

International Aerobiology NEWSLETTER

JULY 2010

ISSUE N° 69

ISBN 0357 451

BI-ANNUAL PUBLICATION OF THE INTERNATIONAL ASSOCIATION FOR AEROBIOLOGY

Letter from IAA's president

Together again

In just a few short weeks we will be together once again to share our discoveries, renew old friendships, and to meet new colleagues. While these are happy occasions, sometimes we can feel overwhelmed by our professional and personal lives and perhaps wonder if making the long trip away to a meeting is worth the effort when we know we will just get further behind. The new electronic age has given us many good things such as instant access to information that can be retrieved at our whim. We can also sit in on virtual classes and even entire conferences without leaving the comfort of our own desk. But something else is lost by doing so, which is the valuable face-to-face interaction that cannot be replaced by technology.

I remember the first IAA conferences I attended, and meeting people whose papers I had read. It was a thrill and created memories I still cherish. I doubt that my presence influenced people such as Bill Frankland, Jim Hirst, Knut Faegri, Ruth Leuschner, Siwert Nilsson, Frits Spieksma, or Paolo Mandrioli quite the same way theirs did for me. Somehow, their presence transformed the science into something more deeply meaningful. It gave me an appreciation for the passion these researchers had for their work, the pursuit of quality in science, and the advancement of the field of aerobiology. But even more so, I gained some understanding of the person associated with the name on a paper. In this regard, I think they gained the same in return.

So in case you are thinking that your attendance at the upcoming meeting won't matter to anyone, or that you are too busy or overwhelmed to attend, I want to assure you that it does matter, and that it is important to take the time to meet in person even though technology can provide a way around it. It is important to both new and established investigators alike, as we take time to talk about exciting new developments and re-invigorate our thinking. I imagine some of the conversations may turn to things like "how do we deal with new synthetic life forms?" or "how useful is an atomic force microscope for our purposes?".

So, pause, come, share, discuss, introduce yourself, ask, ponder, wonder, and yes, even dream.

I look forward to seeing all of you in Buenos Aires

Christine Rogers

Congratulations!

Hearty congratulations are due to Prof Carmen Galan, Past-President of the IAA for recent recognition of her outstanding research, teaching, and professional service in aerobiology. The President of Andalusia, Spain, presented her with the "Andalusia Medal" which represents the highest distinction that the Andalusia Government grants, and is presented during the traditional act of celebration of the "Day of Andalusia". Others recognized for this honor included exceptional singers, a writer, a judge, a dedication on the environment, and a human rights activist. It is especially significant that the only scientist selected for this honor is an aerobiologist and we can share in the celebration of this recognition. Carmen commented, "I try to transmit to the media that research recognition is not for only one person, but for a working group, to the university that supplies all the support to work, and all colleagues both at national and international level." She adds, "The news has had national repercussion, then I am receiving congratulations from colleagues, different governmental organizations, ... the problem is that I have not time enough to work!"

Well, take a break Carmen, and enjoy this moment of acknowledgement and celebration of your hard work and dedication to the furtherance of aerobiology. Kudos!



Christine Rogers

Obituary for Marise Spieksma

Marise Spieksma Boezeman, a dear friend (1938-2010)

Last 30 April, Marise (Maria Isabella Adriana) Spieksma Boezeman passed away after a short period of disease, grieving her family and a lot of her friends.



She was born in Hulst, in southwestern Netherlands, in 1938 and she received her PhD degree in General Biology in 1963, and until 1994 she was a very esteemed teacher in Biology.

Many of us remember Marise above all as the wife of Frits Spieksma, but we must keep in mind that she was an important personage inside the aerobiological family. Indeed, Marise did her final doctorate exam with great emphasis on the discovery of *Dermatophagoides pteronyssinus* as

source of the house dust allergen. The possible significance of mites in house dust allergy had been put forward in Europe in 1921, however the relation between house dust allergen and mites was never proven. Since 1959, Reindert Voorhorst, allergologist at the Leiden University Hospital, has been interested in the possible

significance of mites in relation to the allergen content of house dust and he realized that he needed the assistance of biologists to study the occurrence of mites in house dust. The appliance of biological isolation technique in 1962 has thrown new light on the old ideas. The biologists who carried out the investigation where Frits Spieksma, Junior research fellow at the Department of Allergology in the Leiden University Hospital, and Marise Boezeman, young student in

biology in the same Department. The reports of the Leiden group's ecological work showed that dust mites were present in all the houses they sampled and that *Dermatophagoides pteronyssinus* was present in every home and constituted most of the total number of pyroglyphid mites. Many successive works carried out by the same Dutch group and other researchers in the world during the Sixties, confirmed these results which, at first, were accepted with scepticism by some allergologists.

