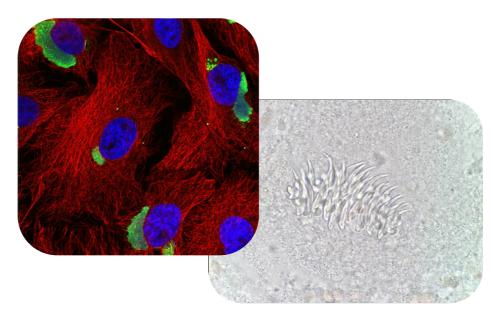


SWISS SOCIETY FOR MICROBIOLOGY
SOCIÉTÉ SUISSE DE MICROBIOLOGIE
SOCIETÀ SVIZZERA DI MICROBIOLOGIA
SCHWEIZERISCHE GESELLSCHAFT FÜR MIKROBIOLOGIE



# SSM ANNUAL MEETING 2016 & SSM Satellite Meetings



BERN 13<sup>th</sup> to 15<sup>th</sup> June, 2016

(The SSM meeting will be joined with the SULM meeting that takes place from 14<sup>th</sup> to 16th June 2016)

### WELCOME TO SSM MICROBIOLOGY MEETING

## **EVOLUTION**

### Dear all,

The SSM annual meeting that will take place in Bern will be the 74<sup>th</sup> edition, but you will likely consider it as unique, as being the 1<sup>st</sup> of a new serie of annual meeting since it evolved quite extensively following the input of the SSM committee who nearly made a revolution by joining the Swiss annual meeting of each section to the general SSM meeting at the same location on 3 consecutive days. Thus, on Monday 13<sup>th</sup> June you will be able to meet in one of five parallel rooms with the others scientists especially interested in one of the five main themes tackled by our SSM members:

- Clinical microbiology
- Environmental Microbiology
- Prokaryotic Biology
- Mycology
- Virology

Please note that we have dedicated numerous time slots for presentations selected from abstracts in order to give particularly students and PostDocs the opportunity to present and discuss their work. Another revolution is the many sessions dedicated to education, outreach and lay communication. Finally, true revolution, we will have our meeting partially embedded with SULM, the united society of laboratory medicine (see below).

The motto of the congress is nevertheless "evolution" and not "revolution", since the two next days will have largely a more familiar format with several outstanding plenary lectures, that will mainly focus on the "evolution": evolution of microbes (symbionts), evolution of antimicrobial resistance, emerging pathogenic microbes due to an evolution in our lifestyle, evolution of technologies with new "omics" approaches making our understanding of diversity and ecology much more accurate, evolution of the place that microbiology has in the society (increased importance due to major recent outbreaks such as Ebola and Zika viruses, ...).

We hope that this scientific program will help Swiss microbiologists to further develop since we need to evolve and improve our knowledge just to stay as good as we are due to the major evolution that also take place in our specialty, whatever the field. Thus, fundamental virology, basic research in mycology and prokaryotic biology all largely benefit from new molecular and cell microbiology tools whereas environmental and clinical microbiology have both been largely impacted by the availability of new high throughput technologies. Thus, for example, clinical diagnostic microbiology which was earlier mainly a specialty aiming at the diagnosis of infectious diseases is now progressively also helping the etiological diagnosis of non-infectious diseases such as obesity, asthma and diabetes. This change in sequencing throughput, a true revolution for diagnostic laboratories, led to another challenge: how to adapt to the wave of big data ...

To answer this question, the many symposia organized on big data by the SULM, (united societies of laboratory medicine) will for sure attract much interest. The SULM meeting will also dedicate quite a large part to the rapid tests, which also modify how clinical diagnostic is done nowadays ...

By chance, thank to the local organizing committee, we will also have a revolution in the format of the evenings events with a "students party on Monday" and a gala dinner on Tuesday ...

Thus, everything is thus ready to welcome you in Bern from 13<sup>th</sup> to 15<sup>th</sup> June.

Best regards

Gilbert Greub & Volker Thiel

# **MEETING INFORMATION**

### **KEY DATES:**

Deadline for submission of abstracts: March 14<sup>th</sup>, 2016 Notification of acceptance of abstracts: April 11<sup>th</sup> 2016 Deadline for "early bird" Congress fee: April 14<sup>th</sup> 2016

Pre-SSM meeting satellite symposia: 13<sup>th</sup> June 2016 (see page 8-26) 14-15<sup>th</sup> June 2016 (see page 27-36)

### **AUDIO VISUAL:**

Slide presentation must be on powerpoint (ppt) [or PDF format] The data of presentations must be carried on memory stick.

### **REGISTRATION:**

Please register through the SULM website:

http://www.sulm.ch/f/swissmedlab/enregistrement/inscription .

### **VENUE OF THE MEETING:**

In the congress center of BERNEXPO



BERNEXPO AG •• Mingerstrasse 6 •• CH-3000 Bern 22 •• T +41 31 340 11 11 •• F +41 31 340 11 10 •• info@bernexpo.ch

### **HOW TO REACH THE MEETING?**

### By public transportation

From the railway station: TRAM N° 9 to Guisanplatz

BUS N° 20 to Wyler

BUS N° 28 to Wankdorfplatz

Trains to S-Bahn Wankdorf station

### By Car

Thanks to the proximity to the motorway, it is easy to come by car. Parking spaces are available on the websites of BERNEXPO and accessible 24h / 24h.

### LOCAL ORGANIZING COMMITTEE:

Barbara Gautschi, Meri Gorgievski-Hrisoho, Christine Herzig, Stephen Leib, Vincent Perreten, Volker Thiel.

### **SCIENTIFIC COMMITTEE:**

Beat Christen, Alexis Dumoulin, Reto Lienhard, Adrian Egli, Reno Frei, Meri Gorgievski, Gilbert Greub, Christof Holliger, Pilar Junier, Stephen Leib, Salome Leibundgut-Landmann, Vincent Perreten, Karl Perron, Dominique Sanglard, Jacques Schrenzel, Volker Thiel,

Patrick Viollier, Andrea Zbinden, Reinhard Zbinden, Annelies Zinkernagel.





June 13, 2016 from 7.30pm until midnight

# EVENTFORUM B E R N



19:00h get together

19:30h opening buffet (salad bar, American buffet, dessert, drinks)

20:30h live band SUSPENDERS

Eventforum Bern - getting there......

by car... You leave A1 highway in «Bern Forsthaus»

Turn left at the first light into Bremgartenstrasse Turn right on the parking spot Hochschulzentrum

by public transportation... From main station Bern take bus (Postauto no. 101) until stop

«Güterbahnhof» and walk right over the bridge. After the first building turn left through the (green) door, then you are right beside the Eventforum Bern.

Or you take the Länggassbus no. 12 until final destination, then take a short walk of around 5 minutes from Länggassstrasse along Fabrikstrasse to the Eventforum.



Last bus no. 12 from Länggasse to the main station: 00:18h Last bus no. 101 (Postauto) to the main station: 00:41h

# **INVITED SPEAKERS LIST:**

Albrich	Werner	CLILM Cossion 15 OC 201C	Ruppe	Etienne	Society 112.00.10
Auckenthaler	i	SULM Session 15.06.2016	Salathé		Session I 13.06.16
Bachofen	Raymond	SULM Session 15.06.2016	Sanders	Marcel	Pl.Session III 15.06.16
	Claudia	Session II 13.06.16		lan	Session II 13.06.16
Ball	Steven	Session IX 15.06.16	Schrenzel	Jacques	SULM Session 15.06.2016
Barral	Yves	Session I 13.06.16	Shimizu	Tom	Session V 14.06.16
Battin	Tom	Session I 13.06.16	Suzuki	Nobuhiro	Session I 13.06.16
Berkhout	Ben	Session III 13.06.16	Tait	Joyce	Session VII 14.06.16
Bernasconi	Eric	Session III 14.06.16	Van de Veerdonk	Frank	Session III 13.06.2016
Biondi	Emanuele	Session X 15.06.16	Van der Woude	Marjan	Session X 15.06.16
Bodmer	Thomas	BD Symposium 13.06.16	Verran	Joanna	Po.Session II 15.06.16
Böttger	Erik C.	Session VI 14.06.16	Vila	Jordil	Po Session IV 13.06.16
Brunke	Sascha	Session I 14.06.16	Vjestica	Aleksandar	Session I 13.06.16
Bumann	Dirk	Session V 14.06.16	Vollmer	Waldemar	Session I 13.06.16
Caine	Massimo	Mini Symposium 15.06.16	Weber	Aurélia	Mini Symposium 14.06.16
Carabeo	Ray A.	Session II 14.06.16	Woebken	Dagmar	Session IV 13.06.16
Darcy	Christen	Po.Session I 14.06.16	Zbinden	Reinhard	Workshop Bruker 14.06.16
Domingo	Esteban	Session I 14.06.16	Zimmerli	Stefan	Pl.Session II 15.06.16
Drancourt	Michel	Session II 15.06.16	Zürcher	Samuel	Session IV 14.06.16
Dubreuil	Luc	Workshop Axonlab 13.06.16			3633101111 11.00.10
Eberl	Leo	Session IX 15.06.16	-		
Enjuanes	Luis	Session IV 13.06.16		Organising Committe	ee
Ernberg	Tobias	Session I+II 13.06.16	Christen	Beat	Organising committee
Falquet	Laurent	Session X 15.06.16	Dumoulin	Alexis	Organising committee
Fischer	Matthias	Session VIII 14.06.16	Egli	Adrian	Organising committee
Garcia-Sastre	Adolfo	Pl.Session I + S. VII 14.06.16	Frei	R.	Organising committee
Genevaux	Pierre	Session II 13.06.16	Gorgievski	Meri	Organising committee
Gorgievski-	Meri	Session II 13.06.16	Greub	Gilbert	Organising committee
Greber	Urs	Session II 14.06.16	Holliger	Christof	Organising committee
Greub	Gilbert	SULM Session 15.06.2016	Junier	Pilar	Organising committee
Helsloot	Alina	SessionI+ II 13.06.16	Leib	Stephen	Organising committee
Hilbi	Hubert	Session II 13.06.16	Leibundgut	Salome	Organising committee
Hoepfner	Dominic	Session IV 13.06.16	Lienhard	Reto	Organising committee
Ibelings	Bastiaan	Session II 13.06.16	Perreten	Vincent	Organising committee
Invernizzi	Cédric	Session VII 14.06.16	Perron	Karl	Organising committee
Jaton-Ogay	Katia	Session III 13.06.16	Sanglard	Dominique	Organising committee
Kaiser	Laurent	Session IV 14.06.16	Schrenzel	Jacques	Organising committee
Kutz	Alexander	SULM Session 15.06.2016	Thiel	Volker	Organising committee
Leendert	Hamoen	Session III 13.06.16	Viollier	Patrick	Organising committee
Lemaitre	Bruno	Pl.Session I 14.06.16	Zbinden	Reinhard	Organising committee
Mayor	Désiré	SULM Session 15.06.2016	Zbinden	Andrea	Organising committee
McCoy	Kathleen	Session III 14.06.16	Zinkernagel	Annelies	Organising committee
Pernthaler	Jakob	Session III 13.06.16			
Poirel	Laurent	Session III 13.06.16 Session VI 14.06.16	-		
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# OVERVIEW OF THE SSM PART OF THE MEETING

# **MONDAY 13th JUNE 2016**

Hour	SYMPOSIUMS					
9:00-12:30	Swiss Clinical Microbiology	Swiss Prokaryotic Biology	Swiss \	Virology	Swiss Environmental Microbiology	Swiss Mycology
0.00 .=.00	Kongressraum 1	Kongressraum 2	Foye	r Nord	Foyer Süd	Kongressraum 4
	(p.11-12)	(p.16-17)	(p.19	9-20)	(p.23-24)	(p.27-28)
13:00-14:00	В		Students Skills and Career Workshop  Foyer Nord  (p.13)			
	Swiss Clinical Microbiology	Swiss Prokaryotic Biology	Swiss	Virology	Swiss Environmental Microbiology	Swiss Mycology
14:00-18:00	Kongressraum 1	Kongressraum 2	Foye	r Nord	Foyer Süd	Kongressraum 4
	(p. 12-15)	(p.17-18)	(p. 2	0-22)	(p.25-26)	(p.28-30)
	*AxonLAB Symposium					

