MESSAGE FROM THE CHAIRMAN:

"SCOTT T. REEVES, MD, MBA"

Charleston: It’s A Small World After All

I recently had the opportunity to represent the Society of Cardiovascular Anesthesiologists (SCA) as President-elect at the 13th International Congress of Cardiothoracic and Vascular Anesthesia in Auckland, New Zealand. I presented several lectures and I participated on a panel discussing “Credentialing.” The panel consisted of Dr. Manfred Seeberger, representing Europe; and Dr. Sara Allen (not pictured below) representing Asia and the Oceania region’s perspectives; and me, representing the United States. Credentialing for specialty board certification was a more important issue in the U.S. than Europe and even less in Asia. Technology and pharmaceutical advances were occurring quicker in Europe followed by Asia and then North America. Despite the fact that the meeting was centered on what each region is doing differently, I could not help but think how similar we are in our practices throughout the world.

Our department is on the cutting edge of cardiovascular care whether we are discussing percutaneous VAD and valve implantation, congenital cardiac anesthesia, patient safety, or electronic medical record programs. This fact made me reflect on how blessed we are to have such a progressive department with all of us being significant contributing members. Our team atmosphere is a huge plus!

Cathy and I also used the trip as an opportunity to take an extended vacation and recharge. As we enter the Christmas season, I challenge all of us to use the slower pace we will have over the holiday weeks to cherish the time with our families, friends and colleagues and to recharge for the upcoming New Year.
CHRISTMAS PARTY ANNOUNCEMENT

Harbor lights will beckon from shore to shore
Calling you to party by the silver sea’s shore

Department of Anesthesia and Perioperative Medicine,
Medical University of South Carolina
Invites you and your guest
To celebrate the spirit of the season

Carolina Yacht Club
50 East Bay Street
Charleston, South Carolina
Saturday, December 1, 2012
7:00 p.m.

R.E.R. 792-3699
Cookout buffet/dancing/door prizes

NEW BABIES IN THE DEPARTMENT

Congratulations to Dr. Wesley Doty
James Matthew Doty
9/21/2012
7lbs 3oz.

Congratulations to Dr. Ilka Theruvath
Benjamin Thomas Theruvath
9/22/2012
5lbs 1oz.

Congratulations to Dr. Marc Hassid
Leah Elizabeth Hassid
11/5/2012
8lbs 1oz.
The New Medical College Hospital, Fred Kredel and the Respiratory Therapy School (1956)

As a full Professor, I was on the Building Committee for the proposed Medical College Teaching Hospital. This occupied much of my time for about three years. At last, the hospital was completed, and I was happy that we were able to staff the Anesthesia Department with Anesthesiologists and Residents. We even added the Student O.B. Anesthesia Training Program. I was particularly fascinated by the Student Program because this program at M.C.G. was my initiation into anesthesia, and it had served as a good program from which to obtain Residents at the Medical College of Georgia.

The heart research program was going well, and everyone was overjoyed to “have our own hospital” from an administrative standpoint and from other aspects (financially).

The Fred Kredel incident stands out in my recollection. It has been reported by Dr. Laurie Brown; however, I must add my recollections. I was preparing for anesthesia on a heart operation when I heard a nurse scream in the OR hallway. Dr. Kredel had passed out! He was placed on a stretcher and brought into the prepared heart OR where I intubated him. He had no pulse or blood pressure. Dr. Edward Parker quickly opened the abdomen and resected an abdominal aneurism. We forced fluids and blood I.V. and he was regaining consciousness as we wheeled him out of the OR. As I recall, Dr. Laurie Brown followed him to the RR and monitored him there.

I had previously anesthetized Dr. Kredel with a hypobaric spinal when his neurosurgeon explored two lumbar disc spaces. No reason was found for his back pain – now, it appeared that this aneurism was undiagnosed and responsible for his pain. The excitement of the moment was so great that I had to perform during this crisis; when it was over, I returned to my office and cried! Only after one of the OR supervisors (Mrs. Hydrick) brought me a cup of coffee was I able to regain my composure. Laurie came and told me that everything was going to be alright. This was the best news about a friend that I could have received.

