



Academy of Surgical Research Newsletter

Summer 2009 Issue

PRESIDENT'S MESSAGE

Hello ASR members

I would like to personally welcome our new members. Let me begin by introducing myself, Kim Bayer, president 2008-2009 of ASR. I have been a member of ASR since 1994. In 1997 I became SRS certified and since have been part of the certification committee. I was elected to the Board of Directors in 2000 and have held several different positions.

This is the first semi-annual e-mail update that will be sent to all members with information on your ASR. Each newsletter will include "Surgical Savvy" section for our technical members.

The ASR has grown to over 250 members over the last 10 years with your help in enticing your coworkers to join and the addition of the three (3) new certification levels.

We have agreed to an affiliation agreement between the Veterinary Bioscience Institute and your ASR. The Institute provides a library of materials for use by professionals and students in the field of veterinary and bioscience studies.

Members of ASR have been working on papers related to surgical education which will appear in the Journal shortly. The first paper is a surgical training guideline; the second is on rodent anesthesia. If you would like to be involved in the writing of the surgical education papers, please contact the ASR office.

Everyone is feeling the pinch in these challenging economic times with cutbacks and lay offs. The Board realizes the economy is affecting everyone and is working to maintain or cut costs where possible. The Board is planning for the future including lower cost sites for the annual meetings.

Being actively involved in your ASR allows you to interact with professionals of various backgrounds. My personal involvement in ASR since 1994 has expanded my professional knowledge through networking and continued education. Let me encourage you to do the same.

CERTIFICATION EXAMS

The Academy of Surgical Research offers three levels of professional certification: Surgical Research Specialist (SRS), Surgical Research Anesthetist (SRA) and Surgical Research Technician (SRT). On September 24 in New Orleans, during the Annual Meeting of the Academy, 43 candidates will take the various exams – 18 have qualified to sit for the SRS exam, 15 for the SRA exam and 10 for the SRT exam.

The SRS certification program began in 1990. The other two levels were added in 2006. Over 200 individuals have achieved certification. We believe that by certification (examination), an individual can acquire both a theoretical and practical knowledge of surgical technology. Candidates for the certification are required to maintain an extensive case log and narratives. In addition, they must validate their knowledge by passing a comprehensive exam.

For candidates, the certification demonstrates official status that clearly separates them from their peers. The certification process broadens and deepens their knowledge base that provides them better training to execute surgical protocols.

Certification provides strong evidence to employers, colleagues in the field and the general public that certified SRS, SRA and SRT designees meet national standards. Good luck to the 43 candidates on their exams this September.

Academy of Surgical Research 25th Annual Meeting

September 24-26, 2009 – New Orleans

Hotel Monteleone

PROGRAM HIGHLIGHTS

Featured Speakers:

- Gus D. Cipolla D.V.M. – Senior Fellow Boston Scientific, Presenting on Catheter Based Therapies and Research Techniques
- Paul Flecknell D.V.M. – Presenting on determination of appropriate drug doses for various species and participating in a post operative care round table.
- L. Layne Norlund D.V.M. – Presenting on current orthopedic research.
- Robert Harten Ph.D. - Presenting on infected orthopedic implant models.
- Heather Ramsay Ph.D. - Presenting on rodent orthopedic models.

Other Planned Topics:

- Complications of GLP Documentation in Surgery Studies,
- On-pump cardiac bypass research techniques,
- Post operative Care Roundtable

Wet lab Details:

\$200.00 Wet Lab #1 Thursday, Sept 24, 1-5 PM (Limit 15) **“Rat Anatomy”** *The “Rat Anatomy” lab is a hands on general overview of rodent anatomy from head to tail. Learn surgical approaches to thoracic, abdominal and skeletal anatomy. This lab is useful as an introduction to basic anatomy or as a review for the more experienced.*

