Immunotherapy for Haematological Malignancies - the Future

Monday 25th September 2017

The Principal Hotel
Station Rd, York YO24 1AA
In 1981 the American surgeon William Coley, demonstrated that the immune system could be harnessed to attack human malignancies by injecting Coley’s toxin. Ever since these seminal observations, clinicians and scientists have endeavoured to elaborate the nature of the immune response to malignant cells and how this could be employed for therapeutic benefit. Although progress has been slow, we now have a much clearer understanding of how both the innate and acquired immune systems work at a molecular, cellular and systemic level and this has facilitated the development of a variety of immune therapies. We now have available a growing array of monoclonal antibodies, bi-specific antibodies, gene modified T lymphocytes and immune checkpoint inhibitors that have all been shown to induce effective anti-tumour immune responses. The challenge we now face is how to optimize these potent immune-therapies and incorporate them alongside conventional treatment strategies for patient benefit.

Today’s meeting brings together an eminent panel of speakers who have been involved in the development of immune based therapies. Sessions on checkpoint inhibitors, novel monoclonal antibody based therapy, CAR T cell therapy, ECP and mesenchymal stem cells will initiate a discussion of how these potential new initiatives may be employed throughout York and the surrounding area.

We wish you a warm welcome to York and an enjoyable day.

Professor Graham Jackson & Professor Gordon Cook
Organisers and Chairmen
Chairman

Professor Graham Jackson  
Professor of Clinical Haematology  
Freeman Hospital

Professor Jackson is Consultant Haematologist at Newcastle Hospitals Trust, Newcastle upon Tyne and is Professor of Haematology at Newcastle University.

He graduated from Cambridge in 1980 with a 1st Class Honours degree in medical sciences, after which, he went on to study medicine at the Westminster School of Medicine. He gained his MRCP in 1986 and then moved to Newcastle University to undertake his MD, which he completed in 1992. Professor Jackson obtained his MRCPath in 1993, followed by his FRCP in 1999 and his FRCPath in 2000.

Throughout his career, Professor Jackson has received a number of awards, including special fellowship to the European School of Haematology and European Community Fellowship to the European School of Oncology. He has won the Van Bekkum medal at the EBMT and has been awarded the BSH Gold medal.

He is a former President of the BSH and the BSBMT and serves on the council of the RCPath. He has served on CTAAC and on the Bloodwise clinical trials committee. He is Director of Myeloma UK and Scientific Secretary for the UKMF.

He has been CI on Myeloma 9 and 11 and is currently the CI for myeloma 11+. He is part of the safety monitoring committee for all the MUK trials as well as internationally the Carfilzomib trials. His research interests focus on clinical trials and safety in the treatment of myeloma.

He has been involved in teaching and exploring good doctor-patient communication and has been involved in many ‘breaking bad news’ training seminars.

He has published over 190 peer reviewed papers as well as many book chapters and reviews.
Professor Gordon Cook
Professor of Haematology & Myeloma Studies, Honorary Consultant Haematologist
University of Leeds and Leeds Teaching Hospitals

Gordon Cook is a graduate of the University of Glasgow School of Medicine & received his higher professional training in haematology in the West of Scotland. After completion of his PhD, he was appointed as Consultant Haematologist in the West of Scotland before moving to take up the post of Director of Stem Cell Transplantation at Leeds Teaching Hospitals in 2002. In 2013 he was appointed as Professor of Haematology, University of Leeds where he leads the myeloma clinical and translational research portfolio with a primary interest in tumour immunology and immunotherapy.

After 15 years executive service to the British Society of Blood & Marrow Transplantation he recently stepped down from his final position as the President of the Society representing the transplant community at the Government strategic and national commissioning level. He is the Chair of the UK Myeloma Research Alliance and NCRI Myeloma sub-group as well as a member of the NCRI Haematology-Oncology Clinical Studies Group. He holds the position of Secretary and Chair-Elect of the UK Myeloma Forum and has represented the interests of both myeloma clinicians and patients in NICE reviews. He is Chief Investigator for NCRI Myeloma X (completed), Myeloma XII (in recruitment), MUKeight (in recruitment) and MUKeleven and MUKfifteen (in set-up) as well as Co-Chief Investigator for Myeloma XIV (in set-up phase). His collaboration with industry includes his position as UK Chief investigator for 4 industry international phase III and IIIb studies & he is the chair of the Myeloma UK Research Advisory Group and Medical Editor of Myeloma Today. Finally, he holds the posts of Clinical Director of National Institute of Health Research Diagnostic MedTech Cooperative (Leeds) and Scientific Secretary for the British Society of Haematology.
Programme

