UNIVERSITY OF BIRMINGHAM

Job description

Post title and post number	Clinical Senior Lecturer in Medical Oncology - 49769
Organisation advertising Description	School of Cancer Sciences College of Medical and Dental Sciences
Post number	49769
Full-time/Part-time	Full Time
Duration of post	Fixed term for 5 years
Post is open to:	Internal and external candidates
Grade	Clinical
Salary	£74,504 to £100,446 a year
Terms and conditions	Clinical Staff
Closing date	17 April 2013
Informal Enquiries	Professor Nick James Email: Nicholas.james@uhb.nhs.uk or n.d.james@bham.ac.uk Tel: 0121 414 4097/4474
Additional Information	Please note that the successful candidate will undergo a Disclosure and Barring Service (DBS) check before commencement in the role.

Role Purpose

This is a new post within the College of Medical and Dental Sciences at the University of Birmingham and will be based within the School of Cancer Sciences. There has been a significant expansion in the clinical activity and the research activity of the Uro-Oncology Team at the University Hospital Birmingham over the last ten years.

It is the leading unit in the region in treatment of both prostate and bladder cancer with recent high profile publications in both areas. There are a number of large and significant trials run from this unit.

Description of the post

This is a new Senior Lecturer post in medical oncology with Honorary Consultant status. The post will be based in the Uro-Oncology team within the School of Cancer Sciences and at University Hospital Birmingham. Honorary Consultant status will be provided at the University Hospital Birmingham Trust. The post will facilitate continued development of the uro-oncology service, in particular prostate and bladder cancer. Testicular and renal cancer will not form part of the job plan as

existing appointments cover these. The successful candidate will be expected to build on this clinical base and help develop basic science research projects and associated clinical trials through close collaboration with academic staff in the School.

The Applicant

The successful applicant will further develop the research and teaching agenda for Uro-Oncology in the College of Medical and Dental Sciences in collaboration with University Hospital Birmingham. As such we seek individuals who have the ability to develop a high level research group as well as a proven capacity for productive collaboration. The post holder will also be a focus for excellence in Undergraduate and Postgraduate teaching in the field of Uro-oncology.

Attributes of the applicant

The University seeks to appoint a candidate with a proven track record in academic research and clinical trials evidenced by publication in peer review journals and the award of a higher degree. The applicant will be expected to have undergone a period of subspecialist training in uro-oncology in a recognised centre with sufficient experience to be awarded an honorary consultant appointment and support the oncology on-call rota.

The appointee will be expected to demonstrate the ability to develop research initiatives, in basic science and translational research and to be able to integrate into the existing Uro-Oncology Research group. Evidence of previous supervision of postgraduate research would be welcome and a commitment to assisting clinical research staff in the research training and development of their projects will be expected.

Experience in undergraduate teaching assessment and examination will also be expected. Contribution to the undergraduate teaching course will be part of the post.

The successful candidate will be offered an honorary contract at 10PA's including an additional contribution to be negotiated as per the trust requirements to the oncology on-call rota.

SUMMARY OF PERSON SPECIFICATION

Qualifications

- Eligible for GMC Registration
- Inclusion on Specialist Register in medical oncology
- MRCP(UK) or equivalent
- Higher Degree

Clinical Experience

- Completed higher specialist training in medical oncology
- Subspecialist interest in uro-oncology

Research

- Commitment to development of a laboratory and clinical research theme with a focus on prostate or bladder cancer
- National academic profile with the potential for developing local research collaborations.

Person Skills/Qualifications

- Experience in building and leading a multidisciplinary team
- Capable of building strong and effective professional relationships with patients, families and colleagues
- Gains confidence and trust from others
- Able to respond to and cope with change
- Demonstrates honesty and integrity

REHABILITATION OF OFFENDERS ACT 1974
(EXCEPTIONS ORDER) 1976

As the nature of work you will be undertaking during your appointment involves direct contact with people who are receiving a health service, we have been obliged to ask you to complete a Disclosure form which will be processed by the Criminal Records Bureau. We require you to disclose any convictions, cautions, reprimands and warnings you may have under the conditions of the above order. You are not entitled to withhold such information about convictions which otherwise might be 'spent'. Failure to disclose such convictions could result in the termination of your appointment. The post is subject to a Criminal Records Bureau Disclosure Check at Enhanced level.

The post holder will be required to complete the NHS Pre and Post Appointment Declaration form as outlined in HSC2002/008

Health and Safety

The Trust recognises its duties under the Health and Safety at work act 1974 to ensure, as far as reasonably practicable, the health, safety and welfare at work of all its employees. In addition, the business of the rust shall be conducted so far as to ensure that patients, their relatives, contractors, voluntary workers, visitors and members of the public having access to Trust premises and facilities, are not exposed to risk to their health and safety.

All medical and Dental staff under contract will be expected to comply with appropriate statutory requirements and Trust Health and Safety policies.

The Trust operates a 'No smoking at work policy' whereby smoking is prohibited within the Trust building s and premises.

