

newsletter

# Interview with Lars K. Poulsen, the New SPC Co-ordinator

Preparations for Istanbul EAACI Allergy Schools Science in Brief: Reports from London And more...

**EAACI** – excellence in allergy

www.eaaci.net



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# **Editorial**



2011, an Exciting Year to Come!

Dear readers.

As we look back on the year that has just passed, we are clearly overwhelmed by the impressive number of activities organised by our Academy: the biggest allergy congress ever, focussed-topic scientific meetings, Allergy Schools, Task Forces, and new online resources.

Trying to keep pace with the thrilling advance of EAACI activities, this issue of our Newsletter combines echoes from our London Congress, reports from the Summer Schools, an interview with the newly appointed Scientific Programme Co-ordinator, hot news about the Istanbul Congress preparations, Allergy journal highlights, and of course the JMA update.

National Societies are an important part of our Academy. This issue inaugurates a new series in which each EAACI National Society will have the opportunity to present itself to the world of allergy. We begin with the Turkish National Society of Allergy and Clinical Immunology, the proud organisers of the 2011 EAACI Congress in Istanbul and one of the strongest and fastest developing scientific communities in the allergy field in Europe.

Looking ahead at the year to come, it is my guess that few will be able to resist the temptation to plunge into the EAACI activities whirlwind. Become actively involved in EAACI Sections, Interest Groups, and Task Forces, apply for research and travel grants, check your knowledge in the EAACI/UEMS Examination, present your research and meet colleagues and friends at one of our EAACI meetings, surf the EAACI website and The Allergy News, publish in our prestigious EAACI journals, Allergy and Pediatric Allergy and Immunology and in the new scientific peer-review journal focussing on clinical and translational allergy.

Finally, can there be any conceivable reason not to join us?

# Editor

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# Ioana Agache

Editor of the EAACI Newsletter

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# **EAACI:** The Future of Allergy in Europe

The EAACI has, as I am sure you have noticed, changed considerably over the last years in the process of trying to reach out more effectively to a larger audience. Our annual congress has expanded, and the leadership structure now includes divided responsibilities among elected officers and a professional headquarters.

One of the most obvious changes that has been made is the addition of a whole series of smaller focussed-topic scientific meetings, including the European Rhinitis and Asthma Meeting (ERAM), the Skin Allergy Meeting (SAM), and the Food Allergy and Anaphylaxis Meeting (FAAM). The aim of these meetings is to bring together scientists and clinicians that have special interests in these fields, to interact, communicate, and become inspired to bring their respective fields even further forward. We all join together as members and friends of the EAACI to make these smaller events efficient and successful. In the immediate future, the FAAM is being arranged in Venice, Italy, 17 - 19th February 2011 and is the first comprehensive scientific and clinical meeting focussing on food allergy and anaphylaxis. This is again an example of how the EAACI is reaching out to support the degree of communication in a field where there is a clear unmet need.

The 30th EAACI Congress will be in Istanbul. We are very excited to organise this big and important event in this wonderful city, which bridges Europe and Asia. Turkey is not only a fantastic place to visit, but also one of the strongest and fastest developing scientific communities in the allergy field in Europe, contributing important parts of the allergy science submitted to the annual EAACI Congress. Beyond that, we hope to increase the level of attendance from nearer areas of Asia to expand knowledge, expertise, and interaction beyond the borders of Europe. I can also quarantee that the scientific programme is one of the best in the history of EAACI congresses, and I strongly recommend that you attend this congress.

The EAACI is also launching a new scientific peer-review journal in 2011 that focusses on clinical and translational allergy. With this publication platform, EAACI aims to expand the possibility of distributing research in the field of allergy. Most importantly, all published scientific papers will be open access, thus freely accessible from any online computer, and no printed issues will be provided. The copyright of the published paper is retained by the authors, which is another advantage. Publishing of science is a rapidly developing field,

and the move to complement subscription journals with online open access journals is very rigorous. This journal will aim to publish good quality science in the field of allergy and related areas, to complement the EAACI journals Allergy and Pediatric Allergy and Immunology, which both have limited space for publication. Furthermore, we plan to have a very rapid decision and publication process, to avoid any unnecessary delays in making science accessible in the public domain.

When looking into the future, one also has to look back. Almost one hundred years ago, in June 1911, the first paper showing the efficacy of immunotherapy was published by Leonard Noon in The Lancet. "Prophylactic inoculation against hay fever" was the title of his paper. Now, 100 years later, immunotherapy is gaining ground, and we are starting to understand the mechanisms by which this treatment modulates allergic disease. With new immunological tools, it is possible that immunotherapy can make a quantum leap in the next few years, with even stronger and further improved efficacy. To commemorate the 100 years of immunotherapy, the EAACI has decided that "Celebrating 100 Years of Immunotherapy in Allergy" is more than appropriate in 2011. Several events and activities will be organised around the theme of immunotherapy, and we hope and expect this will help to improve awareness and strengthen research in the field.

The year 2011, and the years to come, will be very exciting for the EAACI and the whole field of allergy. I personally very much look forward to seeing the development of allergy through the interaction and collaboration of our EAACI members, and our friends beyond the EAACI membership.

Jan Lötvall **EAACI President** 





# This issue features Sladjana Scepan, EAACI Education and Specialty Manager

### Tell us about yourself.

I was born in the central part of Serbia, where I lived until 1992 when I started my studies at the University of Belgrade. I am an engineer, with a Master's degree in Mineralogy and Crystallography. After completing my studies I worked at the university for several years. In 2007, I moved to Zurich and joined the EAACI in March 2009.

# And how did you start working at a medical association with your academic background?

Well, almost every student has some part-time job! Mine was working for a Yugoslav association for endoscopic surgery. There are always some tasks that can be done at the evenings and during the weekends. I also worked for an agency specialising in organising congresses in the field of medicine. During 1995 – 2003, I learned how a medical soci-

ety works and how congresses should be organised. This enabled me to get a full-time position with the Yugoslav Association for Ultrasound in Gynecology and Obstetrics, where I was responsible for membership and for the organisation of schools and congresses.

# Your main activity at EAACI Headquarters is organising the Allergy Schools?

Yes, HQ is the PCO (Professional Congress Organiser) for the Allergy Schools. I am in charge of all practical aspects regarding Allergy School organisation. This includes promoting the school and preparing all documents for the EAACI website and Newsletter, managing the registration process and communicating with participants, corresponding with the speakers, dealing with the abstracts and preparing the syllabus, carrying out all payments and arranging hotel accommodation for all participants and transportation if needed. I attend all our Allergy Schools and supervise onsite registration, technical equipment, supporting the local organiser, speakers and participants at the school, and of course, promoting all EAACI activities. There is also a lot of work to be done after the schools are over! In addition, the organisation of the Winter School is now under the Education and Specialty umbrella.

# What are your other responsibilities as Education and Specialty Manager?

First of all, I take care of the EAACI Knowledge Examination. I am in charge of all the logistics, including promotion, dealing with all applications and payments, corresponding with the participants, and preparing the material for the exam. EAACI Fellowship Awards are also my responsibility. Last but not least, EAACI Interest Groups and Task Forces are also some of my tasks. I support chairpersons in their work and in organising their meetings if needed.

# What tasks are covered by the term Specialty?

The EAACI Education and Specialty Committee co-ordinates activities in Europe in the areas of undergraduate and postgraduate teaching and deals with recognition of the specialty, the free circulation of specialists in Europe, contact with regular bodies, etc. I support the chairpersons in these activities and help our members with any related problems. I also handle CME application procedures and contact with UEMS to ensure that all EAACI events receive CME credits. All the other congresses organised in the field of allergy can be accredited through EAACI HQ too.

# What is the most interesting part of your job?

My position allows me to be involved in many EAACI activities and to be in permanent contact with many EAACI members. This gives me the opportunity of meeting lots of interesting people.



# Are you an EAACI Member?

# Here are just a few of the benefits Members receive:

- Discount on registration fees to EAACI annual congresses.
- Subscription to ALLERGY Journal and the Pediatric Allergy and Immunology Journal including supplements.
- Online access to the official EAACI journals.
- The **EAACI** Newsletter.

For more information contact: info@eaaci.net | www.eaaci.net





# Interview with Lars K. Poulsen, the New SPC Co-ordinator

### Tell us about yourself.

I have basic training in immunology and biochemistry, finished my Ph.D. in 1988 and defended my doctoral thesis of medical science in 2000. My primary affiliation is Copenhagen University Hospital, where I head research at the Allergy Clinic, and lead a routine laboratory producing IgE analyses for hospitals in the Greater Copenhagen area. In addition to this, I hold a professorship in basic allergology at the University of Copenhagen.

As for my private life, I live a little north of Copenhagen. Both of our two children study abroad, so my partner and I are enjoying the liberty of our age: lots of work, no dog, no cat, not even a canary ... and no grandchildren, as yet.

