NATURAL PRODUCTS R&D: ransforming Rainforest Industries

Proceedings of the 18th Seminar of the Malaysian Natural Products Society

Kota Kinabalu 21-24 October 2002



UNIVERSITI MALAYSIA SABAH



MALAYSIAN NATURAL PRODUCTS SOCIET





Edited by Mashittah Mahd, Yusatt



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> Edited by Mashitah Mohd Yusoff

Compiled by Aziati Mokhtar Farah Idwani Abdul Rahman Naransa Limpot Sik Ruoh Yean



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Foreword

The tropical rainforest harbors a great diversity of flora and fauna and provides the researcher with a tremendous pool of raw material. For decades, natural products have been a source of drugs and drug leads.

For flowering plants, about 250,000 species have been described, of which perhaps 10% have been examined chemically. Many were examined decades ago, when techniques were relatively crude. The number of insect species described is about 1 million, and many more have never been described. Most of these insects communicate or defend themselves through chemistry but only a few thousand species have been examined. That most of soil bacteria are unculturable means that we must be missing a huge number of metabolites. A whole new chemical vocabulary from the marine environment has yet to be learned.

We are far from understanding what these compounds do for the organisms that produce them, or what they might do for mankind. While it is basic knowledge; the more the chemistry of biotic interactions can be understood, the better we can manage forests, pursue agriculture, and avoid parasitic diseases and disease vectors and the better we could foresee the consequences of introducing new species or eradicating others.

The shift in emphasis from timber-based industries to non-timber-based industries in the past decade worldwide have realigned natural products scientists and engineers toward comprehensive studies of novel products and processes from tropical rainforest biodiversity more so than ever before.

The Malaysian government recognizes the multidisciplinary nature of natural products research and have increased the nation's investment in the form of research and industrial grants to institutions of higher learning and research institutes conducting multi-institutional natural products research.

In order to galvanize this effort, the Malaysian Natural Products Society holds annual meetings with host institutions, to provide an avenue for her members to highlight recent work and ideas in the area of natural products and in particular, natural products chemistry. In 2002, the 18th meeting was held jointly with Universiti Malaysia Sabah. I express fervent hope that everyone associated with the natural products scene will benefit greatly from this Proceedings, Natural Products R&D: Transforming rainforest industries, and continue to pioneer explorations in the frontier that is, natural products.

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Tan Sri Professor Datuk Seri Panglima Abu Hassan Othman Vice Chancellor, Universiti Malaysia Sabah Patron, 18th Malaysian Natural Products Society Seminar