

**8th International Workshop on Advances in the Molecular Pharmacology and Therapeutics of
Bone and other Musculoskeletal Diseases/
Cancer and Bone Society 2018 Meeting**

St Catherine's College, Oxford

30 June – 3 July 2018

Saturday 30 June

MolPharm

From 09:30	Registration (<i>Porters' Lodge</i>)
10:00-10:15	Welcome and introduction
10:15-12:55	Bone biology and update on existing and emerging therapies: similarities and differences in mechanisms of action Chairs: Juliet Compston (Cambridge, UK) / Adolfo Diez-Perez (Barcelona, Spain)
10:15	Hot topics in bone biology and explaining how bone active drugs work Roland Baron (Boston, USA)
10:45	Overview of current treatments and the potential role of combination therapies in osteoporosis Bente Langdahl (Aarhus, Denmark)
11:15	Coffee
	Update on existing and emerging therapies Chairs: Núria Guañabens (Barcelona, Spain) / Dani Prieto-Alhambra (Oxford, UK)
11:45	Lessons from SCOOP Eugene McCloskey (Sheffield, UK)
12:00	Optimising the use of zoledronate Ian Reid (Auckland, New Zealand)
12:15	Update on teraparotide and the VERO Study Fernando Marin (Eli Lilly, Madrid, Spain)
12:35	Non-invasive imaging of therapeutic responses in bone Ken Poole (Cambridge, UK)
12:55	<i>Lunch</i>
14:00-15:15	Hot topics in rare diseases: fibrodysplasia ossificans progressiva (FOP) and heterotopic ossification Chairs: Coen Netelenbos (Amsterdam, Netherlands) / Paul Wordsworth (Oxford, UK)

14:00	Understanding fibrodysplasia ossificans progressiva (FOP): genetics and biological consequences Eileen Shore (Philadelphia, USA)
14:15	Receptor mutations and activin action Aris Economides (Regeneron, Tarrytown, USA)
14:30	Heterotopic ossification: fibrodysplasia ossificans progressive, multiple osteochondromas and potential treatments Maurizio Pacifici (Philadelphia, USA)
15:00	Clinical trials in rare bone diseases: challenges and revelations Richard Keen (London, UK)
15:15	<i>Tea</i>
15:35-16:45	Hot topics in rare diseases, continued Chairs: Kassim Javaid (Oxford, UK) / Raj Thakker (Oxford, UK)
15:35	Treating inherited disorders of phosphate metabolism: FGF23 and other targets Tom Carpenter (New Haven, USA)
15:55	Treating skeletal dysplasia and achondroplasia Melita Irving (London, UK)
16:10	New approaches to treating disorders of the calcium sensing receptor Fadil Hannan (Liverpool, UK)
16:25	The challenges and opportunities in treating rare skeletal diseases Matt Warman (Boston, USA)
16:45	Break
16:55-18:30	Paget's Disease Chairs: Roger Francis (Newcastle upon Tyne, UK) / Stephen Tuck (Middlesbrough, UK)
16:55	The genetics and pathophysiology of Paget's disease Luigi Gennari (Sienna, Italy)
17:20	Guidelines and management of Paget's disease Speakers to include Luis Corral-Gudino (Leon, Spain) Núria Guañabens (Barcelona, Spain) Stuart Ralston (Edinburgh, UK) Stephen Tuck (Middlesbrough, UK)
17:50	Secular changes in Paget's disease: lessons from Medieval times Robert Layfield (Nottingham, UK)

18:05	Student presentations
18.30	<i>Close</i>
19:00	<i>Dinner</i>

Sunday 1 July

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08:45-10:25	Musculoskeletal ageing and frailty Chairs: James Edwards (Oxford, UK) / Tash Masud (Nottingham UK)
08:45	Defining the scope and opportunities Cyrus Cooper (Southampton and Oxford, UK)
09:05	Biological mechanisms of ageing and senescence Lynne Cox (Oxford, UK)
09:25	The role of senescence in bone biology Sundeep Khosla (Rochester, USA)
09:45	Therapeutic approaches in the elderly and frail Gary Krishnan (Eli Lilly, Indianapolis, USA)
10:05	Effects of bone active drugs on health and life span John Eisman (Sydney, Australia)
10:25	<i>Coffee</i>
10:45-11:30	Musculoskeletal ageing and frailty cont. Chairs: Cyrus Cooper (Southampton and Oxford, UK) / Richard Eastell (Sheffield, UK)
10:45	Lessons from clinical trials Steven Cummings (San Francisco, USA)
11:05	Ageing and musculoskeletal function: an update on the work of the Centre for Musculoskeletal Ageing Research (CMAR) Janet Lord (Birmingham, UK)
11:30-12:45	New technologies Chairs: Duncan Bassett (London, UK) / Philippe Clézardin (Lyon, France)
11:30	Big Data: integrating omics and cohorts André Uitterlinden (Rotterdam, Netherlands)
12:00	Bone biomarkers Richard Eastell (Sheffield, UK)
12:20	Use of miRNAs in diagnosis Matthias Hackl (TAmiRNA, Austria)
12:45	<i>Lunch</i>
14:00-15:30	Approaches to connective tissue repair and regeneration

