EDITORIAL

Title: Improving diagnosis and treatment of chronic thromboembolic PH: Helping physicians to cure patients.

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“The patient does not care about your science; what he wants to know is, can you cure him?” (Martin H. Fischer)

The science of Respirology continues to advance at a dizzying pace, with greater understanding of the biology and pathophysiology of many of our common conditions, including asthma, COPD, pulmonary fibrosis, and pulmonary hypertension (PH). Although we can now better diagnose and manage patients who suffer from some of these chronic disorders, we can rarely, if ever, cure these patients. Some respiratory disorders may occasionally be cured, such as obstructive sleep apnea and early stage bronchogenic carcinoma.

PH is a serious, progressive, often fatal disease characterized by increased pulmonary artery pressure and pulmonary vascular resistance. Patients suffer from progressive dyspnea, poor quality of life, and a high risk of right-sided heart failure and death. Many patients with WHO Group I Pulmonary Arterial Hypertension (PAH) have benefited from effective, new PH-specific medical therapies, with improved symptoms and exertion tolerance, a better quality of life, and sometimes longer survival. However, other than lung transplantation for a minority, a cure for PAH patients is not a feasible goal at present.

An important category of PH is WHO Group IV chronic thromboembolic PH (CTEPH), as reviewed in the article by Drs. de Perrot and Opitz in the current issue of Ontario Thoracic Reviews. CTEPH is a common cause of PH, usually arising in patients with pulmonary vascular obstruction due to recurrent, unresolved pulmonary emboli and/or progressive pulmonary vascular thrombosis and scarring. CTEPH patients typically present with progressive exertional dyspnea and right heart failure. The
diagnosis of CTEPH is critical to consider in all patients with PH, because CTEPH is the only form of PH that is curable in a majority of patients, through pulmonary thromboendarterectomy (PEA) surgery. We are fortunate in Ontario to have Dr. Marc de Perrot in Toronto and Dr. Fraser Rubens in Ottawa, two surgeons who have committed themselves to outstanding surgical and post-operative management of CTEPH patients at two PEA centers.

However, as Drs. de Perrot and Opitz emphasize, CTEPH patients can only benefit from curative PEA surgery and possibly medical PH therapies if they are diagnosed accurately and in a timely fashion. It is clear that the diagnosis of CTEPH is often delayed or missed altogether, contributing to significant morbidity and risk of mortality.

The world’s first clinical practice guidelines for the diagnosis and management of CTEPH, sponsored by the Canadian Thoracic Society, were recently published in the Canadian Respiratory Journal (1) and in free full-text online (2) through a collaborative effort of many members of the Canadian PH Medical Community. The development and publication of these guidelines is only the first step in improving the knowledge base and capacity of physicians to better care for patients suffering from PH. We are currently focusing on the next two vital steps in knowledge transfer: disseminating the recommendations to our Canadian Respiratory and other medical colleagues, and facilitating the implementation of the CTEPH clinical practice guidelines into routine medical practice. It is only through helping physicians better care for patients with CTEPH that we can hope to offer these patients what they most desire, a cure.

References:


FEATURE ARTICLE
Chronic thromboembolic pulmonary hypertension – a paradigm shift

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Abbreviations
CTEPH= Chronic thromboembolic pulmonary hypertension

Introduction
The management of chronic thromboembolic pulmonary hypertension (CTEPH) has been associated with major changes over the past 10 years. Although the disease was once considered to be rare occurring in 0.1%-0.5% after acute pulmonary emboli, recent studies have shown that the prevalence of CTEPH ranges between 1% and 10% after acute symptomatic pulmonary emboli (1-3). Hence, increasing awareness and adequate evaluation has led CTEPH to become the leading cause of pre-capillary pulmonary hypertension with an estimated incidence that could be as high as 20 to 30 cases per million inhabitants per year in the general population (4). The disease should therefore actively be sought and treated if detected.

Risk factors
A number of factors have been recognized as potential risk factors for the development of CTEPH. These include older age, idiopathic pulmonary emboli, recurrent pulmonary emboli, larger perfusion defects at initial presentation, massive or submassive pulmonary emboli, and longer times between symptom onset and diagnosis of pulmonary embolism (1-3). The presence of a systolic pulmonary artery pressure greater than 50 mmHg at initial presentation is also a risk factor for CTEPH (5). Since a “naïve” right ventricle can not acutely generate a systolic pulmonary artery pressure greater than 50 mmHg, this finding suggests that a large number of patients with CTEPH
do in fact present with acute pulmonary embolism on a background of chronic thromboembolic disease. There is currently no evidence that the administration of thrombolytic therapy during the acute phase can reduce the risk of CTEPH. However, this question has not yet been formally analyzed in a prospective study.

