Woolcock Memorial Lecture: Uncovering cases of IPF

10:30 - 11:00 AM, Auditorium 3F

This year, Professor Dong Soon Kim from the Division of Respiratory and Critical Care Medicine, Asan Medical Center, University of Ulsan, Korea, will present the Woolcock Memorial Lecture.

Dr. Kim will speak about Acute Exacerbation of Idiopathic Pulmonary Fibrosis.

Idiopathic pulmonary fibrosis (IPF) is a chronic progressive disease which ultimately leads to death. However, the clinical course of any one patient can vary considerably. It is not uncommon, for example, for a patient’s condition to suddenly deteriorate following a relatively stable course.

Dr. Kim will highlight some of the possible reasons for cases where sudden deterioration takes place. Importantly, the lecture will focus on those cases of acute exacerbations of IPF with undetermined etiology, the prognosis of which tends to be extremely poor and with no effective therapy. Results of recent studies on the incidence, pathogenesis, risk and triggering factors will be discussed.

A past-president of the Korean Academy of Tuberculosis and Respiratory Disease, Dr. Kim is on the ATS/ERS Task Force Committee tasked with revising the 2002 consensus classification for idiopathic interstitial pneumonia. In addition to appearing on the editorial boards of Chest and the American Journal of Respiratory and Critical Care Medicine over the years, she is the author of more than 200 papers published in Korean and international medical journals.

Japanese guidelines for COPD: Same same, but different

The Japanese Respiratory Society (JRS) 2009 guidelines follow the GOLD guidelines in diagnosing COPD based on a post-bronchodilator forced expiratory volume in 1 second or forced vital capacity (FEV1/FVC) of <70%.

However, the spirometric classification of COPD in the JRS guidelines is into stages rather than into the degrees of severity.

The JRS guidelines recommend evaluating the severity of COPD based on the degree of dyspnea, the degree of exercise intolerance, and the frequency of exacerbations as well as the % FEV1 value, and recommend selecting a treatment strategy based on a comprehensive evaluation of COPD in each patient.

Updates to the 2010 international GOLD guidelines will be released Sunday morning, 6 November.
Q & A: Professor David Guterman

Immediate Past President, American College of Chest Physicians

Q. As a cardiologist, what are you hoping to gain from this meeting?

The ACCP is the world's leader in chest education - including respirology, sleep medicine, critical care, cardiovascular disease. I really hope to gain insights about new methods for conveying information, how we improve education, how we bring information into rural communities as well as urban, and using new technologies for education.

There is a lot of information and data on the effectiveness and uptake of teaching. Unfortunately the style where you just stand up and lecture is probably one of the least effective ways to communicate information and I'm interested in the different venues here and how they do teaching.

Q. What is important for cardiologists to know about respirology and vice versa?

There's definitely an intersection. If you consider the heart, the right heart perfuses the lungs and the left heart perfuses the body. They are connected by a septum, which is a common component of the right and left chambers and when you have right heart and lung dysfunction it can affect the left heart and when you have left heart dysfunction it can affect the right heart and lung.

Diseases like pulmonary hypertension clearly overlap pulmonary medicine and cardiology. In some places cardiologists take care of such patients and in some places respirologists do. Echocardiography and ultrasound have been used for the cardiovascular system in the past but are now used more and more in intensive care by pulmonologists to assess heart function and the effects of treatments.

The frequency of cardiovascular disease is so high in the western world that a lot of pulmonary patients end up having cardiovascular disease so pulmonologists need to know how to deal with heart problems. Probably one of the most common respiratory symptoms — dyspnea — is also one of the most common cardiovascular symptoms. You have to be able to distinguish, are patients short of breath because of a heart problem or a lung problem?

Q. In what ways do you collaborate with respirologists or thoracic surgeons?

The talk I'm giving here is an area of a lot of collaboration: sleep disorders. Sleep apnea is really a cardiovascular disease as much as it is a respiratory disease. Even though it has its origins in respirology, a major way it kills people is through increased incidence cvd. So there is more and more interaction between cardiologists and pulmonologists in evaluating and caring for these patients.

