1st Oxford Myeloma Workshop Programme

Thursday 3rd and Friday 4th August 2017
St Catherine’s College
Oxford OX1 3UJ

A comprehensive programme designed for haematologists of all grades, scientists, nurse specialists and allied specialists

Organising committee: Dr Karthik Ramasamy, Dr Jaimal Kothari and Prof Udo Oppermann
https://conference2017.oxford-myeloma.org.uk/
ORGANISING COMMITTEE

Prof  Udo Oppermann       Dr Karthik Ramasamy       Dr Jaimal Kothari
Ms Angela Brown       Miss Manuela Sultanova       Dr Grant Vallance

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WELCOME NOTE

Dear Friends and Colleagues,

Outside of the International Myeloma workshop we lack a comprehensive educational meeting on plasma cells disorders. With significant developments in scientific understanding, diagnostic testing, prognostication, treatment principles and treatment options there is considerable knowledge in the area of plasma cell disorders that has to be disseminated.

As an individual interested in the field of plasma cell disorders, you would be in agreement that the last 2-3 years have seen a step change in both scientific developments, paralleled by a substantial transformation in therapeutics available in myeloma. There could not be an apposite time for us to educate and engage those working in this field.

We are thrilled to put together a comprehensive workshop programme to cover all aspects of plasma cell disorders. We have a brilliant faculty from UK as well Europe and USA, who are well respected in the field of plasma cell disorders. The course is aimed at a cross-section of haematology trainees, haematology consultants, scientists working in the field of myeloma as well as allied nursing and pharmacy colleagues.

Lastly, we are pleased to announce the opening of a Comprehensive Oxford Centre for Myeloma Research. We feel that the time and environment is ripe to bring recent discoveries closer to patients by translating research into clinical practice.

We look forward to meeting you at this exciting workshop. We hope you have a great time in Oxford.

Sincerely,

Dr Karthik Ramasamy     Prof Udo Oppermann     Dr Jaimal Kothari
08:30 – 08:45  Introduction and Opening of the Comprehensive Oxford Myeloma Research Centre – Andrew Carr (Head of NDORMS), Oxford and Karthik Ramasamy, Oxford

08:45 – 09:25  Plenary lecture
Evolution of Myeloma therapeutics in the last 20 years – Kenneth Anderson, Harvard, USA

09:25 – 09:30  Q & A

Science Session Part I

09:30 - 09:50  Normal plasma cell biology in relation to myeloma – Reuben Tooze, Leeds

09:50 – 10:10  Abnormal plasma cell biology – Kwee Yong, London

10:10 – 10:30  Multiple myeloma alters the bone marrow microenvironment frequently leading to bone disease and drug resistance – Michelle Lawson, Sheffield


10:50 – 11:00  Coffee Break

Science Session Part II

11:05 – 11:25  Epidemiology of plasma cell disorders – Alexandra Smith, York

11:30 – 12:00  MOA – IMiDs - Anjan Thakurta, Celgene, USA

12:00 – 12:30  Proteasome inhibitors - mechanisms of action – Holger Auner, London

12:30 – 12:50  Overcoming proteasome inhibitor resistance in Multiple Myeloma – Lenka Besse, St Gallen, Switzerland

12:50 – 13:05  Q & A

13:05 – 14:00  Lunch

Diagnostics Session Part I

14:00 – 14:20  Immunoassays in Myeloma – Mark Drayson, Birmingham


14:40 – 15:00  Next generation imaging for Myeloma – Anwar Padhani, London

15:00 – 15:15  Coffee Break

Diagnostics Session Part II

15:20 – 15:45  Clinical utility of multiparameter flow cytometry in MM and other plasma cell dyscrasias- Noemi Puig, Salamanca, Spain

15:45 - 16:15  Myeloma FISH – Herve Avet-Loiseau, Toulouse, France

16:15 – 16:35  Myeloma Mutational profiling using NGS – Mike Chapman, Cambridge

16:35 – 16:45  Q & A

Round Table Discussion

16:45 – 17:45  "When and how will we cure myeloma?" Chaired by Udo Oppermann
The panel includes: Ken Anderson (Harvard), John Snowden (Sheffield), Anjan Thakurta (Celgene), Herve Avet-Loiseau (Toulouse), Chas Bountra (Oxford), Kwee Yong (London), Rosemarie Finley (Myeloma UK), Chris Bunce (Birmingham), Gemma Balmer (CRUK)
### Programme 4th August 2017

