

Teaching Portfolio

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UNIVERSITY *of* MARYLAND
SCHOOL OF MEDICINE

2011-2013

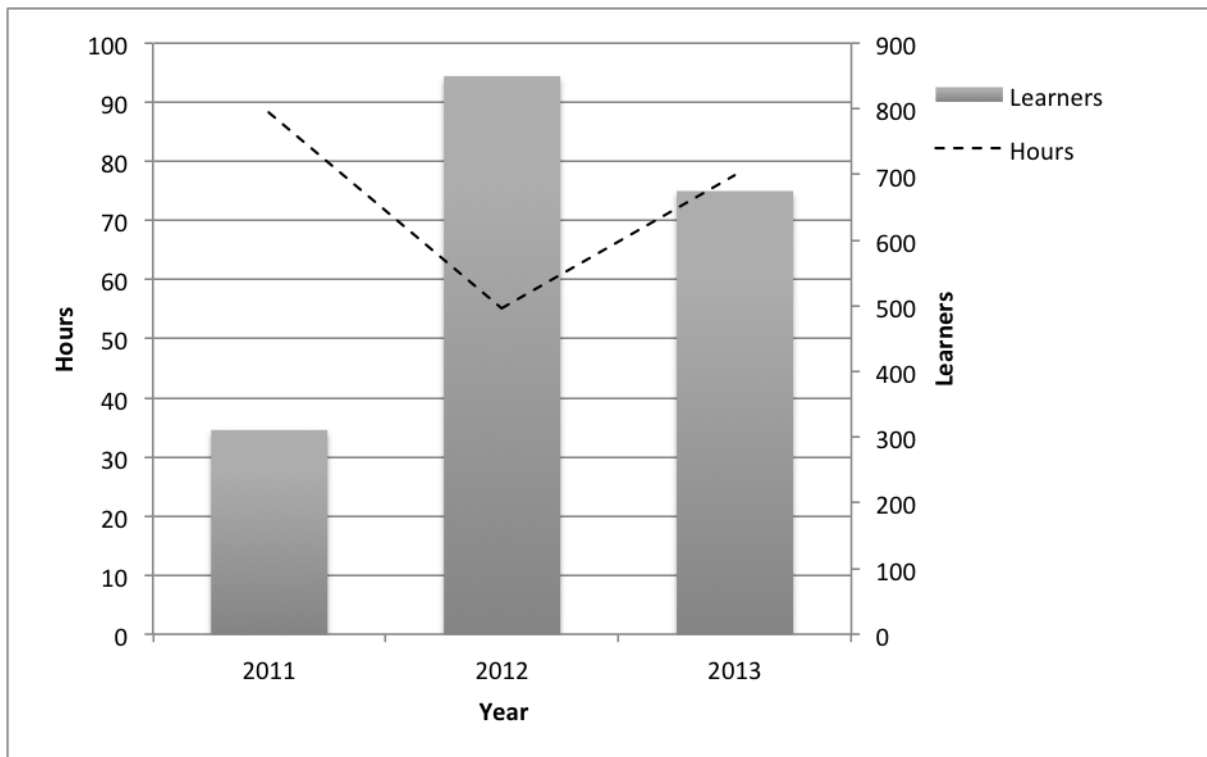
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Direct Teaching

Since my arrival at the University of Maryland School of Medicine in July, 2011, I have taught 1,236 learners for a total of 221 direct teaching hours.

Figure: Summary of overall direct teaching activity, July 2011 to September 2013.



Resident Teaching

Since 2011, I have provided clinical instruction in the operating room, trauma resuscitation unit, surgical intensive care unit, and neurosciences intensive care unit.

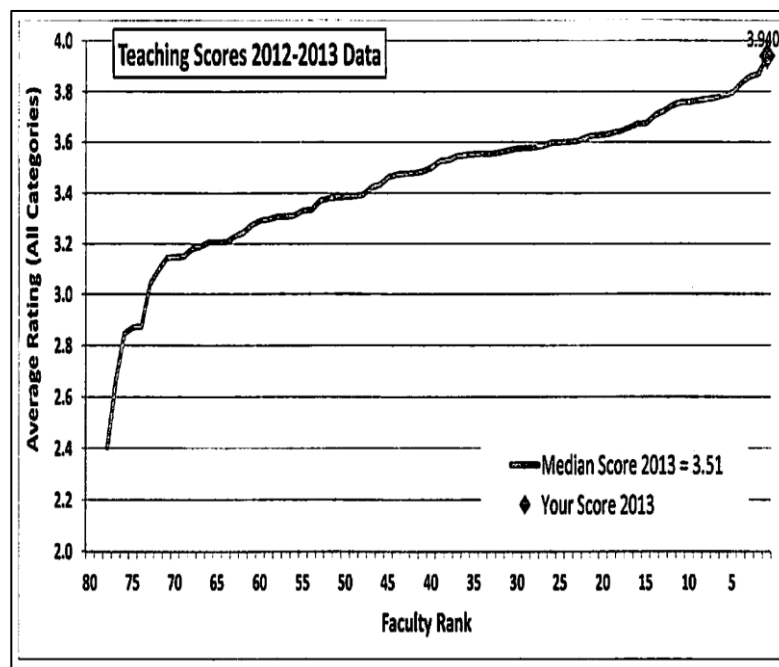
Instruction has been provided daily for:

