



We help the world breathe®  
PULMONARY • CRITICAL CARE • SLEEP

# Pulmonary Rehabilitation

## ASSEMBLY OFFICERS

Richard Casaburi, MD, PhD  
Assembly Chair  
[casaburi@ucla.edu](mailto:casaburi@ucla.edu)

Anne E. Holland, PT, PhD  
Incoming Assembly Chair  
[a.holland@alfred.org.au](mailto:a.holland@alfred.org.au)

Jennifer Alison, PhD, MSc, PT  
Planning Chair  
[jennifer.alison@sydney.edu.au](mailto:jennifer.alison@sydney.edu.au)

Brian W. Carlin, MD  
Program Chair  
[bwcmd@yahoo.com](mailto:bwcmd@yahoo.com)

Michael Steiner, MBBS, MD, FRCP  
Program Chair-Elect  
[ms346@le.ac.uk](mailto:ms346@le.ac.uk)

Carolyn L. Rochester, MD  
Nominating Chair  
[carolyn.rochester@yale.edu](mailto:carolyn.rochester@yale.edu)

Rachael Evans, MBChB, MRCP(UK), PhD  
Web Director  
[re66@le.ac.uk](mailto:re66@le.ac.uk)

## ASSEMBLY CONTACT

Website: <http://www.thoracic.org/assemblies/pr/index.php>

Email: [pr@thoracic.org](mailto:pr@thoracic.org)

Twitter: [https://twitter.com/PR\\_Assembly](https://twitter.com/PR_Assembly)

## IN THIS ISSUE

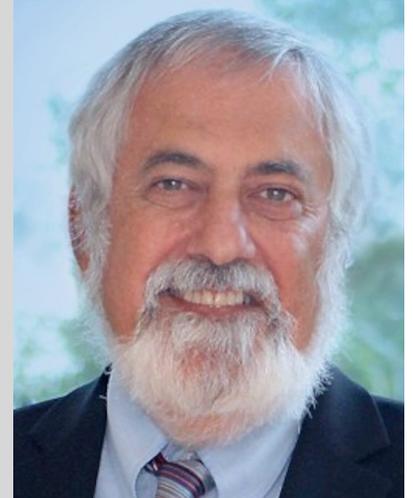
Message from the Assembly Chair.....	1
Planning Committee .....	2
Program Committee.....	2
PR Sessions.....	3-4
Early Career Professionals.....	5-6
Web Committee.....	7-8
Nominating Committee.....	9
Defining Modern PR.....	9
PR Awareness Campaign.....	10
PR Reimbursement.....	11-12
PR Membership Meeting.....	13
Assembly Twitter.....	13
GET INVOLVED!.....	13
Assembly/Committee Projects.....	14
Mentoring Meeting Spot.....	14
BAVLS.....	15
ATS Foundation Research Program.....	15
ATS Research Grants.....	16
Center for Career Development.....	16
Documents & Medical Affairs.....	17
PhD Reception.....	17
Science & Innovation Center Program.....	18
TEVA Walking Challenge.....	19

## MESSAGE FROM THE ASSEMBLY CHAIR

Editor: Richard Casaburi, MD, PhD

Welcome to our annual newsletter, chock full of information about Pulmonary Rehabilitation Assembly activities. If you're interested in the discipline of pulmonary rehabilitation, I think this newsletter will make an interesting read.

We hope to see many of you in Dallas! We'd very much like to see you at our annual Pulmonary Rehabilitation Assembly Membership Meeting on Monday, May 20th from 4:30-7PM. It will be held at the Hyatt Regency, Dallas in Cumberland E-H (Exhibition Level).



Richard Casaburi, MD, PhD

## PLANNING COMMITTEE

Jennifer Alison, PhD, MSc, PT

This is the end of my first year as chair of the Planning Committee. Where did the last year go? It has been a pleasure to work with our Committee of 13 members spread far and wide across the globe, which brings world perspective to our work (and sometimes makes teleconferencing times challenging!). We meet face-to-face at the ATS Annual Scientific Meeting and have a number of teleconferences throughout the year.

One of the Planning Committee's roles is to review applications for funding of projects that are relevant to our Assembly. Applications are usually submitted in July of each year with final results known in December. To find out more about what sort of projects are eligible for funding go to: <https://www.thoracic.org/members/assemblies/about/assembly-project-application-resource-center.php>. Here you will find information about the sorts of document development that ATS supports under the categories of policy statements, research statements, workshop reports, clinical practice guidelines and technical statements.

This year we received three new applications; I am pleased to say that one of these was funded: *Defining modern pulmonary rehabilitation: A consensus process*, lead by Anne Holland. The project team will hold a workshop at the time of the ATS meeting in Dallas and also a Delphi process with the objectives of achieving consensus on the current role of new pulmonary rehabilitation models and the requirements for successful implementation and quality assurance for such models (see further information below). This project team will also work in collaboration with the Pulmonary Rehabilitation Standards Working Group, led by Mick Steiner, that is developing a Pulmonary Rehabilitation

(Continued on Page 2)

## PLANNING COMMITTEE (*continued*)

Jennifer Alison, PhD, MSc, PT, Chair

tion Standards document. The objectives of this document is to assist with implementation of the aims of the 2015 ATS/ERS PR Policy Statement<sup>1</sup> by developing service indicators (both outcome and process measures) that will support benchmarking of pulmonary rehabilitation performance, and developing audit reporting templates that will enhance the ability of both PR services and payers to use local and comparative data to ensure excellent performance.

