



# ADVANCING INNOVATION IN GLOBAL CT SURGERY

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# MISSION

Driving leadership in research and education.

# VISION

A dynamic and innovative future of continued excellence in cardiothoracic surgery

# VALUES

#### **Academic Exchange**

It is our past and our future.

#### **Innovation and Collaboration**

Working together to advance and achieve our mission.

#### **Advancing Patient Care**

Our cornerstone as physicians.

#### Fostering Leadership

Maintaining excellence for future generations.

#### **Trusted Stewardship**

Honoring our history and safeguarding our future.



# A YEAR OF GLOBAL INNOVATION

Last year, the AATS Graham Foundation achieved a milestone. Thanks to your support, we provided research and fellowship opportunities to 134 surgeons and medical students from five continents.

The AATS Graham Foundation has been hard at work over this past year to advance its mission of driving leadership in research and education. In 2015, we launched eight new clinical and research fellowship programs. The Foundation established the AATS Graham Foundation Academic Excellence Award given to the best abstracts at major international meetings. The Foundation continues to maintain and strengthen its core programs, including the Evarts A. Graham Traveling Fellowship and the Research Scholarship. These spectacular programs are only possible with the support of our individual donors, institutional and foundation contributors, and industry partners.

The Honoring Our Mentors Fellowship Program is funded by contributions from trainees who wish to honor their mentor. The Marc R. de Leval Fellowship was added to the F. Griffith Pearson Fellowship this past year. Two new components will be announced at the meeting in Baltimore. We are indebted to those mentees who have contributed to these programs publically acknowledging and showing their gratitude to the mentor who shaped their cardiothoracic (CT) surgery careers.

The Graham Surgical Investigator Program proved to be one of the year's highlights. These awards help support the research of young academic surgeons by enabling them to gather preliminary data for a subsequent NIH grant proposal. We plan to continue and expand this initiative with your help. It is critical to the AATS Graham Foundation's mission to champion and foster the careers of future leaders in CT surgery.

Your support is essential to ensure the future of our specialty and continue advancing global innovation in CT surgery. Please make a gift to the Foundation or renew your commitment. Together, we can promote our specialty not only for the next generation of surgeons, but also the patients they serve.

David J. Sugarbaker, MD

**President** 

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## 2015 AT A GLANCE

The Graham Foundation has been driving leadership in research and education since its inception.

Our accomplishments from May 2015 to April 2016 are many. We...  $\,$ 

Awarded the 2015 **C. Walton Lillehei Resident Forum** winner: Dr. Jeffrey E. Cohen (US).

Chose the second **Graham Surgical Investigator Program** class – Drs. Marcelo Cypel (Canada), Stephen H. McKellar (US), and Neel R. Sodha (US) and funded a second year for the inaugural class.

Selected the **Every Heartbeat Matters Valve Fellows** – Drs. Mathias Aazami (Iran), Oved Cohen (Israel), Vivek Pillai (India), and Darshan Reddy (South Africa).

Initiated the AATS Graham Foundation Academic Excellence Awards honoring presenters at international scientific meetings. Winners were Dr. Lieven Depypere (Belgium) at the European Conference on General Thoracic Surgery (ESTS) and Dr. Calogera Pisano (Italy) at the European Association for Cardiothoracic Surgery (EACTS).

Funded the participation of 20 fellows and their attending surgeons for the two-day **Surgical Robotics Fellowship**, 13 of whom completed a new **Advanced Lobectomy Course**. Chose 20 participants for 2016.

The **Every Heartbeat Matters** grant underwrote the AATS Cardiovascular Symposium (Brazil) and provided travel awards to 37 physicians from Central and South America to attend. The grant has been renewed for 2016, underwriting the AATS Postgraduate Course at the China Heart Congress (held in Beijing on August 11-12) and the AATS Cardiovascular Valve Symposium (held in Shanghai on October 7-8). It will also provide travel stipends for the China meetings and for international heart valve surgeons to attend the 2016 AATS Annual Meeting.

The **Graham Surgical Investigator Program** received support for three 2016 named awards generously funded by Dr. Mehmet Oz, Ethicon, and Intuitive Surgical, as well as an award underwritten by AATS.

Launched the third Pursuit of Excellence Annual Campaign.

Chose winners of the **Fellowship for Advanced Minimally Invasive Thoracic Surgery**: Drs. Ki Wan Kim (US), John F. Lazar (US) and Gholam R. Mohammadzadeh (US).

Awarded six **Advanced Valve Disease Educational Fellowships**: Drs. Govind Chetty (UK), Andrea Colli (Italy), Evaldas Girdauskas (Germany), Francisco Guzmán (Argentina), Paradorn Jetwanna (Thailand), and Vasily Kaleda (Russia).

Received funding for the **North America Clinical Immersion in Advanced Minimally Invasive Thoracic Surgery**, launching in 2016. Eight Chinese thoracic surgeons will participate: Drs. Feng Jiang, Jiageng Li, Teng Mao, Hao Wang, Ruixiang Zhang, Zhenrong Zhang, Feng Zhao, and Zuli Zhou.

Funded the **64th Evarts A. Graham Traveling Fellowship** recipient: Dr. Konrad Hoetzenecker (Austria), who will study under Dr. Thomas K. Waddell at Toronto General Hospital.

Supported the **Third Robert E. Gross Research Scholarship** winner: Dr. Matthew D. Taylor (US), whose study site will be Penn State Milton S. Hershey Medical Center.

