

**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	<i>Registration (Porters' Lodge)</i>
10:00-10:15	Welcome and introduction Graham Russell (Oxford and Sheffield, UK)
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 IS1	Regulatory mechanisms in bone cells and their relevance to therapeutics Roland Baron (Boston, USA)
10:45 IS2	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 IS3	Lessons from SCOOP Eugene McCloskey (Sheffield, UK)
12:00 IS4	Optimising the use of zoledronate Ian Reid (Auckland, New Zealand)
12:15 IS5	Update on teriparatide and the VERO Study Fernando Marin (Eli Lilly, Madrid, Spain)
12:35 IS6	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 IS7	Understanding fibrodysplasia ossificans progressiva (FOP): genetics and biological consequences Eileen Shore (Philadelphia, USA)
14:15 IS8	Receptor mutations and activin action Aris Economides (Regeneron, Tarrytown, USA)
14:30 IS9	Heterotopic ossification: fibrodysplasia ossificans progressive, multiple osteochondromas and potential treatments Maurizio Pacifici (Philadelphia, USA)
15:00 IS10	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 IS11	Treating inherited disorders of phosphate metabolism: FGF23 and other targets Tom Carpenter (New Haven, USA)
15:55 IS12	Treating skeletal dysplasia and achondroplasia Melita Irving (London, UK)
16:10 IS13	New approaches to treating disorders of the calcium sensing receptor Fadil Hannan (Liverpool, UK)
16:25 IS14	Therapeutic options and challenges in osteogenesis imperfecta Matt Warman (Boston, USA)
16:45 IS15	Hunting for a therapeutic for sclerosteosis: a personal story Timothy Dreyer (UCB, Slough, UK)
17:00	Break
17:05-18:30	Paget's Disease Chairs: Roger Francis (Newcastle upon Tyne, UK) / Stephen Tuck (Middlesbrough, UK)
17:05	Introduction and welcome Sir Henry Paget
17:10 IS16	The genetics and pathophysiology of Paget's disease Luigi Gennari (Sienna, Italy)
17:35	Guidelines and management of Paget's disease Speakers to include Luis Corral-Gudino (Leon, Spain) Roger Francis (Newcastle upon Tyne, UK)

	Núria Guañabens (Barcelona, Spain) Stuart Ralston (Edinburgh, UK) Stephen Tuck (Middlesbrough, UK)
18:05 IS17	Secular changes in Paget's disease: lessons from Medieval times Robert Layfield (Nottingham, UK)
18:20	Student presentation The role of small RNAs in Paget's associated osteosarcoma Darrell Green (Norwich, UK)
18.30	<i>Close</i>
19:00	<i>Dinner</i>

Sunday 1 July

MolPharm

08:45-10:25	Musculoskeletal ageing and frailty Chairs: James Edwards (Oxford, UK) / Tash Masud (Nottingham UK)
08:45 IS18	Defining the scope and opportunities Cyrus Cooper (Southampton and Oxford, UK)
09:05 IS19	Biological mechanisms of ageing and senescence Lynne Cox (Oxford, UK)
09:25 IS20	The role of senescence in bone biology Sundeep Khosla (Rochester, USA)
09:45 IS21	Therapeutic approaches in the elderly and frail Gary Krishnan (Eli Lilly, Indianapolis, USA)
10:05 IS22	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 IS23	Lessons from clinical trials: past, present and future Steven Cummings (San Francisco, USA)
11:05 IS24	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 IS25	Big Data: integrating omics and cohorts André Uitterlinden (Rotterdam, Netherlands)
12:00 IS26	Bone biomarkers Richard Eastell (Sheffield, UK)
12:20 IS27	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: Eric Hesse (Hamburg, Germany) / Philippa Hulley (Oxford, UK)
14:00 IS28	Targeting musculoskeletal diseases and injuries to restore mobility Michaela Kneissel (Novartis, Basle, Switzerland)
14:30 IS29	Approaches to bone regeneration Frank Luyten (Leuven, Belgium)
15:00 IS30	BMPs and bone repair Slobodan Vukicevic (Zagreb, Croatia)
15:15 IS31	Clinical trials in degenerative disc disease Lovorka Grgurevic (Zagreb, Croatia)
15:30	<i>Tea</i>
16:00-17:20	Therapeutic advances in arthritis Chairs: Jim Gallagher (Liverpool, UK) / Celia Gregson (Bristol, UK)
16:00 IS32	Update on the pathogenesis of osteoarthritis and potential therapies Tonia Vincent (Oxford, UK)
16:20 IS33	Marrow lesions, pain and osteoarthritis Nidhi Sofat (London, UK)
16:40 IS34	Bisphosphonates in arthritis Erik Fink Eriksen (Oslo, Norway)
17:00 IS35	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