\$250.00 Wet Lab #2 Thursday, Sept 24, 1-5 PM (Limit 15) **“Telemetry Techniques for Small Laboratory Animals: Rats”** *Telemetry is commonly used to monitor ECG and blood pressure parameters for cardiovascular safety and early development efficacy studies. Experienced surgeons from DSI will guide participants through hands on implantation and handling of Data Science Telemetry devices in rats.*

\$250.00 Wet Lab #3 Thursday, Sept 24, 1-5 PM (Limit 10) **“Stereotaxic Surgery in Rats”** *Stereotaxic brain surgery in rodents is common in administration of a variety of neuroactive compounds and stem cells aimed at treating diseases such as Parkinson's, stroke, and Alzheimer's. Precise reproducible administration of these compounds and cells to specific parts of the brain is achieved by the use of stereotaxic instruments and an atlas of the rodent brain. Participants will receive hands on training by Stoelting in the use of these tools to achieve precise doses to specific parts of the brain.*

\$350.00 Wet Lab #4 Saturday, Sept 26, 8-12 AM 4 students, Saturday Sept 26 1-5 PM 4 students (Limit 8) **“Catheter Based Therapies and Research Techniques in Swine”** *The exploding field of catheter based therapies for heart disease, stroke, aneurysms, valve replacement, atrial fibrillation and the like have caused an increased demand for technical staff skilled in techniques for preclinical development of these devices. Gus D. Cipolla D.V.M., Senior Fellow at Boston Scientific will guide students through basic arterial and venous procedures in swine.*

\$350.00 Wet Lab #5 Saturday, Sept 26, 8-12 AM (Limit 9) **“Laparoscopic Surgery in Swine”** *Lecture, Simulators and Wet Lab Minimally invasive surgical techniques in research become more common every year. These techniques allow for multiple biopsies, reduced surgical stress and reduced recovery time. Students will be instructed in hands on laparoscopic techniques in swine.*

\$350.00 Wet Lab #6 Saturday, Sept. 26, 1-5 PM (Limit 6) **“DSI LVP Epicardial ECG in Gottingen Pigs”** *Motion artifact in the ECG tracings collected on large animals can be significantly reduced by placing the leads epicardially. In this lab, students will not only learn how placement of the leads within the chest affects ECG morphology, but also be instructed in techniques for performing left ventricular placement of pressure catheters. Training will be performed in Gottingen pigs; however, can easily be translated into dogs or primates.*

\$50.00 Tour #7 Thursday, Sept 24, 8-12 AM (Limit 10) **“Tour of Tulane Primate Center”** *A guided tour of the Tulane Primate center.*

“This course has been approved for 30.5 hours of continuing education credit in jurisdictions which recognize AAVSB RACE approval; however participants should be aware that some boards have limitations on the number of hours accepted in certain categories and/or restrictions on certain methods of delivery of continuing education.

10 MUST DO's In the Big Easy

BOURBON STREET

"Laissez les bons temps rouler" (let the good times roll) is the motto of the French Quarter and you could never find a more happenin' party town anywhere on the planet. Even when it's not Mardi Gras, the bars, restaurants, strip clubs, and streets themselves are crowded with revelers and tourists. With a happy hour that literally runs 24/7, the only problem is finding a quiet hotel in which to sleep! Author recommendations: Hotel St. Marie (a half block from the hubbub), Lafitte's Guest House, and the French Market Inn, which goes back to the days when Louisiana still belonged to the French. And don't worry if you forgot to pack your inhibitions on this trip. The locals will advise that you'll get along just fine without them.

JACKSON SQUARE

Upon arrival, you'll see a line-up of decorated carriages and equally festooned donkeys waiting to whisk you off on a narrated tour of the French Quarter. The drivers, ribald and chatty, are as proud of the accomplishments of famous Louisianans such as Truman Capote, Dorothy Lamour, Louis Armstrong, Lillian Hellman and Jerry Lee Lewis as they are captivated by the dubious exploits of Huey Long, Jimmy Swaggart and David Duke. They're also quick to tell you that no less than Napoleon Bonaparte was once offered asylum in New Orleans, prompting one to wonder how history might have changed if he had ever taken the city up on its generous offer of free room and board for the rest of his exile. One of New Orleans' many nicknames, "The Paris of the Americas," reflects the city's strong kinship with its flirty French cousin. Jackson Square is the oldest part of the city, dating back to the early 1700's and the era of pirates.