<sup>\*</sup>AxonLAB Symposium: 16h00-16h45

# **OVERVIEW OF THE SSM ANNUAL MEETING**

# TUESDAY 14th JUNE 2016

Hour	SYMPOSIUMS					
9:00-10:15		Plenary	st Interaction Session A ssraum 1			
	Microbe evolution	Microbe entry	Host Responses to Microbes	Clinical Virology		
11:00-12:30	Kongressraum 1	Foyer Nord	Foyer Süd	Kongressraum 4		
	(p.31)	(p.31-32)	(p.33)	(p.33-34)		
		Workshop: Br	uker and others			
13:00-14:00	Kongressraum 1					
<b>14:00</b> -14:30			<del>-</del>	Posters n numbers)		
14:20 45:20	Making the bridge: tal outbreak to the		(646)	i nambersy		
14:30- <b>15:30</b>	Foyer		(p.34)			
	(p.3					
	Systems Microbiology	Clinical Microbiology	Dual Use Researc of Concern	h Microbe Replication		
16:00–17:30	Kongressraum 1 Foyer Nord		Foyer Süd	Kongressraum 4		
	(p.35)	(p.36)	(p.37)	(p.37)		
	Annual Assembly of the SSM					
17:30-18:30		Kongre	ssraum 1			
	(p.37)					

# **OVERVIEW OF THE SSM ANNUAL MEETING**

# WEDNESDAY 15<sup>th</sup> JUNE 2016

Hour	SYMPOSIUMS		
9:00-10:15	<b>Looking bac</b> Plenary S Kongres (p.:	session B sraum 2	
11:00-12:30	Symbionts  Foyer Süd  (p.38)	<b>Epigenetics</b> Kongressraum 4  (p.39)	
13:00-14:00	Workshop: BioMérieux  Foyer Nord  (p.40)		
<b>14:00</b> -14:30	Posters		
14:30- <b>15:30</b>	From the lab with love: how to promote scientific education using microbiology  Foyer Nord  (p.40)	(odd numbers) (p.40)	
16:15–16:45	Digital Health and Epidemiology: Opportunities and Challenges Plenary Session C  Kongressraum 1  (p.40)		
16:45-17:00	SSM Award and lecture of Award Winner  Kongressraum 1  (p.40)		
17:00-17:30	Closure of Annual Assembly 2016 & Int Kongres (p.4	sraum 1	

# PRELIMINARY PROGRAM OF THE SSM PART OF THE MEETING

June 13, 2016

# Swiss Clinical Microbiology Symposium 2016

Kongressraum 1	Kon	gres	srau	ım 1
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Rongrossidam	
09:00-09:15	Welcome
	by Jacques Schrenzel and Gilbert Greub
09:15-10:30	Session I: Meta Genomics Chaired by Alexis Dumoulin and Jacques Schrenzel
09:15-09:45	CLINICAL METAGENOMICS ETIENNE RUPPE, CH, GENEVA
09:45-10:00	O-59 COMPARISON OF 16SRRNA SEQUENCING DATA PROCESSING PIPELINES TO ASSESS CHANGES IN THE GUT MICROBIOTA INDUCED BY DAIRY INTERVENTIONS  MROSIKIEWICZ¹, KJ BURTON², G PIMENTEL, U BUTIKOFER, U VON AH U³, MJ VOIROL², S AEBY¹, G VERGÈRES³, N VIONNET², FP PRALONG², G GREUB¹  ¹Institute of microbiology of the University of Lausanne and University Hospital, Lausanne, Switzerland, ²Service of Endocrinology, Diabetes and Metabolism, University Hospital, Lausanne, Switzerland, ³Institute of Food Science, Agroscope, Federal Office of Agriculture, Berne, Switzerland
10:00-10:15	O-46 IMPACT OF DIFFERENT FARMING SYSTEMS ON THE ABUNDANCE AND DIVERSITY OF ANTIMICROBIAL RESISTANCE DETERMINANTS AND BACTERIAL COMMUNITY  E. GOMEZ-SANZ¹, S. JAENICKE², R. WITTWER³, A. GOESMANN², M.G.A. VAN DER HEIJDEN³, B. DUFFY¹, T.H.M. SMITS¹  ¹Environmental Genomics and Systems Biology Research Group, ZHAW, Wädenswil, Switzerland, ²Bioinformatics and Systems Biology, Justus-Liebig-University, Giessen, Germany, ³Plant Soil Interactions, Agroscope, Zürich, Switzerland
10:15-10:30	O-37 NEW STRAIN OF NON-TOXIGENIC CORYNEBACTERIUM DIPHTHERIAE FOUND IN A PATIENT WITH TRACHEO-BRONCHITIS: UNPRECEDENTED GENOMIC FEATURES.  FTAGINI <sup>1</sup> , A KOUTSOKERA <sup>2</sup> , T PILLONEL <sup>1</sup> , A LOVIS <sup>2</sup> , G GREUB <sup>1</sup> Institute of Microbiology, Department of Laboratory, University of Lausanne and

10:30-11:00 Coffee Break

University Hospital Center, Lausanne, Switzerland, <sup>2</sup>Service of Pneumology,

Department of Medicine, University Hospital Center Lausanne, Switzerland

### 11:00-12:30 Session II: Bacterial Genomics

Chaired by Reinhard Zbinden and Gilbert Greub

### 11:00-11:30 BACTERIAL GENOMICS: CLINICAL APPLICATIONS

JOHN WA ROSSEN, THE NETHERLANDS

11:30-11:45

O-7 OUTBREAK INVESTIGATION FOR TOXIGENIC CORYNEBACTERIUM DIPHTHERIAE WOUND INFECTIONS IN REFUGEES FROM EAST AFRICA IN SWITZERLAND AND GERMANY BY WGS

<u>DM MEINEL</u>, R KUEHL, R ZBINDEN, V BOSKOVA, C GARZONI, M DOLINA, B BLÜMEL, S TSCHUDIN, AF WIDMER, JA. BIELICK, U. HEININGER, R. KONRAD, A. BERGER, V. HINIC, D. GOLDENBERGER, A. BLAICH, T. STADLER, M. BATTEGAY, A. SING, A. EGLI

<sup>1</sup>Clinical Microbiology, University Hospital Basel, Switzerland, <sup>2</sup>National Consiliary Laboratory on Diphtheria, Oberschleissheim, Germany, <sup>3</sup>Infectious Diseases and Hospital Epidemiology, University Hospital Basel, Switzerland, <sup>4</sup>Institute for Medical Microbiology, University Zurich, Switzerland, <sup>5</sup>Computational Evolution, ETH Zurich, Switzerland, <sup>6</sup>Computational Evolution, ETH Zurich, Switzerland, <sup>6</sup>Department of Internal medicine and Infectious Diseases, Clinica Luganese, Switzerland, <sup>7</sup>Clinical Microbiology, EOLAB, Bellinzona, Switzerland, <sup>8</sup>Institute of Medical Microbiology and Hygiene, University Medical Centre Freiburg, Germany, <sup>9</sup> Paediatric Infectious Diseases, University of Basel Children's Hospital, Switzerland

11:45-12:00

O-60 IDENTIFICATION OF VIRULENCE FACTORS OF A STAPHYLOCOCCUS AUREUS STRAIN CAUSING SEPTIC SHOCK

<u>T PILL ONEL</u><sup>1</sup>, C BERTELLI<sup>1</sup>, J SCHRENZEL<sup>2</sup>, G GREUB<sup>1, 3</sup>

Center for Research on Intracellular Bacteria. Institute of Microbiology.

<sup>1</sup>Center for Research on Intracellular Bacteria, Institute of Microbiology, University Hospital Center and University of Lausanne, Switzerland, <sup>2</sup>Genomic Research Laboratory, Service of Infectious Diseases, Geneva University Hospitals, Geneva, Switzerland, <sup>3</sup>Service of Infectious Diseases, University Hospital Center, Lausanne, Switzerland

12:00-12:15

O-14 TOWARDS RAPID BACTERIAL DETECTION DIRECTLY FROM CLINICAL SAMPLES USING NEXT-GENERATION SEQUENCING.

SLEO¹, N GAIA¹, V LAZAREVIC¹, E RUPPE¹, J SCHRENZEL¹

Genomic Research Lab, Service of Infectious Diseases, Geneva University

Hospitals, Geneva, Switzerland

12:15-12:30

O-24 SUSCEPTIBILITY OF MULTIDRUG-RESISTANT E.COLI STRAINS TO COMMERCIAL BACTERIOPHAGE COCKTAILS AND MONOPHAGE

N. KARUMIDZE<sup>1</sup>, O.J. BERNASCONI<sup>1</sup>, D. JGENTI<sup>2</sup>, M. GODERDZISHVILI<sup>2</sup>, A ENDIMIANI<sup>1</sup>

<sup>1</sup>Institute for Infectious Diseases, University of Bern, Bern, Switzerland, <sup>2</sup>Eliava Institute of Bacteriophages, Microbiology and Virology, Tbilisi, Georgia

### 12:30-14:00 Lunch Break

13:00-14:00	Students' Skills and Career Workshop  Foyer Nord Chaired by Alexis Dumoulin
13:00-13:30	How to get published Alina Helsloot, Elsevier, NL, Amsterdam
13:30-14:00	How to find a job outside of academia Tobias Ernberg, Coulter Partners, CH, Eysins
13:00-14:00	Lunchworkshop: BD Symposium Kongressraum 1 Chaired by Thomas Bodmer and Gilbert Greub
13:00-13:30	AUTOMATED IDENTIFICATION AND QUANTIFICATION OF MICROBIAL GROWTH IN BOTH DEFINED AND CLINICAL SAMPLES ANTONY CROXATTO, INSTITUT DE MICROBIOLOGIE, CHUV LAUSANNE, CH
13:30-14:00	IMPACTS OF LAB AUTOMATION ON ORGANIZATION AND WORKFLOW IN THE LABORATORY IRENE BURCKHARDT, DEPARTEMENT FOR INFECTIOUS DISEASES MEDICAL MICROBIOLOGY AND HYGIÈNE, HEIDELBERG
14:00-15:30	Session III: Molecular Diagnostics and Serology Chaired by Jacques Schrenzel and Meri Gorgievski
14:00-14:30	AUTOMATION IN MOLECULAR DIAGNOSIS: OPPORTUNITIES AND DIFFICULTIES KATIA JATON-OGAY, CH, LAUSANNE
14:30-14:45	O-48 LABORATORY DIAGNOSIS OF ACUTE NEUROBORRELIOSIS – HOW AN UNSPECIFIC MARKER MIGHT GIVE A MORE SPECIFIC ANSWER R. LIENHARD, L. VON ALLMEN, L. BERTAIOLA-MONNERAT, A. DUMOULIN, M.L. TRITTEN, H.H. SIEGRIST, 1 ADMED Microbiology, and Laboratory, National Reference Centre for Tick-borne Diseases (NRZK), La Chaux-de-Fonds, Switzerland, ADMED Microbiology, La Chaux-de-Fonds, Switzerland, Laboratory of Microbiology, Hôpital Cantonal, Fribourg, Switzerland., Institut Central des Hôpitaux, Hôpital du Valais, Sion, Switzerland
14:45-15:00	O-56 VISCERAL LEISHMANIASIS IN A LUNG TRANSPLANT RECIPIENT: USEFULNESS OF HIGHLY SENSITIVE REAL-TIME POLYMERASE CHAIN REACTION FOR PRE-EMPTIVE DIAGNOSIS  O OPOTA¹, Z BALMPOUZIS², C BERUTTO³, J KAISER-GUIGNARD⁴, G GREUB¹, J-D AUBERT², G PROD'HOM¹, O MANUEL⁵, K JATON¹  ¹Institute of Microbiology, University Hospital of Lausanne, Lausanne, Switzerland, ²Pneumology Service, University Hospital of Lausanne, Lausanne, Switzerland, ⁴Hematology Service, University Hospital of Lausanne, Lausanne, Switzerland, ⁵Infectious Diseases Service, University Hospital of Lausanne, Lausanne, Lausanne, Switzerland

15:00-15:15 O-23 COMPARISON OF DIFFERENT SEROLOGIC TESTING SYSTEMS FOR

T. PALLIDUM INFECTION

P BITTEL, N JEANNET, D MAYOR, F M SUTER-RINIKER

Clinical Microbiology, Institute for Infectious Diseases, University of Bern, Friedbühlstrasse 51. CH-3001 Bern

15:15-15:30 O-68 A UNIVERSAL SCREENING CULTURE MEDIUM FOR COLISTIN-RESISTANT GRAM NEGATIVE BACTERIA

P. NORDMANN<sup>1</sup>, A. JAYOL<sup>1</sup>, L. POIREL<sup>1</sup>

<sup>1</sup>Medical and Molecular Microbiology Unit, Department of Medicine, University of Fribourg