Afterwards, from the Seventies, Marise was the greatest supporter of Frits, first during his scientific work on the mites and later on the allergenic pollen and spores; she was an aerobiological congress-goer around the world, participating with an extreme interest at the scientific sessions. I would like to remember her delicacy and, in the same breath, competence when in Spieksma's home, with Frits, we were discussing the results of our study on pollen. She was ready to give her discreet opinion and always available to support and help us on the organization of some course or congress or other project showing a great interest and capability.

Marise has been a loving partner for Frits and a loving mother for their three children and grandmother for seven grandchildren. Constantly busy also in the community, from 1989 until today, she was editor of the periodic report of the local historical society (Vereniging Oud Oegstgeest) which activity was highly appreciated and for which she was awarded by the board of Oegstgeest, a city next to Leiden, where Spieksma family lives.

I met Marise last time in Perugia, in November 2009, when she attended, with other European aerobiologists, a workshop on Quality control and, at the end, we said goodbye, to next congress, but unfortunately that was the last meeting.

Marise will remain deep down in the heart of her friends who have estimated her sense of humanity, benevolence, and helpfulness towards everybody. We all sympathize with Frits in his grief and wish him to overcome this difficult time.

Giuseppe Frenguelli

„XII Days of Pollen Allergy” in Cracow, Poland

The all-Polish Scientific Conference „XII Days of Pollen Allergy” in Cracow, Poland
The all-Polish scientific Conference “XII Days of Pollen Allergy” was held in Cracow, Poland, on 28-29 May 2010.

The main organizer was the Department of Clinical and Environmental Allergology Jagiellonian University Medical College in Cracow co-operating with the Institute of Botany and the Botanical Garden, the University of Life Sciences in Lublin, the Aerobiological Section of the Polish Botanical Society and the Polish Allergological Association.

According to the programme 21 reports were presented. The scientific programme was divided into four sessions, the fourth being a medical session. The Conference aimed at the aerobiological monitoring in different regions of Poland and the effect of meteorological parameters on pollen and fungal spore concentrations. The reports focused on pollen concentration of plants most often provoking pollen allergy in Poland: *Alnus*, *Artemisia*, *Betula*, *Corylus* and *Poaceae*. Pollen data of selected taxa obtained using two different methods: volumetric and gravimetric (Tauber trap) in Cracow were compared. The spatial and temporal differentiation of *Betula* flowering in Lublin was discussed. Phenology of flowering and dynamics of *Alnus* and *Corylus* pollen seasons in several Polish cities were presented within a national project. Results of grass allergen analysis in the air of Poznań was presented within the European Hialine Project.

One of our guests from Ukraine told about the woody plants pollen anomaly under the conditions of the urbotechnogenic ecosystem. The influence of the urbotechnogenic factors on an experimental territory was demonstrated by the increase in pollen morphological heterogeneity, decrease in the pollen sprouting intensity and by inhibition of the pollen tube forming process.

Other reports touched on the fungal spore concentrations. *Alternaria* and *Cladosporium* spore concentrations obtained with two methods: volumetric and impact methods were compared in Cracow. Both methods applied in parallel ensure a greater efficiency of analyses. In Poznań, the preliminary study on molecular detection of *Alternaria* using specific starters against a gene fragment responsible for creation of allergenic protein Alt a1 was performed. The aim of the study on *Ganoderma* spores in Szczecin was to define the relationship between their diurnal concentrations and meteorological factors and to construct forecast models: MRT – Multivariate Regression Trees, and ANN – Artificial Neural Networks.

The medical session referred to hypersensitivity of micromycetes in practice of allergologists; palynological and immunological research comparison of pollinosis in west Ukraine; insect allergy

monitoring in Lviv; present trends of specific immunotherapy in Tarnów and selected problems of food allergy in Łódź. When the sessions were over, the participants took part in the guided tour around the Jewish District of Cracow. The Conference provided also an opportunity for aerobiologists to attend the meeting



of the Aerobiological Section of the Polish Botanical Society and to get to know that the Polish Aerobiological Network finally and legally came into being. The participants of the Conference will meet again at the annual meeting: XIII Allergy Days in Cracow on 27-28 May 2011.



