

## In Memory of Dr Edgar DaSilva

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It was with shock and sadness that we learned of the sudden death of our former colleague and friend, Dr Edgar DaSilva. A man of great conviction and energy, Dr DaSilva joined UNESCO in 1974 and worked for many years in the basic sciences at UNESCO. He held the position of Director of the Division of Life Sciences at the time of his retirement. He was a man to be admired for his integrity, determination, fortitude, his work ethics, vision and actions; in many ways he epitomized the spirit of the United Nations.

His foresight and perception of science in the global context, allowed him to be proactive in identifying scientific priorities and developing new and appropriate thrusts for UNESCO programmes. Through his extraordinary commitment, he made a considerable contribution to the development of the Organization's programme in applied microbiology and biotechnology.

He was instrumental in the initiation of the UNESCO Microbiological Resource Centers (MIRCEN) programme, which he co-founded. This worldwide network which became synonymous with Dr DaSilva, had as its objectives the conservation, management and use of microbial gene pools, and to carry out research and development in microbiology and biotechnology. Altogether 34 MIRCEN centres were established worldwide. He also played a major role in the establishment of the UNESCO Biotechnology Action Council (BAC) programme and within the framework of this programme, he was the driving force behind creation of the Biotechnology Education and Training Centres (BETCEN) concept and the implementation of the 5 BETCENs, one in each region. Through these two programmes he made a considerable contribution to development of biotechnology research and training worldwide. The MIRCENs and BETCENs proved to be very successful in

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providing opportunities for training in various areas of biotechnology. This success was in no small part due to Dr DaSilva's continued interest and effort to support their actions. He was devoted to his work and his accomplishments in promoting the activity of these two programmes is evident by recognition of his work in the international scientific arena.

Dr DaSilva was a great proponent of building capacity in the developing and least developed countries and in providing them with the tools for their continued development. He worked tirelessly to ensure that UNESCO's programmes in the life sciences and in biotechnology appropriately benefited those countries that needed them most. His unfailing support and encouragement for these activities allowed young scientists from many developing countries to acquire new knowledge and technical skills which otherwise would have been denied to them.

He strongly believed in collaboration as a means to address the issues and needs of developing countries, stimulate development and provide them with the tools to drive their own scientific research. He created opportunities, identified international partners who shared his vision and enthusiasm to make things happen.

Dr DaSilva made a major contribution to world microbiology and biotechnology. He tirelessly pursued these goals believing that microbiology and biotechnology could offer much to developing countries to help them develop their own unique resources and make a lasting impact on microbiology throughout the world. Very early in his career at UNESCO, Dr DaSilva recognized the value of microbial resources. He mobilized several extrabudgetary programmes in close cooperation with UNEP and UNDP and Donor Member States for activities in national development in biotechnology and regional cooperation in microbiology. This largely resulted in the development of several of the MIRCEN centres.

He supported programmes that provided opportunities for international cooperation, for example the International Training Programme at the German Research Center for Biotechnology (GBF), now the Helmholtz Centre for Infection Research (HZI), which for many years (1987 – 2000) ran intensive 6-7 week training programmes for biotechnologists from developing countries. For many participants this provided important experience towards their career development. Dr DaSilva served on the Board of Advisors for this programme.

With the American Society for Microbiology (ASM), office of International Affairs and the International Society for Microbiological Societies (IUMS), among others, he developed programmes for capacity-building through fellowship schemes and support for collaborative research. He worked with numerous other organizations like the International Cell Research Organization (ICRO) and the International Organisation of Biotechnology and Bioengineering (IOBB), to develop courses and training activities, also playing an important role in the conferences on the 'Global Impact of Applied Microbiology' (GIAM), among many others.

He built strong links with the World Federation for Culture Collections (WFCC) and the International Congresses for Culture Collections (ICCC), encouraging and supporting the organization of training courses. These activities had a strong influence on the development of culture collections and were instrumental in making the WFCC and the MIRCENs recognized as international organizations of culture collections and biotechnology. Dr. DaSilva was elected as Vice President of the WFCC in 1973 and served until 1976.

Dr DaSilva was in every way dedicated to his professional mission and, even after retirement from UNESCO, continued to lecture in institutions in Japan, the Republic of South Africa, the Nordic countries, and elsewhere.

He strongly believed that advances in scientific knowledge and information should be accessible to all and that endogenous research should be given the necessary support and recognition. To this end he actively followed through with action to develop the *MIRCEN Journal of Applied Microbiology and Biotechnology*. This was launched in 1985 and Dr DaSilva was the initial Chairman of the Editorial Advisory Board. The venture was backed by UNESCO and publication was undertaken by Oxford University Press. In 1990 the Journal, after having proved a great success was re-vamped and re-launched with a more encompassing title: *World Journal of Microbiology and Biotechnology* (WJAMB) and served as a platform to give voice to researchers from developing countries. Here again Dr DaSilva's input into the Journal was considerable. He instigated several special issues of the Journal that covered a variety of key topics but all of which focussed on some unique aspect of microbiology being carried out in developing countries which was of significance and relevance to the rest of the world. Dr DaSilva remained an Editorial Advisor for the Journal, to the end.

He supported the Electronic Journal of Biotechnology based at the Universidad Catolica de Valparaiso, Chile, and became a member of its editorial board. He worked with them to create a section Biotechnology Issues for Developing Countries and with UNESCO support, ensured that this journal was made available to institutions in developing countries in CD format. His support, enthusiasm and commitment were decisive for the achievements of this journal. Likewise with the Research and Information System for Developing Countries (RIS), in India, through UNESCO's programmes, he provided support for production of the *Asian Biotechnology and Development Review* (ABDR), and its dissemination to MIRCEN centres in developing countries. He served on the Editorial Advisory Board of this Journal. He also initiated collaboration with the ASM, providing support through the UNESCO MIRCEN programme, for their Global Outreach Programme, thereby providing free access to institutions and researchers in the least developed countries, to Microbe Library and the 12 peer reviewed ASM journals in microbiology.

Dr DaSilva contributed steadily, to scientific literature during his career and wrote numerous articles and reviews for several journals, more specifically those concerned with the fields of microbiology and biotechnology. He continued to publish articles well into his retirement. More recently he served as co-theme editor of theme "Biotechnology" for the UNESCO-sponsored Encyclopaedia for Life Support Systems [EOLSS].

Dr DaSilva was to many a friend and mentor, and a leader with a passion for the development of science in the developing world. He will always be remembered by his colleagues and the scientific community for his dynamism, his competence and dedication. Countless individuals and institutions, especially in the developing world, will remember him for the opportunities he opened up for them.