

EXCEL_{IN}PULMONOLOGY

the advanced training program in Respiratory Medicine



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EXCEL_{IN}PULMONOLOGY

Summary

INTRODUCTION

ASTHMA@HOUSTON

INTERVENTIONAL PULMONOLOGY@LONDON

COPD@ATHENS

EXCEL_{IN}PULMONOLOGY

INTRODUCTION

Scientific research and technological innovation have accelerated many areas in pulmonology, in terms of both diagnosis and disease management. For this reason, it is crucial to develop training programs targeted on European pulmonologists willing to widen their competences and keep themselves updated on the most recent advances. Excel is an online, exclusive program specifically designed to enhance the debate on scientific research and its latest development, knowledge of the most effective organizational models in healthcare, and finally update on the application of new technologies to clinical practice. The aim of this advanced-level training program is to create a concrete platform for medical professionals to increase their competence by sharing their experience with recognized experts in research and management of respiratory diseases. The training format is developed to boost interaction between the attendees and the experts from three international centers selected by their recognized expertise in specific pulmonology areas.

ASTHMA@HOUSTON

INTENSIVE CARE@CHICAGO

The Baylor Airways Clinical Research Center (ACRC) is located in the Texas Medical Center, the largest medical center in the world. Adult asthma and chronic obstructive pulmonary disease (COPD) patients are seen at Baylor Asthma and COPD Clinic. The ACRC center is staffed by three full time coordinators trained in conducting asthma and COPD studies. In addition, several adult and pediatric pulmonary specialists serve as co-investigators on clinical trials conducted at the Center. Over the last 18 years, the Center has conducted and completed several multicenter asthma and COPD clinical trials funded by the National Institutes of Health, American Lung Association and industry.

ASTHMA@HOUSTON

COURSE N. 1

Novel Approaches in Asthma

Tianshi David Wu

Asthma treatment has seen a dramatic change in the last 20 years, with both an extraordinary evolution of available drugs and recently proposed clinical approaches.

In particular, three categories represent major novelty in asthma management:

- the treatable traits approach
- the small airway dysfunction as unique phenotype in asthma
- new inhaler regimens including triple therapy and ICS-SABA.

Watch the full lecture



Role of ICS/LABA combinations in Asthma: Current Knowledge and Future Needs

Fulvio Braido

The landscape of asthma has considerably changed in the last decade. Effective medications and inhaler devices have been developed and integrated into the asthma pharmacopoeia, but unfortunately, the proportion of uncontrolled patients remains unacceptably high. This is now recognized to be mainly due to the inappropriate use of medications or inhaler devices, heterogeneity of the disease or other factors contributing to the disease. Inhaled corticosteroids (ICS), with or without long-acting beta agonists (LABA), are the cornerstone of asthma management, and recently, international guidelines recognized the importance of combination inhaler therapy (ICS/LABA) even in mild asthma.

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ASTHMA@HOUSTON

The Choice of Biologic Treatment in Severe Asthma

Thomas Monaco

Several monoclonal antibody therapies (“biologics”) are currently available to treat severe asthma. Many patients with severe asthma qualify for more than one biologic. To date, there are no head-to-head trials to aid physicians in this choice. However, post-hoc analyses have identified certain clinical characteristics that are associated with superior responses to some therapies. Further studies and deeper knowledge of biomarkers effectiveness are necessary.

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ASTHMA@HOUSTON

COURSE N. 2

From inhalation to injection: modern treatment of Asthma

Nicola A. Hanania

The model of asthma as a single entity has now been replaced by a much more complex biological network of distinct and interrelating inflammatory pathways. The term asthma is now considered an umbrella diagnosis for several diseases with distinct mechanistic pathways (endotypes) and variable clinical presentations (phenotypes). The theoretical basis of endotyping corresponds with the current interest in personalized medicine that has been accelerated since the advent of an ever-expanding repertoire of biologic agents.

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A case of non-T2 asthma

Muhammad Adrish

A 44 years-old woman presented for evaluation of asthma. She had multiple exacerbations in past year requiring OCS and was diagnosed with asthma during childhood. Lab values showed normal blood eosinophils count (0.07 k/ μ l), low levels of IgE (36 IU/mL), negativity for RAST/allergen testing, normal FeNO value (23 ppb). After completing the instrumental and physical assessment, the patient was diagnosed with non-T2 asthma.

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ASTHMA@HOUSTON

A case of severe eosinophilic asthma

Dharani K. Narendra

A 50 years-old woman presented for evaluation of asthma. She had 2 severe exacerbations in the past year treated with OCS burst. Laboratory assessment showed hypereosinophilia (1920 cells/ μ l), high levels of IgE (1530 kU/L), positivity for allergy testing. FEV1 was 101% predicted and FEV1/FVC ratio 0,81. Chest X-ray displayed bronchovascular markings. The patient was diagnosed with eosinophilic asthma with chronic eosinophilic pneumonia (CEP).

