



**Novel  
Approaches  
to  
Understanding  
and  
Managing  
Pain  
Across  
the  
Continuum  
of  
Care**



*"...saving  
hearts  
and brains  
too good  
to die"*

*Peter Safar, M.D.*

**12th Annual  
Safar Symposium**

**May 21-22, 2014**

**PITTSBURGH, PA**

[www.safar.pitt.edu](http://www.safar.pitt.edu)

# 12th Annual Safar Symposium

## May 21, 2014

Location: University Club, Ballroom B – 123 University Place

- 8:00 – 8:30 a.m. Registration and Continental Breakfast
- 8:30 – 11:45 **NOVEL APPROACHES TO UNDERSTANDING AND MANAGING PAIN ACROSS THE CONTINUUM OF CARE**
- Moderators:** **Yan Xu, PhD**  
Professor, Anesthesiology and Structural Biology,  
University of Pittsburgh
- Michael S. Gold, PhD**  
Professor, Anesthesiology; Associate Director, Center for  
Pain Research, University of Pittsburgh
- 8:30 – 8:45 **Opening Comments**  
**Patrick M. Kochanek, MD, MCCM**  
Professor and Vice Chair, Department of Critical Care Medicine;  
Director, Safar Center for Resuscitation Research, University of  
Pittsburgh School of Medicine
- 8:45 – 9:10 **Tony L. Yaksh, PhD**  
Distinguished Professor and Vice Chair for Research, Department  
of Anesthesiology, and Distinguished Professor of Pharmacology,  
University of California, San Diego  
**Topic: “Development of Toxins as Pain Therapeutics”**
- 9:10 – 9:15 Discussion
- 9:15 – 9:40 **Polly Bijur, PhD**  
Professor and Director, Division of Research, Department  
of Emergency Medicine; Professor of Pediatrics, and of  
Epidemiology and Population Health, Albert Einstein College of  
Medicine, Bronx, New York  
**Topic: “Acute Pain Management in the Emergency  
Department”**
- 9:40 – 9:45 Discussion
- 9:45 – 10:10 **Ann I. Scher, PhD**  
Professor of Epidemiology, Department of Preventive Medicine  
and Biometrics, Uniformed Services University of the Health  
Sciences, Bethesda, MD  
**Topic: “Headache and Traumatic Brain Injury”**

10:10 – 10:15	Discussion
10:15 – 10:30	Break
10:30 – 10:55	<p><b>Anthony E. Kline, PhD</b> Associate Professor, Physical Medicine and Rehabilitation, Critical Care Medicine, Psychology, and Center for Neuroscience; Associate Director of Rehabilitation Research, Safar Center for Resuscitation Research, University of Pittsburgh <b>Topic: “Acute and Chronic Effects of Sedation on the Injured Brain”</b></p>
10:55 – 11:00	Discussion
11:00 – 11:25	<p><b>James W. Ibinson, MD, PhD</b> Assistant Professor, Department of Anesthesiology, University of Pittsburgh <b>Topic: “What Functional MRI has Taught Us about Pain Processing”</b></p>
11:25 – 11:30	Discussion
11:30 – 11:45	<p><b>Nancy Caroline Award Presentation and Closing Remarks</b> <b>Patrick M. Kochanek, MD, MCCM</b></p>
11:45 – 12:00	BREAK
12:00 – 1:00	<p>34th Peter and Eva Safar Annual Lectureship in Medical Sciences and Humanities <b>Gerald F. Gebhart, PhD</b> Professor and Director, Center for Pain Research, University of Pittsburgh <b>Topic: “Inside Information–Communications from the Interior”</b></p>
1:00 – 1:45	Reception – Conference Room A, 3rd floor

## The 34th Peter and Eva Safar Annual Lectureship in Medical Sciences and Humanities

Guest Speaker: Gerald F. Gebhart, PhD  
Professor and Director, Center for Pain Research, Department of Anesthesiology, University of Pittsburgh  
Topic: Inside Information – Communications from the Interior



Gerald F. Gebhart, PhD, is professor and director of the Center for Pain Research, Department of Anesthesiology, at the University of Pittsburgh. He is internationally recognized for research contributions in two principal areas of pain science: descending modulation of pain, including initial documentation and subsequent characterization of descending facilitation of pain, and mechanisms of visceral pain and hypersensitivity. Since the mid-1980s, Dr. Gebhart and colleagues have established several models for the study of visceral pain mechanisms and organ hypersensitivity, focusing on peripheral contributions to chronic visceral pain.