Further Particulars

THE ACADEMIC ENVIRONMENT

School of Cancer Sciences

The School of Cancer Sciences encompasses most of the academic and clinical cancer research within the University and hosts the prestigious Cancer Research UK Centre at Birmingham.
The School has strong representation from the overlapping disciplines of Clinical Trials, Pathology, Surgery and NMR. Cancer Sciences also make an active contribution to MBChB Medicine and BMedSc Medical Sciences degree courses and there is also a comprehensive postgraduate programme with opportunities for taught and research based study.
The School of Cancer Sciences has good laboratory facilities, which also include confocal-based microscopy, proteomics, cell sorting facilities, microarrays and Nuclear Magnetic Resonance (NMR). We have excellent links with our two trials units, having a world-class reputation in delivering Cancer Trials. Of the School's research funding (currently around £10 million per year) some 57% comes from Cancer Research UK in the form of Programme or Project grants with the rest coming mainly from the Medical Research Council, the Leukaemia and Lymphoma Research Fund and the Wellcome Trust. The School has a staff of over 350 with a diverse range of expertise including basic cell and structural biology, genetics, virology, immunology, bioinformatics, oncology, radiotherapy and statistics. Core scientific services include microarray analysis, proteomics, confocal and sequencing support.

The cancer research activity across the Birmingham campus is broad and has a number of strengths. These activities have been focussed in seven major areas, which span the natural history of cancer from cellular transformation through to development of evidenced-based therapy. These areas are summarised below:-

- Cancer Epidemiology
- Cancer Genetics and Epigenetics
- Cancer Cell Biology
- Viral Oncology
- Tumour immunology and Immune/Gene therapy
- Biomarkers and Nuclear Magnetic Resonance
- Clinical Trials

The College of Medical and Dental Sciences

The College of Medical and Dental Sciences is one of 5 Colleges within the University of Birmingham and is the largest with over 1400 members of staff and many more honorary members of staff. The College brings together healthcare related research and education including medicine, medical science, dentistry, nursing and physiotherapy.

The College is split into 5 schools that cover a range of clinical and non clinical disciplines:

- Cancer Sciences
- Clinical and Experimental Medicine
- Dentistry
- Health and Population Sciences

- Immunology and Infection

We are a research intensive college where staff work together to find cures and treatments for major diseases, improve the health of our nation and educate our future health professionals. Our research has helped to increase survival rates in devastating illnesses such as breast cancer, cardiovascular disease, diabetes, Parkinson's disease, and stroke.

The College represents approximately 50% of the research activity across the University. Interdisciplinary research is encouraged as are links with the clinical and basic science groups.

Research in the School of Cancer Sciences

Research within the School of Cancer Sciences offers unparalleled opportunities for both basic and translational research on human cancers within six defined areas of excellence: Cancer Cell Biology, Genome Stability, Structural Biology and Biomarkers, Tumour Immunology and Viral Oncology. Under these headings the School delivers world-class research on both model organisms and humans, translating results into new treatments in our world-leading Clinical Trials Units

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Cancer Cell Biology

Uro-Oncology Research

Group leads: Nick James, Rik Bryan

The Uro-oncology team in the School of Cancer Sciences has a growing research presence and a broad portfolio of research interests stretching from gene therapy trials of our in house virus constructs to large scale phase III trials in bladder and prostate cancer. We have a large collaborative bladder cancer group assembled via the Bladder Cancer Prognosis Programme (current CI Rik Bryan) which gives a substantial tissue, serum and urine collection from over 1000 patients linked to laboratory and epidemiological studies as well as access to a network of collaborating centres across the West Midlands. We are currently setting up large scale sequence-based analysis of the BCPP tissue resource and will be appointing a bio-statistican and senior scientist to our group using a large recent external donation. The two recently appointed urology senior lecturers (Prashant Patel and Richard Viney) are actively involved in expanding our surgically orientated research and also have established a new MSc in Urology, which promises to be a major asset to the School. Prashant Patel has now taken over the leadership of our Gene Therapy trials programme and we will be opening our next trial early 2013.

- **Gastrointestinal Oncology Research**

Group leads: Dion Morton, Glenn Matthews

The group is undertaking both translational and clinical trials research into colorectal tumourigenesis. This includes investigation of epigenetic changes in colorectal tumourigenesis looking at non-invasive screening for colorectal cancer and mucosal methylation changes in ulcerative colitis for stratification of cancer risk. These studies are currently being developed for early prospective cohort studies and early phase trials.
The research group has also developed a portfolio of phase 3 clinical trials

- FOxTROT; a multicentre phase 3 RCT of neoadjuvant chemotherapy in locally advanced colon cancer.
- ROSSINI; a multicentre RCT of wound protection in abdominal surgery
- DREAMs; a multicentre RCT of Dexamethasone for post operative anti emesis

- **Iron in Health and Disease Research**

- Group lead: Dr Chris Tselepis

The group is interested in understanding how iron is regulated in the human body and how these processes are abrogated in disease, most notably cancer. By using both invitro and invivo models we have begun to dissect the importance of both systemic and luminal iron levels in gastrointestinal carcinogenesis. The knowledge gained to date has led to several pending patents focused on the use of iron chelators as chemopreventive agents in high risk individuals. In close collaboration with both academic and industrial partners we are also assessing how iron chelators can be manipulated to provide safety, tolerability and effective delivery.
They are also now beginning to study iron metabolism in other non-gastrointestinal cancers settings most pertinently endocrine cancers, in addition to assessing the effects of iron both at the proteomic and metabolomic level.

