Half-way: Barcelona–Warsaw

The first EAACI examination

Reports from EAACI activities

and more...
EAACI stands strong in the new year

Many of us only notice the activities of the European Academy at occasions such as the yearly meetings, but there is so much more going on continuously. In this Newsletter many EAACI activities are summarised by our current President, Roy Gerth van Wijk. With the support of our Founding Sponsors, the Academy is in the lucky situation not only to do good by demonstrating competence and excellence in the field of allergy throughout Europe, but also to do well financially.

The EAACI Newsletter expresses activities and research related to EAACI, such as the first “worldwide guideline on urticaria” initiated by GA²LEN, the Food Allergy training course demonstrating the interaction between different Sections and Interest Groups and the 7th Symposium on Experimental Rhinology and Immunology of the Nose (SERIN) which demonstrates the role of allergy and immunology in usually more surgical fields.

The new year offers outstanding meeting highlights such as the World Immune Regulation Meeting (WIRM) in Davos (March 22–25, 2009) and the next big yearly meeting of the EAACI in Warsaw (June 6–10, 2009). I wish you all a happy and successful 2009, full of new exciting findings, which will benefit your allergy patients!

Claus Bachert
As we near the half-way point between the recent congress in Barcelona and the upcoming meeting in Warsaw, EAACI members might begin to think that their Academy is enjoying a little winter hibernation.

Not so! Only a few weeks ago, the EAACI Executive Committee approved the budget for 2009. The Sections and Interest Groups sent in their proposals in September, the Board of Officers examined these closely in October, and the Executive Committee reached their final decision in November.

This year it occurred to me that, in general, the proposals were very well considered and documented. Moreover, we received many requests for Task Forces, Meetings, and other activities. The requested budget for these activities totaled €822,388. Although we were not able to support all the requests, the quantity alone is illustrative of the energy of the EAACI bodies.

The budget was dispensed accordingly: €71,000 was allocated to nine Task Forces on skin test concentrations in drug allergy, vaccination and allergy, diagnostic tools and methods in rhinology, food allergy clinical practice guidelines, lifestyle interventions in allergy and asthma, prevention of work-related allergies among pre-apprentices and apprentices, the dose effect of specific immunotherapy, cross-reactive food allergens, and atopic dermatitis. This variety of topics involves the broad expertise of many Sections and Interest Groups. The Task Forces are important: they fulfill the mission of the EAACI by collecting, organising, condensing, and presenting our knowledge in position papers that help and guide us.

The ExCom decided to allocate €232,900 for meetings, including no fewer than four Allergy Schools to teach drug hypersensitivity, allergic skin disorders, occupational asthma and rhinitis, and hymenoptera venom allergy. As far as I know, this will be the first involvement of the Interest Groups for Drug Hypersensitivity, Occupational Allergy, and Insect Venom Hypersensitivity in the organisation of Allergy Schools. The Davos Winter School continues to be successful and attractive year after year, and the next gathering will be held in . . . Davos! We will also support the WIRM meeting, meetings organised by the Asthma and Pediatric section, the latter perhaps as a joint venture with ERS (European Respiratory Society), and the 6th Biennial International Eosinophil Symposium, to be held in Bruges.

In 2008, we introduced a model of open competition between the different proposals for Section meetings by using a scoring system to judge all the proposals, which worked very well, instead of the previous system of a budget that was automatically dispensed to the Sections.

Finally, we allocated €340,600 to additional activities, with a strong focus on the EAACI website and the EAACI communication strategy.

The coming year of 2009 will be an important one. The early months of the year will be dedicated to setting up the EAACI headquarters in Zurich, to be headed by Silvia Schaller, the new Executive Director of the EAACI. I wish to extend a warm welcome to her. We realise that building an office from scratch is both a challenge and an adventure. However, I am confident that we chose the right person for the job.

This half-way point between the two congresses in Barcelona and Warsaw means that we already have our sights set on the next EAACI Congress. Warsaw will present a different environment and a different population. The congress in Barcelona proved a gateway to the Spanish-speaking community: Warsaw will be our access point to our colleagues in central and eastern Europe. Perhaps this rotation of venues and countries is one of the most interesting characteristics of our European congresses. Even as we work on and finalise the Warsaw programme, we already have our eye on the congress to be held in London in 2010. The Scientific Programme Committee (SPC) will meet in the next few months to shape the London meeting. This meeting always provides an ideal opportunity for the SPC and the ExCom to interact, but this year we plan to expand this to organise an EAACI leadership summit with all relevant bodies, ExCom members, and adjunct members. We also plan to invite the Founder Sponsors to inform them about the Congress and other initiatives. We want to listen closely to their views, we welcome the opportunity to hold discussions with them, and we hope to strengthen the partnership between the EAACI and Founder Sponsors.

We welcome eight Founder Sponsors again for the next period of 2009–2011, and have just signed our final agreements with them. I am proud to present these partners and share our enthusiasm in working with them: ALK-Abelló, Allergopharma, GSK, Merck Sharp & Dohme, Novartis, Phadia, Schering-Plough, and Stallergenes.

So, is the EAACI enjoying its winter hibernation? I don’t think so! It may be that we are only at the half-way mark to the Warsaw Congress, but we are running.

Roy Gerth van Wijk
EAACI President
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For the first time ever, the Congress of the European Academy of Allergy and Clinical Immunology will be held in Poland, a new member state in the European Union, in 2009. It will be the first opportunity for many to visit Poland and its capital Warsaw, one of the most attractive cities in Europe.