# What projects are you currently involved in?

In our group we try to maintain some balance between basic projects, i.e. projects looking at the immunological mechanisms behind allergy development, and clinical projects such as new modalities for immunotherapy and food allergy. Translational research has become a buzzword these days, but in fact we and many other groups have been working this way for decades.

# How do you think being SPC Co-ordinator will make an impact on your career?

It is certain to expand my network, especially in some of the areas where I have little previous scientific experience.

# What is your impression of the EAACI Congresses so far?

The most recent London Congress was extremely successful, both in terms of science and the number of participants. For me, the EAACI Congresses have always been a fixed point in my diary, something to which I look forward. This is the main meeting where we meet old and new colleagues and where we are updated on all the aspects of the speciality.

# What are the challenges, and your future plans, as the new SPC Co-ordinator?

Basic science is leading to many new results, some that are not always easy to understand for clinicians. Since cross-fertilisation is a major aim for our congresses, it is important to develop symposia and workshops that try to put these new biological findings in a clinical perspective, to inspire daily practice and continuing clinical and epidemiological research.

# How will you keep the balance between different specialists attending the EAACI Congress and between clinical and basic science?

This is a key question, but it is important to realise that the scientific programme co-ordinator does not create the programme for the Congress. He co-ordinates the process by which it is created. The Scientific Programme Committee includes members from the Interest Sections and Groups and the Local Organising Committee and this crowd brings in a lot of different areas of expertise.

One of the ways to balance the many fields and topics is to carefully analyse previous congresses. Delegates vote with their feet, and if a session has a lot of participants, then that should tell us something. It is important, however, to maintain that there are also "thin" areas in which a dedicated group of delegates participate every year, and luckily we have been able to also accommodate many smaller sessions with very specific and focussed themes.

# Which themes do you consider future EAACI Congresses might cover?

As stated above, basic biology generates a lot of new data that we need to apply to allergy. Epigenetics is one such example. In the more clinical field we are presently seeing a trend towards defining and distinguishing different phenotypes of allergic diseases, in particular for asthma and atopic dermatitis. The third area, which relies heavily on these two, is the gene-environment interactions that will allow us to provide more precise descriptions of risk factors and eventually develop better forms of prevention.

# What is your opinion of the EAACI Newsletter?

Our Academy has become an octopus with many different arms performing different tasks. I see the Newsletter as providing a good orientation to allergologists all over Europe and overseas about what is going on here.





# Homage to Franz Marrache

"No, it's still wrong. You don't speak fluently, too much hesitation. Your talk must be perfect. Start again, I am listening."

"Do as you want, but for me, we don't need such flourishes. I go to the heart of the matter, I don't like embellishments. Sobriety, efficacy, here are my goals."

Franz Marrache was born in Casablanca, Morocco on December  $7^{\rm th}$  1928 within the Jewish Moroccan community. These origins explain his qualities of being welcoming, open-minded, and also his fighting spirit. He was a bright pupil in the fields of literature, philosophy, and the sciences. At the age of 17-18 he moved to Paris. From his maid's room, he took part in Parisian life. In addition to medicine, he spent his time studying the arts and especially music, his second passion.

He reached his dream of becoming a country GP. In 1956 he re-opened a medical office in Arrou, Eure & Loire, which had been closed since the previous practitioner died in a concentration camp in World War II. However, he longed for his hospital and university in Paris, and despite the petitions of his patients to remain in Arrou, he returned to the capital. In 1961 he transferred his practice to the popular district of Villeneuve le Roi, where he worked until 1978.

Franz soon made contact with Professor Chretien's Internal Medicine & Pulmonology unit at the university hospital. Becoming 40 years of age was a turning point for Franz, and he changed career direction to start his training in Allergy, first with Professor Wolfrom's team, and later with Professor Paupe, the leader of Pediatric Allergy. He opened his Allergy practice in Villeneuve le Roi in 1979.

On a more personal level, Franz stopped smoking and started to devote himself to jogging, with marathons becoming his new hobby. After Morocco achieved independence, he bought a

haberdashery for his parents to run in the suburbs of Paris. His elder son, Lionel, was born in 1957 from his first marriage, and in the 1970s, from his second marriage, came David, who is, following in the footsteps of his father, a practitioner and specialist in the Intensive Care Unit of Georges-Pompidou Hospital in Paris, then Isabel was born.

Franz was primarily a general practitioner. He took into account his university knowledge, but did not accept the gap between initial university training and the requirements of true medical practice. As a young allergist, the 1980 – 90 period gave him the opportunity to blossom in CME. Continuous Medical Education, organised by practitioners for practitioners, aims to harmonise the updating of scientific knowledge in correspondence with the needs of day-to-day practice.

At the foundation of UNAFORMEC (the French association for continuous medical education), Franz created for Allergists of the Ile de France region, the first regional medical association of continuous education in Allergology (AREFORCAL 77-91-94). In 1980 – 81, the ANAFORCAL, the federation of French associations for continuing education in Allergology, was set up. In 1990, with the support of Professor Dry from the French Society of Allergology & Clinical Immunology and Professor Bonini, General Secretary of the EAACI, Franz chaired the first general assembly of the CEFCAP (European Committee of Continuing Education for Allergist Practitioners).

In the following 15 years, his pedagogical project was well documented, with interactive CME workshops being carried out in France, Germany, Portugal, Romania, and many more countries. He was active in managing an effective and convincing team promoting the CEFCAP as a leading group in European Allergology. The CEFCAP integrated the new EAACI Specialty Committee

at the end of the 1990s. Since 2004, in strong co-operation with Professor Claude Molina, Past-President of the EAACI, Franz Marrache published the monthly Bibliography Updated Abstracts, a very practical digest adapted to the day-to-day practice of the most recent advances in the field of Allergology. Once translated into English they are available on the CEFCAP and EAACI websites. Franz wrote his last article for the edition of 15 June 2010.

His dream is at last coming true: the dynamic online accredited CME is being launched. We hope that it will be available before the end of this year.

Franz shared a rich, happy life full of potential with his wife Adele for twenty years. He died in their home in Lucinges, France, aged 74, on Saturday 26 June 2010. He had fought bone cancer for two years.

This outstanding man has passed away. His humanity, his sense of pedagogy, his love of the other, and his love of humans leave their mark on all of us. He helped everyone to know themselves better, and to better use their competencies. He made us all stand tall. He was a direct man, a straight man, he made no concessions, he devoted himself body and soul to his family and his friends. He followed his path through life: a path of integrity, of rigour, and of labour.

We have known a philosopher, a humanist, a visionary man, a pertinent and non-conventional human, one with a rich sense of humour.

We bid you goodbye, Franz.

Our remaining consolation and duty will be to realise and develop the projects you offered us. We thank you, Franz, for everything you have given us.

Jacques Gayraud Claude Molina





Dear friends

"If one had a single glance to give the world, one should gaze on Istanbul." It is our hope that this quotation from the French poet Alphonse de Lamartine will be shared by the world of allergy after the 2011 EAACI Congress in Istanbul - due to the work of the Scientific Committee and with the involvement of congress delegates.

Time flies. We are only six months away from the Istanbul Congress. We have been working hard to make this an unforgettable scientific, social, and cultural experience for you.

You have already seen the Preliminary Scientific Programme. Experts from all round Europe and other parts of the world will bring us the latest information. It is now your turn to send us your latest work for the most exciting part of the congress.

We have prepared a variety of social events and tours for you. The opening ceremony will feature an Anatolian Fire Show, followed by an orchestra playing music to stoke the European "fire" of our delegates.

The Istanbul by Dawn tour gives you an excellent view of the modern and ancient city without many interruptions from the hassle of daily life or traffic. In addition to the full-day Historical Peninsula tour, we have tried to squeeze in a half-day programme for those of you that cannot commit to one full day.

However, Istanbul is not only about history. There is a lot of modern art that you can enjoy during the fullday Modern Art tour. During the time of our Congress, the 39th Istanbul Music Festival is also taking place. This is a world-famous, prestigious

festival hosting top performances. For music-loving delegates we will try to provide a link on the congress website and also organise a ticket office at the congress venue. For those of you more interested in nature, the Bosphorus tour will show you both continents just with a turn of your head.

Istanbul lives 24 hours a day. The squares are always lively, and full of people. You can experience history just walking along the streets. Even if you do not have time to make use of the social tours during the Congress, just walk in the streets and look around.

We really look forward to seeing you in ISTANBUL.



Ömer Kalaycı **EAACI 2011** Congress President



Allergopharma Award 2012

Allergopharma 🚜



# The 12th Allergopharma Award, 2012

in the value of Euro 10,000

The Award was first established in 2000 on the initiative of Allergopharma Joachim Ganzer KG and in collaboration with the European Academy of Allergy and Clinical Immunology. It is intended that the Award should recognize the scientific achievement of young scientists working in the field of allergy and encourage their engagement in further research. Therefore the Award is open to members of the EAACI, and in particular Junior Members, who have conducted their research in a European centre.