Selected awardees for the **James L. Cox Fellowship** in Atrial Fibrillation: Drs. Safak Alpat (Turkey), Atsushi Hiromoto (Japan), Dong Seop Jeong (Republic of Korea), Paradorn Jetwanna (Thailand), Eske Sindby (Denmark), and Zhiwei Xu (China). The program received renewed funding.

Named 2016 **F. Griffith Pearson Fellowship** awardees: Drs. Xiao Li (China) and Nestor Villamizar Ortiz (US). The fellowship is the first in the **Honoring Our Mentors Fellowship Program**. Chose Dr. Jeremy Herrmann (US) for the second, the **Marc R. de Leval Fellowship**. A third – the **Denton A. Cooley Fellowship** – will launch in fall 2016.

Announced 19 **Summer Intern Scholars** for 2016.

Offered residents and trainees online bundled subscriptions to *JTCVS*, *OpTechs* and *Seminars*.

Chose winners of the 2016 **Thoracic Surgery Training Fellowship:** Drs. Mingsong Wang, Song Xu, Wanpu Yan, and Yong Zhang.

Hosted the **AATS Graham Foundation Awards** reception at the Annual Meeting honoring 2015-16 awardees.

Graham Foundation programs are advancing innovation in CT surgery around the world. Some have been in effect for decades; others have been added over time.

Dr. Evarts Graham would be proud to know that the foundation that bears his name has been a major force in the field, reaching not just physicians in the United States and North America, but also surgeons from every continent except Antarctica. He would be pleased that Graham Foundation fellowships and research scholarships bring the community of CT surgeons together and create bonds that last lifetimes and change the lives of patients worldwide.



# EVARTS A. GRAHAM MEMORIAL TRAVELING FELLOWSHIP

Since 1951, the Graham Fellowship has underwritten a year of study for international academic CT surgeons at North American institutions. Fellows receive a \$75,000 stipend and airfare. The fellowships have enhanced the training of and increased international contacts for 64 individuals from 32 countries.

#### Joon Bum Kim, MD (2014-15)

Associate Professor

Asan Medical Center/University of Ulsan College of Medicine Seoul, Korea

Just starting out and eager to become a leading academic surgeon, Joon Bum Kim was looking for an experience that would offer clinical practice, research and international networking. The Graham Fellowship was a perfect fit.

The fellowship is a unique and great opportunity to achieve academic and clinical excellence with...support from great masters of the world.

An assistant professor at the time, Kim's primary host institution was Massachusetts General Hospital, Harvard Medical School under the mentorship of current Graham Board VP Thoralf M. Sundt, III. He also spent time at the Cleveland Clinic and Hermann Memorial Hospital at the University of Texas. During his fellowship, he participated in 11 research papers, serving as first author on eight of them.

...I rebuilt my operative strategies for aortic and valve surgeries; I believe these changes have already helped improve my patients' outcomes...

# A Conversation with

Graham Traveling Fellows, Anna Maria Ciccone (2001-02) & Mohsen Ibrahim (2010-11)

Sapienza University Rome, Italy



L to r: Dr. Ibrahim. Dr. Marc R. Moon and Dr. Ciccone

Anna Maria and Mohsen were both Graham Traveling Fellows and work at the same institution, Sapienza University in Rome, Italy.

We asked them to tell us about their fellowship experiences and working relationship in an email interview.

Graham: What are your current titles and institution?

Ciccone: Vice Chief and Associate Professor of Thoracic Surgery.

**Ibrahim:** Associate Professor of Thoracic Surgery and Instructor of Surgery at Washington University in St. Louis, MO.

Graham: Did you two know each other before becoming Graham fellows?

Ciccone: We've been working together since 1998, when Mohsen was finishing medical school.

Graham: When you applied, how did you think the Graham fellowship might enhance your knowledge/career?

**Ciccone:** When we applied, we thought the fellowship would greatly enhance our knowledge and careers, allowing us to meet and interact with colleagues from other institutions.

 $\textbf{lbrahim:} \ \textbf{And we thought we'd expand our overall training and increase our international contacts.}$ 

Graham: Did the fellowship fulfill your expectations?

**Ciccone:** Yes, it improved our skills and knowledge.

**Ibrahim:** And reflected a perfect association between our surgical and clinical practices.

Graham: What were your institutions/positions when you applied?

**Ciccone:** I started my fellowship immediately after my residency.

 $\textbf{lbrahim:} \ \mathsf{l} \ \mathsf{had} \ \mathsf{just} \ \mathsf{started} \ \mathsf{the} \ \mathsf{academic} \ \mathsf{position} \ \mathsf{of} \ \mathsf{assistant} \ \mathsf{professor}.$ 

**Ciccone:** Of course, our Graham fellowships helped both of us obtain permanent positions at Sapienza University.

Graham: What were your host institutions? Focus of study? Who were your mentors?

**Ciccone:** We both were at Washington University in St. Louis. My research was focused on a clinical study of all aspects of thoracic surgery and end stage lung disease. My principal mentors were Drs. Joel Cooper and Alexander Patterson.

**Ibrahim:** My fellowship centered on basic lung immunobiology research. My mentors were Drs. Andrew Gelman and Alexander Patterson.

**Ciccone:** Both of us visited other institutions — Cleveland Clinic, Harvard University, Memorial Sloan Kettering Cancer Center in New York, and the University of Toronto.

Graham: Have you discussed your Graham experiences with each other? Is it a unifying experience?

**Ciccone:** We have. But our experiences were different given that we focused on different fields from clinical to basic science.

**Ibrahim:** We do work together and have no doubt that being Graham fellows was a unifying experience. Our training in the U.S. benefitted our program in Rome.

Graham: Would you recommend the fellowship to others?