The venue, the Palace of Culture and Science, is conveniently located at the heart of Warsaw, with many hotels within walking distance and only 20 minutes from Warsaw International Chopin Airport. The venue is just a walk from the Old Town with its magnificent Royal Castle, the historical Saki Gardens, and the Royal Way, a four-kilometre route stretching from the Old Town to the King’s Palace at Wilanów on the outskirts of the city.

The theme of the EAACI 2009 Congress is “Allergy and Asthma without Frontiers”, highlighting the international character of our organisation and our multi-disciplinary approach to the care of allergic patients.

The scientific programme addresses the latest advances in all areas of allergy: pediatrics, dermatology, asthma, rhinitis, drug and food allergy, and basic immunology and clinical immunology (please look at www.eaaci2009.com for details). Clinical and basic plenary sessions and more than 70 main symposia and workshops will provide you with up-to-date information on the mechanisms of allergic diseases as well as the diagnosis and management of allergy, asthma, and related disorders.

Join the Expert and Pro & Contra sessions, the Postgraduate Courses, and the Practical Courses to avail of the opportunity to interact with opinion leaders and acquaint yourself with some of the practical aspects of allergology.

This Congress follows tradition in hosting “sister” symposia conducted by other organisations active in our field: the World Allergy Organization (WAO), the Global Allergy and Asthma European Network (GA²LEN), the National Institute of Allergy and Infectious Diseases (NIH), the American Academy of Allergy Asthma and Immunology (AAAAI), INTERASMA, the European Society of Contact Dermatitis (ESCD), and the Immunology Research Institute of New England (IRINE).

With more than 300 excellent speakers from around the world, our Congress will give us a fully global perspective on current practice and the future of allergology.

The opening ceremony at the Palace of Culture will feature Polish music and entertainment. It will be followed by music, dancing, and great Polish delicacies at the Welcome Party at the Royal Castle gardens in the heart of the Old Town.

Do not miss out on this opportunity to attend the most important allergy Congress in Europe while experiencing the richness of Poland’s cultural heritage, the unique charm of Warsaw, and traditional Polish hospitality.

Professor Marek L. Kowalski
Congress President
EAACI 2009
International scientists and health professionals have been invited to review scientific advances in the field of urticaria since the publication of the guidelines in 2006. Three sessions with more than 20 presentations addressed the main aspects of the pathogenesis, pathophysiology, therapy and clinical aspects of urticaria and other mast cell-driven diseases. Further research results were presented during a poster session held at the end of the first day.

Proposals for guideline updates were presented by the meeting panel during two consensus sessions:

- Classification and routine diagnosis, with a differentiation between acute and chronic urticaria on the one hand, and physical urticaria on the other hand.
- Therapy of urticaria, including consideration of patients’ quality of life.

For the first time, the GRADE methodology system was used to qualify the scientific evidence presented. These sessions generated lively discussions and the proposed updates were submitted to the audience for approval.

Minutes of the consensus meeting will be published and the guidelines updated accordingly in Spring 2009.

The urticaria meeting is the largest in the field worldwide and follows symposia organised in Berlin in 2000 and 2004. It is jointly organised by GA2LEN, the Dermatology Section of the EAACI, the European Dermatology Forum (EDF) and the World Allergy Organisation (WAO). The European Centre for Allergy Research Foundation (ECARF) and the Urticaria Network e.V (UNEV) are also partners of the meeting.

C. Bindslev-Jensen, T. Zuberbier and M. Maurer

There has been considerable progress in research determining the genetics of complex diseases, including asthma, COPD and other complex diseases. A first meeting held in January 2002 aimed at raising awareness among respiratory epidemiologists to the potentials of genetic and genomic research. This second Post Genome Respiratory Epidemiology research seminar was organised by the European Respiratory Society (ERS) in cooperation with GA2LEN.

80 scientists from 21 countries met to discuss current challenges in epidemiology in relation to genetics, genomics and post-genomics in asthma and COPD. The aim was to combine state-of-the-art in the field and other views from a broader perspective.

The seminar also emphasised the need to develop interdisciplinary approaches for defining research strategies, methods, interpretation of results, and assess their potentials and limits.
EAACI has had a very good and efficient Executive Office in Stockholm for more than ten years. The current EAACI Executive Director Catharina Östrem is however due to retire in 2009, and EAACI has therefore decided to establish new Headquarters in the Academy’s home country Switzerland. The new EAACI Headquarters will officially take over all formal EAACI business after the EAACI 2009 Congress in Warsaw.

The EAACI leadership has over the last year put a lot of energy in establishing a formal structure in Switzerland. It is with great pleasure I can declare that we have successfully recruited a new Executive Director, as well as rented a new office in central Zürich.

The recruitment process was intense, and a task force consisting of the EAACI Secretary General, the EAACI President, as well as the Vice President Cezmi Akdis, participated in interviews and evaluations, in support of a recruitment firm. In total, ten individuals were assessed before we decided on employing Silvia Schaller, a Swiss lawyer with a background in the International Committee of the Red Cross as well as Associations Management. We are indeed very happy to have her on board, and I am confident that she will be very much liked by the membership. She will take office January 1st, and will have the responsibility to further develop the Headquarters, including all details such as finding additional staff, furnishing the offices, establishing Internet services etc. We estimate that it will take approximately until June 2009 before the new Headquarters can take full responsibility of EAACI business, and therefore the Executive Office in Stockholm will be the point of contact for any membership issue, until June 2009. The exact date of the official opening of the new EAACI Headquarters will be declared later in the spring of 2009.

