

Annual Dutch meeting on Molecular and Cellular Biophysics

Programme Monday 4 October 2010

09:30 - 10:30	Arrival / registration / coffee & tea			Room: Kempenhal
10:35 - 10:45	Opening			Room: Brabantzaal
10:45 - 11:15	I.1	E.H.K. Stelzer (EMBL, Heidelberg) <i>Fluorescence microscopy based on spatially modulated light sheets reduces phototoxic effects and estimates scattering properties (LSFM)</i>	Room: Brabantzaal	
11:20 - 11:50	I.2	S.J. Marrink (RuG) <i>Multi-scale modeling of membranes</i>	Room: Brabantzaal	
11:55 - 12:25	I.3	R.J. Dwayne Miller (University of Hamburg) <i>Do we live in a quantum world? A new twist</i>	Room: Brabantzaal	
12:30 - 13:30	Lunch			Room: Kempenhal
Room: session	Baroniezaal <i>DNA organisation</i>	Brabantzaal <i>Regulatory networks</i>	Diezehal <i>Cytoskeleton</i>	
13:30 - 13:45	1.1	R.P.C. Driessen (LEI) <i>The architectural role of nucleoid-associated protein Cren7 in archaeal chromatin organization</i>	2.1	P.J. Verschure (UvA) <i>Epigenetic gene regulation of the eukaryotic genome: Systems biology approaches using synthetic cell systems</i>
13:50 - 14:05	1.2	J. Vreede (UvA) <i>Predicting the conformation of the H-NS dimerization domain</i>	2.2	F. Tostevin (AMOLF) <i>Intracellular signalling strategies: Frequency- and amplitude-decoding in biochemical networks</i>
14:10 - 14:25	1.3	R. Buning (LEI) <i>Single-pair FRET spectroscopy with alternating excitation and FCS reveals the effect of histone acetylation at H3K56 on nucleosome dynamics</i>	2.3	P. Nghe (AMOLF) <i>Fluctuations in enzyme concentration and growth rate in single bacteria</i>
14:30 - 14:55	Coffee & tea			Room: Kempenhal
Room: session	Baroniezaal <i>DNA-protein interactions</i>	Brabantzaal <i>Cellular biophysics</i>	Diezehal <i>Photosynthesis</i>	
15:00 - 15:15	4.1	N. Laurens (VU) <i>Unravelling the role of alba in the organization of the archaeal nucleoid</i>	5.1	M.D. Lazova (AMOLF) <i>Response rescaling in bacterial chemotaxis</i>
15:20 - 15:35	4.2	P.M. Mangeol (VU) <i>Mechanical stabilization of an essential subdomain of the ribosome</i>	5.2	P.J.M. van Haastert (RuG) <i>How cells move and navigate</i>
15:40 - 15:55	4.3	T.P. Hoekstra (VU) <i>Resolving the mechanochemistry of the kinetic pathways of T7 DNA polymerase</i>	5.3	P.J. Galajda (TUD) <i>Competition between cooperating and individualistic bacteria: The effect of spatial structure</i>
16:00 - 18:00	Coffee & tea / Poster session 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	R. Ranganathan (University of Texas, Southwestern Medical Center) <i>The evolutionary 'design' of proteins</i>	Room: Brabantzaal	

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Programme Tuesday 5 October 2010

09.00 - 09.30	I.5	A.M. van Oijen (RuG) <i>Under the hood: Single-molecule studies of DNA replication</i>	Room: Brabantzaal	
09.35 - 10.05	I.6	R. Berry (Oxford) <i>Imaging turnover, co-operativity and mechanochemistry in a macromolecular complex</i>	Room: Brabantzaal	
10:10 - 10:25	Coffee & tea			Room: Kempenthal
Room: session	Baroniezaal <i>DNA-protein interactions</i>	Brabantzaal <i>Live cell imaging</i>	Diezehal <i>Bio-nanotechnology</i>	
10:30 - 10.45	7.1	T. Holthausen (EMC) <i>RAD51 nucleoprotein filament assembly and disassembly</i>	8.1	D.G. Grunwald (TUD) <i>Export of single mRNAs in vivo</i>
			9.1	M. Baclayon (VU) <i>Structural integrity of Norovirus capsids tested by nanoindentation experiments</i>
10:50 - 11:05	7.2	M.J. Wiggin (TUD) <i>Direct observations of DNA unwinding during RecA filament formation in a novel zero torque magnetic tweezers</i>	8.2	B. van den Broek (LEI) <i>Parallel 3D tracking of single gold nanorods in eukaryotic cells</i>
			9.2	G.F. Schneider (TUD) <i>DNA translocation through graphene nanopores</i>
11:10 - 11:25	7.3	I.D.V. De Vlaminck (TUD) <i>Torsional regulation of double stranded DNA unwinding by hRPA</i>	8.3	M.J.W. Adjobo-Hermans (RU) <i>Visualization of the discrete steps in G protein-coupled receptor signaling</i>
11:30 - 13:25	Poster session 2 (even numbers) / lunch			Room: Kempenthal
Room: session	Baroniezaal <i>Protein dynamics</i>	Brabantzaal <i>Mechanosensing</i>	Diezehal <i>Protein-membrane interactions</i>	
13:30 - 13:45	10.1	L. Zhu (UvA) <i>The influence of fluctuations on cooperativity in integral membrane receptors</i>	11.1	Y. Zhang (WU) <i>Cellulose synthase complex positioning and insertion in the plasma membrane of tip growing Arabidopsis root hairs</i>
13:50 - 14:05	10.2	A. van Reenen (TU/e) <i>Twisting proteins by magnetic particle actuation: Molecular properties revealed</i>	11.2	J.P. Birkner (RuG) <i>The Molecular Basis of Mechanosensation - E.coli MscL as a model</i>
14:10 - 14:25	10.3	A.M. Mashaghi (AMOLF) <i>New insights on chaperone assistance to protein folding: A single molecule study</i>	11.3	J. de Rooij (UU) <i>Vinculin mediates mechanosensing by classical cadherins</i>
14:35 - 15:05	I.7	M. Heinemann (RuG) <i>Bistability in escherichia coli's central metabolism</i>	Room: Brabantzaal	
15:10 - 15:40	I.8	G. Koenderink (AMOLF) <i>Self-organized contractile pattern formation in active cytoskeletal networks</i>	Room: Brabantzaal	
15:45 - 15:50	Closing remarks			