Several medical conditions also seem to predispose to the development of CTEPH. These include chronic medical conditions such as inflammatory bowel disease (Crohn’s disease and ulcerative colitis), cancer, thyroid hormone replacement therapy, splenectomy, and long-term central catheters such as pacemakers, defibrillators and others (6). The presence of thrombotic risk factors potentially predisposing to CTEPH are, however, rarely found, but may include lupus anticoagulant or antiphospholipid antibodies, increased levels of factor VIII or dysfibrinogenemia (6). CTEPH also seems to predominate in patients with blood groups other than blood group “O” (6,7).

**Prognosis**

The prognosis of patients with CTEPH is similar to other patients with pulmonary arterial hypertension and depends on the severity of the elevation in pulmonary artery pressures (8). Patients with a mean pulmonary artery pressure greater than 30 mmHg have a 5-year survival of 30% and patients with a mean pulmonary artery pressure greater than 50 mmHg have a 5-year survival of less than 10% with a treatment of anticoagulation alone. Most patients with pulmonary hypertension related to chronic thromboembolic disease treated with anticoagulation alone will subsequently die from right heart failure.

**Pathophysiology**

The pathophysiology leading to CTEPH is complex and still incompletely understood. The most important concept is that the development of pulmonary hypertension is not simply related to a mechanical obstruction due to the chronic thromboembolic material, but rather to the occurrence of a secondary vasculopathy due to the inflammatory milieu and continuous shear stress caused by this persistent thromboembolic material (9). The inflammation and shear stress will eventually lead to the proliferation of endothelial cells and smooth muscle cells along the pulmonary arterial wall with progressive worsening of the pulmonary hypertension and right heart failure. Hence, pulmonary hypertension will worsen in the face of adequate anticoagulation as a consequence of the secondary vasculopathy and not because of recurrent thromboembolic events (10). Since the secondary vasculopathy may potentially lead to residual pulmonary hypertension after pulmonary endarterectomy, our group and others strongly recommend that patients with CTEPH undergo surgery (pulmonary endarterectomy) to remove the chronic thromboembolic material early in the course of the disease (4).

**Diagnosis**

The diagnosis of CTEPH is often overlooked. Up to 50% of the patients with CTEPH do not have a documented history of pulmonary embolism and a majority of patients
presenting with CTEPH are older than 60 years old, hence their symptoms are often attributed to other co-morbidities such as parenchymal lung diseases and/or deconditioning. It is not rare for patients with CTEPH to be initially investigated for asthma, allergy, gastroesophageal disorders and/or left sided heart disease. The disease is therefore very often missed unless one carefully looks for it. As much as acute pulmonary emboli is a diagnostic challenge for the emergency physicians, CTEPH is a diagnostic challenge for general practitioners, respirologists and cardiologists.

The most commonly reported symptoms are dyspnea and fatigue. Non-specific chest or upper abdominal pain is often observed. Occasionally, CTEPH patients may also complain of hemoptysis, syncopal episodes during effort, angina, peripheral leg edema or palpitations. A diagnosis of CTEPH should therefore be sought in all patients with unexplained dyspnea and/or fatigue, newly diagnosed PH, and in those with residual exercise limitation after an episode of acute pulmonary embolism, regardless of age or comorbidities.

Ventilation-perfusion scan (V/Q) scan and echocardiogram are the most important non-invasive investigations to establish the diagnosis of CTEPH. The V/Q scan does not differentiate between acute and chronic disease. However, several studies have shown that the acute component of the pulmonary emboli do resolve within 4 to 6 weeks in 90% of the patients and within 6 months in all patients (9,11). Hence, symptomatic patients with persistent unmatched perfusion defect on V/Q scan despite adequate anticoagulation for 3-6 months require referral to a specialized center for further evaluation, particularly if there is direct or indirect evidence of pulmonary hypertension on echocardiogram. The echocardiographic signs can range from mild ventricular dysfunction to severe right ventricular pressure overload. Even if the echocardiographic findings are limited, the presence of persistent unmatched perfusion defects on V/Q scan in a symptomatic patient should raise concern about the possibility of CTEPH and mandate referral to a specialized center. On rare occasions, patients presenting with evidence of severe right ventricular dysfunction may require urgent or semi-urgent surgery even though they have not yet completed 3 to 6 months of anticoagulation.