Jan Lötvall
EAACI Secretary General

**Thematic Month:**
the new feature of the EAACI Website!

www.eaaci.net has recently introduced the “Thematic Month”, a new feature focusing on the different aspects, activities, and relevant research fields of the EAACI Sections and Interest Groups. This special report on the EAACI’s main “linchpins of action” aims to familiarise all eaaci.net visitors with the activities, aims and scopes of the Sections and Interests Groups, and invite them to actively be part of the groups relevant to their needs and work field.

Issues highlighted under the “Thematic Months” column include hot topics, new publications, related current European and/ or international projects, useful tips and resources, upcoming events and postgraduate courses, comments on recent must-read papers, lists of prestigious research centers across Europe and/or worldwide, running Task Forces and any other scientific activities of the group in question.

The EAACI “Thematic Month” feature provides a unique platform for Sections and Interest groups to promote their work and activities, motivating further action in the relevant field.
First EAACI Examination in Allergology and Clinical Immunology

The first-ever EAACI examination in Allergology & Clinical Immunology was held in Barcelona, Spain on June 7th 2008. Werner Pichler, Switzerland, and Gabrielle Pauli, France, headed the EAACI task force that organised the exam, beginning two years ago. The core group met several times and the task force met three times to discuss the basic scope, blueprint, and electivity of the exam. The Institute for Medical Learning (IML) was involved from the beginning of 2007 to prepare and professionally evaluate the examination. The IML, based at the University of Bern, Switzerland, oversees medical examinations in that country and exams in six other European countries.

One of the task force’s main responsibilities was to collate suitable multiple-choice questions. Members received instruction in formulating professional questions, leading to a total 400 relevant questions, of which 104 were set for the examination. These were chosen by specialists and the co-ordinator, and reviewed by IML professionals in compliance with established criteria.

The aim of the examination was to

- establish a common standard of allergology and clinical immunology in Europe;
- use the exam to harmonise and emphasise the training scope in allergology and clinical immunology in Europe as developed by UEMS;
- identify upcoming allergologists and clinical immunologists in Europe;
- provide help for all countries to perform a standardised, written knowledge exam, ideally supplemented by a local, oral exam focussing on national and practical aspects to provide the ideal basis for evaluating candidate aptitude and relevant training;
- fulfill UEMS requirements to establish a specialty exam throughout Europe.

The organisers would like to thank all those who enthusiastically supported the examination. However, strong criticism of the exam was expressed by delegates from certain countries, including that it was basically a knowledge examination and did not cover practical aspects; that some national societies expressed concern that candidate admissions were not monitored closely enough, and that candidates from countries lacking a structured curriculum did not know enough about other areas of allergology. On the other hand, some national societies expressed concern that candidate admissions were not monitored closely enough, and that candidates from countries lacking a structured curriculum would pass. Indeed, all the “political” repercussions of our still young specialty became obvious in these discussions.

The EAACI examination was never intended as a replacement for any national standards. It clearly states that it is not an examination that provides any kind of licence whatsoever to practice allergology in Europe. It was originally intended purely as a knowledge examination and emphasised practical knowledge. Despite quite significant opposition at times, the task force continued to collect questions and to refine the exam with the conviction that the end result would be so compelling that it would convince all naysayers of the necessity of this examination in Europe. In addition, it

The two main organisers of the EAACI examination – happily smiling about a successful first examination.
was considered that the EAACI should make a significant effort to maintain its respected standing in the professional field, in recognition of the ERS, for example, conducting an examination in their field of specialty.

A total 41 candidates applied to sit the examination, with 40 completing the paper and handing it in (one applicant left the examination locale without filling out the forms). The fee was €400 for candidates that did not have EAACI membership and €250 for EAACI members. Candidates from weaker economies could apply for a reduction.

The examination comprised 104 questions, divided into:
- basic immunology (14 questions),
- clinical immunology (with one part dealing with immunodeficiency and another part focusing on autoimmunity) (14 questions),
- a large part of practical and applied allergology with each ca. 8–15 questions on: allergens, anaphylaxis, hymenoptera allergy, and immunotherapy; drug allergy; food allergy; dermatological allergy (urticaria, atopic dermatitis, contact dermatitis, angioedema); asthma; aspirin-sensitive asthma; rhinitis; conjunctivitis; pediatric allergology (some questions addressing clinical immunology); miscellaneous topics such as allergic alveolitis; eosinophilia, “pregnancy and allergy”; mastocytosis; a small section on general methods, epidemiology, social aspects, professional allergies, etc.

The examination was supplemented by a questionnaire that assessed the examination from the candidate’s perspective. A majority classified it as between moderate and difficult (a mean of 3.9 with 4 indicating difficulty). Most questions were considered relevant to clinical practice, highlighted by the fact that some unprepared but trained candidates passed the exam without problems.

One candidate had already passed the German exam and considered the EAACI examination to be more difficult, while another, having taken the Canadian and the U.S. examinations, also considered the EAACI examination to be more difficult. However, while the exam might have been challenging, the pass level was set quite low, so the majority of candidates courageous enough to take this first examination received a pass.