Ciccone: Yes. we would.

**Ibrahim:** Yes. It should continue supporting future ambitions of young cardiothoracic surgeons, leading them toward potential leadership roles.

# Cardia



# ADVANCED VALVE DISEASE EDUCATION FELLOWSHIP

Sponsored by: Medtronic

Surgeons receive an interactive experience observing and connecting with specialists in the treatment, technical skills and perioperative management of valve disease patients. Launched in 2015.

#### Vasily Kaleda, MD

Ochapowski Regional Hospital #1 Krasnodor, Russia

Host Institution: New York University Host Mentor: Aubrey Galloway, MD

Vasily Kaleda is interested in heart valve disease, but many new techniques and treatments are not widely used in Russia. Aware of the historic role of Americans in cardiac surgery, he applied for the fellowship.

I was dreaming about going to any American cardiac surgery clinic to acquire new skills and knowledge.

Starting in May, he hopes to learn minimally invasive heart valve and complex aortic surgical techniques. He is also looks forward to observing the organization and staffing of a modern cardiac clinic.

I hope this fellowship will help me to improve cardiac surgery in my country in the future.



# JAMES L. COX FELLOWSHIP IN ATRIAL FIBRILLATION SURGERY

Sponsored by: AtriCure

Newly graduated international CT surgeons receive a 90-day hands-on immersion opportunity to enhance their clinical understanding and surgical proficiency in treating atrial fibrillation under the tutelage of leading surgeon-educators. Launched in 2015.

#### Safak Alpat, MD

Hacettepe University School of Medicine Ankara, Turkey

Host Institution: University of Virginia Host Mentor: Gorav Ailawadi, MD

Safak Alpat always wanted to be a cardiac surgeon. He works at one of the busiest adult/congenital cardiac centers in Turkey, but only a few arrhythmia surgeries have been performed there. Believing that his country needs a breakthrough in the field, he applied for a Cox Fellowship.

The Cox Fellowship is the foremost opportunity...in my career...

His fellowship begins in December 2016. He hopes to gain insight into cutting edge techniques including Maze and mini-Maze procedures.

I strongly believe being a member of a worldwide renowned surgical team will be inspiring...and hope to make a contribution to research activities.



#### **DUAL FELLOWSHIPS**

#### Paradorn Jetwanna, MD

Suratthani Hospital Surat Thani, Thailand

#### Advanced Valve Disease Education Fellowship

Host Institution: Mount Sinai Medical Center Host Mentor: David Adams, MD

## James L. Cox Fellowship in Atrial Fibrillation Surgery

Host Institution: Inova Fairfax Host Mentor: Niv Ad, MD

When Paradorn Jetwanna was in high school, he saw a patient die of heart disease. There were no cardiac surgeons in southern Thailand. In fact, there were few in the country. He promised himself that if he became a doctor, he would become a cardiac surgeon. And he did.

## I wanted to help cardiac patients in the south of Thailand.

Heart valve disease is a major cardiac disease at Suratthani, but the quality of patient surgical management could be improved. He applied for an Advanced Valve Disease fellowship to be exposed to expert US heart valve disease surgeons. His desire to improve AF surgery at his center convinced him to apply for a Cox Fellowship.

The Advanced Valve Disease Fellowship starts in August, followed by the Cox Fellowship in September. He hopes to learn AF surgical techniques and post-operative management skills, as well as enhance his MV repair standard and minimally invasive surgery methods.

I expect the knowledge and skills I acquire in the US will allow me to improve quality of care for Suratthani's cardiothoracic patients.

#### **EVERY HEARTBEAT MATTERS VALVE FELLOWSHIP**

Sponsored by: Edwards Lifesciences Foundation

CT surgeons treating patients from underserved populations spend time at an advanced heart valve disease training and education institution, where they acquire skills that can be clinically implemented in their daily practice. Launched in 2015.

# Vivek Sree C Medic Kerala Host I Host I

Vivek V. Pillai, MBBS, MS, MCh

Sree Chithra Tirunal Institute for Medical Sciences & Technology (SCTIMST) Kerala, India

Host Institution: Emory University Host Mentor: Vinod H. Thourani, MD

Vivek Pillai works in a government hospital in India, where many people have existing rheumatic disease and the incidence of coronary and heart valve diseases is growing.

We operate on 2000 patients annually - neonates to very elderly people - most would be denied cardiac surgery due to lack of funds.

During his fellowship, he became familiar with TAVR, mitral clip and other interventional surgeries. He also observed and learned OPCAB and minimally invasive valve operations.

The skills I acquired...will aid in early detection and timely, optimal interventions for SCTIMST cardiac surgical patients.

SCTIMST has set up a transcatheter valve replacement unit with help from the Emory team and industry.



#### Darshan Reddy, MD

University of KwaZulu Natal, South Africa

Host Institution: Central Chest Institute of Thailand Host Mentor: Taweesak Chotivatanapong, MD

Darshan Reddy's CT surgery department serves an indigent population, many of whom suffer from rheumatic disease. Each year, it does some 150 adult and congenital valve replacements.

Management of anticoagulation after valve surgery remains a challenge, and our rate of mitral valve repair is extremely low due to lack of technical expertise.

During the fellowship, he participated in 21 mitral valve repairs and one aortic. He also learned the complexities and nuances of valve repair in rheumatic mitral valve disease.

I've performed several successful surgeries and hope
Dr. Chotivatanapong can come to South Africa to do live video
cases to benefit our medical centers.

