



Dr İpek Kurtböke
Current President of the WFCC (2017-2020)

Dr Kurtböke is an internationally reputed actinomycetologist and she has been in the field of biodiscovery since 1982. She has been part of the teams in eminent pharmaceutical companies since 1983 in Europe, USA and Australia where new antibiotics were discovered or yield improvements/high throughput screening events were conducted. She was one of the scientists who took part in the establishment of the Australia's largest bioresource library at AMRAD Discovery Technologies Pty. Ltd. in Melbourne, Australia where over million screening events took place with compounds progressing into clinical trials.

Her most significant contribution has been the development of a novel isolation technique that selectively cultures rare actinomycetes with industrial importance such as the production of new antibiotics. Technique was adopted and applied by leading pharmaceutical companies since the 1990s. She has established bio-resource libraries for joint screening ventures with leading pharmaceutical companies in different settings since 1990s. Dr Kurtböke's methodological strength in the field of actinomycetology played a key role in the detection of novel actinomycetes and contributed towards the establishment of yet another microbial library of bioactive actinomycetes at the University of the Sunshine Coast (USC) in Queensland, Australia since 2001. The library has been used for research and teaching activities at the USC as well as in partnership with regional, national and international collaborators for discovery of new drugs, agrobiologicals, enzymes and environmentally-friendly biotechnological innovations.

Dr Kurtböke has been a member of the Biodiscovery Industry Panel established by the AusBiotech and DEHWA which networks Australian biodiscovery operators. She was also one of the founding members of the Australian Microbial Resources Research Network currently linked with the Atlas of Living Australia and implements a Biolomics system for microbial data sharing. She has also been an active member of the World Federation of Culture Collections (WFCC) including serving as the Vice-President of the Federation (2010-2013). She is currently being the President of the Federation (2017-2020).

Ipek Kurtböke

The World Federation of Culture Collections (WFCC)

The World Federation of Culture Collections from 1947 Onwards Serving for Sustainable Futures

Abstract:

At the first International Congress of Microbiology in Paris (1930) the Commission of Nomenclature and Taxonomy emphasized the significance of culture collections by stating “among the most important agencies working towards satisfactory nomenclature and classification of bacteria are the several type collections¹. In 1947, during the 4th International Congress of Microbiology the International Federation of Culture Collections (IFCC) was set up and its head office was located at the Centre de Collections de Types Microbiens at Lausanne in Switzerland. In 1962, the formation of the section on culture collections (SCC) was approved by the International Association of Microbiological Societies (IAMS) which later was constituted as the World Federation of Culture Collections at the 10th International Congress of Microbiology in Mexico City in 1970^{1,2,3}. WFCC was admitted as an Interdisciplinary Commission of the International Union of Biological Sciences (IUBS)¹.

Concurrently, the World Data Centre for Microorganisms (WDCM) (1972) sponsored by UNESCO, the World Health Organization (WH) the Commonwealth Scientific and Industrial Research Organization (CSIRO) and the University of Queensland, Australia. The first edition of the World Directory was published by John Wiley and Sons, Inc. New York⁴. In 1978, International Cell Research Organization recommended the publication of revised edition of the World Directory. The revision was again financed from UNESCO, UNEP and the University of Queensland and the 2nd edition of the World Directory was published. In 1984, the WDCM became affiliated with WFCC in 1984 at the 5th International Conference on Culture Collections (ICCC-5) in Bangkok, Thailand.

The WFCC relocated the data centre to the Institute of Physical and Chemical Research (RIKEN) Japan after an open competition to host the data centre in 1986. The WDCM was later transferred to the Institute of Microbiology, Chinese Academy of Sciences (IMCAS) in 2010 and it networks 726 microbial resource centres of diverse types of microorganisms in over 75 countries in the Culture Collections Information Worldwide database (CCINFO). It also serves as an information resource for the customers of the microbial resource centres <http://www.wdcm.org/>. From 2012 onwards WDCM started the initiative to construct an effective information environment called Global Catalogue of Microorganisms (GCM) which provided database management system to culture collections and collect strain catalogue information to form an integrated database. Currently, GCM contains information on 48,335 bacterial, fungal and archaea species from 112 collections in 43 countries and regions.

Today the World Federation of Culture Collections is a Multidisciplinary Commission of the International Union of Biological Sciences (IUBS) and a Federation within the International Union of Microbiological Societies (IUMS). The WFCC is concerned with the collection, authentication, maintenance and distribution of cultures of microorganisms and cultured cells. Its aim is to promote and support the establishment of culture collections and related services, to provide liaison and set up an information network between the collections and their users, to organise workshops and conferences, publications and newsletters and work to ensure the long-term perpetuation of important collections. The Federation has an Executive Board and works through a series of committees and has statutes and by-laws <http://www.wfcc.info/>. In this

presentation WFCC's role in the global context of biodiversity preservation and the use of microbial resources for sustainable futures will be communicated.

References:

- 1] Komagata, K. (2004) 1.2. Milestone in Japanese culture collections. In the *Proceedings of the 10th International Congress on Culture Collections*, Tsukuba, Japan, 2004 (Watanabe, M.M., Suzuki, K. and Seki, T., Eds), pp. 9-16.
- 2] Lapage, S. P. (1972). World Federation for Culture Collections Xth International Congress for Microbiology. *International Journal of Systematic and Evolutionary Microbiology*, 22(4), 404-405.
- 3] World Federation for Culture Collections Statutes (1972) *International Journal of Systematic and Evolutionary Microbiology*, 22(4), 407-409.
- 4] Martin, S. M. and Skerman, V. B. D. (1972). World directory of collections of cultures of microorganisms. John Wiley & Sons; New York & London.