Another Planning Committee role is reviewing nominations for the ATS Pulmonary Rehabilitation Assembly Early Career Research Achievement Award for outstanding scientific contributions relevant to the principles and practice of pulmonary rehabilitation. Nominees must be within 10 years of their first faculty appointment and applications require a letter of support from a primary PR Assembly Member. Last year, we reviewed three excellent nominations and I am delighted to announce that Narelle Cox, PT, PhD, received the award at the ATS Annual Meeting in May in San Diego. Congratulations Narelle! Previous recipients of the award are Xavier Soler, Frits Franssen and Will Man. This year we had four high quality nominations. Do come to the Annual Pulmonary Rehabilitation Assembly Membership Meeting on Monday, May 20th, 4.30-7pm, to find out who will receive this award.

My sincere thanks to the committee for their wise counsel and particularly Melissa Bednarek for her support during the transition to a new Chair. We look forward to seeing everyone at the ATS Annual Meeting in May! Safe travels to Dallas!

Planning Committee Members:

Jennifer Alison (Chair), Melissa Bednarek (immediate past Chair), Jean Bourbeau, Brian Carlin, Richard Casaburi, Rebecca Crouch, Christine Garvey, Roger Goldstein, Jose Jardim, Linda Nici, Carolyn Rochester, Michael Steiner, Rachel Tappan.

References:

Rochester CL, Vogiatzis I, Holland AE, et al. An Official American Thoracic Society/European Respiratory Society Policy Statement: Enhancing Implementation, Use, and Delivery of Pulmonary Rehabilitation. *Am J Respir Crit Care Med* 2015; 192(11)

## PROGRAM COMMITTEE

Brian W. Carlin, MD, Program Chair, and Michael Steiner, MBBS, MD, FRCP, Program Chair-Elect

Each year, the Assembly Program Committee reviews, grades and ranks all sessions submitted for consideration, including scientific symposia, post-graduate courses, mini-symposia, poster discussion, workshops, meet the professor sessions, sunrise seminars, and thematic poster sessions. With a process starting in May 2018, involving meetings at several US cities and many emails from ATS colleagues, we are finally looking forward to seeing the fruits of the groups' work in Dallas! We have assembled an exciting program that should be of wide interest to members of this Assembly and others. This would not have been possible without all the input and enthusiasm from Assembly members.

We received many exciting Scientific Symposia proposals – unfortunately we are limited to just two scientific symposium slots. We received 75 abstracts, similar to past years, with the quality of these being exceptionally high. The Assembly continues to be allocated only one mini-symposium and one poster discussion session. As in past years, the highest scoring abstracts were selected to the mini-symposium for oral presentations. This year a senior member of the assembly will begin the mini-symposium session with a special fifteen-minute presentation. One of the thematic poster discussions will involve a new type of format for abstract presentations (RaPID). Each of the twenty presenters will have one minute to formally summarize the results of his/her work to all of the attendees. The high quality of the Assembly sessions is attributed to a robust review process. Mick Steiner and I would like to particularly thank all the members of the Program Committee for their invaluable time and expertise in this process.

Program Committee Members: Brian Carlin (Chair), Michael Steiner (Chair-elect), Esther Barreiro, Surya Bhatt, Felicity Blackstock, Christine Garvey, Neil Greening, Theresa Harvey-Dunstan, Ellen Hillegass, Daniel Langer, Francois Maltais, William Man, Marilyn Moy, Claire Nolan, Richard Novitch, Fabio Pitta, Harry Rossiter, Neil Schachter, Annemie Schols, Xavier Soler, Martijn Spruit, Thierry Troosters, and Lowie Vanfleteren

**ATS 2019 INTERNATIONAL CONFERENCE  
ADDITIONAL SESSIONS OF INTEREST TO PR ASSEMBLY**

<b>Session Code</b>	<b>Session Title</b>	<b>Session Time</b>	
<b>Postgraduate Courses</b>			
<b>Friday, May 17, 2019</b>			
PG6	INTERSTITIAL LUNG DISEASE: CURRENT TRENDS IN DIAGNOSIS AND MANAGEMENT	8:00 AM	4:00 PM
<b>Saturday, May 18, 2019</b>			
PG16	INTERSTITIAL LUNG DISEASE: DELIVERING OPTIMAL, PATIENT CENTERED CARE	8:00 AM	4:00 PM
<b>Scientific Symposia</b>			
<b>Sunday, May 19, 2019</b>			
A88	RETHINKING OXYGEN: GETTING THE RIGHT OXYGEN TO THE RIGHT PATIENT	2:15 PM	4:15 PM
<b>Monday, May 20, 2019</b>			
B2	ENDOBONCHIAL VALVE TREATMENT IN PATIENTS WITH ADVANCED EMPHYSEMA: ITS TIME HAS COME	9:15 AM	11:15 AM
<b>Wednesday, May 22, 2019</b>			
D6	SITES FOR PULMONARY REHABILITATION: WHERE CAN AND SHOULD IT BE PERFORMED?	9:15 AM	11:15 AM
D84	REDEFINING ICU SURVIVORSHIP: PREVENTION, RECOVERY AND REINTEGRATION	1:30 PM	3:30 PM
<b>Workshops</b>			
<b>Monday, May 20, 2019</b>			
WS3	DEMYSTIFYING PEDIATRIC EXERCISE TESTING INTERPRETATION	11:45 AM	1:15 PM
<b>Wednesday, May 22, 2019</b>			
WS7	CRISPR: BREAKING BAD FOR THE GOOD OF ADVANCING SCIENCE	11:45 AM	1:15 PM