08:40-08:45	Welcome and introduction Claire Edwards (Oxford, UK)
08:45-10:35	Clinical advances in cancer-related bone disease 1 Chairs: Karthik Ramasamy (Oxford, UK) / David Roodman (Indianapolis, USA)
08:45 IS36	Cancer-induced bone loss Peyman Hadji (Frankfurt, Germany)
09:10 IS37	Prostate cancer bone mets Nicholas James (Birmingham, UK)
09:35 IS38	Myeloma bone disease Andy Chantry (Sheffield, UK)
10:00	Oral communications 1 Chairs: Karthik Ramasamy (Oxford, UK) / David Roodman (Indianapolis, USA) OC1 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 ERR α in primary breast tumours promotes tumour cell dissemination to bone by regulating RANK Edith Bonnelye (Lyon, France) OC3 HDAC inhibitors stimulate LIFR and other pro-dormancy genes in dormant and aggressive breast cancer cells Miranda Sowder (Nashville, USA) OC4 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 IS39	Targeting integrin-mediated chemoresistance in breast cancer bone metastases Kathy Weilbaecher (St Louis, USA)

11:40 IS40	Lung cancer bone mets Sarah Danson (Sheffield, UK)
12:05 IS41	Advances in detection and treatment of prostate cancer Freddie Hamdy (Oxford, UK)
12:30	Oral communications 2 Chairs: Janet Brown (Sheffield, UK) / Rob Coleman (Sheffield, UK) OC5 Bone microenvironment induction of tumoral integrin β_3 expression promotes resistance to chemotherapy in breast cancer bone metastases Gregg Fox (St Louis, USA) OC6 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 Dining Hall Bernard Sunley foyer for dessert and coffee and dessert 13:20 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: Rachelle Johnson (Nashville, USA) / Udo Oppermann (Oxford, UK)
14:00 IS42	Sarcoma and bone tumours Dominique Heymann (Sheffield, UK)
14:25 IS43	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 A novel osteolineage-derived cancer associated fibroblast population in primary tumors expresses Dkk1 and enhances tumor growth Roberta Faccio (St Louis, USA) OC8 Roundabout 4 mediates the homing of human breast cancer cells in the bone marrow Margaux Bernard (Lyon, France) OC9

	<p>Potent therapeutic impact of TAK1 inhibition on myeloma progression and bone destruction Jumpei Teramach (Tokushima, Japan)</p> <p>OC10 Dual BRD4/autophagy inhibitor as novel strategy for the treatment of multiple myeloma Marilena Tauro (Tampa, USA)</p> <p>OC11 Two-way signalling between multiple myeloma cells and bone marrow adipocytes Michaela Reagan (Scarborough, USA)</p> <p>OC12 The small molecule adiponectin receptor agonist AdipoRON exhibits anti-myeloma activity in vitro and in vivo. Sam Olechnowicz (Oxford, UK)</p> <p>OC13 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>Chair: Graham Russell (Oxford & Sheffield)</p> <p>Emergence of multiple actions of PTHrP in breast cancer and osteosarcoma Jack Martin (Melbourne, Australia)</p>
17:15-19:00	<p>New Investigator session <i>Mary Sunley Building</i></p> <p>Chairs: Rachelle Johnson (Nashville, USA) / Patricia Juarez (Ensenada, Mexico)</p> <p>Tips and tricks for career progression in academia and industry Andreas Grauer (Amgen, USA), Larry Suva (College Station, USA) and Silvia Marino (Indianapolis, USA)</p> <p>Followed by round-table discussions on 'Clinical Academic Careers', 'Moving Abroad', 'Leading a Group', 'Negotiating and Promotion' and 'Postdoc challenges'.</p> <p>Table leads include Andy Chantry, James Edwards, Florent Elefteriou, Dana Gaddy, Allie Gartland, Andreas Grauer, Patricia Juarez, Silvia Marino, Penny Ottewell, Dave Roodman, Julie Sterling, Larry Suva and Kathy Weilbacher</p>
19:00	<i>Dinner</i>
20:15	<p>Walking tour: the University, book and film locations, historic pubs and their memorable patrons</p> <p><i>Meet at Porters' Lodge</i></p>

