



ACADEMY OF SURGICAL RESEARCH

19th Annual Meeting

October 2 - 4, 2003

Radisson Hotel & Suites
St. Louis, Missouri

About the Academy:

In 1982, forward thinking scientist concerned about incomplete communication across the disciplines of surgical investigation founded the Academy of Surgical Research. The society fosters interdisciplinary transfer of ideas and theories by offering a common platform through which the reporting of valid surgical research efforts is a reality.

The Academy of Surgical Research was founded to:

- Encourage, foster, promote and advance professional and academic standards, education, research and development in the arts and sciences of experimental surgery.
- Promote, initiate, support, and accomplish academic and practical educational programs, cooperative research, and development in experimental surgery in the public interest.
- Promote humane use and treatment of experimental animals and prevent their use when other means can bring about the same scientific results.
- Cooperate with medial organizations, other scientific organizations, governmental agencies, and other interested parties in establishing, reviewing, and evaluating ethics, theories, practices and research and promotion of the product of surgical research for clinical application.
- Encourage the advancement of the field of surgery in all aspects, including research, education and critical promotion of research products for clinical applications.

Academy of Surgical Research
7500 Flying Cloud Drive
Eden Prairie, MN 55344
952.253.6240 telephone
952.835.4774 fax
www.surgicalresearch.org

19th Annual Academy of Surgical Research Meeting

St. Louis Radisson Hotel • St. Louis, MO • October 2nd - October 4th, 2003

Thursday, October 2nd

- 10:00 - 6:00 Registration - *Salon Hallway*
1:00 - 5:00 SRS Exam - *Room 306*
1:00 - 5:00 Board of Directors Meeting - *Room 315*
1:00 - 5:00 Exhibitor set-up - *Salon GH*
6:00 - 7:30 Exhibits Grand Opening and Welcome Reception with Markowitz Awardee Lecture and Presentation of Jacob Markowitz Award to Dr. M. Michael Swindle
Salons FGH

Friday, October 3

- 7:00 - 5:00 Registration - *Salon Hallway*
7:00 - 8:00 Exhibits open with continental breakfast - *Salons FGH*
8:00 - 8:10 Opening of 19th Annual Meeting of ASR: Welcome and Scientific Paper Presentations - *Salons BC*
"Surgical Techniques and Models - I"
8:10 - 8:30 Technique and Preliminary Results from Plating Rat Femoral Shaft Osteotomies. Matthew Graves, Joseph Conflitti, George Russell, Michelle Tucci and Hamed Benghuzzi
8:30 - 8:50 Early Results after ORIF of Bicondylar Tibial Plateau Fractures: Comparison of an Academic Center and A Private Practice Center. Joseph M. Conflitti, Cliff Jones and George Russell
8:50 - 9:10 The Use of Implantable Pumps to Conduct Toxicity Studies Involving Continuous Intracranial Infusion to Beagle Dogs. H. V. Mendenhall and Alan LaRoche
9:10 - 9:30 The Effect of Sodium Hyaluronate and Carboxymethylcellulose (Septrafilm®) on Flexor Tendon Wound Healing. Nelson L. Jenkins, MD, Curtis E. Bower, Anne Conquest, David Maziarz, You Su Sun, William Wooden, William Meadows, Richard Zeri, L. Wiley Nifong and W. Randolph Chitwood, Jr.
9:30 - 9:50 Break and Visit the Exhibitors - Salons FGH
9:50 - 10:10 Model Development for CSF Collection in the Dog: Lessons Learned. Steven M. Kuhlman, Matthew Flegal and Donna Waggoner
10:10 - 10:30 Advantages to Abdominal Implantation of DSI Transmitters with Internal Iliac Placement of the Pressure Transducer. Randall Pielemeier, Rhonda Pung and Tracie Rindfield
10:30 - 10:50 Comparisons of Rat Femoral Artery Anastomoses Using Either the daVinci™ Surgical Robotic System or Standard Microscopic Techniques. Nelson L. Jenkins, MD, Curtis E. Bower, Clifton Reade, William Meadows, Richard Zeri, William Wooden, You Su Sun and L. Wiley Nifong

- 10:50 - 11:10 Break and Visit the Exhibitors - Salons FGH
11:10 - 12:00 Douglas M. Cromeens Memorial Keynote Address. "Making a Difference: Dr. Douglas M. Cromeens, Veterinary Surgeon" Dr. Kenneth Gray, Director, Veterinary Medicine and Surgery, University of Texas M.D. Anderson Cancer Center, Houston, TX *Salons BC*
12:00 - 1:30 Exhibits Open with Lunch Sandwich Bar - Salons FGH
1:30 - 4:30 Wet Lab for Pre-registered Participants: "Rodent Surgical Techniques" at the Washington University Animal Facilities. Transportation provided.