- Trauma anesthesiology fellows (2-3 per year)
- Anesthesiology residents (20-24 per year)
- Surgery residents (8-10 per year)
- Emergency medicine residents (24-28 per year)
- Medical students (12-16 per year)

- Neurology residents (4-7 per year)
- Neurosurgery residents (1-2 per year)

In FY 2012 and 2013, I was the top ranked educator in the Department of Anesthesiology. The median teaching score was 3.51 in 2012, and I obtained a score of 3.94. This score is based on resident evaluations of my teaching. A copy of my teaching performance data, which is derived from my annual performance report compiled by my Chair, Dr. Peter Rock, is provided below:

Faculty Member	Acad Year	Avg	Rank
Galvagno, Samuel	2009		
Galvagno, Samuel	2010		
Galvagno, Samuel	2011		
Galvagno, Samuel	2012	3.93	1
Galvagno, Samuel	2013	3.94	1



Resident evaluation data from FY 12 (includes data from my start date on 1 July 2011):

Resident Evaluations			
# of Evaluations:	30	/45 residents evaluating	
Category	Dept. Average	FY12 Score	Scale
Availability	3.50	3.9	4 - Outstanding
Case Related Teaching Ability	3.40	3.9	3 - Good
Didactic Teaching	3.38	3.9	2 - Adequate
Professionalism and Patient Care	3.44	3.9	1 - Inadequate
Systems-Based Practice	3.44	3.9	
Overall Contribution	3.27	3.9	
OVERALL AVERAGE:	3.40	3.9	
Rank		1/73	

Other Resident Teaching

I provide resident teaching for emergency medicine residents rotating in the trauma resuscitation unit and operating rooms (airway rotations). A summary of my teaching effectiveness is provided below:

Period / Number of Evaluators	Didactic teaching	Case-related teaching
Jul-Dec 2011 (6)	4.0	3.6
Jan-Jun 2012* (3)	3.67	3.67
Jul-Dec 2012 (5)	4.25	4.17
Jan-Jun 2013* (8)	3.67	3.67

*Different scale used (4-highest, 1-lowest). Other scale was 1-5 (5-highest, 1-lowest)

As part of the anesthesiology resident lecture series, I provided several lectures from 2012-present. A summary of teaching effectiveness for lectures where a formal teaching evaluation was completed is provided below:

Date	Lecture	Quality of content	Familiarity with topic	Organization of presentation	Ability of speaker to communicate and interact	Quality of AV material
6/10/13	Renal Systems*	4.8	4.8	4.8	4.8	4.8
8/12/13	Mathematical Principles*	4.7	4.9	4.8	4.7	4.6
11/19/12	Respiratory Diseases*	4.8	4.9	4.9	4.9	4.8
7/25/13	Trauma anesthesiology annual report**	4	4	3.9	3.9	3.9

*Scoring: 1-5, 5=highest

**Scoring: 1-4, 4=highest

Additional Resident and Fellow Teaching Provided from 2011-2013

Date	Lecture	Number of Learners	Comments
8/25/11	Advanced Trauma Life Support: Airway & Spine Trauma	30	Residents from Maryland, Hopkins, Union
7/21/11	Advanced Trauma Life Support: Airway & Spine Trauma	24	Residents from Maryland, Hopkins, Union
6/18/11	Advanced Trauma Life Support: Airway & Spine Trauma	13	Hopkins surgery residents only