An application for consideration for the Award shall take the form of a full research paper published in an international peer reviewed journal in 2009/2011, together with a covering letter detailing the extent of the applicant's contribution to the research, and curriculum vitae including a full list of publications. The applications will be considered by an ad hoc Commission nominated by the EAACI Executive Committee and Allergopharma. The twelfth Award will be presented during the European Academy of Allergy and Clinical Immunology Congress, Geneva 2012.

Applications should be submitted before 31 December 2011 electronically to both the EAACI Headquarters (info@eaaci.net) and Allergopharma (thomas.hultsch@allergopharma.de). The research paper, curriculum vitae and a covering letter should be included as three separate attachments. If this is not possible, then postal applications can be sent to EAACI Headquarters, Genferstrasse 21, CH-8002 Zurich, Switzerland (Tel.: +41 44 205 55 33).

Allergopharma Joachim Ganzer KG is committed to furthering excellence in allergy diagnosis and specific immunotherapy through investment in scientific research.



# **EAACI Fellowships**

# **EAACI Exchange Research Fellowship Award Aims:**

- 1. To support research and training of EAACI Junior Members and Affiliates (JMAs) by offering short (3 months), medium (6 months), and long-term (1 year) fellowships in a European country.
- To increase the mobility of young researchers within Europe. Movement between EAACI members resident outside Europe can also be considered.
- 3. To spread the implementation of new techniques between European laboratories.
- To highlight the work of EAACI JMAs through increased publications and a special Fellowship session at the EAACI Annual Congresses.

Fellowship duration:

3. 6. and 12 months

### EAACI Clinical Fellowship Award Aims:

- To spread allergy and clinical immunology excellence in Europe.
- 2. To support the training of highly skilled specialists in this field in Europe.

Fellowship duration: 3 months

Deadline for applications
- 31 January 2011

For more details please visit www.eaaci.net

# The Turkish National Society of Allergy and Clinical Immunology

Public attention to allergic diseases has been increasing in Turkey, due to their increasing prevalence. Approximately 5 – 10% of the population is estimated to have asthma, and higher rates of allergic rhinitis (10 – 15%) have been reported.

The Turkish National Society of Allergy and Clinical Immunology (TNSACI) was founded in 1989 and is aimed at improving public health and education in allergy and at supporting research in the field. The society has organised public meetings and provided scientific support for the media. In addition, the society serves as the legal advisor for its members and has efficient communication with the government for regulatory decisions in allergy.

The TNSACI organises annual congresses and meetings that attract an increasing number of physicians and scientists, totalling 915 in 2009. At these meetings, many awards are given for abstracts of high scientific quality and for papers published in prestigious allergy jour-

nals. The society provides scholarships to junior members and fellows for national and international allergy/clinical immunology meetings.

During the course of the last few years, the society has been active in improving its relationship with and its activity within the body of the EAACI. Every year, almost 300 scientists take part in the EAACI Congress and present their data in posters and oral presentations. Scientists from the EAACI are regularly invited to our National Congress every year. The society hosted an EAACI Summer School in 2000 in Antalya. Another EAACI Summer School on allergy diagnosis will be held in Kusadasi this year. In an effort to support these activities, the TNSACI has been paying all annual membership dues from all its members to the EAACI. In addition, the TNSACI is an active member of WAO and GARD

The society's website serves the needs of the public, the media, and

scientists and is becoming increasingly popular. News about allergy/clinical immunology, pollen counts, information about congresses and meetings, links to useful sites, regularly updated outstanding articles on allergy/clinical immunology, highlights about allergy/clinical immunology, and educational materials, are all available online at www.aid.org.tr.

Asthma Allergy Immunology, the official journal of the TNSACI, is published three times a year. The official languages are Turkish and English and it is indexed in EBSCOHost and Index Copernicus. Online submissions are possible at www.aai.org.tr. Recently, we have been concentrating our efforts on being indexed in

The TNSACI looks forward to a very successful congress in Istanbul and will continue to be actively involved in all EAACI activities.

**Gülfem Çelik,** MD Turkey





# **EAACI/UEMS Knowledge Examination in Allergology and Clinical Immunology 2011**

# Participate in 2011, Prepare Early – and Pass Successfully!

Dear colleagues,

The EAACI is once again providing the European Knowledge Test in Allergology and Clinical Immunology, for the fourth time, at the EAACI Congress 2011 in Istanbul on Saturday June 10<sup>th</sup>.

The EAACI has held this European examination in Allergology and Clinical Immunology annually for the past three years. More than 100 candidates, members of many National Societies, have already successfully passed the examination

The examination comprises questions, revised annually from a question pool, and many new questions prepared by EAACI Task Force members and major European centres. The majority of questions (ca. 70%) cover topics of allergology including allergens, dermatological, respiratory and pediatric allergy, anaphylaxis, venom hypersensitivity, and

drug and food hypersensitivity. The examination also comprises questions about basic immunology and clinical immunology (autoimmunity and immune deficiency). They are carefully evaluated by the EAACI Exam/Knowledge Test Task Force and a specialised, professional institution (Institute for Medical Teaching, IML, Bern). A blueprint with relevant literature to prepare effectively for the exam and example questions will be available soon on the EAACI website. The 180-minute exam contains about 120 multiplechoice questions, all in English. Language dictionaries are permitted.

The Knowledge Test in Allergology/ Clinical Immunology does not replace or substitute currently existing national examinations regularly held by national bodies. It will help to further raise the standard of allergology and clinical immunology in Europe, and is already recognised by some countries as the official written part of their board exam — please inform your National Society. EAACI members have the opportunity to use this Knowledge Test as a very useful tool for self-evaluation.

We urge you to participate in this exam and test your knowledge. For more details and applications please visit: http://www.eaaci.net/v2/activities/eaaci-exam/open-calls. Do not hesitate to contact us with related questions. We look forward to welcoming you to the Knowledge Test in Istanbul!



Peter Schmid-Grendelmeier EAACI Exam/Knowledge Test Task Force Chairman



**Luis Delgado**EAACI Vice-President Education and Specialty



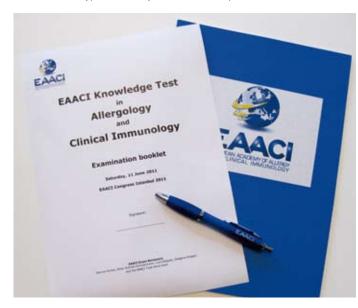
Sladjana Scepan
EAACI Education and Specialty
Manager

# **Hints & Tips**

- Check out the pictures from the Allergy Schools in Sardinia, Kusadasi and Berlin on Facebook!
- Find out all you need to know about EAACI Congress 2011 in Istanbul at www.eaaci2011.com
- You can print your membership receipts under My Membership Finance on the Members Microsite.
- Visit the EAACI Booth at the AAAAI Annual Meeting in San Francisco (18 – 22 March 2011)!
- Look through the EAACI Congress 2010 handouts at www.eaacihandouts.net.
   To access use the login and password you received in London!
- Visit www.eaaci.net to browse application deadlines, grant opportunities, open calls, and much more!

# EAACI Membership Information

- · Total EAACI Members: 6,360
- EAACI Full Members: 4,100
- EAACI Junior Members: 2,260
- · Dual AAAAI-EAACI Members: 158
- · Dual ERS-EAACI Members: 90
- · Dual AAAAI-EAACI Junior Members: 1
- EAACI Asthma Section Members: 1,613
- EAACI Dermatology Section Members: 381
- · EAACI ENT Section Members: 363
- · EAACI Immunology Section Members: 1,270
- · EAACI Pediatrics Section Members: 1,138





# EAACI Website Corner January 2010 www.eaaci.net



is the leading resource for researchers, physicians, and scholars working in all fields

associated with Allergy and Clinical Immunology. Visit www.eaaci.net and access new features such as:

- Open Calls, for Research & Clinical Fellowship Awards that support research and training for EAACI Junior Members & Affiliates (JMAs) and increase young scientists' mobility
- Case Reports & Expert
  Opinions, a challenge to your
  differential diagnostic abilities
  and scientific background
- Bibliographic Updates in Allergy and a brief presentation of New Books in the field
- Profiles & Editorials by renowned EAACI Members
- JMA Quizz™ Series, rewarding our knowledgeable Juniors with travel grants to Istanbul's 2011 EAACI Congress

## More.

**Did you know** – www.eaaci.net saw a more than 20% year-onyear increase of average onsite time between September 2009 and June 2010?

# Don't forget...

to participate in February's online elections for the EAACI Interest Groups' Board and JMA Working Group Members!

There are lots of reasons to visit www.eaaci.net right now, and we plan to offer even more. Stay tuned!