Chairs: Professor Graham Jackson (Newcastle) & Professor Gordon Cook (Leeds)

09.00  Registration

The Science of Immunotherapy

09.30  Immunotherapy diagnostics  
       Dr Cathy Burton (Leeds)

09.50  Immune senescence: the problem behind immunotherapy 
       in the older population  
       Professor Gordon Cook (Leeds)

10.10  How haematological tumours avoid immunosurveillance  
       Dr Graham Collins (Oxford)

10.40  Discussion

11.00  Coffee

11.30  GvHD - from bench to bedside  
       Professor Matthew Collin (Newcastle)

12.00  Immunomodulation, ECP in combination therapy  
       Dr Rohini Radia (Nottingham)

12.20  Immune toxicity - complications of CAR T-cell therapy  
       Professor Paul Veys (GOSH)

12.50  Discussion

13.00  Lunch
Programme

Chairs: Professor Graham Jackson (Newcastle) & Professor Gordon Cook (Leeds)

Disease Specific Immunotherapy

13.45 Checkpoint directed immunotherapeutics - experience in oncology

Professor Ruth Plummer
Medical Oncologist (Newcastle)

14.15 Myeloma

Dr Rakesh Popat (UCLH)

14.35 Acute lymphoblastic leukaemia

Dr Clare Rowntree (Cardiff)

14.55 Discussion

15.15 Coffee

15.40 Chronic lymphocytic leukaemia

Dr Talha Munir (Leeds)

16.00 Hodgkin’s lymphoma

Dr Kim Linton (Manchester)

16.20 General lymphoma

Dr Graham Collins (Oxford)

16.40 Discussion

17.00 Close
Dr Cathy Burton
Clinical Lead
Haematological Malignancy Diagnostic Service

Dr Cathy Burton studied medicine at University of Cambridge. After haematology training in London, she moved to Leeds, completing an MD in Hodgkin lymphoma and then became an Academic Clinical Lecturer. In 2009, Dr Burton was appointed as Consultant Haematologist at St James’s University Hospital, Leeds, specialising in Lymphoma and Diagnostics. In 2014 she became Clinical Lead of the Haematological Malignancy Diagnostic Service in Leeds. She is a member of the NCRI Lymphoma Clinical Studies Group and Hodgkin lymphoma subgroup as well as a member of the Lunenberg Lymphoma Biomarker Consortium, an international collaboration studying the application of biomarker analyses to clinical practice in lymphoma.

Immunotherapy Diagnostics

Recent advances in cancer immunotherapy have generated excitement throughout oncology. New approaches in the treatment of malignancies, using immune checkpoint inhibitors and adoptive T-cell therapies, create more sustainable results with less side effects and the reduced probability of recurrence compared with conventional or targeted cancer therapy. However, work is on-going to develop predictive biomarkers and companion/complementary diagnostics. My talk will discuss the challenges in discovering predictive biomarkers for cancer and describe how the companion and complementary diagnostics for immune modulating therapies are complicated and how this is being approached. The session will include discussion on the underlying mechanisms of cancer immunotherapy, its predictive biomarkers as well as existing and emerging clinical assays aiming to improve patient outcomes.
Dr Graham Collins
Consultant Haematologist
Oxford University Hospitals

Dr Collins trained in medicine at Cambridge and St Bartholomew’s and the Royal London Hospitals. His specialist haematology training was in Oxford. Dr Collins sits on the high grade and Hodgkin lymphoma national study groups and was also a member of the lymphoma guidelines development group of NICE.

He co-authored the national guidelines for relapsed Hodgkin Lymphoma. He is also a trustee of the national Lymphoma Association.