6/19/11	Advanced Trauma Life Support: Thermal Emerg, Final Evals	13	Hopkins surgery residents only
6/9/11	Advanced Trauma Life Support: Airway & Spine Trauma	17	Maryland and Hopkins surgery residents only
6/20/11	Advanced Trauma Life Support: Thermal Emerg, Final Evals	17	Maryland and Hopkins surgery residents only
6/23/11	Advanced Trauma Life Support: Airway lecture & station	22	Residents from Maryland, Hopkins, Union
6/16/12	Advanced Trauma Life Support: Airway lecture & station	46	Large course, Maryland and Hopkins surgery residents
8/9/12	Mechanical Ventilation: introduction and troubleshooting	11	Maryland surgery residents, part of core curriculum
8/17/12	ATLS: head trauma, pediatric, geriatric, women, head & neck	35	Residents from Maryland, Hopkins, Union
9/13/12	SCCM Fundamentals of Critical Care Support Course: Airway	17	Included critical care fellows from Maryland
9/14/12	SCCM Fundamentals of Critical Care Support Course: Mech Vent	17	Included critical care fellows from Maryland
1/8/13	Acute renal failure & Endocrinopathies in the ICU	16	Critical care fellow lecture
3/6/13	Journal club: helicopter emergency medical services	43	Emergency medicine residents (Maryland)
3/20/13	CUP conference: Osmotherapy in the neurosciences ICU	41	Pharmacy residents (Maryland)

3/21-22/13	FCCS (Course Director)	17	Included PA residents and critical care fellows
9/11/13	Intraosseous access in-service	13	Included Maryland emergency medicine and anesthesiology residents

Medical Student Teaching

In both 2012 and 2013, I taught sections of **MSPR 522 PATHOPHYSIOLOGY THERAPEUTICS II**. In 2012, I lectured for 2 hours on “general anesthesia.” In 2013, I provided a 2 hour lecture on “multimodal analgesia.”

I am the attending physician and preceptor for students completing the **ANES 518** surgical critical care unit sub-internship. I teach 3-5 senior students per year, 8-12 hours per day. This sub-internship involves an intense immersion for senior students, with hands-on experience with advanced procedures and daily presentations of critically ill patients. I provide a lecture one-on-one to the medical students 5 days a week each week when assigned to the intensive care unit.

In 2012, a lecture series was initiated for medical students performing an anesthesiology elective (**ANES 541**). This series is known as the “Miller” series. I was highly involved in the organization and planning for this lecture series, and independently authored two of the twelve lectures. Since 2012, I have provided three of the twelve lectures on a monthly to bi-monthly basis (depending on the number of students) on airway management, fluid resuscitation, and trauma anesthesiology. To date, I have provided 9 hours of formal didactic instruction to 32 medical students for the **ANES 541** elective.

Since my arrival at the University of Maryland in 2011, I immediately became engaged with the School of Medicine Trauma Interest Group. Aside from significant mentoring duties (see section on mentoring below), I have lectured to the group annually.

- On 4 October 2011, I provided 3 hours of advanced airway management instruction to 39 medical students
- On 14 February 2012, I lectured for 1 hour to 32 students in the Trauma Interest Group. The title of my talk was “Shock after trauma.”

- In Spring 2013, I am scheduled to give a talk to the Trauma Interest Group on “Trauma anesthesiology and damage control resuscitation.”

From the President of the Trauma Interest Group, I received this message after my February 2012 lecture:

“It was very nice to meet you on Wednesday. Thank you so much for presenting to the Trauma Interest Group. We know how busy you must be, and we really appreciate your taking the time to talk with students. I am always impressed with how generous the UMSOM physicians are with their time and energy, so again, thank you.”

In 2012, based on my involvement with several intensive care unit subinterns from the School of Medicine, I was nominated for the prestigious Arthur P Gold Foundation Humanism in Medicine Award:

“Dr. Galvagno,

It is our pleasure to inform you that you have been nominated by a School of Medicine student for the 2012 Arthur P. Gold Foundation Humanism in Medicine Award. The award, which is administered by the AAMC Organization of Student Representatives (OSR), annually honors a medical school faculty physician who exemplifies the qualities of a caring and compassionate mentor in the teaching and advising of medical students. The award also honors those who advocate for the practice of patient-centered medicine by teaching ethics, empathy, and service by example. The goal of the award is to emphasize, reinforce, and enhance the importance of humanistic qualities among medical school students and faculty.”

Teaching at Outside Institutions

Before joining faculty at the University of Maryland School of Medicine, I received the 2011 **CA-1 and CA-2 Teacher of the Year Awards** at the Johns Hopkins School of Medicine, Department of Anesthesiology and Critical Care Medicine. In 2009, I was awarded the “**Outstanding Dedication to Teaching Award**” by the Johns Hopkins School of Medicine Multidisciplinary Critical Care Medicine Fellowship.

