

IMA Executive Committee Meeting 2013



Members of the IMA Executive Committee

The IMA Executive Committee met for its annual meeting on 12 April 2013 in Utrecht in conjunction with the CBS spring symposium "One Fungus : Which Gene(s)?" Here, I wish to highlight topics that stimulated the most active discussion.

The IMA Executive Committee acknowledged the great progress of the Thai organizers of IMC10 in Bangkok. IMC10 Steering Committee co-chair, Leka Manoch reported on behalf of the committee and co-chair, Morakot Tanticharoen, on the efforts of the local team to make IMC10 a success. The conference will be held at Queen Sirikit National Conference Center, which is located in the heart of Bangkok and provides the charm of Thailand and all the needs of a modern conference centre. Needless to say, major organizational steps have been achieved and the professional conference organizer (PCO), webpage (<http://www.imc10.kasetsart.org>) and local arrangements committees are already in place and discharging their duties.

During the past few months, the Scientific Committee of IMC10 was established and the themes of the conference have been set. To cover the broad interest of mycologists, seven themes will guide the conference and each of them will have its own and interdisciplinary sessions. Thus all aspects from cell biology, genomics, pathogenesis, ecology, evolution, and diversity to biotechnology will be addressed. Your participation is welcomed and you

are strongly encouraged to visit the IMC10 webpage (<http://www.imc10.kasetsart.org>) where you can register your interest and propose symposia and workshop topics.

Beside the main focus on the scientific quality of IMC, the steering committee around Leka Manoch and Morakot Tanticharoen has also started to organize a social program to offer authentic Thai experiences close to the conference venue, as well as excursions and field surveys to more distant locations. The IMA Executive Committee was impressed by the efforts the organizers have made to make IMC10 an interesting and successful meeting for global mycology. Again, you are encouraged to participate and post your ideas on the IMC10 webpage (<http://www.imc10.kasetsart.org>).

Apart from discussions about IMC10, the IMA Executive Committee concentrated on its structure and capacity for communication to mycologists world wide. Paramount in this regard is the newly redesigned webpage of IMA (<http://www.ima-mycology.org>). In addition, *IMA Fungus* is seen as a major tool to communicate our activities, which we trust will be given its own impact factor from ISI/Web of Science as soon as practicable. There also is a pressing need for a regular newsletter to apprise mycologists of the latest updates on mycological conferences, workshops and other activities around the globe. For now, this function will

be carried out by updates to the IMA webpage.

Although the finances of the IMA are in good order, due to the efforts of Treasurer Karen Hansen, we realize the need for further external funding to increase our capabilities. Various tools were discussed and it was noted that we need more active engagement amongst companies that rely on fungi or fungal products. *IMA Fungus* as well as the webpage could be used as tools to attract patrons but we expect that a more direct approach also will be needed.

During the intensive discussions by the Executive Committee, a telephone conference was arranged to facilitate the participation of members who could not attend in person. This effort to broaden the basis for discussions and decisions can only go so far. Mycology is global which led Executive Committee member, Lene Lange, to suggest that reports be solicited before each annual meeting from the six Regional Mycological Member Organizations (that is, Africa, Asia, Australasia, Europe, North America, and South America). Lene's leadership in this endeavour was endorsed by the committee. The Executive Committee also decided to evaluate the possibilities of improved virtual participation in discussions and meetings in the future.

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International Commission on the Taxonomy of Fungi: Preparing for IMC10



Keith Seifert.

The ICTF had a very busy 2012 as subcommissions and nomenclatural working groups continued preparations for IMC10 next year. Most ICTF members are involved in various aspects of the transition to single name nomenclature. Both Keith Seifert (Chair ICTF), and Scott Redhead (Chair, Nomenclature Committee for Fungi¹), were busy presenting the changes in the *Code* to various conferences around the world. These activities are continuing in August 2013 with a symposium at the American Phytopathological Society/ Mycological Society of America joint annual meeting in Austin, Texas². ICTF members Keith Seifert, Pedro Crous, and David Geiser are all scheduled to speak in the symposium.

