

## Wednesday 9th March 2016

11:30	13:00	<b>Registration and buffet lunch</b>
13:00	13:10	Welcome by Local Organisers ( <b>Thomas Ursby</b> )
13:10	13:30	Setting the Scene for RD9 ( <b>Elsbeth Garman</b> )
<b>Session 1 - Basic Understanding of Radiation Damage Mechanisms</b> Chair: Thomas Ursby		
13:30	13:55	<b>Ian Carmichael</b> <i>OH loss from tyrosine – debunking a myth</i>
14:00	14:25	<b>Judy Kim</b> <i>Photogeneration of biological tryptophan radicals</i>
14:30	14:55	<b>Robert Thorne</b> <i>Aspects of radiation damage to biomolecular crystals and solutions</i>
15:00	15:25	<b>Dominika Borek</b> <i>Mapping tunneling reactions with radiation-induced changes of electron density</i>
15:30	16:00	<b>Coffee Break and Poster Session</b>
<b>Session 2 - Biological Studies Affected by Radiation Damage</b> Chair: Ana Gonzalez		
16:00	16:25	<b>Michael Hough</b> <i>Single crystal serial crystallography to capture redox enzyme catalysis</i>
16:30	16:55	<b>Yasufumi Umena</b> <i>Estimation of the valences and radiation damage of four Mn atoms in photosystem II crystals using anomalous diffraction techniques</i>
17:00	17:45	<b>Posterclips</b>
17:45	19:00	<b>Poster Session</b>

## Thursday 10th March

<b>Session 3 - Practical Aspects of Reducing Radiation Damage</b> Chair: James Holton		
08:30	08:55	<b>Elsbeth Garman</b> <i>Dose: which dose?</i>
09:00	09:25	<b>Philip Roedig</b> <i>The dependence of radiation damage effects on photon energy</i>
09:30	09:55	<b>Gerold Rosenbaum</b> <i>Radiation decay of thaumatin crystals at three X-ray energies</i>
10:00	10:25	<b>Brian Abbey</b> <i>Coherent studies of radiation damage in micron-sized protein crystals</i>
10:30	11:00	<b>Coffee break and Poster Session</b>

11:00	12:00	<b>Discussion</b>	Discussion leader: <b>Colin Nave</b>
12:00	- 13:00	<b>Lunch and Poster Session</b>	
13:00	- 13:25	<b>Andreas Förster</b>	<i>Dose fractionation on noise-free detectors to maximize anomalous signal while minimizing radiation damage</i>
13:30	- 13:55	<b>Jonathan Brooks-Bartlett</b>	<i>Introducing a state space model representation of the crystallographic data collection experiment</i>
14:00	- 14:25	<b>Gianluca Santoni</b>	<i>Radiation induced non-isomorphism in protein crystals: a systematic study</i>
14:30	- 15:00	<b>Coffee Break and Poster Session</b>	
<b>Session 4 - Damage at New Sources - XFEL and New Synchrotrons</b> Chair: Arwen Pearson			
15:00	- 15:25	<b>Sébastien Boutet</b>	<i>Probing ultrafast damage with an X-ray FEL</i>
15:30	- 15:55	<b>Karol Nass</b>	<i>Radiation damage and phasing in protein crystallography at X-ray free-electron lasers</i>
16:00	- 16:25	<b>Masaki Yamamoto</b>	<i>Towards the next generation of protein micro-crystallography</i>
16:30	- 16:55	<b>Jacques-Philippe Colletier</b>	<i>Characterization of radiation damage at room-temperature using raster-scanning serial crystallography</i>
17:00		MAX IV Tour	
19:00		<b>Dinner</b>	
<b>Friday 11th March</b>			
<b>Session 5 - Radiation Damage in Complementary Fields</b> Chair: Marjolein Thunnissen			
08:30	- 08:55	<b>Rajmund Mokso</b>	<i>Dose optimization for micrometer resolution in vivo imaging of small animals</i>
09:00	- 09:25	<b>Liz Duke</b>	<i>Towards an understanding of radiation damage in cryo soft X-ray tomography</i>
09:30	- 09:55	<b>Raimond Ravelli</b>	<i>Radiation damage to biological non-crystalline samples</i>
10:00	- 10:30	<b>Coffee break</b>	
10:30	- 10:55	<b>Garth Simpson</b>	<i>Possibility of crystal perturbation by X-ray induced local electric fields</i>
11:00	- 11:25	<b>Robert Rambo</b>	<i>Breaking the radiation damage barrier in solution state SAXS</i>
11:30	12:15	<b>Discussion</b>	Discussion leader: <b>Sean McSweeney</b>
12:15	- 12:30	<b>Wrap Up (Martin Weik, Elspeth Garman)</b>	