Since 2001, I have been a certified Advanced Cardiac Life Support and Pediatric Advanced Life Support instructor at the 779th Medical Group, Joint Base Andrews, MD. I have taught a total of 51 learners over the course of 151 hours of direct instruction. The majority of these learners are practitioners in the National Capitol region, including the Pentagon and neighboring military installations. Approximately 15% of these learners are residents from dental, family practice, and other local military residencies. My ACLS and

PALS teaching experience since my arrival at the University of Maryland in 2011 is documented below:

Date	Class	Number of Learners	Total Hours
9/13/11	Pediatric Advanced Life Support: Respiratory, Final Eval	21	8
10/11/11	Advanced Cardiac Life Support: Stroke, MI, Megacode	16	6
9/15/11	Advanced Cardiac Life Support: Equipment, Team Concepts	17	6
7/15/11	Advanced Cardiac Life Support: Putting it together, Final Eval	18	8
1/28/13	Pediatric Advanced Life Support (Course Director, Day 1)	20	8
1/30/13	Advanced Cardiac Life Support	21	6
9/5/13	ACLS -acute coronary syndromes and stroke	19	4
9/6/13	ACLS- putting it all together and Megacode testing	19	5

In 2010, I designed and delivered a 2-hour series on biostatistics for the Johns Hopkins University School of Medicine. After my arrival at Maryland in 2011, I continue to return to Johns Hopkins to provide this lecture for the fellows in the Division of Pain Management, and for the residents in the Department of Anesthesiology and Critical Care Medicine. I also deliver an annual 1 hour lecture to anesthesiology residents at Johns Hopkins on “Trauma anesthesiology and damage control resuscitation” (lectures delivered on 18 July 2012 and 24 July 2013).

Additionally, I have delivered the following lectures and Grand Rounds at the following institutions:

- 1 Nov 2011, “Evidence based use of vasopressors,” Johns Hopkins Physician’s Assistant Residency Program in Critical Care
- 25 Feb 2012, “Helicopter EMS: Evaluation of the evidence base,” Johns Hopkins Department of Surgery, Division of Acute Care Surgery Grand Rounds
- 18 April 2012, “Helicopter emergency medical services,” Johns Hopkins School of Public Health, Guest Lecturer for Ellen Mackenzie’s “Emergency Medical Services Systems” course
- 1 May 2012, “Trauma anesthesiology and damage control resuscitation,” Brigham and Woman’s Hospital, Harvard Medical School, Visiting Professor (2 hour lecture)
- 9 July 2012, “Ultrasound guided internal jugular venous cannulation,” University of Maryland School of Nursing, lecture/laboratory for School of Nursing Student Registered Nurse Anesthetist program
- 9 August 2012, “Mechanical ventilation: introduction and troubleshooting,” University of Maryland Department of Surgery, lecture for surgical residents
- 25 Sept 2012, “Is flight alright? Evaluation of the evidence base for helicopter emergency medical services,” Special Topics in Critical Care conference (regional talk for nurses, paramedics, emergency physicians, trauma surgeons)
- 18 October 2012, “Airway complications and management in the intensive care unit,” online webinar for the Society of Critical Care Medicine (audience: critical care fellows, nurses, physicians, respiratory therapists; international webinar)
- 5 November 2013, “Journal Club: consequences of intraoperative hypotension,” University of Miami, Visiting Professor

- 6 November 2013, “Helicopter emergency medical services and anesthetic considerations in aeromedical critical care,” University of Miami, Visiting Professor / Grand Rounds

Advising and Mentoring

Anesthesiology Resident Advising

1. 2011-2012. Jing Tao, MD. I became Jing’s secondary advisor and wrote her a letter of recommendation for her critical care fellowship. Through my connections in the Society of Critical Care Anesthesiologists (SOCCA), I was able to help Jing secure interviews at Harvard and Columbia. Jing was accepted to the Brigham and Woman’s / Harvard Medical School Fellowship in Critical Care Medicine, and is currently progressing satisfactorily as a fellow.
2. 2011-12. Aaron Lange, MD. I began advising Aaron at the beginning of his CA-3 year. I wrote a letter of recommendation which led to his acceptance as the first regional fellow in the University of Maryland fellowship in regional anesthesia. Aaron was offered a position in our Department, and is currently an Anesthesiology attending in the Division of Regional Anesthesia at the University of Maryland.
3. 2012-present. Brandon Lebow, MD (University of Maryland School of Medicine Alum). Brandon has progressed satisfactorily through our residency program and has successfully matched into the cardiothoracic fellowship at the University of Maryland.
4. 2012. Andrew Porter, DO. I provided Andrew with a letter of recommendation while he was a CA-3. Andrew successfully obtained a private practice position following completion of his residency.
5. 2012. Ilene Lewis, MD. Ilene was a chief resident in our Department and completed her fellowship in Critical Care Medicine at the University of Maryland, Department of Anesthesiology. I wrote a letter of recommendation for Ilene that helped her obtain a faculty position as an anesthesiologist/intensivist at the University of Wisconsin.

