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Royal Free Private Patients
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Haematology and Bone Marrow Transplant Services



Introduction to our service and key personnel

The Royal Free London NHS Foundation Trust is a busy teaching hospital and tertiary referral centre for haematology, hepatology and nephrology, regularly seeing 700,000 patients a year and employing over 4,600 staff. Specialist services include liver, kidney and bone marrow transplantation, infectious diseases, clinical immunology, amyloidosis and scleroderma. There is a major accident and emergency service.

Haematology at the Royal Free provides a comprehensive range of diagnostic and treatment services, with a particular focus on haematological malignancies. All of our haematology clinicians are actively engaged in research and have national and international reputations. In addition to providing well-established treatments within a comfortable, but highly professional, setting, we offer a wide range of clinical trials for patients who may benefit from novel therapies. Our non-clinical scientists run routine facilities for diagnosis and monitoring, as well as being involved in academic research, producing output with an international reputation among the scientific community.

Contact

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Our Clinical Consultants



Ronjon Chakraverty
MB BS PhD
Area of specialist clinical practice:
Bone Marrow Transplant (BMT)
Research Interest:
Graft versus malignancy in BMT,
Dendritic cell biology



Kate Cwynarski
MB BS PhD
Area of specialist clinical practice:
Lymphoma – particularly CNS
lymphoma, T-cell lymphoma and HIV-
related lymphoma
Research Interest:
Lymphoma



Adele Fielding
MB BS PhD
Area of specialist clinical practice:
Acute Lymphoblastic Leukaemia (ALL),
BMT
Research Interest:
Replicating oncolytic virus therapy, ALL



Derralynn Hughes
BM BCh DPhil
Area of specialist clinical practice:
Lysosomal Storage Disorders, Myeloma
Research Interest:
Macrophage biology, Lysosomal Storage
Disorders



Panagiotis Kottaridis
MB BS MSc PhD
Area of specialist clinical practice:
Acute Myeloid Leukaemia, BMT, Late
effects of BMT
Research Interest:
Acute Myeloid Leukaemia



Stephen Mackinnon
MD
Area of specialist clinical practice:
BMT, Leukaemia, Lymphoma, Myeloma
Research Interest:
Adoptive immunotherapy



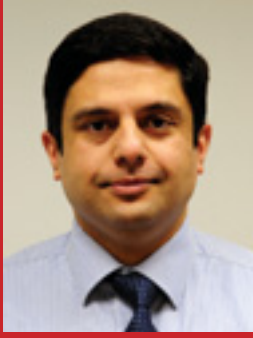
Christopher McNamara
MD
Area of specialist clinical practice:
Lymphoma, Diagnostic services
Research Interest:
Lymphoma



Atul Mehta
MD
Area of specialist clinical practice:
Lysosomal Storage Disorders, Myeloma
Research Interest:
Lysosomal Storage Disorders



Archibald Prentice
MD
Area of specialist clinical practice:
CLL, Lymphoma
Research Interest:
CLL



Dr Ashu Wechalekar
MB BS PhD
Area of specialist clinical practice:
Amyloidosis, Myeloma
Research Interest:
Amyloidosis

Our non-clinical scientific consultants



Elisabeth Nacheva
MD PhD
Service Provision:
Head of Cytogenetics
Research Interest:
Cytogenetics of leukaemia, copy
number variations



Stephen Hart
PhD
Area of specialist clinical practice:
Head of Molecular Diagnostics
Research Interests:
Genetic lesions in leukaemia



RG Wickremasinghe
PhD
Area of specialist clinical practice:
Specialist tests in CLL
Research Interests:
CLL



Mark Lowdell
PhD
Area of specialist clinical practice:
Director of Laboratory of Cellular
Therapeutics
Research Interests:
Natural killer cells in leukaemia



Ms Fran Penny
Service Provision:
Lymphoma Clinical Nurse Specialist
Lead Haematology CNS

Our Clinical Nurse Specialists



Sarah Grace
Service Provision:
Bone Marrow Transplantation
Clinical Nurse Specialist



Shari Denovan
Service Provision:
Bone Marrow Transplantation
Clinical Nurse Specialist



Flora Dangwa
Service Provision:
Myeloma Clinical Nurse Specialist



Clara Patmore
Service Provision:
Leukaemia Clinical Nurse Specialist



Linda Richfield
Service Provision:
Lysosomal Storage Disorders

Diagnostic Services and Laboratory Sciences



Lead clinician – Dr Christopher McNamara

The Royal Free Haematology Laboratory is a CPA-accredited, multidisciplinary service which provides a comprehensive range of tests, aimed particularly at diagnosing and monitoring the patient with suspected or established haematological malignancy. All laboratories are led by consultants – experienced individuals with a specific interest in laboratory diagnostics.