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ASTHMA@HOUSTON

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RISORSE MULTIMEDIA

1st course recording



2nd course recording



INTERVENTIONAL PULMONOLOGY@LONDON

INTERVENTIONAL PULMONOLOGY@LONDON

The Lewisham Hospital is one of the most ancient hospitals in Europe. The Lewisham workhouse was built on the site of Lewisham hospital as early as 1612 and the present hospital has its origins in the replacement workhouse built in 1817. The Chest Clinic has seen World Wars and pestilences. In 1997 it gained University status and today provides teaching and training for medical staff at both national and international level.

INTERVENTIONAL PULMONOLOGY@LONDON

COURSE N. 1

Robotic Navigation Bronchoscopy with Different Real-time Imaging Modalities

Abdul Hamid Alraiyes

The process of detection, diagnosis, and management of lung nodules is complex due to the heterogeneity of lung pathology and a relatively low malignancy rate. Technological advances in bronchoscopy have led to less-invasive diagnostic procedures and advances in imaging technology have helped to improve nodule localization and biopsy confirmation. Future research is required to determine which modality or combination of complimentary modalities is best suited for safe, accurate, and cost-effective management of lung nodules.

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Endoscopic and pharmacological treatment of asthma

Borja García-Cosío

In the last decade, there has been increasing awareness of the importance of phenotypes and endotypes of asthma, especially related to low and high T2 inflammation, that guide the new therapeutic advances for patients with severe uncontrolled asthma (SUA). Nonetheless, there is still a lack of reliable surrogate markers of T2 inflammation. Bronchoscopy has been used over the last century for the investigation of asthma, however, its use in the routine evaluation of severe uncontrolled asthma is controversial, especially in those with FEV1 < 60% predicted. According to the Global Initiative for Asthma (GINA) guidelines, bronchoscopy plays a role in the workup of severe uncontrolled asthma, mainly focused in the study of comorbidities aggravating asthma control. However, bronchoscopy may have huge utility as part of the workup of SUA in identifying prespecified clinical phenotypes.

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INTERVENTIONAL PULMONOLOGY@LONDON

Bronchoscopically applied therapeutic options in the management of COPD

Arschang Valipour

In recent years a number of endoscopic methods have emerged to treat patients with severe emphysematous type of chronic obstructive pulmonary disease (COPD), that are primarily symptomatic due to hyperinflation despite optimal medical management. Of these techniques, implantation of endobronchial one-way valves into targeted airways of isolated emphysematous lobes appears to be one of the most promising innovations. Results from randomized controlled trials of valve therapy for emphysema show consistent benefits in terms of lung function, exercise capacity, symptoms, and quality of life.

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INTERVENTIONAL PULMONOLOGY@LONDON

COURSE N. 2

In the wrong place at the wrong time

Paolo Spagnolo

A 66 years old man, active smoker, with COPD, ischemic cardiopathy and rheumatoid arthritis arrived to ER visit with worsening shortness of breath during the last three months, dry cough and asthenia. CT scan showed subpleural nodules, thickened bronchi, pleural effusion. The patient was hospitalized and diagnosed nontuberculous mycobacterial pleural effusion. Two years later doubts arose regarding NTM to be the real cause of pleural effusion.

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The role of Lung Ultrasound post COVID – where have we got to?

Tuck-Kay Loke

Long-term respiratory effects can occur after COVID-19 pneumonia (CP). The COVID Lung Ultrasound Study (COVIDLUS) aimed to investigate the utility of serial lung ultrasound (LUS) to track functional and physiological recovery after hospitalisation in patients with CP. The COVIDLUS results are presented here, showing that LUS can monitor the early recovery of lung interstitial changes from CP. The utility of LUS to predict development of subsequent lung fibrosis post-COVID deserves further study.

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INTERVENTIONAL PULMONOLOGY@LONDON

Peripheral nodule diagnosis with VB + rEBUS

Samy Lachkar

Lung cancer is the most commonly diagnosed cancer, and the leading cause of cancer-related deaths worldwide. In order to obtain a definitive diagnosis of peripheral pulmonary nodules, tissue sampling is often required. R-EBUS (radial endobronchial ultrasound) combined with VB (virtual bronchoscopy) is an easy to perform and inexpensive procedure for the diagnosis of peripheral lung cancer that can be performed under local anesthesia and allows to reach peripheral nodules. It has a high diagnostic efficiency and can be easily implemented in bronchoscopy units as a first-line procedure, allowing histology, immunohistochemistry and molecular analysis.