The participants varied quite widely: a total 16 nationalities participated, with the biggest group coming from France and Switzerland (nine each). Thankfuly, the three members of the EAACI ExCom that spontaneously declared their readiness to sit the examination all passed – with excellent grades, it must be said! This may indicate that the best preparation for this exam seemed to be good clinical practice. The group with more than 10 years’ experience in allergology and clinical immunology passed the exam significantly better than the few candidates with 1–4 years’ experience. However, younger candidates compensate for this by more learning – in particular in basic and clinical immunology.

The IML and some task force members met again in Zurich after the exam to discuss the pass level – the number of points required to pass. They eliminated four questions that the returned papers showed to be somewhat controversial, resulting in a final 100 questions comprising the examination. A complicated procedure set the pass level at 54% of 100% correct answers, which translated into six candidates failing the exam, or 15% (17.5% if the candidate that left the examination is included). The remaining candidates obtained between 5 and 84 points. This may explain why the examination was considered quite difficult, since the best candidate obtained “only” 84%. The six candidates that did not pass obtained between 32 and 52 points.

Each candidate received a list of their marking in the different sections, and an indication of their points in relation to the mean, clearly outlining the areas for future improvement.

The examination received excellent feedback from the candidates. The EAACI can be proud to have organised this examination appropriately before the ERS organised its first European examination in pneumology. The organisation (mainly done by Franziska Mitton, Bern) was unanimously praised, and the feedback indicates that the level was demanding, but correct for such a prestigious examination. Consequently, the recent EAACI-ExCom meeting in November 2008 decided to continue with the EAACI exam and open it for non-EAACI members as well as organising it jointly with UEMS. As a result, it appears that the exam has more than fulfilled all expectations of its contribution to a higher standard of allergology and clinical immunology in Europe.

This exam became possible as a result of enthusiasm and hard work by many people. Special thanks go to Franziska Mitton, Bern, who co-ordinated the meetings, put many of the questions in the right format, and conducted the general organisation of the examination; to the IML team especially Tina Hohl and Reinhard Westkämper; and to the team of experts from all over Europe including Barbara Ballmer, Andreas Bircher, Kurt Blaser, Elena Borzowa, Knut Brockow, Sergio del Giacco, Hans de Groot, Majia Hytönen, Eduard Knol, Annette Leimgruber, Olle Löwhagen, Jan de Monchy, Ulirsch Müller, Ulrike Raap, and Petr Panzer. All contributed with questions or in the evaluation process. Last, but certainly not least, we would like to thank EAACI President Roy Gerth van Wijk, who gave this project his full support from the very beginning.

We hope to see some of you at the second examination during the EAACI Congress in Warsaw. The 2nd EAACI-UEMS exam will be held on Sunday, June 7th 2009, most probably from 10.00–13.00 hours at the congress center;

Bern and Strasbourg,
August 4th 2008
Werner J. Pichler
& Gabrielle Pauli

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The evolution of in vitro tests in diagnosing sensitisation patterns in patients commenced in 1963 when the complement fixation test was first developed, and continued with the agglutination test and leukotriene determination assays. More recent is microarray technology that enables the detection of specific IgE against the molecular components of allergens. The symposium on In vitro Allergy Diagnosis at the EAACI 2008 Congress in Barcelona covered many aspects of this interesting subject.

Quality controls in allergy diagnosis
Dr Alistair Crockard (UK) opened the session by defining the primary aims of a contemporary diagnostic laboratory: the production of results and the establishment of processes ensuring that the results are correct, commonly through the application of quality control (QC) programmes. These processes ensure that quality is consistent and that reference materials and standards are used. Quality assessment evaluates whether the appropriate test is performed on the most suitable sample, and that the correct result and its correct interpretation are delivered to the right person at the right time.

Some procedures, such as the acquisition of the sample, analysis, assay performance, and validation (precision, accuracy, and reproducibility studies by internal QC programmes), as well as the publication of a report, can be controlled by the laboratory. Other aspects, such as instrumentation and assays, their methodologies, detection systems, and reagents, as well as the interpretation of the results (by clinicians) frequently lie outside the control and jurisdiction of the laboratory.

Commercial firms are responsible for guaranteeing the quality of their assays and the homogeneity of their reagents (standardisation problems frequently emerge in this context). For that reason, commercial companies often run external quality assessment programmes, through which a single serum sample from a single donor is distributed to several hundreds
of laboratories and the reasons for any variability in results generated are analysed. Moreover, companies now use online technology to connect remote analysers to a central server to diagnose problems and offer help through real-time QC, QC updates, and the accumulation of relevant statistics, Dr Crockard said. Additionally, online educational tools use virtual patients, for whom investigations may be suggested by participants based on a reported medical history and symptomatology. Participants compare the suggestions with the so-called “golden pathway” of laboratory investigations, which is recommended by the organisers for every case.

Rational application of flow cytometry

Of all the tests used in diagnosing allergic disease (history, skin tests, quantity of specific IgE, challenge tests), none has an absolute predictive value, said Dr Didier Ebo (Belgium). Flow cytometric analysis of in vitro activated basophils may serve as a complementary test. Basophils, dendritic cells (DCs), and monocytes are all CD123 positive, but of these, basophils are the only HLA-DR negative cells. For that reason, a combination of antibodies is used to gate basophils, and up to three different markers of cellular activation may be applied (CD63, CD203c, and p38 MAP kinase).

