



**Transplants and T Cells:
New Solutions for
Old Problems?**

Tuesday 25th September 2018

**Crowne Plaza Hotel City Centre
Wollaton Street, Nottingham NG1 5RH**



Welcome

Welcome to Nottingham!

The field of immunotherapy in cancer treatments has been accelerating and gaining increased public awareness over recent years since it was designated the ‘Science Breakthrough of the Year’ in 2013. A number of different types of immunotherapy treatments are now in use, with more yet to come. Earlier this month we have seen the UK become the first country in Europe to approve the ‘game-changing’ CAR-T cells for children and young adults with ALL, and clearly these novel therapies are moving from bench to bedside, changing the treatment landscape for a number of malignancies. As haematologists, however, we can boast that immunotherapy is not in fact ‘new’ as we have been utilising it for over 60 years in the form of allogeneic haemopoietic stem cell transplantation, which was pioneered in 1957 by the Nobel prize-winning E. Donall Thomas, fondly considered the father of stem cell transplantation. Although often considered as a ‘blunt weapon’, its efficacy as a curative treatment for many haematological malignancies has been proven. HCT has provided a model of immunotherapy, offering invaluable information about the sensitivity of such malignancies to ‘graft versus leukaemia’ effects and revealing targets for immunotherapy. Furthermore, the field of HCT has also highlighted the potential negative consequences of immune attack which may damage other organs of the body, such as occurs in graft versus host disease.

Today’s meeting brings together an eminent panel of speakers who have great experience in using a variety of immune based therapies in a number of different clinical scenarios and we look forward to a very interactive and enjoyable educational day.

Dr Jenny Byrne
Organiser and Chair

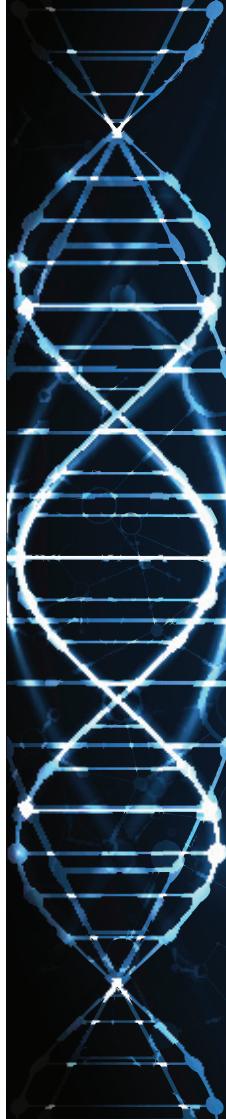
Organiser & Chairman



Dr Jenny Byrne
Senior Lecturer in Haematology
Nottingham University Hospitals

Dr Jenny Byrne studied Medicine at Bristol University, graduating with Honours in 1986. She trained in Haematology at the Royal Free Hospital and in Nottingham and was appointed as a Senior Lecturer in Haematology in 1999 and is based at the Centre for Clinical Haematology at Nottingham University Hospitals Trust. She has special interests in chronic myeloid leukaemia and haemopoietic stem cell transplantation.

She acts as the Principal Investigator and Co-investigator in a number of NCRI and commercial research trials in CML and is a member of the NCRI CML Working Party. She is also currently the President of the British Society for Blood and Marrow Transplantation.

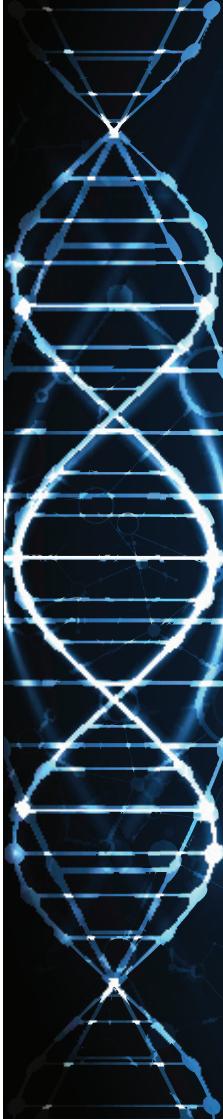




Programme

Chair: Dr Jenny Byrne (*Nottingham University Hospital*)

