





Collaborative Workshop of the Institute for Advanced Study of the Technical University of Munich (Germany) and the Institute of Advanced Studies of the University of Birmingham (UK)

October 25-26, 2017

Technical University of Munich  $\cdot$  Institute for Advanced Study Lichtenbergstraße 2 a  $\cdot$  85748 Garching  $\cdot$  Germany

Organizing Committee Angela Casini, Michael J. Hannon, and Fritz E. Kühn



UNIVERSITY<sup>OF</sup> BIRMINGHAM THE INSTITUTE OF ADVANCED STUDIES



## Program

WEDNESDAY, OCTOBER 25, 2017

Auditorium (ground floor)

10:00 – 11:00 a.m.	Registration (Foyer, ground floor)	
11:00 – 11:15 a.m.	Welcome Address:	Ernst Rank (Director TUM-IAS) Michael J. Hannon (Director UoB-IAS)
	Introduction:	Angela Casini (10M-IAS Fellow)
11:15 – 12:15 p.m.	Plenary - Siderophores and their potential applications as antimicrobials Anne-Kathrin Duhme-Klair (Dept. of Chemistry, University of York)	
12:15 – 12:35 p.m.	Synthesis of selective zinc chelators to help combat resistant bacteria Alexander Åstrand (School of Pharmacy, University of Oslo)	
12:35 – 12:55 p.m.	Metallo-supramolecular cylinders that bind unusual DNA and RNA structures: from DNA nanoscience to bio-activity Michael J. Hannon (School of Chemistry, University of Birmingham)	
12:55 – 2:00 p.m.	Lunch Break (Max Planck Canteen)	
2:00 – 2:20 p.m.	<b>Organometallics for medicinal chemistry</b> Fritz E. Kühn (Molecular Catalysis, TUM)	
2:20 – 2:40 p.m.	<b>Bismuth-oxo-clusters for soft tissue staining</b> Madleen Busse (Munich School of BioEngineering, TUM)	
2:40 – 3:00 p.m.	Advancing metalloprot applications Anna Peacock (School o	<b>ein design for new functions and</b> of Chemistry, University of Birmingham)
3:00 – 4:00 p.m.	Plenary- Chemical strategies to fight multiresistant bacteria Stephan A. Sieber (School of Chemistry, TUM)	
4:00 – 4:20 p.m.	Coffee Break (Foyer, gro	ound floor)
4:20 – 4:40 p.m.	<b>Metal-containing Deriv</b> James Tucker (School o	atives of Nucleic Acids and Nucleosides f Chemistry, University of Birmingham)
4:40 – 5:00 p.m.	<b>Contribution of moleculise particles for brease</b> Rita Melo (Instituto Supe	ular modelling to the development of virus- t cancer theranostics erior Técnico, University of Lisbon)

5:00 – 5:20 p.m.	Hydrocarbon oxidation by a Fe-complex featuring dual active sites Corinna Hess (Department of Chemistry, TUM)
5:20 – 6:20 p.m.	Plenary - Targeting hepatitis B virus – host interaction for therapy development

Ulrike Protzer (Institute of Virology, TUM)

## THURSDAY, OCTOBER 26, 2017

08:45 – 09:45 a.m.	Plenary - Factors determining anticancer metal drug response: from DNA damage to immunogenic cell death induction Walter Berger (Medical University of Vienna)
09:45 – 10:05 a.m.	Chemical modulation of cellular redox balance for cancer treatment Isolda Romero-Canelon (School of Pharmacy, Univ. of Birmingham)
10:05 – 10:25 a.m.	Luminescent metal complexes and nano-particles for detection and imaging Zoe Pikramenou (School of Chemistry, University of Birmingham)
10:25 – 11:25 p.m.	Poster Session & Coffee Break (Faculty Club 4 <sup>th</sup> floor)
11:25 – 11:45 a.m.	Organometallic host-systems for supramolecular and biomedical applications Alexander Pöthig (Catalysis Research Center, TUM)
11:45 – 12:05 p.m.	Elucidating the target selectivity of metal-based anticancer agents by mass spectrometry approaches Sam Meier-Menches (Dept. of Analytical Chemistry, University of Vienna)
12:05 – 12:25 p.m.	Advanced molecular dynamics approaches for drug discovery Darren Wragg (School of Chemistry, Cardiff University)
12:25 – 1:30 p.m.	Lunch Break (Max Planck Canteen)
1:30 – 2:30 p.m.	Molecular systems engineering with DNA Hendrik Dietz (Physics Department, TUM)
2:30 – 2:50 p.m.	Getting a handle on the genome: the development and application of enzymatic, sequence-specific DNA alkylation. Rob Neely (School of Chemistry, University of Birmingham)
2:50 – 3:10 p.m.	Supramolecular metallacages as targeted drug delivery systems Angela Casini (School of Chemistry, Cardiff University)
3:10 – 3:30 p.m.	Coffee Break (Foyer, ground floor)
3:30 – 3:50 p.m.	Interfacing with biology through polymer chemistry and nanotechnology Paco Fernandez-Trillo (School of Chemistry, Univ. of Birmingham)

3:50 – 4:10 p.m.	Novel radiometaled peptides translocate reversibly the blood- brain barrier João Galamba Correia (Instituto Superior Técnico, University of Lisbon)
4:10 – 4:30 p.m.	Novel organometallic NHC Au(I) complexes as G-quadruplex stabilizers: synthesis and biophysical studies of their DNA binding capabilities Riccardo Bonsignore (School of Chemistry, Cardiff University)
4:30 – 5:30 p.m.	Plenary - Multimodal molecular neuroimaging of and with metals Gil Westmeyer (Molecular Imaging, TUM)
5:30 p.m.	Concluding Remarks
5:40 – 7:00 p.m.	Poster Session (Faculty Club 4 <sup>th</sup> floor)
7:00 p.m.	Social Dinner (Faculty Club 4 <sup>th</sup> floor)

## FRIDAY, OCTOBER 27, 2017

9:30 a.m.	MunichSchool of BioEngineering Boltzmannstraße 11, 85748 Garching	
	Introduction by Prof. Franz Pfeiffer Lab Tour	

11:00 a.m.Catalysis Research CenterErnst-Otto-Fischer-Straße 1, 85748 Garching

Introduction by Dr. Alexander Pöthig Lab Tour