Right heart catheterization and pulmonary angiogram are generally required for the definitive diagnosis of CTEPH. CT pulmonary angiogram is also increasingly used to evaluate the extent of chronic thromboembolic disease. However, the presence of chronic thromboembolic disease can occasionally be missed on CT pulmonary angiogram and CT pulmonary angiogram should not be used to rule out a diagnosis of CTEPH. A recent study demonstrated that the V/Q scan had a negative predictive value of 98.5% to rule out CTEPH, while multidetector CT pulmonary angiogram had a negative predictive value of 79.7% when compared to the gold standard pulmonary angiogram (12). Therefore, a negative CT pulmonary angiogram does not formally rule out CTEPH (Figure 1).

Treatment
Pulmonary endarterectomy is the standard of care for the treatment of CTEPH, offering a chance of cure for the vast majority of the patients. Surgical candidates are
selected based on right heart catheterization, pulmonary angiography and CT pulmonary angiogram. We currently do not exclude patients from surgery based on the severity of the elevation in pulmonary vascular resistance since an adequate pulmonary endarterectomy can restore normal or near normal cardiopulmonary function even in patients with advanced disease. In our experience, the video-assisted technique has been helpful to perform the endarterectomy in the segmental and subsegmental vessels by providing more light and by magnifying the plane of dissection (13).

Histologic examination of the endarterectomy specimen reveals a true cast of the pulmonary vascular tree covered with elastic fibrin (Figure 2). In situ thrombosis can occasionally occur as a result of obstruction of segmental and subsegmental branches associated with localized poor blood flow. However, in situ thrombus is the consequence of the disease and not its cause. In situ thrombosis may occasionally be difficult to differentiate from recurrent acute pulmonary emboli in the acute phase. In the presence of chronic thromboembolic disease, a thrombectomy or an embolectomy without a true endarterectomy will not result in reduction of the pulmonary vascular resistance. Only a true endarterectomy can release the segmental and subsegmental obstruction of the pulmonary arterial tree and provide a chance to normalize the pulmonary artery pressures.

The results of pulmonary endarterectomy in experienced centers have improved substantially over the past 10 years to the point that the surgery can currently be performed with similar risks to any other major cardiothoracic surgery. A recent prospective international registry that included most of the European centers and Toronto have shown that the surgery can safely be done with reproducible results in all centers (14). The overall operative mortality after elective pulmonary endarterectomy is 2% in our experience in Toronto with 74% of the patients being extubated within 2 days after surgery and 65% discharged home within 15 days. The majority of patients do not require any blood transfusion as blood conservation strategies are used during the surgery (7). Pulmonary endarterectomy is associated with major clinical and physiological improvement and the vast majority of the patients return to functional class I or II after surgery. The long-term outcome after pulmonary endarterectomy remains excellent with a 5-year survival greater than 90% on a treatment of anticoagulation alone.

The role of medical therapy for the treatment of CTEPH remains undefined (15). Although clinical studies for inoperable CTEPH are encouraging, adequately powered randomized trials are lacking, and the currently available data have not yet established medical therapies as being consistently beneficial. Despite a reduction in pulmonary vascular resistance, treatments with endothelin receptor antagonists, phosphodiesterase type 5 inhibitors or with inhaled prostacyclin have failed to produce improvement in exercise capacity as compared with those receiving placebo (15). There is currently no approved medical therapy for CTEPH and off-label therapies may, in fact, delay referral for definitive surgical therapy and adversely affect outcomes.

Conclusions
We believe that over the past decade a paradigm shift has occurred in CTEPH. The disease is much more common than anticipated and it is imperative that patients with this deadly condition are adequately diagnosed to have access to surgery and well designed clinical trials.

**Figures**

**Figure 1.** The evidence for CTEPH on CT pulmonary angiogram can be limited and easily overlooked. A. The presence of webs and/or bands at the levels of the segmental branches are typical of chronic thromboembolic disease (white arrow). These abnormalities are often more readily visible on coronal and sagittal reconstructions than on axial views. B. Pulmonary angiogram from the same patient confirms the stenosis in the distal descending branch of the right pulmonary artery (black arrow). This patient underwent a successful pulmonary endarterectomy 5 years ago with complete resolution of the pulmonary hypertension and is doing well with no recurrence of disease on a treatment of coumadin alone.
Figure 2. Specimen of endarterectomy from the right and left pulmonary artery. The endarterectomy must be extended down to the level of the segmental and subsegmental levels to adequately relieve the pulmonary hypertension.

References
Obituary for Frederick E Hargreave (1938-2011)

Frederick E (Freddy) Hargreave died unexpectedly on 15th June 2011. He was born in Hong Kong and completed his medical school training at the University of Leeds in the United Kingdom. After completing his initial clinical training, Freddy moved to London, where he began his research training with Professor Jack Pepys at the Brompton Hospital. During this time, Freddy described a new clinical entity, Bird Fancier’s lung disease, a type of allergic alveolitis caused by the inhalation of bird antigens.