Danuta Stępańska

Dorota Myszkowska

Aerobiology in the third millennium for the preservation of human and environmental health

The Italian Aerobiology Association (AIA), with the support of the University of Parma and the patronage of the Comune di Parma (Town Council), the Provincia di Parma (Provincial Council) and Chamber of Commerce in Parma feels proud and privileged to invite the International Aerobiology Association (IAA) to hold the 10th ICA in PARMA, ITALY



The 10th International Congress of Aerobiology is a good opportunity for an interdisciplinary approach, with a close collaboration between aerobiologists and other scientists. It is now necessary to broaden our horizon to address the relationship between environmental health and human health. Airborne pollens and spores cause respiratory diseases in humans, with strong repercussions on its quality of life and heavy sanitary costs. The increasing prevalence of upper and lower airway allergic illnesses observed in developed countries in the last decades has encouraged studies on the relationship between environmental agents and pathologic reactions in humans, together with connections between biological and chemical pollution. Advances in allergology and aerobiology have not only led to improved diagnostic techniques and treatment, but have also had important consequences in other fields, such as agriculture and the conservation of cultural heritage.

From the beginning of its activity the Italian Association of Aerobiology (AIA) has seen the close interaction between biologists, doctors and experts from other disciplines, with fruitful results. Amongst the most recent scientific initiatives, the improved assessment of exposure to airborne allergens is to be mentioned, given its use of new techniques estimating airborne allergenic determinants. Several projects are in progress in order to evaluate if the effects of airborne allergens are measurable over a wider geographic area and at the same time implement an outdoor allergen early warning network, in addition to pollen forecasts. Climatic factors influencing allergen exposure will be extracted and used to calculate the effect of climate change on local airborne allergen exposure. Current users of national pollen information services

(atopic individuals, physicians and health authorities) will benefit. Another matter to be discussed in greater depth is the diffusion of ragweed and its pollens even up to a long distance, and the methods used in different countries to oppose its diffusion. Particular attention will be paid to quality control in aerobiology, and to public and private indoor aerobiology in order to meet international guidelines. The next challenge will be to ensure recognition of aerobiology in society and amongst politicians, and also to spread information on regional, national and international aerobiological monitoring networks. During the Congress an exhibition through prints, books, scientific instruments and documents, mostly authentic on the history of the aerial transmission of human diseases, will be organized to describe the main historic stages of aerobiology studies on the presence in atmosphere of the bacteria, fungi and allergenic pollens responsible for human diseases.

The city of Parma, with 180,000 inhabitants, lies in the Po valley, to the South of the Po river, 100 km from the Tyrrhenian coast and 200 km from the Adriatic coast (44° 48' lat, 10° 19' long east, 55 m asl). Parma is an elegant city with the refined atmosphere which can only be experienced in a 'petite capitale', with its centre rich in art, parks and treasures from different ages. It is a very welcoming place, which steals the heart of tourists and citizens with its manners. Yet Parma is not only the city itself, its monuments or the tradition in music and culture. Parma also includes the province, a territory of infinite funds, a varied landscape that stretches from the Po River to the Apennines, with small villages rich in history and liveliness, castles, medieval parish churches and theatres spread in the countryside.

Parma is celebrated for its great food production, is also known as the Food valley, a land made famous among Italian cities thanks to its specialties, century-old gastronomic traditions and knowledge which have developed into modern and competitive food industry. Parma's most distinctive and finest contribution to the world of cuisine is its pork products (Culatello and Spalla cotta -Shoulder of pork-) accompanied by cheese (Parmigiano), wines (Fortana, Malvasia, Lambrusco and Sauvignon), mushrooms and truffles. Many activities are also possible in the countryside, tours on