Q. What are the exciting trends in pulmonary medical education you referred to?

At the recent ACCP meeting we displayed our simulation modules for hands-on education, which is an increasingly popular feature at our meetings. This has been applied more regularly in recent years and involves mannequins, ventilators and intensive care unit set ups where scenarios play out with dummy "patients." You can practice intubation, bronchoscopy, giving the right medications if blood pressure or oxygenation is abnormal.

Several certifying boards are requiring testing or education with simulation for recertification now rather than just taking a written test. The ability to recapture the reality of what happens in the ICU is much more realistic now than it was before and you quantify better how individuals will do in practice.

You know you're not working on a real patient but I think people are able to look at the experience as a true learning experience where they can see better how to improve their approach to critical patient care through simulation.

Q. What are the important respirology issues facing people in China and in other parts of Asia right now?

There have been some amazing statistics on Chinese health problems, for example the number of cigarettes sold is huge. This is a conundrum for the government and Chinese citizens in terms of dealing with increased cigarette sales which will be coupled with tremendous healthcare problems down the road that will have substantial costs. It's a tradeoff between acute economic benefit and chronic economic cost.

But the Chinese are way ahead of the US in terms of recognizing this as a problem and saying they have to deal with it. The numbers are staggering. For example, 70 percent of Chinese people smoke. That's where the world's healthcare problem is going to be in 20 years if we don't do something about it now.

Q. How do you find pulmonology care differs in China, in your experience?

On a recent trip to hospitals in Beijing, Shanghai and Guangzhou, I was impressed by the number of patients physicians see each day. With the huge patient throughput by Chinese physicians, there is no way to spend the same amount of time and level of detail that we do in the west, even though we complain about not having enough time with each patient.

For simple problems, this is not an issue but for complex issues, it could be challenging.

In some areas of China, it may be hard to get access to or training to use advanced equipment. But another innovation in patient care is telemedicine and I think that's an opportunity here in China.

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Q & A: Dr. Monica Kraft

Director, Duke Asthma, Allergy and Airway Center
Duke University School of Medicine
Durham, North Carolina, US

Q. What are the most important trends in lung disease and research right now?

COPD has gotten a lot of attention. In the US it’s the third leading cause of death. In China it’s the fourth leading cause of death and lower respiratory tract infections are number three.

Certain asthma trends suggest that we’ve made some inroads in decreasing the prevalence of asthma, but it’s still very common — it affects between 5-10 percent of the population. We haven’t done that much with regard to asthma attacks and exacerbations. I think we haven’t made the strides we’d hoped with lung cancer. There have been a lot of good programs for interdisciplinary interactions where oncologists work with pulmonologists. I’m really hoping that translates to better outcomes with lung cancer, where we need more focus and better results.

Smoking cessation is a big trend. I think that’s really key in this part of the world. What’s difficult is tobacco can be tied into the economic health of the country yet it causes lung disease and so there is conflict. From our perspective, smoking cessation is paramount.

Exposures to biomass and poor air quality can affect the lungs in addition to tobacco. In China, about 4 percent of women smoke yet COPD prevalence is 5 percent. About 60 percent of men smoke but COPD prevalence is about 12 percent. With the difference in smoking, you would think that the prevalence of COPD would be much lower in women, but exposure to indoor cook stoves and poor air quality in the home in certain countries is an important risk factor for bronchitis, susceptibility to infection and full-blown COPD.

I think all of those areas are critical in terms of research effort and are areas we need to pay attention to. But I think participants at this meeting already know that so we need to take that message outside this meeting to the world as a whole, that lungs are important.

What we’re trying to do is to create awareness about lung health. I think there is a lot of awareness about cardiac disease and cancer but the lungs don’t seem to get the attention they deserve. They are an important part of health and disease and I think the statistics demonstrate that quite well.

Q. Why don’t the lungs get the attention they deserve?

There is this perception that all lung disease is induced by smoking and therefore self-induced so it shouldn’t get attention. But if you think about heart disease, smoking is a strong risk factor, so self-induced risk doesn’t seem to be as big a perception in other diseases.