Dr. Gebhart earned his PhD from The University of Iowa (Pharmacology) in 1971, after which he studied for two years at the Université de Montréal before beginning his academic career at The University of Iowa in 1973, rising to the rank of professor in 1981. He was head of the Department of Pharmacology from 1996 until his relocation to the University of Pittsburgh in 2006. During his academic career, Dr. Gebhart has mentored more than 60 pre- and post-doctoral trainees, many of whom contributed innovation and vitality to his research program and have gone on to successful, independent research careers.

Dr. Gebhart has published more than 450 peer-reviewed manuscripts, reviews and book chapters. He has served on numerous VA and NIH grant review panels and editorial boards and is the founding editor of *The Journal of Pain*, serving as editor-in-chief for 10 years. His scientific contributions have been recognized by several awards, including a five-year Bristol Myers-Squibb Award for Excellence in Pain Research (1989), a 10-year MERIT Award from the NIH (1993), the Kerr Award from the American Pain Society (1994), the Purdue Pharma Prize for Pain Research (2004), a Janssen Award in Gastroenterology (2005), Founders Award from the American Academy of Pain Medicine (2006), the Patrick D. Wall Award from the British Pain Society (2012) and has been identified by Tomson-ISI as a Highly Cited Researcher (Neuroscience). Dr. Gebhart is a past president of the American Pain Society and of the International Association for the Study of Pain.

# Multidepartmental Trainees' Research Day May 21, 2014

Location: University Club, Ballroom B – 123 University Place

1:00 – 1:45 p.m.	Registration and Poster Setup
2:00 – 2:10	<b>Opening Comments</b> <b>Patrick M. Kochanek, MD, MCCM</b> Professor and Vice Chair, Department of Critical Care Medicine; Director, Safar Center for Resuscitation Research, University of Pittsburgh School of Medicine
2:10 – 3:10	Trainees' Oral Presentations
3:10 – 3:15	Break
3:15 – 4:45	Poster Presentations
4:45 – 5:15	Judges Meeting - Conference Room A, 3rd floor
5:15 – 5:30	<b>Awards Presentation</b>

# 12th Annual Safar Symposium May 22, 2014

Location: WISER, 230 McKee Place, Suite 300

8:00–8:30 a.m.	Registration and Continental Breakfast
8:30 – 11:20	<b>SIMULATION FOR GRADUATE MEDICAL EDUCATION AND ASSESSMENT</b>
<b>Moderator:</b>	<b>Paul E. Phrampus, MD</b> Director, Winter Institute for Simulation, Education and Research (WISER), University of Pittsburgh; Associate Professor of Emergency Medicine and Anesthesiology, University of Pittsburgh School of Medicine
8:30 – 8:45	<b>Opening Comments</b> <b>Paul E. Phrampus, MD</b> Director, WISER, University of Pittsburgh, Associate Professor of Emergency Medicine and Anesthesiology, University of Pittsburgh School of Medicine
8:45 – 9:10	<b>Christine Park, MD</b> Director, Simulation Technology and Immersive Learning, Center for Education in Medicine; Associate Professor of Anesthesiology, Northwestern University Feinberg School of Medicine <b>Topic: "Training-Induced Bias: Beauty and the Beast"</b>
9:10 – 9:20	Discussion
9:20 – 9:45	<b>Charles N. Pozner, MD</b> Medical Director, Neil and Elise Wallace STRATUS Center for Medical Simulation, Brigham and Women's Hospital Associate Professor of Emergency Medicine, Harvard Medical School <b>Topic: "Simulation as a Research Tool: The Surgical Crisis Checklist"</b>
9:45 – 9:55	Discussion
9:55 – 10:20	<b>James G. Cain, MD, MBA, FAAP</b> Chair, Clinical Competency Committee, UPMC Anesthesiology Residency; Visiting Associate Professor, University of Pittsburgh; Director, Perioperative Medical Services, Children's Hospital of Pittsburgh of UPMC; Director, Transplant Anesthesiology, Children's Hospital of Pittsburgh of UPMC; Director, Trauma Anesthesiology, Children's Hospital of Pittsburgh of UPMC <b>Topic: "Incorporating Simulation into the ACGME's Milestones Evaluation Process"</b>