Flow Cytometry

Lead – Dr Christopher McNamara

State-of-the-art equipment and well-trained staff produce an integrated report with a 24-hour turnaround time. The unit is actively involved in national trials, including the MRC AML16 and AML17 studies, using flow cytometry to detect minimal residual disease.



Cytogenetics

Lead – Dr Elisabeth Nacheva

The cytogenetics laboratory provides a diagnostic service for malignant haematological disorders and carries out research in leukaemia cytogenetics. Building on a track record of innovative research, the laboratory offers an extensive range of cytogenetic tests, from G-banded metaphase analysis through a wide range of FISH tests to the latest in high-resolution genomic array screening, all of them on site, for all haematological malignancies. Analysis of bone marrow chimerism in gender mismatched bone marrow transplants is also carried out.



Molecular Haematology

Lead – Dr Stephen Hart

Specialised molecular tests for diagnosis, prognostication and disease-monitoring are offered. Results are interfaced with other laboratory investigations, ensuring a high-quality, integrated report. Tests performed:

Diagnosis: BCR-ABL, PML-RAR, JAK2V617F, c-KITD816V, T- and B-cell clonality.

Prognosis: VH mutation analysis, FLT3 ITD, NPM1 mutation.

Disease monitoring: BCR-ALB, PML-RAR.

Results are usually available within two weeks.



Laboratory of Cellular Therapeutics

Lead – Dr Mark Lowdell

An MHRA, JACIE, HTA-accredited Good Manufacturing Practice (GMP) laboratory for processing of cellular products to be administered to patients for both routine clinical use and clinical trials.

Research in laboratory sciences at the Royal Free

We are constantly developing new tests and better ways to deliver standard tests. In addition, all of the laboratory heads are actively involved in academic work. Some of their output is detailed below by their scientific publications.



Representative scholarly publications in laboratory sciences involving work done by our doctors

Genomic profile of chronic myelogenous leukemia: Imbalances associated with disease progression.

Brazma D, Grace C, Howard J, Melo JV, Holyoke T, Apperley JF, Nacheva EP. Genes Chromosomes Cancer. 2007 Nov;46(11):1039–50.

Tumor-primed human natural killer cells lyse NK-resistant tumor targets: evidence of a two-stage process in resting NK cell activation.

North J, Bakhsh I, Marden C, Pittman H, Addison E, Navarrete C, Anderson R, Lowdell MW. J Immunol. 2007 Jan 1;178(1):85–94.

The sesquiterpene lactone parthenolide induces selective apoptosis of B-chronic lymphocytic leukemia cells in vitro.

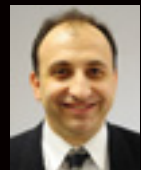
Steele AJ, Jones DT, Ganeshaguru K, Duke VM, Yogashangary BC, North JM, Lowdell MW, Kottaridis PD, Mehta AB, Prentice AG, Hoffbrand AV, Wickremasinghe RG. Leukemia. 2006 Jun;20(6):1073–9.

Core binding factor genes and human leukemia.

Hart SM, Foroni L. Haematologica. 2002 Dec;87(12):1307–23.

Leukaemia Service

The leukaemia service offers rapid diagnosis, immediate inpatient care and a comprehensive outpatient service, with specialist clinics. The service is managed jointly by several clinicians, with specialist interests in different leukaemia subtypes. Close liaison with the bone marrow transplant service is essential for an efficient leukaemia service. Several of the leukaemia clinicians are also involved in providing the BMT service.



Acute Myeloid Leukaemia and Myelodysplasia

Lead clinician – Dr Panos Kottaridis

Clinical nurse specialist – Ms Clara Patmore

A full range of day-case and in-patient treatments is available from simple oral chemotherapy to allogeneic stem cell transplantation. Novel therapies, including phase I/II studies (ie natural killer cell immunotherapy, WT1 vaccination), are an important part of our programme.



Chronic Myeloid Leukaemia and Myeloproliferative Disorders

Lead clinicians

– Dr Panos Kottaridis

– Dr Chris McNamara

A full range of services is provided, from simple oral chemotherapy and targeted therapy to allogeneic transplantation in patients with advanced disease.



Acute Lymphoblastic Leukaemia

Lead clinician – Dr Adele Fielding

Clinical nurse specialist – Ms Clara Patmore

The Royal Free has a long history of leading laboratory-monitoring and clinical practice and in national adult acute lymphoblastic leukaemia studies and trials. The UK adult ALL Minimal Residual Disease laboratory is located here and currently accepts samples from all over the UK for patient-specific Ig/TCR receptor rearrangement analysis. The laboratory is quality assured by participation in a Europe-wide study group.



