

IMA Medals

On 20 July 2018 three IMA medals were presented by IMA President Keith A. Seifert at the Closing Plenary Session IMC11 in San Juan, Puerto Rico.

Ainsworth Medal: Pedro W. Crous

The Ainsworth Medal is awarded to an individual for recognition of extraordinary service to world mycology.



Pedro W. Crous is Director of the Westerdijk Fungal Biodiversity Institute (WFBI), formerly the Centraalbureau voor

Schimmelcultures (CBS), Utrecht, The Netherlands. He is an exceptional promoter of mycology worldwide, especially known through his outstanding research in plant pathology and fungal systematics, and mentoring record. He has done remarkable work to foster global mycology through his leadership, elevating the status of WFBI to a global leader in mycology. Under Pedro's leadership WFBI has been reborn and developed MycoBank, the essential taxonomic database for fungi. He also

revitalized the International Mycological Association with the launching of *IMA Fungus*; and revitalized two other journals, *Studies in Mycology* (IF 13.2) and *Persoonia* (IF 5.3). In addition to his leadership in promoting mycology worldwide, his 600+ publications have had a profound impact in mycology, mostly through combining morphological and molecular characters with extensive sampling, resulting in a lasting contribution to fungal taxonomy.

De Bary Medals: Salomon Bartnicki-Garcia and John W. Taylor

The de Bary medal is awarded to an individual who made outstanding, career contributions to mycological research.



Salomon Bartnicki-Garcia is known for his contributions to fungal biochemistry and fungal cell structures, as well as theoretical biology. For over 40 years he was studying fungal cell walls and their biosynthesis/function, how fungal hyphae grow and how they regulate morphogenesis. He has mentored and influenced many students, postdoctoral associates, visiting scientists, and colleagues in several departments besides his home Department of Plant

Pathology, University of California Riverside. He has fostered scientific collaborations between the USA and Mexico.

John W. Taylor is well-known for his pioneering work on the use of PCR and other molecular methods for the study of fungal biology. His laboratory in University of California Berkeley has focused on the evolution of fungi, including fungal phylogenetic relationships, the timing of deep fungal divergences, species recognition, speciation, ecology, and the maintenance of species. He was an early advocate of promoting fungal models in his work on *Neurospora* and *Coccidioides*, and has aimed to understand the process of selection and adaptation in fungi. His pioneering work has been published in a variety of journals, including some high impact journals. Among his many honours and awards are the Lucille Georg Medal of the International



Association of Human and Animal Mycology (ISHAM), the Rhoda Benham Medal of the Medical Mycological Society of the Americas, and the Alexopoulos and Distinguished Mycologist Awards of the Mycological Society of America. John retired this year.

IMA Fellows

Fellows shall be mycologists who have made an outstanding contribution to the advancement of mycology at an international level, through service to the IMA, its Regional Committees, organization of international meetings, or otherwise as the Award Committees deem appropriate.

At the IMC 11 closing ceremony, IMA President Keith Seifert announced the names of 11 mycologists who were awarded the IMA Fellow Medal:

Mary L. Berbee
David L. Hawksworth
Lene Lange
Jennifer Luangsa-ard
John I. Pitt
Nick D. Read

Sharon A. Cantrell Rodríguez
Trond Schumacher
Junta Sugiyama
John W. Taylor
Michael J. Wingfield

Young Mycologist Awards

The Young Mycologist Awards honour the outstanding contribution of an early career mycologist worldwide.

Six awards were made at IMC11:

Ethel Mary Doidge Medal (African Regional Mycological Member Organization):

Irene Barnes



Irene completed her PhD in genetics at the University of Pretoria in 2009. She has then worked in FABI as a postdoctoral researcher (2009-10) and research fellow until 2015. After that she became a senior lecturer in FABI and the University of Pretoria and has mentored more than 10 undergraduate and 20 graduate students, as well as post-docs. She has an extensive publication record on fungal pathogens and plant pathology.

