

Trainees and Students: Attend the TSRA Social at AATS

TSRA SOCIAL

Saturday, May 1st
6:00 - 7:00 PM EST

Resident, fellows, and medical students:
please join us for a casual event
with your peers

In conjunction with the upcoming AATS Annual Meeting this weekend, all trainees and students are invited to attend this event. This event will be hosted on the Remo platform and will be a special opportunity to network with your peers in a casual setting. We look forward to seeing you there!

Trainee Opportunities in CT Surgery

- STS Candidate/Pre-Candidate Membership**
Link: <http://bit.ly/3h59zuM>
- AATS 101st Annual Meeting Registration**
Link: <http://annualmeeting.aats.org>
- ERAS Cardiac Society Experience Conference**
Link: <https://erasvirtual2021.com/#modal-to1f4b>
- Associate Membership in the TSRA:**
Link: <https://bit.ly/3avRfR4>
- SESATS 13**
Link: <https://www.sesats.org/>
- 2nd Annual Sutureless Summit**

2nd Annual Sutureless and rapid deployment valve technology held in October 18-19, 2021. Contact quinnr@mmc.org for questions. Link <http://bit.ly/2Ym7HVX>

Assessing the CT Surgery Trainee Experience

This survey aims to evaluate trainees' experiences at their home institutions with regards to operative experience, work hours, education and overall program support. This survey is completely anonymous regarding the identity of the trainee as well as the program to which he or she belongs. Please see the link below: <https://bit.ly/3udvHx2>

Training for a Catheter-based Era: Survey

This survey aims to study current practices and attitudes toward the structural heart training in cardiothoracic surgery.

For Residents:
<https://bit.ly/2PAAZil>

Johns Hopkins Advanced Lung Failure Fellowship

Surgical Director, Lung Transplant Program Link
Contact: Errol.bush@jh.edu

Did you miss our recent webinar. Recording is available below.

[TSRA Medtronic Journal Club Series: Valve Selection](#)
[Conferences in Congenital Heart Surgery](#)

Newsletter Editorial Staff

- Clauden Louis — Editor
- Evan Rotar — Trainee Opportunities
- Alex Brescia — President's Address
- Jessica Luc — Manuscript of the Month
- David Blitzler — Featured Podcast
- Parth Patel — Abstract & Conference Dates
- Yihan Lin — Global Health
- Fatima Wilder — Diagnostic Challenge
- Garrett Coyan — TSRA Educational Resources and Multiple Choice Questions

Please save the date May 20th at 8PM EST for our webinar entitled: "Tips and tricks to maintaining a healthy relationship as a cardiothoracic surgeon or trainee"

During this webinar we will have six couples (three staff and three trainees) discuss what they do in their personal relationships to make things work given the various challenges of our job.
Link <https://bit.ly/3t8jhRg>

Join the New STS Mentorship Program

The TSRA is excited to announce a partnership with the STS and their newly launched mentorship program. The STS developed this program to formalize a year-round mentorship relationship for its surgeon members, and they have agreed to now make this available to residents. Through this program, residents who have registered as STS candidate members, can apply to become a mentor or for mentorship.

Mentorship is widely recognized as a critical element for career success for cardiothoracic surgeons and there are often long-term benefits for both the mentor and mentee in these relationships. Many members of the TSRA have expressed difficulty in finding mentors within their institutions for numerous reasons. We believe this partnership will be an important step towards helping members of the TSRA develop the mentor relationships that they desire.

<https://www.sts.org/sts-mentorship-program>

Next Steps

A few weeks after your application is received, you will be matched with a mentor and make your initial contacts by email. You and your mentor can then communicate in the manner that works best for you both. If you have questions, please contact tsrasurgery@gmail.com

Young Surgeon's Note: TSRA Webinar Series

By: Jason Han

As the pandemic necessitated our transition from in-person meetings and lectures to virtual educational experiences, many felt that the new norm could never come to be as effective as the old.