Chronic Lymphocytic Leukaemia

Lead clinician – Dr Archie Prentice

Consultant – Dr Kate Cwynarski

The Royal Free has a long tradition of clinical practice allied to laboratory research in the field of chronic lymphocytic leukaemia, the commonest leukaemia in western countries. In addition to the routine diagnostic laboratory tests used to detect this disease, we provide a full range of more detailed analysis. These include immunophenotyping of surface antigen markers by flow cytometry, molecular analysis of B-cell receptor status and immunohistochemistry of tissue biopsies, led by Professor Peter Isaacson. Cytogenetic and FISH analysis of DNA and proteomic studies of the leukaemic cells' responses to therapy has led to publications in leading journals such as Blood and Leukaemia.

Research in Leukaemia at the Royal Free

Dr Kottaridis's research focuses on prognostic markers in AML. He is one of the clinical co-ordinators in the current UK National Cancer Research Institute (NCRI) AML17 protocol, for the treatment of patients with AML below the age of 60. Dr Kottaridis is a member of the National Cancer Research Institute (NCRI) AML subgroup.

Dr Fielding chairs the NCRI adult ALL subgroup and is chief investigator of the forthcoming national adult ALL randomised controlled trial, UKALL14. She also runs a research group with an interest in ALL.

Dr Prentice is actively involved in laboratory research into CLL and is a contributor to the laboratory led by Dr Wickremasinghe. Several clinical trials (ranging from phase 1 to phase 3) are available for patients with leukaemia.

Representative scholarly publications in leukaemia involving work done by our doctors

Outcome of 609 adults after relapse of acute lymphoblastic leukemia (ALL); an MRC UKALL12/ECOG 2993 study. **Fielding AK**, Richards SM, Chopra R, Lazarus HM, Litzow MR, Buck G, Durrant JJ, Luger SM, Marks DI, Franklin IM, McMillan AK, Tallman MS, Rowe JM, Goldstone AH; Medical Research Council of the United Kingdom Adult ALL Working Party; Eastern Cooperative Oncology Group. *Blood*. 2007 Feb 1;109(3):944–50.

p53-mediated apoptosis of CLL cells: evidence for a transcription-independent mechanism. Steele AJ, **Prentice AG**, Hoffbrand AV, Yogashangary BC, **Hart SM**, **Nacheva EP**, Howard-Reeves JD, Duke VM, **Kottaridis PD**, **Cwynarski K**, Vassilev LT, **Wickremasinghe RG**. *Blood*. 2008 Nov 1;112(9):3827–34.

Studies of FLT3 mutations in paired presentation and relapse samples from patients with acute myeloid leukemia: implications for the role of FLT3 mutations in leukemogenesis, minimal residual disease detection, and possible therapy with FLT3 inhibitors. **Kottaridis PD**, Gale RE, Langabeer SE, Frew ME, Bowen DT, Linch DC. *Blood*. 2002 Oct 1;100(7):2393–8.

The JAK2(V617F) tyrosine kinase mutation identifies clinically latent myeloproliferative disorders in patients presenting with hepatic or portal vein thrombosis. Goulding C, Uttenthal B, Foroni L, Duke V, Traore A, **Kottaridis P**, Hoffbrand AV, Patch D, **McNamara C**. *Int J Lab Hematol*. 2008.

Lymphoma Service



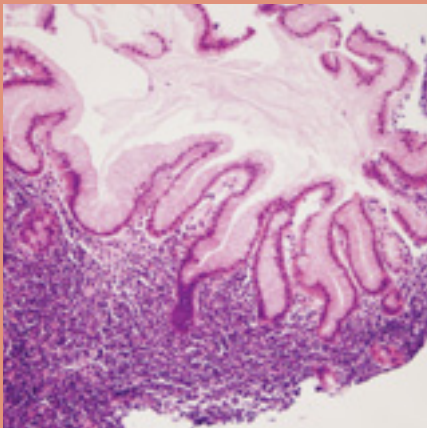
- Lead clinicians**
- Dr Kate Cwynarski
 - Dr Christopher McNamara
- Other consultant staff**
- Dr Archie Prentice
 - Dr Derralynn Hughes
- Clinical nurse specialist**
- Ms Fran Penny

Accurate diagnosis of lymphoproliferative conditions is the key to proper management. At the Royal Free, lymphoma diagnosis is truly world class. Dr Peter Isaacson is an international expert and has contributed substantially to modern-day classification of lymphoma. There is a weekly lymphoma multidisciplinary clinicopathology meeting, at which all therapeutic decisions are discussed by a team of experienced clinicians, after careful review of all diagnostic material and scans.