THE GARDEN DISTRICT

Hop a St. Charles trolley car to the Garden District and take a step back in time for only \$5. Antebellum mansions are de rigueur here, as are beautifully cultivated flower beds that recall an earlier era. (Interestingly, even the poorest homes in New Orleans are not without festive window boxes and fountains.) Although many of the mansions in the Garden District are closed to the public, their colorful stories and architectural history have been well documented in the walking tour guidebooks available through your concierge and the local office of tourism. Be sure not to miss a peek at 1239 First Street, home of Anne Rice, the author of the Vampire Lestat and Mayfair Witches novels.

ROYAL/MAGAZINE STREETS

If art galleries, estate jewelry and fine antiques are your idea of a perfect shopper's paradise, you've come to the right spot. The only challenge is in figuring out how you're going to get all of this fabulous stuff in the overhead rack on the plane trip home.

MADAM LAMOUSE & HER PSYCHIC POWERS

You won't have to travel far to find a fortune teller in the French Quarter, especially when you consider how many people make their living here through Tarot, crystal gazing, throwing bones, analyzing auras and reading palms. No trip to New Orleans would be complete without a detour into the world of the occult. Plan to part with at least \$20 for a full reading, a little more, of course, if it's determined that someone has put a curse on you that needs to be lifted. Fortune tellers can be found in the backrooms of many French Quarter shops that feature Mardi Gras paraphernalia as well as out in the open at the park at Jackson Square. Speaking of spooky stuff, here's something else you might not know: New Orleans cemeteries are all above ground, owing to the city's proximity to sea level.

PRESERVATION HALL

It's standing room only and rather Spartan but well worth the visit if you want to see one of the places where jazz had its roots. Don't worry if you can't get in, though; the music is loud enough every night that a lot of it will spill into the streets and keep you entertained. Located at 726 St. Peter Street, this popular family-oriented establishment is open from 8 until midnight and has no minimum age requirement.

THE HISTORIC VODOO MUSEUM

There are over 20,000 practitioners of the black arts in the French Quarter. See how they work their magic in a museum dedicated to voodoo dolls, juju bags, love potions and magical powders. Located on Rue Domaine between Bourbon and Royal Streets, this is believed to be the only museum in the world which is dedicated exclusively to the practice of voodoo.

ESPLANADE AVENUE

This dividing line lane between Faubourg Marigny and the French Quarter is an intriguing place to people watch as well as to pick up an occasional bargain in antiques. You can also see the house where painter Edgar Degas did a bit of painting while visiting some of his relatives. Looking for a charming bed and breakfast inn? Esplanade Avenue is highly recommended as the first place you should look; many of them not only cater to families but also welcome family pets.

CAFÉ DU MONDE

One of the things that New Orleans is famous for are the square, powdered sugar doughnuts called “beignets”. This café precursor to Starbucks dates back to the 1860’s and is the perfect spot for an evening cup of chicory coffee and relaxing after a day of sightseeing. Just one cautionary note: don’t wear black. Beignets are melt-in-your-mouth delicious but messy and have a way of leaving their evidence all over one’s clothing.

COURT OF THE TWO SISTERS

A longstanding N’awlins institution, this restaurant is as famous for its leisurely Sunday champagne brunches as it is for the caliber of Dixieland, blues, and jazz musical talent it rotates through its main dining room and outdoor courtyard during the course of one meal. Don’t plan to get out in less than three hours. Afterwards, schedule a nap. You will definitely need it.

CERTIFICATION EXAM F.A.Q.

Q: When should my application be submitted by?

A: April 1st

Q: When will I be notified of my acceptance/ exclusion?