Freddy Hargreave joined the Department of Medicine at McMaster University in 1969. He was based at the Firestone Institute for Respiratory Health at St. Joseph’s Hospital, where he spent his entire career in Canada. Shortly after arriving in Hamilton, he started what was to become a lifelong collaboration and close friendship with Dr. Jerry Dolovich and their focus turned to understanding the mechanisms of and the treatment of asthma. Within 10 years, the studies led by Freddy Hargreave had changed the way that asthma was diagnosed, and had paved the way to future studies which have revolutionized its treatment. In particular, his laboratory described the methodology for the measurement of a pivotal feature of asthma, termed airway hyperresponsiveness, and demonstrated that this was present in all patients with current symptoms of asthma. This test is now the established way to diagnose asthma in patients in whom the diagnosis is uncertain.

In the early 1980’s, the importance of persistent airway inflammation in the pathogenesis of asthma became apparent. The type of inflammatory response differed from patient to patient and was difficult to measure, because it required an invasive test and could not be done routinely. The brilliance of Freddy Hargreave’s research was that it was always focused at directly solving patient related issues, and he recognized that the non-invasive measurement of airway inflammation was a critical step in the evaluation and treatment of patients with difficult-to-treat asthma. This resulted in the development of the methodology for sputum induction and measurement of inflammatory cells in sputum. Almost immediately, this resulted in the identification of a new syndrome of persistent eosinophilic airway inflammation in the absence of asthma, which accounts for about 20% of patient referrals, with chronic persistent cough, to respiratory clinics.

The methods that the Hargreave laboratory developed are now considered the gold-standard, and used as a research tool in all laboratories, which conduct clinical research in asthma; however, from extensive experience in measuring sputum inflammatory cells in the clinical setting, Freddy was convinced of its added value in the everyday management of difficult-to-control asthma. Clinical trials comparing standard guideline directed management of asthma to a management scheme which added the routine measurement of induced sputum, showed a dramatic advantage of adding the sputum
method in reducing the risks of severe asthma exacerbations and also in determining the appropriate doses of medications to manage these patients. 
Freddy Hargreave’s brilliance as a clinical scientist was only eclipsed by his skills as a mentor. Almost all of the research leaders in asthma in Canada have trained at his laboratory at the Firestone Institute, and his previous fellows are research leaders in more than 20 countries. His honesty, integrity and precision in research were legendary and he tried to impart these qualities to every trainee that flocked to train with him from all parts of the world. His research was driven entirely by the clinical needs of his patients and epitomized translational research. Every observation directly led to improved health of his patients. He rejoiced, not from his over 300 publications in high impact journals, but from the recognition of his grateful patients and successes of his trainees.

McMaster University, the city of Hamilton, the Canadian respiratory community and the international scientific community have lost an extraordinary physician, humanitarian, and clinician scientist. His untimely death has deprived physicians and scientists across the world of a trusted colleague, friend and mentor. His wife, Alix, his children Clare, Erica and Peter and his grandchildren have lost a devoted husband, a loving and caring father and an affectionate grandfather. Despite his world class accomplishments, he did not care for titles, accolades or his own advancement. To his patients, he was not Dr. Hargreave, but Freddy - the doctor and friend who wore shorts, sandals and knee high socks, even in the depth of winter. He cared genuinely, and in everything he did he brought a level of decency, caring and attention, that was unmatched.

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Firestone Institute for Respiratory Health,  
St. Joseph’s Healthcare,  
Hamilton, Ontario.
C.C. Gray Fellowship Award 2011-2012
Dr. Sunita Mulpuru, University of Ottawa

The Ontario Thoracic Society is pleased to announce that the 2011-12 Cameron C. Gray Fellowship Award was presented to Dr. Sunita Mulpuru at the 2011 Better Breathing Conference. After graduating from medical school at McMaster University, Dr. Mulpuru trained at the University of Ottawa in Internal Medicine and Respirology. Her clinical experiences fostered an interest in understanding the epidemiology and treatment of respiratory infections, including Influenza. Dr. Mulpuru also received the Ontario Thoracic Society’s 2010 Keith Morgan Award, the Department of Medicine 2009 CanMED Scholar award, among other awards recognizing her commitment to scholarship, teaching and community service.

Following residency, Dr. Mulpuru will pursue clinical and research training in Ottawa to understand the impact of respiratory infections in patients with chronic lung diseases. Her areas of focus will include viral respiratory infections, infection control, and patient safety. She aims to develop more effective screening tools for febrile respiratory illness and clinical decision aids and pathways to safely triage and treat patients with infectious respiratory illnesses in Ontario’s hospitals.

