



# Pulmonary & Critical Care Division 2020

**Excellence in Education, Clinical Care, and Research**

***Core Goals:***

- *Delivery of evidence-based and patient-centered care at all times*
- *Promoting the academic career of each faculty member*
- *Remaining financially sound while contributing research/scholarship to the profession*

# Pulmonary Division History

## Developing The Division: 1984

- "Buzz" Johanson and Gary Harris left Southwestern
- Interest in Lung Infection/ARDS
- Continued interest in pulmonary infections

## Current Divisional Interests:

- Role of severe pneumonia and sepsis: primate model – Dr. Marcos Restrepo
- Role of Inflammaging in TB; NTM in a marmoset model: Dr. Peters and Griffith
- NIH COPD GENE study: Dr. Tony Anzueto
- WIPE Disease Foundation: Dr. Sandra Adams
- Pulmonary Fibrosis Therapeutics: Dr. Nambiar
- Point of Care Ultrasound: Dr. Nilam Soni





Opening Session: Sunday October 18 from 11 am to 12:30 pm CT Anthony Fauci MD, Director of the National Institute of Allergy and Infectious Diseases (NIAID) Topic: Current guidelines and research for treating COVID-19

Stephanie Levine, MD: UT Health – San Antonio and South Texas Veterans Health Care System Current President of Chest (4<sup>th</sup> Female President since origin in 1935) Topic: Presidential Address

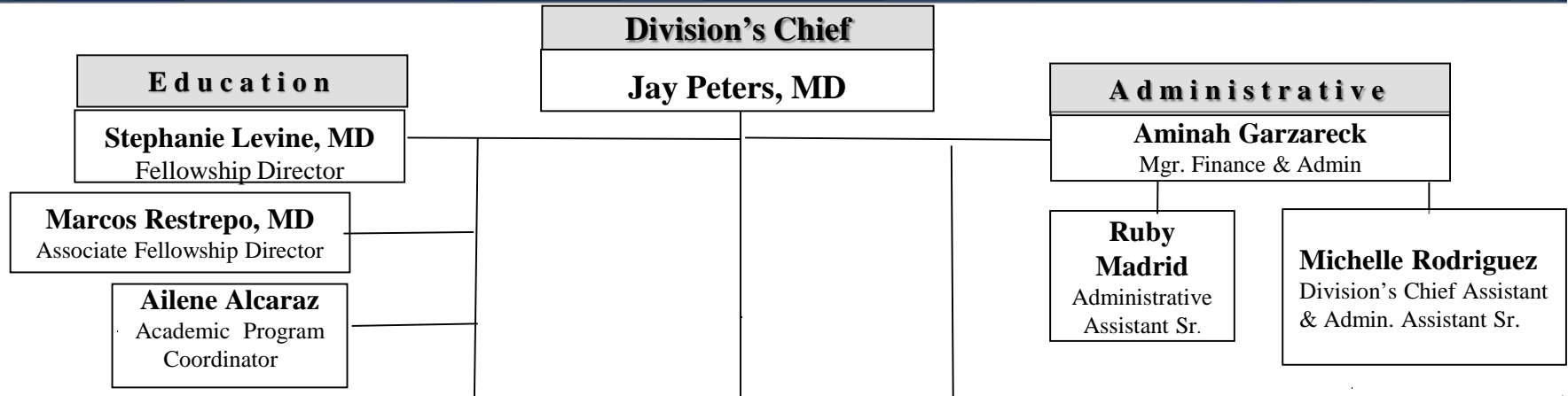
Tuesday October 20 from 2:30 – 3:30 pm CT Murray Kornfeld Memorial Founder's Lecture Marcos Restrepo MD, MSc, PhD: UT Health -San Antonio and South Texas Veteran's Health Care System Topic: Our Pneumonia Journey: The Lungs and Beyond



## UT- Health San Antonio Pulmonary/Critical Care Today (10/21/2020) CHEST International Meeting

- Faculty Lectures: 14
- Abstracts: 10
- Fellow/Resident Posters: 6

# Pulmonary and Critical Care Division Organization Chart



**VA Chief of Pulmonary**  
 Antonio Anzueto, MD - VA Chief  
 David Zepeda-Management Assistant  
 Sally Brabant, DNP - VA Lung Nodule/Mass Navigator  
 Jackie Guess, APRN -VA Lung Nodule/Mass Navigator

**VA MICU**  
 Marcos Restrepo, MD; VA MICU Director

**VA Pulmonary Function Test**  
 Jose Herrera -Supervisor PFT Clinic  
 Tanya Crockett- Medical Support  
 Damaris Salinas-Advd Medical Support Assistant