#### Treatment of myeloma: Part I
- **09:00 – 09:30** Elderly patients with Multiple Myeloma – Sonja Zweegman, Amsterdam, Netherlands
- **09:30 – 10:00** Supportive Care – John Snowden, Sheffield
- **10:00 – 10:30** Relapsed MM – Xavier Leleu, Poitiers, France
- **10:30 – 10:45** Coffee break

#### Treatment of Myeloma: Part II
- **10:45 – 11:15** Young and fit – Rakesh Popat, London
- **11:15 – 11:45** Immunotherapy – Paul Moss, Birmingham
- **11:45 – 12:10** Radiotherapy use in plasma cell dyscrasias – David Cutter, Oxford
- **12:10 – 12:40** Designing contemporary clinical trials in Multiple Myeloma – David Cairns, Leeds
- **12:40 – 13:40** Lunch

#### Treatment of myeloma: Part III
- **13:40 – 14:00** Renal impairment – Karthik Ramasamy, Oxford
- **14:00 – 14:20** Allogeneic transplantation for myeloma – Vanderson Rocha, Oxford/Sao Paulo, Brazil

#### Rare plasma cell dyscrasias
- **14:20 – 14:35** Plasmacytoma – Jaimal Kothari, Oxford
- **14:40 – 15:10** AL Amyloidosis management update – Ashutosh Wechalekar, London

#### Round Table Discussion:
- **15:10 – 16:00** “Challenges of managing relapsed/refractory MM – Application of Immuno oncology therapies” Chaired by: Karthik Ramasamy
  - The panel includes: Sonja Zweegman (Amsterdam), Rakesh Popat (London), David Cairns (Leeds), Paul Moss (Birmingham), Simon Ridley (Myeloma UK)

#### Closing remarks
FACULTY

Prof Kenneth Anderson  
Dana-Farber Cancer Institute, Boston, Massachusetts, USA

Dr Holger Auner  
Imperial College London, London, UK

Prof Hervé Avet-Loiseau  
Cancer Research Centre of Toulouse, Toulouse, France

Dr Gemma Balmer  
Cancer Research UK

Dr Lenka Besse  
Kantonsspital St. Gallen, St. Gallen, Switzerland

Prof Chas Bountra  
University Of Oxford, Oxford, UK

Prof Chris Bunce  
University of Birmingham, Birmingham, UK

Dr David Cairns  
University of Leeds, Leeds, UK

Dr Mike Chapman  
Cambridge University Hospitals NHS Foundation Trust, Cambridge, UK

Prof Mark Drayson  
University of Birmingham, Birmingham, UK

Rosemarie Finley  
Myeloma UK, Edinburgh, UK

Dr Shelly Lawson  
The University of Sheffield, Sheffield, UK

Prof Xavier Leleu  
Hôpital La Miléterie, Poitiers, France

Prof Paul Moss  
University of Birmingham, Birmingham, UK

Prof Kikkeri Naresh  
Imperial College Healthcare NHS Trust, London, UK

Prof Anwar Padhani  
Institute of Cancer Research, London, UK

Dr Rakesh Popat  
University College London Hospitals NHS Foundation Trust, London, UK

Dr Noemi Puig  
University Hospital of Salamanca, Salamanca, Spain

Dr Simon Ridley  
Myeloma UK, Edinburgh, UK

Prof Vanderson Rocha  
University of São Paulo, São Paulo, Brazil

Prof Graham Russell  
The University of Sheffield and University of Oxford, UK

Dr Alexandra Smith  
University of York, York, UK

Prof John Snowden  
The University of Sheffield, Sheffield, UK

Dr Anjan Thakurta  
Celgene Corporation, New Jersey, USA

Dr Reuben Tooze  
University of Leeds, Leeds, UK

Dr Ashutosh Wechalekar  
Royal Free London NHS Foundation Trust, London, UK

Prof Kwee Yong  
University College London Hospitals NHS Foundation Trust, London, UK

Prof Sonja Zweegman  
VU University Amsterdam, Amsterdam, Netherlands
Prof Kenneth Anderson
Kenneth Anderson, MD is the Kraft Family Professor of Medicine at Harvard Medical School as well as Director of the Jerome Lipper Multiple Myeloma Center and Lebow Institute for Myeloma Therapeutics at Dana-Farber Cancer Institute. He is a Doris Duke Distinguished Clinical Research Scientist and American Cancer Society Clinical Research Professor.