09.30	<i>Arrival and registration</i>	
09.55	Introduction and keypad voting	Dr Jenny Byrne <i>Nottingham University Hospital</i>
10.00	Transplant for autoimmune diseases	Professor John Snowden <i>Sheffield Teaching Hospitals</i>
10.35	Update on allografts for aplastic anaemia	Dr Victoria Potter <i>King's College Hospital</i>
11.10	<i>Coffee</i>	
11.30	Modern therapies for GvHD	Dr Rohini Radia <i>Nottingham University Hospital</i>
12.00	Improving quality of life for patients with GvHD	Dr Arun Alfred <i>Rotherham District General Hospital</i>
12.30	Immunomodulation - the science	Dr James Griffin <i>University Hospitals Bristol</i>
13.00	<i>Lunch</i>	



Parallel Session:

Chairs: Dr Jenny Byrne & Dr Rohini Radia
Nottingham University Hospital

- 13.45 Post transplant lymphoproliferative disorders
Dr James Griffin, *University Hospitals Bristol*
- 14.15 Prophylactic DLI in myeloid malignancy
Dr Victoria Potter, *King's College Hospital*
- 14.45 CAR T cell set up and patient selection
Dr Reuben Benjamin, *King's College Hospital*
- 15.15 *Coffee*
- 15.45 **The MDT**
Quick-fire patient dilemmas cases
10 mins case, 10 mins discussion
- 16.30 *Summary and take home points*

Parallel Session:

Chair: Lynne Watson
Nottingham University Hospital

Late effects post BMT
Suzanne Liebersbach, *Leeds Teaching Hospitals*

GvHD case studies
Lynne Watson, *Nottingham University Hospital*

Modern donor and patient care
Hayley Leonard, *Anthony Nolan*

MDT panel with cases from:
Dr Anna Tsoulkani
and Dr Gerrardo Errico
Nottingham City Hospital



Professor John Snowden



Professor John Snowden

**Consultant Haematologist & Director of Blood and Marrow Transplantation
Sheffield Teaching Hospitals & University of Sheffield**

Professor Snowden graduated from the University of Leeds in 1989 and trained in Internal Medicine and Haematology in the UK, New Zealand and Australia. In 2002, he was appointed as Consultant Haematologist & Director of Blood and Marrow Transplantation (BMT) in the Sheffield Teaching Hospitals NHS Foundation Trust.

In 2016, Professor Snowden was elected as Chair to the EBMT Autoimmune Disease Working Party (ADWP). He is also the current Chair and from 2012-16 was the Medical Director of JACIE, the organisation which oversees the accreditation of BMT programmes throughout Europe. He is the Secretary of the British Society for BMT (BSBMT) and has been Lead Clinician for the NICE Guidance in Haematological Cancers. He has published over 200 clinical and scientific articles, reviews and book chapters, and led on key national and international clinical guidelines (h-index 35).

Professor Snowden's principal academic areas of interest are:

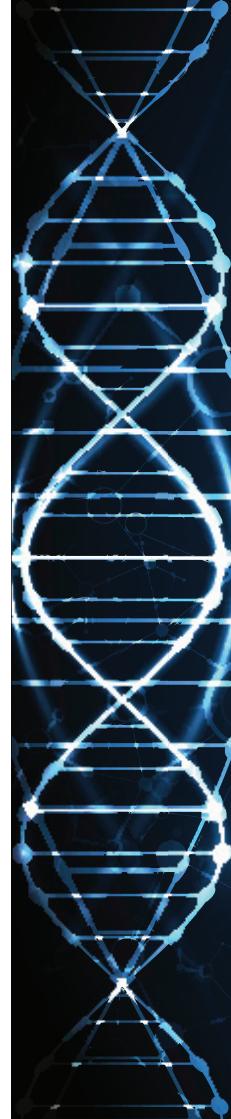
- Stem cell transplantation in autoimmune diseases
- Blood, marrow and cord-derived stem cells in cancer and non-malignant disorders
- Multiple myeloma, leukaemia and other haematological cancers - from cell biology to clinical trials to supportive care and survivorship research
- Physical and psychological late effects in survivors of cancer treatment and BMT
- Implementation science, 'quality' and health economics in haemato-oncology and BMT

Transplant for Autoimmune Diseases

The concept of using HSCT in autoimmune disorders originated in basic science and serendipitous clinical cases several decades ago. Over the last 20 years, HSCT has been progressively used as a specific treatment for patients with severe treatment resistant autoimmune disorders. In the vast majority of patients autologous HSCT has been performed, although occasionally allogeneic HSCT has been used, particularly in paediatrics. Autoimmune and inflammatory diseases are now the fastest growing indication for HSCT across Europe. This talk will focus on the background to HSCT in autoimmune diseases, the evolution of the evidence base and guidelines and discuss the mechanistic studies of immune reconstitution running alongside the clinical studies.