Dr Ebo presented drug allergy to a neuromuscular blocking agent (rocuronium) as a model for the applications of this test, since drug allergy represents up to 50% of adverse drug reactions, there is no specific IgE, and skin testing numerous drugs is necessary to check for cross-reactivity, as are provocation tests. Basophil activation tests hold >95% specificity and 50–85% sensitivity, depending on the study in recognising drug allergy patterns. Allergen specific thresholds should be adopted and basophil activation tests may be used to assess cross-reactivity with other drugs as a complementary test to skin testing. The prevalence of 5–10% of non-responders is independent of the activation marker; inducing obligatory criticism of any publication involving the basophil activation test that does not mention the prevalence of non-responders among the study population.

To conclude; the basophil activation test is not intended for use in regard to classical inhalant allergens but is extremely useful in the investigation of drug allergy and crossreactivity to other drugs. This test can be used when no other method is available or when existing methods have produced equivocal results, Dr Ebo said. Most importantly, there is a belief that using basophil activation tests may lessen the need for provocation tests, while the combination of different activation markers may enhance the sensitivity of the technique.

New trends in allergy diagnosis

The knowledge for interpreting the results of allergen specific IgE is now available, and antibody levels may depict the probability of related symptomatology quite accurately. Furthermore, allergen-specific IgE levels may predict the development of tolerance, while the sum of anti-IgE concentrations also has a significant predictive value.

The ratio of allergen-specific IgE over total IgE represents another measure of allergic sensitisation, said Dr Marianne van Hage (Sweden). Information on single allergen components offers guidance regarding sensitisation patterns, linking allergens with symptoms but also investigating whether individual components cross-sensitise or co-elicit sensitisation. Skin prick testing, on the other hand, has become very specific, since an exact amount of allergen is used and no batch-to-batch variation occurs. Furthermore, recombinant allergens offer higher sensitivity and specificity as compared to the use of crude allergens.

Feld1 is one of the allergens with levels that may predict whether children are sensitised or have symptoms related to asthma or rhinoconjunctivitis. Dr van Hage said. Sensitisation to lipid transfer proteins (LTPs) is a risk factor for severe allergic reactions, as patients are exposed to these proteins by food consumption rather than pollen.

The tools of future diagnosis are now at hand and a wealth of information is expected to accumulate through microarray technology within the next few years, which will need interpretation. Moreover, single allergen components will help us identify the disease eliciting allergens (with just small amounts of serum sample) and they can be used as marker allergens to identify cross-sensitisation. Finally, knowledge regarding individual peptides may identify the disease eliciting epitopes and aid in better management of the patient.

Chrysanthi Skevaki
Emerging Allergies: The Emerging Allergies symposium at the EAACI 2008 Congress in Barcelona highlighted the field of the numerous new allergens that await identification and analysis.

New allergens
Dr Maria del Mar San Miguel-Moncin (Spain) gave an example in her opening lecture of a major allergen recently recognised in clinical studies: the lettuce lipid transfer protein (LTP), which is capable of precipitating severe systemic reactions. Another recently discovered food allergen was accountable for a patient experiencing labial angioedema and an acute episode of anaphylaxis after repeated ingestion of octopus. The same patient reported no history of allergic reactions with other cephalopods or shellfish, while mass spectrometry revealed an actin protein as the culprit of the developed hypersensitivity.

The proteomics approach may prove to be a very powerful strategy in discovering new allergens, Dr San Miguel-Moncin said. After the lecture, discussion focussed on the possibility of actin being a band contaminant and the associated necessity of purifying and subsequently cloning a target protein. The presence of transmissible microbes, even in the standardised extracts of animal allergens, was considered highly dangerous and consequently precluded the possibility of skin prick testing with such allergens.

Allergies in migrants
An estimated total 175,000,000 people became migrants over the last few centuries, representing a vast, unique – although temporary – experimental setting. Migration to a foreign country for leisure, economic, profession, or political reasons is associated with a sudden radical change in environment, society, and dietary habits, among others. Publications are increasingly emerging in an attempt to investigate how the environment works with genes in the determination of allergic sensitisation and disease.

Migrants from underdeveloped areas moving to more affluent communities initially have low allergy prevalence, said invited speaker Prof. Carmi Geller-Bernstein (Israel). This prevalence subsequently rises to equal or even greater levels in comparison with that of the autochthonous population in the country of destination. The length of stay – and the age upon arrival – in this new country appears to play a critical role in determining allergy prevalence. Moreover, rural environments in a migrant’s area of origin are associated with lower allergy prevalence, possibly due to an enhanced exposure to endotoxins, and microbial infections (Hygiene Hypothesis).

Follow-up studies of immigrants indicate that they gradually develop allergies to the new allergens to which they are exposed for the first time in their country of destination, while allergies to allergens to which they are no longer exposed gradually wane. The presence of new allergens, air pollution, new dietary habits, and immense psychological stress are probably the most important factors contributing to the observed changes in allergy prevalence.

The procedure of preventing the phenomenon of allergies in migrants should commence with a careful interview of the migrant to obtain information regarding the presence of allergies in their areas of origin, and
Times are changing, as are allergens and the treatment of allergy

should continue with total and specific-IgE testing for a panel of common allergens, Prof. Geller-Bernstein said. Thereafter, immunotherapy may prevent the development of new sensitisation, and most importantly, guidelines should indicate safer areas of settlement in the new country. Physicians ought to understand and care for immigrants, and this represents an important issue for the autochthonous population as well. Studies have yet to identify the significant impact played by gender in the acquisition of new allergies, and there is as yet insufficient data on the effect of migration from an urban to a more rural environment.