Over the last three decades, he has focused his laboratory and clinical research studies on multiple myeloma. He has developed laboratory and animal models of the tumor in its microenvironment which have allowed for both identification of novel targets and validation of novel targeted therapies, and has then rapidly translated these studies to clinical trials culminating in FDA approval of novel targeted therapies. His paradigm for identifying and validating targets in the tumor cell and its milieu has transformed myeloma therapy and markedly improved patient outcome. He is a recipient of many scientific and humanitarian awards including: the International Myeloma Workshop Waldenstrom’s Award; the International Myeloma Foundation Robert A. Kyle Lifetime Achievement Award; the American Association for Cancer Research Joseph H. Burchenal Award; the American Society of Hematology William Dameshek Prize; the Johns Hopkins Society of Scholars; election to the Royal Colleges of Physicians and of Pathologists of the United Kingdom; the American Society of Clinical Oncology David A. Karnofsky Award; the Hope Funds Prize; the Johns Hopkins Society of Scholars; election to the Institute of Medicine of the National Academy of Sciences, served as President of the American Society of Hematology, San Giovanni Battista Hospital and...
University of Torino in Italy (Head Mario Boccadoro) for short term internships (together 6 months) with the focus on minimal residual disease evaluation in multiple myeloma by droplet digital PCR.

Since 2015 I am working in the laboratory of prof. Christoph Driessen focusing on mechanisms of resistance of multiple myeloma to proteasome inhibitors and since 2017 I am head of the laboratory.

Prof Chas Bountra

Chas is Scientific Director of the Structural Genomics Consortium at Oxford University and he is Professor of Translational Medicine in the Nuffield Department of Clinical Medicine and Associate Member of the Department of Pharmacology at the University of Oxford. He is also a Visiting Professor in Neuroscience and Mental Health at Imperial College, London.

Chas is an invited expert on several government and charitable research funding bodies, and an advisor for many academic, biotech and pharma drug discovery programmes.

Prior to coming back to Oxford, Chas was Vice President and Head of Biology at GlaxoSmithKline. He was involved in the identification of more than 40 clinical candidates for many gastro-intestinal, inflammatory and neuro-psychiatric diseases.

The SGC has become a leader in human protein structural biology and epigenetics chemical biology, and is arguably one of the most successful open innovation, public – private partnerships in the world. Furthermore, with the many recent local developments (Target Discovery Institute, Kennedy Institute, Dementia Institute), he believes Oxford is emerging as one of the major academic drug discovery centres in Europe.

Prof Chris Bunce

Chris Bunce is head of the University of Birmingham School of Biosciences and Professor of translational Cancer Biology. He co-Directs a translational research group dedicated to the development of novel therapies for leukaemias and lymphomas. A particular focus is the exploitation of drug redeployment strategies using off-patent drugs to provide affordable therapies that can be exploited by all including the worlds poorer nations.

Professor Chris Bunce is a double alumnus of Birmingham and has pursued his research career here too. His PhD studies were undertaken in the Dept of Immunology. In 1997 he was awarded one of two inaugural Leukaemia Research Fund Bennett Senior Fellowships which he took in the Department of Medicine.

In 2002 he moved to the School of Biosciences as a Leukaemia Research Fund Senior lecturer. In 2008 he became Reader in Experimental Haematological Oncology. Professor Bunce’s group received Programme support from the Leukaemia Research Fund in 2005 which was successfully renewed in 2010 and 2015. This programme is shared with Professor Bunce’s long-term clinical collaborator Professor Mark Drayson and Dr Farhat Khanim.