mountain bike, horseback riding, hiking, discovering ancient monuments and small villages or just relaxing in the beautiful frame of the Apennines mountains, from the south of the Via Emilia to the highlands on the border with Liguria and Tuscany. A vital town rich in history, art and culture, Parma has been fashioned over the centuries by great painters and architects such as Antelami, Correggio, Parmigianino, Canova, Tiepolo and Leonardo da Vinci. Parma and its territory have privileged relationships with music, opera in particular thanks to Composer Giuseppe Verdi and Musician and Conductor Arturo Toscanini. The surroundings of Parma are scattered with castles built by noble families between the 14th and 15th centuries: Bardi Fortress, Torrechiara Castle, Rocca Sanvitale in Fontanellato and Reggia Palace in Colorno with its surrounding park. The Magnani Rocca Foundation with an art collection which includes, among others, works by Gentile da Fabriano, Filippo Lippi, Carpaccio, Dürer, Titian, Rubens, Van Dyck, Goya, Monet, Renoir, Cézanne, de Chirico, de Pisis, Morandi, Burri, Canova and Bartolini. The famous painting The Family of the Infante Don Luis, a masterpiece by Francisco Goya, is the emblem of a collection.

The city is the seat of the oldest university in Italy, whose fame dates back to Charles the Great. It now boasts 12 faculties, 21 bachelor's degree courses, 40 full degree courses, 1,022 professors and over 30,000 students. Parma International Airport is located strategically in the centre of northern Italy half way between Bologna and Milan. From Parma International Airport you can access a wide range of business and tourist destinations throughout northern and central Italy. The closest airports are located in Milan (Linate, Malpensa), and Bologna. Parma is on the main railway line connecting Milan to Bologna.

Parma is an ancient city in the heart of Italy with very rich cultural heritage, well-balanced civic spirit and exceptional entrepreneurship. For this reason scholars and researchers from the world will find in Parma the ideal place and context to present and discuss their theses in modern Conference Centres, available free of charge and located in the city centre and close to the most important cultural venues in Parma.

Roberto Albertini

Obituary for Yoav Waisel

Yoav Waisel, 1931 - 2010

Prof. Yoav Waisel left us on February 24 2010, 78 years old.

Yoav was a well-known and loved person not only in Israel, but also among his peers worldwide. He was one of Israel's foremost pioneering plant ecologists, starting his academic career as a student at the Hebrew University and continuing as a faculty member in the beginning of TAU at Abu Kabir. At Tel Aviv University, he had a thriving laboratory that "produced" dozens of MSc's and PhD's. Yoav was not only an academic, but he also paid much attention to outreach to the general public. For example, he would provide pollen alerts through radio and TV, and he fought with municipalities not to plant allergenic plants in their gardens.

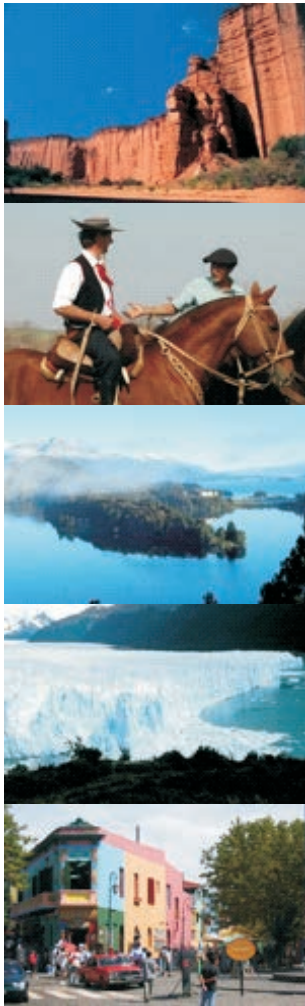
Academically, Yoav produced some 10 books. Among them, His research interests were widely spread from his early love of plant ecology and eco-physiology, to later interests in allergy and aerobiology which was partly driven by his own struggle with asthma since childhood. His book "Biology of Halophytes" was and still is a major textbook on the subject. He was the driving force behind the construction of the Sarah Racine Root Laboratory which the only aeroponic root facility of its kind in the world which drew interests from scientists and the public media. He was the senior editor of the world-famous book "Roots - The Hidden Half", which was continuously upgraded in new editions, and just a contract with the publisher last week to begin working on its 4th edition. Yoav published some 300 papers on the ecology and eco-physiology of plants, especially as related to their various environments in Israel and on aerobiology. He was active in a number of EU COST Actions, the conference of one he attended in Helsinki earlier this month in spite of knowing its risk to his health.

