahl trained at the University of Lund, Lund, Sweden, and interned at Helsingborg General Hospital and Malmö General Hospital, both in Sweden. He is certified as a pediatrician and an anesthesiologist.

Among his many appointments, Dr. Lindahl has served as Professor, Mayo Medical School, Mayo Clinic, Rochester, Minnesota (1988), Academic Chair of the Department of Surgical Sciences, the Karolinska Institute, and Chief of Research, Education and Development at Karolinska Hospital. He has served in his current position since 1990. He has served as an adjunct member of the Nobel Committee for Physiology or Medicine and is an ordinary member of the Board of Trustees of the Nobel Foundation. Dr. Lindahl is also on the International Advisory Board, *Journal of Anesthesia*, Japan. He holds memberships in many medical and scientific organizations. Dr. Lindahl's research interests include ventilation/perfusion matching, prone position, oxygen sensing, and regulation of breathing. He has received funding from the Swedish Medical Research Council, the Swedish Heart-Lung Foundation, and the medical faculty at the Karolinska Institute.

He has published 119 original scientific publications and has had more than 200 abstracts published. Publications also include editorials and review articles, book chapters, and various other publications. He has been invited to present many national and international lectures.

To unwind, Dr. Lindahl enjoys opera and literature. "Outside" interests include backpacking north of the Arctic Circle in the Swedish or Norwegian mountains, jogging, and following his soccer team.

Interested readers should also not overlook the myriad of other scientific-related presentations at this year's Annual Meeting. One such event is the E. A. Rovenstine Memorial Lecture, to be delivered by James E. Cottrell, M.D., Distinguished Professor and Chair, Department of Anesthesiology, State University of New York Health Science Center at Brooklyn, Downstate Medical Center, Brooklyn, New York, on Monday, October 15, 2007, 11:15 AM to 12:20 PM, in Room 134, Moscone Center North. There will also be many outstanding posters presented throughout the 2007 ASA Annual Meeting.