Between 2012-15 Chris was research director for Bloodwise the UK’s foremost research charity exclusively dedicated to haematological malignancies. During his time at the charity Chris oversaw a programme of assessing patient need which has had a profound impact on his research goals with a new interest in MGUS and Myeloma.

Prof Mark Drayson

Mark provides central laboratory analysis for UK clinical trials in myeloma and is Chief Investigator for two. The results of these trials are helping formulate world opinion on investigation and management of the disease. He has played a key role developing and demonstrating the utility of the first clinical test for serum immunoglobulin free light chains. This was disseminated worldwide by a University spinout company Binding Site, now selling six million tests a year across 90 countries. Mark has developed a second generation of the test which is being commercialised by University spin out company Serasence, providing improved laboratory and unique point of care versions of the test. Mark is a member of national and international guidelines groups for diagnosis and management of myeloma and MGUS. His basic research in blood cancers is finding new therapies for blood cancers by drug redeployment which he is testing in trials in the UK and Africa.

Mark has major grants from Cancer Research UK, Leukaemia Lymphoma Research, Medical Research Council and National Institute of Health Research.

Dr Jaimal Kothari

Dr Kothari completed undergraduate studies at the University of Cambridge, before attending medical school at Brasenose College, Oxford.

After qualification he trained in clinical haematology at University College Hospital, London, focusing on the comprehensive management of lymphoid malignancies.

He also spent two years working on the early-phase development of monoclonal antibodies for Non-Hodgkin lymphomas. As a consultant in Oxford he works across the lymphoma and plasma cell dyscrasia services and is clinical lead for the late phase clinical trial group.

Dr Shelly Lawson

I graduated from the University of Sheffield in 1997 with a BSc honours in Molecular Biology. I obtained my PhD in 2000 from the University of Bristol, after conducting my research at the Institute of Animal Health, investigating the use of cytokines as DNA vaccine adjuvants.

In 2000 I began my research career in the field of bone biology at the University of Oxford. While there I developed various biomaterials for bone scaffolding and a novel technique to measure the bone binding affinities of bisphosphonates, drugs used in the prevention of bone disease.

In 2005 I moved back to the University of Sheffield where I worked in Professor Peter Croucher’s
Bone Biology Group in the Department of Human Metabolism. My research involved looking at the effects of bisphosphonates in preclinical models of multiple myeloma. In addition, I developed a novel multiphoton microscopy technique to allow the visualisation of single cancer cells in bone. This work led to the identification of several key molecules involved in the early stages of myeloma bone disease. In 2012 I became a Research Fellow in the Department of Oncology and I now lead my own research group.

My main research interest is myeloma bone disease. Over the last 10 years I have developed and established several preclinical murine models of myeloma to study therapeutic agents in the early, mid and late stages of the disease. This has led to an increased understanding of the role of the bone microenvironment and how it influences tumour growth. I am currently investigating the use of bisphosphonates in combination with other bone modulating agents to repair myeloma-induced osteolytic lesions in preclinical models, with the aim of translating these findings into patients.

Prof Xavier Leleu

Professor Xavier Leleu is Head of the Department of Haematology and the Myeloma Clinic at Hôpital La Miletrie, France. After graduating in medicine from the Faculty of Medicine, University of Bordeaux, France, he undertook postgraduate training in public healthcare, statistics and haematology at the Universities of Lille and Paris, France, and became board certified in haematology. He completed a PhD in immunology and cell therapy at the Dana Farber Cancer Institute, Harvard Medical School, Boston, USA.

Professor Leleu is an experienced researcher in the field of haematology and has acted as both investigator and coordinator in numerous clinical trials; the main focus of his research is the biology and treatment of multiple myeloma, Waldenström’s macroglobulinaemia and AL amyloidosis.

A member of the European Hematology Association, the American Society of Hematology, and American Society of Clinical Oncology. He is at the board of director and treasurer of IFM.

He is a reviewer for a number of international journals including JCO, NEJM, Lancet, Lancet Oncology, Blood, Clinical Cancer Research, Haematologica and European. Professor Leleu has published extensively, having authored or co-authored a number of abstracts and book chapters and over 220 articles in international peer-reviewed journals including the New England Journal of Medicine, Blood, Journal of Clinical Oncology, Haematologica, Lancet Oncology, and Leukemia.

