

Annual Dutch meeting on Molecular and Cellular Biophysics - Programme Monday 3 October 2011

09:30 - 10:30	Arrival / registration / coffee & tea			Room: Kempenhal
10:35 - 10:45	Opening			Room: Brabantzaal
10:45 - 11:15	I.1	C.M. Dobson (University of Cambridge) <i>New approaches to understanding and preventing neurodegenerative diseases</i>	Room: Brabantzaal	
11:20 - 11:50	I.2	M. Ritsch-Marte (Medizinische Universität Innsbruck) <i>Advancing light microscopy with liquid-crystal-based spatial light modulators</i>	Room: Brabantzaal	
11:55 - 12:25	I.3	R. Croce (VU) <i>Light-harvesting in photosynthesis – from individual complexes to thylakoid membrane</i>	Room: Brabantzaal	
12:30 - 13:30	Lunch			Room: Kempenhal
Room: session	<i>Protein dynamics</i>	<i>Molecular biophysics</i>	<i>In Vivo imaging I</i>	<i>Electron Microscopy</i>
13:30 - 13:45	O.01 J. Vreede (UvA) <i>Collective motions in signal transduction by the HAMP domain: Molecular dynamics and metadynamics simulations</i>	O.04 A. Kocer (RuG) <i>Hydrophobic gate exists</i>	O.07 F. Oswald (VU) <i>Mechanistic insights into the twin-arginine translocation cycle of Escherichia coli by an in vivo single-molecule approach</i>	O.10 K. Knoops (LUMC) <i>Nidovirus replication structures: hijacking membranes to support viral RNA synthesis (SEN-prize lecture)</i>
13:50 - 14:05	O.02 A. Pandit (VU) <i>Assembly of the major light-harvesting complex II in lipid nanodiscs</i>	O.05 F. Pedaci (TUD) <i>A new (optical) spin to the bacterial flagellar motor</i>	O.08 H. Kress (TU/e) <i>Ballistic motion of bacterial membrane proteins</i>	
14:10 - 14:25	O.03 K. Singhal (UvA) <i>Role of chaperones in protein folding: Binding mechanism and protein - chaperone interactions</i>	O.06 S.M. Kalisch (AMOLF) <i>Against the wall: Joint regulation of microtubule dynamics by force and end-binding proteins</i>	O.09 M.A.M. Franker (UU) <i>The role of kinesin motor Kif17 in dendritic transport</i>	
14:30 - 14:55	Coffee & tea			Room: Kempenhal
Room: session	<i>Cellular biophysics</i>	<i>DNA organisation</i>	<i>New Techniques & Technologies I</i>	<i>Microscopy Instrumentation</i>
15:00 - 15:15	O.12 C. J. A. Danelon (TUD) <i>Assembly of a minimal gene expression system in semi-permeable liposome microreactors</i>	O.15 N. Laurens (VU) <i>Revealing how DNA is compacted by the human mitochondrial transcription factor A</i>	O.18 J. Lipfert (TUD) <i>Novel approaches to magnetic tweezers and applications to DNA, RNA, and nucleoprotein filaments</i>	O.21 Nalan Liv (TUD) <i>Simultaneous correlative light and electron microscopy of cells</i>
15:20 - 15:35	O.13 S.G. Gabriele (University of Mons) <i>Mechanism of the spatial coordination between cell and nuclear shape</i>	O.16 R.P.C. Driessen (LEI) <i>Force dependent protein-DNA interactions of archaeal chromatin proteins Cren7 and Sul7</i>	O.19 G.V. Soni (TUD) <i>Nucleosome detection using nanopores</i>	O.22 M. de Groot (VU) <i>Self interference fluorescence microscopy</i>
15:40 - 15:55	O.14 W.H. de Ronde (AMOLF) <i>Pushing information through the hourglass: Multiplexing biochemical signals</i>	O.17 M. Tark-Dame (UvA) <i>Chromatin looping: the key principle of eukaryotic genome organization?</i>	O.20 G. Sitters (VU) <i>Stretching DNA by optical pushing</i>	O.23 C.J. van Voskuilen (UU) <i>Nonlinear miniaturized scanning microscope with spectral detection for in vivo tissue imaging</i>
16:00 - 18:00	Coffee & tea and Postersession 1 (odd numbers)			Room: Kempenhal
18:00 - 19:30	Dinner			Room: Genderhal
19:30 - 20:00	Coffee			Room: Kempenhal
20:00 - 21:00	I.4	A. van Oudenaarden (Massachusetts Institute of Technology) <i>Controlling gene expression fluctuations during development</i>	Room: Brabantzaal	