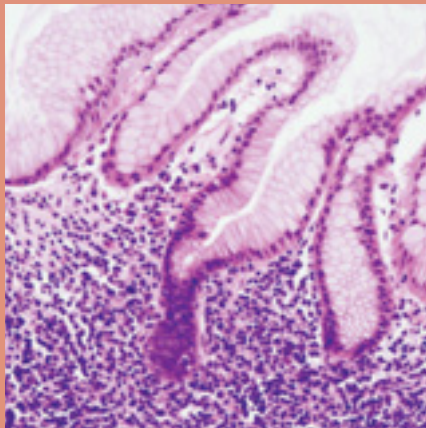
Other lymphoma expertise includes primary CNS lymphoma (Dr Cwynarski), post-transplant lymphoproliferative disorders (Dr Cwynarski) and adult T-cell leukaemia/lymphoma (Dr Cwynarski). The Royal Free has the facilities to administer radioimmunotherapy (Dr McNamara) and is the only centre in the North London Cancer network to offer this treatment modality. Our clinical nurse specialist provides a clinical liaison among patient, doctor and other professionals and is involved in education, research, counselling and the co-ordination of services.

Research in Lymphoma at the Royal Free:

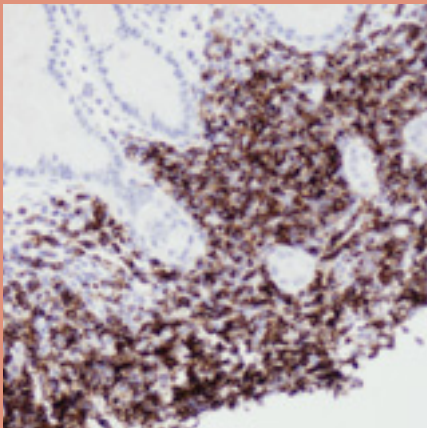
Immunotherapeutic strategies, such as anti-CD25 antibody targeted therapy, are being explored in clinical trials (Dr McNamara). The role of positron emission tomography (PET) scans is being evaluated prospectively in the management of lymphomas, particularly in risk-adapted approaches and in the transplantation setting. The lymphoma service is actively engaged in clinical trials and aims to offer the opportunity to participate in a clinical trial to as many patients as possible.



Gastric MALT lymphoma, H&E, x100



Gastric MALT lymphoma, H&E, x200



Gastric MALT lymphoma, CD20, x400

Scholarly publications in lymphoma involving work done by our doctors

Autologous stem-cell transplantation in patients with HIV-related lymphoma. Balsalobre P, Diez-Martin JL, Re A, Michieli M, Ribera JM, Canals C, Rosselet A, Conde E, Varela R, **Cwynarski K**, Gabriel I, Genet P, Guillem G, Allione B, Ferrant A, Biron P, Espigado I, Serrano D, Sureda A. *J Clin Oncol.* 2009 May 1;27(13):2192–8.

British HIV Association guidelines for HIV-associated malignancies 2008. Bower M, Collins S, Cottrill C, **Cwynarski K**, Montoto S, Nelson M, Nwokolo N, Powles T, Stebbing J, Wales N, Webb A; AIDS Malignancy Subcommittee. *HIV Med.* 2008 Jul;9(6):336–88.

A Phase I Clinical Trial of CHT-25 a 131I-Labeled Chimeric Anti-CD25 Antibody Showing Efficacy in Patients with Refractory Lymphoma. Dancey G, Violet J, Malaroda A, Green AJ, Sharma SK, Francis R, Othman S, Parker S, Buscombe J, Griffin N, Chan PS, Malhotra A, Woodward N, Ramsay A, Ross P, Lister TA, Amlot P, Begent R, **McNamara C**.

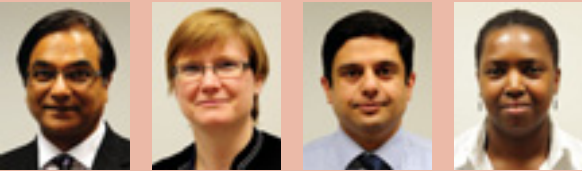
Patients undergoing high dose chemotherapy for primary CNS lymphoma should receive prophylactic thiamine to prevent Wernike's encephalopathy. Richardson S, Malhotra A, Cwynarski K, Hughes D, Prentice A, **McNamara C**.

Indolent CD8-positive lymphoid proliferation on the face: part of the spectrum of primary cutaneous small-/medium-sized pleomorphic T-cell lymphoma or a distinct entity? Suchak R, O'Connor S, **McNamara C**, Robson A.

Hodgkin transformation of newly diagnosed small lymphocytic lymphoma in the gastrointestinal tract. Roddie C, Cwynarski K, Craig C, Diss T, **McNamara C**.

