

Short report of the 2021 General meeting of BSM

The Belgian Society for Microbiology (BSM) is a nonprofit association dedicated to the advancement of microbiological sciences in the broadest sense. It was founded in 1996 to give all the microbiologists in Belgium a chance to meet and discuss Science in a friendly atmosphere. Since then, the Society successfully organized more than twenty Symposia devoted to specific and trendy topics that attracted from year to year between 110 and 200 participants.

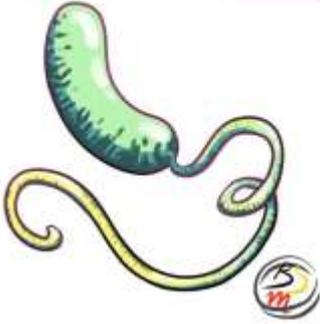
In 2017, on the occasion of the 20th anniversary of the creation of the Society, the Board decided to move one step forward and to create scientific sections to foster more contacts and activities among the members. Three have been created: (A) General Microbiology, (B) Applied and Environmental Microbiology and (C) Host-microbe interactions

In line with this new structure, we are organising a general meeting with a prominent speaker chosen by every section. For section A, the keynote speaker was Christian Lesterlin, who gave a talk on the visualization of acquisition and establishment of drug resistance in bacteria. Daniele Daffonchio was invited by section B and presented the stratified microbial network in the anaerobic deep-sea brine pools of the Red Sea. Finally, Maximiliano Gutierrez (section C) explained the relation between the host cell environments and antibiotic efficacy in tuberculosis. The BSM always encourages young people to present their work and 15 young academics were selected to give a talk (see program). The symposium is always closed by an honorary lecture: a Belgian microbiologist. This year, Marc Van Ranst was selected for his contribution to the Covid 19 pandemic management and for his communication efforts to explain the pandemic to the broader public.

This online 2021 General meeting of BSM was held on March 12. Over 250 participants were present. Half of the participants were PhD students.

President Eveline Peeters explaining the program

Microbial resources and challenges for science and society



Microbial resources and challenges for science and society

It is challenging to perform (microbiology) research when a society is affected by a pandemic

Quorum sensing – stay in contact with each other

Biofilm formation – set up collaborations

Public goods – contribute with your knowledge

Enhanced traits – acquire new skills



Credits for the idea: Dr Beatriz Basega Carvera #FIMSmicroblog



The agar art contest. At the end of the conference, the public can vote for the best submission

Agar art contest



BSM agar art contest

Please cast your vote for your favourite agar art entry

1. Hanne Debergh
2. Max Dekeukeleire
3. Valérie Mattelin
4. Josefien Van Landuyt
5. Renske van Raaphorst
6. Sebastian Worms



And the winner is:



President Eveline Peeters acknowledging ISME for the financial support

The image shows a slide with the ISME logo and information. The logo consists of a green globe icon followed by the text "ISME" in large, bold, black letters. Below the logo, the text "International Society of Microbial Ecology" is written in a smaller font. The website address "https://www.isme-microbes.org" is listed below. A list of bullet points provides details about the organization: "A non-profit association in the field of Microbial Ecology", "Main goal: to promote Microbial Ecology in all aspects", "Symposia every two years: 2200 people on average, representing over 50 countries", "Two journals: ISME Journal & ISME Communications (freshly launched)", and "Funding / Sponsorship: contact: charles.vanderhenst@vub.vib.be". To the right of the slide is a video feed of a woman with dark hair, wearing a headset, speaking during a presentation.

Belgian Ambassador:
Charles Van der Henst
VIB-VUB Center for Structural Biology

Acknowledgments

- All speakers
- All BSM Board members
- ISME
- BigMarker



First keynote lecture of Christian Lesterlin

The slide is titled "DNA transfer by conjugation in live cells" and features a diagram of two bacterial cells, one labeled "Donor" and the other "Recipient", connected by a red line representing a conjugative pilus. Below the diagram is a circular logo with the letters "B" and "M" in red and yellow. At the bottom of the slide, it reads "BM Symposium 13/03/2021" and "Christian LESTERLIN, Cell-to-Cell DNA transfer lab, 08022 - Institute of Microbiology and Chemical Biotechnology, UCL, UK". To the right of the slide, two video feeds are visible: the top one shows a woman with long dark hair, and the bottom one shows a man with glasses and a dark shirt.

Second keynote lecture of Daniele Daffonchio

The slide has a black background with white text. The title is "The stratified microbial network in the anaerobic deep-sea brine pools of the Red Sea". Below the title is the name "Daniele Daffonchio" and his affiliation: "Extreme Systems Microbiology Lab, Red Sea Research Center". A small logo with the letters "EMSL" is shown below the affiliation. The location "Thuwal, Saudi Arabia" is listed at the bottom. Contact information includes the email "daniele.daffonchio@ksu.edu.sa" and the website "http://www.ksu.edu.sa/en/study/faculty/daniele-daffonchio". Below the slide, two video feeds are visible: the left one shows a man with a beard and headphones, and the right one shows Daniele Daffonchio, a man with glasses and a blue jacket.

Third keynote lecture of Maximiliano Gutierrez

The slide features a background image of a red, fibrous network with a blue, multi-lobed structure. The title is "Host cell environments and antibiotic efficacy in tuberculosis". The logo for "THE FRANCIS CRICK INSTITUTE" is in the top right corner. The text "Belgian Society of Microbiology, 12th March 2021" and the name "Maximiliano G. Gutierrez" are centered. At the bottom, it says "Host-Pathogen Interactions in Tuberculosis Laboratory" and "The Francis Crick Institute, London, UK". To the right of the slide, two video feeds are visible: the top one shows a man with a beard and a blue shirt, and the bottom one shows a man with short grey hair.

Some screenshots from the PhD students presenting their work

Analysis of *Campylobacter* isolates

- 1. Campylobacter 2019 (n=100)
- 2. Campylobacter 2018 (n=100)
- 3. Campylobacter 2017 (n=100)
- 4. Campylobacter 2016 (n=100)
- 5. Campylobacter 2015 (n=100)

Dr. [Name] | [Institution]

The L-Glutamate-γ-P_i phosphino group is a biosynthetic of carboxyl group

Dr. [Name] | [Institution]

FT-IR Spectroscopy: Why?

- Fast, easy and cost-effective method compared to Quelling and WGS!

scienis&co | be

How a WW2 shipwreck still influences the surrounding sediment 70 years later

JOSEFEN VAN LANDUYT¹, KANKANA KUNDU¹, SVEN VAN HAELEST¹, MARIJKE NEYTS¹, KOEN PARMENTIER¹, MAARITEN DE RUCKE¹, NICCO BOON¹

CHET - Universiteit Gent, Coupure links 303, 9000 Gent, Belgium
 VUZ - Imhofstraat 16, Wareldestraat 7, 2400 Oostende, Belgium
 CHM - Sibley 250x, Universiteit Gent - 9000 Oostende, Belgium

Dr. [Name] | [Institution]

The key enzyme PhaC

Bioinformatic approach

However ...

- All hits contained a 77kDa [pase box (G-X-S-S-C)]
- ⇒ No classic PhaC sequence found in *T. thermophilus*

In extension to this ...

- ⇒ No classic PhaC sequence found in genomes of extreme thermophiles

Dr. [Name] | [Institution]