Alternative treatments in allergy

The topic of alternative treatments for allergy received an excellent presentation from Dr Luis Miguel Borrego (Portugal). Alternative treatments, defined as any treatment opposed to conventional treatments, are increasingly respected in many countries. Results from questionnaires show that 25–50% of those surveyed report having used alternative treatments at least once. Patients may resort to alternative therapy because of dissatisfaction with their physician or a distrust of conventional medicine, because they consider alternative treatments to be completely safe or, especially in chronic disorders, because they are worried about the side effects of conventional treatments.

Alternative treatments comprise techniques such as acupuncture, the chiropractic system, massage, and yoga and also homeopathy, chromotherapy, kinesiology, iridology, aromatherapy, and herbal medicine. Acupuncture is a traditional Chinese treatment said to restore the flow of vital energy by stimulating body parts with needles or laser. The practice of homeopathy is more widespread in Europe and is divided into the classical, clinical, and complex applications.

A number of studies on the use of alternative treatments is applicable to the management of asthma and rhinitis, although these are characterised by methodological flaws that prevent them from reaching conclusive results. Moreover, the prevalence of arsenic or mercury contaminants in some herbal remedies presents some risk in these applications. Herbal preparations often induce cutaneous and systemic side effects in regard to the treatment of eczema, although more promising results have been reported with alternative treatments of food allergies. Larger-scale trials are required to arrive at definitive results, and patients need to be warned about the potential side effects of alternative treatment applications, Dr Borrego concluded.

Chrysanthi Skevaki

Presented at the EAACI 2008 Congress in Barcelona, Spain.
Bilateral nasal polyps, growing from the sinuses into the nose, are characterised by abundant tissue eosinophils, and are often associated with asthma that is late-onset and non-allergic. This has been common knowledge – but now new data presents an intriguing challenge to this knowledge.

Nasal polyps (NPs) typically result in symptoms such as nasal obstruction, the loss of smell, anterior as well as posterior secretion, and a diffuse occupancy of the paranasal sinuses recognised by computed tomography (CT) scanning. European and U.S. studies have repeatedly shown that histology reveals prominent oedema formation and tissue eosinophilia in the vast majority of polyp specimens, the latter even more pronounced in patients with concomitant asthma and/or aspirin sensitivity. NPs in Caucasian patients have consistently showed a Th2 polarisation with high IL5 and IgE concentrations; the interleukin helped the eosinophils to overcome apoptosis, and the IgE was recently demonstrated to mainly result from interaction with Staphylococcus aureus superantigens, inducing polyclonal T cell and B cell activation, which then exacerbated the eosinophilic inflammation.

However, one exception to this has been known to date: NPs in patients with cystic fibrosis (CF), a genetically determined disease already functional early in a patient’s life, showed oedema formation and matrix disruption, but displayed prominent neutrophilic instead of eosinophilic inflammation. CF polyps have a significantly lower tissue eosinophil cationic protein (ECP) but higher concentrations of myeloperoxidase (MPO) compared to polyps in adults, and cast doubt on the role of eosinophils in any typical remodelling. Adult nasal polyp disease, clearly, was different, and predominantly neutrophilic.

Yet, more recent studies on nasal polyps from South China suggested that clinically equivalent disease in adults also may exist with poorly expressed eosinophilia, and a lack of IL5 expression in tissue. Histologically, these polyps showed comparable oedema formation to the Caucasian polyps, and were characterised also by an increase in T and plasma cells. The analysis of common and distinct pathophysiological features in NPs from Asian and Caucasian patients may help to clarify the key cytokines of the inflammatory processes, and consequently their therapeutic targets.

Clinical characteristics, disease-specific symptom scores, nasal endoscopy findings, and CT scores were very similar between Chinese and Belgian polyps, but one important difference became apparent – asthma was significantly more frequent in the Caucasian patients compared to the Chinese polyp patients, and aspirin intolerance was only noted in Belgian patients. Although there were some eosinophil granulocytes present in the Chinese polyps, they were not activated – in clear contrast to the Belgian specimens!

A deeper analysis of cytokines and transcription factors revealed an astonishing difference in the orchestration of tissue inflammation. Whereas IL5 and the corresponding transcription factor GATA3 were over-expressed in the Belgian polyps, they were virtually lacking in the Chinese polyps! In clear contrast, the cytokine IFNγ, its corresponding transcription factor T bet, and IL17 protein were significantly up-regulated in the Chinese polyps, but not in the Belgian polyps. Resultantly, Caucasian polyps are Th2 biased, whereas Chinese polyps show a Th17 bias! The T cell bias would also appear to favour or disfavour concomitant asthma.

Th17 cells have recently been recognised as a separate lineage of T helper cells, distinct from conventional Th1 and Th2 cells. Transcription factors and signalling molecules that are important for the differentiation of Th1 and Th2 cells, including STAT1, 4, 6 (signal transducers and activators of transcription) and T bet, are dispensable for the development of Th17 cells, T cell specific over-expression of GATA3, the Th2 specific transcription factor, even prevented Th17 polarisation and development.

On the other hand, Th17 cells, via IL17, induce the production of pro-inflammatory mediators such as IL1 and TNF, induce IL6 and IL8 secretion in fibroblasts, and orchestrate neutrophilic inflammation.