Dr. Mulpuru is honoured to receive the Dr. Cameron C. Gray fellowship and would like to extend her sincere appreciation to the fellowship donors and to the OTS for their support. The award was founded in 1981. Funds are maintained by donations from The Lung Association, private foundations, corporate sponsors, members of the Ontario Thoracic Society, and personal friends and grateful patients of Dr. Gray. This fund is used to support one resident per year, from a province wide competition. Continuation of this award depends on the generosity and support of previous donors as well as with new donors. For more information about this fellowship award or to make a donation, contact Jeanne Castellanos at the OTS office at ots@on.lung.ca or by calling (416)864-9911 ext. 254.
The Ontario Thoracic Society is delighted to announce funding for the 2011-2012 Grant-In-Aid Awards, Breathe New Life Award and OLA/Pfizer Awards in Pulmonary Arterial Hypertension and COPD. These Awards are made possible through the generous support from the Ontario Lung Association, OTS members and their collaborators and Pfizer Canada respectively. A total of 37 Basic Science and Clinical applications were received for 2011-2012 with budget requests totaling over $1.7 million. Funding was approved for 16 of the 37 applications based on their national peer-reviewed rankings.

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<tr>
<th>Principle Investigator (listed alphabetically)</th>
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<tr>
<td>Dr. Claudia Dos Santos, St. Michael’s Hospital</td>
<td>$49,000</td>
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<td>Role of ATF3 and DJ-1 in myeloid and non-myeloid cells during ALI</td>
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<td>Dr. Anne Ellis, Queen’s University</td>
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<td>Epigenetic Biomarkers of Atopy and Asthma at Birth</td>
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<td>Dr. Roger Goldstein, West park Healthcare Centre /University of Toronto</td>
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<td>A Randomized Controlled Trial of Balance Training in Individuals with COPD</td>
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<td>Dr. Christian Hendershot, Centre for Addiction and Mental Health/University of Toronto</td>
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<td>Prazosin as a Novel Treatment for Smoking Cessation</td>
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<td>Dr. Mark Inman, St. Joseph’s Healthcare Hamilton /McMaster University</td>
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<td>Ozone-Facilitated Allergic Sensitization and Response</td>
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<td>Dr. Luke Janssen, McMaster University</td>
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<td>Calcium-Signaling and Gene Expression in Human Pulmonary Fibroblasts</td>
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<td>Dr. Diane Lougheed, Queen’s University</td>
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<td>Physiology of Cough in Asthma: Comparison of Sensory-mechanical Responses to Mannitol and High-dose Methacholine</td>
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<td>Dr. Indra Narang, Hospital for Sick Children</td>
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<td>Opioid-Induced Respiratory Depression in Children</td>
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<td>Dr. Helen Neighbour, McMaster University</td>
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<td>Effect on Allergen Challenge on Inflammation Induced</td>
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by Toll-Like Receptor Stimulation in a Nasal Model

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<td>Effect of Metals Present in Particulate Air Pollution on the Development of Inhalation Tolerance in Mice</td>
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<td>Dr. Jeremy Simpson, University of Guelph</td>
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<td>Mechanisms of Diaphragmatic Dysfunction Induced by Heart Failure with Myostatin Inhibition for Therapeutic Translation</td>
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<tr>
<td>Dr. Neil Sweezey, Hospital for Sick Children</td>
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<tr>
<td>Regulation of Perinatal Lung Development by Glucocorticoid Responsive Signalling in Mesenchymal Cells In Vivo</td>
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<tr>
<td>Dr. Teresa To, Hospital for Sick Children</td>
<td>$48,721</td>
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<tr>
<td>Validation and Use of Evidence-based Asthma Care Performance Indicators in Ontario (VALUE-API)</td>
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**BREATHE NEW LIFE AWARD:** The OLA/OTS Breathe New Life Award: The funds for the Breathe New Life Award are partly raised by the OTS members through the Top It Up! for Respiratory Research fund. This fund enhances the nationally reviewed and acclaimed Grant-In-Aid research competition and funds above and beyond the normal value of the GIA budget provided by the Ontario Lung Association (OLA).

**Breathe New Life Award recipient 2011-2012:**
Dr. Clodagh Ryan, University of Toronto/ Toronto General Hospital/ UHN
Spatial and Temporal Patterns of Cerebrovascular response to hypercapnic stimuli in subjects with, and without, Obstructive Sleep Apnea

**OLA/PFIZER AWARDS:** The OTS thanks Pfizer for providing unrestricted support of research in COPD, smoking cessation and pulmonary arterial hypertension.