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09:00 - 09:30	I.5 E.J.H. Danen (LEI) <i>Integrins control adhesion dynamics, cell migration, and cancer metastasis</i>	Room: Brabantzaal		
09:35 - 10:05	I.6 S.W. Grill (Max Planck Institute of Molecular Cell Biology and Genetics) <i>Intracellular pattern generation - mechanics meets biochemistry</i>	Room: Brabantzaal		
10:10 - 10:25	Coffee & tea Room: Kempenthal			
Room: <i>session</i>	<i>Cytoskeleton</i>	<i>DNA repair</i>	<i>Evolution</i>	<i>Microscopy of cells</i>
10:30 - 10:45	O.24 Z. Lansky (WUR) <i>Ase1 compaction puts a brake on microtubules that start sliding apart</i>	O.27 I. De Vlaminck (TUD) <i>Mechanism of homology recognition in DNA recombination from dual-molecule experiments</i>	O.30 M.G.J. de Vos (AMOLF) <i>The role of genotype by environment interactions in adaptive evolutionary trajectories</i>	O.33 M.A. Hink (UvA) <i>Bright monomeric orange fluorescent protein with a large Stokes shift for FCCS and FRET</i>
10:50 - 11:05	O.25 B.S. Gentry (AMOLF) <i>Structural and mechanical properties of VASP-mediated f-actin bundle networks</i>	O.28 A. Robinson (RuG) <i>Single molecule fluorescence microscopy: visualising DNA replication and repair dynamics within living E. coli cells</i>	O.31 F.J.H. Hol (TUD) <i>The role of ecosystem heterogeneity in microbial rock-paper-scissors games</i>	O.34 S. Rocha (K.U.Leuven) <i>Dual color super-resolution microscopy reveals tetherin/HIV interaction</i>
11:10 - 11:25	O.26 J.R. Alvarado (AMOLF) <i>The dimensional switch: geometry controls actomyosin network morphology</i>	O.29 A. Candelli (VU) <i>The assembly of the DNA-repair machinery: RAD51-ssDNA filaments at the single molecule level</i>	O.32 P. Nghe (AMOLF) <i>Epistasis in the evolution of signalling cascades</i>	O.35 C. Rabouille (Hubrecht Inst.) <i>Targetted mRNA localisation and translational control in Drosophila</i>
11:30 - 13:25	Postersession 2 (even numbers) and lunch Room: Kempenthal			
Room: <i>session</i>	<i>New Technique & Technologies II</i>	<i>In Vivo Imaging II</i>	<i>Nanobiomechanics</i>	<i>Microscopy of Single Particles</i>
13:30 - 13:45	O.36 J.B.A.D. van Zon (Philips Research) <i>A handheld protein biosensor with single molecule detection using magnetic labels</i>	O.39 A. Cambi (RU) <i>Integrating ultrasensitive bioimaging techniques to unravel spatio-temporal organization of adhesive podosomes</i>	O.42 M. Baclayon (VU) <i>Prestress stabilizes the Norwalk virus capsid</i>	O.45 N. Dudkina (RuG) <i>Interaction of complexes I, III and IV within the bovine respirasome by single particle cryo electron tomography</i>
13:50 - 14:05	O.37 C. Joo (TUD) <i>Single-molecule approach to immunoprecipitated protein complexes: Insights into MicroRNA uridylation</i>	O.40 S. Shekhar (UT) <i>Phagosomal acidification not dependent on its perinuclear transport - A magnetic tweezers study</i>	O.43 M.T. Stöckl (UT) <i>A mechanistic view on membrane integrity impairment induced by alpha-synuclein oligomers</i>	O.46 N. Zijlstra (UT) <i>Establishing the composition of alpha-synuclein oligomers using single-molecule photobleaching</i>
14:10 - 14:25	O.38 A. Berrier (AMOLF) <i>Interaction of terahertz radiation with microorganisms: towards contactless bacterial recognition</i>	O.41 J.H. Koopman (RU) <i>Solute diffusion is hindered in the mitochondrial matrix</i>	O.44 J. Snijder (UU) <i>AFM nanoindentation and native mass spectrometry reveal remarkable strength of the bacterial nanocompartment encapsulin</i>	O.47 I. Smal (EMC) <i>Advanced methods for cell and particle tracking</i>
14:35 - 15:05	I.7 P.P.A.M. van der Schoot (TU/e) <i>Does the topology of single-stranded RNAs play a role in virus assembly?</i>	Room: Brabantzaal		
15:10 - 15:40	I.8 E.J.G. Peterman (VU) <i>Twist, stretch and melt: quantifying how DNA complies to tension</i>	Room: Brabantzaal		
15:45 - 15:50	Closing remarks			