Wednesday, April 15, 2015

9:00  Jean-Baptiste Manneville
Institute Curie
Intracellular mechanics of normal and cancer cells

9:30  Jacob Klein
Weizmann Institute of Science
Joint lubrication and osteoarthritis: a physicists view

10:00 Martin Lenz
Orsay
The cage and the spring: membrane and protein mechanics in endocytosis

10:30 Coffee Break

11:00 Jean-Louis Viovy
Institute Curie
Playing with magnetic and interfacial forces for applications in microfluidics

11:30 Efi Efrati
Weizmann Institute of Science
Chiral self-assembly: depletion interaction with a twist

12:00 Vassili Soumelis
Institute Curie
Transcriptomics approaches to combinatorial signal integration in human immune cells

12:30 Lunch Break

14:00 Goodbye

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- Clore Center for Biological Physics
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Sponsoring Agencies

Conference Coordinator
Inbal Azoulay
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Monday, April 13, 2015

9:00 Welcome and introductions

9:15 Maxime Dahan
Institute Curie
Probing the target search of individual DNA-binding proteins in living cells

9:45 Alexander Bershadsky
Weizmann Institute of Science
Self-organization of actomyosin cytoskeleton

10:15 Coffee Break

10:45 Jacques Prost
Institute Curie
Reflexions on tissue modeling

11:15 Pascal Silberzan
Institute Curie
Confined and shaped monolayers

11:45 Eran Bouchbinder
Weizmann Institute of Science
Mechanosensitivity: Dynamic cell response to periodic deformation

12:15 Kinjal Dasbiswas
Weizmann Institute of Science
Theory links structural order and coherent beating in cardiomyocytes

12:35 Lunch Break

13:30 Shalev Itzkovitz
Weizmann Institute of Science
Single molecule approaches for studying gene expression in intact mammalian tissues

14:00 Emmanuel Farge
Institute Curie
From mesoderm mechanotransductive evolutionary origins, to tumourogenic mechanical induction

14:30 Joel Stavans
Weizmann Institute of Science
Finding a unique site on a long genome during a horizontal gene transfer process

15:00 Yohanns Bellaiche
Institute Curie
How to divide in a tissue?

15:30 Coffee Break

15:45 Pierre Sens
Institute Curie
Model of contractile cell motility under confinement

16:15 Ofer Feinerman
Weizmann Institute of Science
A neuronal network of Kuramoto-like, coupled intrinsic oscillators

16:45 Poster Session

Tuesday, April 14, 2015

9:00 Patricia Bassereau
Institute Curie
Shaping and scission of membranes with BAR-domain proteins

9:30 Gilad Haran
Weizmann Institute of Science
Understanding membrane proteins through tracking and localization

10:00 Hervé Isambert
Institute Curie
Robust reconstruction of causal networks from large scale genomic data

10:30 Coffee Break

11:00 Cécile Sykes
Institute Curie
Building up cell tension in vitro

11:30 Lia Addadi
Weizmann Institute of Science
Direct cell involvement in mineral deposition and removal during bone formation and remodeling

12:00 Leïla Perié
Institute Curie
Single cell analysis of hematopoiesis in vivo, bridging individual trajectories and biological functions

12:30 Dan Gorbonos
Weizmann Institute of Science
An Adaptive Gravity Model for Interactions in Insect Swarms

12:50 Lunch Break

14:00 Francois Amblard
Institute Curie
Transient infrared microscopy and cellular hotspots detection

14:30 Benny Geiger
Weizmann Institute of Science
The molecular networking underlying the mechanobiology of cell-matrix adhesions

15:00 Michael Elbaum
Weizmann Institute of Science
Soft X-rays and Scanning TEM: old newcomers for cryo-tomography

15:30 Coffee Break

16:00 Excursion + Dinner in Tel-Aviv-Jaffa