# Cardiac



#### **EVERY HEARTBEAT MATTERS** TRAVEL AWARDS

Sponsored by: Edwards Lifesciences Foundation

Travel stipends were provided to 37 South and Central American surgeons to attend the November 2015 AATS Cardiovascular Symposium — São Paulo, Brazil. Awards were also made to international heart valve surgeons to attend the 2016 AATS Annual Meeting. Launched in 2015.

#### Álvaro Albrecht, MD

Instituto de Cardiologia Porto Alegre, Brazil

Conference: AATS Cardiovascular Valve Symposium — São Paulo, Brazil

Álvaro Albrecht's 12-surgeon practice performs 2,800 procedures annually, half of which are government insured. Limited funding results in cost cutting and an up to one-year wait for valve surgery.

The conference allowed him to learn about techniques (often presented by their original authors) and have access to and attention from the "esteemed" faculty. It inspired him and his colleagues to continue performing more mitral and aortic repairs.

Four recent aortic root reconstructions at a heart center not used to performing them is an example of how the almost religious pilgrimage of our great AATS colleagues can lead to a better quality of life.

#### ADVANCED TREATMENTS OF VALVE **DISEASE FELLOWSHIP**

Sponsored by: Edwards Lifesciences Foundation

Young CT surgeons have the opportunity to enhance their clinical techniques in valve repair, transcatheter repair and valve replacement at a host institution that focuses on advanced treatment of valve disease.

#### Victor Dayan, MD

Centro Cardiovascular, Hospital de Clínicas Montevideo, Uruguay

Host Institution: Mayo Clinic

Victor Dayan applied for the fellowship because he wanted to see how one of the best cardiac centers in the world handled its valve disease patients. He considered heart valve surgery challenging, yet an opportunity to use a wide range of innovative techniques.

I was not only interested in surgical considerations, but also perioperative patient management — especially in contrast to my surgical center.

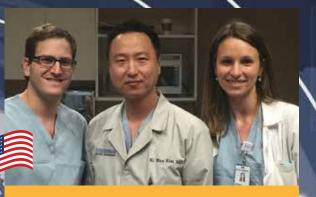
He also wanted to learn how to deal with complex valvular surgery, not just from the surgical standpoint, but also from the perspective of anesthesia management.

After my fellowship, I was able to confidently deal with high-risk patients, including those who had been rejected from other centers.



Dr. Dayan meets Edwards Lifesciences executives. L to r: Rick Lunsford (Corporate VP/ Healthcare Solutions), Michael A. Mussallem (Chairman & CEO), Dr. Dayan, Donald E. Bobo, Jr. (Corporate VP/Heart Valve Therapy, Corporate Strategy & Corporate Development), Stanton J. Rowe (Corporate VP/Advanced Technology & Scientific Officer), Larry L. Wood (Corporate VP/Transcatheter Heart Valves).

# Thoracic



# FELLOWSHIP FOR ADVANCED MINIMALLY INVASIVE THORACIC SURGERY

Sponsored by: Ethicon

Young thoracic or CT surgeons and their surgical teams visit clinical sites for one- or two-day training in VATS Lobectomy (including Segmentectomy) or Robotic Lobectomy.

Launched in 2015.

#### Ki Wan Kim, MD

NorthShore University Health System Evanston, IL

Host Institution: Providence Saint John's Health Center Host Mentor: Robert McKenna, Jr., MD

Ki Wan Kim believes that minimally invasive thoracic surgery will be the standard of care in the future. He also knows that it requires years of practice to refine one's skills and master techniques. He wanted to further his abilities by experiencing a unique approach from a master.

My goals were most certainly met during the...fellowship.

The experience allowed him and members of his team to revisit and better understand their goals in performing the surgery and how to better accomplish them.

The fellowship provided an opportunity that will ultimately translate into improved quality of care and patient outcomes.



#### **SURGICAL ROBOTICS FELLOWSHIP**

Sponsored by: Intuitive Surgical

Twenty (20) North American general thoracic fellows and their attending surgeons spend two day receiving hands-on, advanced training in the Da Vinci robotics system. The program has expanded to include webinars and an Advanced Lobectomy Course for fellows that complete a required number of cases as console surgeons and as bedside assists.

#### Erin Gillaspie, MD

Mayo Clinic Rochester, MN

Erin Gillaspie's robotics fellowship strengthened her confidence and comfort in setting up the robot, choosing port sites and using the console through cases taught by high level proctors.

The ability to rehearse and repeat new skills while learning tips and tricks from experienced robotic surgeons was an unparalleled opportunity.

She performed her first lobectomy a week after the course, continuing to do surgeries and adding new cases to her repertoire. Gillaspie received additional training at the Advanced Lobectomy Course.

I intend to actively incorporate the robot into my practice and look forward to developing a robotics program and team with my new partners.

# Fellows Announced in 2016

NORTH AMERICA CLINICAL IMMERSION IN ADVANCED MINIMALLY INVASIVE THORACIC SURGERY Sponsored by: Medtronic

Eight young Chinese thoracic surgeons will learn advanced minimally invasive thoracic surgery and comprehensive care screening and diagnosis at North American institutions.

Launched in 2015.

#### THORACIC SURGERY TRAINING FELLOWSHIP

Sponsored by: Ethicon China

Four Chinese thoracic training fellows will receive advanced thoracic surgical training at North American institutions. Launched in 2015.

# HONORING OUR MENTORS FELLOWSHIP PROGRAM

The Honoring Our Mentors Fellowship Program is a series of fellowships named after prominent CT surgeons who have demonstrated longstanding leadership and dedication over the course of their careers in both their clinical practices and commitment to training the future generation.

