

Meet our  
President



ASR 33RD ANNUAL  
MEETING LAS VEGAS 2017

MEET ONE OF OUR 2017  
CONFERENCE KEYNOTE  
SPEAKERS



SURGICAL RESEARCH  
SPECIALIST EXAM - ONE  
TECHNICIANS JOURNEY

# SURGICAL SAVVY



## ASR In Las Vegas

This years annual meeting was a huge success. The location was great including the wet lab facility pictured above. The innovative posters, presentations and keynote speakers were all well attended and very informative. A special thank you to the program committee for all the hard work to make this experience and meeting so extraordinary. With another successful ASR annual meeting under our belts planning has kicked into high gear for Charleston 2018.

Wet labs at ASR  
were very well  
attended and the  
location was  
amazing

## Bile Duct Catheterization in Rats: Surgical Improvement

The bile duct catheterized (BDC) rat is often the first opportunity to examine drug clearance and metabolism in a representative physiological setting. This information provides valuable insights into whether a given dose of drug will provide sufficient exposure to be effective. It can also indicate the route of excretion as well as the mechanism of breakdown during excretion.

Improved animal welfare was accomplished by changes in surgical protocols to 1) reduce scar tissue and adhesions in the abdominal cavity, 2) improve surgical training of staff members, 3) update surgical instruments/equipment/catheters, 4) change sutures to a monofilament with smaller tags/ends, and 5) increase infection control in the abdominal cavity.

### 1) Reduction of scar tissue and adhesions in the abdominal cavity

Adhesions or scar tissue were previously seen in necropsies of animals. They were caused by the larger incisions and by particulates or infectious agents entering the abdominal cavity. Reducing the sizes of incisions even smaller than those used in Method 2 and reducing the manipulation/contact with internal organs helped in this regard. In addition, use of powder-free sterile surgical gloves also reduced the possibility of introducing particulates from the gloves.

### 2) Improved surgical training of staff

Surgical staff members were trained more extensively to increase the quality control of the surgical procedures. The goal of this was to minimize any differences in technique by the various staff members and to have a well-defined protocol that was followed with a high attention to detail. Reduction in time of surgery can contribute to a better outcome as well as to higher efficiency (see below).

### 3) Update surgical instrument/equipment/catheters

In keeping with the key-hole surgery technique, surgical instruments were updated for working within small spaces and with minimal manipulations. Surgical scissors and forceps were upgraded to operate in small spaces, with magnification to view inside the smaller incisions. Catheters were optimized to match the internal diameter of the bile duct and to maximize the flow of bile. This also contributed to increased patency (see below).

### 4) Change suture to a monofilament with smaller tags/ends

Sutures can be a source of discomfort and irritation to the animal. They were minimized in extent and a finer monofilament material was used. Tags or ends of the sutures were reduced in size to prevent any further irritation.

*2018 ASR 34th  
Annual Meeting*



September 26-28, 2018

**Marriott Charleston**  
Charleston, SC

*Continued on page 7*

## Meet one of our 2017 Keynote speakers

### What do you want to talk about?

The ASR newsletter needs you!

Send us a tech tip or article to share your knowledge with other members.

### CEU's are Awarded

2 CE credits are awarded for a tech tip

**CE credits have increased from 2 to 4 for articles**

4-CE credits are awarded for the submission of an article that is accepted by the Certifications Committee and published in Surgical Savvy.

### Submission Deadlines

May 1<sup>st</sup> and November 1<sup>st</sup>

Please submit electronically to Brad Gien

[brad.gien@envigo.com](mailto:brad.gien@envigo.com)

Attach any pictures in jpg format and documents in Microsoft Word format.