Session Code	Session Title	Session Time	
B60	PULMONARY REHABILITATION: GENERAL	9:15 AM	4:15 PM
<b>Wednesday, May 22, 2019</b>			
D60	PULMONARY FUNCTION AND EXERCISE TESTING AND TRAINING	9:15 AM	3:30 PM
<b>Postgraduate Courses</b>			
<b>Friday, May 17, 2019</b>			
PG6	INTERSTITIAL LUNG DISEASE: CURRENT TRENDS IN DIAGNOSIS AND MANAGEMENT	8:00 AM	4:00 PM
<b>Saturday, May 18, 2019</b>			
PG16	INTERSTITIAL LUNG DISEASE: DELIVERING OPTIMAL, PATIENT CENTERED CARE	8:00 AM	4:00 PM
<b>Scientific Symposia</b>			
<b>Sunday, May 19, 2019</b>			
A88	RETHINKING OXYGEN: GETTING THE RIGHT OXYGEN TO THE RIGHT PATIENT	2:15 PM	4:15 PM
<b>Monday, May 20, 2019</b>			
B2	ENDOBONCHIAL VALVE TREATMENT IN PATIENTS WITH ADVANCED EMPHYSEMA: ITS TIME HAS COME	9:15 AM	11:15 AM
<b>Wednesday, May 22, 2019</b>			
D6	SITES FOR PULMONARY REHABILITATION: WHERE CAN AND SHOULD IT BE PERFORMED?	9:15 AM	11:15 AM
D84	REDEFINING ICU SURVIVORSHIP: PREVENTION, RECOVERY AND REINTEGRATION	1:30 PM	3:30 PM
<b>Workshops</b>			
<b>Monday, May 20, 2019</b>			
WS3	DEMYSTIFYING PEDIATRIC EXERCISE TESTING INTERPRETATION	11:45 AM	1:15 PM
<b>Wednesday, May 22, 2019</b>			
WS7	CRISPR: BREAKING BAD FOR THE GOOD OF ADVANCING SCIENCE	11:45 AM	1:15 PM

# EARLY CAREER PROFESSIONALS WORKING GROUP

Narelle Cox PT, PhD, Chair

Chair: Dr Narelle Cox PT, PhD – Melbourne Australia ([n.cox@latrobe.edu.au](mailto:n.cox@latrobe.edu.au))

Committee Members: Dr Claire Nolan (UK); Dr Heleen Demeyer (Belgium); Dr Sarah Roark (USA), Dr Alessandra Adami (USA), Dr Aimee Layton (USA); Dr Emily Wan (USA); Dr Antarpreet Kaur (USA); Dr Gregory Moulléc (Canada)

The Early Career Professional (ECP) Working Group for the Pulmonary Rehabilitation Assembly (PR) is now coming to the end of its second full year in existence. In recent times we have co-opted a new member to our committee from the US, Dr Antarpreet Kaur.

We are pleased to have made our initial forays into the ATS mentoring program, as well as made efforts to encourage attendance at the conference by new members, and hopefully have made improvements and advances through these efforts for the upcoming conference.

## ATS Assembly Mentoring Program

The PR Assembly has just concluded the matching process for mentors and mentees for the 2019 program, and participants will be contacted shortly.

The goals of the Mentoring Program are to provide an avenue for junior faculty/clinicians and trainee participation and networking in the PR Assembly; potentially to provide advice on a specific PR clinical or research related queries and to help with navigating the ATS meeting.



In 2018 we participated in the ATS Mentoring Program for the first time with 11 mentees supported by 10 mentors. If you'd like to hear a bit more about the program and the experience of previous participants, check out our podcast housed on the [Breathe Easy Podcast page](#) of the ATS.

If you think you'd like to participate in the program as a mentee or mentor (or both!) – remember to sign up in 2020!

## ATS Conference 2019



The ECP Working Group have a number of activities planned to coincide with the annual conference in May.

An informal networking get-together for PR Assembly ECPs (and anyone else who would like to come along) will take place on **Sunday May 19<sup>th</sup> from 5.30pm** at the [Waterproof Dallas](#). This event was a resounding success last year in San Diego, so bring

your friends and see you there!

Working with the Texas branch of the ACVPR to promote the conference with local area PR clinicians to encourage new Assembly members and conference attendees.

A new member/ECP 'Meet and Greet' session will be held at 4.30pm on Monday May 20th prior to the PR Assembly Membership Meeting. This session will serve as a welcome to the Assembly and an opportunity to highlight conference activities and resources for new members (e.g., MITT Roadmap; ATS101). Please come along.

*(Continued on Page 6)*

### Early Career Research Achievement Award

This award, initiated in 2015, is given annually to an individual who has made outstanding scientific contribution to the understanding and advancement of pulmonary rehabilitation. Nominations for the award are called for annually in February with applications submitted via the [ATS Assembly Awards site](#). Nominees must be within 10 years of their first faculty appointment and applications require a letter of support from a primary PR Assembly Member. Previous recipients of the award include Frits Franssen and Will Man. Keep an eye out in 2020 and consider nominating a worthy colleague.

# WEB COMMITTEE

Rachel Evans, MBChB, MRCP(UK), PhD

## Overview

We have had a successful year with a further increase in the activity of the web-committee. Please use the link below:  
<https://www.thoracic.org/members/assemblies/assemblies/pr/index.php>

We are always looking for suggestions for all our activities and are keen to involve all members of the assembly. Please contact me at [re66@le.ac.uk](mailto:re66@le.ac.uk).