Yoav retired "officially" over 10 years ago, but there was not a day that one would not see him in his office at Tel Aviv University... including Fridays and Saturdays. He had numerous co-operations with other faculty members, and just "could not afford" not to be involved in University matters. At the same time, Yoav was a devoted family person, and often talked about his wife Susa, his daughter Tali and his son Shai, and, of course, the grandchildren, with whom he spent much "quality time".

Lately, Yoav had heart problems, but had no time to deal with such "trivialities". He had a major heart attack 3 days ago, and never regained consciousness, but died during the night leading to today. He will be deeply missed by all who knew him.



Amram Eshel



9th International Congress on Aerobiology

quadrennial congress of the International
Association for Aerobiology

August 23 – 27, 2010
Museo Argentino de Ciencias Naturales
“Bernardino Rivadavia”
Buenos Aires – Argentina

"Expanding Aerobiology"



Photos by: National Secretariat of Tourism - Argentina

Contact:

9th ICA

Laboratorio de Plantas Vasculares

Departamento de Biología, Bioquímica y Farmacia

Universidad Nacional del Sur

San Juan 670, Bahía Blanca (8000)

ARGENTINA

9thica@aerobiologia.com.ar

Phone: 54-291-4595101 (2420)

Fax: 54-291-4595130

Homepage: <http://www.aerobiologia.com.ar>

EAS QC group

First results regarding the regional/national networks involved in EAN: Questionnaire results.

One of the recommendations proposed in the first Quality Control (QC) Workshop that took place in Turku (Finland) on August 14th 2008 was to formulate a minimum requirements report (IAA Newsletter, issue 67, June 2009). The first step towards this was to produce a questionnaire that was completed by 26 different regional/national networks involved in the European Aeroallergen Network/European Pollen Information (EAN/EPI). The results of which were presented at the Workshop on Quality Control, held in Perugia (Italy) on November 27th 2009.

The first draft of the questionnaire was supplied by Regula Gehrig (Swiss Pollen Monitoring Network) on May 2008, so that it could be discussed among all the regional/national network coordinators involved in EAN/EPI. Once all suggestions were received and studied, the definitive questionnaire was sent to all network coordinators on September 2008 so the work could commence.

The QC questionnaire refers to different topics related to: a) pollen trap, b) preparation and counting of the samples, c) data management, d) QC tests and courses, e) additional questions and comments.

Regarding the pollen trap, the results confirm that all networks use volumetric spore traps of the Hirst design (Hirst, 1951), both Burkard and/or Lanzoni, as one of the EAN/EPI minimum requirements in the Methodology for Routinely Performed Monitoring of Airborne Pollen - Recommendations (News. 1995. *Aerobiologia*, 11:69-70).

The 26 contributed networks represent to 23 different countries. Ten networks are represented by only 1 or 2 samplers; some others are better represented with more than 50 samplers. The sampler average per network is 14.

The samplers are located at very different heights above ground level, from 2 to 60 m. In networks with more than 10 samplers there is an average range, from lowest to highest, of 31 meters.

Thirteen networks weekly control the flow rate, 2 of them both before and after changing the drum. The others can vary from daily to never.

Twenty five networks count with written instructions for people who change the drum; only 15 control it in different ways, most of them by a responsible person or specialized technicians.

Six networks sample all the year round, some others depending on different factors, such as: weather, site, pollen types, year or

financial support.

Regarding sample preparation and counting, 22 networks use Vaseline or Silicone as adhesive, representing the 88% of the total; from these 59% use Vaseline and 41% use Silicone. Both Vaseline and silicone are used in different ways. As mounting media, 10 networks use glycerin gelatin, the others use a great variety of different mounting media. Twenty three networks work with written instructions for sample preparation and counting. Twenty two (88%) read the samplers at 400x microscope magnification. Fifty two percent prepare slides by

chairperson, EAS) failure or wrong manipulations in the different network is 5 days.

The numbers of analyst depends on the number of pollen traps involved in the networks with an average of 15.5.

Analysts from 22 networks participate in training courses, both at national or international level; 6 of them repeat training courses, 1 only if needed. Others do not participate in training courses or did not answer.

12 networks are involved in QC tests for pollen identification, 7 annually and 5 only some years. Three networks are involved from 2004, 3 from 2009, 1 from 2005 and 3 from 90's, others networks did not answer.