Plant pathologists in general have been very concerned about the nomenclatural changes, and Amy Rossman has been actively developing information of particular relevance to them. ICTF member Ning Zhang is coordinating the writing of an article for the American Phytopathological Society website (www.apsnet.org) on the changes in the *Code* and how they will affect plant pathologists, with contributions on individual groups or genera from several ICTF members.

Votes on *Bipolaris* vs. *Cochliobolus* (www.fungaltaxonomy.org/subcommissions/vote), organized by Amy Rossman and Dimuthu Manamgoda, and *Magnaporthe* vs. *Pyricularia* (magnaporthe.blogspot.ca), organized by Ning Zhang, are now underway and are generating an animated discussion on these particularly controversial choices.

The *Hypocreales* Nomenclatural Working Group, co-convened by Amy Rossman (USA) and Priscila Chaverri (USA & Costa Rica) met at the MSA meeting at Yale in July, 2012, along with some members of the International Subcommittee on *Fusarium* Taxonomy (Chair David Geiser, USA), the International Subcommittee on *Trichoderma* and *Hypocrea* (ISTH, Chair Irina Druzhinina, Austria) and members of the *Cordyceps* working group. The discussion document on the most contentious problems for selecting generic names in this order, recommending solutions for each, is published in this issue of *IMA Fungus* (4 (1): 41–51, June 2013). The ISTH website (isth.info) is hosting an ongoing vote on the choice between *Trichoderma* or *Hypocrea*, with *Trichoderma* presently favoured at a ratio of about 3: 1. A complete nomenclator is being compiled to be used for deriving a list of protected names.

The International Commission on *Penicillium* and *Aspergillus* (ICPA, Chair Robert A. Samson, The Netherlands; Secretary Giancarlo Perrone, Italy) has developed lists of accepted species of *Penicillium* and *Talaromyces* for fungi formerly included in the broad concept of *Penicillium*, and the broadly defined concept of *Aspergillus*, supported by the majority of ICPA members, to maintain the commonly used names of many economically and medically important species. The draft lists, to be used as the basis for a list of protected names, include DNA barcode accession numbers for all species,

and are available on the ICPA web site (www.aspergilluspenicillium.org).

The newly constituted International Subcommittee on *Colletotrichum* Taxonomy (Chair Lei Cai, China; Secretary Bevan Weir, New Zealand) held their inaugural meeting in September 2012 (minutes at www.fungaltaxonomy.org/subcommissions), and their preliminary discussions seem to favour the use of *Colletotrichum* over *Glomerella*. They are now actively preparing a complete nomenclator with the goal of producing a draft list of protected names before IMC10.

Andrew Miller is now maintaining the Commission's website (www.fungaltaxonomy.org). "A Nomenclator of all Fungal Names Sanctioned by Fries", the passion of Lee Crane (Illinois Natural History Survey) for the past 15+ years, was released on the ICTF website (<http://www.fungaltaxonomy.org/nomenclator/>) earlier this year, and will be a valuable resource for those working on protected lists of names.

Several other subcommissions and working groups, some affiliated with other bodies, such as IUMS and ISHAM, have formed and are expected to be very active over the coming year. We hope that many of them will be reporting on their deliberations in the next issue of *IMA Fungus*.

IMC10 in Thailand next year will be very important for mycology and the ICTF is poised to play a significant role.

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¹See "Organizing Mycology" (*IMA Fungus* 3 (2): (43), December 2012) for the relationships of the various international committees and organizations concerned with mycology.

²See this issue, p. (4).

The First International Congress of Trufficulture

In the small city of Teruel in Spain, on 5–8 March 2013, more than 300 people from 23 countries gathered for The First International Congress on Truffle Cultivation. Scientists who have been working with hypogeous fungi of the genus *Tuber* for many years attended – including veteran researchers Gerard Chevalier

(the development of truffle-inoculated seedlings), James Trappe (truffle taxonomy), and Mattia Bencivenga (control and out-planting of truffle seedlings). There were many younger researchers as well, who brought updates of recent research to the wider truffle community, including the role of mating types in truffle production,

patterns and quantification of *Tuber* mycelia in soils of truffle orchards, genetic diversity within populations of *T. melanosporum*, and new molecular methods and challenges for further understanding of the *Tuber* life-cycle. New data and methods for studying and preserving truffle aromas were also presented.