References:

- Snowden JA. Re-booting autoimmunity with autologous HSCT. *Blood* 2016;127:8-10
- Snowden JA, Badoglio M, Labopin M, Giebel S, McGrath E, Marjanovic Z, Burman J, Moore J, Rovira M, Wulffraat NM, Kazmi M, Greco R, Snarski E, Kozak T, Kirgizov K, Alexander T, Bader P, Saccardi R, Farge D; European Society for Blood and Marrow Transplantation (EBMT) Autoimmune Diseases Working Party (ADWP); EBMT Paediatric Working Party (PWP); Joint Accreditation Committee of the International Society for Cellular Therapy (ISCT); EBMT (JACIE). Evolution, trends, outcomes, and economics of hematopoietic stem cell transplantation in severe autoimmune diseases. *Blood Adv*. 2017 Dec 20;1(27):2742-2755.





Dr Victoria Potter

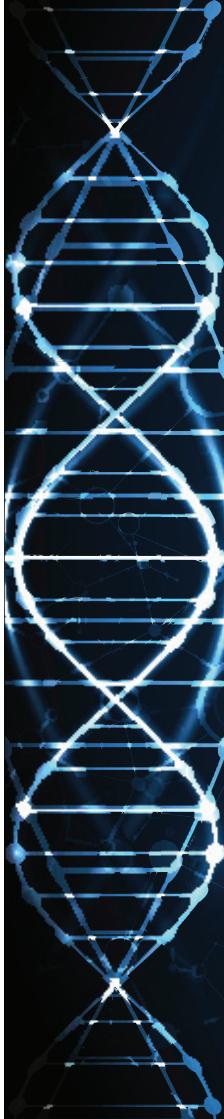


Dr Victoria Potter
Consultant Haematologist
King's College Hospital

Dr Victoria Potter is a Consultant Haematologist specialising in stem cell transplantation at King's College Hospital, London. After graduating from the University of Sydney she completed early post-graduate and specialty training in haematology in Sydney, Australia, working at Westmead, Prince of Wales and St Vincent's Hospitals. In 2010 she moved to London to take up a clinical fellowship position at King's before accepting a consultant position in myeloid malignancies and transplantation. During this time she participated in the visiting physicians programme at Fred Hutchinson Cancer Centre Seattle. In November 2017, Victoria was appointed BMT Director at King's College Hospital. She is a member of the CMWP of the EBMT and is committed to the development of clinical trials in transplantation. Her research interests focus on the use of DLI for the prevention of relapse post-transplant.

Update on Allografts for Aplastic Anaemia

Acquired severe aplastic anaemia is a rare and potentially fatal disease, which is characterized by hypocellular bone marrow and pancytopenia. The major signs and symptoms are severe infections, bleeding, and exhaustion. Transplantation for severe aplastic anaemia is widely recommended as first line therapy for children and young adults with matched sibling donors. Unrelated donor transplantation is generally recommended as second line therapy after failure of immunosuppressive therapy. In recent years improvements in conditioning have led to decreased rates of graft versus host disease and improved outcomes for patients requiring transplants for aplastic anaemia. GVHD remains a challenge and optimal methods to prevent this involve selection of graft source (bone marrow/peripheral blood) or serotherapy (ATG or Alemtuzumab). Older patients with aplastic anaemia who fail first line immunosuppression are a particularly difficult group as decisions to proceed to transplant may be compromised by ongoing infection and co-morbidities. This talk will review recent results and guidelines for transplantation in aplastic anaemia as well as controversies in regard to prevention of GVHD and transplantation for older patients.





Dr Rohini Radia



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 a Consultant Haematologist specialising in BMT and myeloid disorders with an interest in GVHD and MDS.