Tuesday 3 July

CABS

08:45-10:45	<p>Physiological responses to cancer: pain and muscle</p> <p>Chairs: Chas Bountra (Oxford, UK) / Kathy Waelbaecher (St Louis, USA)</p>
08:45 IS44	<p>Understanding and treating bone and musculoskeletal pain</p> <p>Patrick Mantyh (Tucson, USA)</p>
09:15 IS45	<p>Pharmacology of bisphosphonates in pain</p> <p>Thomas Tzschentke (Grunenthal, Aachen, Germany)</p>
09:30 IS46	<p>Role of the GDNF Family Receptor GFRα3 in joint pain</p> <p>Michael LaCroix-Fralish (Regeneron, Tarrytown, USA)</p>
09:45 IS47	<p>Skeletal pain, Radium-223 and bone metastases</p> <p>Øyvind Bruland (Oslo, Norway)</p>
10:15 IS48	<p>Cancer-associated muscle weakness</p> <p>Theresa Guise (Indianapolis, USA)</p>
10:45	<p><i>Coffee</i></p>
11:15-12:45	<p>Tumour-bone microenvironment</p> <p>Chairs: Dominique Heymann (Sheffield, UK) / Patricia Juárez (Ensenada, Mexico)</p>
11:15 IS49	<p>Tumour-host interactions in metastasis</p> <p>Iliaria Malanchi (London, UK)</p>
11:40 IS50	<p>Impact of sympathetic nerves on bone metastasis</p> <p>Florent Elefteriou (Houston, USA)</p>
12:05 IS51	<p>Immune control of bone metastasis</p> <p>Belinda Parker (La Trobe, Australia)</p>
12:30	<p>Oral communications 4</p> <p>Chairs: Dominique Heymann (Sheffield, UK) / Patricia Juárez (Ensenada, Mexico)</p> <p>OC14 The physical bone microenvironment modulates osteolytic gene expression in metastatic breast cancer Kristin Kwakwa (Nashville, USA)</p> <p>OC15 Epigenetic targeting of the myeloma-bone microenvironment in 3D Juraj Adamik (Pittsburgh, USA)</p>
12:45	<p><i>Lunch</i></p> <p><i>Dining Hall</i></p> <p><i>Bernard Sunley foyer for dessert and coffee and dessert 13:20 onwards</i></p>

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 IS52	New approaches in in vivo imaging Clemens Löwik (Rotterdam, Netherlands)
14:25 IS53	Single cell genomics in cancer Adam Mead (Oxford, UK)
14:50	Oral communications 5 Chairs: Penny Ottewell (Sheffield, UK) / Mike Rogers (Sydney, Australia) OC16 Blocking Cysteinyl leukotriene receptor type 1 (CysLT ₁) inhibits blood platelets' prometastatic activity Olivier Peyruchard (Lyon, France) OC17 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 IS54	Epigenetic regulation in the tumour-bone microenvironment Udo Oppermann (Oxford, UK)
15:55 IS55	Epigenetic suppression in myeloma bone disease David Roodman (Indianapolis, USA)
16.20 IS56	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)
17:30-17:40	Awards and closing comments
19:00	<i>Dinner</i>

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Additional event:

Musculoskeletal Research in Oxford

Wednesday 4 July 09:00-16:45

Kennedy Institute of Rheumatology

Roosevelt Drive, Headington

Oxford OX3 7FY

Open to all delegates

Coach transport to the Kennedy Institute leaves St Catherine's College Porters' Lodge at 08:30, return 16:45.

Please sign up on the list on the chairman's table during one of the breaks to confirm if you would like to attend.