Also, many lung diseases aren’t smoking induced. About 20 percent of people who smoke develop lung disease, so there is a genetic association and it might be due to cigarette smoke, air quality, biomass, etc. The onus is on us to get out the information that there is more to the story than that lung disease is self induced in a simple way.

Q. What do you find unique about respirology and pulmonary medicine in China and other parts of Asia?

I’m still learning about this but what I do hear in China is that there is a huge upswing in research. My sense is that the specialists and physicians are overwhelmed with the number of patients they need to see in a day. They have a challenging healthcare system in terms of the ability to deliver the high quality care they would want.

There is also an interesting mix of eastern and western medicine. The access to medications plus the eastern philosophies is something we don’t have. We have alternative medicine in the US but it occupies a very different place compared to what it does here. That can make it challenging to deliver healthcare in a uniformed, guideline-based way but there is a lot of interest in adopting more guideline-based therapy, plus there are companies that make medications that want to have more of a presence in China. I see that all changing in a positive way.

Q. What are the challenges you’ve encountered in respirology research that could benefit from Asian collaborations?

One of our challenges is to understand the responses to medications in different populations, especially in genetic studies of treatment response, vulnerability to disease, and heterogeneity in treatment response. I would welcome collaborations with my Asian colleagues to do the diverse studies we need. In the US Asian populations tend to be less well represented and we need to do better at understanding treatment response in Asian populations.

Important differences include those in lung cancer, COPD, smoking, though there may be more to the story in terms of genetic susceptibility, early environmental exposures that are different in Asia, genetically diverse populations, etc. There are a lot of variables we can’t study effectively in North America. Particularly with the diverse populations within Asia, lumping everyone together is not the best approach.

Q. What is the best way for doctors to raise awareness about lung disease in their communities?

[KRAFT continued on page 7]
Expert sessions focus on measurable priorities and outcomes

Delegates learn what truly matters when managing obstructive airway diseases

Controversies in paediatric asthma

Professor Mark Everard began the session by addressing the controversial area of wheezing in asthma and challenges in making a definitive diagnosis of asthma in preschool children. He then discussed the relevance of airway β-agonist bronchodilator response in supporting the diagnosis of asthma in these children.

Dr. Anne Chang spoke about the relationship between chronic cough and the development of asthma in children, highlighting the importance of prudent asthma medication use to avoid the need for dose escalation and its associated side effects.

Dr. Guy Marks reviewed current evidence and perspectives on the role of allergen avoidance measures in asthma control and the multifaceted, home-based interventions that may provide clinical benefits to children with asthma.

Dr. Yu-Zhi Chen concluded the session by providing important epidemiological snapshots of childhood asthma in China and a comparison with other world regions.

Advances in asthma management

Professor Kenneth Chapman opened the session with a review on clinical and patient-centered outcomes in the management of asthma, highlighting the importance of developing better measure outcomes of intervention and optimal use of these outcomes to improve asthma control and morbidity.

Professor Richard Beasley discussed the role of self-management plans for long-term management of asthma, emphasizing early recognition of unstable or deteriorating asthma, and the potential reduction in asthma morbidity and mortality risks.

Dr. Helen Reddel provided a comprehensive perspective on nonadherence to asthma therapy, highlighting the factors associated with nonadherence, barriers to adherence and strategies for overcoming these barriers.

Dr. Jiang-Tao Lin ended the session with valuable insights into the prevalence of asthma and its management in China, with a particular focus on the Childhood Asthma Research and Education (CARE) study.

"Cough is the most common reason why parents seek help from doctors... and if you misdiagnose cough you may be missing a serious underlying disease."

--- Dr. Anne Chang

Interventional pulmonology

Dr. Rex Yung led with a review of recent advances in bronchoscopic techniques used for diagnosing lesions after which Dr. Jie Hu, who highlighted the principles and application of endobronchial ultrasound (EBUS) in the diagnosis and staging of lung cancer.