	Chairs: Andy Carr (Oxford, UK) / Eric Hesse (Hamburg, Germany)
14:00	Targeting musculoskeletal diseases and injuries to restore mobility Michaela Kneissel (Novartis, Basle, Switzerland)
14:30	Approaches to bone regeneration Frank Luyten (Leuven, Belgium)
15:00	BMPs and bone repair Slobodan Vukicevic (Zagreb, Croatia)
15:15	Clinical trials in degenerative disc disease Lovorka Grgurevic (Zagreb, Croatia) (tbc)
15:30	<i>Tea</i>
16:00-17:20	Therapeutic advances in arthritis Chairs: Jim Gallagher (Liverpool, UK) / Celia Gregson (Bristol, UK) (tbc)
16:00	Update on the pathogenesis of osteoarthritis and potential therapies Tonia Vincent (Oxford, UK)
16:20	Marrow lesions, pain and osteoarthritis Nidhi Sofat (London, UK)
16:40	Bisphosphonates in arthritis Erik Fink Eriksen (Oslo, Norway)
17:00	Epigenetics and osteoarthritis John Loughlin (Newcastle upon Tyne, UK)
17:20	Break
17:30-18:00	Keynote lecture Chairs: Gordon Duff (Oxford, UK) / John Potts (Boston, USA) Patients need new medicines: What are we doing about it? Chas Bountra (Oxford, UK)
18:00-19:00	Poster viewing and reception
19:00	<i>Dinner</i>

Monday 2 July

CABS

08:45-10:35	Clinical advances in cancer-related bone disease 1 Chairs: Karthik Ramasamy (Oxford, UK) / David Roodman (Indianapolis, USA)
08:45	Cancer-induced bone loss Peyman Hadji (Frankfurt, Germany)
09:10	Prostate cancer bone mets Nicholas James (Birmingham, UK)
09:35	Myeloma bone disease Andy Chantry (Sheffield, UK)
10:00	Oral communications 1 OC1 17 10-year patterns of recurrence from early breast cancer: Analyses of the AZURE (BIG 01/04) study of adjuvant zoledronic acid Stella D'Oronzo (Sheffield, UK) OC2 22 ERR α in primary breast tumours promotes tumour cell dissemination to bone by regulating RANK Edith Bonnelye (Lyon, France) OC3 25 HDAC inhibitors stimulate LIFR and other pro-dormancy genes in dormant and aggressive breast cancer cells Miranda Sowder (Nashville, USA) OC4 18 TGF β inhibition in combination with chemotherapy repairs existing lytic bone lesions in a novel plateau phase model of multiple myeloma Michelle Lawson (Sheffield, UK)
10:35	<i>Coffee</i>
11:15-12:45	Clinical advances in cancer-related bone disease 2 Chairs: Janet Brown (Sheffield, UK) / Rob Coleman (Sheffield, UK)
11:15	Targeting integrin-mediated chemoresistance in breast cancer bone metastases Kathy Weilbaecher (St Louis, USA)

11:40	Lung cancer bone mets Sarah Danson (Sheffield, UK)
12:05	Advances in detection and treatment of prostate cancer Freddie Hamdy (Oxford, UK)
12:30	Oral communications 2 OC5 77 Bone microenvironment induction of tumoral integrin β_3 expression promotes resistance to chemotherapy in breast cancer bone metastases Gregg Fox (St Louis, USA) OC6 62 Development of ROS-responsive and Bone-Targeted Nanocarriers of Gli-Inhibitors for Treatment of Tumor-Induced Bone Disease Joseph Vanderburgh (Nashville, USA)
12:45	<i>Lunch</i> <i>Dining Hall</i> <i>Bernard Sunley foyer for dessert and coffee and dessert 13:30 onwards</i>
13:20-14:00	CABS posters (odd numbers presented) <i>(with coffee and dessert)</i>
14:00-14:50	Molecular and metabolic pathways in cancer-related bone disease Chairs: Rachele Johnson (Nashville, USA) / Udo Oppermann (Oxford, UK)
14:00	Sarcoma and bone tumours Dominique Heymann (Sheffield, UK)
14:25	Inflammation and bone metastasis Laurie McCauley (Michigan, USA)
14:50	<i>Tea and posters</i>
15:10-16:10	Oral communications 3 Chairs: Roland Baron (Boston, USA) / Julie Sterling (Nashville, USA) OC7 15 A novel osteolineage-derived cancer associated fibroblast population in primary tumors expresses Dkk1 and enhances tumor growth Roberta Faccio (St Louis, USA) OC8 16 Roundabout 4 mediates the homing of human breast cancer cells in the bone marrow