The original - the F. Griffith Pearson Fellowship - has been joined by the Marc R. de Leval Fellowship, launched in 2015.

The de Leval Fellowship offers congenital heart surgery training at an international center for a North American surgeon. Its first awardee, Dr. Jeremy Herrmann, will begin his fellowship in 2016.

A third - the Denton A. Cooley Fellowship - will launch in fall 2016, giving a deserving CT surgeon resident or young postgraduate surgeon the opportunity to enrich his/her education at Texas Heart Institute and Baylor St. Luke's Medical Center.



#### F. GRIFFITH PEARSON FELLOWSHIP

Surgeons who have recently completed their residency or fellowship in general thoracic surgery advance their clinical techniques at a North American host institution.

#### Pablo Sanchez, MD

University of Maryland Baltimore, MD

Host Institution: Toronto General Hospital, Toronto Lung Transplant Program

Host Sponsor: Shaf Keshavjee, MD

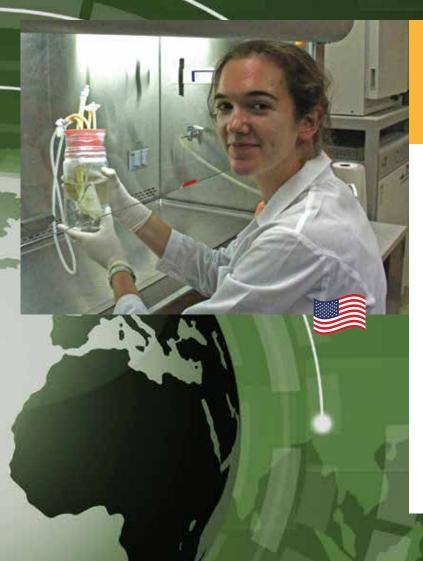
Pablo Sanchez wanted to build his ex vivo lung perfusion skills by spending time with experts in the field.

#### My experience with the Toronto group was outstanding.

His fellowship allowed him to attend the lung transplant clinic, recipient selection meetings and be involved in other clinical and research activities. He was able to spend several hours with the ex vivo lung perfusion specialists, allowing him to understand every aspect of their technique and decision-making.

I believe the month in Toronto triggered a change in my academic and clinical career. It was only possible with the support of the Graham Foundation.

# SUMMER INTERN SCHOLARSHIP



For eight weeks, first- and second-year medical students intern with an AATS member's CT surgery department to increase their interest in the field. Scholarships of \$1.15 million dollars have given 327 students from 118 medical schools the opportunity to participate.

#### Katherine L. Leiby

Yale School of Medicine New Haven, CT

Host Institution: University Health Network, Toronto, ON Host Mentor: Thomas K. Waddell, MD, MSc, PhD

Katherine Leiby is a second year MD/PhD student. Her summer internship allowed her to be immersed in cardiothoracic surgery in a variety of research and clinical contexts — from the lab to the operating room to the clinic to hospital wards.

...my internship helped solidify my interest in pursuing a career as a cardiothoracic surgeon/scientist.

It also allowed her to gain surgical and clinical perspective on lung therapy and regeneration. Her upcoming PhD research is in lung engineering.

...it gave me the opportunity to meet surgeons who are successfully combining their clinical careers with research. I would highly recommend this program to other students.

# GRAHAM SURGICAL INVESTIGATOR PROGRAM

Supports the innovative clinical and translational research of young CT surgeons for up to two years with their institutions receiving up to \$50,000 annually.

## CLASS OF 2015-16



#### Marcelo Cypel, MD, MSc

University of Toronto Toronto, Canada

Marcelo Cypel's goal is to lead a strong translational research program in thoracic surgery. His research focuses on how to use ex vivo lung perfusion as a platform for immunocloaking strategies of the donor lung, so that allorecognition will be prevented or delayed — ultimately benefitting patients with end stage lung diseases.

..this research support will have a major impact on my career as a primary investigator and...will leverage further peer review funding.



#### Stephen H. McKellar, MD, MSc

University of Utah, Salt Lake City, Utah

Stephen McKellar is studying right ventricular (RV) failure and recovery, which is a problem that affects many cardiac patients and can be life threatening. The aim of his research is to understand the differences between a failing but recoverable RV and irrecoverable failed RV, developing innovative protective or recovery strategies for the latter.

...this award...has moved my career forward within my institution and made my subsequent grant applications more competitive.



#### Neel R. Sodha, MD

Alpert Medical School at Brown University Providence, Rhode Island

"Molecular Mechanisms of Neurologic Injury after Cardiopulmonary Bypass"

### CLASS OF 2014

The inaugural Graham Surgical Investigators all received a second year of funding.



#### Felix Fernandez, MD

Emory University Atlanta, Georgia

Felix Fernandez's pilot project captures patient reported outcomes (PROs) from lung cancer resection patients. In the first year, a patient survey was developed in collaboration with the Interactive Media Technology Center at Georgia Tech, and PROs data was collected on patients receiving lung cancer surgery at Emory.

...the award provided funds needed for technical development of the survey, patient enrollment and biostatistical support.

The second year has included continued patient enrollment and follow up, along with data analysis. Results will be disseminated soon.

This allowed me to generate preliminary data for a larger grant and has served as a significant steppingstone in my becoming an independent investigator.

# CLASS OF 2014



#### Danielle Gottlieb-Sen, MD

Children's Hospital of New Orleans/LSUHSC, New Orleans, Louisiana

Danielle Gottlieb-Sen's research studied gene transcription involved in growth of normal fetal heart valves to better define mechanisms of growth. Research was performed during fellowships prior to becoming junior faculty — experimental design and sample collection in New York City, analysis in Boston.