How Haematological Tumours Avoid Immunosurveillance

Immunotherapy has been a mainstay of the treatment of haematological malignancies for many years - in the form of allogeneic stem cell transplantation. Until recently it was thought that an autologous immune system was ineffective against the majority of haematological cancers. The introduction of PD1 inhibitors into Hodgkin lymphoma has revolutionised our understanding. It is now well appreciated that haematological cancers can hijack some of the body’s natural immune suppressant mechanisms such as PDL1 expression. In addition, MHC expression is impaired in some malignancies leading to defective T-cell mediated immune attack. This session will discuss some of the immunological mechanisms employed by haematological cancer to avoid immune attack, and use the ‘immunogram’ concept to explore which cancers may respond to which immunological manipulations.
Matthew Collin is Professor of Haematology at Newcastle University and Director of the Northern Centre for Bone Marrow Transplantation at Newcastle upon Tyne Hospitals. His work is dedicated to the analysis of human dendritic cells and macrophages in vivo through the Human Dendritic Cell Lab at Newcastle University (www.hudendritic.org). Studies in the Human DC lab were among the first to separate human dendritic cells and macrophages from tissues and to demonstrate the longevity and monocyte-independence of tissue macrophage populations. With Florent Ginhoux at A*STAR Singapore, a series of experiments defined mouse-human parallels in the dendritic cell system including identification of the human tissue equivalent of mouse CD8+ cDC1 and mapping of the CD14+ dermal cell to a monocyte-macrophage lineage. More recently, heterozygous GATA2 mutation was identified as the cause of a novel syndrome of mononuclear cell deficiency leading to myelodysplasia and acute myeloid leukaemia. GATA2 and IRF8 mutation have been confirmed as genetic causes of dendritic cell deficiency, defining a new category of human primary immunodeficiency. Matthew’s work also includes studies of histiocytosis using somatic mutation to demonstrate the haematopoietic origin of Langerhans cell histiocytosis and Erdheim Chester disease. More recently he has also investigated monocyte-derived cells as potential therapeutic targets in graft versus host disease. Studies from the Human DC Lab are published in the New England Journal of Medicine, Immunity, J Exp Med, Blood and British Journal of Haematology. Matthew is a member of the American Society of Hematology, British Society for Haematology, Fellow of the Royal College of Pathologists and Member of the Royal College of Physicians of the UK. He is a member of the Histiocyte Society, the Scientific Steering Committee of the Nikolas Symposium and Scientific Review Board of Histiocytosis UK. He graduated with an MD/PhD from Oxford University in 1995 funded by a Wellcome Trust Prize Studentship and was Leukaemia Research Fund UK Bennett Senior Fellow in Experimental Haematology in 2004. His work is currently funded by CRUK, MRC and Bloodwise.
Graft versus host disease (GVHD) is caused by donor T cells but has a rich inflammatory infiltrate containing significantly elevated populations of myeloid cells with unknown pathogenic role. Characterization of cutaneous GVHD and non-infectious lung injury reveals a dominant population of donor-derived CD11c+CD14+ cells with an overlapping phenotype and transcriptional profile to steady-state CD14+ monocyte-derived macrophages. However, GVHD macrophages express higher S100A8/A9, CD172a and CD163, are more potent allo-stimulators and secrete T cell-directed chemokines at higher levels. Their proposed origin from monocytes is supported by the presence of primed classical monocytes in patients with GVHD together with high expression of monocyte chemo-attractants in GVHD skin. Furthermore, macrophages with a GVHD phenotype, generated in mixed leukocyte reactions, are capable of mediating direct cytopathicity to cell lines and explanted skin in vitro. These studies suggest that donor macrophages strongly promote immune-mediated epithelial pathology and support the continuing pursuit of macrophage-directed therapies in the treatment of GVHD.
Dr Rohini Radia
Consultant Haematologist
Nottingham University Hospital

Rohini Radia graduated in medicine from the University of Bristol in 1999. She completed her specialist haematology training on the Bristol rotation. She became interested in BMT as a SpR and then as a locum consultant working at the Bristol BMT programme. As a research fellow in Nottingham and Rotherham she started her role as study co-ordinator for POSTAGE, an international multi-centre prospective data collection study on outcomes of second-line therapy in acute GVHD focusing on the use of ECP. In 2015 she joined the team in Nottingham University Hospital, as Consultant Haematologist specialising in BMT and myeloid disorders with an interest in GVHD and MDS.
Immunomodulation, ECP in Combination Therapy

Graft versus host disease remains one of the leading causes of mortality and morbidity post allogeneic stem cell transplantation. Steroid-refractory GVHD is associated with a dismal prognosis and complications of prolonged immunosuppressive therapy. Extracorporeal photopheresis has a favourable toxicity profile and is used as a second line option in the treatment of both acute and chronic GVHD. Emerging novel therapies are focusing on immunomodulation. Combination therapies may ultimately be most effective.

References

Combination Therapy for Graft-versus-Host Disease Prophylaxis with Etanercept and Extracorporeal Photopheresis: Results of a Phase II Clinical Trial.