and

- Special Topics Presentation: "Anesthesia and Analgesia in the Experimental Surgery Arena" Dr. Frank Golder, Diplomate ACVA School of Veterinary Medicine, University of Wisconsin *Salons BC*
6:00 - 6:45 Social Time and Poster Presentations and Judging - *Salons BC*

Poster Titles and Authors

Sustained Release of Statin by Means of Tricalcium Phosphate Lysine Delivery System and the Effect on Reproductive Hormones. Felix Adah, Hamed Benghuzzi, Michelle Tucci, George Russell, Audrey Tsao and Barry England

The Distinction of Estrus Cellular Patterns Upon Exposure to Estrogen and Progesterone Alone or in Combination Using Diff Quik or PAP Staining Methods. Zelma Cason, Michelle Tucci and Hamed Benghuzzi

Biomechanical Study to Compare a New Intramedullary Pin with Current Methods of Diaphyseal Fracture Fixation. C. A. Goode, J. F. Williams, I. Griggs and G. A. Edwards

Synergistic Role of Vitamins C and E on the Proliferation and Viability of A549 Cells Exposed to Cortisol. Michelle Tucci and Hamed Benghuzzi

The Role of Steroids on the Viability of RAW Cells in Culture. J. Brewer, A. Fletcher, F. Wilson, M. Tucci and H. Benghuzzi

The Role of Androstenedione and Dihydrotestosterone on Isolated Vascular Smooth Muscle and Endothelial Cells in Culture. Hamed Benghuzzi

Ovariectomy Results in Structural Changes in the Kidney of Adult Female Rats Which Can be Corrected by Sustained Administration of Diosgenin. Adel Mohamed, Hamed Benghuzzi and Michelle Tucci

The Design and Construction of 3 Surgery Suites Over 12 Years: The Process, The Results, What We Did Right, What We Did Wrong.

Randall Pielemeier, Rhonda Pung, Allan Manus, Mark Johnson, Tracie Rindfield and Wayne Petto

Effects of Medetomidine/Ketamine and Thiobutabarbital on Selected Blood Gas Parameters in Anesthetized Rats. Teresa L. Wright, Glenn Smits and H. V. Mendenhall

Evaluation of Pre-operative Warming of the Patient as a Method to Maintain Normothermia During Surgery. Donna J. Waggoner, Matthew Flegal and Steven Kuhlman

6:45 - 9:00 Awards Buffet Dinner and Presentation of the Awards - Salons BC

Andreas Von Recum Award: Douglas M. Cromeens, DVM

C.W. Hall Award: *"The Effect of a Broad-Spectrum Matrix Metalloproteinase Inhibitor on Characteristics of Wound Healing"*. Scott A. Klein, MD, PhD, Gary L. Anderson, PhD, Amy B. Kennedy, BA and Sheldon J. Bond, MD

Sauer Award: To be determined based on highest test score for the SRS

Saturday, October 4

8:00 - 12:00 Registration - Salon Hallway

8:30 - 11:30 Wet Lab for Pre-registered Participants: Section 1: *Acute Trauma and Post-operative Emergency Surgical Procedures.* Section 2: *Large Animal Telemetry Methods and Techniques.* Washington University Animal Facilities. Transportation provided.

and

Scientific Paper Presentations

"Molecular Biology and Basic Science Aspects of Surgical Research"
Salons BC

8:30 - 8:50 **Thyrotropin Releasing Hormone (TRH) Potentiates the Metabolic Effect of Norepinephrine (NE) in Warm-acclimated Lean and Obese Rats.** Ateegh Al-Arabi and J. F. Andrews

8:50 - 9:10 **Identifying the Role of Proteoglycans in Flexor Tenosynovium Obtained During Carpal Tunnel Revision Surgery.** Michelle Tucci, Adel Mohamed and Alan Freeland

9:10 - 9:30 **Localization of CD-4 and CD-14 in Fibrous Tissue Capsules Surrounding Steroid Loaded TCP Delivery System.** Kenneth R. Butler, Jr and Hamed Benghuzzi

9:30 - 9:50 **Perivascular Inflammatory Cell Infiltrate is a Predictor of the Magnitude of Encephalomyelitis.** Adel Mohamed, H. Tarhuni, Hamed Benghuzzi and Michelle Tucci

9:50 - 10:10 Break

10:10 - 10:30 **Long Term Histologic Evaluation of the Degradation and Resorption of a Protein-Hydrogel in a Rat Model.** Josef Hadeed, MD, Michelle M. DeSouza, Charles Williams, Jean Luc V Tran, Stephen Lenz, Steven Marra, Anthony DelRossi and Charles Hewitt