Dr Arun Alfred



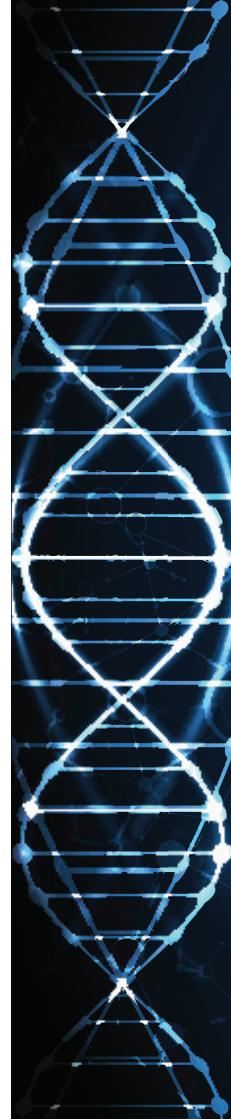
Dr Arun Alfred

**Consultant Haematologist and Director of ECP Unit
Rotherham NHS Foundation Trust**

Dr Arun Alfred is Consultant Haematologist and Director of the ECP Unit based at The Rotherham NHS Foundation Trust, South Yorkshire, UK. His team provide a regional photopheresis service for the treatment of GvHD. Working closely with the referring centers the team are actively involved in managing patients with GvHD, treating both adult and paediatric patients. The unit has a particular research interest in understanding the mechanisms of action of ECP.

Improving quality of life for patients with GvHD

Haematopoietic stem cell transplantation offers a potentially curative option for treatment of haematopoietic malignancies but is also associated with morbidity which affects quality of life (QoL). GvHD following HSCT causes functional impairment and prolonged duration of immunosuppression with a negative impact on QoL and survival (Pidala J, et al. 2009) QoL is an essential measure in the patients' and physicians' evaluation of treatment outcome and should be subjected to the same degree of rigorous study as other relevant treatment outcomes. In this presentation Dr Alfred will be discussing health related QoL measurements post HSCT and their relationship to GvHD with a particular focus on QoL measurements in ECP treated patients.





Dr James Griffin



Dr James Griffin
Consultant Haematologist
University Hospitals Bristol

Dr Griffin is a Consultant Haematologist working for NHS Blood and Transplant as the Clinical Director Therapeutics covering Apheresis, Stem Cell and Immunotherapy Laboratories, British Bone Marrow Registry, UK Cord Blood Bank and UK Tissue procurement and delivery. Working as part of the team at University Hospitals Bristol NHS Foundation Trust, he specialises in myeloma and stem cell transplantation and is the lead for the autologous transplant program. Dr Griffin completed his PhD in adoptive immunotherapy at UCL which highlights his longstanding interest in the immune system starting with a BSc in cellular and molecular pathology.

Immunomodulation - The Science

The immune system is a fundamental component of the bodies response to potentially cancerous cells as well as infection. Immune cells are able to clear malignancy, either by being boosted by drugs impacting immune checkpoints or through genetically modified cells. For much longer we have utilised the immune system through bone marrow transplantation, the graft versus leukaemia effect is well established and is required following reduced intensity transplantation. The potentially life-threatening complication of graft versus host disease limits the potential overall benefit of transplantation. In this session we will review the basics science behind the immune response and the development of graft versus host disease and then how we are able to suppress or modulate the immune system either in prophylaxis or treatment.

Dr Chris Fox



Dr Chris Fox
Consultant Haematologist
Nottingham University Hospital

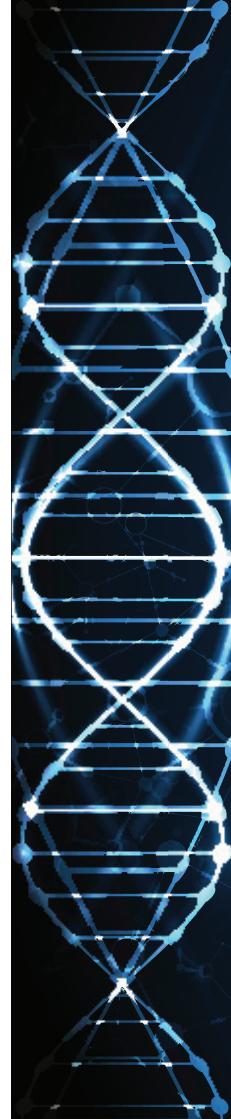
Chris Fox is a Consultant Haematologist at Nottingham University Hospitals where he is the Lymphoma MDT Chair and CLL research lead. Undergraduate medical education was at the University of Leicester where he was awarded the Charles Lawson MBChB prize. He received a PhD from the University of Birmingham for research on EBV lymphomagenesis.

He is a core member of the NCRI Lymphoma clinical studies group and high-grade lymphoma subgroup. He co-leads the UK CNS lymphoma working group and is an active member of the T cell working group. He is also a core member of the NCRI CLL subgroup.