On behalf of the EAACI Web

Chrysanthi Skevaki
EAACI Co-ordinating Edito

# Allergy Journal Highlights 2010

- Omalizumab has shown to be effective in the management of asthma patients as long as they are taking the drug. But what happens after withdrawal? This is a question that has long been on the minds of patients and practitioners too! This paper provides information on the long-term evolution of omalizumabtreated asthma in 18 patients. Nopp A, Johansson SGO, Adédoyin J, Ankerst J, Palmqvist M, Öman H. After 6 years with Xolair; a 3-year withdrawal follow-up. Allergy 2010; 65: 56-60.
- The asthma epidemic has been a major concern for healthcare professionals and also for health authorities. However, it is not known if it has peaked yet or is subsequently decreasing again. This review, comprising 48 studies, demonstrates that no current signs of a declining trend are observable, and that asthma continues to increase in many parts of the world. Anandan C, Numatov U, van Schayck OCP, Sheikh A. Is the prevalence of asthma declining? Systematic review of epidemiological studies. Allergy 2010; 65: 152-67.
- Don't we all have the feeling that allergologic work-ups for drug allergies are tedious and that often patients and doctors continue to avoid certain drugs even after a negative study? In this study, 365 patients are followed up regarding re-exposure after a negative betalactam allergy study. The negative predictive value was 94.1%, and those that did have a reaction presented only mild symptoms. Demoly P, Romano A, Botelho C, Bousquet-Rouanet L, Gaeta F, Silva R, Rumi G, Rodrigues Cernadas J, Bousquet PJ. Allergy 2010; 65: 327-32.
- Evidenced-based approaches to appraise allergen immunotherapy are the cornerstone for positioning this treatment modality outside the world of allergy professionals. Nev-

- ertheless, we are all aware that this is not an easy task since many conditioning factors are relevant in influencing outcomes, such as the indication (asthma, rhinitis), culprit allergen, type of extract, administration route, schedule, etc. Therefore, data pooling is not straightforward! This article presents a systematic review of grass pollen immunotherapy. Calderon M, Mösges R, Hellmich M, Demoly P. Allergy 2010; 65: 420-34.
- Anaphylaxis represents the most severe acute allergic reaction, yet the identification and treatment of patients presenting with anaphylaxis is still far from optimal. Identifying the knowledge gaps for healthcare professionals, patients, and the general public is the first step in developing appropriate strategies to respond to these requirements, and is presented by this Canadian group in their work. Kastner M, Harada L, Waserman S. Gaps in anaphylaxis management at the level of physicians, patients, and the community: a systematic review of the literature. Allergy 2010; 65: 435-44.
- The sedative effects of first-generation H1 antihistamines are often overlooked or even considered an advantage when treating conditions such as urticaria and pruritus. Yet this position paper shows that these side effects are detrimental for work efficiency and learning, and argue for the favourable risk/benefit ratio of second-generation nonsedating H1 antihistamines. Church MK, Maurer M, Simons FER, Bindslev-Jensen C, van Cawenberge P, Bousquet J, et al. Risk of first-generation H1 antihistamines: a GA2LEN position paper. Allergy 2010; 65: 459-
- Finding biomarkers to diagnose, monitor, and even explain the pathophysiologic mechanisms of diseases is a continuous challenge in medicine. This holds true for

- chronic urticaria, which remains a mystery regarding aetiology and disease mechanisms. In this paper, the authors present some findings regarding coagulation/fibrinolysis and others inflammation markers in chronic urticaria patients. Takahagi S, Mihara S, Iwamoto K, Morioke S, Okabe T, Kameyoshi Y, et al. Coagulation/fibrinolysis and inflammation markers are associated with disease activity in patients with chronic urticaria. Allergy 2010; 65: 649-56.
- Another strategy to improve knowledge about anaphylaxis is the development of registries. This systemisation has already been implemented in several countries, and now an international European registry is proposed. The data obtained will illuminate prevalence, major causes, treatment, etc., and help professionals and authorities to identify priorities in the field. Worm M, Timmermans F, Moneret-Vautrin A, Muraro A, Malmheden Yman II, Lövik M, et al. Towards a Europeann registry of severe allergic reactions: current status of national registries and future needs. Allergy 2010; 65: 671-80.
- Providing guidelines for patients, families, and teachers is a major task for healthcare professionals caring for allergic children. This Task Force has analysed differing situations and established recommendations regarding conditions such as asthma, eczema, rhinoconjunctivitis, food allergy, and anaphylaxis. Muraro A, Clark A, Beyer K, Borrego LM, Borres M, Lodrup Carlsen KC, et al. Allergy 2010; 65: 681-9.
- Pruritus is the main symptom involved in conditions such as eczema and urticaria. However, the therapeutic options for pruritus are limited at present, and the most used drug class, H1 antihistamines, has limited effectiveness in controlling

# **EAACI News**



itching. Therefore, there is a need to increase knowledge about the pathophysiology of pruritus to identify potential therapeutic targets. This review provides some insights into this issue. Buddenkotte J, Steinhoff M. Pathophysiology and therapy of pruritus in allergic and atopic diseases. Allergy 2010; 65: 805-21.

- Complementary and alternative medicine modalities remain a matter of discussion. Acupuncture is appropriate for designing trials controlled with sham acupuncture. In this study, the authors evaluate the effect of acupuncture on itching, wheal and flare responses in atopic eczema, showing some benefit. Pfab F, Huss-Marp J, Gatti A, Fuqin J, Athanasiadis GI, Irnich D, et al. Influence of acupuncture on type I hypersensitivity itch and the wheal and flare response in adults with atopic eczema - a blinded, randomised, placebo-controlled, crossover trial. Allergy 2010; 65: 903-
- This is the outcome of the results of Canadian knowledge gap identification in anaphylaxis! The authors provide consensus recommendations for managing anaphylaxis. Local and international guidelines in anaphylaxis management are welcome! Waserman S. Chad Z. Francoeur MJ, Small P, Stark D, Vander TK, et al. Mangement of anaphylaxis in primary care: Canadian expert consensus recommendations. Allergy 2010; 65: 1082-92.
- Parents always ask "Will my child still have asthma when s/he grows up or will it disappear?" Answering this question is not always easy. This paper provides a combined specific IgE to inhalant allergens and a severity score to predict asthma at 10 years applicable in two-year-old children. It is not perfect, but it helps! Lodrup Carlsen KC, Söderström L, Mowindel P, Haland G, Pettersen M, Munthe Kass MC, et al. Asthma prediction in school children; the value of combined IgE-antibodies and obstructive disease severity score. Allergy 2010; 65: 1134-40.

- Results from the EuroPrevall study provide insights into different aspects of food allergy. In this paper, the authors present prevalence data and causal foods in several countries using sera from the ECRHS survey. Burney P, Summers C, Chinn S, Hooper R, van Ree R, Lidholm J. Prevalence and distribution of sensitisation to foods in the European Community Respiratory Health Survey: a EuroPrevall analysis. Allergy 2010; 65: 1182-8.
- Good in vitro tests to use in drug allergy are a necessity for allergists. This short paper provides some information regarding the usefulness of basophil activation tests in severe

drug anaphylaxis. García-Ortega P. Marín A. Usefulness of the basophil activation test (BAT) in the diagnosis of life-threatening drug anaphylaxis. Allergy 2010; 65: 1204.

 Food allergy is a peculiar condition. Patients may have very mild symptoms, but may also experience life-threatening anaphylaxis after consuming foods that are not only healthy but may be essential for survival! The knowledge of health professionals about food allergy is far from optimal, while sharing meals is considered to be a fundamental social activity! These facts condition the impact of food allergy in affected patients. This review analyses current knowledge about the impact of food allergy on patients and families. Cummings AJ, Knibb RC, King RM, Lucas JS. The psychosocial impact of food allergy and food hypersensitivity in children, adolescents, and their families: a review. Allergy 2010; 65: 933-45.