*Dr. Andrea Gershon, Sunnybrook Health Sciences | $50,000 |
Impact of Pulmonary Function Testing on Health Outcomes of Individuals with Chronic Obstructive Pulmonary Disease

* Dr. Roma Sehmi, Firestone Institute for Respiratory Health/McMaster University | $50,000 |
Role of Vascular Endothelial Progenitor Cells in Lung Angiogenesis

**Notes:**
* OLA Pfizer matching Awards in COPD and in Pulmonary Arterial Hypertension, respectively.
1 Total funding includes $35,376.13 from Top It Up Funds
Ontario Thoracic Society Grant-in-Aid Competition 2012-2013
Please be sure to note changes to the application process, including a new on-line format and our GRANTING GUIDELINES and ELIGIBILITY CRITERIA

We welcome applications in ALL areas of research related to respiratory conditions. Examples include: asthma, *COPD, sleep apnea, pulmonary fibrosis, infections, *Pulmonary Hypertension and *Smoking Cessation (This list is not complete).

To qualify for funding, candidates must complete two steps:
1. Register: Applicants are required to register with the Canadian Lung Association office via http://ngr.myreviewroom.com/ by November 18, 2011. Once you are registered you will receive a confirmation email to activate your account for electronic submission of your abstract directly to your account. During the registration on the website, applicants will be required to provide name, institution, project title, identify the type of research (clinical or basic) and a maximum one page abstract.
2. Apply: Review the Ontario guidelines on the OTS Research website and complete the ONLINE APPLICATION for your specific award competition.

Application Deadline: December 7, 2011 by 4:30 p.m. EST

*OLA/Pfizer Award Competition 2012-2013
The Ontario Lung Association and Pfizer Canada are pleased to offer for the second time, two awards. One for those with an interest in Smoking Cessation and/or COPD or Pulmonary Arterial Hypertension. Individual awards within these two programs are to a maximum of $50,000. Consistent with the Grant-in-Aid review process, an independent committee of Canadian medical researchers will review the research proposals and select award recipients. Interested researchers should apply using the OTS GIA application located on the OTS Research website.

Deadlines for submission are the same as for the GIAs. Please note that applications to this award do not preclude support from the Ontario Lung Association’s current Grant-in-Aid program, and applications will automatically be considered for both programs.

IMPORTANT: Applications for the OLA/Pfizer Awards in Chronic Obstructive Pulmonary Disease and/or Smoking Cessation and Pulmonary Arterial Hypertension must be submitted only to the website listed above and the original hard copy application should be sent to the Ontario Thoracic Society. The application is the same as for the Grant-In-Aid Award competition, with the EXCEPTION of NOT being limited (eligibility criteria f) to applicants who hold less than $250K in operating grants. Please email the OTS as ots@on.lung.ca with any questions.
ONTARIO LUNG ASSOCIATION TO GOVERNMENT OF ONTARIO: LUNG HEALTH MUST BE PROVINCIAL PRIORITY

In June, the Ontario Lung Association and its health professional societies officially released a life and economic impact research report called *Your Lungs: Your Life*. The report, developed in consultation with more than 40 partners, including healthcare providers, professional associations, other not for profit organizations, and patient advocates, reveals daunting research findings:

- Right now in Ontario more than 2.4 million people have a serious lung disease that can make breathing difficult. If we don’t do something differently, this number will climb to 3.6 million in the next thirty years.

- Today lung disease costs Ontario more than $4 billion. Without improvements to the province’s approach to lung health, this will skyrocket to $300 billion by 2041.

- Estimates show that for every $1 invested in lung health, $3 in future healthcare costs could be saved: this is *in addition* to saving hundreds of thousands of lives.

But what makes our research unique, is that beyond investigating the burden of lung disease, it also considers evidence-based intervention scenarios, which, if implemented, could avert the projected spending levels associated with the continuing upward trend in lung disease.

The Ontario Lung Association and its partners are using the evidence from our research to call on the province's next government to develop an *Ontario Lung Health Action Plan*.

It would include spending our hard-earned tax dollars in the most efficient way possible, making the most of what already works well, and making sure it is available to everyone.