**VA Respiratory Therapy/Home Oxygen**  
 Edward Tovar- Supervisor  
 Russel Scott-Medical Support Officer  
 Primito Arista- Advd Medical Support Assistant  
 Dean Hardin- Medical Support Assistant

**Pulmonary Research Group**  
 Marcos Restrepo, MD: Basic Science  
 Antonio Anzueto - Clinical Research

Claude LeSaux, PhD

**Research Coordinators**  
 Harjinder Singh- Research Assistant, Sr.  
 Cecilia Hinojosa, Research Coord. Sr.  
 Karl McKloskey, Research Area Spec-Sr  
 Natalie Smith, Research Area Spec-Assoc

**Lung Transplant Service**  
 Deborah Levine, MD  
 Sergio Burguete, MD  
 Phillip Ong, MD

Monica Esquivel, PA  
 Melissa I. Taylor, PA

**UHS MICU**  
 Stephanie Levine, MD  
 Omar Enriquez, MD

Ryan Bierle, PA  
 Stephen Hendrickson, NP  
 Wen Pao, PA  
 Vincent Gould, NP  
 Blas Villa, NP  
 Shelby Lovera, NP

**UTHSCSA Faculty**  
 Sandra Adams, MD  
 Antonio Anzueto, MD  
 Christopher Dayton, MD  
 Omar Enriquez, MD  
 Rodolfo Estrada-Anzueto, MD  
 Sheila Habib, MD  
 Angela Hospenthal, MD  
 Holly Keyt, MD  
 Deborah Levine, MD  
 Stephanie Levine, MD  
 Adriel Malave, MD  
 Diego Maselli, MD  
 Robert Maximos, MD  
 Anoop Nambiar, MD  
 Phillip Ong, MD  
 Jay Peters, MD  
 Kevin Proud, MD  
 Marcos Restrepo, MD  
 Nilam Soni, MD  
 Maria Velez, MD

The division has experienced very low turnover in our Faculty and Staff. Faculty members are nationally recognized by the Profession and the Public and only 4 faculty leaving our Division in the past 10 years.

# Who we Are...by numbers

By rank.....

- 7 Professor (4 Tenured)
- 8 Associate Professor
- 5 Assistant Professor

By Gender.....

- 13 Male (65%)
- 7 Female (35%)

- 8 Advanced Practice Providers
- 4 Research Assistants





# Education & Training

- Stability of the Division contributes to a strong mentoring program with high quality
- 12 fellows currently: additional 1 FTE (1 yr/CCM) to fill to our ACGME approved complement of 16 fellows
- Specialized training: lung transplantation, pulmonary hypertension, interventional pulmonary, adult CF
- 100% research experience: abstract submissions, publications, QI projects
- 100% board passing rates since 1984
- After completion of training- 2/3 private practice, 1/3 academic

# Clinical Care

## The Lung Transplantation Program At University Transplant Center Of University Health System



❖ Best 1 year survival in the U.S. for 2019-2020

### University Transplant Center Lung Transplant Program Ranked #1 in the United States

	Center Name	City	Transplant Volume	Survival Summary
1	University Hospital, University of Texas Health Science Center	San Antonio, TX	59	100.00%
2	Houston Methodist Hospital	Houston, TX	162	94.70%
3	UT Southwestern Medical Center/ William P. Clements Jr. University Hospital	Dallas, TX	174	93.10%
4	Baylor University Medical Center	Dallas, TX	100	90.00%
5	CHI St. Luke's Health Baylor College of Medicine Medical Center	Houston, TX	103	87.70%

ADULT LUNG 1 YEAR SURVIVAL RATES  
July 1, 2016-December 31, 2018



Adult Lung Transplant Survival Report Release Date: January 7, 2020

# ADULT CYSTIC FIBROSIS CENTER

- ❖ Newly certified Adult Cystic Fibrosis Center
- ❖ Increased to 125 adult CF patients over the past year
- ❖ Cystic Fibrosis “*PACE Grant*” award: CF Foundation
- ❖ New Adult Clinic in UHS Horizon Tower

We offer a variety of services:

- Diagnostic testing
- Respiratory therapy
- Nutrition consulting and evaluation
- Clinical social work
- Mental health screening and therapy
- Physical therapy
- Participation in clinical trials
- Multidisciplinary inpatient & outpatient management