A: A notification letter will be mailed by July 1.

Q: What do I do if I’m excluded?

A: Contact us; the review may be extended for applications that are not initially accepted but may be with further clarification from the applicant.

Q: Should I only review the study guide and not bother with the reading list?

A: Like the reading list, the study guide is another reference and should not be memorized or used by itself.

Q: What do I need to submit to take each test?

A: Packets are now submitted electronically by uploading the completed application, caselogs and narratives appropriate to the applicable certification exam to www.mydocsonline.com/scripts/cupoad.dll=ASRftp; payment of the \$200 non-refundable application fee must be made before application will be accepted.

Q: What is the fee for taking each test or retaking a test?

A: \$200.00 per test (non-refundable)

Q: How many questions are on the test?

A: 200 Total: 150 Multiple choice and True/ False, 50 question on re-printed pictures/figures.

Q: What types of questions are on the test?

A: Multiple choice, true and false, picture slideshow

Q: How long do I have to take the test?

A: The time allotted for the exam is 4hours.

Q: What documentation is required for the Surgical Research Anesthetist (SRA)?

A: 15 cases; 30 minutes or longer
2 anesthesia narratives

Q: What documentation is required for the Surgical Research Technician (SRT)?

A: 12 survival procedures; Level 1
2 Level 1 narratives

Q: What documentation is required for the Surgical Research Specialist (SRS)?

A: 24 survival procedures; Level 2
2 Level 2 narratives

Q: I can’t sit for the first year’s exam; can I sit for the second year?

A: Yes, but you must have the following; an excused letter submitted to the testing committee, an updated six (6) month case log, an updated narrative applicable to your exam, and your original application.

Q: I can’t sit for the first year’s exam or the second year exam; can I sit for the third year’s exam?

A: Yes, but you must have the following; an excused letter submitted to the testing committee, an updated two (2) year case log, two (2) updated narratives applicable to your exam, a \$100.00 non-refundable fee, and your original application.

Q: Can I be excluded from taking the exam?

A: Yes, the committee will contact for the reason.

Q: Will I be required to be a member in good standing with the Academy to maintain my certification(s)?

A: Yes, this will be an annual requirement.

Q: How many Continuing Education Credits (CEU) do I need to keep my certification?

A: Minimum of 15 CEUs per 24-month period.

Q: Is the Annual Meeting of the Academy of Surgical Research the only place I can earn CEUs?

A: No, relevant surgical lectures at other meetings is acceptable; speaking or presenting, conducting labs or participating in them, publishing papers or aiding in publishing papers or auto-tutorials are acceptable ways of earning CEUs.

Q: Who do I contact for questions pertaining to an exam?

A: Academy of Surgical Research
7500 Flying Cloud Drive, Suite 900
Eden Prairie, MN 55344
(952) 253-6240

Welcome to the Surgical Savvy Newsletter!!!

Academy of Surgical Research



Surgical Savvy

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Scrubbing In With.....



Nance Moran, BLA, AS, SRS, RLATg

I look forward to getting to know you all. I got my start in small animal practice while going to community college. I grew up telling everyone I wanted to be a veterinarian, like a lot of us. I earned my AS in veterinary technology from

Becker College in 1996 and remained in private practice until a colleague and mentor I had previously worked with invited me to interview for a position in research. I joined my team of two, including myself, working in Preclinical Orthopaedic Research. After working intensely long days, 7 days a week, I learned all of the surgical procedures with the mentoring and support of my supervisor. In the interim, I achieved my Surgical Research Specialist certification. I now lead a wonderful team of 6 on the in-vivo side as a Principal Investigator. I play a productive role in the intellectual and scientific planning as well as the production of the data.

I have the opportunity to be very creative in producing novel surgical and technical methods and teaching them to others as well. I have been an ASR member since 2000 and am now active in the ASR as Chair of the Publications Committee.

Currently, I am working on earning my Masters degree in Biology. I try to keep a good balance of life and career seeking enjoyment from both. Loving what you do is so important, I consider myself one of the lucky ones!!!