	<p>Margaux Bernard (Lyon, France)</p> <p>OC9 41 Potent therapeutic impact of TAK1 inhibition on myeloma progression and bone destruction Jumpei Teramach (Tokushima, Japan)</p> <p>OC10 10 Dual BRD4/autophagy inhibitor as novel strategy for the treatment of multiple myeloma Marilena Tauro (Tampa, USA)</p> <p>OC11 3 Two-way signalling between multiple myeloma cells and bone marrow adipocytes Michaela Reagan (Scarborough, USA)</p> <p>OC12 75 The small molecule adiponectin receptor agonist AdipoRON exhibits anti-myeloma activity in vitro and in vivo. Sam Olechnowicz (Oxford, UK)</p> <p>OC13 28 MSCs promote the evolution of apoptosis resistant bone metastatic prostate cancer via interleukin-28 Jeremy McGuire (Tampa, USA)</p>
16:15-17:00	<p>Keynote lecture</p> <p>Chairs: Graham Russell (Oxford & Sheffield) / tbc</p> <p>Emergence of multiple actions of PTHrP in breast cancer and osteosarcoma Jack Martin (Melbourne, Australia)</p>
17:30-19:00	New Investigator session
19:00	<i>Dinner</i>
20:15	<i>Walking tour: the University, book and film locations, historic pubs and their memorable patrons</i>

Tuesday 3 July

CABS

08:45-10:45	Physiological responses to cancer: pain and muscle Chairs: Chas Bountra (Oxford, UK) / Kathy Waelbaecher (St Louis, USA)
08:45	Understanding and treating bone and musculoskeletal pain Patrick Mantyh (Tucson, USA)
09:15	Pharmacology of bisphosphonates in pain Thomas Tzschentke (Grunenthal, Aachen, Germany)
09:30	Role of the GDNF Family Receptor GFR α 3 in joint pain Michael LaCroix-Fralish (Regeneron, Tarrytown, USA)
09:45	Skeletal pain, Radium-223 and bone metastases Øyvind Bruland (Oslo, Norway)
10:15	Cancer-associated muscle weakness Theresa Guise (Indianapolis, USA)
10:45	<i>Coffee</i>
11:15-12:45	Tumour-bone microenvironment Chairs: Dominique Heymann (Sheffield, UK) / Patricia Juárez (Ensenada, Mexico)
11:15	Tumour-host interactions in metastasis Ilaria Malanchi (London, UK)
11:40	Impact of sympathetic nerves on bone metastasis Florent Elefteriou (Houston, USA)
12:05	Immune control of bone metastasis Belinda Parker (La Trobe, Australia)
12:30	Oral communications 4 OC14 60 The physical bone microenvironment modulates osteolytic gene expression in metastatic breast cancer Kristin Kwakwa (Nashville, USA) OC15 65 Epigenetic targeting of the myeloma-bone microenvironment in 3D Juraj Adamik (Pittsburgh, USA)
12:45	<i>Lunch</i> <i>Dining Hall</i>

	<i>Bernard Sunley foyer for dessert and coffee and dessert 13:30 onwards</i>
13:20-14:00	CABS posters (even numbers presented) <i>(with coffee and dessert)</i>
14:00-15:05	Advances in imaging and genomics in the bone marrow microenvironment Chairs: Penny Ottewell (Sheffield, UK) / Mike Rogers (Sydney, Australia)
14:00	Imaging in the bone marrow microenvironment Cristina Lo Celso (London, UK)
14:25	Single cell genomics in cancer Adam Mead (Oxford, UK)
14:50	Oral communications 5 OC16 64 Blocking Cysteinyl leukotriene receptor type 1 (CysLT ₁) inhibits blood platelets' prometastatic activity Olivier Peyruchard (Lyon, France) OC17 13 Inhibition of multiple myeloma exosomes prevents bone loss and reduces tumor growth Sylvia Faict (Brussels, Belgium)
15:05	Tea
15:30-16:45	Epigenetic regulation in the tumour-bone microenvironment Chairs: Theresa Guise (Indianapolis, USA) / Michelle Lawson (Sheffield, UK)
15:30	Epigenetic regulation in the tumour-bone microenvironment Udo Oppermann (Oxford, UK)
15:55	Epigenetic suppression in myeloma bone disease David Roodman (Indianapolis, USA)
16.20	Bisphosphonates for delivering drugs to bone Hal Ebetino (Rochester, USA)
16:45-17.30	Keynote Lecture Chair: Claire Edwards (Oxford, UK) Myeloma: Past, present and future Gareth Morgan (Little Rock, USA)
19:00	<i>Dinner</i>

July 4th
Kennedy Institute
Musculoskeletal Research in Oxford