1 International Congress of Trufficulture




APPETIZER

Truffled Butter Toast
Carpaccio of Tuber Melanosporum Toast
Truffled Cheese chunks lacquered with Teruel Saffron Juice
Dices of cured truffled Sausage

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Timbale of truffled Foie mi-cuit with Solid Apple and PX jellys

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Truffled Egg in two firings with allumate Potatoes

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Millefeuille of Veal Jaw with Ham DO Teruel and Perigordini Sauce

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DESSERT

Chocolate Brownie bathed in Milk Sauce and Passion Fruit
with Vanilla Ice Cream and Truffle

Cellar:
Red Wine: Viñas del Vero Crianza (D.O. Somontano)
White Wine: Viñas del Vero Chardonnay y Macabeo (D.O. Somontano)
bread, water and coffee



The menu and courses from the Congress Dinner. Photos James A Trappe.

Sustainable, quality production, was an important focus for this meeting. There were presentations related to irrigation needs, soil quality, and tillage treatments to promote truffle production. Several studies addressed the concerns for management of disease and pests that have recently been observed in areas of extensive truffle plantations, with data on various species of mites and beetles, notably *Leiodes cinnamomeus*, and preliminary data on a tumour-causing phytoplasma in *Quercus ilex* trees.

Plenty of science, yes, but additionally, what was outstanding for this meeting was the active involvement of the truffle growers, the commercial producers of seedlings inoculated with black truffle mycorrhizas, and local and regional politicians. All have witnessed the amazing transformation of a relatively poor agriculture-based region into one of the most economically successful black truffle production regions in the world over the last 25 years. The province of Teruel is a relatively remote region in

southern Aragon, with elevations near 1000 m. The region historically had abundant natural black truffle production, but a dramatic decline in wild production had occurred, similar to that observed in France and Italy. Although wild truffles can still be found in the region today, this resurgence is a result of new plantations. Indeed, there are nearly 4,000 ha of truffle plantations in the province established by planting and maintaining, pruning and irrigating oak and hazelnut trees inoculated with *T. melanosporum*. The province has become a model for the use of trufficulture as a tool for management of reforestation based on a non-wood forest product, supporting economic and ecological objectives. Black truffle cultivation programmes have extended beyond the native Mediterranean habitat of the species to Australia, New Zealand, USA, South Africa, Israel, and Chile.

Another special feature of this congress was having a combined meeting hall for both the display of scientific posters and

commercial stands. In this one place, all participants had an opportunity to peruse posters and also to meet with more than 15 businesses providing support to the truffle-growers, such as irrigation equipment, and specialized planting substrates. Also on display were truffle products from the region, including cheeses, oils, and preserved meats. The local people were generous in their reception of the scientific community, and invited participants to visit several of the tree nurseries and retail sellers of truffle products. Visits to truffle plantation were a highlight of the organized field trips, where trained truffle dogs became star performers as they located mature truffles as deep as 15–20 cm below ground. And of course, all dined on black truffles in good company and in good spirits – as evidenced by the pictures from the Congress dinner (kindly provided by Jim Trappe).

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ISHAM Working Group Meetings

The International Society for Human and Animal Mycology (ISHAM) operates 23 active Working Groups covering divergent themes in medical mycology. These networks of clinicians and researchers provide sufficient critical mass to cover also some less current subjects, and as a result particularly the knowledge of and interest in *orphan diseases* has grown enormously over the last decade. Some of them are no longer orphan diseases.