With this goal in mind, leading up to the recent provincial election, the Ontario Lung Association ran a campaign of its own. First, we took the opportunity to educate every candidate running in each of Ontario’s 107 ridings about lung disease in Ontario, and the need for an *Ontario Lung Health Action Plan*. Second, calling on voters to “Breathe Life into the Ontario Election”, we hosted an “election 2011” advocacy page on our website that allowed supporters to enter their postal code to automatically send an informative email to the candidates in their riding. Also on this site, voters could add their name to our pledge page, and find a list of candidates who indicated their commitment to lung health. Third, staff and volunteer advocates have been actively meeting in-person with
candidates from all three political parties, and generating media attention for our
campaign. In London Ontario, the Ontario Lung Association’s Youth Advocacy Training
Institute (YATI) facilitated a “smart mob” of youth activists who blew bubbles and
handed out materials to draw attention to the importance of lung health. At that event
more than 800 tiny bottles of bubbles branded with our website were distributed.
Fourth, Ontario Lung Association President George Habib has undertaken a speaking
tour and has been delivering a presentation called: “Saving a Billion Dollars One Breath
at a Time: Why Lung Health Should Matter to Ontario’s Decision Makers” to audiences
across the province including the Economic Club of Canada. Finally, our campaign was
bolstered by print advertisements and radio public service announcements that ran in
communities across the province.

“While we are very excited that our report has been launched and with the fantastic
work that was accomplished during the election, our work is far from done,” says
George Habib, president and CEO, Ontario Lung Association. “As a new legislative
session begins at Queen’s Park we will continue our government and public relations
activities. Our lung health champions across the province will continue their efforts in
their local communities, meeting with their MPPs and media to raise awareness and
advance the discussion about the need for an Ontario Lung Health Action Plan.”

The Ontario Lung Association needs your support for this important public health
initiative. Consider becoming a lung health champion in your part of the province, and
start by visiting our advocacy web page at www.on.lung.ca/actionplan to add your name
to the call for an Ontario Lung Health Action Plan. For more information about how to
get involved, or to receive a copy of our Advocacy Tool Kit, please call Elizabeth Harvey
at 1-888-344-LUNG (5464). We look forward to working together toward and Ontario
Lung Health Action Plan.
Quit & Get Fit Promotional Efforts
Reach Young Adults Across the Province

On Thursday, March 3, the Ontario Lung Association launched the 2011 Quit & Get Fit (Q&GF) initiative as part of a province-wide social marketing campaign to highlight the benefits of using physical fitness to increase the likelihood of successfully quitting smoking. To appeal to young adult smokers, The Lung Association employed a number of social media initiatives, including a new iPhone App and “cheeky” YouTube video that spoofs smoking rituals by replacing cigarettes with exercise equipment. Both can be found on the new Quit & Get Fit microsite, www.quitandgetfit.ca. To-date the video has been viewed more than 30,000 times!

Additional campaign elements included: traditional and social media release distribution; paid media including on-line, broadcast, print, out of home; and a sports sponsorship placement with the Toronto Rock Lacrosse Team.

Results of social marketing initiatives far exceeded expectations. Earned media generated 71 news stories totaling more than 16 million impressions including a 3-minute segment on Global TV News on March 30th that focused on the creativity of the campaign, and use of social media as a means of reaching a target audience. The paid media added another 47 million impressions for a total reach of 63 million impressions.

**PARTNERSHIP WITH GOODLIFE FITNESS**

The Winter 2011 Quit & Get Fit Personal Training program was available at 18 participating GoodLife Fitness Clubs in 13 communities, up from 10 locations in 10 communities during the pilot in 2010. More than 215 people registered for the program to receive 16 free personal training sessions with specially trained Personal Trainers. While the full results of the evaluation are not yet available, top-line data is as follows:
• The program attracted more participants in the target 19 to 29 age group than any other single age group
• Similar to 2010, more females than males registered
• Word of mouth (from family/friends) and in-club referrals were once again the most frequently cited sources of learning about Q&GF
• At the end of the program, the self report 30-day abstinence was 41.3 per cent
• Among those who continued to smoke, daily cigarette consumption dropped significantly and time to first cigarette in the morning increased significantly

The Ontario Lung Association is pleased to have had the opportunity to build upon the 2010 Q&GF pilot, incorporating insights and lessons learned to expand the 2011 program, and is currently planning for a third phase of the program to run in early 2012.

Quit & Get Fit is funded by the Ministry of Health Promotion and Sport. For more information contact Sherry Zarins at 416-864-9911 ext. 267 or szarins@on.lung.ca.

BETTER BREATHING 2012
January 27-28, 2012
MARRIOTT TORONTO DOWNTOWN EATON CENTRE
525 Bay Street, Toronto M5G 2L2

UPDATE FROM THE CHAIR OF THE OTS BETTER BREATHING COMMITTEE

Mark your calendars! Better Breathing 2012, the annual conference of the Ontario Lung Association and the Annual General Meeting of the Ontario Thoracic Society is coming soon. We hope to build on the success of last year’s meeting and I would encourage you to start making your plans to attend right away.