Upper Gastrointestinal Cancer

- Research group leads: Mrs Olga Tucker, Senior Lecturer in Upper GI Surgery, Prof Derek Alderson, Barling Chair of Surgery

The Academic Department of Upper GI Surgery in the Queen Elizabeth Hospital (QEH) is a high volume specialist unit for the management of oesophagogastric cancer and complex benign oesophagogastric pathology in addition to biliary tract pathology.

The work in the unit is focused on the clinical and experimental aspects of upper GI disease particularly oesophagogastric cancer.

GENOME STABILITY:

- **Cancer Predisposition Pathways**

Group lead: Jo Morris

The group has an interest in cellular pathways associated with cancer predisposition. We have a focus on protein modifications as a means to understand and exploit those pathways to improve diagnosis and treatment of disease.
We have principally studied the regulation and function of the breast and ovarian cancer predisposition protein BRCA1, particularly its involvement in the DNA damage response. Laboratory work is complemented by a clinical interest in understanding how BRCA1 function is disrupted by patient missense mutations that result in tumour development. We have shown the involvement of small protein modifiers, ubiquitin and SUMO, in the BRCA1-pathway.

- **Childhood Cancer Research**

Group lead: Carmel McConville

The Childhood Cancer Research Group is interested in understanding the molecular events leading to the development and progression of childhood solid tumours, particularly neuroblastoma and retinoblastoma. Our approach is to integrate information from genome, epigenome, transcriptome and metabolome in order to define the molecular pathways which characterize tumour types and sub-types. Our aim is ultimately to translate this information into improved diagnosis and treatment for children with cancer.

- **DNA Damage and Repair**

Group lead: Grant Stewart

The group has had a longstanding interest in the mechanisms underlying how the cell detects and responds to various different types of DNA damage, in particular, focusing on how defects in these pathways contribute to human disease and the development of cancer. Using a combination of genetic and biochemical approaches, we aim to dissect how DNA damage mediator proteins, such as MDC1, 53BP1 and BRCA1 coordinate the recruitment of DNA repair/checkpoint proteins to the sites of DNA damage by modulating the ubiquitin and SUMO systems. Furthermore, using next generation sequencing, we aim to identify novel genes mutated in human syndromes that functionally regulate the cellular response to DNA damage.

DNA Damage in Haemotopoietic Malignancies Research

Group lead: Professor Tatjana Stankovic
Our current research is focused on an elucidation of the role of Ataxia Telangiectasia Mutated (ATM) and other DNA damage response genes in the multistep process of leukaemia/lymphomagenesis. Particular emphasis is given to DNA damage response defects that can be targeted for tumour specific treatment in Chronic lymphocytic leukaemia, Acute lymphomblastic leukaemia, Acute myeloid leukaemia and Mantle cell lymphoma. Therefore, our long-term goal is to translate the understanding of DNA damage response pathways in haematopoietic malignancies into novel therapeutic strategies. We use both in vitro and in vivo animal models to facilitate this task.

- **DNA Damage Response in Ataxia Telangiectasia and Related Disorders**

Research group lead: Professor Malcolm Taylor

The group are interested in the cellular response to DNA damage, and particularly where a defective response can lead to cancer development.
They have a particular interest in the ATM gene and the effects of biallelic mutation of ATM in the development of ataxia telangiectasia and subsequent development of a range of tumour types. Of considerable interest is the relationship of the level of any residual ATM kinase activity to the risk of tumour development. Generally, we are interested in the threshold level of ATM kinase activity required to ameliorate clinical and cellular phenotypes. We have a mouse model that we are also studying. Our interest extends to mutations of the ATM gene in sporadic tumours, particularly breast cancer and lymphoid tumours.
They also have an interest in the effects of loss of the components of the MRN (Mre11, Nbs1, Rad50) complex at both the cellular and clinical levels and particularly the threshold levels of these proteins required for activity.
Finally we are interested in methods of screening patients with undiagnosed disorders in order to identify new genes important in the DNA damage response.

- **DNA Replication and Genome Stability Research**

Group lead: Eva Petermann

The group's aim is to understand how DNA damage response pathways such as ATR checkpoint signalling and DNA repair by homologous recombination prevent harmful damage to the many thousand replication forks that are generated each time a cell divides. This will increase our understanding of how cancer develops, and how problems with DNA replication contribute to disease phenotypes in some inherited genetic disorders.
Another interest of the lab is to understand how DNA repair mechanisms allow cancer cells to overcome the severe obstacles that DNA-damaging anti-cancer treatments pose to replication forks.