6. 2012-2013. Jamil Mathews, MD. Jamil had failed to match for a position in surgery. I began advising him when he was working as a PGY-2 preliminary resident in the surgical intensive care unit through University of Maryland Department of Surgery. I wrote numerous letters of recommendation for Jamil, and he was recently accepted as a burn fellow at Johns Hopkins Bayview.
7. 2013-present. Sundaram Chettiar, MD. Sundaram worked with me as a CA-2 resident in the surgical intensive care unit. Thereafter, he requested that I become his official mentor in our Department. I continue to work one-on-one with Sundaram with regularly scheduled meetings advising him about opportunities for fellowship and jobs upon graduation. He is progressing satisfactorily through the residency.

Medical Student Mentoring

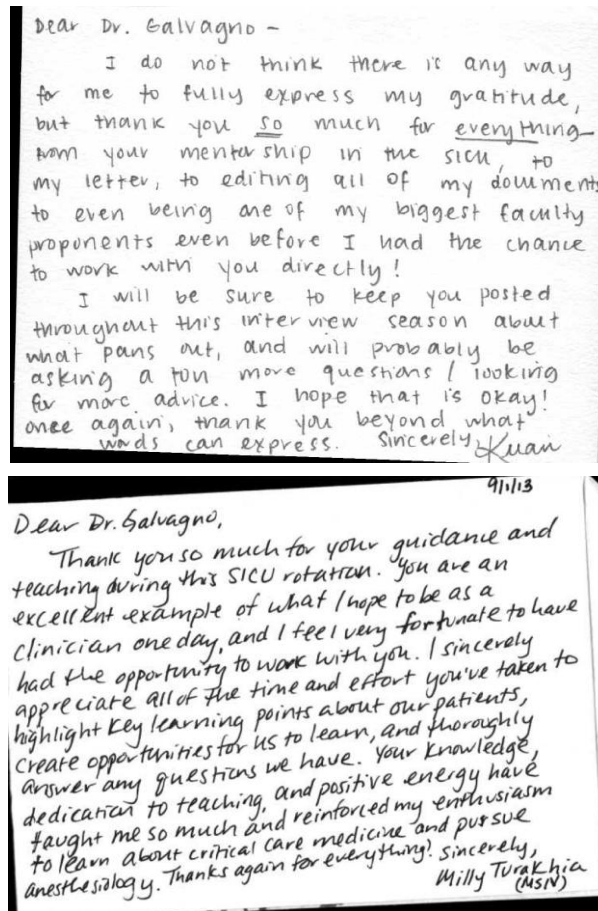
1. 2012. Erin Knepp, MD. Erin first worked with me during her anesthesiology elective. I began advising Erin formally thereafter, and wrote her a letter of recommendation. She obtained several interviews including programs at Harvard and Johns Hopkins. She successfully matched for an anesthesiology residency position at the Johns Hopkins School of Medicine.
2. 2013-present. Kiran Belani. I began advising Kiran in early 2013. Kiran, a designated FAER scholar, performed a subinternship in critical care with me where she earned the grade of “Honors.” I wrote a letter of recommendation for Kiran and reviewed her personal statement. I continue to work with Kiran closely with her rank list and required documents for a successful match in anesthesiology.
3. 2012. Krupa Patel, MD. I met Krupa through the Trauma Interest Group. I reviewed and edited her personal statement and provided one-on-one advice and mentoring for residency planning. Krupa successfully matched into an anesthesiology residency upon graduation from the University of Maryland School of Medicine in 2012.
4. 2012-present. Remigo “Remy” Roque. Remy sought my advice regarding research in the field of anesthesiology. I continue to meet with him regularly regarding several

IRB-approved projects that I have invited him to participate in. I have also provided him with advice regarding his application to anesthesiology programs.