Ruxolitinib and ECP Bonmann et al, poster EBMT 2017 (N Kroger)

Imatinib and ECP Magro et al, EBMT poster 2017

Impact of extracorporeal photopheresis on skin scores and quality of life in patients with steroid-refractory chronic GVHD.
Bone Marrow Transplant. 2014 May;49(5):704-8.
Professor Paul Veys
Director of Blood and Marrow Transplantation
Great Ormond Street Hospital for Children


Current & Previous Posts:
1994 - to date  Director of Blood and Marrow Transplantation, GOSH
2013 - to date  Honorary Clinical Professor UCL
2015           Co-Chair 2015 Tandem CIBMTR/ASBMT meeting San Diego
2008 - 2013    Chair of Immune Deficiencies and Inborn Errors of Metabolism Working Committee, Centre for International blood and Marrow Transplant Research
2004 - 2013    Chair of Children and Young Person’s Pan Thames Blood and Marrow Transplant Group
1998 - 2004    Chairman of United Kingdom’s Children’s Cancer Blood and Marrow Transplant Group

Author of 17 book contributions, 200 peer-reviewed papers, and in receipt of > £6.5 million of research grant income

Special Interests:
SCT for primary immunodeficiencies and immunoregulatory disorders
Reduced intensity SCT in paediatric diseases
Immune reconstitution post Cord Blood Transplantation
Universal CAR T-cell therapy
As Chimeric Antigen Receptor (CAR) T-cell therapies become more widely available, a detailed understanding of their somewhat unique toxicities becomes increasingly important. Toxicities can be broadly divided into “autoimmune” and “cytokine-associated”. The former results from antigen-specific attack on host tissues when the targeted tumour associated antigen is expressed on non-malignant tissue (eg B-cell aplasia and hypogammaglobulinaemia following CAR T-cell therapy targeting CD19). Cytokine release syndrome (CRS) is a non-antigen specific cytokine associated toxicity that occurs as a result of high-level immune activation. Often levels of IL6 are highly elevated and can be targeted with anti-IL6 treatment (Tocilizumab). Other toxicities include hypersensitivity reactions ranging from mild rash to anaphylactoid reactions, tumour lysis syndrome, and neurologic toxicity, often related to previous CRS. With the initiation of trials in the UK utilising Universal (U)CAR T-cell therapy, where the TCR has been removed by gene editing, additional toxicities include Graft-vs-Host Disease and genotoxicity and tumorigenicity. CAR T-cell therapy generally requires lymphodepletion and the combination of cytopenia (sometimes prolonged due to an unknown mechanism) and B-cell aplasia puts the patients at risk from infection. Viral infection is particularly problematic following lymphodepletion for UCAR T-cell therapy as Alemtuzumab is utilised as an anti-rejection strategy.
Ruth Plummer is Professor of Experimental Cancer Medicine at the Northern Institute for Cancer Research, Newcastle University and Honorary Consultant Medical Oncologist in Newcastle Hospitals Foundation Trust. She is Director of the Sir Bobby Robson Cancer Trials Research Centre within the Northern Centre for Cancer Care, which is a dedicated clinical trials unit based within the regional cancer centre. She leads the Newcastle Experimental Cancer Medicine Centre and also the CRUK Newcastle Cancer Centre. She trained at Cambridge and Oxford before moving back home to Newcastle and settling with her family in the Tyne valley.

Her clinical practice involves leading on the systemic therapies for skin cancer, with a portfolio of trials across all phases of drug development. In addition she runs a phase I all-comers practice, taking responsibility for one of the most active phase I units in the UK. These roles mean she has experience of novel immunotherapies both in early phase trials and as standard of care for melanoma.

Her research interests are in the field of DNA repair and early phase clinical trials of novel agents or novel imaging targets, taking the first in class PARP inhibitor into the clinic in 2003, ATR inhibitor in 2012 and MCT1 inhibitor in 2014.

This research is either based in the Sir Bobby Robson Cancer Trials Research Centre or in the Northern Institute for Cancer Research of which she is a deputy director. Nationally she chairs the Cancer Research UK New Agents Committee, and sits as a member of Cancer Research UK’s Science Committee and Clinical Research Committee.
The use of immune checkpoint inhibitors is transforming the treatment of a wide range of solid tumours. The initial landmark trials were in metastatic malignant melanoma, a poor prognosis disease traditionally regarded as the “graveyard” of drug development, with no new licenced agents for 40 years before the last decade.