Keisuke Tubaki Medal (Asian Regional Mycological Organization):



Yu finished his PhD at Kyoto University in 2008, studying fungal decomposition of coarse woody debris of beech (*Fagus crenata*) in a cool temperate natural forest. He has published many papers in peer reviewed journals and has received various awards for his outstanding performance in mycological research, such as the best presentation award (Annual Meeting of the Tohoku Branch of the Ecological Society of Japan, 2015), Encouragement Prize (Japanese Forest Society, 2015), and Encouragement Prize (Mycological Society of Japan, 2015).

Daniel McAlpine Medal (Australasian Regional Mycological Member Organization):



Jonathan Plett obtained his PhD in Plant Molecular Biology from Queen's University, Kingston, Ontario in 2009. Since then, he has achieved an outstanding publication record, in particular, for the number of publications in high impact factor journals and the high number of citations his publications have received. For several years he served as an Associate Editor of *Frontiers in Systems Microbiology* and has actively been involved in science education and community outreach and engagement in mycology.

He has been an invited plenary speaker on multiple occasions at both national and international scientific meetings.

Elias Magnus Fries Medal (European Regional Mycological Member Organization):



Lorenzo finished his PhD in 2010 under Mike Wingfield and Pedro Crous at the University of Pretoria on the systematics of *Calonectria* and its *Cylindrocladium* asexual morphs. His research now focusses on the systematics of *Nectriaceae*. At the Westerdijk Fungal Biodiversity Institute in Utrecht, he has organized international meetings such as 'Finding the Best Gene for DNA Barcoding', 'European Consortium for DNA Barcoding'. He's also the Secretary-General of the International Centre for *Fusarium* Research, and the co-ordinator of citizen science project 'World Fame – a fungus with your name' (*see this issue*, pp. (49)–(50)).

Carlos Luis Spagazzini Medal (Latin American Regional Mycological Member Organization):

Leopoldo has an excellent knowledge of both plant and fungal biology, enabling him



to do cutting-edge research in plant-fungus symbiotic systems. His works includes those on grass-*Epichloë* (syn. *Neotyphodium*) symbioses, about which he has published most of his 19 papers in international peer-reviewed journals. His work also covers a

range of techniques and disciplines, such that he has published molecular taxonomic, physiological and ecological papers.

Arthur Henry Reginald Buller Medal (North American Regional Mycological Member Organization): **Kabir G. Peay**

Kabir is best known for testing macroecological patterns in fungal systems, for the application of innovative molecular techniques to measure dispersal of fungi, and for showing strong evidence of dispersal limitation of fungi at multiple scales. He has a productive, high-impact research programme as evidenced by his

publication record, citations to his work, and speaking invitations. This record demonstrates his exceptional scholarship and prominence in the field of fungal ecology.



An Oral History for Mycology



Meredith Blackwell (left) interviewing John Taylor (right) at IMC11.

IMC 11 (16–21 July 2018, San Juan, Puerto Rico) offered an opportunity to record interviews with a variety of mycologists to hear of their assessments of changes that occurred over their careers, and to learn about the experiences of younger mycologists at the beginning of their careers. Three participants interviewed in the morning symposium (Lynne Boddy, David Hawksworth, and John Taylor) represent experienced mycologists who have been active in IMA. Twenty-eight other interviews, some with two and three mycologists at a time, were recorded throughout IMC 11 whenever we could catch participants between sessions. Seventeen women and 16 men from all inhabited continents and more than 20 countries were interviewed. For example, a husband and wife who each practice their own mycological careers, the current and

four former presidents of IMA, the San Juan congress keynote speaker, former editors of four mycological journals, authors of 400 papers, but also students from tropical climes beginning their mycological training in cooler regions with winter snow, a trio of Latinas who pursue mycology enthusiastically, a mycologist who discovered an entire group of previously unseen fungal, and several retired mycologists who just can't quit; a Spanish speaker filled in to interview a native Italian speaker in Spanish, and two of us followed a suggestion and interviewed each other.

