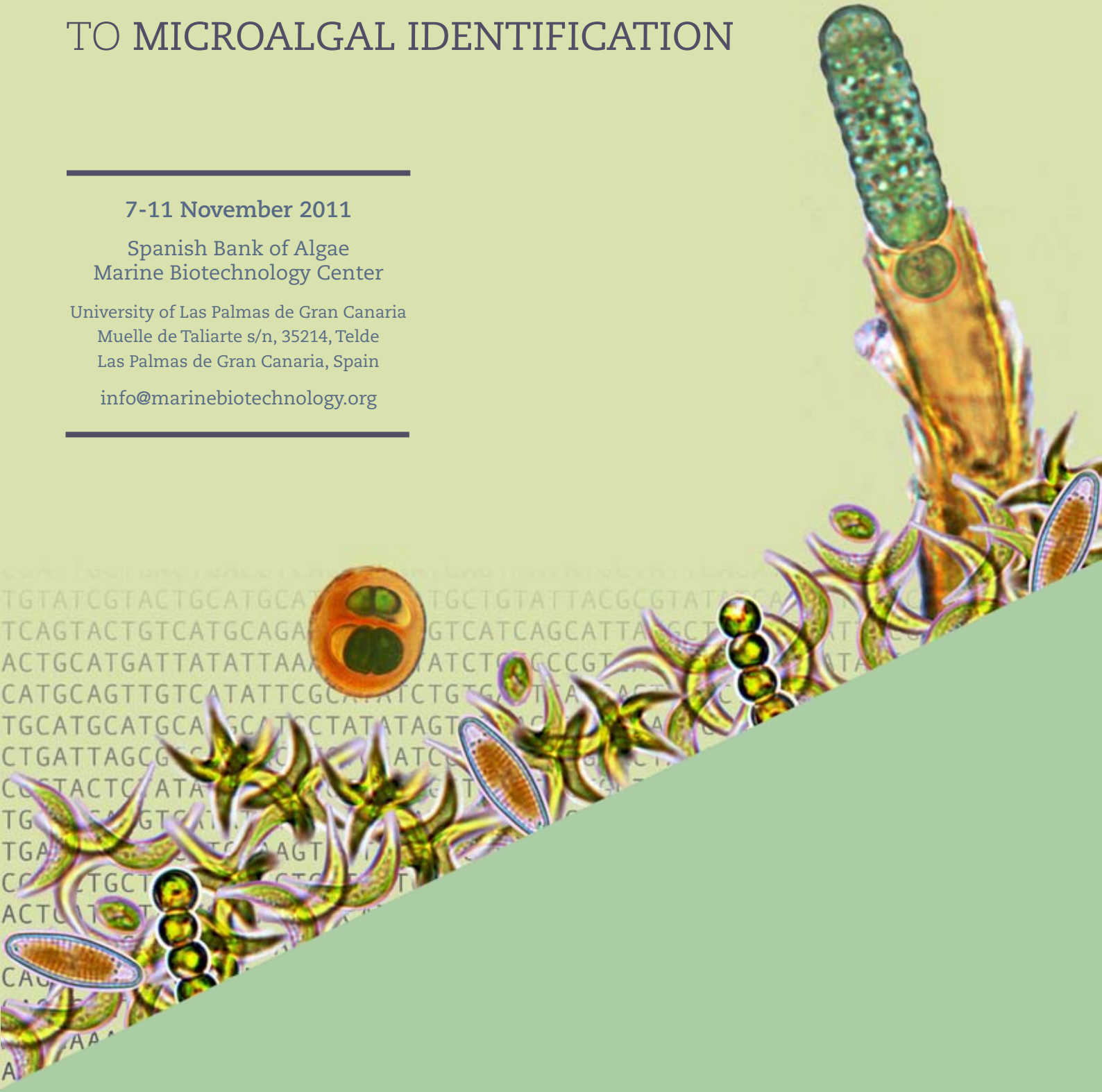
INTERNATIONAL TRAINING COURSE

APPLYING **MOLECULAR BIOLOGY** TO **MICROALGAL IDENTIFICATION**



7-11 November 2011

Spanish Bank of Algae
Marine Biotechnology Center

University of Las Palmas de Gran Canaria
Muelle de Taliarte s/n, 35214, Telde
Las Palmas de Gran Canaria, Spain

info@marinebiotechnology.org

BANCO ESPAÑOL DE ALGAS
marinebiotechnology.org

CENTRO DE BIOTECNOLOGÍA MARINA
marinebiotechnology.org

UNIVERSIDAD DE LAS PALMAS DE GRAN CANARIA

INTERNATIONAL TRAINING COURSE

APPLYING MOLECULAR BIOLOGY TO MICROALGAL IDENTIFICATION

The BEA (Banco Español de Algas) offers a 5-day intensive 'hands-on' training course on methods of genomic DNA extraction, amplification of barcoding markers through Polymerase-Chain-Reaction (PCR) and bioinformatic analyses of DNA sequence data for the identification of marine and freshwater microalgae.

Location:

Spanish Bank of Algae
Marine Biotechnology Center
University of Las Palmas de Gran Canaria
Muelle de Taliarte s/n
35214 Telde, Las Palmas de Gran Canaria, Spain

Contact: info@marinebiotechnology.org

Date: 7-11 November 2011

Course Fee: 1500 € (lunch and coffee breaks are included. Travel and accommodation is not, but BEA staff can assist in the arrangement).

Maximum number of participants: 12

Faculty: Dr. Carolina P. Reyes (Senior Scientist, BEA, University of Las Palmas Gran Canaria), Dr. Birger Marin (Lecturer, University of Cologne), Dipl. Biol. Dominik R. Laetsch (Research Scientist, BEA, University of Las Palmas de Gran Canaria).

Application deadline: 30th September 2011

Programme: We offer an intensive five-day (40 hours) training course covering basic techniques of molecular biology and bioinformatics for the identification and characterization of microalgae using DNA sequences. The course is designed to give hands-on practical training for academic graduate students, faculty members and algal-biotech personnel. No prior experience in molecular biology techniques is required.

The course starts with an introduction into the basic concepts of DNA laboratory skills and their application to microalgae research. Participants will carry out genomic DNA extractions from several divisions of microalgae and learn about methods of quantification, quality assessment and long-term storage of DNA. Lectures on DNA Barcoding/DNA Taxonomy will serve as an introduction to the amplification of genetic markers through PCR. After purification of the PCR products, and following sequencing, participants will be introduced to strategies of sequence alignment, analysis of RNA secondary structures and bioinformatic analysis of DNA sequences including the inference of phylogenetic trees.

Participants are encouraged to bring their own microalgae strains for extraction of genomic DNA, sequencing of standard barcoding regions and subsequent bioinformatic analysis.

BANCO ESPAÑOL DE ALGAS
marinebiotechnology.org

CENTRO DE BIOTECNOLOGÍA MARINA
marinebiotechnology.org

UNIVERSIDAD DE LAS PALMAS DE GRAN CANARIA