10:30 - 10:50 **The Relationship of INOS and PAF in the Pathophysiology of Myocardial Ischemia Reperfusion Injury.** H. Lara-Guerra, R. Kaderabek, D. W. Kim, A. Taher, R. J. Finley and A. K. Qayumi

10:50 - 11:10 **I-FABP in Preserved Rat Intestinal Grafts.** R. E. Sonnino, R. S. Cross and O. Tawfik

11:10 - 11:30 **Nicotine Induced Augmentation of TNF-A Expression in Two Human Endothelial Cell Lines in vitro.** Charles P. Williams, Josef Hadeed, MD, Michelle DeSouza, Gregory Albaugh, Louise Strande, Charles Hewitt and James Alexander

11:30 - 11:50 **ZnCAP Delivery System: The Role of IM, SC and IP Surgical Implantation on Fertility Regulation.** Hamed Benghuzzi, Michelle Tucci and Aaron Puckett

11:50 - 12:00 Break

12:00 - 1:00 Annual ASR Business Meeting and Luncheon - Salon FGH

1:00 Meeting Resumes with Scientific Paper Presentations - Salons BC

"Surgical Techniques and Models - II"

1:10 - 1:30 **Development of a Sheep Model to Examine Mechanical Remodeling in Atrial Fibrillation.** Glenn A. Edwards, Prash Sanders and Jonathan Kalman

1:30 - 1:50 **A Study of Intra-Coronary Cell Delivery in a Porcine Model of Myocardial Infarction.** Leonard A. Trudell, R. Fogle, T. Lodie, C. He, G. Molnar, R. Tubo, B. Wentworth and M. O'Callaghan

1:50 - 2:10 **Implantation of the Respiratory Telemetry Device in Beagle Dogs.** Darcy Gagne, H. V. Mendenhall, Stephen Wilson and Mark Cunningham

2:10 - 2:30 **A Comparison of the Achilles Tendon Segmental Resection Model and the Patellar Tendon Window Defect Model for the Study of Tendon Healing.** C. A. Burns, P. M. Saluan, G. O. Njus, R. A. Vinay, W. E. Horton Jr., M. Evancho-Chapman, N. Awas-Haller, D. Arends, J. A. Beach, L. A. Define, J. Killius and A. Hilger

2:30 - 2:50 Break

2:50 - 3:10 **Development of an Ovine Model to Evaluate the in vivo Performance of a Rotary Left Ventricular Assist Device.** Glenn A. Edwards, Anita van der Meer, Natalie James, John Begg, Donald Esmore, Frank Rosenfeldt, Mark Buckland and John Woodward

3:10 - 3:30 **Challenging Alexis Carrel: A Study in Alternative Microvascular Techniques.** A. J. Avides, S. Theodorou, M. Sekosen, J. Ahuja and S. Ramasastry

3:30 - 3:50 **Sternotomy as a Surgical Approach for Studies Requiring a Second Thoracotomy in Dogs.** H. V. Mendenhall, Mark Cunningham and Robert Keller

3:50 - 4:00 Concluding Remarks and Official Closing of the 19th Annual Meeting

4:15 - 6:00 Post-Conference Board of Directors Meeting - Concierge Lounge

Exhibition

Enhance your conference educational and networking opportunities by visiting the industry's premier product and service providers in the Exhibition Hall.

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Exhibit Hours

Thursday, October 2, 2003

Grand Opening: 6pm - 7:30pm

Friday, October 3, 2003

Breakfast: 7am - 8:00am

Break: 9:30am - 9:50am

Break: 10:50am - 11:10am

Lunch: 12:00pm - 1:30pm

ASR Corporate Partner

The Academy expresses its appreciation to the following corporate partner for its support of ASR in 2003:

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Participating ASR Members and Other
Teaching Faculty

CEU Credit

Surgical Research Specialists (SRS) can earn 1 1/2 CEU credits per hour of lecture attendance at the 19th Annual Meeting. CEU Report Forms will be available at the registration desk or may be obtained by contacting the ASR office at 952.253.6240.

Program Goals

At the conclusion of the program, the participants will be able to discuss:

- Proposed and current research efforts in the arena of experimental cardiac, vascular, transplantation, orthopedic and minimally invasive surgery;
- The advantages of required certification of research specialists working in the surgical arena;
- New and updated methods and materials used in human and clinical surgical investigation;
- New procedures that will enhance their own fields of scientific research.

Program Committee

Stephen Vore, DVM - East Carolina University
Hamed Benghuzzi, PhD - University MS Medical Center
Steve Kuhlman - Pfizer Incorporated
Jim Manke, CAE - Association Solutions
Michael Talcott - Washington University

Registration Hours

Thursday, October 2	10am - 6pm
Friday, October 3	7am - 5pm
Saturday, October 4	8am - 12 noon