We learned a number of accomplished mycologists were the first in their families to go to college, many mycologists found the field accidentally, and several political and environmental refugees from flooding left their homes to continue mycological research. We were reminded of the long

history of mycology in Italy, and a more recent legacy in Brazil. A human pathogen that is widely distributed in the harsh environment of dishwashers was a discovery made by a mycologist who was bored at home while recovering from 'flu. Another interesting bit of information is that Denmark has a "mouldy phone" number that can be consulted with questions about household fungi. We learned directly from a Congress organizer how to persist and organize an amazing meeting in less than a year after a disasterous hurricane.

Unfortunately, time ran out before many more mycologists could be interviewed. We hope that others will be interested in adding to the collection of interviews at many regional meetings over the next four years, so that a session of continuous interviews can be shown at IMC 12 in Amsterdam in 2022.

The videos were filmed, edited, and posted on YouTube by Dustin Howard of La Liberté Productions, LLC. They are archived at the Hunt Institute for Botanical Documentation, Carnegie Mellon University, Pittsburgh, Pennsylvania, USA. A large collection of photographs from the congress includes some of the interviews listed in this article <<https://www.flickr.com/photos/155485972@N06/albums>>.

All of the videos can be found in YouTube playlist: https://www.youtube.com/watch?v=2RTaIPdh88&list=PLIej3bb_klydh3b_N5ApE81iuWsyVfU9L, and individual links are given in Box 2.

**Meredith M. Blackwell and
Robert A. Samson**
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Oral History of Mycology Individual links

Claudio Angelini: <https://www.youtube.com/watch?v=fQxPOu6Gito>
 Salomon Bartnicki-Garcia: <https://www.youtube.com/watch?v=WcEe3YxSEDE>
 Joan Bennett: https://www.youtube.com/watch?v=8ZcU_K8XTF8
 Meredith Blackwell and Rob Samson: <https://www.youtube.com/watch?v=2RTaBlPdh88>
 Jumbam Blaise: https://www.youtube.com/watch?v=yr9NIOPZy_Q
 Lynne Boddy: <https://www.youtube.com/watch?v=pXWEux2DPGA>
 Paola Bonfante: <https://www.youtube.com/watch?v=Xmcw1hx3jxs>
 Tom Bruns: <https://www.youtube.com/watch?v=hlUeRjUTb2U>
 Matias Cafaro: <https://www.youtube.com/watch?v=a7BAV1-iKEk>
 Sharon Cantrell: <https://www.youtube.com/watch?v=atDBvAHGmPc>
 Pedro Crous: <https://www.youtube.com/watch?v=pZxYIdlrQvo>
 José Dianese: <https://www.youtube.com/watch?v=XvLe5DoaPYw>
 Jens Frisvad: https://www.youtube.com/watch?v=cdNp_B-E89c
 Nina Gunde-Cimerman: https://www.youtube.com/watch?v=XzcMm_3y6EQ
 Roy Halling: <https://www.youtube.com/watch?v=ujKVIOgN75g>
 David Hawksworth: <https://www.youtube.com/watch?v=Mgm8juKrT88>
 Dillon Husbands and Kayla Pennerman: <https://www.youtube.com/watch?v=KC52u0xKZW5>
 Teresa Itturiaga: <https://www.youtube.com/watch?v=TtaKPpThZ80>
 Lene Lange: <https://youtu.be/od8D94JmBH4>
 Jennifer Luangsa-Ard: <https://www.youtube.com/watch?v=rKkFE6JMsNI>
 David McLaughlin: https://www.youtube.com/watch?v=uitcbLcJa_M
 Gregory Mueller: <https://www.youtube.com/watch?v=EVypjd-ej68>
 Donald Pfister: <https://www.youtube.com/watch?v=BIN5WPMtAwY>
 John Pitt: <https://www.youtube.com/watch?v=o-GVTca9apM>
 Anna Rosling: <https://www.youtube.com/watch?v=9-sYZ5Js6KM>
 Amy Rossman: <https://www.youtube.com/watch?v=PJe54E1Gv4E>
 Keith Seifert: <https://www.youtube.com/watch?v=hgW29REYOho>
 John Taylor: <https://www.youtube.com/watch?v=2Y-sGwsAh4E>
 Ulf Thrane: <https://www.youtube.com/watch?v=adxtv89Mj98>
 Aida Vasco, Giuliana Furci, and Maria Alice Neves: <https://www.youtube.com/watch?v=CVZHjaUq2yU>
 Michael Wingfield and Brenda Wingfield: <https://www.youtube.com/watch?v=vKY09fsf1A>