**Holly Keyt, MD**  
Center Director  
Assistant Professor of  
Medicine  
Keyt@uthscsa.edu



**Sheila Habib, MD**  
Associate Center Director  
Assistant Professor of  
Medicine  
HabibS@uthscsa.edu



# Lung Cancer



Robert Maximos, MD  
• Medical Director, VA  
Lung Mass Clinics

- ❖ Lung Mass Clinics at the VA and the MARC
- ❖ Tumor Boards at VA and CTRC
- ❖ Diagnosis & initiation to therapy: within 30 days
- ❖ State of the Art Therapy: SBRT; VATS lobectomy

**Future Goal: Creation of Lung Cancer Center of Excellence  
UT - Health Specialty Hospital**



Adriel J. Malavé, MD  
UT Health Lung Cancer  
Clinics

## Patient Care

**UT Health San Antonio Lung Cancer Clinic:** our focus is on the evaluation/diagnosis, management, and treatment of patients with lung cancers, tumors of other cancers metastatic to the lungs, and lung conditions resulting from chemotherapy.

**UT Health SA Cancer Center Thoracic Tumor Board:** as a center designated by the National Cancer Institute, we meet weekly to discuss the care of our patients. It is comprised of thoracic surgeons, medical oncologists, radiation oncologists, pulmonologists, and pathologists.

## Education

Presentations to students/trainees, nurses, respiratory therapists, community & academic pulmonologists, as well as to community and academic primary care providers

# Interstitial Lung Disease (ILD) Program



- **Pulmonary Fibrosis Foundation: Center of Excellence**
- **Only multi-disciplinary program in South Texas**
- **Large clinical studies in new therapies**

*Our ILD Program was selected by the Pulmonary Fibrosis Foundation to join their Care Center Network of 40 ILD Centers of Excellence.*

Anoop M. Nambiar, MD, MS

- Founding director of the ILD Program and ILD Clinic
- Medical director, San Antonio
- Pulmonary Fibrosis Support Group

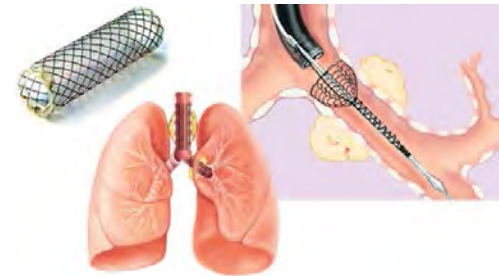
**Pulmonary Fibrosis**  
FOUNDATION

<http://www.pulmonaryfibrosis.org/medical-community/pff-care-center-network>

Patient care	Research (Selected Clinical Trials)	Education	Community outreach
UT Health San Antonio ILD Clinic	ASCEND trial: pirfenidone	Presentations to trainees, nurses, respiratory therapists, community & academic pulmonologists	<b>San Antonio Pulmonary Fibrosis Support Group</b> <ul style="list-style-type: none"> <li>• <b>Winner of the Leanne Storch Support Group Fund 2012, 2014-2020</b></li> </ul>
Multidisciplinary ILD Conference	RIFF trial: lebrikizumab		
	PF-ILD trial: nintedanib	Multidisciplinary ILD Conference	Free ILD Clinics, first-of-its-kind worldwide

# Interventional Pulmonology Program

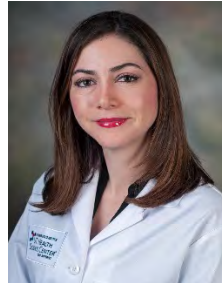
- ❖ Rigid bronchoscopy: upper airway tumors/stenosis
- ❖ Laser therapy for debulking tumors
- ❖ Foreign body removal
- ❖ Navigational bronchoscopy
- ❖ Medical thoracoscopy
- ❖ Stent placement for noninvasive LVR in COPD



Philip Ong, MD



Rodrigo Burguete, MD



Maria Velez, MD



Robert Maximos, MD

Conditions	Procedures Offered
Malignant airway obstruction Tracheal and bronchial stenosis Tracheobronchomalacia Pulmonary nodules Malignant and benign pleural effusion Persistent air leak and bronchopleural fistulas Massive hemoptysis Mediastinal staging of lung cancer Treatment of early centrally located lung cancer	Airway ablation (Electrocautery and Argon Plasma Coagulation) Rigid and flexible bronchoscopy Cryotherapy, cryoablation and cryobiopsy Airway stenting (Silicone and self expandable metallic) Endobronchial ultrasound (Convex and radial probe) Endobronchial valve placement Percutaneous dilatational tracheostomy Indwelling pleural catheter placement Microdebrider bronchoscopy

# UT Health/UHS Severe Asthma Program



**Jay I. Peters, MD, FCCP**  
 Professor of Medicine  
 Division Chief  
 Division of Pulmonary Diseases &  
 Critical Care