Primary follicular lymphoma of the testis and epididymis in adults. Bacon CM, Ye H, Diss TC, **McNamara C**, Kueck B, Hasserjian RP, Rohatiner AZ, Ferry J, Du MQ, Dogan A.

Myeloma Service



Lead clinician – Dr Atul Mehta
Other consultants – Dr Derralynn Hughes
– Dr Ashu Wechalekar
Clinical nurse specialist – Ms Flora Dangwa
(funded by Myeloma UK)

The Royal Free myeloma clinic is one of the largest in the UK. The consultant staff are committed to providing the latest evidence-based treatments. Our service is closely integrated with the bone marrow transplant service and the National Amyloid Unit.

Patients are also seen as in-patients and on the haematology day ward, for chemotherapy and blood transfusion. All patients are discussed at myeloma team meetings held immediately prior to the clinic. Myeloma patients are also discussed at weekly transplant meetings.

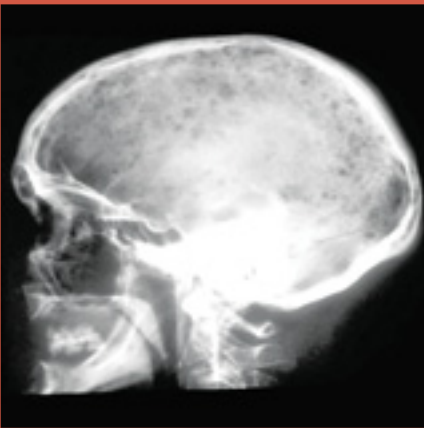
Research in myeloma at the Royal Free

Research is an important part of our work, and patients are invited to participate in clinical trials, where this is of benefit to them.

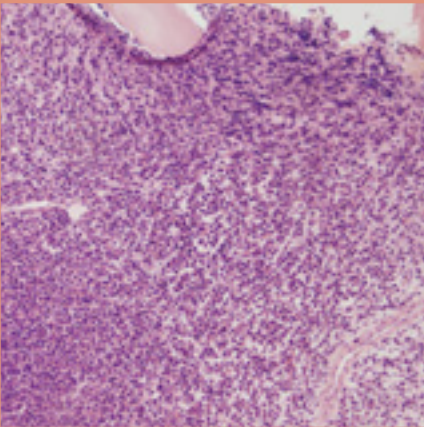
Representative scholarly publications in myeloma involving work done by our doctors

Multiple myeloma: causes and consequences of delay in diagnosis. Kariyawasan CC, **Hughes DA**, Jayatilake MM, **Mehta AB**. QJM. 2007 Oct;100(10):635–40.

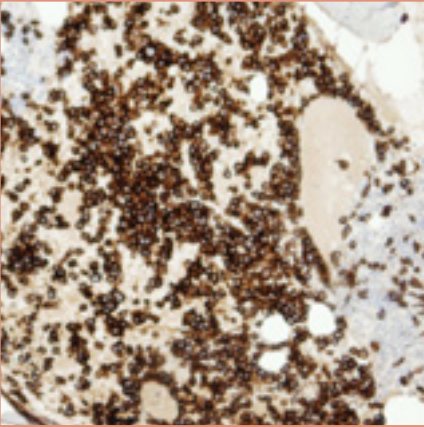
Cardiac amyloidosis, a monoclonal gammopathy and a potentially misleading mutation. **Wechalekar AD**, Offer M, Gillmore JD, Hawkins PN, Lachmann HJ. Nat Clin Pract Cardiovasc Med. 2009 Feb;6(2):128–33.



Skull Xray showing lytic lesions in a patient with myeloma



Bone marrow trephine demonstrating plasma cell myeloma, H&E, x100



Bone marrow trephine, CD138, x200

Lysosomal Storage Disorders



Lead clinicians – Dr Atul Mehta
Other consultants – Dr Derralynn Hughes
Lead nurse – Linda Richfield

The Lysosomal Storage Disorders Unit (LSDU) has been an important part of the Haematology Department since 1996. It is one of only six nationally designated units for the care of patients with rare inherited errors of metabolism. Patients attend from all over the UK. Our services are fully described on our Web site: www.royalfree.nhs.uk/LSDU

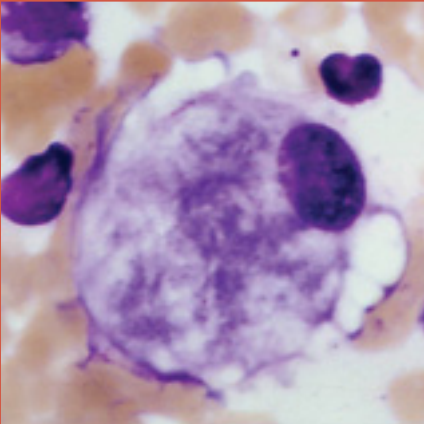
We work closely with the other designated UK units, in particular with Addenbrooke's Hospital and with two other units in London at Great Ormond Street Hospital for Children and the National Hospital for Neurology & Neurosurgery, Queen Square. We provide diagnostic, assessment, clinical genetics counselling and clinical treatment services. Enzyme-replacement therapy and other treatments are administered in the patient's home – and we work very closely with homecare service providers.