BIRTHDAY GREETINGS

Stanley J. Hughes – Centenarian



Photo: Agriculture and Agri-Food Canada.

On 17 September 2018, Stanley J. Hughes celebrated his 100th birthday with his family. The previous day, his wife Lyndell, children David and Glenys and grand-children hosted an afternoon party attended by colleagues and neighbours. On behalf of the IMA, Keith Seifert presented Stan with a birthday card filled with signatures and best wishes, which had been circulated at IMC11 in San Juan. Apart from local colleagues from Stan's Ottawa workplace with Agriculture & Agri-Food Canada (AAFC), retired mycologists Kris Pirozynski (still living in Ottawa) and David Malloch (now living in New Brunswick) joined

the celebration. The Mayor of Ottawa, his Worship James Watson, attended the party, and best wishes were received from Her Majesty Queen Elizabeth II, the Prime Minister of Canada the Rt Hon. Justin Trudeau, and the Minister of Environment and Climate Change of Canada, the Hon. Catherine McKenna.

A citizen and long-time resident of Canada, Stan has maintained warm relations with his homeland, Wales, and his second homeland, England. During his working career at the former Commonwealth Mycological Institute at Kew, and Agriculture and Agri-Food

Canada, Stan was renowned around the world for his groundbreaking research on asexual fungi and sooty moulds, and has received many awards including the Jakob Eriksson Gold Medal of the Swedish Academy of Science in 1969 and the George Lawson Medal of the Canadian Botanical Association in 1981. Stan's career as a retired mycologist, in excess of 35 years, is longer than the careers of many salaried mycologists. Although he still has fond dreams of mycology, in recent years he has preferred to spend his time with his family and curating his growing collections of lapel pins and coins.

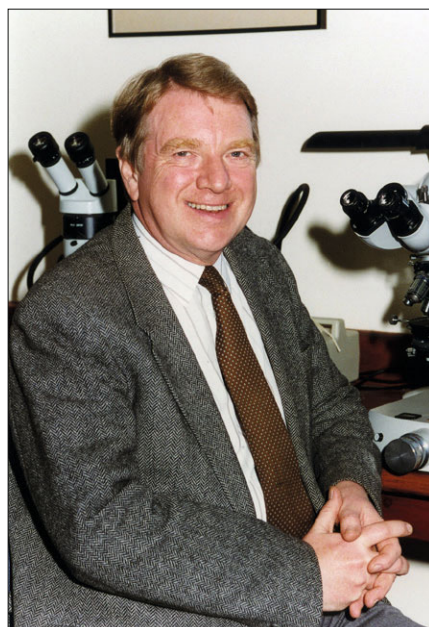
Mycologists throughout the world join in sending him their best wishes at this very special time.

Keith A. Seifert
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Stan (centre) being presented with a birthday card from the IMA by Keith Seifert (left), with his daughter Glenys Hughes (right). Photo: S. J. Hughes.