10:20 – 10:30

Discussion

10:30 – 10:55

**Joseph S. Goode Jr., MSN, CRNA**

Nurse Anesthesia Program Faculty, University of Pittsburgh School of Nursing; Staff Nurse Anesthetist, UPMC Presbyterian Hospital

**Topic: “You’re Sure to get Somewhere if You Only Walk Long Enough: The Changing Role of Debriefing in Simulation Education ”**

10:55 – 11:05

Discussion

11:05 – 11:20

Concluding Comments

**Paul E. Phrampus, MD**

**Patrick M. Kochanek, MD, MCCM**

# 12th Annual Safar Symposium

## May 21, 2014

### NOVEL APPROACHES TO UNDERSTANDING AND MANAGING PAIN ACROSS THE CONTINUUM OF CARE

Location: University Club, Ballroom B – 123 University Place

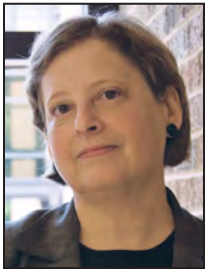


**Dr. Tony L. Yaksh** obtained his PhD degree from Purdue University (1971). He served in the U.S. Army in the Biomedical Laboratory at Edgewood Arsenal, Md., (1971–73), was a research scientist in the School of Pharmacy, University of Wisconsin (1973–76) and an associate research scientist in the anatomy department at University College London (1976–77). He worked at the Mayo Clinic, Rochester, Minn., from 1977 to 1988, in pharmacology and neurosurgery where he rose to the rank of Professor. Dr. Yaksh joined UCSD in 1988 as professor and vice chairman for research in the Department of Anesthesiology and professor of pharmacology. He became a distinguished professor in the School of Medicine in 2004. The focus of Dr. Yaksh’s research has been primarily in the area of the physiology and pharmacology of pain processing. He is an expert on issues related to spinal drug kinetics and the evaluation of the safety of spinally delivered agents. He has published more than 770 papers and edited 6 texts. He has been a mentor to more than 100 postdocs and students. He has been funded consistently by the NIH since 1977 and twice has been a Javitz award recipient. Dr. Yaksh is a member of numerous professional societies in his field, and serves on the editorial board of several journals. He has received several honors and awards, including the FWL Kerr Memorial Award from the American Pain Society, the Seldon Memorial Lecturer Award from the International Anesthesia Research Society, the American Society of Anesthesiologists Award for Excellence in Research, the Torsten Gordh Lecturer Award from the Swedish Society of Medicine, and the Bonica Award from the International Association for the Study of Pain.



**Dr. Polly Bijur** is a professor of emergency medicine, pediatrics, epidemiology, and population health at the Albert Einstein College of Medicine. She currently serves as director of the Division of Research in Emergency Medicine. She trained as a biostatistician and epidemiologist at Columbia University. Her early work in the Department of Pediatrics focused on the epidemiology of children’s injuries and adolescent sports injuries. She analyzed nationally representative American and British data sets to elucidate

the relationship between child and parental behavior, stress, coping and pediatric injuries. In 1999, she joined the Department of Emergency Medicine. Her work has centered on clinical trials of treatment for acute pain, migraines, and low back pain as well as methodological studies of pain measurement. Currently, she is conducting an NIH-funded study of the application of patient-controlled analgesia in the emergency department. She is a statistical editor of the *Academic Emergency Medicine Journal*, and reviews for a variety of other journals. She has served on several NIH study sections and received numerous NIH grants.



**Dr. Ann Scher** received her PhD in epidemiology from the Johns Hopkins School of Public Health in 2001 following a career in private industry as a computer scientist. She has been on the faculty of the Uniformed Services University since 2003 where she is professor of epidemiology and where she teaches epidemiology methods to the University's public health students. Dr Scher is also an adjunct investigator at the National Institute on Aging Laboratory

of Epidemiology and Population Science. Her primary research interest has been the epidemiology of headache disorders. Her current research portfolio includes studies related to the late-life neurological consequences of migraine, the classification and epidemiology of posttraumatic headaches, and prognostic biomarkers for posttraumatic headaches and posttraumatic seizures in military populations. Her research has been supported by the DoD, private foundations including the Migraine Research Foundation, the American Headache Society, and the Migraine Trust; and industry. She is an associate editor for *Cephalalgia and Pain Medicine* and is a fellow of the American Headache Society and American College of Epidemiology