These findings may have therapeutic consequences, and also unlock new horizons in the pathophysiological understanding of airway inflammation. Currently, daily practice in Europe and the U.S. concentrates on the treatment of eosinophils as a major target, and uses topical and systemic corticosteroids as first-line therapy for NPs, accomplished by humanised anti-IL5 monoclonal antibodies in recent studies. However, this would most probably be inappropriate for Asian patients with neutrophilic IL17-biased polyps.

The challenge is intriguing! We must expound a new view of the type and role of inflammation in airway disease and its link to remodelling, which may lead to distinct therapeutic approaches and outcome parameters for specific types of inflammation. The conventional Th1 vs. Th2 cell model has seen its last days!

Claus Bachert

Reference
Prime Allergy for Primary Care Physicians – PAPRICA Symposia

GALEN and EAACI have co-organised the PAPRICA (Pediatric Allergy for Primary Care physicians) Symposia since the autumn of 2004. The PAPRICA Symposium in 2008 was held in Belgrade, Serbia, on the 6th of November.

State-of-the-art lectures were held on the following topics:
- Prevention of Allergy
- Drug Allergy
- Food allergy
- Asthma and respiratory allergies
- Atopic Dermatitis
- Lung Function Testing

There were speakers from Serbia (Marina Atanaskovic-Markovic, Branimir Nestorovic, and Predrag Minic), as well as foreign speakers (Maarten Hoekstra, Philippe Eigenmann and Zsolt Szépfalusi). Most participants were practicing paediatricians, but allergists and pulmonologists were also represented at the PAPRICA Symposia. All topics encountered a large interest and allowed vivid discussions around the subject of patient care.

Over 140 participants from all over Serbia attended the Symposia and they all shared the same opinion that PAPRICA will help to further promote allergy care in Serbia.

Nevertheless, similarly to the previous PAPRICA sessions, these Symposia were a unique opportunity to directly address doctors in their working area, as well as to establish new and long-lasting friendships.

Philippe Eigenmann, Geneva, & Marina Atanaskovic-Markovic, Belgrade, co-organisers of the Symposia
The Food Allergy Training Course was held 13–15th November 2008 jointly by the Pediatrics Section, the Dermatology Section, and the Food Allergy Interest Group. The three-day course at Castelbrando, a 15th-century castle in the countryside near Treviso in northern Italy, was attended by 140 participants and speakers, many from countries outside the EU including some from India and the U.S.

The meeting explored many clinical aspects of food allergy, both from the pediatric (Antonella Muraro) and adult (Barbara Balmer) perspectives. Ronald van Ree gave an overview of the structure of major food allergens, while Adriano Mari emphasised in his lecture on crossreactivity that understanding the IgE recognition concept at the molecular level is both an immunological and a clinical issue.

Claire Mills and Anthony Dubois, representatives from the EuroPrevall Project that aims to evaluate the prevalence and incidence of food allergy across Europe, gave lectures in the plenary sessions on the impact of food allergy on finances and quality of life. René Crevel and Jonathan Hourihane talked about the highly debated issue of thresholds of allergenic proteins in foods from the perspective of the food industry and the clinician. Stefan Vieths addressed the controversies related to the preparation of food that is safe for individuals with food allergy. The course also covered issues currently provoking much scientific debate such as non-IgE mediated gastrointestinal disease (Mirna Chehade), reactions to additives (Margitta Worm), and the relationships between food allergy and eczema (Thomas Werfel).

Controversies related to diagnosis were comprehensively addressed by Carsten Bindslev-Jensen in a formal lecture and ‘hands-on’ sessions by Odense Allergy Centre staff, with wide-ranging explanations and demonstrations of in vivo allergy testing and food challenge procedures, including the double-blind challenge. In addition, the introduction of solid food should take place at four months of age, as no evidence supports delaying this. Erkki Savilahti, in his overview of the role of probiotics, underlined the change in the intestinal flora in a quantitative and qualitative way as having a safe and possibly beneficial effect on the immune development of infants. On the other hand, probiotics do not affect the rate of sensitisation, despite their effectiveness in alleviating atopic eczema and reducing its incidence.

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The future of food allergy therapy was debated in a round table session following two lectures on sublingual immunotherapy (Enrique Miranda) and oral tolerance induction protocols (Kirsten Beyer). In spite of encouraging results from trials of these protocols, many issues remain that must be satisfactorily addressed and clarified. Current knowledge does not allow us to identify patients that can best benefit from these protocols, and the protocols have not been fully optimised in terms of doses and timing of food administration. Whether sub-lingual immunotherapy or oral tolerance induction represents the most effective option also remains to be determined.

A particularly important issue concerns the safety of severe allergic patients that may develop anaphylactic reactions. The meeting reached a consensus that the protocols should continue to be utilised only in the context of experimental trials in highly specialised centres.

Feedback from participants was enthusiastic and great interest was expressed in future courses. The scientific level of the oral presentations by delegates was very high and three prizes were awarded. The first prize went to Pooja Varshney from Duke University, Durham, North Carolina, U.S, who presented data from a protocol on peanut oral immunotherapy. The other prizes for the best presentations of clinical cases were awarded to Francesca Mori, from Florence, Italy, for her presentation on “Pine-nut vs. tree-nut allergens: clinical and in vitro crossreactivity in children,” and to Angela Duarte, from Lisbon, Portugal, for her presentation on “Anaphylaxis to honey.” All participants contributed to making the course very interesting and informative. It was made even more enjoyable by the stunning setting of Castelbrando, the excellent cuisine (complemented by the delightful local sparkling wine Prosecco), and a very friendly atmosphere.