We are proud to have a link on the ATS PR website for the fantastic:  
 Joint ATS/Gawlicki Foundation Initiative - A website for patients [LiveBetter.org](http://LiveBetter.org)

## Journal Club

Since ATS 2018, the Web Committee have organised seven online Journal Clubs:

Date	Paper	Presenter	Author present	Expert Panel	Modera-tor	Organizer
Tues 24 <sup>th</sup> July 2018	COMET trial ERJ 2018; 51 (1)	Dmitry Rozenberg	Jean Bourbeau	Will Man, Claire Nolan	Rachael Evans	Rachael Evans
Weds 26 <sup>th</sup> Sept 2018	Frailty and PR Thorax 2016; 71(11):	Lowie Van- fleteren	Matt Maddocks	Leandro Man- toani	Guto Camillo	Guto Camillo, Rachael Evans
Tues 30 <sup>th</sup> Oct 2018	Improving Frailty in Lung Transplant. Clin Transplant 2018 ;32 (6):e13274	Lisa Wickerson	Jonathan Sing- er	Leanne Singer, Sunita Mathur	Claire Nolan	Dmitry Rozen- berg
Weds 28 <sup>th</sup> Nov 2018	Treat- ing breathlessness <i>via</i> the brain: ERJ 2017;50(3)	Kyle Pattinson	Sarah Finnegan	Darlene Reid, Roger Gold- stein	Rachael Evans	Rachael Evans
Tues 28 <sup>th</sup> Jan 2019	Urban training in COPD to increase physical activity ERJ 2018; 52 (4)	Alda Marque	Judith Garcia- Aymerich, Ane Arbillaga	Thierry Troosters, Richard Casa- buri, Sarah Roark	Claire Nolan	Claire Nolan, Rachael Evans
Weds 27 <sup>th</sup> Feb 2019	COPD education and PR Annals of ATS 2018:15:776	Louise Sewell	Felicity Black- stock		Rebecca Crouch	Rebecca Crouch
Tues 26 <sup>th</sup> Mar 2019	Exercise, physical activity, co-morbidities in obese asthma Med Sci Sports Exerc 2018; 50(7)	Gail Dechman	Celso Carvalho	Rachael Ev- ans, Rebecca Crouch	Pat Camp	Pat Camp

Please note webinars are available for ATS and non-ATS members. They are a rich source of education material. All historical webinars can be accessed at any time via the ATS PR website under the 'Journal Club' header on the left hand side of the screen.

## Podcasts

Since ATS 2018, we have recorded a further three podcasts. They are all available to download (with the historical podcasts) from the ATS PR website under the heading 'Podcasts':

(Continued on Page 8)

## WEB COMMITTEE (*Continued*)

### [Exercise training in individuals with lung cancer](#)

Dr Vinicius Cavalheri, Curtin University, Australia interviews Dr Catherine Granger, The University of Melbourne/Royal Melbourne Hospital, Australia.

### [Experiences of ATS 2018 mentoring scheme](#)

In this podcast, Dr Narelle Cox, Dr Chris Burtin & Alex Jenkins discuss the new Mentoring Program launched by the ATS in 2018. This podcast highlights the benefits of taking part in the program and areas for improvement. It also provides an interesting insight into the perspectives of a Mentor and Mentee.

### [Accessibility and Funding of Pulmonary Rehabilitation in the USA](#)

Linda Nici, Chris Garvey, and Sue Lareau will provide an overview of the current situation across the USA to Rebecca Crouch, the interviewer.

### [Quarterly Bites](#)

We have continued the success of our quarterly bites, which aim to provide an opinion blog. The aim is to capture different views about subjects of interest and highlight ongoing international work concerning Pulmonary Rehabilitation in both the clinical and academic arena. We have had a further three quarterly bites this year:

### [Sedentary behavior and physical inactivity: how far are we in the differentiation of these terms and their implications in patients with COPD?](#)

Prof Fabio Pitta discusses where we are and future directions.

### [Education in Pulmonary Rehabilitation – Learning about Learning:](#)

Prof Felicity Blackstock provides her insights on what we need to know.

### [Tele-rehabilitation](#)

Professor Anne Holland provides an update

Please forward any ideas or material to us for future quarterly bites.

### [Videos](#)

We have put together a series of videos (>19) about how to perform outcome measures relevant to PR and different types of training techniques from one-legged cycling to Tai-Chi to water-based training. Please see under the 'Video' link on the website. We are keen to continue adding to these to provide a helpful resource for clinicians and researchers, so please forward any ideas to us.

### [Twitter](#)

Our twitter handle is @PR\_Assembly and in 2015 we had around 150 followers. We now have >980 followers. We tweet about @PR\_Assembly activities, relevant publication updates, re-tweet all relevant PR related tweets including from individual programmes. These and other issues related to the Assembly are regularly communicated through this account. We hope to see this platform continue to develop as a means of communication for our multi-disciplinary assembly members and patients across multiple continents.

### [Web Committee Members](#)

We have an enthusiastic, dedicated, international group of committee members who all contribute to the activity above: Dr Rachael Evans (Chair), Dr Claire Nolan (UK), Dr Guto Camillo (Brazil), Dr Annemarie Lee (Australia), Dr Rebecca Crouch (USA), Dr Sarah Roarke (USA), Dr Pat Camp (Canada) and Dr Dmitry Rozenberg (Canada). Alex Jenkins (UK) has shadowed our activities, recorded a podcast and is going to join us formally in May.

Please let Rachael Evans know if you're interested in becoming a member to find out what this involves.

### [Message to PR Assembly Members](#)

We are very grateful to all the people who have contributed helping us make a success of the ATS PR web-committee activities described above. We encourage all assembly members to be involved, but particularly want to encourage our new or more junior faculty members to volunteer – please don't wait to be asked; we are keen to hear from you. Please e-mail us [re66@le.ac.uk](mailto:re66@le.ac.uk) with your ideas and/or what you would like to be involved with.

## NOMINATING COMMITTEE

Carly Rochester, MD, Chair

The Pulmonary Rehabilitation Nominating Committee is responsible for nominating individuals to serve as candidates for various leadership positions within the ATS (PR) Assembly. This year, our Assembly held elections for Assembly Program Committee Chair-Elect, and for two members of the PR Nominating Committee.

Our Committee and our Assembly membership identified several superb candidates for these positions. Potential candidates are provided with details regarding the roles and responsibilities of the relevant Assembly leadership position. The election results will be announced at the PR Assembly membership meeting at the ATS International Conference in May (and will be posted thereafter on the Assembly Website). Hope to see you there!