The Friday morning Plenary Session, “The Regeneration of Lung Health”, will explore advances in stem cell research and lung transplantation with two internationally recognized leaders. Dr. Duncan Stewart (Ottawa) will discuss “Vascular Repair and Regeneration as a Target for Pulmonary Arterial Hypertension (PAH) Therapy”. Dr. Shaf Keshavjee (Toronto) will talk about “Ex-vivo Repair of Donor Lungs for Transplantation – A Clinical Reality”.

Mid-morning we will explore, “What’s New in Lung Health”. Dr. Lyle Palmer (Toronto) will discuss “The Ontario Health Study – Creating Platforms for Revolutionary Science and Transformational Biology”. Ms. Patricia O’Brien (Toronto) will present on “Excellent Care for All – Quality Improvement in Primary Care and Lung Health”. Dr. Stephen Lapinsky (Toronto), will complete the session with “iRespirology – Technology Aids for Practice and Decision Making”

A number of lunch time small group sessions are scheduled: 1) “There’s an App for That” (Dr. Stephen Lapinsky, Toronto), 2) “Hyperinflation and Beyond: Cardiopulmonary...
Interactions in COPD” (Dr. Christopher Parker, Kingston) and 3) the André Péloquin Case Presentations from Community Respirologists, this year’s case presenters are Dr. Jonathon Langridge (Kitchener), Dr. April Price (London) and Dr. Kamyar Soghrati (Toronto). Ensure that you book early for the lunch-time clinical sessions as seating is limited. Alternatively, you can choose to have lunch with your colleagues and exhibitors at the General Lunch.

Friday afternoon, “State of the Art in Respiratory Medicine”, will feature presentations on “The A to Z-z-z’s of Respiratory Management of Neuromuscular Disease” (Dr. Sherri Katz, Ottawa) and “Interstitial Lung Disease and Connective Tissue Disease: Evidence Pearls and Pitfalls” (Dr. Shikha Mittoo, Toronto). The popular, humbling, and entertaining Resident Case Presentations, facilitated by Dr. Chris Parker (Kingston), will follow. The afternoon session concludes with the OTS Annual General Meeting. Please attend the Annual General Meeting (AGM) and find out how the OTS works for you.

On Saturday morning, return for the ever-popular and provocative debates, Chaired again by the entertaining Dr. Shawn Aaron (Ottawa). This year’s speakers will debate: “Clinical Practice is Best When it Follows Clinical Practice Guidelines” (Dr. Samir Gupta and Dr. Matthew Stanbrook); “Interventional Procedures Should be done by Surgeons” (Dr. Richard Malthaner and Dr. Kayvan Amjadi) and “In patients who are otherwise healthy, all initial sleep assessments should be done at home” (Dr. Robert Dales and Dr. Michael Fitzpatrick). Saturday morning will also feature the OTS/OLA Research Update, “The Role of Nocturnal Fluid Shifts in the Pathogenesis and Treatment of Obstructive and Central Sleep Apnea: A Bottoms Up Approach” (Dr. Douglas Bradley, Toronto).

I want to thank all the members of the OTS BBC 2012 Planning Committee for their hard work in organizing this exciting roster of speakers and interesting topics. We look forward to welcoming all of you to Better Breathing 2012.

Program and registration forms for the conference and satellite sessions are available online at www.betterbreathing.ca. Mark January 27-28, 2012, on your calendar and register early! Be sure to register for both the conference and satellite sessions (separate forms).

George Chandy, MD, MSc, FRCPC
Chair, OTS Better Breathing Planning Committee, 2012
Programs:

Provider Education Program (PEP)

The Provider Education Program (PEP) led by a multidisciplinary steering committee, develops implements and evaluates accredited continuing medical education (CME) programs and materials promoting the implementation of the CTS respiratory guideline for healthcare professionals in Ontario. The program scope includes the management and evaluation of PEP projects and materials. More recently the PEP has expanded to include the Work Related Asthma (WRA) Provider Education Program.

The WRA - Provider Education Program is intended to provide primary care healthcare providers with up-to-date guideline-based continuing medical education on work-related asthma. Education may be through workshops and problem-based self-learning modules.

A Work Related Asthma (WRA) e-learning module geared to primary care practitioners, is now available. To take this course and the e-modules available on Adult and Pediatric Asthma, based on the evidence-based clinical review asthma cases please visit www.olapep.ca/cme.

For information about PEP programs and materials please visit http://olapep.ca/.

Donate

Online here and choose "Top It Up Campaign" in the drop down menu after choosing your amount.
OR
Call the OTS office with your donation (416)864-9911 ext 254
OR
Mail your cheque made out to the Top It Up campaign to:

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573 King St East
Toronto ON M5A 4L3