

Current Aspects of Environmental and Eco-Clinical Microbiology

**A Minisymposium, organized by the
International Postgraduate Course**

ECOLOGY AND DIVERSITY OF MICROORGANISMS

University of Concepción, Departments of Oceanography and Microbiology

Saturday October 6, 2001, 09.00 - 15.00

Lecture room of the Oceanography and Natural Sciences Department

Objectives and Scope

Microbes are capable of remediating many environmental pollution problems, they are the causes of old and newly emerging infectious diseases, and they are the basis for the increasing resistances against antibiotics world-wide. These are mostly ecological problems which can be approached more effectively with a better understanding of how microbes behave in their natural habitats. Understanding microbial diversity and ecology will therefore be critical for future environmental, epidemiological and clinical research. It is the aim of the minisymposium to illustrate how ecologically oriented medical, hygienic and environmental microbiology can contribute towards reaching this goal.

The scientific contributions to the minisymposium are providing insights into the role of microbes as environmental agents, and they will illustrate new ways to understand the microbe's role in nature. The synthesis of the fields covered will hopefully initiate interdisciplinary research with a strong ecological perspective which will provide solutions to current environmental and health problems.

The contributions will broaden the often narrow focus of the every-day research work and offer something for students and established investigators who are approaching environmental, clinical and epidemiological problems with an ecological outlook.

PROGRAM

09.00 Carlos González Introduction

Section 1: Biofilms

chaired by Luis Antonio Cuevas and Claudia Piccini

09.10 Homero Urrutia Ammonium effect on anaerobic biofilm activity and structure

09.45 Kurt Hanselmann New molecular and microscopic tools for the analysis of corrosive biofilms

10.20 Intermission Coffee and tea will be served

Section 2: Eco-clinical Aspects

chaired by Verónica Molina and Ricardo Silva

10.50 Gerardo González Integrins and antibiotic resistance in Gram-negative bacteria

11.25 Carlos González Genetic and bacteriological aspects of *Helicobacter pylori*

12.00 Lunch Break Sandwiches and drinks will be provided

Section 3: Environmental Aspects

chaired by Pamela Rossel and Gloria Sánchez

12.45 Osvaldo Ulloa Photosynthetic microorganisms in the oxygen minimum zone of the eastern South Pacific Ocean

13.20 Miguel Martinez Bacteria as a tool for environmental decontamination

13.55 Rolf Kümmerlin Airborne contamination

14.30 Miguel Martinez Summary

14.45 End of Symposium