The Nominating Committee strongly encourages membership participation in the various Assembly committees. The obligations and time commitments vary within the different positions, but the responsibilities are overall straightforward and fun! The best way to work towards a leadership position on one of the Assembly Committees is to gain experience by serving as a member of one or more of these groups. Please do let us know if you have potential interest in serving on one of the PR Assembly Committees.

## WORKING GROUP: DEFINING MODERN PULMONARY REHABILITATION – A CONSENSUS PROCESS

New models of pulmonary rehabilitation have emerged in recent years, including telerehabilitation and home-based rehabilitation. Whilst their potential to improve access and enhance health equality is exciting, their essential components and optimal characteristics have not yet been defined. If new models are to be successful, they must consistently deliver the excellent outcomes we expect from traditional pulmonary rehabilitation programs.

The ATS has recently funded the Pulmonary Rehabilitation Assembly to produce a workshop report that addresses this important issue. The project is being led by Prof. Anne Holland and Prof. Sally Singh, with working group members from across the world.

The aims of this project are:

1. Achieve consensus on the current role of new pulmonary rehabilitation models
2. Identify requirements for successful implementation of new pulmonary rehabilitation models.

In the first stage of this project (April 2019) we will conduct a Delphi process to gather the opinions of experts in the field. The results of the Delphi will be used to inform a workshop at the ATS conference in Dallas. The workshop report will be completed by the end of 2019, with a view to publication in 2020.

# PULMONARY REHABILITATION AWARENESS CAMPAIGN

Carly Rochester, MD and Richard ZuWallack, MD

We are very pleased to announce that, thanks to Mary and Ted Gawlicki of the Gawlicki Family Foundation, Judy Corn and ATS staff, and Pulmonary Rehabilitation Assembly members, the Pulmonary Rehabilitation Awareness Campaign is well underway. Its first component has been an initiative to raise awareness of pulmonary rehabilitation and its benefits to individuals with COPD and other chronic lung diseases. The basic idea of this grass-roots approach is to get more patients to ask their health care providers for referrals to pulmonary rehabilitation.

## *This has involved:*

The creation of a website, Live Better with Pulmonary Rehabilitation, <http://www.livebetter.org> (check it out!). This professionally-creative and attractive website tells patients what pulmonary rehabilitation is, what it can do, provides some testimonials, and directs interested people to centers geographically near them.

- Website traffic to Livebetter.org has been slow and steady, with up-ticks at various times coinciding with activities, such as emails or publications. At present, we have over 12k page-views since the site went live, which is positive for a small, niche site.
- A social media influencer has been hired to promote Livebetter.org, the importance of PR, and to host a Facebook Live event at Mount Sinai. A new Patient Information Series piece on Exercise with Lung Disease has been developed
- The ATS PRA website was modified to include links to Livebetter.org and new PR related Patient Info Series pieces
- Articles and op-eds on pulmonary rehabilitation and the PR website were written and published in sources that potential patients would read.
- Content from these publications was “picked up” by local venues, such as the Lake County News, as well as large scale digital publications, such as Physician’s Briefing and Healthday.
- An audio news release was issued and was distributed widely to large and small stations including NBC radio.
- Social media posts were distributed across all ATS channels.
- Internal ATS communications about Livebetter.org were transmitted via email and digital communication venues.

The PR Assembly and ATS staff remain indebted to the Mary and Ted Gawlicki Foundation for their generous support of this initiative.

# PULMONARY REHABILITATION REIMBURSEMENT - What Isn't Working in the United States and Why it Matters and How to fix it

Chris Garvey, Chair

The effectiveness, safety and value of pulmonary rehabilitation (PR) is well established (1-3), yet inadequate reimbursement threatens PR availability. Decline and stagnation of payment for PR in the US is complex. Rigorous analysis has found that hospitals are undercharging for PR, which has, at least in part, led to inadequate reimbursement that does not cover the cost of providing PR services. ATS along with the California Thoracic Society have taken the lead in addressing PR reimbursement and awareness inequities. A priority action to address poor coverage is for pulmonologists to both partner with PR clinicians and *meet with hospital financial leads to educate them of the need for PR, its value, and that availability of this effective intervention requires adequate hospital charges to survive.*

Two editorials have recently been published in ATS journals highlighting poor PR utilization and reimbursement as significant barriers to PR availability and, ultimately, to improved patient outcomes.

- <https://www.atsjournals.org/doi/abs/10.1164/rccm.201809-1711ED>
- <https://www.atsjournals.org/doi/abs/10.1513/AnnalsATS.201809-641ED>

Below is a review of how we got here and a call to action for ATS members. The ATS PR Assembly leadership is committed to the long term improvement in PR payment and availability.

The evidence of clinical effectiveness of pulmonary rehabilitation (PR) is strong and continues to grow, yet inadequate reimbursement and limited availability challenge effective PR delivery in the United States (4). Only about 3% of Medicare-eligible COPD patients in the US have received PR (5). Low reimbursement has the potential to influence availability of what is widely acknowledged as the standard of care in chronic lung disease.

Reasons for the decline in PR reimbursement are complex. It is at least in part tied to a Medicare change in PR reimbursement in 2010, when a new “bundled” payment code “G0424” for COPD was introduced. The code pays for one hour of PR including all costs of staff, medical director, gym, etc. In 2010, Medicare arbitrarily established a payment rate of \$50 for one unit of G0424. Medicare acknowledged in 2011 that *failure to carefully construct the charge for G0424 that reports a combination of services previously reported separately under-represents the cost of providing the service described by G0424 and can have significant adverse impact on future payments (6).*

Historically, PR had been paid for in 15-minute increments for most services. A recent review of charges for PR for COPD patients submitted to Medicare in 2015 from claims billed by 1350 U.S. hospitals found that the majority of PR providers and hospitals never adequately modified PR charges to reflect the nearly fourfold increase in time and resources used for the “bundled” G0424 billing code. Medicare uses of PR charges (as well as information from the hospital cost report) to calculate PR payment. One consequence of this is that cardiac rehabilitation reimbursement is now double that of PR (table 1).

