

Annual Dutch meeting on

Molecular and Cellular Biophysics

Programme Monday 29 September 2008

09:30 - 10:30	Arrival / registration / coffee & tea	Room: Kempenhal
10:35 - 10:45	Opening	Room: Brabantzaal
10:45 - 11:15	I.1 J. Piehler (JWGU, Frankfurt) <i>Dynamics of type I interferon receptor assembly: Biophysical analysis and functional implications</i>	Room: Brabantzaal
11:20 - 11:50	I.2 A. Geitmann (University of Montreal) <i>From molecule to cell shape - the mechanics of cellular morphogenesis</i>	Room: Brabantzaal
11:55 - 12:25	I.3 D. Marguet (CIML, Marseille) <i>Critical role of a dynamic nanodomain organization at the plasma membrane for efficient cell signaling</i>	Room: Brabantzaal

12:30 - 15:30	Lunch and Postersession I (odd numbers)	Room: Kempenhal
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Room: <i>session</i>	Baroniezaal <i>membrane protein interactions</i>	Brabantzaal <i>mechanics of biomolecules</i>	Diezehal <i>biological networks</i>
15:30 - 15:45	O.01 D. Sengupta (RuG) <i>Self-association of membrane proteins: A molecular dynamics study</i>	O.04 W.H. Roos (VU) <i>Nanoindentation studies on viral capsids as a test case for continuum elastic theory at the protein scale</i>	O.07 T. Erdmann (AMOLF) <i>Optimal precision of noisy gene expression domains</i>
15:50 - 16:05	O.02 A. Esseling-Ozdoba (RU) <i>Spatial and temporal dynamics of ALCAM in the immunological synapse</i>	O.05 P. Gross (VU) <i>Direct visualization of DNA's conformation during overstretching</i>	O.08 J. Vreede (UvA) <i>Conformational transitions in protein signal transduction</i>
16:10 - 16:25	O.03 A. Cambi (RU) <i>Nanometer-scale optical mapping and diffusion behavior of integrin and lipid microdomains at the monocyte plasma membrane</i>	O.06 J. te Riet (RU) <i>Probing the recognition of pathogens by immune receptors using AFM force spectroscopy</i>	O.09 S. Semrau (LEI) <i>Adenosine A1 receptor signaling unraveled by Particle Image Correlation Spectroscopy (PICS)</i>

16:30 - 17:00	Coffee and tea	Room: Kempenhal
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Room: <i>session</i>	Baroniezaal <i>cytoskeleton: dynamics</i>	Brabantzaal <i>DNA protein interaction</i>	Diezehal <i>the dynamic membrane</i>
17:00 - 17:15	O.10 L. Kapitein (EMC) <i>Microtubule-driven multimerization recruits ase1p onto overlapping microtubules</i>	O.13 N. Laurens (VU) <i>The impact of bending and twisting rigidity of DNA on protein induced looping dynamics</i>	O.16 T. Idema (RU) <i>Membrane mediated sorting</i>
17:20 - 17:35	O.11 K.Y. Shundyak (AMOLF) <i>Dynamics of cellulose deposition in plant cell walls</i>	O.14 J.T. Holthausen (EMC) <i>Single-molecule analysis of RAD51 filament dissociation from double strand DNA</i>	O.17 M.B. Bonn (AMOLF) <i>The role of interfacial water in Lung Surfactant function</i>
17:40 - 17:55	O.12 T. Ketelaar (WUR) <i>Establishment of the origin of actin filaments in transvacuolar strands: a study using optical tweezers</i>	O.15 Z. Huang (TUD) <i>Towards single-molecule studies of telomerase kinetics in zero-mode waveguides</i>	O.18 B.D. van Rooijen (UT) <i>Lipid binding and disruption by oligomeric alpha-synuclein; in search of the mechanism</i>

18:00 - 19:30	Dinner	Room: Genderhal
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19:30 - 20:00	Coffee	Room: Kempenhal
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20:00 -	I.4 S. Kowalczykowski (University of California, Davis) <i>Visualization of DNA motor proteins and nucleoprotein filaments at the single-molecule level</i>	Room: Brabantzaal
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Room: <i>session</i>	Baroniezaal <i>shedding light on protein dynamics</i>	Brabantzaal <i>cytoskeleton: mechanics</i>	Diezehal <i>controlling biological environment</i>
09:00 - 09:15	O.19 S.G.M. Calmat (VU) <i>Chaperonin-assisted folding of bacteriophage T4 major capsid protein followed in real time</i>	O.22 E. Conti (VU) <i>Negative normal stress, stiffening and softening in semiflexible biopolymer networks: a numerical study</i>	O.25 J.M. Männik (TUD) <i>Motion and adaptation of E. coli bacteria in nanofabricated constrictions</i>
09:20 - 09:35	O.20 W.J.A. Koopmans (RU) <i>Single-pair FRET microscopy on nucleosome dynamics</i>	O.23 S.M.J.L. van den Wildenberg (VU) <i>The homotetrameric kinesin-5, KLP61F, preferentially crosslinks antiparallel microtubules</i>	O.26 M. Escalante (UT) <i>Nanometer arrays of functional light harvesting antenna complexes by host-guest interactions and nanoimprint lithography</i>
09:40 - 09:55	O.21 J.M. Salverda (RU) <i>Fluorescent voltammetry of immobilized azurin reveals large electron transfer heterogeneity</i>	O.24 M. Soares e Silva (AMOLF) <i>Active motor-driven dynamics in actin-myosin networks probed by microtubule bending</i>	O.27 S. Shekhar (UT) <i>Studying the effect of manipulating phagosome routing on its maturation</i>

10:00 - 10:30	Coffee and tea	Room: Kempenthal
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Room: <i>session</i>	Baroniezaal <i>protein conformational dynamics</i>	Brabantzaal <i>cell imaging</i>	Diezehal <i>bio-nano</i>
10:30 - 10:45	O.28 M.J. Louhivuori (RuG) <i>Osmotic shock induced gating of MscL in a liposome</i>	O.31 S.T. Ligthart (UT) <i>Automatic FISH probe counting on circulating tumor cells</i>	O.34 B. De Clercq (TU/e) <i>Controlled torque on and rotation of superparamagnetic beads to probe biological molecules</i>
10:50 - 11:05	O.29 G. Veldhuis (UT) <i>Conformational heterogeneity of SDS-bound alpha-Synuclein probed at the single-molecule level</i>	O.32 A.V. Agronskaia (UU) <i>Integrated laser and electron microscope</i>	O.35 A.R. Hall (TUD) <i>Single-molecule investigations of protein-DNA complexes with a solid-state nanopore</i>
11:10 - 11:25	O.30 S. Abeln (AMOLF) <i>Steric stabilization of signaling peptides</i>	O.33 V.V. Pully (UT) <i>The changing cell as observed by hybrid microscopy</i>	O.36 M. Skinner (TUD) <i>Characterization of nucleic acid structures via solid state nanopores</i>

11:30 - 14:00	Postersession II (even numbers) and lunch	Room: Kempenthal
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14:00 - 14:30	I.5 T.H. Oosterkamp (RU) <i>A new touch to AFM: smart probing of biological and biomedical systems at the nanoscale</i>	Room: Brabantzaal
14:35 - 15:05	I.6 S.G. Lemay (TUD) <i>Electrochemical detection in nanofluidic channels</i>	Room: Brabantzaal
15:10 - 15:40	I.7 P.-R. ten Wolde (AMOLF) <i>Regulatory control and the costs and benefits of biochemical noise</i>	Room: Brabantzaal
15:45 - 15:50	Closing remarks	