Yet, this year, we tried our utmost. The TSRA embraced this transition with generous early educational sponsorships from our industry partners. One such initiative is the **TSRA Journal Club Series**, which is sponsored by Medtronic, and features discussions on some of the most relevant and controversial topics in cardiothoracic surgery. So far, we have hosted discussions on the following topics with nearly 100 attendees across multiple institutions. [CABG vs. PCI for left main disease](#) with Drs. Gregg Stone and Joe Sabik [TAVR vs. SAVR in low-risk patients](#) with Drs. Michael Reardon, Michael

Mack, Martin Leon, Molly Szerlip, Kendra Grubb, and Shinichi Fukuhara
Upcoming topics include:
State of the art CABG: MIDCAB, hybrid, multi-arterial grafting
Surgical and endovascular management of acute aortic dissection
Life as a significant other to a cardiothoracic surgeon
And more

Simultaneously, we are also currently hosting the **TSRA Atricleur Webinar Series** on issues for early career surgeons. Our topics to-date include:

- [Robotic Cardiac surgery](#) with Drs. Brittany Zwischenberger, Gianluca Torregrossa; David Blitzler
- [Starting a career in Congenital CT surgery](#) with Drs. Damien LaPar, Elizabeth Stephens; Garrett Coyan
- [Integrating Afib surgery into your practice](#) with Drs. Armin Kiankooy, Lawrence Lee; Yihan Lin
- [Thoracic Surgery Early Career Tips](#) with Drs. Brian Mitzman, Joshua Boys; Fatima Wilder

Upcoming topics include:
Early Career Trips in Transplant and Heart Failure with Drs. Amy Fiedler, Marisa Cevalco; Jason Han
Structural Heart with Drs. Isaac George, Sultan Ibrahim; Jessica Luc

If you missed them, do not worry. These webinars are **freely available** on the [TSRA YouTube channel](#). Please lookout for our future posts and emails regarding these events, and we look forward to seeing you.

Manuscript of the Month

By: Jessica Luc

Implementation of a protocol to increase the academic productivity of cardiothoracic surgery resident physicians

Garrett N. Coyan, MD, MS, Ibrahim Sultan, MD, Laura M. Seese, MD, Danny Chu, MD, Matthew J. Schuchert, MD, Angela Kinnunen, MPA, and Arman Kilic, MD

Objective: Academic productivity during cardiothoracic surgery residency training is an important program metric, but is highly variable due to multiple factors. This study evaluated the influence of implementing a protocol to increase resident physicians' academic productivity in cardiac surgery.

Methods: A comprehensive protocol for cardiac surgery was implemented at our institution that included active pairing of residents with academically productive faculty, regular research meetings, centralized data storage and analysis with a core team of biostatisticians, a formal peer-review protocol for analytic requests, and project prioritization and feedback. We compared cardiothoracic surgery residents' academic productivity before implementation (July 2015-June 2017) versus after implementation (July 2017-June 2019). Academic productivity was measured by peer-reviewed articles, abstract presentations (oral or poster) at national cardiothoracic surgery meetings, and textbook chapters.

Results: Thirty-four resident physicians (from traditional and integrated programs) trained at our institution during the study. A total of 122 peer-reviewed articles were produced over the course of the study: 74 (60.7%) cardiac- and 48 (39.3%) thoracic-focused. The number of cardiac-focused resident-produced articles increased from 10 preimplementation to 64 postimplementation (0.61 vs 2.03 articles per resident; P < .01). Abstract oral or poster presentations also increased, from 11 to 40 (0.61 vs 1.33 abstracts per resident; P ¼ .01). Textbook chapters increased from 4 to 15 following the intervention (0.22 vs 0.5 chapters per resident; P ¼ .01).

Conclusions: Implementation of a dedicated protocol to facilitate faculty mentoring of resident research and streamline the data access, analysis, and publication process substantially improved cardiothoracic surgery residents' academic productivity.