Structural Biology and Bio-markers

- **Brain Tumour Research**

Group lead: Andrew Peet

The brain tumour research group is developing functional imaging for the diagnosis, management and understanding of childhood brain tumours. It is a translational group working from the physics of imaging to clinical trials, developing new magnetic resonance based imaging techniques and applying them in a clinical environment. Although part of Cancer Sciences, the group is largely based at the Birmingham Children's Hospital site maximising the opportunity for translation and will benefit from the opening of the National Institute for Health Research 3T Magnetic Resonance Research Facility at Birmingham Children's Hospital in 2011.

The major technique which has been used by the group is magnetic resonance spectroscopy which provides a metabolite profile of the tumour in vivo but techniques such as diffusion tensor imaging, tractography and perfusion imaging are also being investigated. The group has developed magnetic resonance spectroscopy as a non-invasive diagnostic aid and as an early indicator of treatment response. In addition several biomarkers of prognosis have been discovered and evaluated. The clinical imaging research is backed up by a laboratory programme of magnetic resonance spectroscopy metabolomics studies on tumour tissue and cell lines including studies of drug response.

A key technique used by the group is high resolution Magic Angle Spinning NMR which allows the study of intact tissue and cells and is performed at the Henry Wellcome Building, University of Birmingham. Elucidation of the underlying molecular pathways by relating the metabolite profiles to studies of molecular genetics is a key aim. The group is particularly active in the development of novel techniques for magnetic resonance signal processing and pattern recognition techniques and has an active collaboration with the School of Electrical, Electronic and Computer Engineering in this area.

- **Desmosomes and Human Disease Research**

Group lead: Martyn Chidgey

The group is interested in understanding the biology of desmosomes, intercellular junctions of epithelial tissues and cardiac muscle. Desmosomes are essential for maintaining tissue integrity; loss of desmosomal adhesion can result in skin blistering diseases such as pemphigus and sudden heart failure in arrhythmogenic right

ventricular cardiomyopathy. Our approach is to use NMR spectroscopy, crystallography, cryo-electron microscopy and a variety of other biophysical techniques to investigate the structure and interactions of the proteins that make up the desmosome at the molecular level. In addition, the group has an interest in understanding the role that desmosomes and their constituents play in cell differentiation, wound healing and cancer.

- **Membrane Microdomains in Signaling Research**

Group lead: Fedor Berditchevski, Elena Odintsova

The group is interested in understanding how signaling pathways from various classes of transmembrane receptors are coordinated at the plasma membrane. A particular focus is placed on the role of receptor compartmentalisation in regulation of their function in normal and cancer cells. The main approach is to use various biochemical and imaging techniques to uncover molecular pathways which control distribution of the receptors on the cell surface under various environmental conditions.

Tumour Immunology

- **Cancer Gene Therapy Research**

Group lead: Peter Searle

The group is developing novel, gene-based therapies for cancer. One approach involves expression of a prodrug activating enzyme in cancer cells; we have developed a particular focus on use of nitroreductase for activation of the prodrug CB1954. Our laboratory studies of this prodrug activation gene therapy have progressed to a series of clinical trials, using a replication-defective adenovirus vector to express the enzyme following intratumoural injection. A further development of this is to co-express the cytokine GM-CSF with the prodrug-activating enzyme, so that the immune response could enhance the clinical benefit; a clinical trial of this is in preparation.

- **Tumour Immunology and Immunotherapy Research**

Group lead: Graham Taylor

The main aim of the group is to increase our understanding of tumour immunology and how best to harness the immune system to treat cancer. Current research programmes in basic and translational research include the following.

We are studying the basic biology of how antigens are processed and presented by

MHC II molecules for recognition by CD4+ T cells – aiming eventually to manipulate these pathways to improve tumour cell killing. In collaboration with members of the Birmingham urological team we are studying the immunology of bladder cancer - a cancer that is all too common and also the most expensive per patient to treat.

Working with colleagues locally, nationally and internationally we have developed a therapeutic vaccine to treat nasopharyngeal carcinoma, a type of head and neck cancer that is associated with Epstein Barr Virus. Our vaccine has recently completed successful safety testing in phase I clinical trials and following administration to patients increases their immune responses to EBV proteins that are present in the tumour cells. Subsequent trials of the vaccine are imminent.

Finally, EBV infection is associated not only with certain types of cancer but also multiple sclerosis. We are starting a new project in collaboration with neurologists to try and understand how EBV infection is linked to this autoimmune disease.

Viral Oncology

- **Epigenetic Reprogramming Research**

Group leads: Ciaran Woodman, Pamela Kearns

The outputs from this research group flows from two interleaved streams of inquiry. One relates to virus induced epigenetic reprogramming, and focuses on the contribution of Human papillomavirus and Epstein Barr virus induced epigenetic changes to the pathogenesis of their associated malignancies. The other relates to the reprogramming which follows the use of epigenetic therapy, and focuses on patients with AML.