“Approximately 1 in every 10 asthmatics has severe asthma, and these patients often do not respond to conventional therapies”

- *Severe Asthma Clinic RBG*
- *Offer Rx with Biologics VA & UHS*
- *Bronchial thermoplasty*



**Diego J. Maselli, MD, FCCP**  
 Associate Professor of Medicine  
 Division of Pulmonary Diseases &  
 Critical Care  
 Director, Severe Asthma Program

Patient care	Research (Selected Clinical Trials)	Education
Severe Asthma Clinic	NOVELTY: observational study of asthma and COPD	Presentations to trainees, nurses, respiratory therapists, community & academic pulmonologists
Bronchial Thermoplasty	Bronchial Thermoplasty Registry	
<u>Anti-IgE, Anti-IL5, Anti- IL 4/13</u>	<u>Assessing Biologics in Severe Asthma</u>	<u>National and International presentations</u>

# Chronic Obstructive Pulmonary Disease - COPD



Antonio Anzueto, MD  
 Section Chief  
 Pulmonary & Critical Care  
 Medicine  
 VA Hospital  
 Professor of Medicine  
 UT Health San Antonio

*Since 2007, we have been part of the NHLBI funded cohort – COPDGene® that is following the largest cohort of smokers in the US.*

- ❖ **Enrolled over 350 patients: COPD GENE 3 study**
- ❖ **NIH COPD GENE Extension Study**
- ❖ **Developed “WIPE Diseases” Website**
  - \* **WIPE COPD, WIPE Asthma**
  - \* **VAPING Epidemic**
  - \* <https://wipediseases.org/>



Sandra G. Adams, MD, MS  
 Distinguished Teaching Professor  
 Professor of Medicine  
 UT Health San Antonio  
 Pulmonary & Critical Care Division

Patient care	Research (Selected Clinical Trials)	Education
UT Health San Antonio Clinic  Access to UT/UHS Lung Transplant Program, Interventional Pulmonary and Cardio-Thoracic Surgery	COPDGene®  - A randomized, double-blind, open-labeled, placebo-controlled, 52-week study evaluating the effect of danirixin (GSK1325756) on lung function and health related quality of life..... - PEARL –“A Randomized, Double-Blind, Parallel Group, Multi-Center Study to Assess the Efficacy and Safety of PT009 compared...” - NOVELTY – “A NOVEL observational longitudinal study on patients with a diagnosis or suspected diagnosis of asthma and/or COPD to describe patient characteristics...”	- COPD presentations to trainees, nurses, respiratory therapists, community & academic primary care clinicians and pulmonologists.  - Implementation of WipeDiseases® COPD educational programs and UT Quality Improvement interventions in the UT Health San Antonio primary care clinics: ( <a href="https://WipeDiseases.org">https://WipeDiseases.org</a> )

# MICU Facilities: University Health System



Omar Enriquez, MD



Stephanie Levine, MD

## Critical Care

- Dedicated 26 bed, high-intensity, closed medical ICU (capacity 30 beds)
  - Overflow to 3 beds outside MICU
  - Provide ICU consults to E.D. and all other ICUs
- Directors support to UHS: *Resuscitation Committee, Sepsis Focus Team, Inpatient Clinical Management Team Image Wisely XR initiative, Infection Control Committee & QRM Committee*
- YTD Activity: 600+ encounters / month (90% bed occupancy)
- Outstanding Care: Low length of stay (3.8 days)
- Low ICU Mortality: 2018 = 14%; 2019 = 13%; 2020 = 12.6%

# Research



## *Disease models (cell lines, murine and NHP)*

- Pneumonia
  - ❑ *Pneumococcus*
- Sepsis
- Cardiovascular disease post-infection
- Bronchiectasis
  - ❑ *NTM*

## *Areas of focus:*

- Pathogenesis
- Diagnosis
- Treatment/Prevention

## *Observational (Registries) and RCTs in PCCM areas*

- Asthma
- COPD
- Cystic fibrosis
- Sepsis/Septic shock
- ILD/IPF
- Mechanical ventilation
- Pulmonary embolism
- Pulmonary hypertension
- Lung transplantation
- Pleural complications
- Pneumonia (complications)
- Bronchiectasis
- Ultrasound – Critical Care

## *Implementation and Educational Projects*

- COPD
- DVT/PE
- Quality improvement projects-  
Fellows
- Point-of-care Ultrasound  
implementation – Surveys
- Evidence-based guidelines
- Fellowship program research  
educational projects