### 15:30-16:00 Coffee Break

### 16:00-16:45 Workshop AxonLAB

Kongressraum 1

Chaired by Reto Lienhard and Adrian Egli

IMPLEMENTATION OF A MOLECULAR POCT SYSTEM IN A MULTI-SITE HOSPITAL: BENEFITS AND CHALLENGE

MAURO IMPERIALI, ENTE OSPEDALIERO CANTONALE, LUGANO

NEED FOR MIC DURING ANTIMICROBIAL SUSCEPTIBILITY TESTING: WHY, WHEN

**AND HOW** 

LUC DUBREUIL, FRANCE, LILLE CEDEX

### 16:45-18:15 Session IV

Chaired by Steven Leib and Jacques Schrenzel

16:45-17:15 APPLICATIONS OF MALDI-TOF MS BEYOND MICROBIAL IDENTIFICATION

JORDI VILA, SPAIN, BARCELONA

17:15-17:30 O-29 THE REPRODUCIBILITY OF MATRIX-ASSISTED LASER

DESORPTION/IONIZATION TIME OF FLIGHT MASS SPECTROMETRY BASED

TYPING: EMPLOYMENT OF BIOINFORMATICS

M. OBERLE<sup>1</sup>, N. WOHLWEND<sup>2</sup>, D. JONAS<sup>3</sup>, F. MAURER<sup>4</sup>, G. JOST<sup>5</sup>,

K VRANCKX<sup>6</sup>, A. EGLI<sup>7</sup>

<sup>1</sup>Medizinische Mikrobiologie, Institut für Labormedizin, Kantonsspital Aarau, Aarau, Schweiz, <sup>2</sup>Labormedizinisches Zentrum Dr. Risch AG, Liebefeld-Bern, Schweiz, <sup>3</sup>Institute for Environmental Medicine, University of Freiburg, Germany, <sup>4</sup>Institute for Medical Microbiology, University of Zurich, Switzerland, <sup>5</sup>Clinical Microbiology, Dianalabs, Geneva, Switzerland, <sup>6</sup>Applied Maths NV, Sint-Martens-Latem, Belgium, <sup>7</sup>Clinical Microbiology, University Hospital Basel, Basel, Switzerland

17:30-17:45

O-25 A RANDOMIZED CONTROLLED TRIAL TO DETERMINE THE IMPACT OF MALDI-TOF BASED IDENTIFICATION DIRECTLY FROM POSITIVE BLOOD CULTURES ON PATIENT MANAGEMENT

M OSTHOFF¹, N GÜRTLER¹, S BASSETTl², GM BALESTRA³, S MARSCH³, H PARGGER⁴, M WEISSER¹, A EGLI⁵

<sup>1</sup>Infectious Diseases and Hospital Epidemiology, University Hospital Basel, Basel, <sup>2</sup>Internal Medicine, University Hospital Basel, Basel, <sup>3</sup>Medical Intensive Care Unit, University Hospital Basel, Basel, <sup>4</sup>Surgical Intensive Care Unit, University Hospital Basel, Basel, <sup>5</sup>Clincial Microbiology, University Hospital Basel, Basel

17:45-18:00

O-50 TIME-KILL EXPERIMENTS WITH PENICILLIN, CEFTRIAXONE, GENTAMICIN AND DAPTOMYCIN ALONE AND IN COMBINATION AGAINST AEROCOCCUS URINAE

C HIRZEL<sup>1</sup>, L HIRZBERGER<sup>1</sup>, H FURRER<sup>1</sup>, <u>A ENDIMIANI<sup>2</sup></u>

<sup>1</sup>Department of Infectious Diseases, Bern University Hospital, University of Bern, Bern, Switzerland, <sup>2</sup>Institute for Infectious Diseases, University of Bern, Bern, Switzerland

# Students' Party

19:30 Eventforum Bern

# June 13, 2016

# Swiss Prokaryotic Biology Symposium 2016

Kongressraum 2

09:00-09:15	Welcome by Patrick Viollier
09:15-12:30	Session I: The envelope – from walls to molecules Chaired by P. Viollier
09:15-09:45	REGULATION OF BACTERIAL CELL WALL GROWTH WALDEMAR VOLLMER, UK, NEWCASTLE
09:45-10:00	O-65 THE STAPHYLOCOCCUS AUREUS CHAPERONE PRSA IS A NEW AUXILIARY FACTOR OF OXACILLIN RESISTANCE AFFECTING PENICILLIN-BINDING PROTEIN 2A A JOUSSELIN¹, C MANZANO¹, A BIETTE¹, P REED², M PINHO², A ROSATO³, W.L. KELLEY¹, A RENZONI¹  ¹Service of Infectious Diseases, University Hospital and Medical School of Geneva, 4 rue Gabrielle-Perret Gentil CH-1205 Geneva, Switzerland, ²Laboratory of Bacterial Cell Biology, Instituto de Tecnologia Química e Biológica António Xavier, Universidade Nova de Lisboa, Oeiras, Portugal., ³Houston Methodist Research Institute, 6670 Bertner Ave., Houston, TX 77030, USA
10:00-10:15	O-140 CHARACTERIZATION OF ABERRANT BODIES SUBTYPES IN WADDLIA CHONDROPHILA <u>A. SCHERLER</u> <sup>1</sup> , N. JACQUIER <sup>1</sup> , G. GREUB <sup>1</sup> <sup>1</sup> Institute of Microbiology, University Hospital Center and University of Lausanne, Lausanne, Switzerland
10:15-10:30	O-70 INCREASED RESISTANCE TO CARBAPENEMS IN PROTEUS MIRABILIS CAUSED BY AMPLIFICATION OF THE BLAVIM-1 GENE  S. BONTRON <sup>1</sup> , L. POIREL <sup>1</sup> , G. KUEFFER <sup>1</sup> , E. SAVOV <sup>2</sup> , P. NORDMANN <sup>1</sup> Temerging Antibiotic Resistance Unit, Medical and Molecular Microbiology, Department of Medicine, Faculty of Science, University of Fribourg, Switzerland, Laboratory of Microbiology, Military Medical Academy, Sofia, Bulgaria
10:30-11:00	Coffee Break
	Session I: The envelope – from walls to molecules; continued Chaired by Hubert Hilbi
11:00-11:15	O-152 THE HETERODIMERIC ABC TRANSPORTER EFRCD MEDIATES MULTIDRUG EFFLUX IN ENTEROCOCCUS FAECALIS <u>L. M. HÜRLIMANN</u> , M.A. SEEGER <sup>1</sup> <sup>1</sup> Institute of Medical Microbiology, University of Zurich, 8006 Zürich, Switzerland
11:15-11:30	O-144 COLISTIN RESISTANCE PLASMID PVT553 IN AVIAN PATHOGENIC ESCHERICHIA COLI <u>C STRAUSS</u> <sup>1</sup> , D GERBER <sup>2</sup> , V PERRETEN <sup>1</sup> <sup>1</sup> Institute of Veterinary Bacteriology, Vetsuisse Faculty, University of Bern, Bern, Switzerland, <sup>2</sup> V-Tech, Midrand, South Africa

11:30-11:45	O-66 RPIRC IS A REGULATOR OF STAPHYLOCOCCUS AUREUS BIOFILM SUSCEPTIBILITY TO ANTIBIOTICS AND VIRULENCE <u>A FISCHER</u> <sup>1</sup> , M GIRARD <sup>1</sup> , P FRANÇOIS <sup>1</sup> , J SCHRENZEL <sup>1</sup> <sup>1</sup> Genomic Research Laboratory, Department of Medical Specialties, Geneva University Hospitals, 1211 Geneva 14, Switzerland.
11:45-12:00	O-194 PSEUDOMONAS AERUGINOSA IN VIVO OUTER MEMBRANE PROTEOME: ROLE OF SIMPLE PORINS <u>J.M. BUYCK,</u> <sup>1</sup> , P. SAINT AUGUSTE <sup>1</sup> , C. SCHLEBERGER <sup>1</sup> , D. BUMANN <sup>1</sup> <sup>1</sup> Focal area infection biology, Biozentrum, University of Basel, Basel, Switzerland.
12:00-12:15	O-137 IDENTIFICATION OF THE ENTIRE GENOMIC PROTEIN CODING POTENTIAL OF PROKARYOTES  U OMASITS¹, AR VARADARAJAN¹, DJ STEKHOVEN², M QUEBATTE³, M ROBINSON², C DEHIO³, CH AHRENS²  ¹Agroscope, Institute for Plant Production Sciences, 8820 Wädenswil, Switzerland, ²SIB, Swiss Institute of Bioinformatics, 8057 Zurich, Switzerland, ³Biozentrum, Infection Biology Unit, University of Basel, 4056 Basel, Switzerland
12:15-12:30	O-143 GENETIC VARIABILITY AND LIMITED CLONALITY OF MYCOPLASMA HYORHINIS IN PIG HERDS  BTRÜEB <sup>1</sup> , E CATELLI <sup>2</sup> , A LÜHRS <sup>3</sup> , H NATHUES <sup>4</sup> , P KUHNERT <sup>1</sup> Institute of Veterinary Bacteriology, Vetsuisse Faculty, University of Bern, Switzerland, Department of Veterinary Science, University of Parma, Italy, Field Station for Epidemiology, University of Veterinary Medicine Hannover, Foundation, Bakum, Germany, Clinic for Swine, Department of Clinical Veterinary Medicine, Vetsuisse Faculty, University of Bern, Switzerland
12:30-14:00	Lunch Break
14:00-15:30	Session II: The 3 Cs – cytoplasm, chromatin and chaperones Chaired by Patrick Viollier
14:00-14:30	THE COMPLEX LIFE OF POISONS, ANTIDOTES AND THEIR CHAPERONES PIERRE GENEVAUX, FRANCE, TOULOUSE
14:30-15:00	LEGIONELLA TRANSLOCATED EFFECTORS: HOW TO KILL ONE BIRD WITH MANY STONES ? HUBERT HILBI, SWITZERLAND, ZÜRICH
14:30-14:45	O-151 MULTIPLE APPROACHES TO DISCOVER NEW T3SS EFFECTORS OF CHLAMYDIALES BACTERIA <u>L PILLOUX</u> <sup>1</sup> , C KEBBI-BEGHDADI <sup>1</sup> , A CROXATTO <sup>1</sup> , G GREUB <sup>1</sup> <sup>1</sup> Center for Research on Intracellular Bacteria (CRIB), Institute of Microbiology, University Hospital Center and University of Lausanne, Lausanne, Switzerland
14:45-15:00	O-147 TYPE VI SECRETION SYSTEM SUBSTRATES ARE TRANSFERRED AND REUSED AMONG SISTER CELLS