The funding from the service comes from the NCG (National Commissioning Group) – a central part of the National Health Service, Specialist Commissioning Group. Our service is closely integrated with nephrology, neurology, cardiology, radiology, ophthalmology and audiology. Patients have a range of assessments, with their treatment needs determined by a multidisciplinary team. We have an annual patient meeting and work closely with patient associations.

Research in Lysosomal Storage Disorders at the Royal Free

Research is central to our objective to improve understanding of and therapy for LSDs. We work with all of the pharmaceutical companies to evaluate and deliver new treatments, many of which are available in the UK only through our centre. We currently have six trials open for patients with LSDs.

We have an active laboratory research programme, headed by Dr Derralynn Hughes, and collaborate with other international centres. Our major work is with adult patients with Gaucher, Fabry and Pompe disease. We also assess and treat adult patients with mucopolysaccharidosis (MPS 1 and 2). We will be working closely with our local managers and with the National NCG management to extend our services further across the whole range of LSDs.



Bone marrow aspirate showing a Gaucher cell



Splenic nodules and Gaucheroma in type 1 Gaucher Disease

Representative scholarly publications in Lysosomal Storage Disorders involving work done by our doctors

Early therapeutic intervention in females with Fabry disease? **Hughes DA**. *Acta Paediatr Suppl.* 2008 Apr;97(457):41–7.

Patients with Gaucher disease living in England show a high prevalence of vitamin D insufficiency with correlation to osteodensitometry. Mikosch P, Milligan A, Pringle, Richfield L, Bruce R, Reed, Baker R, Rayto R, Holmes A, **Mehta A, Hughes DA**. *Mol Genet Metab.* 2009 Mar;96(3):113–20.

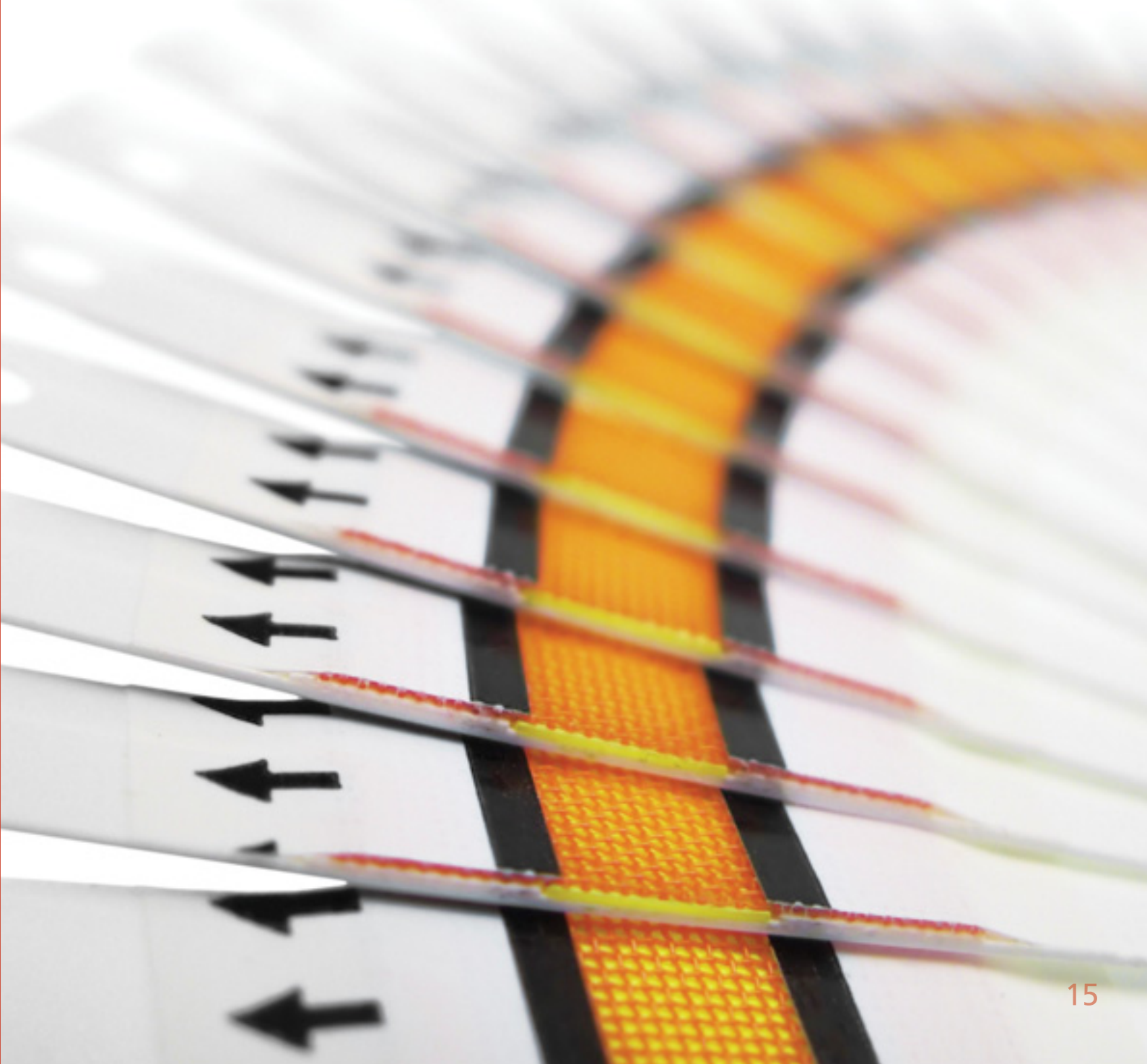
Effects of enzyme replacement therapy on the cardiomyopathy of Anderson-Fabry disease: a randomized, double-blind, placebo-controlled clinical trial of agalsidase-alfa. **DA Hughes**, P Elliott, J Shah2, J Zuckerman, G Coghlan, J Brookes, and **A Mehta**. *Heart.* 2008 Feb;94(2):153–8.