Dr. David Feller-Kopman discussed the clinical characteristics of central airway obstruction and the multidisciplinary approaches associated with its evaluation. He placed particular emphasis on the benefits of therapeutic bronchoscopy for improving patient quality and quantity of life, and reducing healthcare utilization.

Dr. Gary Lee closed the session with updates on the current knowledge in the diagnosis and management of malignant pleural effusion (MPE), focusing on the rapidly evolving diagnostic techniques and clinical factors used to determine prognosis and guide treatment decisions for MPE patients.

"You don't develop stridor until your airway is 5 mm in diameter and because of that, when you hear stridor, it is the real thing. You have to take that seriously... [because] patients can die."

--- Dr. David Feller-Kopman

ARDS updates

Setting the tone for the session, Dr. Joe Garcia reviewed recent developments in the diagnosis and treatment of acute respiratory distress syndrome (ARDS), which included a discussion on new ventilation strategies and promising new pharmacotherapies under investigation.

Professor Roy Brower continued with an insightful presentation on the evolution of lung-protective ventilation strategies in acute lung injury (ALI) over the past decade, followed by a presentation by Professor Dean Sheppard, who discussed the development of novel therapeutic targets for ALI.

Professor Augustine Choi concluded the session with critical updates on the pathogenesis of ARDS and ALI.

"Most asthma attacks are managed by patients in their community, so the outcome is already determined by what they know and what they do rather than what we know and what we do... The priority is giving them the ability of knowing what to do before recognize it and knowing when to come and receive medical care."

--- Dr. Richard Beasley
APSR scientific program highlights understanding lung disease

Understanding factors inducing asthma

In line with session’s theme, Professor David Jacoby shared with the audience the current progress in the understanding and clinical management of virus-induced asthma attacks, with perspectives on emerging research and therapy.

Dr. Jun Tamaoki examined the impact of obesity on asthma morbidity and severity, highlighting the increased prevalence of asthma in the obese and the potential mechanisms underlying their association.

Dr. Shu Hashimoto described the innate immune function of the airway epithelium, focusing on physiological roles of toll-like receptors in defense mechanisms and barrier protective function of the airways.

Dr. Rohit Khatial discussed the clinical implications of aspirin-exacerbated respiratory disease (AERD) and the current understanding of the mechanisms of action of aspirin desensitisation in AERD disease course.

Dr. Hua Huang ended the session by discussing the role of counter-regulatory Th2 cytokines, IL-4, that promote STAT1-dependent allergic airway inflammation in asthma.

“Asthma and obesity have significant effects on public health and their prevalence continues to rise.”

—— Dr. Jun Tamaoki

Understanding clinical features of COPD

In a session focused on issues related to clinical practice of COPD, Professor Kenneth Chapman began by addressing the distinct clinical, physiological and pathological features COPD and asthma, and the practical strategies for differentiating COPD from asthma.

Dr. Masaharu Nishimura discussed the role of patient phenotyping in the understanding of COPD pathogenesis, identification of effective therapeutic intervention in the subgroups and improvement in overall clinical care.

Dr. Bei He described current research and understanding in the association between β2-adrenergic receptor expression in the pathogenesis of COPD.

Professor Peter Calverley ended the session by discussing the pathophysiological factors contributing to exercise limitation of COPD and the potential mechanisms that are amenable to therapeutic intervention.

“Biomarkers certainly are going to be the way of the future but they are not ready for clinical use yet.”

—— Dr. Kenneth Chapman

Advances in diagnosis and therapy of pulmonary vascular diseases

Dr. Nicholas Hill outlined the rationale and approach for vasodilator testing in pulmonary hypertension (PH), followed by an update on anti-coagulation therapy in treatment and prevention of PH, presented by Dr. Chen Wang.

Following to an overview of the current status of PH therapy in China by Dr. Zheng-Guo Zhai, Dr. Robert Levy discussed the pathophysiology, assessment and treatment of PH in patients with advanced lung diseases.