His clinical research interests include rare and challenging lymphomas such as CNS lymphoma, T cell lymphoma and PTLD. He has led and co-authored research papers in peer-reviewed journals including Blood, Haematologica, Lancet Haematology, British Journal of Haematology, Clinical Infectious Diseases, and Bone Marrow Transplantation.

Post Transplant Lymphoproliferative Disorders

Dr Fox will discuss EBV biology and immune-responses. Definitions, risk and kinetics of EBV reactivation post-alloSCT will be addressed. The role of Rituximab and cellular therapies will be reviewed together with a descriptive UK real-world experience of PTLD and a summary of published guidelines in this area.





Prophylactic DLI in Myeloid Malignancy

Dr Victoria Potter
Consultant Haematologist
King's College Hospital

Allogeneic stem cell transplantation remains the only cure for the majority of myeloid malignancies. The use of reduced intensity transplantation has widened the applicability of this therapeutic intervention to those of older age and with comorbidities. T-cell depletion has the potential to further improve outcomes and quality of life by decreasing GvHD. In this context relapse is the major cause of treatment failure. In recent years increasing numbers of patients have received donor lymphocyte infusions (DLI) as a strategy to improve the graft versus leukaemia effect and decrease rates of relapse after T-cell depleted transplantation. Despite this widely adopted practice limited high quality evidence exists to determine either the efficacy or best schedule in which to deliver this approach. This presentation will summarise the current evidence for DLI, prospective trials and consider strategies to be used in the future.

Dr Reuben Benjamin

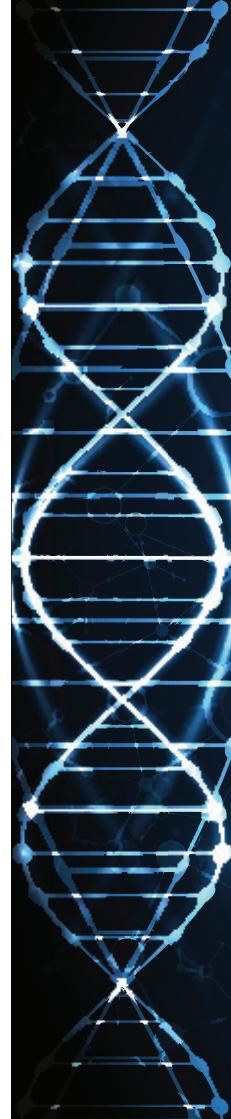


Dr Reuben Benjamin
Consultant Haematologist
King's College Hospital

Reuben Benjamin is a haematologist with an interest in multiple myeloma, stem cell transplantation and cell therapy. He completed his haematology training at University College Hospital, London and then spent a period at Memorial Sloan Kettering Cancer Center, NY undertaking research in CAR-T cell therapy for leukaemia and myeloma. Since 2014 he has been based at King's College Hospital, London where he leads the plasma cell disorder service and CAR-T cell programme. He is currently leading the first allogeneic off-the-shelf CAR-T cell study for relapsed adult B-ALL (CALM Trial).

CAR T Cell Set-up and Patient Selection

Chimeric antigen receptor (CAR) T cells are an exciting new form of therapy that has shown great promise in B-acute lymphoblastic leukaemia, lymphoma and myeloma. The first reports in 2014 of >90% complete response rates in patients with relapsed B-ALL who received CD19 targeted CAR-T cells has led to an explosion of interest in this technology. Subsequent trials in lymphomas and more recently myeloma have confirmed the early promise of this novel therapy. Whilst the response rates to CAR-T cell therapy are impressively high the toxicity has also been considerable. FDA approval in 2017 of Kymriah and Yescarta and more recently by EMA has created an urgent need for centres offering this therapy to develop the expertise for appropriate patient selection and managing the side effects of this novel therapy. In this talk I will briefly summarise some of the key trial CAR-T clinical trial results in ALL, lymphoma and myeloma and discuss the hospital setup required to deliver such a therapy safely.





Suzanne Liebersbach, Lynne Watson and Hayley Leonard

Suzanne Liebersbach

Bone Marrow Transplant Clinical Nurse Specialist, Leeds Teaching Hospitals

Suzanne qualified as a nurse in 1995, since then she has worked mainly in the Oncology and Haematology setting. She was previously a ward manager for 10 years caring for allogeneic bone marrow transplant and haematology patients.

She is currently a nurse specialist in allogeneic bone marrow transplant and runs a nurse led long term follow up/late effects service.

