KEY: Overview; Fundamentals; Ecology; Physiology; Genetics and systems biology; Discussions/Exercises/Hands-on; Presentations; Conclusion

Summer Course on Biofilm Processes and their Applications

27 June - 15 July 2017

	27-Jun	28-Jun	29-Jun	30-Jun	1-Jul	2-Jul	3-Jul	4-Jul	5-Jul	6-Jul	7-Jul	8-Jul	9-Jul	10-Jul	11-Jul	12-Jul	13-Jul	14-Jul	15-Jul (Closing)
	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
09:00AM - 09:30AM	Arrival and Registration	Welcome & Course Overview	Gene Expression and Regulation	Biofouling	Basic Ecological Principles II	Cultural Tour	Cycling of sulfur, iron and phosphorus in environment and technical systems	Electroconductivity	Microbial Fuel Cells	**Metagenomics Day** Metagenomics (I)	Bioprocesses in Wastewater Treatment	Free Day	Free Day	**Holobionts Day** Marine holobionts	Biofilm Kinetics and Modelling	Mixed Species Interactions	Big Data for Microbiology: Tracking Early Biofilm Development at Single Cell Resolution	**NUS DAY** Systems Biology of Complex Microbial Communities	Overview Discussion
09:30AM - 10:00AM																			
10:00AM - 10:30AM																			
10:30AM - 11:00AM														Coffee Break					
11:00AM - 11:30AM		Coffee Break					Coffee Break							Human microbiome	Coffee Break				
11:30AM - 12:00PM		Biofilm concepts	Genomics Principles	Signalling/Cell-Cell Communication in biofilms	Carbon and nitrogen cycling in environment and technical systems		Marine Microbiology	Predation	Hands-on potentiostat session	Metagenomics (II)	Biofilm Matrix				Numericals/ Exercises II	Medical Biofilms	Ecology and Functioning of Tropical Peatlands	Chemical Biology	Concluding Session; Feedback
12:00PM - 12:30PM																			
12:30PM - 1:00PM														Lunch					
01:00PM - 01:30PM		Lunch					Lunch								Lunch				
01:30PM - 02:00PM																			
02:00PM - 02:30PM														Plant Microbiome					
02:30PM - 03:00PM		Environmental Life Sciences @ SCELSE: An Overview	Synthetic Biology	Basic Ecological Principles I	Experimental design & data analysis- Hands-on session		Biocorrosion	Aquatic Microbial Ecology	Applications of electrochemistry	Metagenomics using MEGAN Metagenomics Hands-on session	Nitrogen removal from waste water				Student Presentations	Approaches to Biofilm Drug Discovery	How to Use Geometry and Physics to Make Antibiotics	Metabolomics and its Applications in Microbial Ecology	Photo Session
03:00PM - 03:30PM																			
03:30PM - 04:00PM		Biofilm fundamentals												Discussion					
04:00PM - 04:30PM																			
04:30PM - 05:00PM		Coffee Break					Coffee Break							Coffee Break					
05:00PM - 05:30PM		Student Presentations Planning	Student Presentations	Student Presentations	Experimental design & data analysis- Hands-on session		Student Presentations	Student Presentations	Student Presentations	Metagenomics using MEGAN Metagenomics Hands-on session	Student Presentations			Numericals /Exercises I	Student Presentations	Student Presentations	Resource recovery: The Future of Wastewater Management?	Visits to NERI & Van Kleef Centre	
05:30PM - 06:00 PM																			
6 PM Onwards	Dinner																Dinner		