...it was perfect support for a training surgeon in transition to junior faculty.

When hired for her first faculty position, Gottlieb-Sen received a 25 percent research appointment and startup package, which was greatly facilitated by her status as a funded investigator.

If it takes a village to do research, it also takes an organization like the Graham Foundation to provide the sustenance. Thank you...

#### Mark Onaitis, MD

Duke University, Durham, North Carolina

Mark Onaitis' project is to identify molecules that are induced by mutant Kras in Type II cells. In the first year, the study optimized a high-throughput screen in which thousands of drugs and molecules were tested for ability to inhibit these cells.

...the award funded non-hypothesis driven research, non-eligible under RO1 guidelines.

Year two has included continued performance of screens and analysis/evaluation of the data. Results will provide important preliminary data to be corroborated with future grants.

...the funding has validated my research in the eyes of top established thoracic surgery investigators.

#### **Brendon Stiles, MD**

Weill Cornell Medicine, Cornell University, New York, New York

Brendon Stiles studied the role of ART1 in lung cancer progression, allowing him to complete several key mechanistic experiments suggesting that the enzymatic function of mono-ADP-ribosylation is critical for the phenotype of decreased metastasis,

...the result gave me confidence that by blocking ART1, we could disrupt cancer progression.

The research also underwrote the uncovering of a crucial pathway of ART1-mediated T cell inhibition functioning like checkpoint inhibition. In the future, his team plans to test chemical inhibitors and antibody-based therapy against ART1, moving closer to clinical application.

...our provocative findings resulted in our securing a highly competitive \$600,000 Metastasis Research Grant from the Free to Breathe Foundation.

#### Bo Yang, MD

University of Michigan, Ann Arbor, Michigan

Bo Yang's research models vascular smooth muscle cell dysfunction by creating NOTCH1 mutation in human-induced pleuripotent stem (iPS) cells. In Year 1, the team found the defective differentiation of vSMCs through neural crest stem cells contributes to the aortopathy of the ascending aorta and aortic aneurysms associated with BAV.

Our manuscript was a 2015 CVSA Vivien Thomas Young Investigator Award finalist.

In Year 2, research covered more detailed mechanisms and the pharmacotherapeutic agents that can prevent or limit the defective differentiation. The ultimate goal is preventing aortic aneurysm formation in BAV patients.

...the award not only helped me generate preliminary data for NIH K08 and R01 applications, but also enhanced my passion for research.

New in 2016

There will be three named Surgical Investigator awards:

OZ LEMOLE SURGICAL INVESTIGATOR AWARD ETHICON SURGICAL INVESTIGATOR AWARD INTUITIVE SURGICAL INVESTIGATOR AWARD

A fourth award will be sponsored by AATS.



#### AATS GRAHAM FOUNDATION ACADEMIC EXCELLENCE AWARD

The Academic Excellence Award was created to foster excellence in thoracic surgical research in keeping with the Graham Foundation's mission. It honors scientific presentations at annual meetings of affiliate organizations around the world.

Launched in 2015.

These awards will help to identify the thoracic surgical leaders of the future by spotlighting their research accomplishments.

David J. Sugarbaker, MD



#### 23rd European Conference on General Thoracic Surgery (ESTS)

Lisbon, Portugal

#### Lieven Depypere, MD (2015)

Universitair Ziekenhuis Gasthuisberg (Belgium)

#### **Best Scientific Contribution on Esophageal Disease**

Isolated local recurrence or solitary solid organ metastasis after esophagectomy for cancer is not the end of the road



29th European Association for Cardiothoracic Surgery (EACTS) Annual Meeting
Amsterdam, Netherlands

#### Calogera Pisano, MD (2015)

University of Palermo (Italy)

#### Best Work in Progress Presentation of Innovation and Scientific Research

Role of bone marrow mesenchymal stem cells in the stabilization of elastase-induced ascending aortic aneurysm in a rat model

# THIRD JOHN H. GIBBON, JR. RESEARCH SCHOLARSHIP

North American surgeons receive a two-year grant to perform cardiothoracic research. John H. Gibbon, Jr. was the Association's 41st president.



## Joseph Turek, MD, PhD (2014-2016)

University of Iowa Iowa City, Iowa

Joseph Turek, a pediatric cardiology surgeon, applied for a Graham research scholarship to underwrite a study investigating the role of transient receptor potential channels in the progression of aortic aneurysms in Marfan syndrome.

...the award provided critical start up funds.

When the grant period ends in 2016, he will have preliminary data that will allow him to take the research to the next level.

This data will undoubtedly enhance my chances for other support, including NIH funds.

#### C. WALTON LILLEHEI RESIDENT FORUM

Gives eight residents the opportunity to present and compete at the AATS Annual Meeting. The winner receives a \$5,000 award.

#### Jeffrey E. Cohen, MD (2015)

*University of Pennsylvania* Philadelphia, Pennsylvania

Jeffrey Cohen was a post-doctoral fellow at Stanford University when he presented his research on the development of a novel strategy to utilize photosynthesis to restore tissue oxygenation and energetics in the setting of ischemia.

It was an honor and privilege to present my research at AATS and win the award.

The presentation resulted in "extremely valuable" feedback from CT leaders, as well as colleagues in earlier stages of their careers.

...It has added significant impact and influence to my research, strengthening my ability to get external funding... — a critical component of my career in academic CT surgery.



# **OUR HISTORY**

C. Walton Lillehei Forum (initially sponsored by St. Jude Medical) launched to provide

residents with the opportunity

to present original research at the AATS Annual Meeting.