Lynne Watson

Anthony Nolan Post Transplant Clinical Nurse Specialist, Nottingham University Hospital

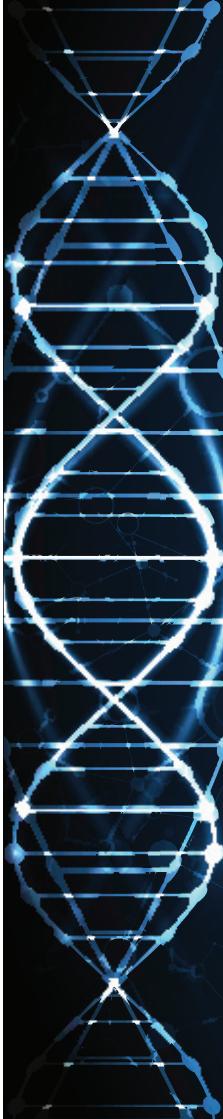
Lynne qualified as a registered nurse in 1992. She has worked within haematology since then. She was a Bone Marrow Transplant Coordinator for 17 years but has recently changed roles and become an Anthony Nolan Post-Transplant Clinical Nurse Specialist. Her special areas of interest are late effects and graft versus host disease.

Hayley Leonard

Clinical Nurse Specialist, Anthony Nolan

Hayley worked at The Royal Marsden for 14 years on the transplant unit. In the later years she was a transplant co-ordinator and then the Anthony Nolan Post-transplant CNS. Currently she is the lead nurse with Anthony Nolan leading the CNS funded programme, developing roles, services and working with other CNS's and health care professionals in improving patient experience post-transplant. She feels privileged to work with transplant patients and families and have a job that she loves.

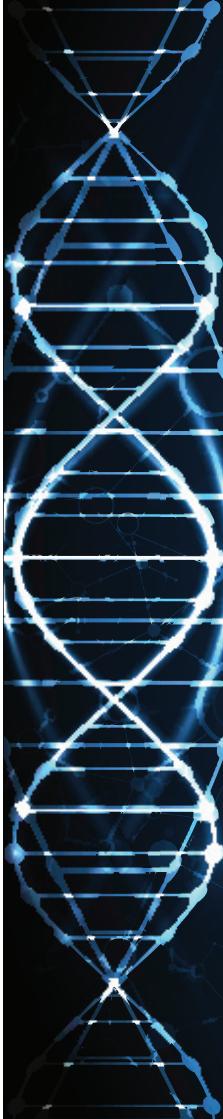
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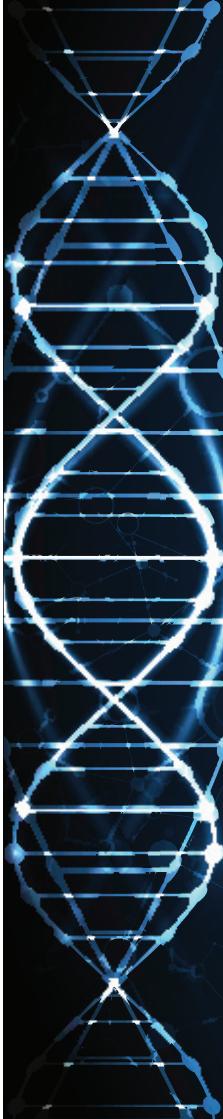
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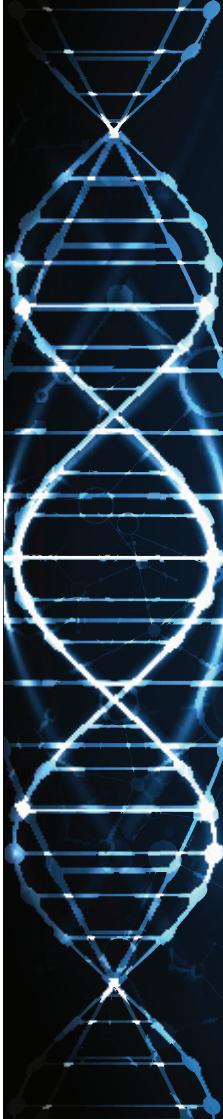
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This meeting is one in a series to be held in the UK during 2017 – 2018.

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

Sponsorship has been provided by Mallinckrodt.





Hartley Taylor Ltd
Caledonian House
Tatton Street
Knutsford
Cheshire
WA16 6AG

Tel: 01565 621967
Email: office@hartleytaylor.co.uk