- **Epstein-Barr Virus Infection and Pathogenesis in Cancer Research**

Group leads: John R. Arrand, Christopher Dawson

Our group is interested in the role Epstein-Barr virus (EBV) plays in the pathogenesis of nasopharyngeal carcinoma (NPC) and a subset of gastric carcinomas. This work has ranged from the examination of EBV gene expression in these tumours to functional analysis of individual EBV latent genes in epithelial cells. The role of epithelial cell infection in EBV persistence and replication has also been examined with particular emphasis on viral modulation of cellular signalling pathways that impact on these processes. The contribution of EBV strain variation to tumour development has also been studied. Key discoveries include: (i) the existence of different forms of EBV latency in virus-associated tumours; (ii) the first demonstration

of the pattern of EBV gene expression in nasopharyngeal carcinoma; and (iii) the signalling function of EBV-encoded latent proteins.

- **Epstein-Barr Virus Persistence and Lymphomagenesis**

Group leads: Martin Rowe, Alan Rickinson, Andrew Bell

The group is interested in elucidating the normal biology of a persistent herpes virus, EBV, and its role in lymphomagenesis.

EBV is carried by the vast majority of all adults worldwide as an asymptomatic infection, despite being a tumour virus associated with at least 10 different types of malignant disease. The virus establishes latency in the memory B cell compartment of healthy infected individuals. That other cell types can also become infected is evident from the association of EBV with certain cancers of epithelial cells, NK cells and T cells in addition to different types of B cell lymphoma.

The group is investigating mechanisms of infection of different cell types, the distribution of EBV in different tissues in vivo, the effects of cell type on EBV gene expression, and the effects of EBV gene expression on cellular phenotype. Understanding the interaction of the virus with the host immune system is central to our investigations into how the virus causes lymphomas of B cell and NK or T cell origin.

The group has strong basic biology links with other virology groups within the school. Translational research is also enabled by well-established links with clinicians in Birmingham, and by national and international collaborations.

- **Hodgkin's Lymphoma Research**

Group leads: Paul Murray, Ciaran Woodman, Martin Rowe

This research group is interested in understanding the pathogenesis of Hodgkin's Lymphoma (HL). It focuses on the contribution of the Epstein-Barr Virus (EBV) and its latent genes, as well as cellular events to the development of HL. The research is centred around several themes;

1) EBV-induced aberrant B cell differentiation and its role in HL development
2) Epigenetic regulation of cellular and virus genes
3) Contribution of lipid signalling to the pathogenesis of HL
4) The tumour micro environment of HL

- **HPV Molecular Biology Research**

Group lead: Sally Roberts

The research of the “HPV molecular biology group” is focussed on human papillomavirus (HPV), a small DNA tumour virus which is now recognized as the cause of cervical cancer, and more recently as contributing to the aetiology and pathogenesis of a subset of head and neck cancers. The principle focus is to improve understanding of the interactions between HPV and its human host, with a view to identifying new therapeutic targets for the treatment of HPV associated diseases.

The group has strong local and international collaborative links with groups interested in virus-induced epigenetics programming and in virus oncology.

- **Viral Pathogenesis Research**

Group lead: David J Blackbourn

The model virus for our work is Kaposi's sarcoma-associated herpesvirus (KSHV). We also have research interests in Merkel cell polyomavirus (MCV) and its role in causing Merkel cell carcinoma. KSHV causes Kaposi's sarcoma (KS) and a rare form of lymphoma, especially in individuals infected with HIV, which causes the acquired immune deficiency syndrome (AIDS). However, KS also affects HIV-uninfected individuals, including organ transplant recipients.

Other directions include investigating the effects upon the cell of KSHV infection using the post-genomic strategies of microarray technology and proteomics.

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The School of Cancer Sciences includes/has links with:

The Cancer Research UK Clinical Trials Unit (CRCTU): The Cancer Research UK Clinical Trials unit is one of the largest Trials Units within the UK and was recently reviewed as ‘outstanding/forefront’ in its 5 year programme review. With a total staff of 125 and a core staff of 40, the CTU has international expertise in all stages of studies from early phase through to large scale international randomised clinical trials and has been very successful in incorporating translational endpoints into its clinical trials. In 2010, CRCTU became UK’s designated Trial Unit for children’s cancer and leukaemia trials. The CRCTU is an integral component of cancer research at the Birmingham Centre.
The CRCTU is one of the 3 major trials units at Birmingham to form part of the new Birmingham Centre for Clinical Trials (BCCT), which brings together clinical trial expertise from across the University.

The Birmingham Experimental Cancer Medicine Centre: Birmingham was in the first wave of NTRAC Centres in 2002 and was awarded an Experimental Medicine

Centre in 2007. The ECMC, led by Professor Dion Morton, has an expanded budget since 2012. As well as an existing focus on Immunotherapy and Gene Therapy there is a new stratified medicine initiative. The Cancer Centre has been funded as both a national technology hub and biobanking hub in 2011/12 and is developing projects in risk stratification and cancer prevention across a number of different cancer types.