Amanda Wilsey



BS, LATG

My name is Amanda Wilsey. I have been working as an Animal Health Technician/Surgery Technician at Abbott Laboratories for two years. I graduated from Purdue University with my B.S. in Veterinary Technology with experience in private practice, specialty practice and research.

I recently completed my LATg certification from AALAS. I first attended the ASR Conference in Indianapolis in 2008 and I am active in the academy as a member of the Publications Committee.

Being a member of a hard working team in the research field, I believe that keeping current with new techniques and continuing education is vital. I am constantly seeking new information on surgical models, techniques, and anesthesia.

Stephanie Blevins



BS, SRA, RLAT

Even though I spent most of my growing up years on stage dancing and acting, I came back to my first love. Searching for a new start I found an ad for a Veterinary Technician Assistant position in a small animal clinic. With no experience, my interview was an inch shy of me begging for the opportunity. Though I fainted the first day of work as they were removing bandages from a declawed cat, I knew this was my calling.

I put myself through school with the hopes like many to become a veterinarian and obtained my B.S. in Animal Science. I couldn't imagine another 4 years of school and I had really begun to enjoy my role as a technician. I have worked at two small animal practices for 8 years and have been in research for 3 years.

While I have been working at Rush UMC in Chicago I have obtained my SRA and LAT certifications. Working from the ground up, I am now the lead technician and becoming a supervisor soon.

Professionally, I try to find every opportunity to advance my education and experience. I am working on my LATG and trying to set up training courses within our facility. I am an active member of the Chicago Branch of AALAS. It has been an exciting experience as a member of the ASR and I am thrilled to be a part of the newsletter team.

Leslie Stoll



AS, SRS, RLATg, RVT

I have been a member of the ASR for 9 years and I am now serving as a member of the Publications Committee. I graduated from veterinary technician school in 1990 and worked in a small animal private practice. I began my career in surgical research when I joined Dr. Jan Bernal at Sierra Biomedical (now Charles River Laboratories) in Reno, Nevada. It took two years but she finally lured me out of private practice and into preclinical research with non-human primates. I love working with the primates and I never looked back. I have been with Charles River for 11 years. I earned my Surgical Research Specialist certification in 2003.

I have had amazing opportunities in the surgical research field. I have had the pleasure of meeting incredibly interesting and talented surgeons, doctors and technicians. I feel so fortunate to learn from and work along-side these individuals.

Taurolidine-Citrate as a Venous Access Port Lock Solution; A Review

Leslie J. Stoll, SRS, LATg, RVT, Charles River Laboratories, Preclinical Services, Nevada
Nance M. Moran, BLA, AS, SRS, RLATg, Genzyme Corporation, Massachusetts

What is the combination of Taurolidine-Citrate (TCS)?

According to Koldehoff and Zakrzewski (2004), taurolidine interacts with components of microbial cell walls, resulting in the hindrance of them attaching to surfaces. It acts effectively against a variety of bacteria or fungi (Shah et al., 2001), including those commonly associated with catheter related infection and many drug resistant strains. In combination, citrate forms a composite with calcium, disturbing the normal coagulation course of events. Intra-luminal blood coagulation is inhibited with no unfavorable effects.

TCS provides broad spectrum activity against gram positive and gram negative bacteria and fungi most commonly associated with catheter related infections. Patent catheters are a major source for the introduction of infectious organisms (Shah et al., 2001). Heparin has been used in the function of anticoagulation helping to maintain patency of long term catheters but is lacking many antimicrobial properties (Capdeveila et al., 2001) and in fact has been thought to be associated with inciting the growth of staphylococcus aureus (Shanks et al., 2005). Using TCS, Biofilm on the catheters that can result in an excellent site for pathogens is inhibited and destroyed. Shah et al. (2001), reported that more than 99% of specific staph, pseudomonas, several other bacteria, and candida were diminished resulting in a greater reduction in catheter-related infections. The compound is non-toxic and promotes catheter patency while avoiding the unwanted extreme anti-coagulation associated with heparin (Reinmuller 1999, Branson 1993).