5. 2012-present. Jonathan Danquah. Jonathan approached me via the Trauma Interest Group. He has shadowed me in both the intensive care unit and trauma operating rooms numerous times. I continue to provide Jonathan with advice regarding residency and academic advice regarding his medical school studies.
6. 2013-present. Milly Turakhia. Milly performed a subinternship in critical care medicine under my supervision. As a member of the Trauma Interest Group, I had previously discussed opportunities in anesthesiology with her. I wrote her a letter of recommendation for her application to residency program in anesthesiology.
7. 2012-present. Aaron Hess, PhD. Aaron and I became acquainted when he approached me regarding a residency in anesthesiology. Aaron and I also continue to work on several research projects ranging from the effects of high-dose opioids on microcirculation in shock to the epidemiology of massive blood transfusions. I wrote a letter of recommendation for Aaron for his application to residency programs in anesthesiology.

As the anesthesiology representative for the Trauma Interest Group, I have allowed twelve students to shadow me in both the intensive care units and trauma operating rooms. These students are Margaret Kott, Krupa Patel, Yongeun Cho, Berge Shammassian, Mason Dunham, Marthe Bryant-Beneview, Jonathan Danquah, Scott Manski, Kiran Belani, Christine Lim, Milly Turakhia, and Aaron Hess. Of note, Yongeun Cho, Krupa Patel, and Mason Dunham successfully matched into residencies in anesthesiology.

The following messages were recently received from medical students at the University of Maryland (Kiran Belani, C'2013; Milly Turakhia, C'2013):



Trauma and Critical Care Medicine Anesthesiology Fellow Advising

1. 2011-2012. Karla Greco, MD. Karla was a trauma anesthesiology fellow from 2011-2012. I wrote her a letter of recommendation which helped her secure a position as an attending anesthesiologist in the Division of Trauma Anesthesiology, University of Maryland School of Medicine, Department of Anesthesiology. I also wrote a letter of recommendation supporting Karla's promotion to Assistant Professor, which she subsequently attained.
2. 2011-2012. Christopher Franklin, MD. I wrote a letter of recommendation supporting the hiring of Chris as an intensivist in our Division of Critical Care Medicine, University of Maryland School of Medicine, Department of Anesthesiology. I also write a letter of recommendation for Chris' promotion to Assistant Professor, which he subsequently attained.

3. 2010-2013. Joshua Sappenfield, MD. Before I was faculty at the University of Maryland, I met Josh and encouraged him to apply for the trauma anesthesiology fellowship. Josh was a CA-2 in the Department of Anesthesiology at the time. Josh went on to complete the fellowship in trauma anesthesiology in 2013, and was hired as an Assistant Professor in the Department of Anesthesiology at the University of Florida. I wrote one of his letters of recommendation for that position. During his fellowship, I helped Josh author two peer-reviewed articles (see CV), one as a senior author. Josh is also an author on a paper we wrote together on airway education. This is a major paper undergoing final revisions for publication in the top journal in our field, *Anesthesiology*.

Educational Leadership & Scholarship

Advanced Cardiac Life Support (ACLS). Program Development and Teaching. Since 2001, I have been teaching ACLS. I continue to be an instructor and instructor-trainer at the 779th Medical Group, Joint Base Andrews, MD. To enhance delivery of the American Heart Association required presentations, I have integrated real-world scenarios specific for each level of provider (prehospital, hospital ward, intensive care unit).

Pediatric Advanced Life Support (PALS). Program Development and Teaching. Since 2001, I have been teaching PALS. I am the only certified instructor in the both the Division of Trauma Anesthesiology and the Division of Critical Care Medicine.

Advanced Trauma Life Support (ATLS). Program Development and Teaching. I became a certified ATLS instructor in 2011, before my arrival as a faculty at the University of Maryland School of Medicine. I have instructed numerous courses, and I am one of only five anesthesiology faculty certified as an instructor. In 2012, I served as an instructor-trainer for ATLS instructor candidates.

Fundamentals of Critical Care Support Course (FCCS). Program Development and Teaching. I have been teaching FCCS since 2010. This includes courses at both the University of Maryland and Johns Hopkins Bayview (the course is not offered at Johns Hopkins Hospital-Downtown). In 2012, I was appointed as a Course Director by the Society of Critical Care Medicine after progressing through a rigorous evaluation process, including multiple tests and teaching evaluations by veteran course directors. I am one of two Course Directors at the University of Maryland. Since I became Course Director, the number of offered courses has doubled from four per year to eight per year.

