

Time Schedule for Micro B3 Summer School @ HCMR, Monday 26 May until Friday 6 June 2014

	Day 1, 26 May	Day 2, 27 May	Day 3, 28 May	Day 4, 29 May	Day 5, 30 May	Day 6 and 7
	INTRO	SAMPLING	GENERATING DATA	IPR & ABS	APPLIED OMICS & BIOTECH	Free
BLOCK 1 (9:00-10:30)	Introductory Lectures (Georgios Kotoulas; Johanna Wesnigk); Short presentation of participants (2 min, no slides)		Lecture (Vivi Pitta) Sampling Mesocosms: Overview of enrichment experiments Set-up & filtration	Lecture (Arianna Broggiato, Univ. Louvain) IPR and ABS in theory; Getting sampling permits;	Lecture (Chris Bowler): Omics to assess biodiversity, ecology and community structures	
BLOCK 2 (11:00-12:30)	Lecture (Christos Arvanitidis / Ioannis Karakassis. Technicians: Apostolis Kristallas, Maria Maidanou) Preparing the sampling at sea: Overview of monitoring methods; Tomorrow's boat trip; Sampling protocols; Sterivex protocol; OSD Handbook & Logsheets, Stephane Pesant available to provide clarifications	Hands-on (HCMR) & Boat trips: Group 1: sampling at sea, filtrations and sample preparation onboard; Group 2: preparation of filtrations and measuring environmental parameters	Hands-on (Anastasia Tsiola, Christina Pavlouidi): Analysis of mesocosm samples (mesocosm experiment (T2) sampling & filtrations); Group 1: molecular analysis; Group 2: environmental parameters; Group 3: flow cytometry	Law of the Seas, CBD, CIESM charter - what is needed for biodiversity researchers (Johanna B. Wesnigk, EMPA), Setting-up role play	Lecture (Chris Bowler): Omics for functional studies, incl. biotechnological aspects	
BLOCK 3 (14:00-15:30)	Lecture (Stéphane Pesant): Integrating environmental, biodiversity and genomics data		Hands-on (Anastasia Tsiola, Christina Pavlouidi): Analysis of mesocosm samples (mesocosm experiment (T2) sampling & filtrations); Group 1: flow cytometry; Group 2: molecular analysis; Group 3: environmental parameters	Hands-on (Moderator Johanna W.) Group work on four different role plays	Hands-on (Christina Pavlouidi, Jon Bent Kirstoffersen): Preparation for amplicon sequencing (16S and N-cycle related genes (e.g. narG and nirS)	
Participants' Short Presentations (15:30-16:00)	Shorts (participants) Poster & coffee	Hands-on (HCMR) Group 2: sampling at sea, filtrations and sample preparation onboard; Group 1: log sheets, lab filtrations and environmental parameters	Shorts (participants) Poster & coffee	Shorts (participants) Poster & coffee	Shorts (participants) Poster & coffee , distributing homework	
BLOCK 4 (16:00-17:00)	Group work: Study protocols for sampling at sea and mesocosm experiments (OSD Handbook & Logsheets); Stephane Pesant available to provide clarifications; Anastasia Tsiola available to explain the mesocosm experimental set up		Hands-on (Anastasia Tsiola, Christina Pavlouidi): Analysis of mesocosm samples; Group 1: environmental parameters; Group 2: flow cytometry; Group 3: molecular analysis	Hands-on (Moderator Johanna W.) Presenting role plays to plenary and discussing outcomes	Shorts (Urania Christaki): Molecular diversity highlights overlooked and novel unicellular eukaryotes in the plankton realm	
Summer School Short Presentations (17:00-17:30)	Shorts (Matina Nikolopoulou): Marine environmental data from around Crete (GIS)	Shorts (Anastasia Tsiola, Evangelos Pafilis): Short recap of field sampling (GIS)	Shorts (Nikos Paranychianakis): Nitrifying and denitrifying microbial communities		Shorts (Voula Polymenakou): Diversity of marine microbial ecosystems and bioprospecting opportunities	

	Day 8, Mo 2 June	Day 9, 3 June	Day 10, 4 June	Day 11, 5 June	Day 12, 6 June
	DATA FLOW	BIODIVERSITY & GENOMICS	BIODIVERSITY GENOMICS	STATISTICS & MODELING	OUTLOOK
BLOCK 1 (9:00-10:30)	Lecture (Evangelos Pafilis; Anna Klindworth) Role of scientists for optimum in-house results; Interoperability with international standards and tools; Sampling & OSD handbook "lessons learnt"	Lecture (Christos Arvanitidis / Ioannis Karakassis) Traditional methods in oceanography and marine biodiversity research	Lecture (Pascal Hingamp): Metagenome for biodiversity analyses focusing on the techniques for taxonomic assignments	Lecture (Alban Ramette): Obtaining valid knowledge from genomic and environmental data	Lectures: Analyses wrap up (Alban, Mesude) BIOVEL workflows (Antonio) Micro B3 final OSD jamboree in 2015 (Pascal)
BLOCK 2 (11:00-12:30)	Hands-on (Evangelos Pafilis; Anna Klindworth; FOG): uploading rDNA tags to SILVAngs	Hands-on (Mesude Bicak, Antonio Fernandez-Guerra): Extraction of relevant OSD data from ENA and PANGAEA, and additional contextual data from online tools such as MegX.net Hands-on: UNIX primer	Hands-on (Antonio F. Guerra) Visualization of co-occurrence networks	Lecture (Alban Ramette): Statistics and Ecosystem Modeling	Lecture (Dawn Field, Mesude Bicak): Last miles to OSD 2014
BLOCK 3 (14:00-15:30)	Lecture (Stephane Pesant; Renzo Kottmann): Quality checking, formatting and submitting metadata and data to ENA/PANGAEA separately and via the beta Micro B3 brokering system	Lecture (Anastasis Oulas) Environmental and marine bioinformatics for biologists and biotechnologists.	Lecture (Frank Oliver Glöckner) SILVA/SILVAngs	Hands-on (Mesude Bicak, Alban Ramette): Analysis of genomics and environmental data from pilot OSD 2012-2013	Evaluation round (optional) and questionnaire (mandatory) (if necessary during the lunch break)
Participants' Short Presentations (15:30-16:00)	Shorts (Participants) OSD handbook review & Coffee	Shorts (Participants) OSD handbook review & Coffee	Shorts (Participants) OSD handbook review & Coffee	Shorts (Participants) OSD handbook review & Coffee	Option for final round / Travel home
BLOCK 4 (16:00-17:00)	Hands-on (Stephane Pesant; Renzo Kottmann) Quality checking, formatting and submitting metadata and data from the mesocosm experiment and sampling at sea	Hands-on (Anastasis Oulas) Qiime: a tool for analysing biodiversity.	Hands-on (FOG/Mesude Bicak/Anna Klindworth) Walk through the results of SILVAngs	Hands-on (Mesude Bicak, Alban Ramette): Analysis of genomics and environmental data from mesocosm experiments	
Summer School Short Presentations (17:00-17:30)	Lecture open for last minute changes	Shorts (OSD-Team, Dawn Field): OSD status, citizen science, future of OSD	Shorts (Nikos Kyrpides, JGI): Future of microbial genomics	Shorts (Nikos Kyrpides, JGI): Comparative analysis methods for microbial (meta)genomes	