## Genevieve Andres-Kelly

*Genevieve is a Compassion Fatigue Educator*



*Presented Compassion Fatigue and the Human/Animal Bond in Research*

*2015 National AALASA*

*2016 MiSMR Enrichment Symposium*

*2016 Merck Tribute the Animals*

*2017 D5 AALAS Conference*

*2017 NEBAALAS Conference*

To learn more about Compassion Fatigue and available resources

- “Cost of Caring: Human emotions in the care of laboratory animals” - American Association for Laboratory Animal Science  
[www.aalas.org/education/educational-resources/cost-of-caring](http://www.aalas.org/education/educational-resources/cost-of-caring)
- “Preventing Compassion Fatigue in the Vivarium”, Helen Kelly, ALN, June 2015
- [www.Compassionfatigue.org](http://www.Compassionfatigue.org)
- [www.Rekindlesolutions.com](http://www.Rekindlesolutions.com)

1

**ASR MEETING ABSTRACT  
DEADLINE**

**30 JUNE 2018**

2

**ASR SCHOLARSHIP  
APPLICATION DEADLINE**

**DUES: 31 DEC 2017**

**MEETING REGISTRATION: 30 JUNE 2018**

3

**EXAM APPLICATION  
DEADLINE**

**30 JUNE 2018**





## Meet our President

Jon Ehrmann, BS, SRS, SRA, LATg  
Technical Operations Manager, Bristol Myers Squibb  
Department of Veterinary Sciences Veterinary Care and Research Support

Jon Ehrmann is the Technical Operations manager for the Veterinary Care and Research Support Group at Bristol Myers Squibb (BMS). He manages a specialized group within BMS providing surgical models and advanced study support to multiple therapeutic areas across several BMS sites. Additionally, his group supports the clinical research programs for the central New Jersey BMS facilities. Jon has over 18 years of experience in preclinical and surgical research with a focus on cardiovascular, neurological, gastrointestinal and vascular surgery. He is certified by ASR as a Surgical Research Specialist and a Surgical Research

Anesthetist, having received the Barry Sauer Award for each certification exam. He received the Andreas von Recum Award this year (2017) for outstanding contributions to the Academy and the field of experimental surgery, Jon was especially proud and humbled by this great honor. Jon joined ASR in 2004 and served on the certification committee for 6 years. Jon has served on the Board of Directors since 2013 and is currently the President for 2017 and 2018. He has coauthored several peer reviewed publications and is a frequent presenter at national conferences. Jon earned a Bachelor's of Science degree in Zoology from Michigan State University.

## The ASR Educational Foundation

### ❖ What is the ASR Educational Foundation?

The ASR Educational Foundation is a 501 (c) (3) nonprofit organization supporting the education of preclinical experimental surgical candidates.

### Mission of the ASR Educational Foundation

*The mission of the ASR Education Foundation shall be to advance the profession of surgical research through supported educational activities. Continuing education awards shall be made in a non-discriminatory basis to selected individuals working in the surgical research field.*

### ❖ When was it founded and by whom?

The Foundation was the brainchild of Tom Long who felt that some technicians were unable to obtain certification due to lack of financial support for meeting travel from their companies. It was founded in 2012.

### ❖ How do you qualify for financial assistance in attending ASR or sitting for certification?

To qualify for an award there is a grant application located on the ASR website – these are reviewed by the committee on an individual basis for awards.

### ❖ Who qualifies for the grant?

The Foundation Grant is open to active Academy members.

### ❖ What is involved in the application process?

The application process is simple. You fill out a short application form, need one letter of recommendation from you manager and need a write up to describe how you embody the mission of the Academy in your professional career. The mission of the Academy includes, but is not limited to: encouraging, fostering, promoting, and advancing professional and academic standards, education, research, and development in the arts and sciences of experimental surgery; promoting humane use and treatment of experimental animals and preventing their use when other means can bring about the same scientific results; and encouraging the advancement of the field of surgery in all aspects.

### ASR Education Foundation Founding Partners

- Association Solutions, Inc.
- Colonial Medical Supplies
- Data Sciences international
- Jan Bernal / Paul W. and Erlinda L. Kirkman
- John Cody Resendez / Randy Pielemeier
- Kent Scientific Corporation
- Lomir Biomedical
- MPI Research
- Primate Products
- WIL Research



# Using Advanced Techniques for Data Collection to Enhance Animal and Technician Welfare

by: Matt Ruiter

## Study Information

- Study Number
- How Many Animals
- Surgery Type
- Implants or Catheters
- Surgery Dates

## Animal Information

- Body Weights
- Clinical Data
- Observation
- Vital Signs
  - ECG, SpO2, Respirations, ISO%
- Post Surgical Data

## Drugs

- Controlled Substances
- Calculated Dose
- Lot# and Exp. Dates
- Amounts Given
- [Text]

## Inventory

- Catheters
- Implants
- Sutures
- Prefilled Syringes
- Inventory Items

Using an electronic format for data collection solves the inefficiency of today's collection methods. To gain a better understanding of surgical data collection using an electronic format there are three basic principles of quality data collection for a surgical suite that need to be adhered to: Electronic, Passive, and Accuracy.