## CMS Final CY 2017 Outpatient Services Payment Rates:

HCPCS Code (APC)	Short Descriptor	Amount paid for service
93798 (5771)	Monitored Cardiac rehabilitation	\$110.18
G0424 (5733)	Pulmonary rehab with exercise	\$54.53

A critical concept when calculating appropriate charges is that the amount paid for services is typically a small fraction of the amount charged by health care systems. Below is an example of amount charged for services versus the amount paid.

## Examples of Medicare Outpatient Prospective Payment System Hospitals for 2015:

Ambulatory Payment Classifications (APC) / Description	Average Estimated Submitted Charges	Average Total Payments
0269 - Level I Echocardiogram Without Contrast	\$2,386.36	\$409.22
0369 - Level II Pulmonary Function	\$1,354.23	\$229.25

(Continued on Page 12)

# PULMONARY REHABILITATION REIMBURSEMENT (*Continued*)

<https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Outpatient2015.html> accessed 10/1/18

PR needs your help. Hospital administrators set charge rates for all hospital services, including PR. They need to be aware of the concerns regarding G0424 billing and the impact of undervalued charges on Medicare payment. [A Pulmonary Rehabilitation Toolkit](#) that details resources for PR billing is available.

It is time for the pulmonary medicine and scientific community to bring these concerns to their hospital administration. It is also time to partner with PR clinicians and administrators to determine if charges for PR services reasonably represent the complexity of the intervention, the acuity of the target population and the value of this evidence-based intervention.

## References

1. Spruit MA, Singh SJ, Garvey C, ZuWallack R, Nici L, et al. An official American Thoracic Society/European Respiratory Society statement: key concepts and advances in pulmonary rehabilitation. *Am J Respir Crit Care Med.* 2013;188(8):e13-64. doi: 10.1164/rccm.201309-1634ST. PubMed PMID: 24127811.
2. Casaburi R, ZuWallack R. Pulmonary rehabilitation for management of chronic obstructive pulmonary disease. *N Engl J Med* 2009;360:1329-35.
3. Griffiths TL, Burr ML, Campbell IA, Lewis-Jenkins V, Mullins J, Shiels K, Turner-Lawlor PJ, Payne N, Newcombe RG, Ionescu AA, Thomas J, Tunbridge J. Results at 1 year of outpatient multidisciplinary pulmonary rehabilitation: a randomised controlled trial. *Lancet.* 2000;355(9201):362-8. PubMed PMID: 10665556. ””
4. Rochester CL, Vogiatzis I, Holland AE, Lareau SC, Marciniuk DD, et al. An Official American Thoracic Society/ European Respiratory Society statement Policy Statement: Enhancing Implementation, Use, and Delivery of Pulmonary Rehabilitation. *Am J Respir Crit Care Med.* 2015;192(11):1373-86. doi: 10.1164/rccm.201510-1966ST. PubMed PMID: 26623686.
5. Nishi SP, Zhang W, Kuo YF, Sharma G. Pulmonary Rehabilitation Utilization in Older Adults With Chronic Obstructive Pulmonary Disease, 2003 to 2012. *J Cardiopulm Rehabil Prev.* 2016. doi: 10.1097/HCR.0000000000000194. PubMed PMID: 27428819.
6. Medicare and Medicaid Hospital Outpatient Prospective Payment. Federal Register, Department of Health and Human Services, Centers for Medicare and Medicaid Services. CFR parts 410, 411, 416, 419, 489 and 495. November 30, 2011. 76;230:74224.

*Assembly on Pulmonary Rehabilitation  
Membership Meeting*

*Monday, May 20th  
4:30pm – 7:00pm*

*Hyatt Regency, Dallas*

*Cumberland EH*

*Exhibition Level*



Be sure to follow us at [@ATS\\_Assemblies](https://twitter.com/ATS_Assemblies) for news on webinars, deadlines, and other things you might have missed in your inbox!



American Thoracic Society  
**ASSEMBLIES**



**GET INVOLVED!**

Want to know how the ATS Assemblies and Committees really work?  
Would you like to get more involved?

This is your chance! You can now register here to become more involved in the ATS Assemblies, ATS Committees or both. There are many ways to grow within ATS and the Assemblies and Committees are a great starting point.

[www.thoracic.org/go/get-involved](http://www.thoracic.org/go/get-involved)



We help the world breathe<sup>®</sup>  
PULMONARY • CRITICAL CARE • SLEEP



## Submit an Assembly/Committee Project Application for Funding in FY2020!

We are happy to announce that ATS will once again accept **NEW Assembly/Committee Projects for FY2020**. All interested applicants should begin developing their ideas for Assembly/Committee Project Applications. **Applications will be available on the ATS website at [www.thoracic.org](http://www.thoracic.org)**

Please consider submitting an application for an Assembly/Committee project. If you have a suggestion for a project application and you need assistance, please contact your **Assembly Planning Committee Chair Jennifer Alison, PhD, MSc, PT at [jennifer.alison@sydney.edu.au](mailto:jennifer.alison@sydney.edu.au)**

For questions regarding submissions please contact

Miriam Rodriguez at:

tel: (212) 315-8639 or email: [Mrodriguez@thoracic.org](mailto:Mrodriguez@thoracic.org).