Sleep apnea - Addressing clinical controversies

Dr. Yuan-Ming Luo opened the session by describing the prevalence and clinical impact of sleep disturbances in COPD and the management options for patients with these coexisting conditions.

Dr. Matthew reviewed the important concepts of positive airway pressure (PAP) in the treatment of sleep apnea and recent developments in PAP devices that may or may not benefit the practicing clinician.

Dr. Hiroko Tsuda discussed the variety of oral appliances available and the evidence for their place in their treatment of sleep-disordered breathing.

Dr. David Gutterman spoke on the pathophysiology of sleep apnea and its relation to cardiovascular risk, presentation of which was complemented by Professor Walter Nicholas, who discussed research initiatives currently undertaken in Europe to addresearch clinically relevant controversies in sleep apnea.

“Sleep efficiency is much worse in patients with COPD compared to normal subjects... even with the face mask it is not as great as you would expect.”

—— Dr. Yuan-Ming Luo
Overheard at the APSR 2011...

"Asthma is a very common complaint and I think it's very important to raise awareness about the role of spirometry in abnormal respiratory disease."

----Dr. Long Thi Thuan, University Medical Center, Ho Chi Minh City, Vietnam

"All the topics presented here have their great relevance. Yesterday was a great day, particularly the sleep and pleural diseases sessions I attended."

----Ms. Sabine Zimmermann, Royal North Shore Hospital, Sydney, Australia

"I'm presenting my poster on tai chi here. The APSR is very medically oriented and as a physiotherapist I would love to share more about exercise, rehab and other physio-related topics because you can learn a lot from colleagues from other Asia Pacific countries."

----Ms. Regina Leung, Concord Hospital, Sydney, Australia

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[GUTTERMAN]

Q. What aspects of cardiology/pulmonology/respirology can benefit most from collaborators in Asia, and in what ways?

One of the benefits you reap by having a diverse environment is that you see the world through a broader lens. You can have a richer understanding of, for example, the nature of the disease process and how they are different in different parts of the world.

This year at the ACCP we requested posters on interesting cases from around the world and we got over 170 submissions. We learned about interesting ways to take care of patients and I'd like to continue doing that.

Also, when you're seeing large numbers of patients, like you do in China, how do you adjust your practice style to cope? Most western doctors do not have the tools to be able to adjust their practice style to such a rapid pace. I think we have a lot to learn in terms of how to set up our practices so that we can be more efficient at what we do.

Q. What in particular are you looking forward to during the conference?

Meeting old friends and hopefully making some new ones.

I'd also like to see what I can learn about educational practices here so that we can improve our own practices for students and clinicians.

I would also like to see greater collaboration between ACCP and APSR countries in terms of joint educational programs, and perhaps developing clinical practice databases for comparing outcomes to improve the practice of medicine. Integrating that across countries would be fantastic.

[KRAFT]

The global piece is improving. The World Health Organization has a new section on chronic disease of which lung disease is part and that is a huge change in the right direction. I think it's going to be a matter of working with governments to make sure they know lung disease should be a priority. They should know the burden of disease, associated healthcare costs and the quality of life of the population they govern.

It's not that tuberculosis and infectious lung disease isn't important but it's chronic lung disease now that's the problem. What tends to work well is both physician and patient involvement. Patient advocacy groups can help lobby, sponsor research grants, and get word out. Many times elected officials want to hear from patients and not doctors since they are living with the disease. The winning combination is to have both groups organize and then work with elected officials.

Q. What do you hope to take away from your experience here at the APSR?

I always enjoy coming to the APSR. It's a unique opportunity to understand the issues that people taking care of patients in this part of the world are facing. In particular, sessions where people share what issues they have with patients and what their healthcare delivery situation is like. There could be a lot of commonalities so the question is how can we learn from each other and adapt our systems to fit everyone better in order to improve lung disease and care globally.

What has been nice to see is that the meeting has grown over the years. So many submitted abstracts suggest there is a really strong scientific base now and a lot of interest in clinical care of patients and the science. So I think the meeting is much more well developed and really enjoyable and it's nice to watch it evolve.