

Program of Vibrio2016
Oral sessions and Events

Time	Tuesday March 29th 2016	Page
12h00-18h00	Registration Desk Opens	
18h00-20h00	Welcome mixer	
Wednesday March 30th 2016		
9h15-9h30	Bus Roscoff-Saint Pol	
9h30-10h00	Poster installation	
10h00-10h10	General informations, Freddie	
10h10-10h50	Keynote: Mechanism of biofilm formation in <i>Vibrio cholerae</i> Pr Fitnat Yildiz, <i>University of California, Santa Cruz, USA</i>	4
10h50-11h20	Coffee break	
11h20	SESSION 1: ECOLOGY AND EVOLUTION Chairs: Dr Diane. Mc Dougald & Dr James Oliver	
11H20-11H45	Dominance of novel nontailed phages in a large scale viral infection network of marine <i>Vibrio</i> Dr Kathryn Kauffman, <i>MIT, Cambridge, USA</i>	6
11h45-12h00	Rapid resistance evolution in <i>Vibrio alginolyticus</i> to temperate phages Dr Carolin Wendling, <i>GEOMAR Helmholtz Centre for Ocean Research, Kiel, Germany</i>	7
12h00-12H15	<i>Crassostrea gigas-Vibrio crassostreae</i> a crime passionel? Dr Maxime Bruto, <i>Station Biologique de Roscoff, France</i>	8
12h15-12H30	Who said life is simple? - Higher order biotic interactions between pathogenic vibrios, hosts, host associated microbiota and other parasites Dr Mathias Wegner, <i>Alfred Wegener Institute - Helmholtz Centre for Marine and Polar Research (AWI), Sylt, Germany</i>	9
12h30-13h30	Lunch	
13h30-13h55	Population structure of <i>Vibrio cholerae</i> on Local and Global Scales Dr Yann Boucher, <i>University of Alberta, Canada</i>	10
13h55-14h10	Differences in <i>Vibrio vulnificus</i> and <i>Vibrio parahaemolyticus</i> ecology between clams and oysters collected from the same location Dr Brett Froelich, <i>The University of North Carolina at Chapel Hill, Institute of Marine Sciences (UNC - IMS), USA</i>	11

14h10-14h25	The transcriptome of <i>Vibrio cholerae</i> exposed to predation by <i>Acanthamoeba castellanii</i> reveals hmgA-mediated pyomelanization confers grazing resistance Dr Diane Mcdougald, <i>Singapore Centre on Environmental Life Sciences Engineering (SCElse)</i> , Singapore	12
14H25	SESSION 2: EPIDEMIOLOGY Chairs: Pr Rita Colwell & Pr Fabiano Thompson	
14h25-14h50	<i>Vibrio cholerae</i> non-O1/non-O139: a reservoir of virulence, antibiotic resistance and fitness genes Dr Daniela Ceccarelli, <i>Central Veterinary Institute of Wageningen University and Research, Lelystad, The Netherlands</i>	14
14h50-15h05	Biofilm Component of the Annual Cycle of <i>Vibrio cholerae</i> in the Bay of Bengal Estuary Dr Munirul Alam, <i>International Center for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh</i>	15
15h05-15h30	Coffee break	
15h30-15h45	Modeling the role of mass gatherings in the spreading of cholera outbreaks in Senegal using human mobility estimates derived from mobile phone records Dr Guillaume Constantin De Magny, <i>Institut de Recherche pour le Développement (IRD), Marseille, France</i>	16
15h45-16h00	Vibrios at the top of the World: <i>Vibrio</i> wound infections in Sub-Arctic waters Dr Craig Baker-Austin, <i>Cefas, UK</i>	17
16h00-16h15	Waterbirds as possible vectors of <i>Vibrio cholerae</i> Dr Sivan Laviad, <i>University of Haifa Department of Evolutionary and Environmental Biology, Israel</i>	18
16h15-18h15	Poster session	
18h15-18h30	Bus Saint Pol-Roscoff	
20h-	Conference Dinner at the Gulf stream restaurant, Roscoff	

Thursday March 31th 2016

9h15-9h30

Bus Roscoff-Saint Pol

9H30

SESSION 3: PATHOGENESIS AND HOST INTERACTION
Chairs: Dr Delphine Destoumieux-Garzón & Dr Karl Klose; Pr Fitnat Yildiz & Pr Didier Mazel