I had met and dined with a Vice President of the Puritan Compressed Gas Corporation during the construction of the new hospital. He had flown me to Kansas to look at an installation which contained their equipment. We were obtaining oxygen from one of his subsidiaries in South Carolina. The Vice President asked me if I should like to obtain a new Puritan Ventilator for clinical assessment on patients who had chronic respiratory disease. Thus, we obtained Experimental Model Puritan PR-3 Ventilator, Serial # 00036. This introduced a new problem – the floor nurses found it too complicated to use. They were afraid of it!

The Senior Residents became familiar with the PR-3, and had to teach other Residents, nurses and newly hired employee (Mrs. Molly Mitchum) how to give “1PPB”, a new therapeutic technique which is all we had to offer patients with lung diseases at this time. I began to get calls from other hospitals over the Southeast to train someone from their hospital. Dr. Lynch called me and told me that I must schedule a trip to Florence to train the Nurse Anesthetists about the new machine. I countered with the proposal that we sponsor a week-long Institute on Respiratory Therapy at the same time. This appealed to him since the existing Post Graduate programs had attracted a maximum of 30 doctors each year.

Thusly, we became the first medically-sponsored training program in Respiratory Therapy! We sent out literature, Puritan publicized the program, and we enrolled over 300 persons, including five doctors, at the first program on May 7, 1956. It lasted for five days; we enrolled personnel from 38 states and Cuba. Dr. Lynch cleared over $1,000.00 above expenses.

Dr. Lynch was ecstatic and sent me a note to repeat the Institute each year – which we did until I left. He sent his legislative friends a copy of the beautiful plaque from the American College of Chest Physicians (see my biography). I was elected to Fellowship in the American College of Chest Physicians at a Convocation Service in Chicago – one of the three non-chest specialists at the time to receive this honor.

The Respiratory Therapy Board of Schools had not been established at this time; however, my school at the Crawford W. Long Memorial Hospital of Emory Univ. subsequently was given approval in 1946 as the seventh school in the U.S.A.  

Continued on next page....
I was appointed to the Board of Examiners for Schools of Respiratory Therapy, probably because I helped establish three additional schools in the Atlanta area.

**The New Facility Policies**

With the advent of the new Medical College Hospital, our Anesthesia Department became one of the most modern that I knew about. My contacts as a member of the Association of University Anesthetists assured me that the Medical College of South Carolina was lucky to have so much going in the way research, as I was speaking at various meetings on our strain gauge experiments, etc. (We had several “firsts” here on drug assays). The heart program was rapidly advancing. Everything was going well until the old problem reared its head.

As a Department Head, I was able to install the same system at the Medical College Hospital (of collecting private anesthesia fees) that we had at MCG. Volpitto even wrote me letter stating that the system charged a fee for supplies and equipment (which went to the hospital), a private fee for professional services (which went to the anesthesiologists) and most salary expenses of Resident’s Training and a percentage of the private fee (5%) for collection of professional fees (went to the hospital). Anesthesiologists split a teaching salary from the Medical College, depending on teaching hours and faculty rank. I felt that everyone was treated fairly in the system.

In late 1958, Dr. Lynch called me into his office and told me that he had been looking over the revenue generated by the new hospital. It appeared that some of the non-clinical faculty had complained about our income. The Anesthesia Department was generating the third most money of all departments. He said that he had decided that all private fees generated by the clinical faculty would be pooled and that he would dispense these as he determined to be appropriate to each member of the basic science and clinical faculty. The Legislature wanted it this way.

**My Resignation**

Thus, it appeared to me that “the wheel which squeaked the loudest would be the one which received the most grease.”

It appeared that I would have a cut in income of around $12,000 per year. I resigned in the Fall of 1958.

I immediately began to look for another job. I interviewed at the new University of Florida, J. Hillis Miller Health Center in Tallahassee, Florida, and I came back by Emory University in Atlanta. Both jobs were offered to me; however, I accepted the Emory University job because it offered all of my children free tuition, even through Medicine, if each should desire. I was told that I could have a **salaried** job as Departmental Director or Chief of Anesthesia Services at the Crawford W. Long Memorial Hospital (the community hospital division) on a salary plus fee-for-service arrangement, arranged by Dr. Waldly R. Glenn. I accepted the letter.

