

# PROGRAM

## Sunday October 21

Registration 18:00-

### Public lecture: First and Second Origin of Life 19:00 -

André Brack (Orleans, France),  
Tetsuya Yomo (Osaka, Japan)

## Monday October 22

Registration

08:00-

Welcome

9.00-9.20

Session Chair: Harry Lehto

9.20-10.20

### 1. Astrobiology, Life and Habitable zones

1.1 Updating the Astrobiology Roadmap 12  
Carl Pilcher

1.2 Life, the Universe and Habitable Zones 13  
Rami Rekola

1.3 The quest for terrestrial planets 14  
Ewa Szuszkiewicz

Coffee  
10.20-10.50

Session Chair: Werner von Bloh

10.50-12.10

### 2. Life, climate and the atmospheres

2.1. Biological feedbacks as cause and demise of Neoproterozoic icehouse:  
implications for multicellular evolution 15  
\*P. Janhunen, H. Kaartokallio, I. Oksanen, K. Lehto, H. Lehto

2.2 Life and Climate: Is there a link? 16  
Peter Ditlevsen

2.3 The importance of high CO<sub>2</sub> amounts in young terrestrial planetary  
atmospheres 17  
\*H. Lammer, M.L. Khodachenko, M. Panchenko, N. Terada, Yu.N.Kulikov

2.4 The life span of a photosynthetic-active biosphere on super-Earth planets 18  
\*C. Bounama, W. von Bloh, S. Franck

Lunch and EANA executive council meeting  
12.10-14.00

Session Chair: Maria Webb  
14.00-15.20

### **3. Mars research**

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\*Joop M. Houtkooper, Dirk Schulze-Makuch
- 3.2 Methane and formaldehyde: their abundance and sources on the Earth and Mars 20  
\*C. Muller and D. Moreau
- 3.3 Geological and Paleo-Climatic Constraints for the Search of Life on Mars 21  
\*V.-P. Kostama, M. Aittola, J. Korteniemi, H. Lahtela, T. Törmänen, T. Öhman  
and J. Raitala
- 3.4 Modelling the surface and subsurface Martian radiation environment:  
Implications for Astrobiology 22  
\*L. R. Dartnell, L. Desorgher, J. M. Ward, A. J. Coates

Coffee  
15.20-15.50

Session Chair: Frances Westall  
15.50-17.10

### **4. Early life**

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D. Bamford
- 4.2 Horizontal gene transfer: evolution by default or product of natural selection? 24  
Anthony Poole
- 4.3 Membranes and the Origin of Cellular life 25  
\*Tiina Laiterä and Kirsi Lehto
- 4.4 Elaborate morphologies in probable microfossils from Archaean chert, Pilbara Craton,  
Western Australia: indicators of complex cell behaviour? 26  
\*K. Sugitani, K. Grey, T. Nagaoka, K. Mimura, M.R. Walter

### **18.30-21.00 Poster session and refreshments**

### **Tuesday October 23**

Session Chair: Axel Brandenburg  
9.00-10.20

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\*A. Brack, K. Kuge, N. Fujii
- 5.2 Driving chirality 28  
H. Lehto
- 5.3 Emergence of chirality and molecular evolution 29  
\*Raphaël Plasson, Hugues Bersini, Axel Brandenburg
- 5.4 A Terrestrial Prebiotic Route to Pyrroles and Higher Aromatics 30  
\*H. Strasdeit, S. Fox, D. Denysenko

Coffee  
10.20-10.50

Session Chair: Jean-Francois Lambert  
10.50-12.10

- 5.5 Oxidative Pathways of Reduced Phosphorus Compounds:  
A Primary Source of Condensed Phosphates on the Early Earth 31  
\*M. A. Pasek, T. P. Kee, J. I. Lunine
- 5.6 Phosphorus Redox Chemistry in Planetary Environments:  
Implications for the Origins of Life 32  
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Nils G. Holm

## 6. Small bodies in the solar system: Comets, Meteorites, Moons

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\*Beda A. Hofmann, Edwin Gnos, Manuel Eggimann, Ali Al-Kathiri

Lunch and EANA executive council meeting  
12.10-14.00

Session Chair: Yves Ellinger  
14.00-15.20

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Coffee  
15.20-15.40

**EANA General assembly**  
15.40-16.20

### **Workshop Dinner and Sauna 16.30/18.45 - 23.00**

For participants for the sauna, the departure will be approx at 16.30 directly from Educarium  
The dinner only people will join the group later. The bus leaves at 18.45 sharp at the Orthodox Church by the Market place and at 19.00 at Caribia hotel.  
Return is scheduled for 23.00. Further details will be given at the meeting.

### **Wednesday October 24**

Session Chair: Gerda Horneck  
9.00-10.20

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Coffee  
10.20-10.50

Session Chair: Kirsi Lehto  
10.50-12.10

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- 9.2 ABC-Net, a European Astrobiology Lecture Course Network 46  
\*Gerda Horneck and the ABC-Net Team

### Formal Ending of the meeting

(Lunch)  
12.10-13.35

### Y Young astrobiologist sessions

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13.35-15.05

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Coffee  
15.05 - 15.30

Youth Session Chair: Marc Hoepfner  
**15.30 - 17.10**

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