Taurolidine-Citrate Catheter Solution, or TCS is distributed to the veterinary industry exclusively by Access Technologies. TCS has been utilized in clinical patients in some cases for cancer patients as well as hemodialysis catheters as well as urinary catheters (Shah et al., 2001, Koldehoff and Zakrzewski 2004). It was originally used in the treatment of peritonitis (Koldehoff and Zakrzewski 2004).

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Tech Tips

By Amanda Wilsey

Question?

We are having a hard time keeping an endotracheal tube in our non-human primates during head and spinal surgery. Do you have any suggestions?

Head and spinal surgeries can be very tricky. Keeping an endotracheal tube in place can be difficult due to the animals positioning for surgery and animal movement during positioning.

Try taping the tube. Use 1/2" porous adhesive tape and tape the tube to the lower jaw. Follow these easy steps:

1. Measure your endotracheal tube to your patient to determine where the tape should be placed. It will be closer to the attachment end of the tube than a typical tie would be. Know how your tube will be positioned within the trachea. If there is a significant curve to the tube, make sure it is facing the correct way anatomically.

2. Cut one piece of tape long enough to reach around the animal's lower jaw and lay it sticky side up on a flat surface.

3. Place the endotracheal tube across the tape at the selected (measured) area (Picture 1).

4. Cut another piece of tape long enough to cover the width of tube and still have ~1/4" on either side and place the sticky sides of the two pieces of tape together to secure the tube between them (Picture 2).

5. Intubate the animal

6. Once the tube is in place, tape one side and then the other around the lower jaw of the animal and secure. Keep the jaw area dry, shaving the lower jaw areas will help with tape adherence (Picture 3).

This is an effective method with ferrets and rodents too!! Tell us how you have used this?



Picture 1



Picture 2



Picture 3

Next issue : Epidural - How frequently is this technique applied and for what procedures?

What's Next?

By Stephanie Blevins

How would you handle this scenario?

You have just completed stereotactic surgery on a research model. It is now time to place the cranial implant. Currently, there are different techniques as to what the next step is in placement of the implants. We want your thoughts. It is known that performing a sterile procedure is imperative to proper stabilization. It is also known the preparation of the skull surface can be a limitation for implantation and securely anchoring the implant (Gardner and Toth 1999). The question is: You are ready to anchor your implant, what's next?

(Responses from members)

1. Other than mechanical drying with gauze, solutions can be applied to aid in drying the skull. Ethanol can be applied to absorb remaining fluid on the bone surface then quickly evaporates leaving a dry porous surface (Parry and McElligott 1993). Dilute hydrogen peroxide can also act as an aid for drying the skull (Crawley et al., 1998).
2. Recent studies have shown the use of a cyanoacrylate gel or more commonly, sterile/non sterile orthopedic bone cement, dental cement and sometimes a combination of both are applied to the skull (Criado et al., 2003, Gardner and Toth 1999). Binding the cement to the skull can be promoted by making shallow grooves in the bone to increase the three-dimensional surface available for adherence of the cement (Gardner and Toth 1999).
3. It often depends on the animal or even the material used to fix the implant on the skull as to whether or not screws and plates are used. We could also pose the different types of implants used, duration, housing and monitoring needs in the experiment to explain the various methods used.

Technique and practice are always a big factor in performing any type of surgical procedure, but lets put that aside and talk about what's next. What do you do to ensure your cement will bond to the surface area? What cement do you reach for? Do you use plates and/or screws? What animal do you mainly work with?

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SURGICAL SAVVY SUBMISSION INFORMATION

We'd love to hear from you! Send us a profile, tech tip or article!

Submission deadlines: June 1st, and November 1st (July and December Issues)

Times New Roman 12 font

Enclose pictures as an attachment in .jpg format

Submit electronically to:

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