Director, Surgical Critical Care Fellowship Research Program. Program Development and Teaching. In early 2012, I was approached by the Director of the Surgical Critical Care Fellowship Program, Dr. William Chiu, regarding a need for improved research education for the critical care fellowship program. I designed and implemented a fifteen-lecture series on biostatistics and epidemiology and organized monthly research meetings to track fellow progress. In 2013, I created a database to better track fellow participation, progress, and impediments to successful completion of projects. Through my leadership, the number of abstracts and publications increased by over 40% during the first year of the program, and current research productivity in 2013 is projected to exceed levels

attained in 2012. To date, this is the most organized and comprehensive surgical critical care fellowship research program known in the country. Pre- and post-program assessments are in progress, and a publication is planned for late 2013 detailing the success of this program. The objectives and lecture schedule for this program is listed below:

OVERVIEW:

A formal didactic schedule and research agenda will be established for all first year fellows. Fellows from the trauma anesthesiology and anesthesiology-critical care medicine fellowships will also be encouraged to participate.

OBJECTIVES:

At the conclusion of this program, the learner will:

- Attain a working understanding of basic statistical and epidemiological concepts
- Choose appropriate study designs to answer relevant clinical questions
- Identify and establish methods to correct for biases, confounding, and threats to validity
- Understand expectations, regulations, and requirements necessary for obtaining Institutional Review Board (IRB) approval
- Successfully implement a data collection strategy to:
 - Ensure information is collected and delivered in a consistent manner
 - Eliminate data redundancy
 - Preserve existing data when deleting unwanted data
 - Establish methods to minimize the amount of missing data

LECTURES:

1. Biostatistics I
2. Biostatistics II
3. Systematic reviews and meta-analyses
4. Diagnostic tests
5. Epidemiological concepts and definitions
6. Power and sample size
7. Cohort studies
8. Database management
9. Case control studies
10. Randomized controlled trials
11. Confounding and effect modification
12. Bias
13. Introduction to regression techniques
14. Introduction to survival analysis
15. Introduction to advanced statistical techniques (propensity scores, instrumental variables, structural equation modeling)

Appendix 1: Comments from Teaching Evaluations

Anesthesiology resident comments from FY 2013:

- “Dr. Galvagno is a true asset to the department. He is very resident-focused, teaches constantly, and takes care of patients with an evidence-based practice. He is an excellent role model and a pleasure to work with!”
- “Extremely knowledgeable and does a ridiculous amount of relevant teaching. Treats residents well and is great to work with. Could give classes to some other attendings on ‘how to be an attending in a teaching hospital.’ If we had 10 Galvagnos, this would be the best program.”
- “Goes above and beyond typical attendings to teach, always providing relevant papers and spends time discussing them, creating variety of anesthetic techniques to familiarize residents with less common methods of practice.”
- “I wish all the attendings could be this enthusiastic to teach and easy to approach so you can ask the questions you really want to. Hire more.”
- “Excellent teacher, goes out of his way during and after rounds. Very good feedback.”

Anesthesiology resident comments from FY 2011-2012:

- “One of the most amazing professors I have worked with. Good clinical knowledge base. Goes the extra mile to teach you SYSTEMS-BASED PRACTICE whether in the OR or the NICU
- “Takes the time to do teaching on a daily basis, has handouts, pimps but doesn’t make you feel stupid and will go over questions and is always available in a non threatening manner to help you develop your skills and provide great patient care”
- “Dr. Galvagno is one of the best teachers at STC. He always prepares something to talk about and offers evidence base medicine to support his opinion. Very knowledgeable.”
- “I try to model my practice after him. Well rounded, intelligent, caring and compassionate individual. Showed great degree of love for his profession both as a caregiver and as a teacher. Very grateful for the time he spent teaching. Has a unique and polite mannerism...”

- “It is an honor to say the least, I had a opportunity to work under his supervision. Great resource, took time out of a busy day running the floor to do in OR teaching, can’t ask for more, well respected in the OR by our residents and surgeons.”
- “It was great rounding with Dr. Galvagno in the SICU. He expedited rounds, hitting key points, so he could spend time with daily critical care teaching. It was a pleasure working with him.”
- “I learned a lot from you and appreciate your willingness to help in any way you could and for taking the time to answer my questions about statistics.”