Recently, three of the Working Groups had very successful meetings. The Group on Zygomycoses functions under the joint auspices of the European Confederation of Medical Mycology (ECMM) and ISHAM, and held a two-day meeting in Utrecht on 8–9 April 2013, as a satellite of the CBS Spring Symposium 'One Fungus : Which Gene(s)', and organized by Kerstin Voigt and Sybren de Hoog. The symposium title 'Emerging Zygomycetes, a new problem in the clinical lab' referred not only to the growing susceptible patient population (diabetes, immune disorders), but also to the successful prophylaxis against *Aspergillus*, which seems to be accompanied by an increase in mucoralean infections. The 97 participants listened to 40 presentations divided over four sessions. Themes ranged from clinical studies to virulence factors,



From the ISHAM Working group meeting on Zygomycoses in Utrecht, 8–9 April 2013.

animal models, and genomics. Many of the major researchers in these areas were present, and the interaction between workers at bench and at bedside proved stimulating. All participants received a free copy of a special issue of *Persoonia* (30, June 2013) devoted to zygomycete phylogeny, which had been initiated at the previous Workshop. The 2013 Workshop will also

lead to a special issue in the journal *Mycoses*, which has agreed to devote an issue to this work in 2014. The presentations delivered at Utrecht are available for members of the Group at <http://www.zygomycota.eu/>.

On 12–13 April 2013, the ISHAM Working Group on Medical Barcoding held a workshop in Utrecht with 93 participants. The organizers, Wieland Meyer and Sybren

de Hoog, had chosen the title: *The future of barcoding: getting closer, or drifting further away from clinical practice?* The reason for this somewhat odd title is the observation that techniques to distinguish phylogenetic entities are developing very fast, while there is a limit to what is really clinically relevant: should every routine diagnostic laboratory invest in distinction of precise clades even when this does not contribute to improvement of patient care? The 37 speakers remained, however, practical. Many presentations ended with a conclusion on optimal primers for species distinction in that particular group. This valuable information is available for Group members at <http://www.isham.org/WorkingGroups/barcoding/index.html>. One afternoon

was devoted to MALDI-TOF, which was confirmed as an emerging diagnostic technique with a remarkable precision and predictability. It was decided that the next workshop, scheduled for 22–23 April 2014, will be organized in the form of a ‘masterclass’, where possibilities and limitations of a wide diversity of techniques and approaches can be discussed on the basis of an example of a single set of strains from the genus *Scedosporium*.

Scedosporium was the subject of a third ISHAM Working Group meeting. This took place in Innsbruck, Austria, on 16–18 May 2013, had 36 participants, and was organized by Johannes Rainer, Josef Kaltseis, Astrid Mayr, and Walter Buzina. It was the 4th meeting of this active Working Group.

All major themes of *Scedosporium* research were addressed in 21 talks. An important issue here remains the nomenclature of this group of fungi, since teleomorphs are regularly produced in some of the species. The generic names *Pseudallescheria* and *Scedosporium* are in current use. The Working Group decided to give priority to *Scedosporium*; a community paper will be produced in due course. The working group will organize its next meeting as a satellite symposium of the forthcoming ISHAM congress in May 2015 in Melbourne, Australia.

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One Fungus : Which Gene(s) symposium

This year the CBS Spring Symposium (10–11 April 2013) in Amsterdam formed part of a Spring Symposium week, which was effectively sandwiched by a Zygomycete meeting and DNA Barcoding meeting, both of which were held at CBS in Utrecht. More than 170 participants registered for the Amsterdam meeting, representing 23 different countries. The successful CBS Spring Symposia, One Fungus = One Name (2011) and One Fungus = Which Name (2012) had a great impact on the mycological community. Following on from the ‘Best Gene for Fungi’ meeting held in Amsterdam (2011), which resulted in the ITS region being chosen as official barcode for fungi (Schoch *et al.* 2012), it was clear that additional gene(s) had to be targeted to delimit taxa in specific fungal groups. Other issues that needed to be addressed concerned procedures for obtaining ex-type or ex-epitype isolates for whole genome analysis, and how genomic information will provide a better understanding of how fungi interact in natural and synthetic communities. The meeting was kicked off with talks presented by the Dutch (Vincent Robert, Benjamin Stielow) and Canadian (André Levesque, Chris Lewis) teams who presented two different approaches to identifying novel genes, and data to show the success rate of amplification and species identification across the fungi. The morning was rounded off by talks from Francois Lutzoni (phylogenetics in lichens), and Marcus Teixeira

