

Current Aspects of Environmental and Eco-Clinical Microbiology

**2 Minisymposia, organized by the Postgraduate Course
ECOLOGY AND DIVERSITY OF MICROORGANISMS**

**University of Concepción, Department of Microbiology and
Department of Oceanography**

**Saturday, January 8, 09.00 - 14.00 and
Saturday, January 15, 09.00 - 12.00**

Location: Lecture room of the Microbiology Department

Objectives and scope

Understanding microbial diversity will be a critical aspect of future environmental, epidemiological and clinical research. 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 efficiently with a better understanding of how microbes behave in their natural habitats. It is the aim of the two minisymposia to illustrate how environmental and ecologically oriented medical microbiology can contribute towards reaching this goal.

The scientific contributions to the two minisymposia are providing insights into the role of microbes as environmental agents, and they will illustrate new ways to understand resistance gene proliferation and infectious causes of diseases. The synthesis of the fields covered will hopefully initiate research with an 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.

Guests are invited to attend and are kindly asked to confirm their participation by e-mail to Maria Angelica Mondaca <mmondaca@udec.cl>

PROGRAM

Saturday, January, 8

09.00 José Stuardo **Introduction**

Environmental Aspects

Section 1 chaired by Liliana Herrera & Wilbert Serrano

09.10 Maria Angelica Mondaca **Chromate reduction by *Serratia marcescens* isolated from tannery effluents**

09.35 Miguel Martinez **Chlorophenol degradation by bacteria isolated from Bio-Bio river**

10.00 Jaime Rodriguez **Lignin degradation by microorganisms**

10.25 Intermission

Section 2 chaired by Luisa Espinoza & Fabiola Cerda

11.10 Victor Gallardo **Relationship between ENSO and Thioploca**

11.35 Kurt Hanselmann **Toxic cyanobacterial biofilms in oligotrophic environments**

12.00 Lunch Break Sandwiches for lunch and drinks will be provided

Eco-clinical Aspects

Section 3 chaired by Eduardo Quiroga & Silvia Oyarzun

12.45 Veronica Madrid **Parasites in freshwater used as sources of drinking water**

13.10 Gerardo González **Antibiotic resistance in nosocomial gram-negative bacteria**

13.35 Angel Oñarte **Vaccines for the new millenium**

14.00 **Summary**

Saturday, January 15

09.00 Leonardo Castro **Introduction**

Environmental and Food Safety Aspects

Section 4 chaired by Sergio Mayor & Rodrigo Concha

09.10 Ricardo Barra **In search for evidence of long range atmospheric transport of pollutants in Chile**

09.35 Alfredo Troncoso **Bacterial secondary production in the Humbolt current**

10.00 Silvio Pantoja **Extracellular hydrolysis of peptides in seawater and sediments**

10.25 Intermission

Section 5 chaired by Silvia Oyarzun & Luisa Espinoza

10.45 Homero Urrutia **Methanogenic biofilms designed for sulfate-containing industrial effluents**

11.10 Kurt Hanselmann **Iron and sulfur regulated phosphorus cycling at sediment water interfaces**

11.35 Rolf Kummerlin **Pathogen detection made simple**

12.00 **Summary**

12.10 End of Symposium