Immune-oncology treatments are now being used in an increasing number of solid tumours, and in multiple combinations within clinical trials. This is providing our patients with better treatment options, but also presenting significant challenges in terms of the toxicities observed and the burden of treatment.

References
13. **Chow LQ** et al. Antitumor Activity of Pembrolizumab in Biomarker-Unselected Patients With Recurrent and/or Metastatic Head and Neck Squamous Cell Carcinoma: Results From the Phase Ib KEYNOTE-012 Expansion Cohort. J Clin Oncol 2016; 34; 3838-45.
Checkpoint Directed Immunotherapeutics - Experience in Oncology

Immuno-oncology Clinical Trial Design: Limitations, Challenges, and Opportunities
Christina S. Baik, Eric H. Rubin, Patrick M. Forde, Janice M. Mehnert, Deborah Collyar, Marcus O. Butler, Erica L. Dixon, and Laura Q.M. Chow
Clin Cancer Research (2017) 23 pp 4992-5004

PD-1 Inhibitor–Related Pneumonitis in Advanced Cancer Patients: Radiographic Patterns and Clinical Course
Mizuki Nishino, Nikhil H. Ramaiya, Mark M. Awad, Lynette M. Sholl, Jennifer A. Maattala, Myriam Taibi, Hiroto Hatabu, Patrick A. Ott, Philippe F. Armand, and F. Stephen Hodi
Clin Cancer research (2016) 22 6051-6060

Prolonged Survival in Stage III Melanoma with Ipilimumab Adjuvant Therapy

Molecular Pathways: Immune Checkpoint Antibodies and their Toxicities
Sophie Cousin and Antoine Italiano
Clin Cancer Res; 22(18); (2016)
Dr Rakesh Popat
Consultant Haematologist & Clinical Senior Lecturer
University College London Hospitals

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. 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 their clinical program. He is currently Consultant Haematologist and Clinical Senior Lecturer at University College London Hospitals NHS Foundation Trust where his main interest is in multiple myeloma. He leads the early phase clinical trial program for haematological malignancies, is the UK chief investigator and local principal investigator for a number of clinical trials, the NIHR North Thames Clinical Research Network lead for haematological cancers, research lead for London Cancer (haematology), member of the NCRI Myeloma sub-group and the Myeloma UK Research Advisory Group.
Immunotherapy for myeloma has been actively pursued for some time; however only now has it demonstrated success. Most experience has been with CD38 monoclonal antibodies; however other targets are are being investigated as well as ADCs, BiTES. The role of immune checkpoint inhibition for myeloma remains unclear, however, very exciting results are being seen with T cell therapy. The challenge will be controlling the toxicity of these treatments to allow patients to benefit from their potential.

**Relevant Publications**


Immunotherapy in Myeloma


Dr Clare Rowntree
Consultant Haematologist
University Hospital of Wales

Dr Clare Rowntree is Consultant Haematologist in Cardiff at the University Hospital of Wales. Having trained in Birmingham, she completed her general medical training in the West Midlands before moving to UCLH to begin her career in haematology. After gaining a PhD in the molecular genetics of chronic lymphocytic leukaemia from the Royal Free hospital, she moved to Cardiff to take up a consultant post in lymphoid malignancies in 2002.

Over the past 15 years, Dr Rowntree has developed a specialist interest in the treatment of acute lymphocytic leukaemia (ALL) and is an active member of the NCRI ALL subgroup as well as a member of the trial management groups for UKALL 2011, UKALL 14 and UKALL 60+. Through her involvement with ALL patients, Dr Rowntree has developed expertise in the care of teenage and young adult (TYA) patients diagnosed with haematological malignancies. Dr Rowntree is the TYA lead clinician for the TYA principle treatment centre in Wales and has been a member of the NCRI TYA CSG since its inception. Although Dr Rowntree has a large adult lymphoma and ALL practice, her particular focus in recent years has been on the management of lymphoid malignancies in young people.
Although current chemotherapy regimens for adult acute lymphoblastic leukaemia (ALL) result in up to 90% of patients achieving a complete remission, long term survival for patients with B-cell ALL is less than 50%, largely due to a high relapse rate. Standard salvage chemotherapy regimens for relapsed disease result in approximately one third of patients achieving a second remission but less than 10% of patients can expect to survive.

In recent years, two immunotherapy drugs have been licensed for treatment of relapsed/refractory B-cell ALL – Blinatumomab and Inotuzumab. This talk will focus on these two drugs, how they work and data for their use in patients with relapsed/refractory B-cell ALL. Data to support integration of immunotherapy into first line ALL treatment algorithms for patients with persistent minimal residual disease will also be discussed.