(novel genes and species concepts in *Paracoccidioides*). Following a light lunch the second session dealing with medical mycology saw excellent talks delivered by Anderson Rodrigues (*Sporothrix*), Wieland Meyer and coworkers (*Candida*) and Joseph Heitman (mating types and sexual reproduction). The third session of the day focused on the ‘One fungus = which name and protected lists’, and saw talks by David Hawksworth (update on the lists¹), Keith Seifert and Andrew Miller (update on ICTF activities)², and Joost Stalpers (the types of genera and lists of fungi in MycoBank). The day was rounded off by two book launches, namely ‘*Ophiostomatoid Fungi, expanding frontiers*’ by Seifert *et al.*³, and ‘*Cultivation and diseases of Proteaceae: Leucadendron, leucospermum and Protea*’ by Crous *et al.* These works form numbers 12 and 13 in the CBS Biodiversity Series, respectively.

Thursday started with a big surprise, as a framed illustration of *Penicillium vanoranjei* was handed to the scientific director of the Academy, Theo Mulder. A total of five *Penicillium* species were named after members of the Dutch Royal family, in preparation of the coronation of the prince, Willem-Alexander (His Royal Highness the Prince of Orange), who was crowned as new King at the end of April. The scientific paper describing the species also went ‘live’ that same morning, being published in *Persoonia* (31: 42–62, 2013). This event subsequently led to a flurry of national and international