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INTERVENTIONAL PULMONOLOGY@LONDON

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COPD@ATHENS

COPD@ATHENS

Sotiria Hospital was founded by S. Schliemann in 1902 as the first “popular” sanatorium in Greece and since then has associated its name with the treatment of pulmonary tuberculosis in the country. Since 1950, Sotiria Hospital has gradually changed into a diagnostic and therapeutic center for all respiratory diseases, establishing at the same time the first center in Greece for the treatment of respiratory failure and the first thoracic surgery Clinic. Today the small Sanatorium of the early 20th century is recognized as the largest pulmonology center in Greece and one of the largest in Europe, with its simultaneous and progressive transformation into a General Hospital after the establishment of Pathological and Surgical clinics of the National Health System and of the University.

COURSE N. 1

The many clinically relevant phenotypes of Chronic Bronchitis and Emphysema**Nektarios Anagnostopoulos**

Chronic obstructive pulmonary disease (COPD) is a heterogeneous disease associated with significant morbidity and mortality. Over the past few years, there has been cumulating interest in describing this heterogeneity and using this information to group patients into different COPD phenotypes. The term phenotype is defined as single or combination of disease attributes that describe differences between individuals with COPD as they relate to clinically meaningful outcomes. It describes also the physical appearance or biochemical characteristics which result from the genotype-environment interaction. Furthermore, it clearly identifies subgroups with a significant impact in the prognosis. Recently, approaches to COPD phenotyping have been significantly enhanced in tandem with developments in understanding the disease's various pathological, clinical and genetic features.

Watch the full lecture**Respiratory Function and Inflammatory assessment. Differences and Similarities with Asthma****Petros Bakakos**

Asthma and COPD are defined as different disease entities, but in practice patients often show features of both diseases, making it challenging for primary care clinicians to establish a correct diagnosis. Asthma is predominantly airway reactive inflammation mediated by T-helper (Th) 2 cells and type 2 innate lymphoid cells (ILC2), while COPD is considered a Th1-mediated inflammatory process. Neutrophil infiltration becomes evident in severe cases of asthma and COPD. Some of these complex inflammatory mechanisms may be common to both asthma and COPD, which means that clinical features of asthma and COPD may overlap.

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COPD@ATHENS

Management of Stable and Exacerbated COPD

Andriana Papaioannou

COPD is defined as being “stable” when symptoms are well managed and pulmonary decline is minimized, while management of “unstable” COPD (in patients who experience frequent or severe exacerbations and a faster decline in pulmonary function) can be more challenging. Exacerbations of COPD are a major contributor to the economic burden and, depending on severity, can result in the need for emergency department (ED) visits and hospitalizations. Increases in exacerbation frequency, severity, and length of recovery period have all been shown to significantly reduce health-related quality of life for patients with COPD and may accelerate decline and general disease progression. When treating stable and exacerbated COPD, it is crucial to phenotype the patient in order to personalize the pharmacological treatment, and target not only symptoms but also airway and systemic inflammation

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COURSE N. 2

Targeting A1AT deficiency in the COPD patients population**Nikoletta Rovina**

Alpha-1 antitrypsin (A1AT) is the major antiprotease in plasma and functions primarily to inhibit neutrophil elastase; its deficiency predisposes individuals to the development of emphysema and COPD, which are markedly accelerated and more severe in the presence of cigarette smoking and other cofactors, both environmental and genetic. Treatments with purified A1AT preparations, obtained through pooled human plasma (augmentation therapy), have been proven to improve survival and disease-related quality of life, as well as slow down the progression of organ damage.

Watch the full lecture**Targeting Hypoventilation and concomitant Sleep Apnea Disorders with NIMV****Kyriaki G. Cholidou**

Non-invasive mechanical ventilation (NIV) was originally used in patients with acute respiratory compromises or exacerbations of chronic respiratory diseases as an alternative to intubation. Over the last thirty years NIV has been used during the night in patients with stable chronic lung diseases such as obstructive sleep apnea, overlap syndrome (COPD and obstructive sleep apnea), neuromuscular disorders, obesity-hypoventilation syndrome and in other conditions such as sleep disorders associated with congestive heart failure.

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Targeting Hyperinflation with Bronchoscopic Lung Volume Reduction in advanced emphysema

Philip Emmanouil

Bronchoscopic lung volume reduction (BLVR) is a feasible, safe, effective and minimally invasive technique to significantly improve the quality of life of advanced severe chronic obstructive pulmonary disease (COPD). In advanced emphysema, parenchymal loss and declined elastic recoil manifest in impaired expiratory flow and pulmonary hyperinflation. Bronchoscopic lung volume reduction with endobronchial valves is a treatment option for patients with severe emphysema that results in significant improvements in lung function, exercise capacity, and quality of life.

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