**Dr. Anthony E. Kline** received his master's and doctoral degrees in psychology/behavioral neuroscience from the University of Colorado at Boulder in 1996 and 1998, respectively. He is currently a tenured associate professor in the Department of Physical Medicine and Rehabilitation and associate director of Rehabilitation Research at the Safar Center for Resuscitation Research at the University of Pittsburgh. Dr. Kline also holds appointments in Psychology

and critical care medicine and is a member of the Center for Neuroscience (CNUP) and Center for the Neural Basis of Cognition (CNBC) training faculty, as well as co-director of the CNUP summer undergraduate research program. He is also an International Behavioral Neuroscience Society Fellow and a University of Pittsburgh faculty honoree (2010 and 2014). Dr. Kline is a section editor (Cognition and Behaviour) for *BMC Neuroscience* and is an editorial board member for the

*Journal of Neurotrauma and Restorative Neurology and Neuroscience*. Dr. Kline is also a member of the Society for Neuroscience Professional Development Committee and its Diversity in Neuroscience Subcommittee.

Dr. Kline's research interests include neurobehavioral recovery and learning/memory after experimental traumatic brain injury (TBI). Therapeutic strategies that include pharmacotherapy and environmental enrichment (EE) are utilized alone or in combination in an attempt to restore function and/or attenuate TBI-induced deficits. Another interest is in the evaluation of pharmacological agents that may hinder the recovery process after TBI (e.g., antipsychotics/depressants). NIH-funded therapeutic approaches in the laboratory include evaluation of dopaminergic and 5-HT<sub>1A</sub> receptor agonists, acetylcholinesterase inhibitors, antipsychotics, and EE. The long-term goals of the laboratory are to develop therapies that facilitate functional recovery after human TBI and to elucidate potential mechanisms for the observed effects. Additionally, the evaluation of therapies shown to benefit outcome in adult models of TBI are being investigated in pediatric models.



**Dr. James W. Ibinson** earned his combined MD and PhD degrees from The Ohio State University, specializing in biomedical engineering. He then completed his residency, including serving as chief resident his final year and a T-32 research fellowship at the University of Pittsburgh. He continued there as a faculty member, where he is now devoting a majority of this time to teaching and research.

The chief focus of Dr. Ibinson's research is functional magnetic resonance imaging (fMRI) of pain processing, specifically expanding the knowledge in regards to chronic pain's effects on cerebral function. With the help of the Magnetic Resonance Research Center, he is working to apply several novel scanning techniques toward chronic pain, including Arterial Spin Labeling, Magnetic Resonance Spectroscopy, and functional connectivity imaging. These will overcome the current need for fMRI experimental designs that focus on acute brain metabolism changes, thus allowing the areas of the brain altered by chronic pain to be clearly identified.

# 12th Annual Safar Symposium

## May 22, 2014

### Simulation for Graduate Medical Education and Assessment

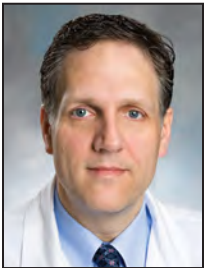
Location: WISER, 230 McKee Place, Suite 300



**Dr. Christine Park** is the director of the Simulation Technology and Immersive Learning Center and an associate professor of anesthesiology at Northwestern University.

Dr. Park conducts research on the acquisition of skills and cognitive bias in trainees and is the program director for Simulation in Maintenance of Certification in Anesthesiology. She serves on the board of directors with the Society of Simulation in Healthcare, the editorial board for the

Simulation Education Committee of the American Society of Anesthesiologists, the editorial board for the *Journal of Simulation in Healthcare*, and is the editor for special projects with OpenAnesthesia.org. Dr. Park is also the chair of the Simulation Committee of the Society for Education in Anesthesia.



**Dr. Charles Pozner** is the medical director of the Neil and Elise Wallace STRATUS Center for Medical Simulation at Brigham and Women's Hospital (BWH) and an associate professor of Medicine in the Division of Emergency Medicine at Harvard Medical School. He attended Tufts University School of Medicine and completed residencies in internal medicine at Beth Israel Hospital in Boston and in emergency medicine at UCLA Medical Center in Los Angeles. Board-

certified in both internal medicine and emergency medicine, Dr. Pozner became founding faculty member of the Department of Emergency Medicine at Beth Israel Deaconess Medical Center in Boston, serving as the director of prehospital care.