Prof Kikkeri Naresh

My area of expertise is haematopathology. I have been in the field of haematopathology for over 20 years, and I have worked/trained across three continents (Europe, Asia and North America). At the Hammersmith Hospital / Imperial College, I lead diagnostics, translational research and training in haematopathology. I direct the Advanced Haematopathology course at the Hammersmith Hospital, which is a postgraduate course of international repute. I am also the Lead for the Clinical Academic Training programme in Histopathology at the Imperial College, mentoring and training the clinical academics of the future. As the Advisor for Haematopathology at the Royal College of Pathologists, I play a critical role in improving standards of training and practice of haematopathology in the UK. I am a firm believer in global medicine and science and in fostering international collaboration to promote translational research and training in haematopathology and in other branches of medicine.

Prof Udo Oppermann

Professor Udo Oppermann is Director of Molecular Laboratory Sciences, Botnar Research Centre and Deputy Director of the Institute of Musculoskeletal Sciences, both at the University of Oxford, United Kingdom. Professor Oppermann obtained a Diploma in Human Biology in 1990 and PhD in Pharmacology and Toxicology in 1994 from Philipps University Marburg, Germany. He went on to become Associate Professor at Karolinska Institutet, Stockholm, in the Department of Medical Biochemistry and Biophysics where he stayed until 2004. He has been a Principal Investigator of the Structural Genomics Consortium (SGC) in Oxford since its inception in 2003, and in 2008 he became Professor of Molecular Biology at Oxford University and holds since 2009 the Chair in Musculoskeletal Sciences at NDORMS. The use of chemical biology to understand human biology is a major focus of the research group and is currently applied to the field of epigenetic mechanisms in stem cell and cancer biology and target discovery, as well as in chronic inflammatory and metabolic diseases. He is currently on sabbatical leave as a senior fellow at the Freiburg Institute of Advanced Studies (FRIAS) at Freiburg University.

Prof Anwar Padhani

Prof. Padhani is an internationally recognized Oncological MRI radiologist. He is Professor of Cancer Imaging at the Institute of Cancer Research, London. He is chairperson of the executive board and Trustee of the International Cancer Imaging Society (ICIS). He is also a Trustee of the International Society of Magnetic Resonance in Medicine (ISMRM). He has a passion for teaching and has published chapters in 33 textbooks, 67 educational and scientific journal reviews in peer reviewed journals, and published over 117 full scientific articles in peer reviewed journals. Dr Padhani has given over 300 invited lectures at national and international scientific and educational medical meetings including plenary talks and >150 post-graduate talks on multifunctional imaging, imaging of angiogenesis, advanced prostate MRI, whole body diffusion imaging and the imaging of metastatic bone disease. He has been awarded several education awards including outstanding teacher from the ISMRM (2011, 2012, 2014) and honoured educator from the RSNA (2011, 2014).
Dr Rakesh Popat

Rakesh Popat graduated from Guy’s and St. Thomas’ Medical School in London and trained in haematology at St. Bartholomew’s and the Royal London Hospitals. During this time he completed a PhD thesis focusing on designing scientifically based treatment combinations for multiple myeloma. This included pre-clinical work investigating novel drug combination treatments, and developing them into early phase clinical trials. He was awarded a fellowship to visit the Dana Farber Cancer Institute in Boston, USA where he gained experience both in their drug discovery laboratory and clinical programs. Dr. Popat is a Consultant Haematologist at UCH, Honorary Clinical Senior Lecturer at the UCL Cancer Institute, a member of the NCRI Myeloma sub-group and currently the North Thames Clinical Research Network Specialitiy Lead for Haematology (Cancer division).