Gene Reviews: Gaucher Disease. Pastores GM and **Hughes DA**.

Mehta AB, Beck M, Elliott P, et al. Evidence of benefit of 5 years of enzyme replacement therapy with agalsidase alfa in patients with Fabry disease - a report from the Fabry Outcome Survey (FOS) *Lancet* 2009 374 1986 - 96.



Femoral involvement and Erlenmeyer Flask involvement in type 1 Gaucher Disease



The Bone Marrow transplant and Late-Effect Service



Programme director – Professor Stephen Mackinnon

Consultants
– Dr Ron Chakraverty
– Dr Adele Fielding
– Dr Panos Kottaridis

Transplant clinical Nurse specialists
– Ms Sarah Grace
– Ms Shari Denovan

The transplant programme has an international reputation for state-of-the-art facilities and some of the best survival statistics for patients with leukaemia and lymphoma. A strong research programme allows new life-saving therapies to be given at the Royal Free which are not available at other transplant centres worldwide. Much of the activity of the programme has been published in peer-reviewed scientific journals of high quality, reflecting the international profile of the service.

One of the main complications of transplant is graft-versus-host disease (GVHD), causing much of the morbidity and mortality associated with the treatment. We have developed a method of preventing this complication, resulting in improved survival statistics and a better quality of life for patients after transplant. GVHD is more common in those patients who are not of northern European descent, prevention of this complication is especially important in this patient group.

Older patients can also benefit from curative transplant procedures using reduced-intensity conditioning regimens which we developed and are now used internationally. Our reduced-intensity regimens allow many patients, previously considered incurable, to be transplanted and cured. The results for indolent lymphoma are particularly impressive, with 87% of patients being alive and disease-free. Even in patients with aggressive lymphoma, who have already failed an autologous transplant,

we can cure around 40–50%. Both these groups of patients were previously considered incurable.

Once patients with Hodgkin's disease relapse after chemotherapy and autologous transplant, they are generally thought to be incurable. Attempts had been made to cure these patients with allogeneic transplantation, but these were abandoned in the late 1980s, owing to the extremely high procedure-related mortalities of over 60%. We have developed a reduced-intensity transplant regimen which is generally accepted to produce the best results in the world. Our reduced-intensity conditioning regimen is associated with very low transplant-related mortality in this group of high-risk patients. The use of post-transplant immunotherapy to prevent and treat relapse has produced impressive survival results.

Representative scholarly publications in bone marrow transplantation involving work done by our doctors

Favorable long-term survival after reduced-intensity allogeneic transplantation for multiple-relapse aggressive non-Hodgkin's lymphoma. Thomson KJ, Morris EC, Bloor A, Cook G, Milligan D, Parker A, Clark F, Yung L, Linch DC, Chakraverty R, Peggs KS, **Mackinnon S**. *J Clin Oncol*. 2009 Jan 20;27(3):426–32.

Allogeneic stem-cell transplantation using a reduced-intensity conditioning regimen has the capacity to produce durable remissions and long-term disease-free survival in patients with high-risk acute myeloid leukemia and myelodysplasia.

