Conference program Single Molecule Biophysics

joint event between the German and British Biophysical Societies (DGfB & BBS)

Glasgow, 15-16 July 2026
as part of the Synergy for Science meeting 12-16 July 2026 (Syn Sci 2026)
https://iop.eventsair.com/synsci26/

WEDNESDAY 15 July 2026

9:00 – 12:30 Poster Session

12:30 – 14:00 Lunch

14:00-14:05 Opening words (Ingrid Tessmer)

14:05-15:05 High resolution imaging (total: 1 h) – chair Sheena Radford

Markus Sauer, University of Wuerzburg: Nanometer resolution fluorescence imaging in cells (30 min)

Philip Tinnefeld, LMU Munich: Super-resolution for Structural Insights into DNA-protein interactions (30 min)

15:05 Industry sponsor presentation (5 min): ONI

15:10-15:30 Coffee Break

15:30 Industry sponsor presentation (5 min): Exciting Instruments

15:35-17:35 Single molecule methodologies (total: 2 h) – chair Markus Sauer

Philipp Kukura, University of Oxford: Unravelling biomolecular self-assembly by single molecule mass measurement (30 min)

Davide Michieletto, University of Edinburgh: Synergy of Topoisomerase and Condensin in regulating genome topology (15 min)

Ulrich Keyser, University of Cambridge: title TBA (30 min)

Arne Gennerich, Albert Einstein College of Medicine, Bronx: The P3018S disease variant reveals how dynein's trailing motor sets ensemble velocity (15 min)

Dina Grohmann, University of Regensburg: From Method to Mechanism: SLAM-FRET Enables Single-Molecule Views of Dynamic Human RNA Machineries (30 min)

17:35 Industry sponsor presentation (5 min): 1NA

19:00-22:00 Conference Dinner

THURSDAY

9:00-10:30 Single molecule dynamics (total: 1 h 30 min) – chair Ingrid Tessmer

Sheena Radford, University of Leeds: Building the wall:How do bacteria do it?

(30 min)

Joel Crossley, University of Leeds: Building the wall, one protein at a time: Single-molecule views of OMP biogenesis (15 min)

Anne Straube: How to control intracellular transporters (30 min)

Korak Kumar Ray, Imperial College London: The ultrafine-bridge-associated endonuclease ANKLE1 is stimulated by tension in DNA to process branch-points

(15 min)

10:30 – 11:00 Coffee Break

11:00- 12:30 Protein-nucleic acid systems (total: 1 h 30 min) – chair David Rueda

Carlos Penedo: Sequence-independent imaging and mechanical manipulation of single-strand nucleic acids using chimeric SSBs (30 min)

Jan Lipfert: Single-molecule force and torque spectroscopy reveal conformational transitions in DNA and proteins (30 min)

Eugene Kim: Mechanistic Insights into SMC Complexes from Cryo-EM and Single-Molecule Imaging (30 min)

12:30 Concluding words (David Rueda)