9h30-9h55

Remodeling of *Vibrio cholerae* LPS: Charging up the outer membrane
Pr M. Stephen Trent, *University of Texas, Austin, USA*

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9h55-10h20

Impact of virulent phages on pathogenic *V. cholerae*
Pr Andrew Camilli, *Tufts University, School of Medicine, Boston, USA*

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10h20-10h35

Identification and characterization of a *Vibrio cholerae* rhomboid serine protease and its role in cationic antimicrobial peptide resistance
Dr Carmen Herrera, *Department of Infectious Diseases. The College of Veterinary Medicine. The University of Georgia, USA*

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10h35-11h05

Coffee break

11h05-11h20

Colonization factor discovery in *Vibrio fischeri* yields novel positive and negative regulators of biofilm development in vivo
Dr Mark Mandel, *Northwestern University, Chicago, USA*

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11h20-11h35

The interplay between the amoeba *Acanthamoeba castellanii* and the pathogen *Vibrio cholerae*
Dr Charles Van der Henst, *Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland*

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11h35-11h50

***Vibrio vulnificus* MARTX toxin effector domains control host cell signaling during pathogenesis**
Pr Karla Satchell, *Northwestern University Feinberg School of Medicine, USA*

25

11h50-12h05

During the initiation of symbiosis, *Vibrio fischeri* OMVs deliver LPS and PGN, triggering specific host responses.
Dr Marie-Stéphanie Aschtgen, *University of Wisconsin-Madison, USA*

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12h05-12h20

***Vibrio coralliilyticus* causes rapid immune response and mortality in the Eastern oyster, *Crassostrea virginica*, after exposure to anoxia**
Dr Britney Phippen, *University of North Carolina at Charlotte (UNCC), USA*

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12h20-13h30

Lunch

13h30-13h55

The use of an invertebrate host to dissect the metabolic interactions of *Vibrio cholerae* with the host intestine
Pr Paula Watnick, *Boston Children's Hospital, HMS, Boston, USA*

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13h55-14h20

Structure and function of a new toxin secreted by two shrimp pathogens
Dr Yannick Labreuche, *Station Biologique de Roscoff, France*

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14h20-14h35

Natural competence in *Vibrio cholerae* vaccine candidate 638 before and

30

after passing human gut

Dr Talena Ledón, *National Center for Scientific Research (CNIC), Habana, Cuba*

- 14h35-14h50 **Indole signaling controls the virulence of *Vibrio anguillarum* and *Vibrio campbellii*** 31
Dr Tom Defoirdt, *Ghent University, Belgium*
- 14h50-15h05 **Genome-wide identification of *Vibrio vulnificus* genes critical for pathogen survival and replication in human serum** 32
Dr Miguel Carda-Diéguez, *ERI BioTecMed, University of Valencia, Spain*
- 15h05-15h30 **Coffee break**
- 15h30-15h45 **Total transcriptome analysis of human pathogen *V. vulnificus* during infection suggests biotype-specific virulence strategie** 33
Dr Yael Danin-Poleg, *Faculty of Biotechnology and Food Engineering, Technion-Israel*
- 15h45-16h00 **The *Vibrio cholerae* glycine cleavage system modulates virulence in an invertebrate model of infection** 34
Dr Audrey Vanhove, *Boston Children's Hospital, HMS, Boston, USA*
- 16h00-16h15 **Copper homeostasis at the oyster vibrio interface** 35
Tristan Rubio, *Interactions Hôtes-Pathogènes-Environnements (IHPE), Université de Montpellier, CNRS, UPVD, Ifremer, France*
- 16h15-16h30 **MARTX toxin effector domains confer and modulate *Vibrio vulnificus* virulence** 36
Dr Hannah Gavin, *Northwestern University Feinberg School of Medicine, USA*
- 16h30-18h15 **Poster session**
- 18h15-18h30 **Bus Saint Pol-Roscoff**
- 18h45-20h15 **ICSP meeting http or Europe-Vibrio round tables at the station biologique of Roscoff**
- 20H30- **Fest Noz**