To ensure the passive data collection and accuracy we must first be able to positively identify the animal. This starts with the use of implantable RFID Microchips for the animals, RFID labels for vials and items, and personal RFID wrist bands for 100% positive identification. Each microchip or label contains a Unique ID that can be electronically read using RFID scanners and data can be associated to this number because of the unique ID. The unique ID on the microchip implanted in to the animal is the starting block for all the data collection to be associated with it. Think of an engine of a train. The Engine is the animal's ID and all the train cars behind the engine are the data we are collecting. We can have as many cars attached to the engine such as body weights, surgeon times, procedures, patency, observations, drugs, lot numbers, expiration data, and even study data all tied back to the Animal easily and 100% accurate.

To collect the surgical data individual items are scanned with an RFID reader including the animal, surgeon, and even syringes and vials (Figure 1). This is done to collect the necessary data such as the animal ID, surgeon for times, procedures as well as drugs given and the amounts. All this data is tracked with the original Animal RFID number for 100% accurate data collection. With similar RFID readers and large touch screen monitors even after surgical data can be recorded such as body weights, patency checks, and even shipping verification (Figure 2).

Since each item has an RFID number associated with what it the data collected is easily reported after the fact. All the data collection is completed using RFID labeled vials, syringes or items that the surgical managers or surgeons can scan with RFID Readers.

With the collected data recorded, the surgical manager can run reports to analyze the times of surgeons actually performing surgery, surgeons that are the best for the specific surgery, track outcomes, drugs given, implants, and time under anesthesia. The surgical managers can also tie data from vital sign monitors, Telemetry data, ultra sound data, pictures, and surgical videos.

The third and final principal for proper data collect is accuracy. Using an Electronic and Passive data capture system we can rely on the software to make this 100% accurate. Labeling every item with a unique number and having the software fit the process makes the data collection accurate. When an item is scanned we know, who scanned the item, what the item is, the time and date of the scan and all the information associated with the item. The makes the data capture 100% accurate and also verifiable.

# Surgical Research Specialist Exam - One Technician's Story

## By Chelsey Gosman SRS

I first heard about the Academy of Surgical Research (ASR) and the certifications when my company began the process of furthering the education of its employees. Many of my colleagues were interested in taking the AALAS certification exams, but I wanted to pursue something more focused on the surgical aspect of my job. I began researching the Academy and what certifications they had to offer. Being that I work in a rodent-only facility, I was worried that I would be limited in the level of certification that I qualified for. Of the three levels of certification offered, Surgical Research Anesthetist (SRA), Surgical Research Technologist (SRT), and Surgical Research Specialist (SRS), I decided the SRS was the certification that best fit my level of skills and experience.

My next step was to complete the certification requirements prior to the exam. I needed to provide a case log of the major surgical procedures that I had performed in the last year along with two narratives detailing the procedures. The narratives needed to include all aspects of the procedure from initial set-up of the surgical work area to the recovery of the animal. The narratives proved to be more difficult and required quite a bit more time than I had originally thought. Using our SOP's and example narratives from the ASR website as a guide, I began writing the drafts of the surgical procedures. I had my peers and supervisor review multiple drafts and made many changes to my narratives before I was confident that I had a quality paper to submit for my certification.

I began studying for the exam. Having multiple resources to access information played a large role in my success in passing the exam. The ASR website has an extensive list of reference texts along with a study guide created to help guide you through your reading. I made hundreds of handwritten flash cards and took multiple spiral note books full of notes from different text books.