David Pegler – Octogenarian



David Pegler, former Head of Mycology and Assistant Keeper of the Herbarium at the Royal Botanic Gardens, Kew, celebrated his 80th birthday on 2 November 2018. David began his career at Kew in 1961 after graduating from the University of London, and specialized in the taxonomy of tropical *Agaricales* and *Russulales*, publishing, over the years, on *Agaricales* from Africa, India, Sri Lanka, the Lesser Antilles, São Paulo, and Cuba. Further interests lay with *Polyporaceae* and other basidiomycetes, including *Lentinus*, for which he published a monograph in

1984, gasteroid genera, and ultrastructure of basidiospores. Extensive studies on the latter using electron microscopy were carried out over many years with Tom Young at King's College, London, resulting in a host of publications and a treatise on the subject in *Beihfte zur Nova Hedwigia* in 1971. He also has an interest in fungal conservation, editing IUCN's Fungi and Conservation Newsletter and co-ordinated the organisation of the XI Congress of European Mycologists held at Kew in 1992 which had a recording and conservation theme.

David earned a Master's degree in 1966, and a PhD in 1974, both from the University of London, his PhD thesis being published as *A preliminary agaric flora of East Africa* in 1977. In 1989, his achievements were further recognized when the University awarded him the degree of DSc for his research on tropical *Agaricales*. He has also received various other awards and distinctions including the Prix for 'Services to African botany' in 1981, election as a member of the Norwegian Academy of Science and Letters in 1997, Visiting Professorships in the University of Lodz, Poland in 1981, the Instituto de Botanica, Sao Paulo in 1987, the University of Silesia, Katowice, Poland in 1987, and, most recently, Jilin Agricultural University, Chanchung, China.

To date, he has published around 300 research papers and several books, largely on fungal systematics, as well as several popular field guides to British fungi. He has, of course, described many new taxa, and several have been named in his honour, most recently *Deconica pegleriana* in 2012.

David has served on the editorial board of various journals, including *Mycological Research*, *Mycologia Helvetica*, *Cryptogamie Mycologie*, and *Micologia Neotropical Aplicada*, and was Senior Editor of *The Mycologist* from its inception in 1987 until 1993. He authored or co-authored over 80 contributions to the series *Profiles of Fungi* which appeared in *The Mycologist* between 1987 and 2001, 19 of them since his official retirement in 1998.

Since retirement, David has also pursued an interest in economic mycology, with a number of contributions to the subject in the series "Useful Fungi of the World" published in *The Mycologist* between 1999 – 2003. Most recently, in 2006, he published, in collaboration with Chinese colleagues, a revision of the agaric genus *Sinotermatomyces*.

We wish David a very Happy Birthday, and send him our best wishes for the future.

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IN MEMORIAM

Abdel-Aal Hassan Moubasher (1929–2018)



Recently described as the godfather of mycology in Egypt and Arab countries¹, Abdel-Aal Moubasher is a great loss to mycology in the region. Born on 8 August 1929 in the Sharkia Governorate of Egypt, he graduated from Cairo University in 1951, gaining his PhD there in 1958 and a DSc in 1996. He was appointed as a Lecturer in Botany at Assiut University in 1959, where he remained for the rest of his career rising to be a Vice- President of the University in 1984 prior to his retirement in 1989 when he was appointed Emeritus Professor. His energy and devotion to mycology did not then cease,

¹Abstract book of the Second International Conference on Mycology in MENA (ICM 2018) held in Ismailia, Egypt, on 16-18 October 2018 (<http://fungiofegypt.com/Conference/index.html>).

and in 1999 he founded the Assiut University Mycological Centre that I was privileged to visit in 2007 which has had an ambitious programme of courses, producing teaching aids in Arabic, and also maintains a collection of over 6000 fungal cultures and a fungarium – reported to be the first to be established in an Arab country.

He was a regular visitor to the International (formerly Commonwealth) Mycological Institute at Kew, with which he had a relationship from the early 1960s. I met him there many times, and he first invited me to visit and teach in Assiut in 1985. He then sent two of his team to the Institute for more intensive training. As a scholar, he had a substantial output of research papers on a wide range of mycological topics, including air-borne and toxigenic fungi, fungal decomposition, spore dispersal, halophilic and thermotolerant fungi, and especially soil fungi. His well-illustrated and carefully documented 568-page book on soil fungi in Arab countries (Moubasher 1993) was a truly tremendous achievement. He also published books on the meaning of botanical terms and the names of algae, bacteria, and plants as well as fungi with Arabic equivalents or translations, respectively, and a detailed history of Assiut University.