**Afterwards**

I hated to leave Charleston and my many social and professional friends, yet this job offered me an opportunity to work without the constraints of a tax-supported system and to work under the leadership of a much respected Medical Director (Dr. Glenn; a coca-cola millionaire) who provided me with a profit-sharing, tax-free retirement program which later became known as a 401k plan, managed by the Trust Company of Georgia. I became one of three physicians who had a fee-for-service practice. I later found out that Dr. Glenn got by with this arrangement because he was on the Board of Trustees of Emory, and he contributed 5 million dollars each year to the University. No one challenged Dr. Glenn! I worked at Emory for eighteen years.

Dr. Glenn called me into his office in December 1975 and told me that he had reached the age of 75, the mandatory retirement age at Emory. He suggested that I might wish to take my fully funded retirement because he felt that many changes would occur at Crawford W. Long after his leaving; he knew how I felt about salaried compensation.

I was given a hospital credit card for one month’s use, told to take a Caribbean Cruise with Isabelle and return the card. I retired to Dillard, Georgia at the age of 55. Dr. Smith came over from the Emory Hospital Department to take my place.

With kindest regards, John M. Brown, M.D

*And so ends a fascinating letter written by Dr. John M. Brown to Dr. Laurie Brown on December 6, 1990 describing the early founding years of the department. I hope you have enjoyed the story as much as I have.*

-Dr. Scott Reeves
Faculty Excellence “Teachers Of The Month”

Dr. Katherine Roden

Dr. Quiana Scotland

Dr. Eric Nelson

Nominated by the students of MUSC College of Medicine

Congratulations to Dr. Horst Rieke
ON obtaining his green card

Congratulations!
Nominees for 2012 Golden Apple Award

“Your passion, dedication, and enthusiasm for medical education has been noticed by the student body and AMSA would like to take the opportunity to honor and thank you.”

Dr. Eric Nelson

Dr. David Hall

Leslie Fowler, M. Ed.

Hospital Satisfaction Survey

The department continues to be a university leader in the realm of outpatient satisfaction scores. However, in October, we slipped a little. I would encourage us all to be more proactive with our patients and their families. Being courteous and helping to answer their questions, including notifying them of delays, is greatly appreciated.
APPLAUSE AWARD: DR. SUSAN HARVEY

October 31, 2012

Dr. Susan Harvey
Department of Anesthesia

Dear Dr. Susan Harvey:

I have recently received the attached “You were caught” award from the MUSC Medical Center Reward Recognition Team.

I would like to personally thank you for upholding the standards of behavior of MUSC Excellence. This clearly contributes to making MUSC the provider of choice in South Carolina.

Sincerely,

Patrick Cawley

“Dr. Harvey came in and explained thoroughly how she would conduct my anesthesia before, during, and after my surgery. She really made me feel comfortable and catered her services to my specific needs. Thank you so much!”

Dr. Susan Harvey

CONGRATULATIONS ON NURSING AWARDS

ART: CPAN, PACU Certification

Nancy Tuner, RN & Janine Sewell, RN

New RN III's

Danielle Wineberg, RN; Courtney Clark, RN; and Sarah Haslett, RN

Main: CPAN, PACU Certification

JoAnn Ellison, RN & Victoria Boucher, RN

Main: CPAN, PACU Certification

Barbara Gozaloff, RN

Not Pictured: Victoria Crawford, RN, who works at ART, received her CPAN, PACU Certification
Transcranial Direct Current Stimulation (tDCS) in the Management of Acute Post-Spine Surgery Pain: A Prospective Randomized Controlled Trial

Introduction/Background: Brain stimulation techniques including transcranial direct current stimulation (tDCS) have shown promise in decreasing post-operative pain after ERCP and total knee arthroplasty. No published study has examined the effect of tDCS following spine surgery. The purpose of this randomized, double-blind, sham-controlled clinical study is to assess the effectiveness of tDCS on subjective pain-ratings, PCA opioid usage, and post-operative complications among patients receiving lumbar spinal fusion surgery.