6 – Patents; 2- Phase 1 studies  
Inhaled Tacrolimus  
Inhaled Voriconazole

# Division Highlights

## Scholarly Activity and Service to the Profession

Faculty Honors/Participation American College of Chest Physicians/CHEST

Distinguished Medical Educators: S. Adams, J. Peters, D. Levine, N. Soni, k. Proud, M. Restrepo, S. Levine

ACCP/CHEST: Current President – Stephanie Levine

Patient Education Committee for Chest Foundation: Jay Peters (Co-chair)

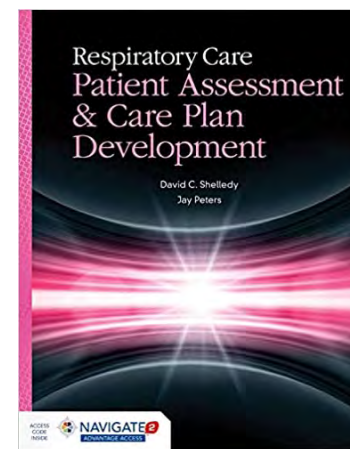
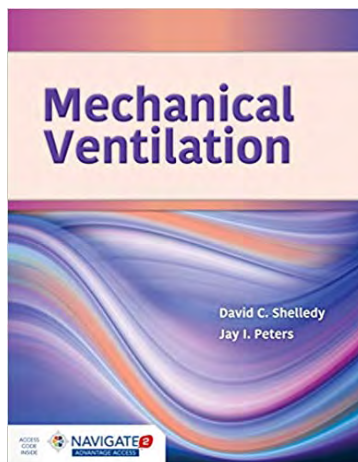
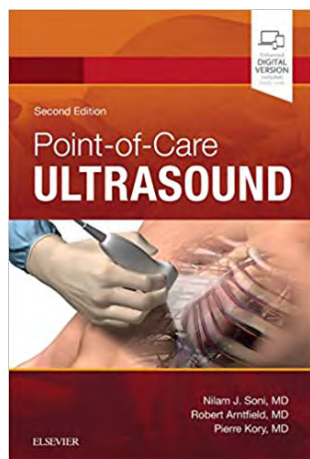
National Education Committee: S. Adams, D. Levine, and J. Peters

National Steering Networks: PAH - A. Malave; ID – M. Restrepo; ILD – A. Nambiar; Airways – D. Maselli

ATS/IDSA: Marcos Restrepo

- Community Acquired Pneumonia Guidelines
- Severe Community Acquired Pneumonia Guidelines

International COPD GOLD Committee: Antonio Anzueto





# Division Highlights

## Publication Record

	Number of publications per year
<b>3<sup>rd</sup> Year PCCM Graduating Fellows</b> n=4	
<input type="checkbox"/> Abstract presentations	13
<input type="checkbox"/> Oral presentations (scientific meetings)	8
<input type="checkbox"/> Book chapters	4
<input type="checkbox"/> <b>Peer-review publications</b>	5

	Number of faculty publications per year
<b>PCCM Faculty</b> n= 20	
<input type="checkbox"/> <b>“Peer-reviewed” publications</b>	87
<input type="checkbox"/> Presentations (national/international meetings)	48
<input type="checkbox"/> Book Chapters/Textbooks	20

# Finances by Site

Site	2019-2020 Revenue
<b>UHS</b>	
Base Care Contract	\$3,719,480
AOA Contract	\$ 404,412
IP	\$1,549,678
OP Clinics	\$ 543,247
<b>UHS Total</b>	<b>\$6,216,817</b>
<b>VA</b>	
Salary Support (7.5 FTE)	\$1,958,796
VA Contract	\$ 70,912
<b>VA Total</b>	<b>\$2,029,708</b>
<b>MARC</b>	
Clinics	\$ 491,191
<b>MARC Total</b>	<b>\$ 491,191</b>

# Finances

Site	2019-2020 Revenue
UHS	\$6,216,817
VA	\$2,029,708
MARC	\$ 491,191
ALL SITES	\$8,737,716

**Net Profit: \$487,833**

**RVU: FY19 – 55,183    FY20 – 62,148**

# Goals 2020 - 2021

- **Develop Sleep, Interventional Pulmonary and Cystic Fibrosis Fellowship**
- **Hire midlevel providers (APPs) to increase access for Pulmonary Care at the MARC and RBG**
- **Increase basic science and clinical research program within the Division**
  - **Collaborate with TxBioMed Research Institute in their RO1 and PO1 grants**
  - **Continue collaboration with UT Austin in developing new inhaled therapies**
  - **Collaborate with other Divisions for NIH & other federal grants**