1927-1928 Evarts Ambrose Graham, MD served as the tenth AATS president.



1931-1957 Dr. Graham was Founding Editor of the Journal of Thoracic Surgery (now the Journal of Thoracic and Cardiovascular Surgery).

#### **AATS Graham Foundation**

founded to serve as philanthropic arm for AATS research initiatives.



A two-year AATS Research Scholarship program established.

#### Summer Intern Scholarship

established, exposing first- and second-year medical students to work in North American cardiothoracic surgery departments.



added, supporting residents to attend this

Resident Poster Session initiated at the

Complimentary one-year subscriptions

to Operative Techniques in Thoracic and

Cardiovascular Surgery and Seminars in Thoracic and Cardiovascular Surgery

distributed to North American trainees.

important meeting.

AATS Annual Meeting.

#### Surgical Robotics Fellowship

began, offering two-days of robotic surgery didactic lectures and hands-on instruction.

#### **Advanced Treatments** of Valve Disease Fellowships

introduced, giving surgeons an opportunity to learn valve and transcatheter techniques repair and/or valve replacement.

#### AATS Member for a Day Program

started, enabling medical students to accompany an AATS Member Mentor and Thoracic Surgery Residents Association member during portions of the Annual Meeting.

Launched Fellowship for Advanced Endobronchial Ultrasound (EBUS) Training.

**Cardiothoracic Ethics Forum** Scholarship established.

#### **Graham Surgical Investigator**

Program instituted, supported by \$250,000 in funding from the Graham Foundation.

**Honoring Our Mentors** Fellowship Program created with the first in the series: the F. Griffith Pearson Fellowship.

JCTSE Resident "Top Gun" Competition held at the AATS Annual Meeting.









# INVEST IN The future

Every day, CT surgeons transform the lives of their patients around the world.

The AATS Graham Foundation has been nurturing CT specialists for decades. Today, we are a leader in advancing global innovation in CT surgery through our fellowships and research scholarships. Our programs impact the skills of CT surgeons worldwide at every professional level and support vital research leading to new treatments, cutting-edge technologies and improved transplant management.

As the world population ages, the incidence of cardiovascular disease will continue to grow. In 1950, 205 million people in the world were 60-years-old and older. The number of older individuals increased to almost 810 million in 2012 and is estimated to more than double to two (2) billion in 2050. In addition, there are many areas of the globe where prevention, treatment and management of cardiac diseases are neither accessible nor affordable and where surgeons cannot get the advanced skill training they need to be effective.

At the same time, the demand for CT surgeons could grow by as much as 46 percent, raising concerns that the number of qualified specialists might shrink - impacting quality of care. <sup>2</sup>

That's why our work is essential.

Many of today's leaders in the field benefitted from our programs early in their careers. Current and future generations of CT surgeons deserve the same opportunities.

In 2016, our programs will give CT surgeons, residents and medical students the ability to enhance their skills and underwrite their research.

Help us to advance education, research and innovation for CT surgeons worldwide. Be part of this important work and help us ensure that CT surgeons can provide their patients with the highest quality of care. Join the individuals, corporations and organizations that are investing in present and future CT surgeons.

Become an AATS Graham Foundation donor.

full (Sources of Funding: This work was supported by the American Association for Thoracic Surgery and the Society of Thoracic Surgeons.)

<sup>&</sup>lt;sup>1</sup> United National Population Fund, Aging in the Twenty-first Century: A Celebration and A Challenge, pg.1, http://www.unfpa.org/sites/default/files/resource-pdf/UNFPA-Report-Chapter1.pdf.

<sup>&</sup>lt;sup>2</sup> Grover et al, "Shortage of Cardiovascular Surgeons is Likely by 2020," Circulation, 2009; 120: 488-494, http://circ.ahajournals.org/content/120/6/488.

# INDIVIDUAL GIVING

The AATS Graham Foundation offers a variety of options for donors who want to ensure the future of CT surgery.

One hundred percent (100%) of your investment goes to AATS Graham Foundation programs, thanks to the American Association for Thoracic Surgery, which underwrites the Foundation's operational expenses.

#### INDIVIDUAL GIVING

#### **Direct Gifts**

Donate to our *Pursuit of Excellence Annual Campaign*, which allows us to expand and grow the Graham Foundation's many programs and activities.

Special donor opportunities include:

**Tribute/Memorial Gifts** - Honor or remember a loved one or friend. We will send a card acknowledging your gift to the honoree or his/her family.

**Honoring Our Mentors Fellowship** - Create, fund or donate to a fellowship in honor of a mentor of your choice.

**Graham Surgical Investigator Program** - Create and fund a named award to support a Surgical Investigator.

You can also transfer stock or donate your honoraria directly to the Foundation:

**Stock** - Give a gift of appreciated securities, which can reduce your capital gains tax exposure.

**Donated Honoraria** - Transfer an honorarium to the Foundation in your name and the gift will be counted toward your cumulative giving total.

#### **Planned Gifts**

When planning your estate, consider a gift to the Foundation. Please let us know when you have made a decision to include the AATS Graham Foundation in your estate plan.

Options include:

Make a Provision/Bequests - Allocate a percent or a specific dollar value to the Foundation in your will. Donors are able to designate their bequests toward particular areas of the Foundation and can create a permanent endowment fund if the underlying assets are sufficient.

Charitable Remainder Trust - Name the Foundation as beneficiary of this individually managed trust, providing income for life. It can be funded with cash, appreciated securities or real estate. This option not only provides U.S. tax benefits, but also reduces probate and estate costs.