University Hospitals Birmingham NHS Foundation Trust (UHBFT)
The University Hospitals Birmingham NHS Foundation Trust (UHBFT) has moved into a new hospital building in 2010. The £600 million PFI project will house cancer services and represents one of the largest integrated clinical and academic health care units within Europe. The Trust has one of the most active clinical cancer programmes in the country which is housed within the Cancer Centre building established in 2000 and the Wellcome Clinical Facility. A major expansion of Trust Cancer Research infrastructure took place during 2008/9 with a new Cancer Trials team of 14 people being appointed to support research in this area.

The Henry Wellcome Building for Biomolecular Nuclear Magnetic Resonance Spectroscopy (HWB-NMR) is the UK's largest national NMR centre and the only EU-NMR large scale facility for biomolecular NMR research in the country. HWB-NMR was opened in 2004 and represents an £11m facility that has been incorporated within the School of Cancer Sciences with a major interest in structural biology of cancer targets and metabolomic analysis of cancer types and stages.

The Wellcome Trust Clinical Research Facility was started in 1998 and recently received further investment. It includes a dedicated gene and immunotherapy laboratory. It provides overnight beds for early phase trial studies and is developing a satellite unit at the Children's Hospital. A pharmacy is being developed for support of trials with biological agents and a colonoscopy research clinic has been established. Three cancer trials clinics are currently operating per week with plans to expand this further.

The Centre for Clinical Haematology is a £2.2 million investment which provides outpatient facilities for haematology patients as well as large areas for housing of research nurse and trials support staff. This unit is led by Professor Charles Craddock and has facilitated the development of one of the largest early phase haematology trial programmes in the UK. In 2007 Birmingham was awarded Leukaemia Research Fund core support for National Trials.

A dedicated Tissue Biorepository has opened at the University (cost £2.2 million) and will house primary cancer tissue in accordance with HTA guidelines.

The National Blood Service Birmingham is based opposite the School of Cancer Sciences and has dedicated 'clean room' facilities, which support cellular immunology and gene therapy programmes.

The West Midlands Regional Genetics laboratory at the Birmingham Women's hospital is the largest such facility in Europe and is developing a wide range of academic collaborations with Cancer Research teams. The WMRGL lead in the development of the Central England Haemato-oncology Research Bio bank and with the histopathology department in UHBFT, make up Birmingham United Molecular Pathology (BUMP), on of the leading molecular pathology units in Europe.

The Biomedical Services Unit provides animal study support and is located immediately adjacent to the School.

Birmingham Cancer Research UK Centre

The Birmingham Cancer Research UK (CRUK) Centre was opened in July 2009 and is the result of a new initiative by CRUK to enhance its 2020 vision for Cancer in the UK. This new initiative is the result of a coming together of all the CRUK supported research at the University joining with the University Hospitals Birmingham NHS Foundation Trust (UHBFT) to form one governing board and research goal.
The Centre includes not only research groups within the School of Cancer Sciences but also members in the Schools of Immunity and Infection, Clinical and Experimental Medicine and Health and Population Sciences and the College of Life and Health Sciences.
The MRC Centre for Immune Regulation is another centre of excellence within the University and one with which the Cancer Centre has close links.

Teaching in the School of Cancer Sciences:

The School of Cancer Sciences contributes extensively to the teaching programme in the School of Medicine. The School teaches modules in the MBChB, and contributes to the intercalated BMedSci and runs a longstanding and successful masters course in Clinical Oncology
All academic appointments in the Medical School are expected to contribute a minimum of 20% of their time to the teaching and supervision of undergraduates, masters, postgraduates and/or PhD students inclusive of the wider preparation and administration around teaching.

Collaborations in the Medical School include:

The Health Service Management Centre (School of Public Policy)
The Health Service Management Centre's principal themes are: i) health policy evaluation, ii) service reconfiguration, iii) organisation development and leadership, iv) health care priority setting, v) economic evaluation of health care interventions, and vi) technology assessment reviews.

The Royal Centre for Defence Medicine
The RCDM, part of the Defence Medical Education and Training Agency, is also a potentially important epidemiological force and resources in the Medical School. It is a tri-service organisation, which was formally opened in April 2001, in conjunction with University Hospital Birmingham NHS Trust, the University and UCE, and has academic, teaching and clinical roles. The vision for RCDM is that by 2010 it will have achieved an international reputation for excellence in military medicine. Within the School of Medicine, a number of Defence Medical Services officers from the RCDM, some at senior level, are located, working alongside their civilian colleagues in both teaching and research.

SPECIFIC DETAILS OF THE POST

The University wishes to appoint an academic medical oncologist with appropriate academic stature and profile of a Senior Clinical Lecturer. It will be essential that the appointee will develop translational and clinical research in uro-oncology and so support the basic laboratory and translational work in medical oncology and in the School of Cancer Sciences. Clinical research in oncology within the School of Cancer Sciences not only focuses on both basic scientific studies but a commitment to Trial

work. This provides a fertile environment for the development of cross-cutting research themes and is facilitated by the co-location of outstanding scientific and clinical programmes. The capability for local, national and international research collaborations with other research groups is desirable. An ongoing research programme and track record in research would be highly desirable.

