

Student Minisymposium on  
**Recent Discoveries in Marine Microbiology**

A one-day Symposium offered by the International Course on the  
“Ecology and Diversity of Marine Microorganisms (ECODIM V)”  
and the “8th Austral Summer Institute” of the  
Departamento de Oceanografía, Universidad de Concepción

**Friday, January 25, 2008**

**Ignacio Molina Lecture Room  
at the Estación de Biología Marina, Dichato  
Guests are welcome**

**Symposium Program - Exam Paper Presentations**

(Copies of the papers are available in the shared course folder)

08.30 **Introduction**

**Kurt Hanselmann**  
University of Zürich

**Session 1 Convener: *Natalia V. Pizani***

08.40 **Detection and characterization of a functional insertion sequence ISVpa2, in *Vibrio parahaemolyticus***

Gene (2007), doi:10.1016/j.gene.2007.11.012  
Muhammad Kamruzzaman , Mitsuaki Nishibuchi

**Cristóbal Mujica**  
Universidad Andres Bello, Chile

09.05 **Biodiversity of benthic invertebrates and organic matter processing in shallow marine sediments: an experimental study**

Journal of Experimental Marine Biology and Ecology 315 (2005) 187–209  
F. Mermillod-Blondina, F. François-Carcailletb, R. Rosenberg

**Paula Carpintero de Moraes**  
Universidad de Sao Paulo, Brazil

09.30 **Characterization of a marine gammaproteobacterium capable of aerobic anoxygenic photosynthesis** Proceedings of the National Academy of Sciences, 2007, February, vol. 104 no.8, 2891-2896  
Fuchs M., Spring S., Teeling., Quast C., Wulf J., Schattenhofer M., Yan S., Ferriera S., Johnson J., Glöckner F. O., Amann R. **Alvaro I. Salvo**  
PROFC, Universidad de Concepción, Chile

09.55 **Coffee Break**

**Session 2 Convener: Paula Carpintero de Moraes**

10.25 **NrrA, a nitrogen-responsive response regulator facilitates heterocyst development in the cyanobacterium *Anabaena sp.* strain PCC 7120** Molecular Microbiology (2006) 59(6), 1692–1703  
Shigeki Ehira and Masayuki Ohmori **Alejandro Murillo C.**  
P. Universidad catolica de Chile

10.50 **Significance of vertical flux as a sink for surface water DMSP and as a source for the sediment surface in coastal zones of northern Europe** Estuarine, Coastal and Shelf Science 68 (2006) 473-488  
Sauveur Belviso, Gérard Thouzeau, Sabine Schmidt, Marit Reigstad, Paul Wassmann, Elena Arashkevich, Jacqueline Stefels **Bibiana Jara Vergara**  
Universidad de Concepción, Chile

11.15 **Nitrogen Fixation at 92 °C by a hydrothermal vent Archaeon** Science 314, 1783 (2006)  
Mausmi P. Mehta and John A. Baross **J. Rafael Bermúdez M.**  
Universidad de Concepción, Chile

11.40 **A 3-Hydroxypropionate/4-Hydroxybutyrate autotrophic CO<sub>2</sub> assimilation pathway in Archaea.** Science 318, 1782 (2007)  
Berg, *et al.* **Germán Pérez**  
**Depto. Microbiología IIBCE, Uruguay**

12.05 **Lunch break**

**Session 3 Convener: *Cristóbal Mujica***

- 13.15 **Evidence for complete denitrification in a benthic foraminifer** Nature, 443 (2006) 93-97  
Nils Risgaard-Petersen, Alexandra M. Langezaal, Signe Ingvarsdén, Markus C. Schmid, Mike S. M. Jetten, Huub J. M. Op den Camp, Jan W. M. Derksen, Elisa Pin˜a-Ochoa, Susanne P. Eriksson, Lars Peter Nielsen, Niels Peter Revsbech, Tomas Cedhagen & Gijsbert J. van der Zwaan. ***Nicole Trefault***  
P. Universidad catolica de Chile
- 13.40 **Sulfolipids dramatically decrease phosphorus demand by picocyanobacteria in oligotrophic marine environments** PNAS, 2006. vol.103. no 23, 8607-8612  
Benjamin A.S. Van Mooy, Gabrielle Rocard, Helen F. Fredricks, Colleen T. Evans, and Allan H. Devol. ***Marcelo Fuentes***  
Universidad de Concepción, Chile (COPAS)
- 14.05 **Kinetics of microbial sulfate reduction in estuarine sediments** Geochimica et Cosmochimica Acta, 70 (2006) 1148-1162  
Céline Pallud and Philippe Van Cappellen ***Natalia V. Pizani***  
Universidad Nacional del Sur, Argentina
- 14.30 **Low-light-adapted *Prochlorococcus* species possess specific antennae for each photosystem** NATURE, 2003, Vol 424, 1051-1054. T. S. Bibby, I. Mary, J. Nield, F. Partensky & J. Barber ***Daniella Mella***  
Université Paris VI, France
- 14.55 **Coffee and Cookies**

**Session 4 Convener: Alejandro Murillo C.**

- 15.25 **Light stimulates growth of proteorhodopsin-containing marine Flavobacteria** NATURE, 445 (2007)  
Laura Gómez-Consarnau, Jose M. González, Montserrat Coll-Lladó, Pontus Gourdon, Torbjörn Pascher, Richard Neutze, Carlos Pedrós-Alio & Jarone Pinhassi ***Joicye Hernandez***  
Universidad de La Habana, Cuba

- 15.50 **Nitrite Reductase Genes (*nirK* and *nirS*) as Functional Markers To Investigate Diversity of Denitrifying Bacteria in Pacific Northwest Marine Sediment Communities** Braker, G.; Zhou, J.; Wu, L.; Devol, A.; Tiedje, J.M. (2000) Applied and Environmental Microbiology ***D' Lourdes Cuadra***  
IMARPE, Peru
- 16.15 **Community Structure of Ammonia-Oxidizing Bacteria Within Anoxic Marine Sediment** Thomas E. Freitag; and James I. Prosser (2003), Applied and Environmental Microbiology ***Leslie Abarzúa Ortiz***  
Universidad de Concepción, Chile
- 16.40 **General Discussion and evaluation of the papers presented during the minisymposium**
- 16.55 **Summary and Outlook** ***Daniel Vulot***  
*Station Biologique de Roscoff, CNRS et Université Paris 6*
- 17.00 **End of Symposium**
- 17.30 **Graduation** ***Oswaldo Ulloa***  
***Kurt Hanselmann***