15:00-15:15	O-42	IDENTIFICATION AND CHARACTERIZATION OF A W. CHONDROPHILA EFFECTOR SECRETED IN THE HOST CYTOPLASM C KEBBI-BEGHDADI1, L PILLOUX <sup>1</sup> , G GREUB1  ¹Center for Research on Intracellular Bacteria (CRIB), Institute of Microbiology, University Hospital Center and University of Lausanne, Lausanne, Switzerland
15:15-15:30	O-184	μFACS - A MULTI-PARAMETRIC HIGH-CONTENT IMAGE ANALYSIS APPROACH TO STUDY CO-INFECTIONS ACROSS PATHOGENS <u>A. YAKIMOVICH¹</u> , C. RACHMÜHL², A. RUDNICKA¹, D. SEILER¹, R. WITTE¹, V ANDRIASYAN¹, Y. YAMAUCHI¹, A. S. ZINKERNAGEL², U. F. GREBER¹¹Institute of Molecular Life Sciences, University of Zurich, Switzerland, <sup>2</sup> Division of Infectious Diseases and Hospital Epidemiology, University Hospital Zurich, University of Zurich, Switzerland
15:30-16:00	Coffe	e Break
16:00-18:00		ion III: Cell biology – seeing is believing ed by Hubert Hilbi
16:30-17:00	OF AN	BACTERIAL CELL BIOLOGY CAN HELP IDENTIFYING THE MODE OF ACTION NTIMICROBIAL COMPOUNDS DERT HAMOEN, NL, AMSTERDAM
17:00-17:15	O-100	CHARACTERIZING INDIVIDUAL DONOR CELL FATES DURING HORIZONTAL GENE TRANSFER OF AN INTEGRATIVE AND CONJUGATIVE ELEMENT <u>F DELAVAT</u> <sup>1</sup> , S MITRI <sup>1</sup> , S PELET <sup>1</sup> , JR VAN DER MEER <sup>1</sup> 1 Department of Fundamental Microbiology - University of Lausanne – Switzerland
17:15-17:30	O-146	REGULATORY ROLE OF CAMR IN CELL CYCLE CONTROLLED CAPSULATION AND MOTILITY IN CAULOBACTER CRESCENTUS <u>Ezgi EROGLU</u> <sup>1</sup> , SILVIA ARDISSONE <sup>1</sup> , PATRICK VIOLLIER <sup>1</sup> 1Department of Microbiology and Molecular Medicine, University of Geneva, 1211 Geneva 4, Switzerland
17:30-17:45	O-58	BOVINE CATHELICIDINS HAVE POTENT BACTERICIDAL EFFECT AGAINST MASTITIS PATHOGENS AND MEDIATE SENSING OF BACTERIAL NUCLEIC ACIDS BY THE IMMUNE SYSTEM MS KIENER <sup>1</sup> , <u>A BAUMANN</u> <sup>1</sup> , A SUMMERFIELD <sup>1</sup> <sup>1</sup> Institute of Virology and Immunology, University of Bern, Länggassstrasse 122, 3012 Bern, Switzerland
17:45- 18:00	O-15	CAN BIOFILM BE EFFICIENTLY REMOVED FROM ENDOSCOPES? DEVELOPMENT AND EVALUATION PROCESS OF AN ENZYMATIC CLEANER <u>P STIEFEL</u> <sup>1</sup> , S MAUERHOFER <sup>2</sup> , S ALTENRIED <sup>1</sup> , J SCHNEIDER <sup>1</sup> , K MANIURA-WEBER <sup>1</sup> , U ROSENBERG <sup>2</sup> , Q REN <sup>1</sup> 1 Laboratory for Biointerfaces, Swiss Federal Laboratories for Materials Science and Technology (Empa), Lerchenfeldstrasse 5, CH-9014 St. Gallen, Switzerland, 2 Borer Chemie AG, Gewerbestrasse 13, 4528 Zuchwil, Switzerland

# Students' Party

19:30 Eventforum Bern

# June 13, 2016

# Swiss Virology Symposium 2016

Foyer Nord	Cymposium 2010
09:00-09:15	Welcome
	by Volker Thiel, Stephen Leib, Meri Gorgievski
09:15-10:30	Session I: Antiviral defense Chaired by Stephen Leib and Volker Thiel
09:15-09:45	ANTIVIRAL DEFENSE IN THE PHYTOPATHOGENIC FILAMENTOUS ASCOMYCETE, CRYPHONECTRIA PARASITICA NOBUHIRO SUZUKI, JAPAN, OKAYAMA
09:45-10:00	O-170 RESPIRATORY VIRAL INFECTIONS IN RECONSTITUTED HUMAN AIRWAY EPITHELIA  M ESSAIDI-LAZIOSI <sup>1</sup> , S BENAOUDIA <sup>1</sup> , M FERNANDEZ-ROCHA <sup>1</sup> , S CONSTANT <sup>1</sup> , L KAISER <sup>1</sup> , C TAPPAREL <sup>1</sup> <sup>1</sup> Laboratory of Caroline Tapparel, Faculty of medicine of Geneva
10:00-10:15	O-178 SUMOYLATION IN THE REGULATION OF ANTIVIRAL HOST INNATE IMMUNITY <u>C. PATZINA</u> <sup>1</sup> , F. GOLEBIOWSKI <sup>1</sup> , B.G. HALE <sup>1</sup> <sup>1</sup> Institute of Medical Virology, University of Zurich, Zurich, Switzerland
10:15-10:30	O-168 INVESTIGATION OF IFITM INCORPORATION INTO INFLUENZA A VIRUS PARTICLES AND ITS CONSEQUENCES ON VIRUS INFECTIVITY <u>C. LANZ</u> <sup>1</sup> , E.E. MÜLLER <sup>1</sup> , S. STERTZ <sup>1</sup> <sup>1</sup> Institute of Medical Virology, University of Zurich, Zurich, Switzerland
10:30-11:00	Coffee Break
11:00-12:30	Session II: Virological toolbox Chaired by Meri Gorgievski and Stephen Leib
11:00-11:30	XCELLIGENCE® IMPEDANCE-BASED, LABEL-FREE, REAL-TIME CELL ANALYSIS SYSTEMS: A NEW METHOD FOR INNOVATIVE SOLUTIONS IN VIRAL STUDIES MERI GORGIEVSKI-HRISOHO, CH, BERN
11:30-12:00	NEXT GENERATION SEQUENCING AS A HELPFUL TOOL FOR VIRUS DETECTION CLAUDIA BACHOFEN, CH, ZÜRICH
12:00-12:15	O-155 PERSISTENT MAMMALIAN ORTHOREOVIRUS INFECTION IN A CHILD WITH PRIMARY IMMUNODEFICIENCY DETECTED BY METAGENOMIC SEQUENCING  D. W. Lewandowska <sup>1*</sup> , R. Capaul <sup>1*</sup> , S. Prader <sup>2</sup> , O. Zagordi <sup>1</sup> , F. D. Geissberger <sup>1</sup> , M. Knorr <sup>1</sup> , C. Berger <sup>3</sup> , D. Nadal <sup>3</sup> , T. Güngör <sup>4</sup> , J. Reichenbach <sup>2</sup> , J. Böni <sup>1</sup> , A. Zbinden <sup>1</sup> , A. Trkola <sup>1</sup> , J. Pachlopnik Schmid <sup>2*</sup> ,

M. HUBER<sup>1</sup>\*

<sup>1</sup>Institute of Medical Virology, University of Zurich, <sup>2</sup>Division of Immunology, University Children's Hospital Zurich, <sup>3</sup>Division of Infectiology and Hospital Hygiene, University Children's Hospital Zurich, <sup>4</sup>Division of Stem Cell Transplantation, University Children's Hospital Zurich, Switzerland; \*shared authorship.

12:15-12:30 O-164 SINGLE-CELL ANALYSIS APPROACH TO IDENTIFY

BIOMARKERS FOR HIV PERMISSIVENESS <u>S RATO</u><sup>1</sup>, A RAUSELL<sup>1</sup>, S QUENNEVILLE<sup>1</sup>, M MUÑOZ<sup>1</sup>, A TELENTI<sup>2</sup>, A CIUFFI<sup>1</sup> Institute of Microbiology, University of Lausanne, Lausanne, Switzerland,

CELLULAR

<sup>2</sup>J. Craig Venter Institute, La Jolla, USA

### 12:30-14:00 Lunch Break

### 14:00-15:30 Session III: Basic Virology (supported by CUSO)

Chaired by Mathias Schweizer and Stefan Kunz

14:00-14:30 NOVEL ANTIVIRAL STRATEGIES: PEPTIDES, RNAI AND CRISPR-CAS

BEN BERKHOUT, NL, AMSTERDAM

14:30-14:45 O-181 WHAT'S IN THE COWS' BRAIN? –TACKLING THE ETIOLOGY OF BOVINE ENCEPHALITIS BY VIRAL METAGENOMICS

D. WÜTHRICH<sup>1</sup>, C.L. BOUJON<sup>3</sup>, L. TRUCHET<sup>3</sup>, S. SELIMOVIC-HAMZA<sup>2</sup>, I.G. BOUZALAS<sup>3</sup>, R. BRUGGMANN<sup>1</sup>, <u>T. SEUBERLICH</u><sup>3</sup>

<sup>1</sup>Interfaculty Bioinformatics Unit, University of Bern and Swiss Institute of Bioinformatics, 3001 Bern, Switzerland; , <sup>2</sup>Graduate School for Cellular and Biomedical Sciences, University of Bern, 3001 Bern, Switzerland, <sup>3</sup>NeuroCenter, Division of Neurological Sciences, Vetsuisse Faculty, University of Bern, Bern, Switzerland

14:45-15:00 O-179 VIRAL BUDDING REGULATED BY A CRITICAL RESIDUE LOCATED AT THE PUTATIVE DIMERIC INTERFACE OF THE CANINE DISTEMPER VIRUS MATRIX PROTEIN

F. BRINGOLF<sup>1</sup>, M. HERREN<sup>1</sup>, M. WYSS<sup>1</sup>, A. ZURBRIGGEN<sup>1</sup>, P. PLATTET<sup>1</sup>

<sup>1</sup>Division of Neurological Sciences, Department of Clinical Research and Veterinary Public Health (DCRVPH), Vetsuisse Faculty, University of Bern, Bern, Switzerland

15:00-15:15 O-186 HAX-1 INHIBITS VIRAL REPLICATION OF AVIAN INFLUENZA A VIRUSES AND IS COUNTERACTED BY PB1-F2

B. MAZEL-SANCHEZ<sup>1</sup>, I. CARVALHO<sup>1</sup>, M. SCHMOLKE<sup>1</sup>

<sup>1</sup>Department of Microbiology and Molecular Medicine, University of Geneva, Geneva, Switzerland

15:15-15:30 O-175 RESTRICTED SIRNA SCREEN REVEALS DIFFERENTIAL EFFECTS OF CELLULAR PROTEINS ON GENE EXPRESSION FROM SINGLE-STRANDED AND DOUBLE-STRANDED AAV2 VECTORS

<u>FRANCESCA D. FRANZOSO</u><sup>1</sup>, ARTUR YAKIMOVICH<sup>2</sup>, KURT TOBLER<sup>1</sup>, ADRIAN MAN<sup>1</sup>, REBECCA VOGEL<sup>1</sup>, URS GREBER<sup>2</sup>, MATHIAS ACKERMANN<sup>1</sup>, CORNEL FRAEFEL<sup>1</sup>

<sup>1</sup> Institute of Virology, University of Zürich, Zürich, Switzerland

<sup>&</sup>lt;sup>2</sup> Institute of Molecular Life Sciences, University of Zürich, Zürich, Switzerland

#### 15:30-16:00 **Coffee Break**

#### 16:00-18:00 Session IV: Basic Virology\*

Chaired by Volker Thiel and Matthias Schweizer

EMERGING HUMAN CORONAVIRUSES - PATHOGENESIS AND PROTECTION 16:00-16:30

LUIS ENJUANES, SPAIN, MADRID

16:30-16:45 O-159 EARLY ENDORIBONUCLEASE-MEDIATED EVASION OF RNA SENSING **ENSURES EFFICIENT CORONAVIRUS REPLICATION** 

<u>E KINDLER</u><sup>1</sup>, J SPANIER<sup>2</sup>, C GIL-CRUZ<sup>3</sup>, Y LI<sup>4</sup>, MH HWANG<sup>5</sup>, M KELLER<sup>6</sup>, J ZIEBUHR<sup>7</sup>, U KALINKE<sup>2</sup>, V THIEL<sup>8</sup>

<sup>1</sup>Federal Department of Home Affairs, Institute of Virology and Immunology, Bern and Mittelhäusern, Switzerland, <sup>2</sup>Institute for Experimental Infection Research, Twincore, Hannover, Germany, <sup>3</sup>Institute of Immunobiology, Cantonal Hospital, St.Gallen, Switzerland, <sup>4</sup>Department of Microbiology, Perelman School of Medicine, University of Pennsylvania, Philadelphia, USA, <sup>5</sup>Department of Neurosciences, Lerner Research Institute, Cleveland Ohio, USA, <sup>6</sup>Institute of Novel and Emerging Infectious Diseases, Friedrich-Loeffler-Institut, Greifswald-Insel Riems, Germany, <sup>7</sup>Institute for Medical Virology, University of Giessen, Giessen, Germany, <sup>8</sup>Department of Infectious Diseases and Pathobiology, University of Bern, Bern, Switzerland

16:45-17:00 O-165 MEMBRANE REMODELING PROPERTIES OF CORONAVIRUS NON-STRUCTURAL PROTEIN 6 AND ITS ROLE IN **REPLICATION** COMPARTMENT FORMATION

P VKOVSKI<sup>1</sup>, V GASCHEN<sup>2</sup>, M STOFFEL<sup>2</sup>, V THIEL<sup>3</sup>

<sup>1</sup>Federal Institute of Virology and Immunology, Mittelhäusern and Bern, Switzerland: Graduate School for Cellular and Biomedical Sciences, University of Bern, Switzerland, <sup>2</sup>Vetsuisse Faculty, Division Veterinary Anatomy, University of Bern, Bern, Switzerland., <sup>3</sup>Federal Institute of Virology and Immunology, Mittelhäusern and Bern, Switzerland; Vetsuisse Faculty, Department of Infectious Diseases and Pathobiology, University of Bern, Bern, Switzerland.