Since joining the faculty of BWH in 2002, Dr. Pozner has been influential in the development of simulation at BWH. In 2004, he led the development and opening of the STRATUS Center for Medical Simulation, a single-discipline simulation center funded by the Department of Emergency Medicine. His inclusive approach led to the integration of simulation into the curricula of other BWH departments as well as the introduction of simulation as a tool for research, patient safety, and process improvement. In June 2008, funded collaboratively by BWH and the Brigham and Women's Physicians Organization, Dr. Pozner led the expansion of

STRATUS in both size and scope. Today, thirteen departments use STRATUS as a recurring element of their training programs, with more than 4,000 user contact hours annually. Dr. Pozner has been crucial in the introduction of inter-professional team training to BWH. Dr. Pozner has been an invited lecturer on simulation locally, nationally, and internationally. Dr. Pozner has led the development of simulation centers in Kazakhstan and India. He is currently working with health authorities of Argentina and Russia to expand the use of medical simulation in those countries. In collaboration with the Harvard Graduate School of Education, Dr. Pozner created a fellowship in medical simulation. Since opening in 2004, there have been more than 50 peer-reviewed simulation-related articles published as a result of research conducted at STRATUS.

Dr. Pozner holds numerous appointments at the regional and national level. These include regional medical director of the Metropolitan Boston EMS Council, regional faculty member for the American Heart Association, and medical director for the City of Newton EMS System. Dr. Pozner's national appointments include a position on the board of directors of the Simulation Academy of the Society of Academic Emergency Medicine, past-councilor for the EMS section of the American College of Emergency Physicians, and past president of the Founders Affiliate of the American Heart Association (NJ, NY, MA, RI, CT, NH, VT, ME). Dr. Pozner was the recipient of the Clinical Innovator of the Year award at Brigham and Women's Hospital in 2008.



**Dr. James G. Cain** is a husband, father, and physician. His interests are health care education, administration and advocacy. He has held leadership positions from departmental through international and authored numerous chapters and monographs. As chair of the Clinical Competency Committee, he led the development of the UPMC Anesthesiology Milestones Residency Evaluation Program over the past 18 months. Dr. Cain is a graduate

of the University of Pittsburgh's School of Medicine and Katz School of Business. He completed his internal medicine internship at Yale University, anesthesiology residency and critical care fellowship at Massachusetts General Hospital, and adult and pediatric cardiac fellowship at Massachusetts General Hospital and Boston Children's Hospital. He is board-certified in anesthesiology, pediatric anesthesiology, and critical care medicine.



**Joseph S. Goode Jr., MSN, CRNA** has been involved in the health care simulation field since 2000 and in clinical and laboratory research since 1979. He is a member of the faculty of the University of Pittsburgh School of Nursing, Nurse Anesthesia Program and a staff CRNA at the UPMC Presbyterian Hospital. He holds BSN and MSN degrees from the University of Pittsburgh and a BA from the University of Michigan. His current primary areas of interest include the use of hierarchical task analysis in health care simulation educational methodology, the use of simulation to improve patient safety, and the clinical applications of high-frequency jet ventilation. Mr. Goode led a team that developed a unique HFJV-based anesthetic management protocol for radiofrequency ablation of atrial fibrillation. This technique has become the standard management practice for the most of the UPMC Health System. Mr. Goode has presented or been published nationally and internationally in areas as diverse as anesthesia, artificial organ development, emergency medicine, health care simulation, and the history of anesthesia and simulation. He is also interested in the history and philosophy of science and medicine, particularly issues related to simulation and man-machine interactions. Mr. Goode is currently pursuing his doctoral degree in nursing at the University of Pittsburgh.

## Notes



# 12th ANNUAL SAFAR SYMPOSIUM

*"...saving hearts and brains too good to die"*

Peter Safar, M.D.

## ACKNOWLEDGEMENTS

The Laerdal Foundation  
USAA  
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Department of Anesthesiology  
Department of Critical Care Medicine  
Department of Emergency Medicine  
Department of Physical Medicine & Rehabilitation  
University of Pittsburgh School of Medicine / UPMC

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