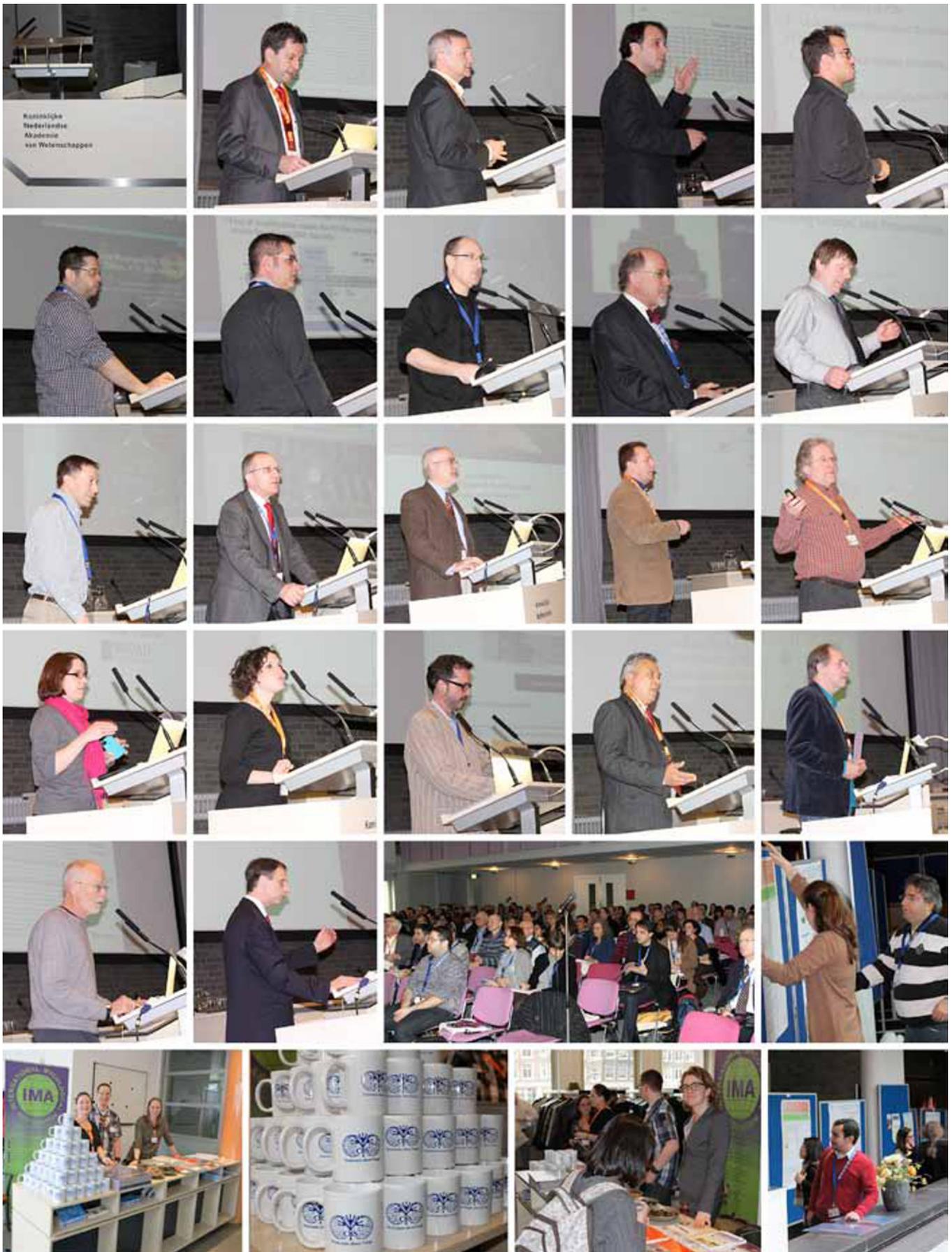
press releases, interviews, and coverage in newspapers, and on radio and television⁴. The two CBS awards, namely the Johanna Westerdijk and Josef von Arx Awards were also made to respectively Martha Christensen, and Kerry O’Donnell (see pp. (14)–(15)). The first scientific session of the day dealt with taxonomy and genomics, and saw talks by Ulrick Kuck (genomics), Joey Spatafora (F1000 project), Ronald de Vries (taxonomy vs. ecology), Teun Boekhout *et al.* (yeast systematics and nomenclature), Scott Baker (post-genomic tools), and Christina Cuomo (microsporidian genomic analysis). David Hawksworth chaired the session after lunch dealing with a single nomenclature, which included talks by Eleonara Egidi (diversity of rock fungi), David Geiser & Kerry O’Donnell (*Fusarium*), Robert Samson (*Trichocomataceae*), and Wilhelm de Beer *et al.* (ophiostomatoid fungi). The day was rounded off by an ISHAM session dealing with the nomenclature of medical fungi as a showcase for stability, which saw presentations by John Taylor, Tom Walsh, Heide-Marie Daniel & Gerard Haase, June Kwon-Chung and Teun Boekhout, and a general discussion. On the Friday, everyone again travelled to CBS in Utrecht where several meetings were held,

¹See this issue, pp. (3)–(4).

²See this issue, p. (7).

³See this issue, pp. (24)–(25).

⁴See this issue, p. (2).



Scenes from the One Fungus = Which Gene(s) symposium held in the Trippenhuis, headquarters of the Royal Netherlands Academy of Arts and Sciences, Amsterdam, on 10–11 April 2013.



Scenes from the One Fungus = Which Gene(s) symposium held in the Trippenhuis, headquarters of the Royal Netherlands Academy of Arts and Sciences, Amsterdam, on 10–11 April 2013; the launch and presentation of the Diseases of *Proteaceae* and Ophiostomatoid Fungi to John W. Taylor (IMA President); and the committee meetings on Friday 12 April, followed by the Fungal BBQ at the CBS.

which were, as is tradition, rounded off by a fungal barbeque.

The next CBS Spring Symposium will be held 24–25 April 2014, the topic being “Genomes and Genera”, which will effectively set the stage for IMC10 (3–8 August) in Bangkok, Thailand.

Schoch CL, Seifert KA, Huhndorf S, Robert V, Spouge JL, Levesque CA, Chen W, *et al.* (2012) *Proceedings of the National Academy of Sciences, USA* **109**: 6241–6246.



The 10th International Mycological Congress
in Bangkok, THAILAND
AUGUST 3 TO 8, 2014
www.imc10.kasetsart.org