Expertise in teaching and education will be a mandatory requirement of the appointee. The appointee will be expected to show evidence of leadership in teaching, including organisation of undergraduate and postgraduate teaching programmes, with experience of - and/or involvement in - the management of training of undergraduates and junior doctors. Regular involvement in clinical teaching of students would be expected. Experience in development of the undergraduate curriculum, seminars and clinical teaching programmes, as well as postgraduate teaching course leadership [eg. course director] would be an advantage.

University Hospital Birmingham

1. **Introduction**

This is a brand new post and the successful candidate would be expected to be an Honorary Consultant at the University Hospital Birmingham NHS Trust.

The clinical component of the post will be based at the Cancer Centre at the Queen Elizabeth Hospital, University Hospital Birmingham NHS Trust and the new Queen Elizabeth Hospital Birmingham.

Queen Elizabeth Hospital Birmingham is the leading university teaching hospital in the West Midlands. It provides traditional secondary care services to the South Birmingham catchment area. Specialist tertiary care is provided manly across the West Midlands and a proportion of the Trust's activity is provided to patients who are referred from outside the region.

The Trust provides adult services to nearly 700,000 patients every year ranging across a single outpatient appointment to a heart transplant. The Trust is a regional centre for cancer, trauma, burns and plastics and has the largest solid organ transplantation programme in Europe.

The Trust employs around 6,900 staff. The Queen Elizabeth Hospital Birmingham is the major regional undergraduate and post-graduate teaching hospital and is adjacent to the University of Birmingham College of Medical and Dental Sciences. The Management structure encompasses Clinical and Medical Oncology, Clinical Haematology, and Urology as Group 3 of Division D. The successful candidate will be expected to play a significant role in clinical research and development of evidence based medicine.
The teaching of medical students and involvement in continuing medical education are integral parts of the advertised post.

The post holder will be responsible for the administrative efficiency of their clinical teams and will have the opportunity to take part in the management process within the Division, within professional representative committees and advisory groups.

Cancer Services Management at UHBFT

The Cancer Services Management Team at UHBFT sits with the chief Operating Officer (Kevin Bolger) and the Deputy Chief Operating Officer (Andrew McKirgan). There is a lead Cancer Clinician (Dr Mark Cook) and a lead Cancer Nurse (TBA) and a Cancer Information Manager (Ed Landon). The team is supported by a full-time secretary and 5 MDT co-ordinators. There is a site-specific clinical lead for each cancer site and each specific support service.

The team co-ordinates the Cancer agenda across the trust, plans Cancer plan compliance progress and liaise directly with the Pan Birmingham Cancer Network and other external bodies.

Details of the Department/Service (by Group and Division)

The clinical facilities for oncology and radiotherapy are centred at the Queen Elizabeth Hospital with outpatient and radiotherapy services delivered in the Cancer Centre and day case/inpatient care delivered in dedicated wards in the new Queen Elizabeth Hospital Birmingham.

This Cancer Centre at the Queen Elizabeth Hospital is a £9.2 million development opened in October 1999. The development includes office accommodation for medical staff and secretaries as well as seminar and meeting rooms, a resource room and patient information facilities. It has been tastefully furnished and apportioned, facilitated by a £1/4 million grant from the National Lottery Fund for uniquely commissioned works of art.

In the New Hospital there are two wards (622 and 623) and a specialist dedicated Teenager and young adolescent unit supported by the Teenage Cancer Trust. The day Unit delivers all aspects of day case care to Oncology and Haematology patients.

The current radiotherapy facilities comprise of 8 linear accelerators, 6 providing electrons and fitted with multileaf collimation (MLC). The department is due to commission a state of the art Tomotherapy HD machine on the 21st November and a second similar machine in January 2012. A two year major fund raising appeal for 3.5 million pounds by UHB Charities has commenced to purchase a Cyberknife machine which would make the QE the only centre in the UK with both Tomotherapy and cyberknife facilities.

In addition there is a orthovoltage (250kv) and superficial (100kv) machinery.

There are 2 CT simulators and 1 conventional simulator. Access to CT planning facilities is provided in conjunction with diagnostic CT and MRI scanning.

A 3D physics planning system and a dedicated planning CT scanner has been operational within the department since May 2002 to provide conformal planning and treatment facilities.

A ‘Brainlab’ Stereotactic Radiosurgery/Radiotherapy system has been installed in to develop a supra-regional facility.

Physics support is provided by 14 physicists, 10 dosimetrists (treatment planning) and 8 equipment maintenance staff. The department has a complement of 70 therapy radiographers

In 2005 the Trust has acquired a dedicated PET scanner, permanently located adjacent to the radiotherapy department.

A developing Boron Neutron Capture Therapy Programme has been developed in conjunction with the University of Birmingham Department of Physics and Neuroscience. It is hoped to commence clinical trials in high grade malignant brain tumour in the near future.

The Oncology service within the Trust has a tradition for the initiation and performance of high quality clinical trials and the successful candidate will be expected to play a significant role in clinical research studies and the development of clinical practice founded on evidence based medicine.