Question and answer with lead author Dr. Garrett Coyan, cardiothoracic surgery resident from the University of Pittsburgh Medical Center:

Question 1: Congratulations on your work and publishing this important article in The Journal of Thoracic and Cardiovascular Surgery examining implementation of a protocol at your institution to improve resident academic productivity. What were the main takeaways from the manuscript?

Thank you for allowing us this opportunity to discuss our findings in this forum. We aimed to demonstrate that the implementation of a robust project management and mentorship program for our cardiac surgery research would help our cardiothoracic surgery residents increase academic productivity as measured by manuscript publications, national meeting presentations, and textbook chapter authorship. The intervention consisted of 4 primary pillars: dedicated academic research meetings with academically productive faculty, an internal research proposal peer-review process, comprehensive database analytics/statistical support, and a dedicated project management process. We were able to show that implementation of this protocol increased resident academic productivity measured by manuscripts authored, presentations at national meetings, and textbook chapters authored over the course of the 4-year study. Interestingly, we noticed that the dedicated research protocol was more successful in our integrated 6-year program residents than our traditional 2-year cardiothoracic surgery fellowship, likely due to length of exposure to the program.

Question 2: Can you tell us more about what inspired you to conduct this study?

Traditionally research at our institution had been more fragmented, especially in cardiac surgery. As our residency increased in size with both large integrated and traditional training programs, many residents voiced an interest in having a more streamlined process to access the research infrastructure in cardiac surgery. Simultaneously, the recruitment of new research-focused faculty led to the mutual interest in development of a robust cardiac surgery research infrastructure to capitalize on all of our available resources. Interestingly, these very same resources are available at many training programs across the country; the protocolization and standardization we discuss in our manuscript are therefore transferable to other centers making our work that much more impactful.

Separately, the application of project management techniques developed for the business world have been shown to be very useful for advancing research infrastructure within an academic institution. It was our hypothesis that leveraging these process measures could make for a more efficient research process and produce higher quality research products in our cardiac surgery program.

Question 3: In your opinion, how is academic productivity important to, and perhaps, complementary to residency training?

Though I may be biased as a future academic cardiothoracic surgeon, I believe academic productivity is vitally important to understand as a trainee. All surgeons utilize evidence, best practices, and guidelines based on the academic research infrastructure to inform patient care every day. Understanding how research is planned, developed, conducted, and presented are essential to training in our specialty. Additionally, for those who venture to become the academic surgeons who produce this level of evidence, learning how the increasingly complex research infrastructure operates is best done in residency so one can hit the ground running during transition to practice. Academic research is now more interdisciplinary than ever, so knowing strategies to manage and leverage key stakeholders in the research process is imperative to academic success. More pragmatically, for those trainees interested in advanced fellowship opportunities and academic job offerings, academic research products (manuscripts, presentations, chapters) serve to enhance opportunities in this arena.

Question 4: What do you see as next steps / initiatives of this study?

The most important next step in this study is translation to other institutions. The true test to the project management concept increasing academic productivity in cardiac surgery is reproducing the process at other institutions that may benefit. As I mentioned earlier, most of the infrastructure is present at most centers, but bringing everything together under a combined process umbrella can be challenging depending on institutional dynamics and resources. Despite this, I do believe it is important for both residents and faculty to buy into this type of process to improve both the quantity and more importantly quality of academic research in cardiothoracic surgery.

Once again, thank you for your time and congratulations on an important manuscript.

Citation: Coyan GN, Sultan I, Seese LM, Chu D, Schuchert MJ, Kinnunen A, Kilic A. Implementation of a protocol to increase the academic productivity of cardiothoracic surgery resident physicians. *J Thorac Cardiovasc Surg.* 2020 Oct 7;S0022-5223(20)32734-3. doi: 10.1016/j.jtcvs.2020.09.122. Epub ahead of print. PMID: 33131886.