Methods: Sixteen patients who underwent lumbar spinal fusion surgery completed the study. Pain inventories were collected at the time of admission and discharge from the hospital. After surgery, participants were randomly assigned to receive four 20-minute sessions of real or sham tDCS. PCA hydromorphone usage was tracked and pain ratings were collected via visual analogue scales twice per day.

Results: Participants who received real tDCS used an average of 9.04 mg of hydromorphone and subjects receiving sham tDCS used an average of 11.13 mg (ns). However, using estimated marginal means to correct for a pre-operative pain difference detected between groups (higher pre-op pain in the real tDCS group), sham tDCS was associated with significantly increased PCA hydromorphone usage (mean 13.63 mg) compared to real tDCS (mean 6.53 mg, p=.037). VAS scores from admission to discharge indicated a greater percent increase in pain at its worst for the sham group (±9.68%) compared to the real group (±1.51%), and a greater percent decrease in pain at its least for the real group (±33.23%) compared to the sham group (±13.33%).

Conclusions: These preliminary findings indicate that tDCS may significantly decrease post-operative hydromorphone usage and improve pain ratings among lumbar spinal fusion patients.

![Graph showing estimated mean cumulative hydromorphone use for real and sham tDCS groups.]

<table>
<thead>
<tr>
<th>Condition</th>
<th>Pain at its Worst at Admission (Average VAS Score)</th>
<th>Pain at its Worst at Discharge (Average VAS Score)</th>
<th>Pain at its Least at Admission (Average VAS Score)</th>
<th>Pain at its Least at Discharge (Average VAS Score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sham tDCS</td>
<td>7.75</td>
<td>8.5</td>
<td>3.75</td>
<td>4.25</td>
</tr>
<tr>
<td>Real tDCS</td>
<td>8.62</td>
<td>8.75</td>
<td>4.69</td>
<td>3.13</td>
</tr>
</tbody>
</table>

Average VAS scores for pain and its worst and pain at its least from admission to discharge for real and sham tDCS groups.
**SUMMER STUDENT RESEARCH—ALEX McGAUGHY**  
**FAER MEDICAL STUDENT RESEARCH FELLOWSHIP RECIPIENT**

**Isoflurane Reduces Lifespan and Impairs Development in C. elegans**

**Introduction**

**Background:** There is increasing concern about deleterious long-term effects of volatile anesthetics, particularly in the very young and very old. Potential mechanisms are poorly understood. Our hypothesis is that anesthetic exposure induces sustained alterations in homeostatic and cell stress signaling networks. Here, we studied effects of isoflurane exposure upon lifespan and development in the model organism *C. elegans*.

**Methods:** Developing (L4 stage) and mature (9 day) worms (N2 strain) were exposed to an age-specific ED50 concentration of isoflurane for 0, 1, or 4 hours. Survival, body size (length), movement, and brood size were quantified using standard techniques. Lifespan effects were assessed using Kaplan-Meier analysis; other intergroup comparisons used ANOVA with post-hoc correction.

**Results:** Exposure of L4 worms to an ED50 of isoflurane (7% vol:vol) for either 1 or 4 hours significantly reduced median lifespan (P<0.001 vs. controls) such that survival at 14-16 days was reduced by approximately 50% in both treatment groups. L4-exposed worms also demonstrated significantly reduced size (P<0.001) and movement at maturity. Conversely, isoflurane had minimal effect upon these parameters in mature worms.

**Conclusions:** These preliminary results suggest that isoflurane exerts significant effects upon complex, multi-component pathways such as lifespan and growth in developing *C. elegans*. Studies including expression microarray, RNA-seq, and genome-wide methylation techniques are ongoing to define the integrative pathophysiology of these effects. We hope to use this efficient and genetically tractable model to identify mechanisms responsible for long-term consequences of cellular stress, anesthesia and surgery, and thereby focus parallel studies in mammalian systems.