Abdel-Aal received many awards and honours, including the State Prize of Merit in 1994, and membership of the Egyptian Academy of Sciences in 2007, and Fellowship of the African Academy of Sciences in 2009. He also served as Chairman and Editor-in-Chief of the Egyptian led Society of Basic and Applied Mycology in 2005.

He sadly passed away on 17 June 2018 at the age of 88. I feel honoured to have known such a warm and inspirational figure, who demonstrated through his life just how much can be achieved by just one person with sufficient motivation and vision. His legacy will be not only his publications, but the Centre he created, and the 22 of his former research students who I understand are now to be found as professors or researchers in most of Egypt's universities.

Ahmed M. Abdel-Azeem kindly supplied a copy of Abdel-Aal Moubasher's cv. and the photograph included here.

Moubasher AH (1993) *Soil Fungi in Qatar and other Arab Countries*. Doha: University of Qatar.

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David Cecil Smith (1930–2018)

David Smith was born in Port Talbot, South Wales, on 21 May 1930 and died in Edinburgh on 29 June 2019 at the age of 88 years. He was a student of mycorrhizal specialist Jack Harley in the University of Oxford, graduating in 1951, but went on to study the physiology of the lichen symbiosis for which he obtained a DPhil in 1954. He stayed and did pioneering work on the movement of carbohydrate from the alga to the fungus in the lichen symbiosis, along with his postgraduate students which included David Lewis, David H. S. Richardson, and myself (Richardson *et al.* 1967, 1968). Many mycologists still recall his influential keynote address on “What can lichens tell us about real fungi?” at the Second International Mycological Congress (IMC2) in Tampa, Florida in 1977 which



David Hill (left), David Smith (centre) and David Richardson (right) at the British Lichen Society AGM in Edinburgh in January 2009.

was something of a wake-up call for “real” mycologists (Smith 1978). Despite establishing a new approach to studying the lichen symbiosis, he soon moved on to work on the symbiosis between algae and invertebrates. His work with corals was again pioneering and the bleaching of corals by loss of their algae with global warming is now of environmental concern of great importance to Earth’s biosphere.

His career developed onwards from his superb administrative skills and he went on to head departments in Bristol and Oxford Universities (1970s and 1980s). By then he was elected to the Royal Society (1974) and played a key role as its Biological Secretary. He went north to Edinburgh University as its Principle (1987–94) and completed his career with the wardenship of Wolfson College (1994–2000) back in Oxford after

which he retired to Edinburgh. He was much respected in his kind, supportive and modest dealings with people. Whenever there was an opportunity, he championed lichens as important members of the fungal kingdom. He was a founder member of the British Lichen Society in 1958, later its President, and also became a President of the British Mycological Society. He was knighted in 1986. Other honours he received include an Honorary Doctorate from Heriot-Watt University (1993), and the Gold Medal for Botany of the Linnean Society of London of which he served as President for 2000–03. He is survived by his second wife Lesley, a daughter, two sons and five grandchildren.

A more detailed account of David’s contributions to lichenology is provided by Seaward & Richardson (2018).

Richardson DHS, Hill DJ, Smith DC (1968) Lichen Physiology XI. The role of the alga in determining the pattern of carbohydrate movement between lichen symbionts. *New Phytologist* 67: 469–486.

Richardson DHS, Smith DC, Lewis DH (1967) Carbohydrate movement between the symbionts of lichens. *Nature* 214: 879–882.

Seaward MRD, Richardson DHS (2018) Sir David Cecil Smith FRS (1930–2018). *International Association for Lichenology Newsletter* 51 (2): 27–29.

Smith DC (1978) What can lichens tell us about real fungi? *Mycologia* 70: 915–934.

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