Different methods were used for QC in the networks: (1) identification of single and/or mixture pollen type slides; (2) identification of slides taken directly from the sampler; (3) both, pollen type slides and slides from the sampler. They are involved in internal and/or external QC by other sites.

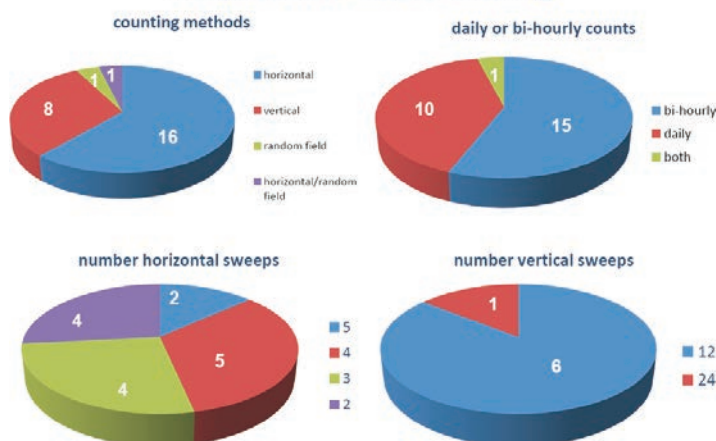
Regarding the question about the possible certification for pollen and spore counters, some networks consider that it is needed, or useful, some others manifest doubts about it. Some networks consider that the Basic Course on Aerobiology, that

requires some sort of examination, can certificate the analyst training as well as some sort of post course assessment. One network works in accordance with ISO 9001 certification and several others have started working towards accreditation. Some of the networks have financial problems with both the certification process and the participation on basic courses.

About the question of the possibility of inter-country quality control, most networks agree with this proposal and some of them have already started participating in QC surveys with different countries. One network also considers that it is essential for accreditation. In any case, some of them remark on the necessity to select pollen types from similar vegetation areas.

These are some of the conclusions from the questionnaires that we have received so far. This information will be updated when we receive more completed questionnaires, so we request that people continue to send them. During the workshop a number of interesting communications pointed out the interest in this subject, but also the difficulty of carrying it out. It is necessary to discuss a reliable method for quality control which permits a good interpretation of the results. It is time to work!

Preparation and counting



representing the complete day (0-24 hours), slides from other networks represent the period of day depending when the drum is changed. Twenty four networks use horizontal (16) or vertical (8) transects as counting methods, representing 92.3% of the total; one network uses random fields and in one network there is a combination of horizontal transects and random field methods. Fifty eight percent express data as bi-hourly values and 38% present the daily average data, 1 network uses both methods. In the case of the number of horizontal transects per slide, there is a high diversity: 2 networks examine 5 transects per slide; 5 networks examine 4; 4 networks examine 3; 4 networks examine 2. In the case of the number vertical transects only one network examines 24 transects per slide, all the others examine 12.

Regarding the minimum required pollen types, 18 networks propose a minimum, considering an average of 27 pollen types. Six networks do not require a minimum. Regarding number of pollen type identified per year: Three networks identified more than 50; 10 from 41 to 50; 7 from 31 to 40; 4 less than 30. Only one network out of those asked does not record unidentified pollen.

Regarding data management, 21 networks control databases by analyst, data collector, administrators or PhD students. Twenty two networks do not interpolate gaps due to missing data. The average of missing values due to pollen trap

Carmen Galán (QC working group

Carmen Galán
(QC working group chairperson, EAS)

PRESIDENT

Christine Rogers
Environmental Health Sciences
Univ of Massachusetts Amherst
639 N Pleasant Street, Morrill 1
Amherst, MA USA 01003
carogers@schoolph.umass.edu

VICE-PRESIDENT

Giuseppe Frenguelli
Dip. Biologia Vegetale, Univ. di
Perugia
via Borgo XX Giugno, 74
06100 Perugia PG
Italy
freng@unipg.it

SECRETARY GENERAL

Bernard Clot
MétéoSuisse
Station aérologique, C.P. 316
CH-1530 Payerne
Switzerland
bernard.clot@meteoswiss.ch

TREASURER

Estelle Levetin
Faculty of Biological Science
University of Tulsa
600 S. College Ave.
Tulsa, OK USA 74104
estelle-levetin@utulsa.edu