**Life Insurance** - Make the Foundation the beneficiary of an existing or new policy. Insurance can also replace assets earmarked for a charitable gift.

**Individual Retirement Account (IRA)** - Gift your IRA subject to US tax regulations.

# PUTTING YOUR HONORARIUM TO WORK

The next time you are consulting or making a presentation, consider directing your honorarium to the Graham Foundation. In 2015, 45 members of the AATS donated their honoraria.

Your foundation is one of the oldest ones and has been doing a great job for decades. Grateful for what you are doing in our communities

Khalil Fattouch, MD Policlinico Universitario Palermo, Italy I firmly believe that
every AATS member has an
obligation to support
the mission of our
organization to the best
of his/her abilities. I
encourage senior members
— who frequently serve
as teaching faculty — to
consider donating
their honoraria to the
Graham Foundation.

Tomislav Mihaljevic, MD
Cleveland Clinic Abu Dhabi
Abu Dhabi, United Arab Emirates

The Graham Foundation promotes knowledge accrual and transfer...my reason for giving a little back after receiving so much from my mentors and peers...

Louis P. Perrault, MD, PhD

Montreal Heart Institute

Montreal, Canada

...it is a very tax efficient way to support a worthy cause. The Graham Foundation has already proven itself to be an exciting and innovative mechanism to support research and education...It serves the entire specialty.

Thoralf M. Sundt, III, MD Massachusetts General Hospital Boston, Massachusetts

To learn more about giving options, contact Luiza Pellerin, Development Officer. lpellerin@aats.org or 1-978-927-8330

# CORPORATE/ ORGANIZATIONAL GIVING

The AATS Graham Foundation partners with corporations to fund select educational programs. It also accepts organizational gifts.

Help advance patient care and ensure excellence in CT surgery. Become one of our distinguished partners. Our development office will work closely with your staff to create a mutually beneficial relationship.

#### Current project supported by corporate sponsors:

#### Our organizational supporters are:



James L. Cox Fellowship in Atrial Fibrillation Surgery



19



Advanced Treatments of Valve Disease Fellowship

Every Heartbeat Matters Valve Fellowship

AATS Cardiovascular Valve Symposium Brazil

AATS Cardiovascular Valve Symposium Brazil Travel Awards





Fellowship for Advanced Minimally Invasive Thoracic Surgery

Surgical Investigator Award





Thoracic Surgery Training Fellowship





Advanced Lobectomy Course

Surgical Investigator Award

Keck Medical Center of USC





Advanced Valve Disease Educational Fellowship

North America Clinical Immersion In Advanced Minimally Invasive Thoracic Surgery



To explore a partnership, contact Luiza Pellerin, Development Officer lpellerin@aats.org or 1-978-927-8330

# THE NUMBERS IN 2015

At the end of our fiscal year (December 31, 2015), the Graham Foundation not only expanded its education and research opportunities, but also increased its total revenue by \$889,168 — despite a down year in the stock market. This enabled us to increase program funding by slightly more than 39 percent.

**Contribution receipts** totaled more than \$2.6 million (\$2,642,836), reflecting an increase of 71 percent over 2014, including:

#### **Individual Contributions & Industry Partner Support:**

Individual contributions, including foundations and institutions, totaled \$546,564 (a significant increase from \$213,927 in 2014), which included major gifts for the Oz Lemole Surgical Investigator Award and the newly established Marc R. de Leval and Denton A. Cooley Fellowships, as well as honoraria donated by members. Support from our industry partners increased dramatically to \$1,234,500, an 80 percent increase!

**AATS support** of administrative costs and several programs of \$861,772 compared with \$642,223 in 2014.

**Total expenditures** amounted to over \$1.78 million, breaking down as follows:

**Grants and contributions:** \$1,335,327 (compared to \$959,731 in 2014).

**General and administrative expenses:** \$346,638

Development costs: \$33,862

Committee costs: \$38.181

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Meetings & Education costs: \$27,331

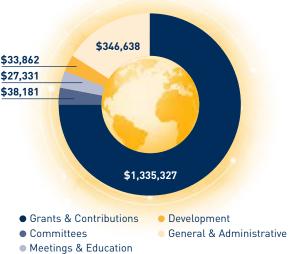
We ended the fiscal year with Unrestricted Net Assets of \$2.8 million and currently have \$1,430,314 in Restricted Funds to support existing programs in 2016 and beyond.

Our financial position remains strong.

Thomas L. Spray, MD, Secretary/Treasurer

# \$(18,293) \$7,050 \$1,781,065 • Grants & Contributions • AATS Grant • Meetings & Education • Investment Income





#### STATEMENT OF FINANCIAL POSITION

STATEMENT OF FINANCIAL FOSITION		
December 31, 2015	<b>2015</b> (Unaudited)	<b>2014</b> (Audited)
ASSETS		
Cash	\$1,571,621	\$861,270
Investments	\$2,547,998	\$2,565,152
Accounts Receivable	\$1,700	\$3,100
Pledge Receivable	\$757,484	\$602,988
Prepaid Asset	\$616	\$616
Total Assets	\$4,879,419	\$4,033,126
LIABILITIES		
Accounts Payable	\$ 3,398	\$7,395
Grants Payable	\$622,655	\$622,619
Total Liabilities	\$626,053	\$630,014
NET ASSETS		
Unrestricted	\$2,823,052	\$2,911,793
Temporarily Restricted	\$1,430,314	\$491,319
Total Net Assets	\$4,253,366	\$3,403,112
Total Net Assets & Liabilities	\$4,879,419	\$4,033,126



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