17:00-17:15 O-171 INFECTIOUS BAT-DERIVED INFLUENZA A VIRUS (H18N11) REVEALS A CELL TYPE-SPECIFIC BUT NOT SPECIES-SPECIFIC TROPISM

G. ZIMMER<sup>1</sup>, E. MOREIRA<sup>2</sup>, H. BOLTE<sup>2</sup>, S. LOCHER<sup>1</sup>, M. JUOZAPAITIS<sup>2</sup>, T. AYDILLLO<sup>3</sup>, A. GARCÍA-SASTRE<sup>3</sup>, M. SCHWEMMLE<sup>2</sup>

<sup>1</sup>Institute of Virology and Immunology (IVI), Mittelhäusern, Switzerland, <sup>2</sup>Institute of Virology, Medical Center, University of Freiburg, Freiburg, Germany, <sup>3</sup>Icahn School of Medicine at Mount Sinai, New York, New York, USA

O-172 NOVEL BAT INFLUENZA VIRUS NS1 PROTEINS: USUAL AND UNUSUAL 17:15-17:30 **FEATURES** 

H.L. TURKINGTON<sup>1</sup>, B.G. HALE<sup>1</sup>

<sup>1</sup>Institute of Medical Virology, University of Zürich, Zürich, Switzerland

17:30-17:45

O-173 GENERATION AND CHARACTERIZATION OF NOVEL INFLUENZA A REPORTER VIRUSES ENCODING A VARIETY OF FLUORESCENT AND LUMINESCENT REPORTER AS WELL AS A CRE-RECOMBINASE P. REUTHER<sup>1</sup>, K. GÖPFERT<sup>2</sup>, A. DUDEK<sup>2</sup>, D. DORNFELD<sup>2</sup>, M. SCHWEMMLE<sup>2</sup>

1 Department of Biomedicine, Experimental Virology, University of Basel, 4009 Basel, Switzerland, 2 Department of Virology, University of Freiburg, 79104 Freiburg, Germany

17:45-18:00

O-153 LAUSANNEVIRUS AND ESTRELLA LAUSANNENSIS EVOLUTIONARY DYNAMICS

<u>L MUELLER</u><sup>1</sup>, T PILLONEL<sup>1</sup>, C BERTELLI<sup>2</sup>, N SALAMIN<sup>3</sup>, G GREUB<sup>1</sup>

<sup>1</sup>Institute of Microbiology, Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland, <sup>2</sup>SIB Swiss Institute of Bioinformatics, Lausanne, Switzerland, <sup>3</sup>Department of Ecology and Evolution, University of Lausanne, Lausanne, Switzerland

Students' Party

19:30 Eventforum Bern

# June 13, 2016

# Swiss Environmental Microbiology Symposium 2016

Foyer Süd

,	
09:00-09:15	Welcome
	by Christof Holliger
09:15-10:30	Session I Chaired by Christof Holliger
09:15-09:45	THE ECOLOGY OF MICROBIAL BIOFILMS IN STREAMS TOM BATTIN, CH, LAUSANNE
09:45-10:00	O-99 SNOW IS MORE THAN FROZEN WATER — THE BACTERIAL BIOGEOGRAPHY OF HIGH ALTITUDE SNOW TWUNDERLIN <sup>1</sup> , B FERRARI <sup>2</sup> , M POWER <sup>3</sup> <sup>1</sup> Molecular Ecology, Agroscope Reckenholz, 8046 Zurich, Switzerland, <sup>2</sup> School of Biotechnology and Biomolecular Sciences, University of New South Wales, Sydney 2052, Australia, <sup>3</sup> Department of Biological Sciences, Macquarie University, Sydney 2109, Australia
10:00-10:15	O-91 LINKING HIGH-RESOLUTION METHANE-OXIDATION RATES TO BACTERIAL COMMUNITY STRUCTURE IN FOUR STRATIFIED SWISS LAKES M. MAYR <sup>1</sup> , M. ZIMMERMANN <sup>1</sup> , A. BRAND <sup>1</sup> , H. BÜRGMANN <sup>1</sup> 1Eawag, Swiss Federal Institute of Aquatic Science and Technology, Department of Surface Waters – Research and Management, 6047 Kastanienbaum, Switzerland, <sup>2</sup> ETH Zurich, Institute of Biogeochemistry and Pollutant Dynamics, 8092 Zurich, Switzerland
10:15-10:30	O-64 PLASMID-BORNE MCR-1 COLISTIN RESISTANCE GENE IN ESBL-PRODUCING ENTEROBACTERIACAE IN RIVER WATER AND IMPORTED VEGETABLES IN SWITZERLAND  K ZURFLUH¹, L POIREL¹, P NORDMANN², M NÜESCH-INDERBINEN¹, H HÄCHLER¹, R STEPHAN¹  ¹Institute for Food Safety and Hygiene, Vetsuisse Faculty University of Zurich Winterthurerstrasse 272, 8057 Zurich, Switzerland , ²Emerging Antibiotic Resistance Unit, Department of Medicine, Faculty of Science, University of Fribourg, 1701 Fribourg, Switzerland
10:30-11:00	Coffee Break
11:00-12:30	Session II Chaired by Christof Holliger
11:00-11:30	PHYTOPLANKTON CHYTRIDS: UNKNOWN, UNLOVED, UNDERESTIMATED BASTIAAN IBELINGS, CH, GENEVA
11:30-11:45	O-79 ENDOSPORE-FORMING FIRMICUTES DOMINATE BACTERIAL COMMUNITIES ACROSS THERMAL GRADIENTS IN NISYROS VOLCANO <u>F. PALMIERI</u> <sup>1</sup> , S. FILIPPIDOU <sup>1</sup> , P. JUNIER <sup>1</sup> <sup>1</sup> Laboratory of Microbiology, University of Neuchâtel, Neuchâtel, Switzerland

O-85 FLUORESCENT PSEUDOMONAS BACTERIA AS TOOLS FOR MONITORING 11:45-12:00 AND IMPROVING THE HEALTH OF AGRICULTURAL SOILS IN **SWITZERLAND** N IMPERIALI<sup>1</sup>, F DENNERT<sup>2</sup>, F MASCHER<sup>3</sup>, M FESSELET<sup>3</sup>, T TURLINGS<sup>4</sup>, R CAMPOS HERRERA<sup>4</sup>, M MAURHOFER<sup>2</sup>, C KEEL<sup>1</sup> <sup>1</sup>Department of Fundamental Microbiology, University of Lausanne, Switzerland, <sup>2</sup>Institute of Integrative Biology, ETH Zurich, Switzerland, <sup>3</sup>Institute for Plant Production Sciences, Agroscope Changins, Switzerland, <sup>4</sup>Laboratory for Fundamental and Applied Research in Chemical Ecology, University of Neuchâtel, Switzerland O-81 FOLDING OF COMPLEX REDOX PROTEINS BY DEDICATED MOLECULAR 12:00-12:15 **CHAPERONES** C GROB<sup>1</sup>, Z JULIER<sup>1</sup>, J MAILLARD<sup>1</sup> Biotechnology, ENAC-IIE-LBE, <sup>1</sup>Laboratory for Environmental Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland GENOME-WIDE TRANSCRIPTIONAL 12:15-12:30 O-88 IMMEDIATE RESPONSE OF PSEUDOMONAS VERONII STRAIN 1YDBTEX2 TO TOLUENE IN SOIL M MORALES<sup>1</sup>, V SENTCHILO<sup>1</sup>, J VAN DER MEER<sup>1</sup> <sup>1</sup>Department of Fundamental Microbiology. University of Lausanne. Biophore. UNIL-Sorge, Lausanne, 2015.

### 12:30-14:00 Lunch Break

14:00-15:30	Session III Chaired by Jan Roelof Van der Meer
14:00-14:30	MICROEVOLUTIONARY TRADE-OFFS AND TRAJECTORIES IN A MODEL FRESHWATER PREDATOR-PREY SYSTEM JAKOB PERNTHALER, CH, ZÜRICH
14:30-14:45	O-93 TWO NEW INTEGRATIVE CONJUGATIVE ELEMENTS IN PSEUDOMONAS AZELAICA HBP-1 ARE RESPONSIBLE FOR THE ADAPTATION TO THE POLLUTED ENVIRONMENT   V SENTCHILO¹, L CHALUPOVA¹, J VAN DER MEER¹  ¹Department of Fundamental Microbiology, University of Lausanne, Biophore, UNIL-Sorge, 1015 Lausanne
14:45-15:00	O-82 COMPETITION OF TWO SULFUROSPIRILLUM POPULATIONS FOR TETRACHLOROETHENE <u>G BUTTET</u> , C HOLLIGER, J MAILLARD  1 Laboratory for Environmental Biotechnology, ENAC-IIE-LBE, Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland
15:00-15:15	O-103 BIOGEOGRAPHY IN THE WESTERN SWISS ALPS: UNDERSTANDING THE INTERPLAYS AMONG BACTERIA, PLANTS, AND THE ENVIRONMENT <u>E. YASHIRO</u> <sup>1</sup> , E. PINTO <sup>2</sup> , A. BURI <sup>3</sup> , H. NICULITA-HIRZEL <sup>4</sup> , A. ANTOINE GUISAN <sup>2</sup> , J. R. VAN DER MEER <sup>1</sup> <sup>1</sup> University of Lausanne, Department of Fundamental Microbiology, 1015 Lausanne, <sup>2</sup> University of Lausanne, Department of Ecology and Evolution, 1015 Lausanne, <sup>3</sup> University of Lausanne, Institute of Earth Surface Dynamics, 1015 Lausanne, <sup>4</sup> Institut Universitaire Romand du Santé au Travail, 1066 Epalinges-Lausanne
15:15-15:30	O-95 TRACKING BIOTRANSFORMATION OF HEXACHLOROCYCLOHEXANE ISOMERS BY COMPOUND-SPECIFIC ISOTOPE ANALYSIS  I. E. SCHILLING <sup>1</sup> , I. E. SCHILLING <sup>2</sup> , T. B. HOFSTETTER <sup>1</sup> , T. B. HOFSTETTER <sup>2</sup> , H E. KOHLER <sup>1</sup> , HP. E. KOHLER <sup>2</sup> <sup>1</sup> Eawag, Swiss Federal Institute of Aquatic Science and Technology, Duebendorf, Switzerland, <sup>2</sup> IBP, Institute of Biogeochemistry and Pollutant Dynamics, ETH Zürich, Swiss Federal Institute of Technology Zurich, Zurich, Switzerland
15:30-16:00	Coffee Break
16:00-18:00	Session IV Chaired by Christof Holliger
16:00-16:30	COMBINING STABLE ISOTOPE LABELLING AND SINGLE-CELL ANALYSIS TO ELUCIDATE THE FUNCTION OF MICROORGANISMS IN SOIL DAGMAR WOEBKEN, A, WIEN
16:30-16:45	O-84 A MICROFLUIDIC CHIP TO MEASURE BACTERIAL CHEMOTAXIS IN A BIOSENSORY PERSPECTIVE <u>C. ROGGO</u> <sup>1</sup> , J. R. VAN DER MEER <sup>1</sup> <sup>1</sup> Department of Fundamental Microbiology, University of Lausanne

16:45-17:00	O-97	INFLUENCE OF ENVIRONMENTAL FACTORS ON SOIL MICROBIAL DIVERSITY AT ARABLE- AND GRASSLAND SITES ACROSS SWITZERLAND FGSCHWEND <sup>1</sup> , FWIDMER <sup>1</sup> <sup>1</sup> Molecular Ecology, Institute for Sustainability Sciences, Agroscope, 8046 Zürich, Switzerland
17:00-17:15	O-80	COOPERATION IN CARBON SOURCE DEGRADATION SHAPES SPATIAL SELF-ORGANIZATION OF SURFACE-ATTACHED MICROBIAL CONSORTIA $R\ TECON^1$ , $D\ OR^1$ Department of Environmental Systems Science, ETH Zürich, 8092 Zürich, Switzerland
17:15-17:30	O-90	EVOLUTION OF MICROBIAL COMMUNITIES AND NUTRIENT REMOVAL PERFORMANCES IN AEROBIC GRANULAR SLUDGE SEQUENCING BATCH REACTOR DURING CHANGE OF SUBSTRATE <u>A ADLER</u> <sup>1</sup> , V BERCLAZ <sup>1</sup> , M HORISBERGER <sup>1</sup> , J MAILLARD <sup>1</sup> , C HOLLIGER <sup>1</sup> 1 Laboratory for Environmental Biotechnology, ENAC-IIE-LBE, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland
17:30-17:45	O-96	BACTERIAL IRON REDUCTION PROPERTIES FOR HEALING CORRODED IRON ARTEFACTS  WAFA KOOLI <sup>1</sup> , PILAR JUNIER <sup>1</sup> , EDITH JOSEPH <sup>1</sup> Laboratory of Microbiology, University of Neuchâtel, Neuchâtel, Switzerland