Victoria Cardona **EAACI Vice-President** Communication & Membership

# **EAACI Calendar of Events**

| January   | February  | March   |
|---|---|---|
| Abstract deadline for upcoming EAACI Congress     Deadline for Travel Grant application for upcoming EAACI Congress     Application deadline for Fellowships     EAACI Newsletter   | Marathon Meeting for upcoming EAACI Congress (finalising Scientific Programme)     Early Fee Deadline for upcoming EAACI Congress     1st Meeting of Scientific Programme Committee for EAACI Congress following year     Call for Nominations for Sections and IGS Board Members (odd years)     BoO Elections during the February ExCom Meeting (even years)     Call for Nominations to all individual members and member societies for the Members at Large Elections (even years)  Winter School | Voting for Sections and IGs Board<br>Members (odd years)  |
| April   | May   | June  |
| Application Deadline for the EAACI/UEMS<br>Knowledge Examination     Communication of Sections and IGs voting<br>results to members of Sections and IGs<br>(odd years)     Election of Sections and IGs Chairpersons<br>and Secretaries (odd years) | Deadline for middle registration fee for upcoming EAACI Congress     Communication of voting results for Chairpersons and Secretaries to Sections and IGs members (odd years)     BoO nominates 2 IG representatives for the ExCom (odd years)     EAACI Newsletter   | EAACI Congress     EAACI General Assembly     Election of the Members at Large during the EAACI Congress (even years)     EAACI/UEMS Knowledge Examination - Saturday at 11:00 during the EAACI Congress     Postcards for EAACI Congress taking place in two years distributed |
| July  | August  | September  • Deadline for budget requests for activities in the following year  • EAACI Newsletter  |
| October   | November  | December  |
| Call for topics for EAACI Congress in<br>following year   | Call for abstract submission for Winter School Abstract deadline for Winter School Yearly budget approval by the Executive Committee Online registration opens for upcoming EAACI Congress Online abstract submission opens for upcoming EAACI Congress Preliminary Programme for following EAACI Congress published  | EAACI President sends a call to all eligible<br>ExCom Members to send their applications<br>for the BoO Elections - Secretary General,<br>Treasurer and Vice-Presidents (even years)     EAACI Member Fee Invoices are sent out   |

# **EAACI Activities**





The EAACI-GA²LEN Allergy Summer School, Allergy at Different Systems, took place in Athens on June  $25-28^{th}$  2010. This was the fifth such School taking place under the sunny blue skies of Greece, organised by the Allergy Department of Athens University, a GA²LEN centre, under the auspices of the EAACI.

Once again, the classical formula combining intense science and social interaction was successful. The School attracted more than 100 participants and 17 faculty members from 13 countries. It was financially supported by unrestricted educational grants from the industry. Both the EAACI and GA<sup>2</sup>LEN were actively promoted.

The advanced scientific level was designed to increase and refine knowledge about allergies of different systems, providing an excellent opportunity for distinguished scientists and physicians to actively interact with participants and discuss current issues. The scientific sessions were particularly satisfying, judging from heated discussions throughout the day.

The Scientific Programme comprised seven sessions dedicated to individual systems as well as to allergy as a systemic disease. It started on June 25<sup>th</sup>, with an overview of the immune defects and the system interactions in allergy, and was followed by presentations on the systemic inflam-

mation in asthma and the gene-environmental interactions in the development of atopy.

The lectures on the following days were devoted to each system individually, including the upper and lower airways, the skin, the eye, and the intestine. High-profile guest speakers from Australia, Europe, and the U.S. made their presentations clearly and accessibly yet providing all new pertinent information in a rigorous yet understandable manner. The participants, mostly young allergists and paediatricians, were moreover updated with new available treatments for the management of allergy, locally and systemically. The discrepancy between an increasing number of allergic phenotypes and the available therapeutic options was underlined and led to an interrelated discussion between participants at the conclusion of the presentations.

The attendees were also very appreciative of the exceptional Social Programme, which included a visit to Greece's most famous temple, the Parthenon, located on Acropolis Hill, as well as the New Acropolis Museum, which featured an informative quided tour.

Walking up to the Acropolis heights, the participants had the opportunity of exploring the details of the architecture of the Parthenon's columns. Ictinus, the architect that designed the Acropolis,

performed optical illusions worthy of a magician. When looking at the columns and stairs and the floor of the Parthenon all appear to be in a straight line, but in actuality they are all minutely curved!

The architectural journey continued at the New Museum of the Acropolis, the work of the flamboyant Swiss-born architect Bernard Tschumi, who collaborated with the Greek architect Michael Fotiadis to design a building that is both an enlightening meditation on the Parthenon and a mesmerising work in its own right. While sunlight spills down through a concrete-and-glass grid several stories above, the floor of the ramp, a grid with fretted glass panels, allows additional glimpses of the subterranean ancient village that was discovered during construction. Standing in the top-floor galleries, with the sculptures and the glaring whiteness of the marble statues, the view of the Parthenon on the sun-bleached frame is breathtaking. The setting constitutes a powerful reminder of the need for the original Marbles to return home.

Participants enjoyed Mediterranean cuisine, drinks on the bay, not to mention dancing to the rhythms of traditional Greek live music at a restaurant in Plaka.

They completed an evaluation form and the results were very reassuring. Between 82% and 97% of the participants found different elements of the School to be either very good or excellent. The participants were also asked "Would you come to another EAACI-GA²LEN Summer School?" The answer to that was 100% affirmative. Of the approximately 50% of the participants that were not yet EAACI members; 73% stated they consider joining!

# **Nikos Papadopoulos**

**EAACI Secretary General** 



9th EAACI-GA<sup>2</sup>LEN Immunology
Winter School

Basic Immunology Research in Allergy and Clinical Immunology

Davos, Switzerland 3 - 6 February 2011

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The EAACI-GA2LEN Allergy School Lifestyle Interventions in Allergy and Asthma took place in Costa Rei (Cagliari coast), on the beautiful island of Sardinia, Italy, 9 - 12 September 2010.

This marked a special event: exactly 10 years earlier, the Summer School Exercise, Sport, Environment and their Interactions with Allergy & Immunity was held in Sardinia. Organisers Delgado, Del Giacco, and Moreira were proud to be able to bring back the same topics 10 years later with all the updates on the relationships between allergy, infections, lifestyle, sports, and nutrition in the school's warm, friendly, and informal atmosphere.

The EAACI Asthma Section and the Interest Group on Allergy, Asthma, and Sports (IGAAS) attracted 50 participants and 14 faculty members from 16 countries. Sessions were held on all four days. On the first day, Bonini and Del Giacco of

the LOC talked about all the memories of the 2000 Summer School, and Asthma Section Chairperson Adnan Custovic gave an outstanding opening lecture on "Gene-environment Interaction in the Development of Asthma"

The second day featured the sessions "Asthma and Sports," "Environment Changes in Allergy and Asthma," and "Obesity and Asthma." These stimulated active discussions on heated topics such as anti-doping regulations for asthma patients practising sports, indoor and outdoor environments and the determinants of tolerance versus allergy, climate changes, and the rising problem of obesity.

The third day highlighted diet and nutrition in a session that presented the hypothesis on the links between diet and asthma as well as the nutritional countermeasures to exerciseinduced immunodepression, which is well known to be one of the determinants of the so-called overtraining syndrome both with recreational and competitive athletes.

The final day focussed on quality of life measurements in asthma and rhinitis, as well as psychological aspects with potential psycho-educational interventions in asthma

The two poster sessions featured 16 posters that also raised very interesting comments and discus-

The Allergy School was also the occasion for the Lifestyle Interventions in Allergy and Asthma Task Force to meet and work on the upcoming report.

The practical sessions constituted a very important part of the programme on the second and third days. Participants formed two groups: the first attended a small respiratory medicine lab arranged next to the conference room, with practical demonstrations of spirometry and exhaled nitric oxide measurements and also bronchial provocation tests with methacholine and mannitol. The second group attended a "nutrition" lab where body composition measurements ("traditional" and "electronic") and food frequency questionnaires were practically demonstrated to participants.

What better place to talk about and practise the Mediterranean lifestyle than Sardinia? The excellent Mediterranean cuisine was enjoyed by all participants during the full length of their stay at the Free Beach Club, located directly on one of the most beautiful Sardinian beaches, allowing all to practise sports and provide themselves a good "lifestyle intervention" as indicated in the title of the school. The boat trip along the Sardinian coast, with a fisherman's lunch on board, and the final beach dinner and party topped off the programme to perfection.

And after four beautiful days of Sardinian lifestyle, saying farewell was hard for everybody. However, the perfect combination of the magical Sardinian atmosphere, the satisfaction of the participants, and their full engagement in both the scientific and the social programmes reassured the organisers that their efforts were highly successful!

Stefano Del Giacco, MD **EAACI Asthma Section Secretary** 



**Allergy School Allergy and Immunotherapy** From Tolerance to Early Intervention

> Saariselkä, Finland 31 March - 3 April 2011

For more information please contact: info@eaaci.net | www.eaaci.net



# The Years 2009 and 2010 Have Been Very Fruitful for the Asthma Section

First of all, 2009 resulted in major changes for the Asthma Section. In Warsaw, after years of success, six of the eight Section Board members were obliged to resign in concordance with the time limits of EAACI bylaws concerning length of term in office. Sebastian Johnston (UK, Chairperson), Ioana Agache (Romania, Secretary), Christian Virchow (Germany), Norbert Krug (Germany), Gert-Jan Braunstahl (the Netherlands), and David Groneberg (Germany, JMA representative) fulfilled their term of office, leaving myself (Stefano Del Giacco, Italy, new Secretary) and Joao Fonseca (Portugal, Webmaster) as the only survivors of the previous epoch on the new board, which is now characterised by the high scientific profile of our new members. Adnan Custovic (UK) serves as our new Chairman, while Antoine Magnan (France), Alberto Papi (Italy), Svetlana Sergejeva (Estonia), Mina Gaga (Greece), and Enrico Heffler (Italy, JMAs representative) are the other board mem-

The number of members associated with our section has increased to total more than 1,500 (including 461 JMAs), which confirms the Asthma Section as the most heavily "populated" within our Academy.

