Molecular Frontiers Symposium and Youth Forum

Tailored biology: Fundamental and Medicinal Insights

Date: 23–24 May 2017

Chairs:
Professor Bengt Nordén, Chair, Molecular Frontiers Foundation
Dr. Lorie Karnath MBA, Ph.D. (hon), Chair DAB, Molecular Frontiers Foundation

Organization:
Dr. Per Thorén, COO, Associate Professor Dina Petranovic, CEO Global, Molecular Frontiers Foundation

The symposium is free of charge and open to the public but registration is required for all participants. For registration and more information please visit: kva.se/molecular2017

Tuesday 23 May

09.00 Opening address
Prof. Christina Moberg, President of the Royal Swedish Academy of Sciences

Welcome address
Prof. Bengt Nordén, Chairman of the Molecular Frontiers Foundation

09.15 Origin of life on earth and design of alternatives
Jack Szostak

10.00 Synthetic tissues
Robert Langer

10.45 Break

11.00 New enzymes by evolution
Frances Arnold

11.45 Lunch

13.30 CRISPR systems: From adaptive immunity to genome editing
Jennifer Doudna

14.15 Gene editing and genome engineering with CRISPR-Cas9
Emmanuelle Charpentier

15.00 Predictive and preventative medicine
Craig Venter

15.45 Break

16.00 Discussion in plenum with symposium co-chairs

17.00 End of day

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**Wednesday 24 May**

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<th>Time</th>
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| 09.00 | Scientific wellness and healthcare  
Leroy Hood |
| 09.45 | Self-replicating synthetic systems  
Gerald Joyce |
| 10.30 | Break |
| 10.45 | Controlling metabolism: From yeast to human  
Jens B Nielsen |
| 11.30 | Origin of eukaryotic cell  
Nick Lane |
| 12.15 | Lunch |
| 13.30 | Mirror-image animals - mechanical manipulation and a point mutation  
Reiko Kuroda |
| 14.15 | Discussion in plenum with symposium co-chairs |
| 15.15 | Outreach activities of Molecular Frontiers  
Per Thorén, COO, Molecular Frontiers |
| 15.30 | Conclusions and symposium closure  
Bengt Nordén |
| 16.00 | End of symposium |

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