Antonella Muraro
EAACI Section on Pediatrics, Chair
Local Organiser
respectively. These talks illuminated the contribution of upper to lower airway disease. Marcus Rautianen gave an introductory lecture on the role of microbial agents in chronic rhinosinusitis and nasal polyps, leading to a variety of oral poster presentations on this topic. The mechanisms of glucocorticoid receptor regulation were explained by Laura Pujols (Barcelona, Spain), followed by presentations on cytokines and inflammatory markers in upper airway allergy and rhinosinusitis.

The second day highlighted lectures on pediatric rhinosinusitis by Carlos Nunes (Porto, Portugal) and Andrew Bush (London, U.K.), the impact of rhinosinusitis and nasal polyps on the quality of life by Isam Alobid (Barcelona, Spain), and a round table on the EPOS Revision 2007 chaired by Wytske Fokkens (Amsterdam, Netherlands). The new treatment options for nasal polyp disease were addressed extensively by Philippe Gevaert (Ghent, Belgium), Claus Bachert (Ghent, Belgium), Peter Hellings (Leuven, Belgium), and Glenis Scadding (London, U.K.). Novel studies on treatment strategies such as anti-interleukin 5 monoclonal antibodies, long-term low-dose antibiotics, leukotriene antagonists, and aspirin desensitisation were presented.

The final day started with lectures on genomics and proteomics in upper airway disease by Cornelius Van Drunen (Amsterdam, Netherlands) and Elina Toskala (Helsinki, Finland). Significant gaps in our understanding of non-allergic rhinitis were highlighted by Roy Gerth van Wijk (Rotterdam, Netherlands). Finally, the interaction between the neural and immune system in the airways was addressed by James Baraniuk (Washington DC, U.S.), Martin Wagemann (Dusseldorf, Germany), and Pontus Stierna (Stockholm, Sweden).

The social programme mirrored the exciting scientific programme with a gala dinner in historic Revelin Fortress, when travel grants were officially awarded by Kalogjera and Scadding to several young researchers with high-standard experimental work in the field of allergology and rhinology.

The evaluation forms received from the participants detailed their enthusiasm for both the scientific and non-scientific aspects of the meeting. Michael Rudenko commented: “All researchers met young scientists for discussions: during coffee breaks and social events organised by the local committee in the evenings and at historic sites with their Mediterranean atmosphere within the ancient town of Dubrovnik’s medieval walls, which extended communication between participants.”

All working in the field of the upper respiratory tract are invited to join the EAACI ENT Board and international faculty members in Ghent in spring 2011, when the next SERIN meeting is planned to take place.

Peter W. Hellings
EAACI ENT Board Member
Meeting Report

XXXII Annual Congress of the Argentinean Association of Allergy and Clinical Immunology
INTERASMA Regional Chapter

Buenos Aires, Argentina, 14–16 August, 2008

The Argentinean Association of Respiratory Medicine and related international associations such as AAAAI, ACAAI, WAO and EAACI supported and participated in the XXXII Annual Congress of the Argentinean Association of Allergy and Clinical Immunology and INTERASMA Regional Chapter. Twenty-three international speakers from, Europe, USA, Asia and Latin America participated. The presence of Roy Gerth van Wijk, Jan Lötvall, G. Walter Canonica, Jean Bousquet, Ulrich Wahn, Tomás Chivato Pérez, Erika von Mutius, Giovanni Passalacqua and Ruby Pawankar highlighted this event.

The scientific programme offered an integral approach to the most frequent allergology diseases such as allergic rhinitis, eczema, urticaria, anaphylactic reactions and immunodeficiencies, with special emphasis on bronchial asthma due to its prevalence as well as for its morbidity and impact on health expenditure and quality of life of patients suffering from it. Another reason for the emphasis on bronchial asthma was that the Congress hosted the INTERASMA Regional Chapter.

Besides bronchial asthma, the programme intended to include all relevant allergic topics, from the last knowledge of physiopathogenesis, the intricated gene-environment interaction, passing through pharmacogenetics and new diagnostic techniques, to the therapeutic arsenal that will represent biologic response-modifying drugs currently under development and new immunotherapy strategies. Moreover, the different available guidelines for the treatment of asthma and rhinitis were a matter of discussion, including the last updates, a deep analysis of their usefulness in clinical practice, as well as their similarities and differences.

Within the frames of this Congress, courses on immunotherapy, lung functioning and smoking cessation were carried out. It was the first time that the topic of smoking cessation was discussed in such detail. Additionally, there were new sessions such as “Expert discussions”, which aimed at exchanging information and questions and also discussing specific topics with outstanding specialists, and “Presenting my clinical case” which made it possible to discuss clinical cases presented by authors who wanted to transmit their experiences due to the characteristics and originality of the case.

The total number of participants was 1,615. Around 200 were foreign professionals, mainly from Latin America. The distribution of participants by specialty (45% allergologists, 22% pediatricians, 11% clinicians, 10% pulmonologists and 12% from other related specialties) clearly shows the importance and prestige of this Congress, not only among allergy and immunology specialists.

Hugo E. Neffen

Opening ceremony. The speaker is Ledit R.F. Ardusso, MD, PhD. President, XXXII Annual Congress of the Argentinean Association of Allergy and Clinical Immunology.
Mark your calendar now for the XXVIII Congress of the European Academy of Allergology and Clinical Immunology

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