Students' Party

19:30 Event forum Bern

# June 13, 2016

# Swiss Mycology Symposium 2016

Kongressraum 4

09:00-09:05	Welcome
	by Dominique Sanglard
09:05-10:40	Session I: Fundamental mycology, Yeast Molecular Biology Chaired by Serge Pelet
09:05-09:35	HOW DO CELLS DISTINGUISH SELF FROM NON-SELF DNA? INSIGHTS FROM FUNGI
09:35-09:55	YVES BARRAL, CH, ZÜRICH RAPID ASYMMETRIC INDUCTION OF MEIOSIS PREVENTS POLYPLOIDY IN FISSION YEAST ALEKSANDAR VJESTICA, CH, LAUSANNE
09:55-10:10	O-111 DYNAMIC MEASUREMENT OF KINASE ACTIVITY IN LIVE SINGLE CELL <u>ED DURANDAU</u> <sup>1</sup> , MM MA <sup>1</sup> , DA AYMOZ <sup>1</sup> , SP PELET <sup>1</sup> Département de Microbiologie Fondamentale
10:10-10:25	O-127 NGS FOR "NO-PAIN GENETIC SCREENS": USING TRANSPOSONS AND NEXT-GEN SEQUENCING TO UNVEIL ALL IMPORTANT YEAST LOCI IN ONE GO  A.H MICHEL <sup>1</sup> , P. KIMMIG <sup>1</sup> , B. KORNMANN <sup>1</sup> TETHZ, Institute for Biochemistry/ Otto-Stern-Weg 3, 8093 Zürich
10:25-10:40	O-108 CHARACTERIZATION OF A NEW VIRULENCE GENE IN CANDIDA ALBICANS <u>S AMORIM-VAZ</u> <sup>1</sup> , V TRAN <sup>2</sup> , S PRADERVAND <sup>2</sup> , M PAGNI <sup>2</sup> , AT COSTE <sup>1</sup> , D SANGLARD <sup>1</sup> <sup>1</sup> Institute of Microbiology, University Hospital Lausanne and University Hospital Center, Lausanne, Switzerland, <sup>2</sup> Vital-IT Group, SIB Swiss Institute of Bioinformatics, Lausanne, Switzerland
10:40-11:00	Coffee Break
11:00-12:30	Session II: Fungal Interactions Chaired by Pilar Junier
11:00-11:30	IMPROVING THE WORLDS FOOD SUPPLY USING MICROBES: THE POWER OF FUNGAL GENETICS IAN SANDERS, CH, LAUSANNE
11:30-11:45	O-125 HIGH-RESOLUTION COMMUNITY PROFILING OF ARBUSCULAR MYCORRHIZA  KSCHLAEPPI <sup>1</sup> , FBENDER <sup>1</sup> , M VAN DER HEIJDEN <sup>1</sup> Plant-Soil-Interactions, Institute for Sustainability Sciences, Agroscope, Zürich, Switzerland

#### O-123 ROOT MICROBIOME DYNAMICS IN RESPONSE TO PHOSPHATE 11:45-12:00

N BODENHAUSEN<sup>1</sup>, M VAN DER HEIJDEN<sup>1</sup>, K SCHLAEPPI<sup>1</sup>

Institute for Sustainability Science, Agroscope, Switzerland, Reckenholzstr. 191, 8046 Zurich

12:00-12:15

O-124 ENHANCED ACCESS TO ORGANIC NITROGEN AS A DIRECT BENEFIT IN THE INTERACTION OF THE FUNGUS MORCHELLA CRASSIPES WITH SOIL **BACTERIA** 

A. LOHBERGER (1,3 - AFFILATION NUMBERS)<sup>1</sup>. JE SPANGENBERG<sup>2</sup>. Y VENTURA<sup>1</sup>, N JEANNERET<sup>1</sup>, K JEANNERET<sup>1</sup>, S BINDSCHEDLER<sup>1</sup>, R BSHARY<sup>4</sup>, E VERRECCHIA<sup>3</sup>, P JUNIER<sup>1</sup>

<sup>1</sup>Laboratory of Microbiology, Institute of Biology, University of Neuchâtel. Rue Emile-Argand 11, 2000, Neuchâtel, Switzerland, <sup>2</sup>Institute of Earth Surface Dynamics, University of Lausanne, Géopolis, 1015 Lausanne, Switzerland, <sup>3</sup>Laboratory of Biogeosciences, Institute of Earth Sciences, University of Lausanne. Géopolis, 1015 Lausanne, Switzerland, <sup>4</sup>Laboratory of Eco-ethology, Institute of Biology, University of Neuchâtel. Rue Emile-Argand 11, 2000, Neuchâtel, Switzerland

12:15-12:30

O-107 DIFFERENTIAL SUPPRESSION OF PATHOGENIC AND SAPROPHYTIC FUNGI BY NATURALLY OCCURRING YEASTS F. M. FREIMOSER<sup>1</sup>

<sup>1</sup>Federal Department of Economic Affairs, Education and Research EAER, Agroscope, Institute for Plant Production Sciences IPS, Schloss 1, P.B., 8820 Wädenswil, Switzerland.

#### 12:30-14:00 **Lunch Break**

#### 14:00-15:30 Session III

Chaired by Salomé Leibundgut-Landmann

14:00-14:30 NOVEL INSIGHTS IN ANTIFUNGAL HOST-DEFENSE

FRANK VAN DE VEERDONK, NL, NIJMEGEN

O-109 TH17 CELLS AND THEIR ROLE IN PROTECTIVE IMMUNITY TO 14:30-14:50 **VULVOVAGINAL CANDIDIASIS** 

R MARZI<sup>1</sup>, G GYUELVESZI<sup>1</sup>, S BECATTINI<sup>1</sup>, B BECHER<sup>2</sup>, S LEIBUNDGUT-LANDMANN<sup>3</sup>. F SALLUSTO<sup>1</sup>

<sup>1</sup>Institute for Research in Biomedicine, Università della Svizzera Italiana, Bellinzona, Switzerland, <sup>2</sup>Institute of Experimental Immunology, University of Zurich, Zurich, Switzerland, <sup>3</sup>Section of Immunology, Institute of Virology, University of Zurich, Zurich, Switzerland

14:50-15:05

O-114 IMPACT OF NATURAL DIVERSITY OF C.ALBICANS ON THE BALANCE BETWEEN FUNGAL COMMENSALISM AND PATHOGENICITY IN VIVO F SCHÖNHERR <sup>1</sup>, C FRAGOSO-CORTI <sup>2</sup>, O PETRINI <sup>3</sup>, S LEIBUNDGUT-LANDMANN

<sup>1</sup>Section of Immunology, Vetsuisse Faculty, University Winterthurerstrasse 266a, 8057 Zürich, Switzerland, <sup>2</sup>Laboratory of Applied Microbiology, DACD, SUPSI, Via Mirasole 22A, 6500 Bellinzona, Switzerland, <sup>3</sup>POLE Pharma consulting, Breganzona, Switzerland

15:05-15:20 O-118 THE ROLE OF NEUTROPHIL EXTRACELLULAR TRAPS DURING SYSTEMIC C. ALBICANS INFECTION

<u>E GUIDUCCI</u><sup>1</sup>, S LEIBUNDGUT-LANDMANN<sup>1</sup>

<sup>1</sup>Section of Immunology, Vetsuisse Faculty, University of Zürich, Switzerland

15:20-15:30 O-104 HOW GENOMIC PLASTICITY CONTRIBUTES TO VIRULENCE EVOLUTION IN A FUNGAL PATHOGEN OF WHEAT

<u>D CROLL</u><sup>1</sup>, F HARTMANN<sup>1</sup>

<sup>1</sup>ETH Zurich, Institute for Integrative Biology, 8092 Zurich

### 15:30-16:00 Coffee Break

### 16:00-18:00 Session IV: Antifungal development

Chaired by Dominique Sanglard

16:00-16:30 FRIEND OR FOE? HOW YEAST GENETICS HELPS TO IDENTIFY NOVEL

ANTIFUNGAL TARGETS

DOMINIC HOEPFNER, CH, NOVARTIS BASEL

16:30-16:45 O-119 IDENTIFICATION OF A PLANT NATURAL PRODUCT TARGETING FUNGAL HUMAN PATHOGENS

 $\underline{S}$   $\underline{DORSAZ}^1$ , Q FAVRE-GODAL $^2$ , E FERREIRA QUEIRO $Z^2$ , K  $GINDRO^3$ , H  $RIEZMAN^4$ , J-L  $WOLFENDER^2$ , D  $SANGLARD^1$ 

<sup>1</sup>Institute of Microbiology, University Hospital of Lausanne, Lausanne, Switzerland, <sup>2</sup>School of pharmaceutical sciences, University of Geneva, University of Lausanne, Switzerland, <sup>3</sup>Swiss Federal Research Station, Agroscope Changins Wädenswil ACW, Switzerland, <sup>4</sup>Department of Biochemistry, University of Geneva, Switzerland

16:45-17:00 O-120 IDENTIFICATION OF MEDIATORS OF ANTIFUNGAL TOLERANCE IN CANDIDA ALBICANS

<u>E DELARZE</u><sup>1</sup>, S ZNAIDI<sup>2</sup>, M LEGRAND<sup>2</sup>, M ARENDRUP<sup>3</sup>, C MUNRO<sup>4</sup>, C D'ENFERT<sup>2</sup>, D SANGLARD<sup>1</sup>

<sup>1</sup>University of Lausanne and University Hospital Center, Lausanne, SWITZERLAND, <sup>2</sup>Pasteur Institute, Paris, FRANCE, <sup>3</sup>Statens Serum Institut, Copenhagen, DENMARK, <sup>4</sup>University of Aberdeen, Aberdeen, UNITED KINGDOM

17:00-17:15 O-105 SELECTION, SEX AND SWEEPS; RESISTANCE EVOLUTION OF THE DMI TARGET GENE CYP51

PC BRUNNER<sup>1</sup>, BA MCDONALD<sup>1</sup>

ETH Zurich, Universitaetstrasse 2, 8092 Zurich

17:15-17:30 O-122 BIOCONTROL OF DIABROTICA VIRGIFERA VIRGIFERA IN MAIZE – ASSESSING EFFECTS OF BIOCONTROL AGENTS ON SOIL MICROBIAL COMMUNITIES

<u>J MAYERHOFER</u><sup>1</sup>, H RAUCH<sup>2</sup>, CO PABST<sup>3</sup>, A LEUCHTMANN<sup>4</sup>, M HARTMANN<sup>5</sup>, H STRASSER<sup>3</sup>, F WIDMER<sup>1</sup>, J ENKERLI<sup>1</sup>

<sup>1</sup>Molecular Ecology, Institute for Sustainability Sciences, Agroscope, 8046 Zurich,

Switzerland, <sup>2</sup>Research Centre for Agriculture and Forestry Laimburg, 39040 Auer, Italy, <sup>3</sup>Institute of Microbiology, Leopold-Franzens University Innsbruck, 6020 Innsbruck, Austria, <sup>4</sup>Plant Ecological Genetics, Institute of Integrative Biology, ETH Zurich, 8092 Zurich, Switzerland, <sup>5</sup>Forest Soils and Biogeochemistry Rhizosphere Processes, Swiss Federal Research Institute WSL, 8903 Birmensdorf, Switzerland

17:30-17:45

O-128 DE NOVO ASSEMBLY OF THE PNEUMOCYSTIS JIROVECII SUBTELOMERIC GENE FAMILIES ENCODING VARYING SURFACE ANTIGENS E SCHMID-SIEGERT <sup>1</sup>, S RICHARD <sup>2</sup>, M PAGNI <sup>1</sup>, PM HAUSER <sup>2</sup> <sup>1</sup>Vital-IT Group, SIB Swiss Institute of Bioinformatics, Lausanne, Switzerland , <sup>2</sup>Institute of Microbiology, Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland

17:45-18:00

CONCLUDING WORDS D. SANGLARD

Students' Party

19:30 Eventforum Bern

# June 14, 2016

# SSM Annual Meeting 2016

09:00-09:15	Welcome and Introduction
09:15-10:15	Plenary Session A: Microbe-host interaction Kongressraum 1 Chaired by Volker Thiel and Gilbert Greub
09:15-09:45	Influenza virus-host interactions Adolfo Garcia-Sastre, USA, New York
09:45-10:15	The Drosophila-Spiroplasma interaction as a model to dissect the molecular mechanisms underlying insect endosymbiosis Bruno Lemaitre, CH, Lausanne
10:15-11:00	Coffee Break
11:00-12:30	Parallel Sessions I – IV
11:00-12:15	Session I: Microbe evolution Kongressraum 1 Chaired by Dominique Sanglard and Stefan Kunz
11:00-11:30	MOLECULAR MECHANISMS OF VIRUS ESCAPE TO MUTAGENIC AND NON-MUTAGENIC INHIBITORS ESTEBAN DOMINGO, SPAIN, MADRID
11:30-12:00	EXPERIMENTAL EVOLUTION OF FUNGAL PATHOGENS IN IMMUNE CELLS SASCHA BRUNKE, GERMANY, JENA
12:00-12:15	O-39 ROLE OF PROPHAGES IN GENOME PLASTICITY, VIRULENCE AND HOST TROPISM: CONDITIONING OF STPAHYLOCOCCUS AUREUS CC398 HUMAN-ADAPTED STRAINS <u>F LAUMAY</u> , AR CORVAGLIA¹, SM DIENE¹, N VAN DER MEE-MARQUET², P FRANCOIS¹  ¹Genomic Research Lab, Department of Infectious Diseases Geneva University Hospital Rue Gabrielle-Perret-Gentil 4 CH-1211 GENEVA 14 SWITZERLAND, ²CHRU de Tours, Département de Microbiologie et Hygiène, Hôpital Trousseau, Réseau des Hygiénistes du Centre RHC, UMR 1282, Infectiologie Santé Publique, Université de Tours, 37044 TOURS cedex
11:00-12:30	Session II: Microbe entry Foyer Nord Chaired by Vincent Perreten and Silke Stertz
11:00-11:30	ENTRY OF CHLAMYDIA Ray A. Carabeo, UK, London

11:30-12:00	HOW LIPID SIGNALING TUNES NON-ENVELOPED VIRUS INFECTIONS URS GREBER, CH, ZÜRICH
12:00-12:15	O-177 PHOSPHORYLATION EVENTS IN EARLY STEPS OF INFLUENZA A VIRUS INFECTION <u>E. YÁNGÜEZ</u> , M.P. DOBAY <sup>2</sup> , S. STERTZ <sup>1</sup> <sup>1</sup> Institute of Medical Virology, University of Zurich, Zurich, Switzerland., <sup>2</sup> Swiss Institute of Bioinformatics, Lausanne, Switzerland.
12:15-12:30	O-34 VON WILLEBRAND BINDING PROTEIN, BUT NOT STAPHYLOCOAGULASE, IS INVOLVED IN THE INITIATION OF STAPHYLOCOCCUS AUREUS

EXPERIMENTAL INFECTIVE ENDOCARDITIS

S. MANCINI<sup>1</sup>, F. OECHSLIN<sup>1</sup>, C. MENZI<sup>1</sup>, Y.A. QUE<sup>1</sup>, T.R. VELOSO<sup>2</sup>, P. MOREILLON<sup>1</sup>, J.M. ENTENZA<sup>1</sup>

Department of Fundamental Microbiology, UNIL, Lausanne, Switzerland, <sup>2</sup>Department of Cardiovascular Sciences, KU Leuven, Leuven, Belgium

# June 14, 2016

# SSM Annual Meeting 2016

11:00- 12:30	Session III: Host Responses to Microbes Foyer Süd Chaired by Salomé Leibundgut-Landmann and Annelies Zinkernagel
11:00-11:30	THE MATERNAL MICROBIOTA SHAPES DEVELOPMENT OF THE NEONATAL INNATE IMMUNE SYSTEM KATHLEEN McCoy, CH, Bern
11:30-12:00	THE LUNG MICROBIOTA SHAPES HOST INNATE IMMUNITY ERIC BERNASCONI, CH, LAUSANNE
12:00-12:15	O-20 DISORDERED NASAL MICROBIOTA WITHIN THE FIRST YEAR OF LIFE IN INFANTS WITH CYSTIC FIBROSIS  M. MIKA¹, I KORTEN², W QI³, N REGAMEY², U FREY⁴, C CASAULTA², P LATZIN², M HILTY¹, SCILD STUDY GROUP⁵  ¹Institute for Infectious Diseases, University of Bern, Bern, Switzerland, ²Division of Respiratory Medicine, Department of Pediatrics, Inselspital and University of Bern, Bern, Switzerland, ³Functional Genomics Center, Swiss Federal Institute of Technology Zurich/ University of Zurich, Zurich, Switzerland, ⁴University Children`s Hospital (UKBB), Basel, Switzerland, ⁵SCILD Study Group, Switzerland
12:15-12:30	O-182 HEPATITIS C VIRUS STIMULATES MURINE CD8A-LIKE DENDRITIC CELLS TO PRODUCE TYPE I INTERFERON IN A TRIF-DEPENDENT MANNER S. PFAENDER¹, E. GRABSKI², C. DETJE², N. RIEBESEHL¹, S. LIENENKLAUS³, E. STEINMANN¹, U. KALINKE², T. PIETSCHMANN¹  ¹Institute of Experimental Virology, TWINCORE, Centre for Experimental and Clinical Infection Research, Hannover, Germany, ²Institute for Experimental Infection Research, TWINCORE, Centre for Experimental and Clinical Infection Research, Hannover, Germany, ³Department of Molecular Immunology, Helmholtz Centre for Infection Research, Braunschweig, Germany
11:00-12:30	Session IV: Clinical Virology Kongressraum 4 Chaired by Meri Gorgievski and Stephen Leib
11:00-11:30	EXPECTED AND LESS EXPECTED CHALLENGES IN CLINICAL VIROLOGY LAURENT KAISER, CH, GENEVA
11:30-12:00	EVOLUTION IN VIRAL DIAGNOSTICS – PHYSICIANS'S EXPECTATION AND ANALYTICAL REALITY SAMUEL ZÜRCHER, CH, BERN
12:00-12:15	O-163 HETEROGENEOUS ANTIGENIC PROPERTIES OF THE PORCINE REPRODUCTIVE AND RESPIRATORY SYNDROME VIRUS (PRRSV) NUCLEOCAPSID AMONG GENOTYPE I STRAINS <u>J RAPPE</u> <sup>1</sup> , N RUGGLI <sup>1</sup> <sup>1</sup> Institute of Virology and Immunology IVI, Sensemattstrasse 293, 3147 Mittelhäusern, Switzerland

12:15-12:30	O-156 MULTI-RESISTANCE OF ENTEROVIRUS TO UV254 DISINFECTION AND MUTAGENIC NUCLEOTIDE ANALOGS IS LINKED TO MODIFICATIONS IN THE REPLICATION MACHINERY A CARRATALÀ¹, V BACHMANN¹, Q ZHONG¹, T KOHN¹  ¹Environmental Chemistry Laboratory, School of Architecture, Civil and Environmental Engineering. École Polytechnique Fédérale de Lausanne (EPFL).
12:30-14:00	Lunch Break
13:00-14:00	Lunchworkshop: Bruker, Association for Medical Quality Control Zurich, ProbioSwiss GmbH, Culture Collection of Switzerland AG  Kongressraum 1 Chaired by Reinhard Zbinden, Zürich
13:00-13:30	MALDI-TOF: BEYOND IDENTIFICATION ADRIAN EGLI, UNIVERSITY HOSPITAL OF BASEL, CH.
13:30-13:45	INTERNAL QUALITY OF MALDI-TOF – ASPECTS OF ACCREDITATION BETTINA SCHULTHESS, INSTITUTE OF MEDICAL MICROBIOLOGY, ZURICH
13:45-14:00	DEPOSITION OF BIOLOGICAL MATERIAL IN A PUBLIC CULTURE COLLECTION SILVANO LANDERT, CULTURE COLLECTION OF SWITZERLAND, WÄDENSWIL, CH
14:00-15:30	Poster Session I Poster with even number will be presented; Poster walks with selected Posters

# June 14, 2016

# SSM Annual Meeting 2016

14:30-15:30	Mini-symposium on Education and Outreach on Microbiology  "Making the bridge: talking about epidemic outbreak to the broad public"  Foyer Nord Chaired by Karl Perron and Aurélia Weber
14:30-15:00	PERCEPTION IS REALITY CHRISTEN DARCY, CHUV, CH, LAUSANNE
15:00-15:15	O-202 MICROBIOLOGY DAY: A TRUE 10YEARS EXPERIENCE FROM GENEVA <u>LINDER PATRICK</u> ,  Professor of Microbiology, Director of the Department of Microbiology and Molecular Medicine University of Geneva Medical School, President of the Biology Platform, Swiss Academy of Science.
15:15-15:30	O-203 CLEAN CARE IS SAFER CARE: ACHIEVING PATIENT AND PUBLIC SAFETY PIRES DANIELA, GENEVA, HUG  Dr. Pittet Group - 1. Infection Control Programme and WHO Collaborating Centre on Patient Safety - Infection Control & Improving Practices, University of Geneva Hospitals and Faculty of Medicine, Geneva, Switzerland - 2. Department of Infectious Diseases, Centro Hospitalar Lisboa Norte and Faculdade de Medicina da Universidade de Lisboa, Lisbon, Portugal
15:30-16:15	Welcome-Apéro
16:00-17:30	Parallel Sessions V - VIII
	Session V: Systems Microbiology
	Kongressraum 1 Chaired by Beat Christen and Jacques Schrenzel
16:00-16:30	· · · · · · · · · · · · · · · · · · ·
16:00-16:30 16:30-17:00	Chaired by Beat Christen and Jacques Schrenzel  SINGLE-CELL ANALYSIS OF SALMONELLA VIRULENCE AND THERAPY IN INFECTED HOST TISSUES
	Chaired by Beat Christen and Jacques Schrenzel  SINGLE-CELL ANALYSIS OF SALMONELLA VIRULENCE AND THERAPY IN INFECTED HOST TISSUES DIRK BUMANN, CH, BASEL  VARIABILITY IN BACTERIAL CHEMOTACTIC SIGNALING REVEALED BY FRET IN SINGLE CELLS

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Foyer Nord

Chaired by Reinhard Zbinden and Vincent Perreten

16:00-16:30 AMINOGLYCOSIDES – DRUG DEVELOPMENT

ERIK C. BÖTTGER, CH, ZÜRICH

16:30-17:00 ACQUIRED RESISTANCE TO POLYMYXINS IN ENTEROBACTERIACEAE;

MECHANISMS AND DETECTION METHODS

LAURENT POIREL, CH, FRIBOURG

17:00-17:15 O-51 TRENDS IN ANTIMICROBIAL SUSCEPTIBILITY AND CLONALITY OF NEISSERIA GONORRHOEAE ISOLATES COLLECTED FROM 1989 TO 2015 IN

SWITZERLAND

<u>V DONÀ</u><sup>1</sup>, S KASRAIAN<sup>1</sup>, R ZBINDEN<sup>2</sup>, B SAVIC<sup>3</sup>, F IMERI<sup>3</sup>, H FURRER<sup>4</sup>, N LOW<sup>5</sup>,

A ENDIMIANI1

<sup>1</sup>Institute for Infectious Diseases, University of Bern, Bern, Switzerland, <sup>2</sup>Institute of Medical Microbiology, University of Zurich, Zurich, Switzerland, <sup>3</sup>Laborgemeinschaft 1, Zurich, Switzerland, <sup>4</sup>Department of Infectious Diseases, Bern University Hospital, University of Bern, Bern, Switzerland, <sup>5</sup>Institute of Social and Preventive

Medicine, University of Bern, Bern, Switzerland

17:15-17:30 O-6 DECIPHERING MECHANISMS OF (HETERO) RESISTANCE TO COLISTIN IN ACINETOBACTER BAUMANNII

Y. CHARRETIER<sup>1</sup>, S. M. DIENE<sup>1</sup>, D. BAUD<sup>1</sup>, S. CHATELLIER<sup>2</sup>, E. SANTIAGO-ALLEXANT<sup>3</sup>, A. VAN BELKUM<sup>4</sup>, G. GUIGON<sup>3</sup>, J. SCHRENZEL<sup>1</sup>