NEWSLETTER EDITOR

Siegfried Jäger
Allergieambulanz, HNO-Klinik
University of Vienna
Waehringer Guertel 18-20
A-1090 Wien Austria
siegfried.jaeger@meduniwien.ac.at

WEBMASTER

Paola De Nuntiis
Italian Council of Research (C.N.R.)
Institute of Atmospheric Sciences and
Climate
Via Gobetti, 101
Bologna, BO I-40129 Italy
P.Denuntiis@isac.cnr.it

MEMBERS

Constance Katelaris
Clinical Immunol. & Allergy,
Westmead Hospital
Hawkesbury Rd., Westmead, 2145
NSW Australia
chk@allergyimmunol.com.au

Elena Severova
Biological Faculty, Dept. Higher Plants
Moscow State University,
Leninsky Gory
Moscow, Russia
elena.severova@mail.ru

EX OFFICIO

Dr. María Gabriela Murray
Laboratorio de Plantas Vasculares
Departamento de Biología, Bioquímica y
Farmacia
Universidad Nacional del Sur
San Juan 670, Bahía Blanca (8000)
ARGENTINA
Phone: 54-291-4595101 (24290)
Fax: 54-291-4595130
e-mail: mgmurray@criba.edu.ar

PAST-PRESIDENT

Carmen Galán
Dpto. Botánica, Ecología y Fisiología
Vegetal
Edif. Celestino Mutis, 3ª planta
University of Córdoba, Campus de
Rabanales
Colonia de San José, nº 4
14071-Córdoba, Spain
bvlgasoc@uco.es

miscellaneous

Jean Emberlin retired

Prof. Jean Emberlin has recently retired from leading the National Pollen and Aerobiology Research Unit at Worcester University, UK.

She led the Unit over many years and developed together with her staff world class facilities for research and commercial activity in Aerobiology and Allergy, microbiology, forensic palynology and related topics. Needless to say that the Unit also produces pollen and allergy forecasts for the UK and Ireland.



In Autumn 2009, NPARU expanded with a set of purpose built, state-of-the-art laboratories and a climate controlled chamber in the Charles Darwin building, which was Prof. Emberlin's last challenge to be in charge of at Worcester University.

Supervising numerous PhD-students and postgraduates, she contributed a lot to the increased quality in aerobiological research. Jean's very open mind made her successful in organizing and executing students exchange programs as well as national and international courses.

"I'm happy to find time now for finishing and writing articles", she smiles, " - and for farming". This implies that she will continue with scientific work. We are sure to see Jean also in future at major events and wish her all the best for the coming period.

EC-project HIALINE much sought after

HIALINE, the successor of MONALISA, aiming to measure allergen content of the air in parallel to pollen counts, develops pretty well and shall be implemented as its own follow-up into EU-FP7 proposal climALL. "climALL" deals with climate change and its consequences on allergy. Those who have interest and experience in ELISA are kindly invited to contact Prof. Jean Bousquet jean.bousquet@orange.fr

EC-project PASODOBLE launched

PASODOBLE is a downstream service that deals with air quality in general, comprising chemical, physical, and biological air quality assessment and forecast. The intention is to make use of existing models on small scale and try to apply the most suitable on a global scale. New remote sensing tools shall be defined and developed by ESA and NASA.

epi moves houses

European Pollen Information company (epi): As a consequence of Jean Emberlin's retirement, the administration of epi Ltd. has been moved from Worcester to Vienna Medical University.

aerobiological networks under thorough checkup

Jordina Belmonte wants to present an overview about the facilities and activities of existing pollen information services and asks for filling in her questionnaire. Please help her and download the pdf document at

http://www.polleninfo.org/index.php?language=en&nav=_n3&module=article&action=first_page&id_parent=2038&id=2438&id_image=2165

If you prefer to have a MSWord version, please contact Jordina: jordina.belmonte@uab.cat

courtain

Felix E. Rivera-Mariani is the recipient of the IAA Young Aerobiologists Award

editorial

I hope you have appreciated the newsletters of the past 4 years. For health reasons, I regret I cannot join you at the ICA. Nevertheless, I wish you all a fruitful meeting with many positive aspects, new connections, and strengthening of the old ones. As Christine pointed out in her president's message, personal contacts are much more weighty than electronic correspondance. In this sense, once again, all the best for the congress, and my personal greetings to all the attendees.

Siegfried Jäger