

Annual Dutch meeting on
Molecular and Cellular Biophysics
Programme Monday 1 October 2007

09:30 - 10:30	Arrival / registration / coffee & tea	Room: Kempenhal
10:35 - 10:45	Opening	Room: Brabantzaal
10:45 - 11:15	I.1 Klaus Gerwert (Bochum) <i>The role of protein bound water monitored by trFTIR</i>	Room: Brabantzaal
11:20 - 11:50	I.2 Enrico Gratton (UC Irvine) <i>Mapping the number of molecules and brightness in the laser scanning microscope</i>	Room: Brabantzaal
11:55 - 12:25	I.3 Jan Löwe (Cambridge) <i>DNA translocation by hexameric FtsK</i>	Room: Brabantzaal

12:30 - 15:30	Lunch and Postersession 1 (odd numbers)	Room: Kempenhal
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Room: <i>session</i>	Baroniezaal <i>cellular biophysics</i>	Brabantzaal <i>protein structure</i>	Diezehal <i>biophysical techniques</i>
15:30 - 15:45	O.1 M.E. van Royen (EUR) <i>Compartmentalisation of androgen receptor protein-protein interactions in living cells</i>	O.4 S.M. Nabuurs (WUR) <i>Non-native structure in an unfolded protein explains the formation of misfolded intermediates</i>	O.7 H.R.C. Dietrich (TUD) <i>The detection of DNA-protein interactions under near-native biological conditions</i>
15:50 - 16:05	O.2 P.E. de Ruiter (EUR) <i>Quantitative analysis of androgen receptor induced chromatin remodeling in living cells</i>	O.5 Ph. Bechtluft (RuG) <i>Direct observation of chaperone-induced changes in a protein folding pathway</i>	O.8 D. Zhang (UT) <i>Applications of fluorescence correlation spectroscopy</i>
16:10 - 16:25	O.3 A. Klaver (UT) <i>Magnetic tweezers study of phagosome maturation</i>	O.6 F.A.A. Mulder (RuG) <i>pKa determination of individual protein side chains by indirect ¹³C and ¹⁵N NMR</i>	O.9 S. Brinkers (TUD) <i>Lab-on-a-chip for rapidly determining gene expression</i>

16:30 - 17:00	Coffee and tea	Room: Kempenhal
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Room: <i>session</i>	Baroniezaal <i>spectroscopy</i>	Brabantzaal <i>DNA dynamics</i>	Diezehal <i>protein networks</i>
17:00 - 17:15	O.10 A. Ghosh (AMOLF) <i>Membrane-bound water is energetically decoupled from nearby bulk water: An ultrafast surface-specific investigation</i>	O.13 Vered Raz (LUM) <i>Nuclear reorganization during senescence of human mesenchymal stem cells (hMSCs)</i>	O.16 M.M.A.E. Claessens (TU München) <i>Helical twist controls the thickness of F-actin bundles</i>
17:20 - 17:35	O.11 J. Broos (RuG) <i>The emitting state of tryptophan in proteins with blue-shifted fluorescence</i>	O.14 J.H.G. Lebbink (EUR) <i>Molecular mechanisms of DNA mismatch repair initiation</i>	O.17 P.M. Shaklee (AMOLF) <i>A little motor, a big switcher!</i>
17:40 - 17:55	O.12 K.C. Toh (VU) <i>Photoreversibility in BLUF domains</i>	O.15 Th. v.d. Heijden (TUD) <i>Homologous recombination in real time: DNA strand exchange by RecA</i>	O.18 M.E. van Raaij (UT) <i>Quantitative AFM establishes free energy parameter of amyloid fibril formation</i>

18:00 - 19:30	Dinner	Room: Genderhal
19:30 - 20:00	Coffee	Room: Kempenhal
20:00 -	I.4 Benny Geiger (Weizmann Inst.) <i>Molecular links and switches regulating cell-matrix adhesion</i>	Room: Brabantzaal

Annual Dutch meeting on
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Programme Tuesday 2 October 2007

Room: <i>session</i>	Baroniezaal <i>membranes and lipids</i>	Brabantzaal <i>molecular engineering</i>	Diezehal <i>chromatin</i>
09:00 - 09:15	O.19 E.G. Hofman (UU) <i>Spectroscopic analysis of ligand-induced EGFR localization in lipid rafts</i>	O.22 H. Miedema (BTF) <i>The biological E. coli porin OmpF engineered into a molecular diode</i>	O.25 M. Bussiek (UT) <i>Peculiar features of alpha-satellite DNA and -chromatin studied by optical tweezers</i>
09:20 - 09:35	O.20 H.A. Rinia (UvA) <i>Multiplex coherent anti-Stokes Raman scattering microscopy on lipid droplets in HeLa cells</i>	O.23 T.M. Bak (UT) <i>Photo-polymerized microstructures for regenerative medicine</i>	O.26 F.J.H. Hol (VU) <i>Stiffening and bridging? Single-molecule studies on archaeal DNA organization</i>
09:40 - 09:55	O.21 W.K. den Otter (UT) <i>Enhancement of permeability and pore formation in ceramide bilayers by DMSO</i>	O.24 B. Wolfrum (TUD) <i>Nanofluidic redox-cycling amplifier for the selective detection of catechols</i>	O.27 M.C. Kruithof (LEI) <i>Dynamic force spectroscopy on 30 nm chromatin fibers reveals Hookian spring behaviour and fiber disruption</i>

10:00 - 10:30	Coffee and tea	Room: Kempenthal
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Room: <i>session</i>	Baroniezaal <i>gene regulation networks</i>	Brabantzaal <i>cytoskeleton</i>	Diezehal <i>single molecule approaches</i>
10:30 - 10:45	O.28 R. de Vries (WUR) <i>DNA-bending proteins in prokaryotic nucleoids: compaction or expansion?</i>	O.31 S. Zovko (LEI) <i>Microtubule plus-end conformations and dynamics in interphase mouse fibroblasts</i>	O.34 A. Crut (TUD) <i>Fast dynamics of supercoiled DNA revealed by single-molecule experiments</i>
10:50 - 11:05	O.29 F.J. Poelwijk (AMOLF) <i>Experimental evolution of decision circuits in Escherichia coli</i>	O.32 L. Laan (AMOLF) <i>Reconstitution of a microtubule plus-end tracking system in vitro</i>	O.35 M. van den Heuvel (TUD) <i>Nanofabricated channels for biophysics experiments on kinesin and microtubules</i>
11:10 - 11:25	O.30 R. Hermsen (AMOLF) <i>Gene logic</i>	O.33 S.H. Tindemans (AMOLF) <i>Microtubules as molecular bumper cars: the formation of the transverse cortical array in plant cells</i>	O.36 Z. Lánský (VU) <i>Illuminating kinesin-1's stepping process by FRET between the motor domains</i>

11:30 - 14:00	Postersession 2 (even numbers) and lunch	Room: Kempenthal
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14:00 - 14:30	I.5 Claire Wyman (EUR) <i>Genome maintenance by the molecular machines of DNA double strand break repair</i>	Room: Brabantzaal
14:35 - 15:05	I.6 Alexandre Bonvin (UU) <i>Modelling biomolecular interactions</i>	Room: Brabantzaal
15:10 - 15:40	I.7 Huub de Groot (LEI) <i>Solid state NMR for systems biology and nanotechnology</i>	Room: Brabantzaal
15:45 - 15:50	Closing remarks	