Comments from rotating emergency medicine residents and critical care fellows (airway rotation at Shock Trauma):

- “Great, friendly—specifically taught bedside and outside the TRU”
- “One of the few attendings that seemed to want and like to teach”
- “Great for seeding us out to give us airway experience. Was very patient and encouraging. Really enjoyed working with him”
- “Great teacher, engaging, helpful, always available-great experience working with him.”
- “...the only attending to give me primary literature relevant to both anesthesia and CC which I appreciated.”
- “Amazing teacher and role model-wish I could have worked more with him.”
- “Really made an effort to teach-always knew that I would learn something new going into his room”
- “Had limited time with him-was great teacher and enthusiastic mentor”
- “Brilliant teacher-very enthusiastic and encouraging-very supportive during challenging cases”

Resident, fellow, and medical student comments from formal lectures:

- “Honestly, this was the best and most clear lecture I’ve ever had on stats-thank you!”
- “Did a great job teaching a dry subject”
- “Great job explaining concepts”
- “Amazing lecture!”
- “Very helpful review”
- “One of the better talks this year”
- “Interactive”
- “Good case presentation relevant to practice”

- “Discussed common issues faced on patient care rounds. Good review of physiology”
- “Great overview of pathophysiology and treatment”
- “Very educational and easy to follow”
- “Great presentation and engagement of the audience. Speaker did a good job of talking to the group as colleagues and was a great pharmacist advocate!”
- “Great presentation and energy. Really liked that he talked to us as colleagues...:
- “Excellent delivery”
- “Concise and succinct”
- “It was well presented”
- “Excellent and informative presentation!”
- “I thought that this presentation was very well done. As someone who does not practice in the field, I felt that the presenter did a great job of ensuring that everyone was on the same level from the start of the presentation. I took away some great things from the session that will be of help in the event we would ever see a similar type of patient on our service in the future.”
- “Excellent presentation, discussed literature and controversies in therapy”
- “Background definitions clear and concise. Pertinent studies well summarized. Easy to follow pace of speech.”
- “The material was presented in an excellent manner”

Appendix 2: Resident Lectures Provided in the ICU and Operating Room

When attending in the intensive care unit, in addition to providing Fundamentals of Critical Care Support (FCCS) lectures as an FCCS Course Director, as well as Advanced Cardiac Life Support (ACLS) and Advanced Trauma Life Support (ATLS) lectures for residents, I provide the following lectures regularly over the course of the year:

- Acid base interpretation—simplified
- How to set up and troubleshoot airways pressure release ventilation
- Bacterial pathogens (bugs and drugs)
- Bronchial segment anatomy
- Chest tube management in the ICU
- Capnography in the ICU
- Continuous renal replacement-how to initiate and adjust in the ICU
- Cerebrospinal fluid findings in meningitis
- Basics of how to read a head CT
- Demand ischemia-diagnosis and management
- The difficult airway in the ICU
- Hyper- and hyponatremia-differential diagnosis
- Mechanisms of positive pressure ventilation and afterload reduction
- Mechanical ventilation I and II (2 part, 2 hour lecture)
- Vasopressors
- Opioids “101”
- Leukopenia-differential diagnosis and evaluation
- Diuretics-pharmacology and use in the ICU
- How do I know if my patient needs more fluid? Assessment of fluid responsiveness in the ICU
- Renal tubular acidosis
- Sepsis-review of surviving sepsis campaign guidelines and management of septic shock
- Obstetric related emergencies in the ICU
- Subtle signs of sepsis (diagnostic considerations for sepsis in the ICU)
- Prolonged mechanical ventilation-diagnosis and management

- Renal transplantation-ICU management
- Liver transplantation-ICU management
- Insertion and management of transvenous pacemakers
- Starting and managing warfarin
- Stress ulcer prophylaxis in the ICU
- Systolic vs. diastolic dysfunction
- Interpretation of thromboelastography (TEG)
- How is cardiac output measured by thermodilution?
- Ventilator liberation
- Ventilator graphics
- Pulmonary hypertension and pulmonary embolism
- Acute kidney injury
- Endocrine emergencies in the ICU
- Hemorrhagic shock-pathophysiology and management
- Use of the CAM-ICU for diagnosis of ICU delirium

I provide the following lectures regularly in the operating room over the course of the year to residents, SRNAs, and other rotators:

- Awake fiberoptic intubation
- Blood and blood product administration
- Cricoid pressure-review of the evidence base
- What is physiological dead space?
- What is functional residual capacity?
- Anatomy of an airway
- Anesthesia implications for patients with respiratory disease (annual resident lecture)
- Interpretation of pulmonary function tests
- Renal system (annual resident lecture)
- Trauma anesthesiology and damage control resuscitation
- Use of intraosseous catheters-insertion and management
- Thromboelastography in trauma