The section, in addition to our annual Congresses, was involved in several meetings. In 2009 these included the 7<sup>th</sup> EAACI-GA²LEN Allergy Winter School on Basic Immunology Research in Allergy and Asthma, Davos, Switzerland on 5 – 8<sup>th</sup> February, organised with the Immunology Section, the World Immune Regulation Meeting WIRM-III (2009) also in Davos, and the II World Asthma & COPD Forum (St. Petersburg, Russia, 25 – 28<sup>th</sup> April). This featured three symposia on asthma with EAACI speakers: "Asthma Pathogenesis,

Asthma Exacerbations, Asthma Diagnosis and Treatment." In June that year, the successful Warsaw EAACI 2009 Congress was a success also for the Asthma Section: The plenary session, the five main symposia, and three workshops covered all the asthma-related topics and attracted a considerable audience. Furthermore, the Task Force Lifestyle Interventions in Allergy and Asthma, a joint TF with the Interest Group on Allergy, Asthma and Sports (IGAAS), was approved and started work.

In 2010, the section was involved in the WIRM-IV in Davos, and of course again with several Sessions, Symposia, and Workshops during the very successful EAACI 2010 London Congress. This resulted in the Section Board deciding to pay special attention to the Section Juniors by setting up some dedicated travel grants and encouraging the involvement of JMA speakers in main symposia and workshops. Special thanks are due to all the section members that sent in suggestions for the programme. A "cherry on the cake" was the EAACI-GA2LEN Allergy School "Lifestyle Interventions in Allergy and Asthma" in a joint initiative with IGAAS, on the beautiful island of Sardinia, Italy, 9 - 12th September, for which the report is available in another part of this issue. The ERAM (European Asthma and Rhinitis Meeting)/SERIN meeting in Brussels, Belgium 4 –  $6^{th}$ November represented another big organising challenge for the members of the Asthma Section Board.

A very interesting programme related to asthma has been set up for EAACI Istanbul 2011. Check it out at www.eaaci2011.com. To conclude, please browse the following selection of several current must-read texts from the field of asthma:

Genetics of asthma: Koppelman GH, et al. "Identification of PCDH1 as a novel susceptibility gene for bronchial hyperresponsiveness." Am J Respir Crit Care Med. 2009 Nov 15;180(10):929-35. Epub 2009 Sep 3 and Barton SJ, et al. "PLAUR polymorphisms are associated with asthma, PLAUR levels, and lung function decline." JACI 2009 Jun;123(6):1391-400.e17. Epub 2009 May 13.

Different aspects of asthma: reassessing current views: Mastronarde JG, et al. "Efficacy of esome-prazole for treatment of poorly controlled asthma." NEngl J Med. 2009 Apr 9;360(15):1487-99; Marcon A, et al. "Body mass index, weight gain, and other determinants of lung function decline in adult asthma." J Allergy Clin Immunol. 2009 May;123(5):1069-74, 1074.e1-4. Epub 2009 Mar 24; Schatz M, Dombrowski MP. "Clinical practice: Asthma in pregnancy." NEJM 2009, 30:360: 1862-9.

New therapeutic targets and options: Smith DE. "IL33: a tissue derived cytokine pathway involved in allergic inflammation and asthma." Clin Exp Allergy. 2009 Nov 3; Haldar P, et al. "Mepolizumab and exacebations of refractory eosinophilic asthma." NEJM 2009; 360:973-84; "Effectiveness and safety of bronchial thermoplasty in the treatment of severe asthma: a multicentre, randomised, double-blind, sham-controlled clinical trial." Am J Respir Crit Care Med 2009; 181:116-24; Ryanna K, et al. "Regulatory T cells in bronchial asthma." Allergy 2009; 64:335-347

**Stefano Del Giacco,** MD EAACI Asthma Section Secretary



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# JMA Corner



**EAACI Junior** Members & Affiliates stand at the epicentre of exciting

within the framework of our Academy but also in the field of allergy overall. Recently, JMAs have organised successful EAACI ISMA and ERAM/SERIN Focussed Meetings, receiving also working intensively on expanding our representation at the level of EAACI Interest Groups, Task Forces, and Steering Committees and thus actively participating in shaping the future of the discipline.

When it comes to communications, JMAs have become involved in editorial contributions for www.eaaci.net, www.theallergynews.com, and the EAACI Newsletter. All our online quizzes, games, and questionnaires educate JMAs but also provide them with the opportunity to express their needs and requests.

Make the most of your JMA membership and enjoy the privilege of applying for travel grants and Clinical & Research Fellowship Awards, free online access to the most prestigious scientific journals in the field, and additionally to our many resources such as webcasts and case reports, applying for positions in the structural organisation of the EAACI,

Chrysanthi Skevaki EAACI JMA Chairperson

# **Molecules and Genes:** Making Science More Scientific

Allergology still sounds more a descriptive rather than a scientific science. Most of its behavioural and therapeutical advice is based on observational and epidemiological phenomena. One example is food allergy. Diagnoses are often based on the probability of the association between the ingestion of a certain food and the subsequent reaction, and the diagnostic gold standard is the double-blind placebo-controlled food challenge. which aims at evoking a potentially fatal reaction. Similar concerns can be raised about other allergic diseases, such as pollinosis and treatment with specific immunotherapy, or atopic dermatitis and its possible evolution into asthma or rhinoconiunctivitis.

However, important new tools are becoming more widespread and are considered will make the field of allergology more scientific. Recent improvements in diagnostic technologies facilitate the study of the individual allergic profile from a molecular point of view, and in some cases the reactivity against more than 100 molecules can be tested with only 20 microlitres of serum – that means more or less one drop. Complex relationships between allergens from different sources are being clarified (e.g. common epitopes among different grass pollens), but also cross-reactivity between apparently unrelated plants or animals can be explained. This is the case of panallergens, which are molecules widespread among species that can be far from an evolutionary point of view. Sensitisation against panallergens might explain, for instance, why some patients allergic to birch also have symptoms when eating apples

or peaches (they are probably sensitised to Mal d 1 or Pru p 1, which are structurally similar to Bet v 1, the main birch allergen), and why their reactions are usually mild (these proteins are labile to heat and gastric digestion and cannot be absorbed via the intestinal mucosa)

Limited knowledge is also available in the field of the etiopathogenesis of allergic diseases. The fact that allergies are multifactorial diseases is well accepted. However, until a few years ago not so many data were available about the involved genes. Up to now, the etiopathogenesis has been commonly related to the familial atopic predisposition and its interaction with factors such as exposition to viral agents, cutaneous or bronchial irritants, and so

Some current studies aimed at discovering the genetic basis of allergies pay particular attention to the role of filaggrin, which is a protein involved in epidermal differentiation and in maintaining the barrier function. It represents strong genetic risk factors for atopic dermatitis but has also been consistently associated with the risk of other atopic traits, including asthma and hay fever. However, several other genes are probably responsible for the aetiology of these diseases. The recent introduction of genome-wide association studies gives a new, interesting approach based on the phenomenon of the linkage disequilibrium between single nucleotide polymorphisms (SNPs), allowing several hundred thousand SNPs across the genome to be tested for association with disease.

These two approaches, the molecular and the genetic, are rather new and still need to be fully understood in order to be correctly included in daily routine practice. The way is still long: the results of molecular examinations often raise confusion, and the costs are too high to make them routinely feasible; many genes are being discovered as possibly involved, but which is really important in the pathogenesis still has to be understood.

Nevertheless, the present and the future of allergology cannot avoid considering and finding a way to absorb these advances. Because of its complexity and interdisciplinarity (including internal medicine, paediatrics, pneumology, dermatology, cardiovascular problems, and so on), allergology will increasingly need to be managed by dedicated specialists able to deal with all aspects of this discipline.

Arianna Dondi, MD **Department of Pediatrics** University of Bologna, Italy



# Up-Date on Asthma: from Current Knowledge to Future Phenotype-Specific Treatment

Asthmatics not only show increased susceptibility to viral infections – mainly from rhinoviruses – but also increased severity and duration of clinical illness. Moreover, the majority of asthma exacerbations is virus-induced in all age groups and especially in children.