Tauro S, Craddock C, Peggs K, Begum G, Mahendra P, Cook G, Marsh J, Milligan D, Goldstone A, Hunter A, Khwaja A, Chopra R, Littlewood T, Peniket A, Parker A, Jackson G, Hale G, Cook M, Russell N, **Mackinnon S**. *J Clin Oncol*. 2005 Dec 20;23(36):9387–93.

The role of antigen-presenting cells in triggering graft-versus-host disease and graft-versus-leukemia.

Chakraverty R, Sykes M. *Blood*. 2007 Jul 1;110(1):9–17.

An inflammatory checkpoint regulates recruitment of graft-versus-host reactive T-cells to peripheral tissues.

Chakraverty R, Côté D, Buchli J, Cotter P, Hsu R, Zhao G, Sachs T, Pitsillides CM, Bronson R, Means T, Lin C, Sykes M. *J Exp Med*. 2006 Aug 7;203(8):2021–31.

Cavernosal arterial insufficiency and metabolic syndrome probably represent a common pathology of endothelial dysfunction in recipients of high-dose therapy and stem-cell transplantation.

Chatterjee R, Palla K, **Kottaridis PD**. *J Clin Oncol*. 2004 Jun 1;22(11):2253–4.

Prospective outcome data on 267 unselected adult patients with Philadelphia chromosome-positive acute lymphoblastic leukemia confirms superiority of allogeneic transplantation over chemotherapy in the pre-imatinib era: results from the International ALL Trial MRC UKALLXII/ECOG2993.

Fielding AK, Rowe JM, Richards SM, Buck G, Moorman AV, Durrant JJ, Marks DI, McMillan AK, Litzow MR, Lazarus HM, Foroni L, Dewald G, Franklin IM, Luger SM, Paietta E, Wiernik PH, Tallman MS, Goldstone AH. *Blood*. 2009 May 7;113(19):4489–96.



Research in Bone Marrow Transplantation at the Royal Free

Both clinical research and bench research into the basic biology of graft-versus-host disease and the graft-versus-leukaemia effect (Dr Chakraverty's laboratory) are part of our programme.

CMV Immunotherapy

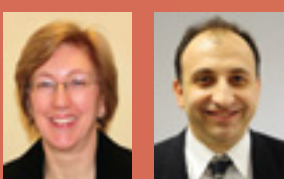
CMV is the commonest infection following transplant. Current antiviral therapies are toxic and can lead to excess mortality. We have developed a cellular therapy which adoptively transfers viral immunity from donor to patient. This is non-toxic and highly effective. Very few transplant centres in the world can offer this treatment – and we are a world leader in this field.

Targeted Radiotherapy

Many patients receive total body radiotherapy as part of the transplant treatment. The radiotherapy is given to kill any leukaemia/lymphoma. While this may be effective, the radiotherapy damages many normal organs, such as the heart, lungs and liver. We have developed a new type of radiotherapy for transplant patients. It is attached to a monoclonal antibody which specifically attaches to leukaemia/lymphoma cells, allowing a high tumour kill, yet sparing the normal tissues in the patient's body. We are one of only four centres in the world to offer trials of this treatment.



Peripheral blood stem cell collection



Late effects of chemotherapy/BMT Fertility service

Lead clinicians – Miss Melanie Davies
– Dr Panos Kottaridis

This is a unique clinic in the UK, seeing and advising patients about the possible gonadal toxic consequences of any given treatment approach. Fertility preservation and premature menopause are managed. The team collaborates with other physicians with similar experience in late effects, such as cardiologists, endocrinologists, dermatologists and ophthalmologists, offering a comprehensive late-effect service. Referrals from consultant oncologists, GPs and other specialities are welcome.



Our facilities

The private practice is situated on the 12th floor of the building, with beautiful views over central London and the heath, one of the largest parks in the capital. All rooms have an en suite bathroom, telephone and an option to accommodate a relative.

The hospital has state-of-the-art intensive-care facilities, supported by consultant intensivists. High-dependency unit facilities are also in place, to monitor critical and post-operative patients. Our nursing staff members are extensively trained to look after patients with complex medical and surgical conditions.

Many of our patients travel from abroad to receive treatment. We are aware of the difficulties which they might encounter, so a great effort is made to ensure that both their clinical and psychological needs are satisfied. For this reason, we have a 24-hour interpreting service, to guarantee adequate communication among staff, patients and their relatives. We also have a multifaith chapel and provide updated information and entertainment through a multichannel cable television, as well as international newspapers and magazines. Our catering service offers the option to select different types of freshly cooked meal, according to individual preference and faith.



How to refer a patient to us

Dr Ronjon Chakraverty
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