**Comments on the ASA & MUSC Anesthesia Research Opportunity**

I sincerely enjoyed participating in the FAER MSARF program this summer through the MUSC Anesthesia Department. Not only was I able to gain firsthand research experience, but I also had the opportunity to shadow Dr. McGowan and Dr. Hebbar, which allowed me to better understand what anesthesiology truly entails. Attending the ASA meeting in Washington, D.C. was a valuable learning experience, especially in developing presentation skills during the poster session. Furthermore, I was astounded to see the amount of research being performed in the field of anesthesiology, and also by the sheer number of anesthesiologists present who seemed to genuinely love their profession. I would like to thank Dr. McGowan, Elizabeth Favre, and everyone within the Anesthesia Department at MUSC for dedicating countless hours to ensure that my experience was outstanding. My expectations for the summer were greatly exceeded, and I am deeply grateful for the opportunity!
FAMILIES HELPING FAMILIES

This year our department is sponsoring one family of 6, two families of 5, and two children for the Holiday Season. If you'd like to participate, we'd love your help! If this is not of interest or you already have a charity or project for which you participate, please don't feel obligated.

However, if you wish to help these families, please do one of the following:

- Make a cash donation and we will shop. Remember, all donations are tax deductible. You can turn in monetary donations to your administrative assistant or Leslie Fowler.

- There is a list of items for purchase, which is available through Regina and Janine. Please notify David Chandler when items are purchased so they are not duplicated. Bring the item to David Chandler, your administrative support person, or let David Chandler know where it can be picked up.

- Please note the families would appreciate household and non-perishable food items as well so gift cards to Wal-Mart, Target, or other grocery stores would be very helpful. SNAP (formerly known as Food Stamps) benefits cannot be used to purchase items such as toothpaste, shampoo, toilet paper, and laundry detergent.

Lastly, there are two notebooks with this information for your review. One of them will be with Regina at ART. The other will be with Janine on the 3rd floor of SEI.

Wednesday, December 12th is the deadline this year so please try and get items to us before this date. Please let me/us know if you'd like to help and thank you for all you do!
GRAND ROUNDS FOR MONTH OF DECEMBER

“Multimodal Analgesia: Implications for Oncologic Surgery”
December 4, 2012
Bruce Ben-David, MD
University of Pittsburgh School of Medicine
Clinical Professor

“Peripheral Nerve Block Additives”
December 11, 2012
Sylvia Wilson, MD
Medical University of South Carolina
Assistant Professor

“Anesthesia Medically Challenging Case Conference”
December 18, 2012
Matt McEvoy, MD
Medical University of South Carolina
Associate Professor

“Anesthesia Medically Challenging Case Conference”
December 18, 2012
George Guldan, MD
Medical University of South Carolina
Assistant Professor
I HUNG THE MOON

Don’t forget to nominate your co-workers for ‘Beyond the Call of Duty’. I Hung The Moon slips are available at the 3rd floor front desk, and may be turned in to Janine Sims or Kim Crisp. Thanks so much!!

Sylvia Wilson, MD; Leslie Ancrum, CRNA; and Kathy Comley, CRNA: Your leadership and support in unanticipated emergent case.

Myra Coe, CRNA; Joey Seymour, CRNA; and Heather Highland, CRNA: Helping out to begin a case and making it happen for me to go home early to be with my family. Thank you so much!

Michelle Ballister, CRNA: Lending a helping hand in working to sterilize my patient during an emergency.

Marshall Kearney, Anesthesia Technician: Your assistance during our trauma case on a Saturday night is one of the many example of your commitment to excellent patient care.

Jenny Matos, MD: Willingness to fill in last minute to introduce a guest speaker.

Karen James: For pitching in to cover front desk in my time of need.

Pay Aysse: Helping me finish Smart Track when my system was down.

Holiday Party: December 1, 2012 @ 7:00pm
Location: Carolina Yacht Club.

Resident Graduation: June 21, 2013
Location: Francis Marion Hotel

December 2012 Standard of the Month

We Would Love to Hear From You!

If you have ideas or would like to contribute to Sleepy Times, the deadline for the January edition will be December 14, 2012.