### Assembly Mentoring Programs' Meeting Spot



Struggling to find a quiet location to meet with your mentor? The Assembly Mentoring Programs is offering a meeting spot exclusively for mentors and mentee to meet. The Assembly Mentoring Programs' Meeting Spot will be located at the Regency Dallas in the Baker room on the Atrium Level.

#### **The room will be available:**

Sunday, May 19th – Tuesday, May 21st, 2019 from 7 a.m. to 7 p.m.

*Light snacks and beverages will be offered throughout the day. Laptops and printers will be available for use and don't forget to pick up your Assembly Mentoring Program Ribbon and Pin!*

#### **Join us at the Mentoring Reception:**

Sunday, May 19th, 4:30-6:30pm  
Monday, May 20th, 7:00-9:00pm  
Baker Room (Atrium Level)

Interested in joining a Mentoring Program? Visit our [Assemblies Mentoring homepage](#) or contact Nicole Feijoo at [NFeijoo@thoracic.org](mailto:NFeijoo@thoracic.org)

## Best of ATS Video Lecture Series (BAVLS)



Do you have an amazing teaching video you want to share with the world?  
Then consider submitting to the Best of ATS Video Lecture Series  
(BAVLS)!

For more information, please visit: <https://www.thoracic.org/professionals/clinical-resources/video-lecture-series/index.php>

**Donate \$ 100 to the ATS Foundation Research Program and receive a pair of ATS –branded lungs as a token of thanks! Donors will be recognized with a picture and a mention on the ATS Instagram account.**



**Donations are being accepted at the ATS Center, booth #2726 in the Exhibit Hall (Hall D)**

**Center Hours: Sunday, May 19 to Tuesday, May 21st from 10:30 a. m — 3:30 p. m**



## Spread the word: Apply for a Research Grant

Last year, ATS awarded 30 grants totaling \$1.6 million. The 2019 cycle is now open, offering 15 unrestricted grants, 1 grant specifically for nurses, and more!

Apply for the 2019  
ATS Foundation  
Research Program  
Portfolio of Grants

Deadline for letters of intent: June 17, 2019



**Deadline to submit an LOI is Monday, June 17, 2019**

Visit: [thoracic.org/go/researchgrants](http://thoracic.org/go/researchgrants)

## Center for Career Development (CCD)

Sunday, May 19 – Tuesday, May 21, 2019 7 a.m. – 5 p.m.

Wednesday, May 22 7 a.m. - 1 p.m.

Kay Bailey Hutchison Convention Center Dallas

Hall B (Level 2)

The Center for Career Development is a professional networking and career development forum for early career professionals (medical students, residents, fellows, post docs, other allied healthcare and research professionals) in training or transitioning from training in Pulmonary, Critical Care or Sleep Medicine. Each day, the CCD features informal workshops aimed at enhancing the professional development for all health care professionals. The sessions in the CCD are a unique and valuable opportunity for YOU to interact with experts in PCCM and have your questions answered about career development topics that are important to you!

See the schedule [here](#).

**The ATS has a Guideline Methodology Scholar Program that provides hands-on training in guideline development. An informational program is being held on Monday, May 20th from 7-8:30 PM, Hyatt Regency Dallas, Sanger A (Atrium Level). Anyone who is interested in learning more about clinical practice guideline development and the ATS training program that provides a hands-on experience in clinical practice guideline development is welcome to attend. A light dinner will be served. Please**

**RSVP to  
[kwilson@thoracic.org](mailto:kwilson@thoracic.org). Space is limited.**

Additional information: The field of clinical practice guideline development has changed dramatically over the past decade. Formal standards must now be met as defined by the Institute of Medicine, which include a specific approach to searching for evidence, selecting evidence, summarized evidence, formulating recommendations, and rating the quality of evidence and the strength of the recommendations. The ATS and other guideline developers have learned that to successfully adhere to these standards, a guideline methodologist is necessary on each guideline committee. Clinical practice guideline methodologists are individuals who are capable of leading both systematic reviews (i.e., develop search strategies, select studies, extract data, perform meta-analyses, and construct evidence tables and summary of findings tables) and the formulation and grading of evidence-based recommendations.

The requirement that there be a methodologist on every guideline committee has created an imbalance, with the demand for methodologists far exceeding the supply. As organizations move toward continuously updating guidelines and demand increases, this imbalance will worsen. In order to combat this trend and build methodological capacity, the ATS has a methodology training program that takes individuals who have an interest in learning guideline methodology and places them on a guideline panel that needs methodological support. The trainee does the hands-on methodological work for the panel with guidance from the ATS methodologist and, in return, gains experience and middle co-authorship on the guideline. After working on one or two such guidelines projects, the trainee will likely have the skills necessary to become an independent methodologist. We believe that this is a potential career pathway, particularly well-suited for clinician-educators.

Additional benefits of the program include: a) systematic reviews performed during the development of the guideline are often publishable as independent entities and the trainee would be the first author on such derivatives, b) participation in a methodology training workshop, and c) participation in the Evidence Synthesis Methodology Working Group of the Behavioral Sciences and Health Services Research Assembly. The latter will lead to additional opportunities to participate in various workshops and projects.

**Chief, Documents & Medical Affairs  
Kevin Wilson, MD**

### **Second Reception for PhDs & Other Basic Science Researchers**

The ATS is pleased to invite members to attend the “**Second Reception for PhDs & Other Basic Science Researchers**” to be held at the ATS International Conference on **Sunday, May 19th from 3-5pm. The reception will be held in the Science and Innovation Center.** There will be food provided and activities during the event will include an opportunity to get to meet and network with other scientists, to engage with leaders from the ATS and assemblies and to provide feedback regarding activities or programs that ATS could offer to benefit the basic and translational science members. The event is free, but we ask you to register to help plan for food. Trainees are especially welcome and encouraged to RSVP and attend!!