[Click here to read the full manuscript in The Journal of Thoracic and Cardiovascular Surgery](#)

Featured TSRA Podcast

By: David Blitzler

[Cardiac - Commando Procedure \(Markian Bojko & Raymond Lee\)](#)

[Cardiac - Arterial CABG \(Matthew Janko & Joseph Sabik\)](#)

Call for New TSRA Podcast Ideas

We want to expand our popular podcast series with new ideas & topics. Our existing collection is available on Soundcloud & iTunes

Here is a list of unclaimed topics that need to be recorded:

- Brain and spinal cord protection + neuromonitoring
- Electrophysiology (common arrhythmias, postop arrhythmias)
- Managing/interrogating LVAD
- Transcatheter Mitral Valve Replacement

General Thoracic

- Advanced endoscopy + POEM
- Thoracic outlet syndrome
- Esophageal motility disorders

Career

- Residents as teachers
- Ethical research practice in CT surgery
- Imperative care vs. futility

If you are interested in recording one of the unclaimed podcast topics -OR- have new topics to propose, please contact Garrett Coyan @ covangn@upmc.edu.

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TSRA Education Resources

- TSRA Clinical Scenarios in Cardiothoracic Surgery (2nd Ed)**
Kindle & print available **NOW!!!**
1. As a print book on [Amazon](#).
2. As a [Kindle](#) e-book on Amazon.
- TSRA Decision Algorithms in Cardiothoracic Surgery**
1. As a print book on [Amazon](#).
2. As a [Kindle](#) e-book on Amazon.
- TSRA Review of Cardiothoracic Surgery (2nd Ed)**
1. As a print book on [Amazon](#).
Stay tuned 3rd edition Second quarter 2021!!!
- TSRA Operative Dictations in Cardiothoracic Surgery**
1. As a print book on [Amazon](#).
2. As a [Kindle](#) e-book on Amazon.
- TSRA Multiple Choice Review of Cardiothoracic Surgery**
Check out the official website with [free registration](#). Open collaboration product with free content questions. Questions updated frequently. 588 questions. Authentic feel.

Abstract Deadlines and Conference Dates

By: Parth Patel

If there are meetings you would like to see here please contact Parth M. Patel, parth.mukund.patel@emory.edu

Meeting	Submission deadline	Location	Dates
Cardiovascular and Thoracic Specific Meetings			
International Society for Heart and Lung Transplantation (ISHLT)	October 27, 2020	Virtual	Apr 27-30, 2021
American Association of Thoracic Surgery (AATS) & Aortic Symposium	January 6, 2021	Virtual	Apr 30- May 2, 2021
AATS Mitral Conclave	October 27, 2020	Virtual	Apr 30- May 2, 2021
American College of Cardiology (ACC) Transcatheter Valve Therapy (TVT)	December 2, 2020	Atlanta, GA + Virtual	May 15-17, 2021
Structural Heart Summit	April 15, 2020	Chicago, IL	June 9-12, 2021
International Society of Minimally Invasive Cardiothoracic Surgery (ISMICS)	January 11, 2021	Warsaw, Poland	June 17-19, 2021
Western Thoracic Surgical Association (WTSA)	January 11, 2021	Victoria, BC, Canada	June 23-26, 2021
Extracorporeal Life Support	July 15, 2020	Indianapolis, IN	Sep 30- Oct 3, 2021
Eastern Cardiothoracic Surgi	July, 27 2020	Manalapan, FL	Oct 6-9, 2021
European Association for Cardio- Thoracic Surgery (EACTS)	April 30, 2021	Barcelona, Spain	Oct 14-16, 2021
International Thoracic Surgical Oncology Summit	August 17, 2020	Virtual	Oct 16-17, 2020
Transcatheter Cardiovascular Therapeutics (TCT)	June 15, 2020	San Francisco, CA	Oct 22-26, 2021
Congenital Heart Surgeons' Society (CHSS)	May 25, 2021	Chicago, IL	Oct 24-25, 2021
CHEST Annual Meeting	April 28, 2021	Vancouver, Canada	Oct 24-27, 2021
American College of Surgeons (ACS)	March 1, 2021	Washington, D.C.	Oct 24-28, 2021
Surgical Treatment for Arrhythmias and Rhythm Disorders	September 11, 2020	Virtual	Oct 30-31, 2020
Southern Thoracic Surgical Association (STSA)	April 5, 2021	Atlanta, GA	Nov 3-6, 2021
American Heart Association (AHA) Resuscitation Science Symposium	June 4, 2020	Boston, MA	Nov 13-15, 2021
Society of Thoracic Surgeons (STS)	August 11, 2020	Miami, FL	Jan 29 - Feb, 2022
Annual Update on Pediatric & Congenital CV Disease Conference	November 30, 2020	Virtual	Feb 11-14, 2021
General Surgery Meetings of Interest			
American Surgical Association (ASA)	November 16, 2020	Seattle, WA	Apr 15-17, 2021
American Transplant Congress (ATC)	December 4, 2020	Virtual	June 5-9, 2021
American Society for Artificial Internal Organs (ASAIO)	February 1, 2021	Washington, D.C.	June 9-12, 2021
Southeastern Surgical Congress (SESC)	February 19, 2021	Atlanta, GA	August 21-24, 2021
Southern Surgical Association (SSA)	July, 31 2020	Hot Springs, VA	Dec 5-8, 2021
Academic Surgical Congress (ASC)	August 7, 2020	Orlando, FL	Feb 1-2, 2022