The SRS exam covers many different aspects of surgical research, anatomy and physiology, analgesia, surgical knowledge, suture knowledge, wound healing, instruments, radiology, anesthesia, pre-, peri-, and post-operative care, dose calculations, regulations, emergency techniques, and aseptic procedures. With such a wide variety of areas of interest, I found it best to focus on one section at a time and frequently reviewed the sections I had already completed.

No matter how much I studied, when it came time attend the conference and take the test, I felt under prepared. I spent the day before the exam trying to relax and touch up on the areas that I was least confident in. I reread through the study guide and my notes the first part of the day, but after lunch I decided that no matter how much I crammed information into my brain I was as prepared as I was going to be. The following morning, I woke up a little earlier than usual to give myself some time to gather my thoughts before the test. I've always been a fairly good test taker, but this wasn't just a college or high school test.

I went through the test one question at a time, answering the questions that I felt confident about first. If I didn't know the answer to a question I did not just guess, I skipped it and came back to it at the end. Once I answered all the questions I reread through the test and double-checked all my answers before turning it in to be scored.

It was two days before the results of the test were given to the test takers. Those two days seemed to take forever! I was ecstatic when the paper said congratulations you have passed the SRS certification exam. I was excited to come home and share my accomplishments with my team and to be able to use my knowledge to help them achieve this certification as well.

## ASR COMMUNICATIONS TEAM

Brad Gien	<a href="mailto:brad.gien@envigo.com">brad.gien@envigo.com</a>
Tracy Ziegelhofer	<a href="mailto:tracy.ziegelhofer@envigo.com">tracy.ziegelhofer@envigo.com</a>
Norleen Caddy	<a href="mailto:norleen.Caddy@drdc-rddc.gc.ca">norleen.Caddy@drdc-rddc.gc.ca</a>
Liane Pinkos	<a href="mailto:lpinkos@sai-infusion.com">lpinkos@sai-infusion.com</a>
Devra Olson	<a href="mailto:comdolson@seagen.com">comdolson@seagen.com</a>
Allison Parlapiano	<a href="mailto:asp1213@gmsil.com">asp1213@gmsil.com</a>
Jennifer Sheehan	<a href="mailto:jennifer.sheehan@envigo.com">jennifer.sheehan@envigo.com</a>



*Continued from page 2*

### 5) Increase infection control in the abdominal cavity

Infections in the abdominal cavity can arise from the leakage of bile and duodenal fluids. This leakage can be reduced by the careful insertion of catheters into the bile duct and duodenum. Reduction of infection can be also be furthered by flushing the abdominal cavity with warm sterile saline, which includes a broad spectrum antibiotic. Overall attention to sterile techniques (e.g., sterile instruments, materials, and surroundings) during surgery will also ensure that infections are rare.

### Increased Patency

Patency is evaluated by measuring the rate of consistent bile flow through the catheter over an extended time. Increased patency can be accomplished by improving the quality of the surgery, reducing adhesions and inflammation in the abdominal cavity, and increasing the catheter performance.

In particular, to increase catheter performance, care was taken to match the internal diameter of the bile duct and optimize the internal diameter of the catheter to maximize flow of bile. By optimizing the catheter to the bile duct, flow into the catheter proceeded without any leakage or back-flow/engorging of bile into the bile duct. The beveled end of the catheter also increased the ease of insertion into the bile duct. The catheter for the duodenum was kept the same as previously used (3 mm). Reduction in tube junctions also increased the quality of the bile flow.

### Increased Efficiency

Using optimized surgical techniques with the appropriate instruments/protocols/training has made it easier to perform the surgery. Thus, the surgeon had an easier time of getting the catheters in and could carry out the procedure in a shorter time. As indicated above, a shorter time of surgery is usually better for the animal as it minimizes time under anesthetic. As also indicated above, training of the surgeon, appropriate instruments, catheter design, and catheter implantation protocol all contribute to the efficiency of the procedure. Quality control in the surgery always contributes to efficiency because better animal outcomes mean that less extra animals will be needed to cover for occasional losses due to mortality or reduced patency.

## 2017 Annual Meeting Survey results - We Heard You!

*We received a great deal of insightful feedback from our members and exhibitors following the annual conference in Las Vegas, Nevada. Rest assured this information will be used to continue to enhance the overall conference experience!*