**[Register here](#)**

***In addition, be sure to check out the entire program in the Science and Innovation Center (SIC) which will be available on the ATS international meeting mobile app.***



# ATS 2019 SCIENCE & INNOVATION CENTER

The Science & Innovation Center, located at the **Kay Bailey Hutchison Convention Center Dallas, Hall B (Level 2)**, is a forum for scientists and researchers to meet, network, learn, and rest. The Science & Innovation Center is organized by representatives of the Assemblies on: Allergy, Immunology and Inflammation (AII), Pulmonary Infections and Tuberculosis (PI-TB), Respiratory Cell and Molecular Biology (RCMB), and Respiratory Structure and Function (RSF).

**HOURS:** + Sunday, May 19 - Tuesday, May 21 – 7a.m.- 5p.m. + Wednesday, May 22 – 7a.m.- 1p.m.

**DAILY:**

+ Complimentary breakfast served at 7a.m. + Light refreshments served + Informal networking & rest area all day

Sunday, May 19	Monday, May 20	Tuesday, May 21
7:15 - 8:00 a.m. <b>ATS 101: Cell Fate</b> Jason Rock, PhD, Boston University	7:15 - 8:00 a.m. <b>ATS 101: Neural Control of Inflammation</b> Brenda Marsh, MD, PhD, OHSU	7:15 - 8:00 a.m. <b>Early Career Professionals Coffee Corner</b>
8:15 - 9:15 a.m. <b>Navigating ATS</b> Julie Ledford, PhD, University of Arizona	8:15 - 9:15 a.m. <b>Setting up a Lab</b> Phil Verhoef, MD, PhD, University of Chicago	8:15 - 9:15 a.m. <b>Mentorship: A Key to Success</b> Laura Crotty-Alexander, MD, University of California at San Diego Anne Sperling, PhD, University of Chicago
9:15 - 10:00 a.m. <b>PRDS Orientation</b>	9:15 - 10:00 a.m. <b>Hiring Lab Management</b> Chad Steele, PhD, Tulane University	9:15 - 10:00 a.m. <b>Building Your Track Record for Career Success</b> Greg Downey, MD, National Jewish Health
10:15 - 11:00 a.m. <b>ATS 101: RNA Seq</b> Jay Kolls, MD, Tulane University Naftali Kaminski, MD, Yale University	10:15 - 11:00 a.m. <b>ATS 101: Imaging</b> Yan Bai, MD, Harvard University Steven Rowe, MD, University of Alabama	10:15 - 11:00 a.m. <b>ATS Foundation Grants</b> Erin Marie Nebel, ATS
11:00 - 11:45 a.m. <b>Lunch &amp; Learn: RNA Seq Data</b>	11:00 - 11:45 a.m. <b>Lunch &amp; Learn: Imaging</b>	11:00 - 11:45 a.m. <b>NIH Grants/Working with Industry</b> Taylor Cohen, PhD, MedImmune Lora Reineck, MD, NIH Ghenima Dirami, PhD, NIH
12:00 - 3:00 p.m. <b>Rising Star and SIC Abstract Awards</b>	12:00 - 12:45 p.m. <b>From Innovative Ideas to Clinical Trials</b> Hector Ortega, MD, Gossamer Bio David Lagares, PhD, Harvard Tim Watkins, MD, Gilead	12:00 - 12:45 p.m. <b>Lunch &amp; Learn: Grants and Funding</b>
3:00 - 5:00 p.m. <b>PhD and Basic Science Reception</b>	1:00 - 3:00 p.m. <b>BEAR CAGE COMPETITION</b> 	1:00 - 1:45 p.m. <b>Bridging the Gap (MD Perspective)</b> Josh Englert, MD, Ohio State University John Christman, MD, Ohio State University
	3:30 - 4:30 p.m. <b>Minority Trainee Development Scholarship Reception</b>	1:45 - 2:45 p.m. <b>Bridging the Gap (PhD Perspective)</b> Beth Moore, PhD, University of Michigan Megan Ballinger, PhD, Ohio State University
		3:00 - 4:30 p.m. <b>Relax and Recharge</b>



**ATS 2019**  
Where today's science meets tomorrow's care™

**AMERICAN THORACIC SOCIETY  
INTERNATIONAL CONFERENCE**

dallas  
tx



# Third Annual ATS Walking Challenge

## Step up to the Third Annual ATS Walking Challenge.

Every step helps raise money for the ATS Foundation. The top 3 overall steppers win a prize and 3 randomly selected participants reaching the 30,000 step goal win a prize. Watch it all unfold on leaderboards in the Mylan, Inc. booth #4333 or at the ATS Walking Challenge booth.

The first 2,000 registrants receive a free ATS wireless activity tracker to use with the App (distributed on a 'first-come, first-served' basis). The App also supports attendees that prefer to use their own FitBit, Jawbone or iPhone/Android smart phone step counters.

The three individuals who log the most steps win an Ipad Air.

Three randomly selected individuals reaching the 30,000 step goal win Bose QuietControl 30 Wireless headphones!

Learn more and pre-register online at: [hekahealth.com/ats2019](http://hekahealth.com/ats2019) or stop by the Walking Challenge Booth in Lobby D, level 2 at the Kay Bailey Hutchison Convention Center,

**Supported by:**



## Visit the Mylan, Inc. booth #4333 each day for a step booster.

The more you visit, the more you receive:

**Day 1 - 500 steps; Day 2 -750 steps; and Day 3 - 1,000 steps.**

**Walk for a good cause!** For every participant who walks 30,000 steps, Mylan, Inc. will make a donation of \$100 to the ATS Foundation, for a total maximum donation of \$50,000. Learn more at [Foundation.Thoracic.org](http://Foundation.Thoracic.org).

May 17 - May 22, 2019 | [conference.thoracic.org](http://conference.thoracic.org)