Abstract Deadline Status: Upcoming (Green), Prior Year for Upcoming (Yellow), Passed for Upcoming (Red)

Diagnostic Challenge

By: Fatima Wilder

PMHx: 40 year old woman with history of chronic cough presents with shortness of breath that has been worsening for several months. She has previously been hospitalized with a spontaneous pneumothorax that resolved after management with a chest tube. CT pulmonary angiography is obtained and demonstrates the following.

PSHx: Cholecystectomy, Tonsils and Adenoids

What is your diagnosis and how is diagnosis confirmed?

Lymphangiomatosis

A rare disease, described as a low-grade destructive metastasizing neoplasm.

Demonstrates hamartomatous proliferation of smooth muscle in the blood vessels, airways and pulmonary lymphatics.

Most commonly in **women of reproductive age** who present with **shortness of breath** and **spontaneous pneumothorax**. Patients may develop lymphatic obstruction due to lymphadenopathy in the pelvic and abdominal regions.

Definitive diagnosis is made by **open-lung biopsy**.

Treatment usually includes hormonal therapy and **mTOR inhibitors** have been discussed in the literature. Sirolimus has demonstrated benefit in stabilizing lung function. Oophorectomy can be considered and aids in temporary improvement in symptoms.

Clinical course usually leads to pulmonary insufficiency and management requires multidisciplinary support.

TSRA Educational Resources and Multiple Choice Questions

By: Garrett Coyan

Which of the following is NOT an indicator that a cannula-induced aortic dissection may have occurred?

- A Sudden, unexplained decrease in venous return to the CPB pump
- B Profound drop in systemic blood pressure
- C Sudden increase in arterial line pressure
- D Sudden increase in systemic blood pressure

D

Which of the following does not increase the risk of having a positive Panel- Reactive Antibody (PRA) test during heart transplantation:

- A Pregnancy
- B Ischemic Cardiomyopathy as Heart Failure Etiology
- C Blood Transfusions in the past
- D LVAD support prior to transplant

(Ischemic Cardiomyopathy as heart failure etiology). Currently there is no data to suggest a role of the etiology of heart failure prior to transplantation on the likelihood of having a positive PRA test. Pregnancy continues to be the number one cause. More recently, an increasing number of patients on chronic LVAD support have a positive PRA test.

Tricuspid atresia with normally related great vessels always has

- A Increased pulmonary blood flow
- B Decreased pulmonary blood flow
- C Variable pulmonary blood flow depending primarily upon the degree of the pulmonary stenosis.
- D Pulmonary blood solely dependent upon the PDA

Answer: TA with normally related blood vessels commonly has some degree of infundibular stenosis causing cyanosis. There may be severe pulmonary stenosis with PDA being the only source of blood flow and its closure causes