At the 2010 EAACI Congress in London, Sebastian L. Johnston focussed on the underlying immunologic mechanisms of this susceptibility, clearly demonstrating that Th1 and innate immune response parameters are impaired in asthma. In children, Nikolaos G. Papadopoulos explained that viral-induced wheeze does not differ from viral-induced asthma as it satisfies asthma definitions and also involves airway obstruction, inflammation, and remodelling. However, there is still need for a clear definition of wheezing phenotypes as this is one of the main restrictions in understanding and treating wheezing disorders. Hans Bisgaard stated that while inhaled corticosteroids and leukotriene receptor antagonist are widely used without much evidence, there is no clear evidence on the role of antibiotics. He highlighted the significance of randomised controlled trials for the clarification of the clinical relevance of bacterial infections in wheezing episodes.

Insufficient treatment of wheezing disorders derives from inadequate specification of asthma and rhinitis phenotypes. But if phenotypes are meant to represent real disease entities, multivariate methods have to be used in their definition instead of the existing observable-based approaches, Claudia E. Kuehni explained. One common clinical classification is that of the distinction between extrinsic/allergic and intrinsic asthma, without, however, evidence of a distinct pathogenic immunological mechanism. Studies with cluster analysis in atopic asthmatic children revealed four distinct classes and five groups between adults with severe asthma, with atopy being significant but not the main determinant in this classification. Christian J. Virchow concluded that allergy is important in asthma, mainly in children, but that not all asthmatics are allergic. This phenotype-specific approach opens the way for new asthma treatments such as bronchial thermoplasty and monoclonal Abs against IL5 in severe asthma, macrolides for neutrophilic inflammation, anti-IgE for eosinophilic inflammation, anti-fungal treatment in ABPA, all mentioned by Ian D. Pavord. This is also the case for rhinitis, Glenis Scadding stated, as rhinitis is not a single disease (ARIA classification) but its phenotypes are linked to those of asthma and a unified treatment of upper and lower airways is recommended.

When referring to LRT, small peripheral airways represent the "quiet" zone in asthma as the majority of studies refer to central airways. Leif Bjermer, Qutayba Hamid and Monika Kraft emphasised the significance of the small airways in specific conditions such as exercise-induced bronchoconstriction, nocturnal asthma, and severe exacerbations. Persistent small airway inflammation and remodelling lead to persistent airway hyperresponsiveness and rapid decline in lung function. HFA-BDP and montelukast play a central role in small airway inflammation treatment but there are still many challenges for interventions in this field.

Apart from future phenotype-oriented classifications, some entities among asthmatics are well recognised. Exercise-induced asthma, discussed by Kai-Hakon Carlsen, is of vital importance for elite athletes but also impairs the quality of life for as much as 36.7% of asthmatic children, whereas it is found in 8.6% of the normal population. Graham Roberts explained that aerozolised food can induce asthma and vice versa that asthma in patients with food allergy is a risk factor for anaphylaxis. Moreover, there is evidence that food allergy may be involved in the pathogenesis of asthma. Allan Linneberg elaborated on the possible mechanisms underlying alcohol-induced exacerbations, such as genetic variations that regulate the balance between ethanol and acetaldehyde, offering implications for future gene-targeted interventions.

Sir William Osler wrote many years ago: "the good physician treats the disease; the great physician treats the patient who has the disease...". Clear specification of distinct asthmatic phenotypes is a great challenge that will enable more efficient patient-specific approaches in clinical practice.

## Take-home messages:

- Increased susceptibility of asthmatics to viral infections is highly associated with impaired innate and adaptive immune responses.
- Studies on small airway function and inflammation in asthma are of vital importance for future interventions.
- A unified treatment of upper and lower airways is strongly recommended.
- Asthma is not a single disease but a group of different pathologic entities. Multivariate methods need to be used in order to define different asthma phenotypes.
- Clear definition of wheezing phenotypes and further understanding of the underlying immunologic and other pathogenic mechanisms will provide more effective treatments.

# Paraskevi Maggina, MD

Resident in Pediatrics Research Associate Allergy & Clinical Immunology Research Centre P&A Kyriakou Children's Hospital Second Department of Pediatrics, Medical School, University of Athens, Greece





# Wide Angle of Pathologies and One Immune System

## Viral infections and immunity

A novel approach to the understanding of the interaction of infection and the immune system was suggested by population studies (the same infectious agents may affect a population differently) pointing to a degree of immunodeficiency (sometimes local) that allows given pathogens to infect individuals. On the other side in established persistent and/or latent infections, evasion mechanisms that allow a virus to escape from the immune response prompt systemic immunodeficiency that is related to frequent relapses of the infection. Many systems play their role: Cytotoxic lymphocytes, NK cells, antibodies and complement, and as was shown recently, cytokine and interferon interactions

# Regulation of mucosal immunity

The mucosal immune system is uniquely equipped to discriminate between potentially invasive pathogens and commensals. Recent studies highlighted mucosal dendritic cells (DCs) as being important in determining the fate of orally administered antigens. Deficient skin barriers play a role in developing allergic sensitisations. Increasingly, evidence suggests that the airway epithelium plays an essential role in the modulation of airway innate and adaptive immune responses in addition to serving as a physical barrier. Interleukin (IL) 17A recently emerged as a potential candidate for directly modulating innate and adaptive

immune responses. Recent evidence suggests that nonatopic diseases such as nasal polyps are also characterised by local IgE formation.

# **Cutaneous drug hypersensitivity**

The occurrence of drug-induced hypersensitivity in a patient often leads to the prescription of alternative drugs that may be less effective or more expensive, which is undesirable from the perspective of both the patient and the doctor. This recently led several independent groups to report striking associations between different HLA alleles and drug-induced hypersensitivity. The genetic contribution to hypersensitivity seems to be large for abacavir, carbamazepine, and allopurinol, for sulphamethoxazole, lamotrigine, and nevirapine, but there is no clear evidence that genetic factors dominate over environmental factors such as concomitant disease.

### Angioedema

The mechanism involves the increase in capillary leakage as a result of inflammatory mediators causing pale non-itchy swellings of the lips, tongue, face, hands, and feet, and occasional painful internal (gastrointestinal tract) swellings, usually aggravated by heat, hormonal changes, emotional stress, or alcohol. Treatment for severe reactions is adrenaline/epinephrine and corticosteroids, prophylactics include antihistamines in higher doses and/or tranexamic acid 1000mg tds.

Discontinuing some drugs may ease or terminate swellings: ACE inhibitors, bupropion, selective serotonin reuptake inhibitors, aspirin, NSAIDs and COX-2 inhibitors, angiotensin-2 inhibitors, statins, and proton pump inhibitors.

Hereditary angioedema is an autosomal dominant disease caused by an inherited deficiency of functionally active C1 esterase inhibitor (C1INH) leading to impairment of bradykinin cycle. Type I is caused by lack of C1INH and Type II by lack of its function, while Type III is X-linked with no abnormality in C1INH that can be exacerbated by pregnancy and hormonal contraception. Laryngeal edema occurs spontaneously but usually follows trauma of the oral cavity (dental surgery). In most patients, the first attacks occur in childhood or during adolescence. In HAE antihistamines and corticosteroids are not effective as a treatment of acute episodes, C1-inhibitor concentrate or antagonist of bradykinin-B2 receptors are currently used in this case in emergency settings. As preventive treatment anabolic steroids have been shown to be useful, but they are not tolerated well by many women, and cannot be used in children.

# Dr Michael Rudenko, MD PhD

Official Representative of EAACI ENT Section within the JMA Working Group

# Mechanisms and Immunomodulatory Treatments of Allergic Diseases

The mechanisms of allergy and tolerance remain unclear despite increasing interest in allergic diseases and the large volume of current research. Improved understanding of the immunological mechanisms of allergy could lead us not only to improved diagnosis but also to new opportunities of specific and definitive treatment of allergic diseases.

The 2010 EAACI Congress in London featured a plenary session about IgE and anaphylaxis. This harmonious combination of basic and clinical science resulted in a comprehensive

and clarifying overview of the immunological mechanisms, genetic risk factors, and clinical management of this severe allergic scenario. Brian Sutton presented his elegant work of many years on the structure of IgE, its particularities compared to other immunoglobulins such as IgG and its interaction with FcERI. This was followed by Peter Vadas, who presented an overview of the mechanisms of anaphylaxis, mainly focussing on the role of PAF and its interaction with eNOS and epinephrine. Ulrich Müller comprehensively reviewed the management of anaphylaxis, highlighting

aspects one should not miss when assessing these patients. Finally, Donata Vercelli presented recent work from her group about natural genetic variation on the expression and function of genes that may enhance susceptibility to allergic inflammation, where it become evident that genetically determined increase in IL13 expression and/or activity may play a major role in the pathogenesis of asthma and allergy.

Another contribution to understanding the allergic immune response was made by the symposium on component-resolved diagnosis and treatment. The session treated the biology of the allergens, the use of different technologies to identify the diverse molecules recognised by patients' IgE in individual allergenic sources, and its use for therapeutic purposes.