Dr Noemi Puig

Noemi Puig, MD, PhD earned her medical degree from the Universidad Complutense in Madrid and she completed her residency in Internal Medicine and Hematology at the University Hospital La Fe in Valencia, Spain. She completed a 3-year fellowship in Lymphoma, Myeloma and Autologous Stem Cell Transplantation at the Princess Margaret Hospital in the University of Toronto, in Toronto, Canada. She earned a doctoral degree at the Medicine Department of the University of Salamanca, in Spain, with a thesis entitled “Optimization and Critical Analysis of Minimal Residual Disease Monitoring with ASO RQ-PCR in Patients with Multiple Myeloma and Comparison with Multiparameter Flow Cytometry”. Dr. Puig currently serves as a Consultant Physician at the Hematology Department in the University Hospital of Salamanca, Spain. She completed a 3-year fellowship in Lymphoma, Myeloma and Autologous Stem Cell Transplantation at the University Hospital of Salamanca, where she is responsible for the studies developed by the Spanish Myeloma Group. Dr. Puig is a member of the Programa para el Estudio de la Terapéutica en Hemopatías Malignas (PETHEMA) and the Spanish Myeloma Group (GEM) as well as of the EuroFlow Group. Dr. Puig’s main research interests include the role of multiparameter flow cytometry in diagnosis, risk stratification and minimal residual disease monitoring in patients with monoclonal gammopathies. She is an author or co-author in several research articles, reviews and book chapters.

Dr Karthik Ramasamy

Dr Ramasamy completed Internal Medicine training in Nottingham and started his career in haematology at Glasgow. He completed a comprehensive haematology registrar training programme at King’s College London, researching both clinical and laboratory aspects of myeloma. He is Lead Clinician for myeloma and other plasma dyscrasias in Thames Valley Strategic Clinical Network and Divisional Lead of Cancer Research across Thames Valley and South Midlands Research Network.

Prof Vanderson Rocha

Vanderson Rocha is a Professor of Haematology, Transfusion and Cell Therapy of the University of Sao Paulo, Brazil. Since 1996 he has been the scientific director of the Eurocord program and registry in Europe, an European and international registry of cord blood transplant (CBT) recipients, with the leadership of Professor Eliane Gluckman who performed the first cord blood transplant. During this period he authored more than 200 papers. In 1996, he was awarded his Masters and in 2001, PHD in Therapeutic Biotechnology of the University of Paris 7. From 2004 to 2010, he was president of the Acute Leukemia Working Party (ALWP) of the European Blood and Marrow transplant group (EBMT), elected by the European transplant centres. In 2007-2008, he was an invited professor of the Centre of International Marrow and Blood Registry (CIBMTR) of the Wisconsin Medical College, establishing collaborative studies between EBMT-CIBMTR. In 2012, he was nominated Full Professor of Hematology of the Oxford University in England and Principal Investigator of Stem Cell therapies of the National Health System of Blood and Transfusion (NHSBT). In 2013, he was nominated co-chair of the Graft sources committee of the CIBMTR for a period of 5 years.

Prof Graham Russell

Graham Russell (R G G Russell) graduated with First Class Honours in Biochemistry from the University of Cambridge in 1962 and subsequently gained his PhD on pyrophosphate metabolism from the MRC Mineral Metabolism Unit at the University of Leeds. In 1965, he joined Dr Herbert Fleisch’s Medical Research Institute in Davos, Switzerland, and their collaborative work led to the discovery of the biological effects of bisphosphonates. He then moved to Oxford University, where he continued research based at the Nuffield Department of Orthopaedic Surgery. Working with Roger Smith, this led to the discovery of the first and successful clinical applications of bisphosphonates in Paget’s disease of bone. Concurrently, he completed his medical degree with distinction in 1971. He held the Medical Research Fellowship at St Peter’s College from 1972-76. He was awarded his DM at Oxford in 1976, and also gained Membership and then the Fellowship of the Royal Colleges of Physicians and of Pathology. He has worked on topics related to calcium metabolism and bone diseases throughout his career and is author of more than 500 publications. He has played a central role in studying the biological effects of bisphosphonates, and in their clinical development and evaluation for the treatment of bone disorders, which includes Paget’s
Anjan Thakurta got his Master’s degree in biotechnology from Jawaharlal Nehru University and M.Tech in Biochemical Engg from IIT Delhi, India. He was a Nehru fellow at Cambridge University for his doctoral work and completed his post-doctoral training at Molecular and Cellular Biology Dept. at Harvard University. He worked at the National Cancer Institute, USA, AstraZeneca and Biogen Idec in various roles in Oncology Research and Drug development. He joined Celgene Research and Early Development department in 2011. Currently he is Executive Director, Translational Development and Diagnostics and leads the Myeloma Disease Group, the Myeloma Genome Project and the Minimal Residual Disease (MRD) project teams.