Friday April 1th 2016

9h15-9h30	Bus Roscoff-Saint Pol	
9H30	SESSION 4: GENOME PLASTICITY Chairs: Dr Annick Jacq & DR Maurizio Labbate	
9h30-9h55	Cell division licensing in the Vibrios Dr Francois Xavier Barre, <i>Institute for Integrative Biology of the Cell (I2BC), Université Paris-Saclay, CEA, CNRS, Université Paris Sud, France</i>	38
9h55-10h10	A checkpoint control orchestrates the replication of the two chromosomes of <i>Vibrio cholerae</i> Dr Marie-Eve Val, <i>Bacterial Genome Plasticity, Genomes & Genetic Department, Institut Pasteur de Paris, France</i>	39
10h10-10h25	Location of ribosomal protein genes impacts <i>Vibrio cholerae</i> in absence of simultaneous replication rounds Dr Alfonso Soler-Bistue, <i>Bacterial Genome Plasticity, Genomes & Genetic Department, Institut Pasteur de Paris, France</i>	40
10h25-10h40	IncA/C conjugative plasmids mobilize a new family of multidrug resistance islands found among clinical <i>Vibrio cholerae</i> non-O1/non-O139 in Haiti Dr Nicolas Carraro, <i>Laboratory of Bacterial Molecular Genetics, Université de Sherbrooke, Canada</i>	41
10h40-11h10	Coffee break	
11h10	SESSION 5: MOLECULAR MECHANISMS Chairs: Dr Annick Jacq & Dr Maurizio Labbate; Pr Edward Ruby & Dr Melanie Blokesch	
11h10-11h35	Killing for DNA - the type VI secretion system of <i>Vibrio cholerae</i> fosters horizontal gene transfer Dr Mélanie Blokesch, <i>Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland</i>	43
11h35-12h00	Mechanisms and consequences of bacterial competition strategies Dr Stefan Pukatzki, <i>University of Alberta, Canada</i>	44
12h-12h15	Differential thiol-based switches jump-start <i>Vibrio cholerae</i> pathogenesis Dr Jay Zhu, <i>University of Pennsylvania, USA</i>	45
12h15-12h30	Type VI Secretion Master Regulators – Two for One Dr Lisa Metzger, <i>Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland</i>	46
12h30-13h30	Lunch	

13h30-13h55	Uncovering the cell wall plasticity of vibrios Dr Felipe Cava, <i>Department of Molecular Biology, Umeå University, Umeå, Sweden</i>	47
13h55-14h20	A tale of two genomic islands in <i>Vibrio cholerae</i> from Australian isolates Dr Maurizio Labbate, <i>University of Technology Sydney, Australia</i>	48
14h20-14h35	Two phases of EIIA-glucose as a mechanism of metabolic regulation in <i>Vibrio cholerae</i> Dr Vidhya Vijayakumar, <i>Boston Children's Hospital, HMS, Boston, USA</i>	49
14h35-14h50	Identification of molecules involved in aminoglycoside tolerance in <i>Vibrio cholerae</i> through highthroughput approaches Dr Sebastian Aguilar-Pierlé, <i>Bacterial Genome Plasticity, Genomes & Genetic Department, Institut Pasteur de Paris, France</i>	50
14h50-15h05	A highly specific set of amino acids governs recognition between TolA and PIII during CTX phage import into <i>V. cholera</i> cell. Dr Laetitia Houot, <i>Laboratoire d'ingénierie des systèmes macromoléculaires, Aix-Marseille Université, France</i>	51
15h05-15h20	Production of the major cytotoxicity factor, Vsm metalloprotease is under the control of a complex regulatory network involving the CsrA/CsrB pathway, quorum sensing and RpoS in the oyster pathogen <i>Vibrio tasmaniensis</i> Dr Annick Jacq, <i>Institut de Biologie Intégrative de la Cellule (I2BC), Université Paris sud, France</i>	52
15h20-15h50	Coffee break	
15h50-16h15	Regulated proteolysis of key regulators in <i>Vibrio cholerae</i> Dr Joachim Reidl, <i>Institute of Molecular Biosciences, University of Graz, Austria</i>	53
16h15-16h40	Modulation of the bacterial virulence by proteolytic enzymes Pr Shin-Ici Miyoshi, <i>Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University, Okayama, Japan</i>	54
16h40-17h30	Conclusion and Keynote : A comparative genomics and transcriptomics view of colonization in the squid-vibrio symbiosis Dr Ned Ruby, <i>University of Hawaii-Manoa, USA</i>	55
18h15-18h30	Bus Saint Pol-Roscoff	
	Saturday April 2th 2016	
10h-	Excursion to Ile de Batz	