Interesting novel strategies for the immunomodulation of allergic diseases were presented in a Hot Topic Session that included a bacteriophage-coupled Fel d 1 to be used in immunotherapy for cat-allergic patients, and the use of den-

# **Science in Brief**



dritic cells (DCs) in the treatment of atopic dermatitis (AD). Indeed, the covalent conjugation of Fel d 1 to the bacteriophage QB strongly increased its immunogenicity and decreased its potential to induce anaphylaxis in both murine models and human subjects. This combined strategy effectively desensitised allergic mice, apparently mediated by the induction of IgG-blocking antibodies that had an inhibitory effect through FCvRIIb receptors on the effector cells. In AD, the manipulation of DCs attempting to induce a tolerogenic phenotype seems promising. For instance, the ligation of TLR4 on oral Langerhans cells leads to the generation of Th1 and Tregulatory immune

responses; also calcineurin inhibitors are able to suppress the inflammatory DC phenotype in the skin, with clinical improvement of skin lesions and skin inflammation.

The final plenary symposium in the 2010 EAACI Congress was dedicated to allergen-specific immunotherapy, with experts building up a comprehensive review of the mechanisms, clinical indications, sublingual immunotherapy (SLIT) vs subcutaneous immunotherapy (SCIT), and future developments in immunotherapy. Very comprehensively and clearly, Cezmi Akdis presented the immunologic mechanisms of this treatment at the T cell, effector cell,

and antibody levels, comparing it with the immune response that beekeepers develop as a consequence of their natural high exposure to bee venom allergens. Stephen Durham presented recent work from his group on the comparison between SLIT and SCIT regarding not only clinical but also immunological response to the allergens, concluding that both SLIT and SCIT are effective and safe, although clinical trials directly comparing these two treatments are needed. Componentresolved immunotherapy, allergy vaccines using recombinant allergens, and recombinant fusion proteins that combine allergen derived peptides and adjuvants in the same

molecule, are some of the new developments to expect in the coming years.

Better understanding of the immunologic mechanisms underpinning allergic diseases may help improve diagnosis and the identification of specific therapeutic strategies.

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# Emerging Risks for Occupational Allergy - Old and New

# Cleaning and asthma.

The Hindu saying "Cleaning something is dirtying something else" was the final phrase used in the Emerging Risks for Occupational Allergy Symposia at the 2010 EAACI Congress in London. The symposia explored and reviewed environmental agents of allergy and asthma, including the role of frequently found cleaning chemicals in the workplace and the home. Studies show that domestic cleaners have a higher level of exposure to a larger and mostly unreported population at risk. Topping the list was ammonia, sodium hypochlorite, acids, and alkaline-based cleaners.

## Greenhouse workers.

Mites such as Amblyzeius cucumeris, Tetranychus urticae, and related species have been employed since the mid-1980s to protect crops from damage by pest mites. These have caused new occupational allergens in horticulture that can cause an IgE-mediated allergy to exposed workers. Greenhouse workers increasingly encounter allergens from new plants due to the ever-expanding mix of plants made available to exposed workers.

# New processes - new problems.

New processes and related chemical exposure increasingly exposes workers to asthmogens. The clinician uses tools including online databases, quantitative structure-activity relationship (QSAR), and descriptive Risk Phrases to more accurately identify and predict the asthmogenic properties to their exposure and other potential risks.

# Molecular aspects of allergens – what do we know and not know?

# What makes a protein an allergen?

Allergenicity is the ability to induce IgE production, causing sensitisation with the potential to induce symptoms of allergy. We do not know what activates the various innate immune pathways, but we do know that they must be activated. Protease activated receptors (PAR1) respond to external proteases cleaving at PAR sites to initiate signalling. PAR2 has been implicated in allergic disease and is expressed by cells in the lung. It increases the presence of thymic stromal lymphopoietin, activating DC polarising native T cells to Th2 cells.

# Allergens and auto antigens.

In addition to genetic predisposition, sensitisation, and the induction of the Th2 immune response, we know that allergenicity is multifactorial and that the role of adjuvants in allergenicity must not be ignored, influencing IgE-binding, molecular interaction, and crossreactivity by molecular mimicry.

# Non allergenic adjuvant effects of pollen-derived mediators.

Pollen allergy is characterised by Th2-biased immune response to pollen-derived protein allergens. Upon hydration, pollen releases lipids with chemical and functional similarities comparable to immunostimulatory leukotriens and prostaglandins – or pollen associated lipid mediators (PALMs).

# Molecular mimicry leading to allergy and autoimmunity: a new challenge identified Pemphigus – non-infectious and infectious trigger factors.

Pemphigus is a blistering autoimmune disease that affects the skin and mucous membranes. In pemphigus, autoantibodies form against the adhesin desmoglein.

## Atopic dermatitis and microbial agents.

The microbes including both bacteria and fungi, such as the lipophilic yeasts Malassezia, are exacerbating factors with cutaneous colonisation by Malassezia species in atopic dermatitis (AD). Similarly, Staphylococcal skin colonisation is a common feature of AD in adults.

## Molecular mimicry aeroallergens.

Current data suggests that certain proteins have the ability to drive allergic responses as a function of their ability to interact with diverse pathways of innate immune recognition and the activation of mucosal surfaces.

# **Prof Joseph Dumanov**

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# Asthma and Allergy in Review New Tools at the 29th EAACI Congress in London

### Basic mechanisms in asthma.

Professor Corrigan talked about IL25, which increases angiogenesis by endothelial cells partly by increasing their expression of vascular endothelial growth factor playing a role in airway remodelling. Professor Joos made reference to some reports: Broekema et al asserted that smokers with asthma have epithelial changes associated with increased asthma symptoms and it seems that epithelial characteristics in ex-smokers are similar to those in never-smokers, which suggests that the smoke-induced changes can be reversed by ceasing to smoke. On the other hand, findings by Dweik et al suggested that the grouping of asthma by exhaled nitric oxide provides an independent classification of asthma severity and identifies the most reactive and worrisome asthma phenotype.

# Clinical research in asthma.

Professor Fabbri said that two major studies have critically revisited the importance of B16 Arg/Arg phenotype polymorphism, suggesting its limited influence on the response to long-acting beta-agonists. Related to self management asthma treatment, Gibson et al in a Cochrane Systematic Review found lower lev-

els of hospitalisation with self management versus usual care. However, other authors do not refer to this, as is the case of Meijer et al (manuscript in preparation), who found no improvement with self management. This result fits with the fact that they found no differences in clinical and inflammatory parameters or similar median doses of inhaled corticosteroids. The hypothesis postulates that self management strategy involves controlling symptoms, exacerbations, normal activities, and lung function. However, it does not involve control of inflammation. On the other hand, intravenous montelukast, monoclonal antibodies against IL5, and thermoplasty show interesting results in severe asthma. However, as Professor Pedersen suggested, not only is it important to improve asthma control by treatment, but also to measure the level of asthma control by using validated scoring systems such as the Asthma Childhood Control Test (ACCT).

# Adolescent allergy and asthma.

Professor Payne said: "Adolescence is not about age, it is a process of development." How does asthma affect adolescence? How does adolescence affect asthma? Professor

Jongste talked about the risk factors for persistent asthma such as smoking, obesity, atopy, low lung function, and gender or genetic factors. Some are modifiable, such as smoking and obesity. Unfortunately, the health effects of health risk behaviours, such as smoking, are more pronounced in adolescents with asthma. Physicians need to be able to talk about health risk behaviours and mental health problems. In conclusion, as Professor Dunn Galvin said, health perception is a combination of facts and feelings. The health-related quality of life (HRQL) is a multi-dimensional construct, comprising physical, psychological, and social components.

# Antacid medication as a risk factor for food and drug allergy.

Low pH is important for activating pepsin and for releasing pancreas proteases. Hence, food allergens persist longer under acid treatment. Keeping this in mind, Professor Jensen-Jarolim formulated the question: Can harmless proteins become allergenic? It seems that elevation of the pH caused by antacids increases the risk for sensitisation against allergenic food proteins by hindering protein breakdown. In agreement with this, another question is: Can drug allergy be supported by concomitant antacids? Riemer et al described gastric acid suppression as a causative mechanism in the induction of IgE-mediated diclofenac allergy. This result fits with the fact that exposure in the uterus with acid-suppressing drugs (antiulcer therapy in pregnancy) enhances the risk of developing allergy. Is it an allergy alert?

### Take home messages:

- There is no current evidence of a pharmacogenetic effect of betareceptor variation on LABA response.
- Treatment based on inflammation may improve asthma control, and in this context sputum eosinophils have been shown to be the most successful.
- · Improve your chances of asthma remission: Be male, nonobese, nonallergic, nonsmoking, and have a good lung function.
- Antacid medication can be a risk factor for food and drug allergy.

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