**Dr Alexandra Smith**

Specialising in haematological malignancies, Alex is an epidemiologist with a strong track record in cancer research. Training and working at the universities of Cambridge and Leeds before moving to York in 2004, Alex is a founding member of the Haematological Malignancy Research Network (HMRN); a unique, and very successful, population-based patient cohort that was established by researchers at the University of York and NHS clinicians to inform contemporary clinical practice and research in an area where good quality “real-world” data were lacking (www.hmrn.org).

**Dr Reuben Tooze**

Prof Reuben Tooze is a clinical academic leading a Cancer Research UK funded research group focusing on the origins and biology of aggressive immune system cancers, alongside clinical diagnostic work as an honorary consultant pathologist specializing in blood and immune system cancers in the Leeds Teaching Hospitals NHS Trust. After medical school at St Bartholomew’s Hospital, London, Tooze began his training as a pathologist in Cambridge in 1993, which was combined with a PhD in immunology under Prof Douglas Fearon, FRS. During this time he met and published with his wife and scientific partner Dr Gina Doody. In 2000 they moved to Leeds, and soon after Tooze completed his specialist clinical training and committed exclusively to diagnosis of blood and immune system cancers, working since at the Haematological Malignancy Diagnostic Service in Leeds (HMDS http://www.hmds.info/), the leading centre for blood cancer diagnosis in the UK. Following successive MRC Clinician Scientist and CRUK Senior Clinical Fellowships, Tooze and a team of collaborators in Leeds were awarded a CRUK programme grant in 2014 to understand the origins of myeloma with the aim of developing approaches for early intervention followed in 2016 by award of a Professorial chair in cancer pathology.

**Prof Kwee Yong**

Kwee Yong was educated at Oxford University and University College London (UCL). She was awarded a PhD from London University in 1993 for her work on growth factors. Professor Yong returned to UCL as Senior Lecturer and Honorary Consultant in 1999, since when she has been clinical and academic lead in multiple myeloma at University College Hospital. Professor Yong is a member of the UK Myeloma Research Alliance and chief investigator on several National Cancer Research Network trials involving new treatment regimens and paradigm changing strategies in multiple myeloma. She is a member of the National Cancer Research Institute Haematological Oncology Clinical Studies Group, the Cancer Research UK clinical careers committee and the Myeloma UK Clinical Trials network established in 2009 to run early phase studies in the UK. She has contributed to the recent revision of the UKMF/Nordic myeloma guidelines (British Journal of Haematology, 2011). She is chair of the executive board of the UK Myeloma Forum, and acts as clinical expert for NICE technology appraisals. She is a regular speaker at national and international meetings.

Professor Yong also runs a translational programme working on myeloma biology and immunology, and the mechanisms of bone disease. This programme has received funding from Cancer Research UK, Kay Kendall Leukemia Fund, the Wellcome Trust and Bloodwise. She has published over 100 original papers in peer-reviewed journals, and is a reviewer for international journals and grant-awarding bodies. Professor Yong is the NIHR training lead for Academic Clinical Fellows and Clinical Lecturers at UCL.
Prof Sonja Zweegman

Sonja Zweegman, MD, PhD, is head of the Department of Haematology, VU University Medical Center, in Amsterdam, the Netherlands. She has a specific interest in Multiple Myeloma. Her research focusses on optimisation of the treatment of elderly Multiple Myeloma patients. She is the principal investigator of several (inter)national clinical trials in the elderly. In addition, the VUmc myeloma translational research group focusses on finding new targets for treatment, with a specific research interest in the role of immune escape mechanisms and microenvironment-induced therapy resistance. Since 2013, professor Zweegman has been vice-chairman of the HOVON (the Hemato-Oncology Foundation for Adults in The Netherlands) Multiple Myeloma Working Group. She is a member of the working group on clinical updates of the European School of Hematology. She is author or co-author of a number of books and many papers published in peer-reviewed journals.