Currently there are no emerging immunotherapy drugs for T-cell ALL and consequently this talk will focus on treatment of patients with B-cell disease.
Dr Talha Munir
Consultant Haematologist
St James’s University Hospital

Dr Talha Munir is Consultant Haematologist at Leeds Teaching Hospitals National Health Service (NHS) Trust, Leeds, UK. He graduated from King Edward Medical College, Lahore, Pakistan, in 2002, and finished his initial training in Pakistan. He has worked in the NHS since 2004, and completed his haematology training in Nottingham, UK, in 2012. Along with his clinical commitments, Dr Munir is currently in the process of finishing his PhD in the area of chronic lymphocytic leukaemia (CLL) at the Leeds Institute of Cancer and Pathology.

His main clinical and research interests are in CLL, particularly in the assessment of the mechanism of action of novel targeted therapies. The treatment of CLL has been revolutionised with the incorporation of B-cell receptor antagonists and anti-apoptotic drugs. However, interesting data is accumulating suggesting that immunotherapy will play an important role in the control and eradication of disease in future. He will be trying to cover the role of immunotherapy in the field of CLL.

Dr Munir is a sub-investigator for the National Cancer Research Institute (NCRI) CLL Phase II and III clinical trials in the UK, and is involved in multiple NCRI and non-NCRI studies at Leeds Teaching Hospitals, where he has contributed to the development of an impressive trial portfolio.
Immunotherapy has been at the forefront of treatment of chronic lymphocytic leukaemia. The role of anti-CD20 antibodies is well established and various combinations have improved outcomes. Immunomodulatory drugs and checkpoint inhibitors are being used in combination with B-cell receptor antagonists in various clinical trials. Lastly, CAR-T cells have opened a new chapter in the management of CLL. I will try to summarise the data at present and give my view on what are the future directions/limitations in the development of immunotherapeutics for treatment of CLL.
Dr Kim Linton
Clinical Senior Lecturer in Medical Oncology
The Christie & The University of Manchester

Dr Kim Linton is an academic clinician working at The Christie and The University of Manchester to improve outcomes for patients with lymphoma through the delivery of innovative and world-class research. She is a member of the NCRI lymphoma clinical studies group and does consultancy work for NICE, BCSH and the Pharmaceutical industry.

The Christie is the largest cancer hospital in the UK, and their lymphoma team has an international reputation in clinical trials research to develop novel treatments for lymphoma patients, both to improve cure rates and to prolong good quality life in individuals whose disease is resistant to conventional treatments. Current and future immunotherapy trials include early phase studies of novel antibody drug conjugates directed against CD19, CD25 and CD30, CAR-T programmes in NK/T cell lymphoma, PTCL, DLBCL and HL, and checkpoint inhibitor studies investigating pembrolizumab and intratumoral G100 in FL, avelumab in HL and durvalumab in HL and NHL.

Dr Linton also runs a programme of laboratory-based and translational research including several ongoing biomarker discovery and late effects projects utilising molecular approaches such as PCR, microarray gene expression profiling and proteomics.

Immunotherapy in Hodgkin’s Lymphoma

In this talk we will discuss available licenced upcoming immunotherapies for patients with classical Hodgkin lymphoma, including current and forthcoming clinical trials. The focus will be on the efficacy and safety of antibody drug conjugates, checkpoint inhibitors and cellular therapies.
Immunotherapy in General Lymphoma

Dr Graham Collins  
Consultant Haematologist  
Oxford University Hospitals

Whilst PD1 inhibitors are finding a clear role in Hodgkin lymphoma, they are yet to find a niche in non-Hodgkin lymphoma. Biologically, EBV infection may render lymphomas more susceptible to PD1 inhibition and early results suggests efficacy of these agents in follicular lymphoma, primary CNS lymphoma, primary mediastinal large B-cell lymphoma and mediastinal grey zone lymphoma. Other pharmacological agents to be discussed will include antibody drug conjugates and novel anti-B-cell antibodies such as that targeting CD32b. Finally, CAR T-cells appear to have significant activity in high grade B-cell lymphomas although toxicities are significant and delay in making an autologous product can lead to problems in delivery.
This meeting is one in a series to be held in the UK during 2017 – 2018.

The programme was designed by the Chairs with an Expert Panel’s opinion and organised by Hartley Taylor Ltd. Sponsors have had no input into the agenda or choice of speakers

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