<sup>1</sup>Genomic Research Laboratory, Service of Infectious Diseases, Geneva University Hospitals, Geneva Switzerland, <sup>2</sup>Innovation Unit, bioMérieux SA, La Balme Les Grottes, France, <sup>3</sup>Innovation Unit, bioMérieux SA, Marcy l'Etoile, France, <sup>4</sup>R&D Microbiology Unit, bioMérieux SA, La Balme Les Grottes, France

# June 14, 2016

# SSM Annual Meeting 2016

	Session VII: Dual Use Research of Concern (DURC) – Public Discussion Foyer Süd Chaired by Volker Thiel and Stephen Leib
16:00-16:20	MOLECULAR BIOCONTAINMENT ADOLFO GARCIA-SASTRE, USA, NEW YORK
16:20-16:40	LIFE SCIENCE RESEARCH MEETS EXPORT CONTROLS: THE DUAL USE PROBLEM CÉDRIC INVERNIZZI, CH, SPIEZ
16:40-17:00	GOVERNING SYNTHETIC BIOLOGY : BALANCING RISKS AND BENEFITS JOYCE TAIT, UK, EDINBURGH
17:00-17:30	Round Table discussion
	Session VIII: Microbe replication Kongressraum 4 Chaired by Gilbert Greub and Cornel Freafel
16:00-16:30	GIANT VIRUSES AND VIROPHAGES : OVERVIEW AND INSIGHT IN THEIR REPLICATION AND CO-EVOLUTION MATTHIAS FISCHER, D, HEIDELBERG
16:30-17:00	COMING FULL CIRCLE: CELL DIVISION IN FREE-LIVING AND OBLIGATE INTRACELLULAR BACTERIA PATRICK VIOLLIER, CH, GENEVA
17:00-17:15	O-139 CHARACTERIZATION OF NOVEL MEMBERS OF THE CHLAMYDIAL DIVISOME THAT LINK SEPTUM FORMATION AND PEPTIDOGLYCAN REMODELLING N JACQUIER <sup>1</sup> , PH VIOLLIER <sup>2</sup> , G GREUB <sup>1</sup> <sup>1</sup> Institute of Microbiology, University Hospital Center and University of Lausanne, Lausanne, Switzerland, <sup>2</sup> Department of Microbiology & Molecular Medicine, Institute of Genetics & Genomics in Geneva (iGE3), Faculty of Medicine / CMU, University of Geneva, Switzerland
17:15-17:30	O-75 ACTIVE VERSUS DORMANT: ADAPTATIONS OF FIRMICUTES TO THRIVE IN SALINE ENVIRONMENTS <u>S FILIPPIDOU</u> <sup>1</sup> , T JUNIER <sup>2</sup> , T WUNDERLIN <sup>1</sup> , I PALMIERI <sup>1</sup> , N JEANNERET <sup>1</sup> , P JUNIER <sup>1</sup> <sup>1</sup> Laboratory of Microbiology, Institute of Biology, University of Neuchâtel, Neuchâtel, Switzerland, <sup>2</sup> Vital-IT group, Swiss Institute of Bioinformatics, Lausanne, Switzerland
17:30-18:30	Annual Assembly of the SSM Kongressraum 1
19:00	Gala Dinner Kultur Casino Bern, Grosser Saal (Herrengasse 25 CH – 3011 BERN)

The SSM award and the SULM Richterich Medals will be granted 37

# June 15, 2016

# SSM Annual Meeting 2016

09:00-10:15	Plenary Session B: Looking back to the past Kongressraum 2 Chaired by Stephen Leib and Gilbert Greub
09:00-09:35	INTENTIONAL TRANSMISSION OF HIV AND HCV BY INJECTION OF BLOOD – THE BERNE CRIMINAL CASE STEFAN ZIMMERLI, CH, BERN
09:35-10:15	PALEOMICROBIOLOGY OF PLAGUE MICHEL DRANCOURT, MARSEILLE, FRANCE
10:15-11:00	Coffee Break
11:00-12:30	Parallel Sessions IX – X
	Session IX: Symbionts Foyer Süd Chaired by Pilar Junier and Nicolas Jacquier
11:00-11:30	ENDOSYMBIOSIS: HOW BACTERIA CONTRIBUTED TO CURRENT METABOLIC CAPACITIES OF PLANT PLASTIDS STEPHEN BALL, FRANCE, PARIS
11:30-12:00	LEAF NODULE SYMBIOSIS LEO EBERL, CH, ZÜRICH
12:00-12:15	O-142 THE GROWTH CYCLE OF SIMKANIA NEGEVENSIS IN PNEUMOCYTES AND ENDOMETRIAL CELLS AND EVIDENCES FOR THE IMPLICATION OF THIS AMOEBAL SYMBIONT IN HUMAN DISEASES?  M. VOUGA <sup>1</sup> , D. BAUD <sup>2</sup> , G. GREUB <sup>1</sup> Center for Research on Intracellular Bacteria, Institute of Microbiology, Faculty of Biology and Medicine, University of Lausanne and University Hospital, Lausanne, Switzerland, <sup>2</sup> Materno-fetal and Obstetrics Research Unit, Department "Femme-Mère-enfant", Maternity, University Hospital, Lausanne, Switzerland
12:15-12:30	O-149 THE ESSENTIAL GENOME OF THE PLANT ENDOSYMBIONT SINORHIZOBIUM MELILOTI CULTURED IN RICH AND MINIMAL MEDIA <u>C.E. FLORES-TINOCO</u> <sup>1</sup> , F. TSCHAN <sup>1</sup> , M. BARNETT <sup>2</sup> , M. CHRISTEN <sup>1</sup> , S. LONG <sup>2</sup> , B. CHRISTEN <sup>1</sup> <sup>1</sup> IMSB, ETH Zürich, CH-8093 Zürich, Switzerland, <sup>2</sup> Stanford University, Stanford, CA 94305, USA

	Session X: Epigenetics Kongressraum 4 Chaired by Patrick Viollier and Beat Christen
11:00-11:30	DNA METHYLATION, CLONAL HETEROGENEITY AND SALMONELLA VIRULENCE Marjan van der Woude, UK, York
11:30-12:00	BACTERIAL METHYLOME ANALYSIS WITH PACBIO DATA LAURENT FALQUET, CH, FRIBOURG
12:00-12:30	THE SPATIAL AND TEMPORAL CONTROL OF TRANSCRIPTION BY THE CELL CYCLE REGULATOR GCRA DEPENDS ON DNA METHYLATION IN CAULOBACTER CRESCENTUS EMANUELE BIONDI, FRANCE, MARSEILLE

# June 15, 2016

# SSM Annual Meeting 2016

12:30-14:00	Lunch Break
13:00 – 14:00	Lunchworkshop: BioMérieux Foyer Nord
14:00-15:30	Poster Session II Poster with odd numbers will be presented; Poster walks with selected Posters
14:30-15:30	Mini-symposium on Education and Outreach on Microbiology
	"From lab with love: how to promote scientific education using microbiology Foyer Nord Chaired by Karl Perron and Massimo Caine
14:30-15:00	MIXED CULTURES: ENGAGING THE PUBLIC WITH MICROBIOLOGY USING THE ARTS AND HUMANITIES JOANNA VERRAN, UK, MANCHESTER METROPOLITAN UNIVERSITY
15:00-15:15	O-204 PLAYING WITH MICROBES: DEVELOPING A GAME TO ENHANCE THE POPULATION KNOWLEDGE ON THE THREATS AND PREVENTION OPPORTUNITIES RELATED TO EMERGING PATHOGENS C KEBBI-BEGHDADI <sup>1</sup> , G GREUB <sup>1</sup> 1 Center for Research on Intracellular Bacteria (CRIB), Institute of Microbiology, University Hospital Center and University of Lausanne, Switzerland
15:15-15:30	O-205 NEW BUSINESS OPPORTUNITY (NBO) IN MICROBIAL BIOTECHNOLOGY: AN INNOVATIVE EDUCATIONAL PROGRAMME KARIN KOVAR Institute of Chemistry and Biotechnology, School of Life Sciences and Facility Management, Zurich University of Applied Sciences ZHAW
15:30-16:15	Coffee Break
16:15-17:30	Plenary Session C, SSM Awards and Closure of SSM Annual Assembly 2016 Kongressraum 1
16:15-16:45	Plenary Session C Chaired by Alexis Dumoulin Digital Health and Epidemiology: Opportunities and Challenges Marcel Salathé, CH, Lausanne
16:45-17:00	SSM Award and lecture of Award Winner
	O-148 GCRA/CCRM EPIGENETIC MODULE IN BACTERIAL CELL CYCLE CONTROL AND HOST-PATHOGEN INTERACTIONS <u>G. PANIS</u> <sup>1</sup> , M. DELABY <sup>1</sup> , C. FUMEAUX <sup>1</sup> , L. THERAULAZ <sup>1</sup> , P.H. VIOLLIER <sup>1</sup> ¹Department of Microbiology & Molecular Medicine, Faculty of Medicine, University of Geneva, Switzerland.
	Info on SSM Annual Assembly in Basel 2017

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**End of meeting** 

# MINI-SYMPOSIUM ON EDUCATION AND OUTREACH ON MICROBIOLOGY

### Dear members,

We are glad to inform you that the SSM, in the context of its annual meeting, is organizing a specific session dedicated to Education and Outreach. Here you will have the possibility to listen to outstanding international speakers active in the field of microbiology education and communication. Furthermore, thanks to a dedicated schedule, you may also present your past, present or future experiences in communicating microbiology either during a poster session or by giving a short talk.

In the latter case an abstract-based selection will be performed, thus we kindly invite you to submit your abstract during the enrollment process. In the abstract submission web page, a specific section is available entitled "education and outreach" that need to be specifically selected.

The session will be divided in two days. The first day (14.06) will focus on "Making the Bridge: Talking about Epidemic Outbreak to the Broad Public". The second day (15.06) will focus on "From the Lab with Love: How to Promote Scientific Education Using Microbiology".

Looking forward to meeting you there Massimo Caine, Karl Perron and Aurélia Weber

# Dual Use Research of Concern (DURC) - Public Discussion

Dear members,

"Dual Use Research of Concern" (DURC) is of importance for many microbiologists and the SSM will organize a specific session to hear world-leading experts on this topic and to have a public discussion afterwards. Don't miss the opportunity to discuss the benefits and concerns of our Science with the experts and the audience.

We look forward to seeing you on Tuesday, June 14<sup>th</sup>, at 4pm (Session VII). Stephen Leib and Volker Thiel

### PROGRAM

### OF THE SULM PART OF THE MEETING

In this SULM program, please note that two sessions are especially related to microbiology:

- A session on rapid tests (chaired by J Schrenzel)
- A session on sepsis (chaired by G Greub)

### See the following website for details:

http://www.sulm.ch/d/swissmedlab

### Rapid tests:

June.15th

11:00-12:30, PW21, Raum 2

Chair: Prof. Jacques Schrenzel, Genève

Dr Désirée Mayor, Bern : Immunographische Anwendungen

Prof. Gilbert Greub, Lausanne : Tests moléculaires

Prof Raymond Auckenthaler, Augsburg: Place de POCT - Microbiologie dans les

laboratoires médicaux en réseau

### **SEPSIS:**

June 15<sup>th</sup> 14:30- 16:00

OUTCOME: The Impact of Diagnostic Tests in Sepsis

Chair: Prof. Gilbert Greub

Prof. Jacques Schrenzel: Impact of mass spectrometry in the etiological diagnosis of

bacteremia

Dr. Alexander Kutz: Procalcitonine - added value for the diagnosis of sepsis

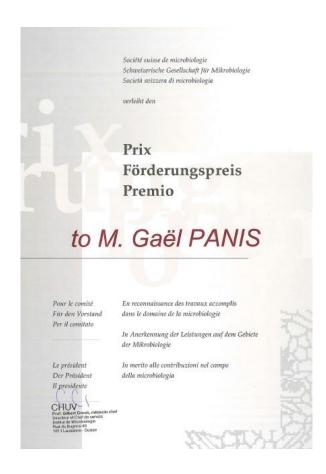
PD Dr. Werner Albrich: Pros and cons of using biomarkers versus clinical decisions in

start/stop decisions for antibiotics in the ICU



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# SSM Award



Gael Panis will receive the SSM Award during the gala dinner



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