The appointee will be professionally and managerially responsible to Dr. Shan Chetiyawardana – Clinical Service Lead for Oncology.

3. CURRENT STAFFING

NHS Consultants:

Clinical Service Lead for Oncology: Dr A. D. Chetiyawardana – (lung, breast,

Urology)

Clinical Oncologists:

Dr D Ford – Clinical Service Lead for Radiotherapy (upper GI, urology & paediatrics)
Dr M Anwar (gynae, breast & skin)
Dr A El-Modir (lung, gynae & urology)
Dr I Fernando (breast & gynae)
Dr I Geh (GI & neuro)
Dr J Glaholm (head & neck, urology & GI)
Dr A Hartley (head & neck & GI)
Dr D Peake – (Sarcomas, GI & Lung)
Dr P Sanghera (neuro, Head and Neck)
Dr D Spooner (sarcoma, breast, CNS & paediatrics)
Dr A Stevens (breast & haematology)
Dr A Zarkar (urology, haematology, skin)
Dr Q Ghafoor(locum) (lung, urology)

Medical Oncologists:

Professor M.H. Cullen (Testicular, Lung & Lymphoma))
Dr S Williams – (Gynae and Lung)

Palliative Care:

Dr J Speakman (Locum)
Dr S Plenderleith

Honorary Consultants (University of Birmingham Staff)

Chair in Oncology – Clinical Trial Unit – currently vacant
Chair in Oncology – Translational post –

Medical Oncologists:

Dr D. Rea - Senior Lecturer & Clinical Service Lead for Medical Oncology (lung, breast & GI)
Dr E Porfiri - Senior Lecturer (urology)
Dr N Steven - MRC Clinical Scientist & Senior Lecturer

(GI, melanoma & Phase I & II Trials)

Clinical Oncologist:

Professor N. James – Professor of Clinical Oncology (Urology)

Supporting medical staff:

21	Clinical Oncology Specialist Registrars (ST3-7)
	(10 based at the Centre)
6	Medical Oncology Specialist Registrars (ST3-6)
1	Palliative Care Specialist Registrar (ST3-6)
1.5	Staff Grade posts
2	Foundation Year 1
2	Foundation Year 2
1	ST1 (CMT)
1	ST2 (CMT)
1	ST2 (GP)
1	Trust Grade

4. DEPARTMENT WORKLOAD

The Oncology centre provides a comprehensive service for a population of approximately 2.3 million with specialist oncology for a regional population of 5.3 million. Approximately 5,000 new cases are treated annually resulting in one of the largest oncology services within the United Kingdom.

The current workload of the Radiotherapy Department is based on approximately 4,000 new patients per annum

Job plan Pro-forma

To be confirmed

Chemotherapy, OPD and ward work to be worked flexibly by the uro-oncology team members to cover absences/elective commitments while on call.

Predictable emergency on-call work (to be agreed with the Trust)

The full-time job plan will comprise 10 programmed activities (each PA having a timetable value of 4 hours). 5 PAs will be University activity and 5PAs Clinical activity. The NHS PAs will comprise 3.5 Direct Patient Care PAs and 1.5 Supporting Professional Activity PAs.

The organisation

The University of Birmingham is a thriving and dynamic institution that combines over a century of heritage with one of the most compelling and ambitious agendas in higher education. Ranked amongst the world's top 100 institutions, the University is structured to promote faster decision making and to enable it to capitalise on its academic range and financial strength. The University is organised into five academic colleges, with a University Executive Board, led by our Vice-Chancellor, Professor David Eastwood.

Central to our agenda is the development of the University's five-year strategic plan 'Shaping Our Future: Birmingham 2015', that builds upon an existing and ambitious programme of change, 'Sustainable Excellence', developed to establish Birmingham as a leading global university.

The strategic plan is based around five mutually supportive goals: enhancing research power; providing students with a distinctive, high-quality experience; sustaining and utilising financial strength; enhancing performance as an engaged university; and becoming the destination of choice amongst our peers. The confidence of the University's ambition is, in part, underpinned by one of the strongest financial positions in the UK HE sector. The University is currently forecasting a turnover of £460 million for the financial year 2011/2012 and carries significant cash surpluses with no borrowings. This is enabling it to invest in high-quality research and to enhance still further the educational experience for its students, as well as to continue to improve its estate and infrastructure, despite the prevailing economic conditions.

Over 90% of Birmingham's research was rated as world leading or of international quality in the 2008 UK Research Assessment Exercise (RAE). With world-leading activity across a range of subjects, it remains one of the UK's most broadly-based research-led universities.

The University's cultural and intellectual assets include the Shakespeare Institute at Stratford-upon-Avon, the Barber Institute of Fine Arts on campus and the Ironbridge Institute in Shropshire. The University also boasts the internationally renowned Lapworth Museum of Geology and Winterbourne House and Garden, a unique Edwardian heritage attraction that is home to over 6,000 plant species from around the world. In total the University's economic value to its region is £780 million.

Founded in 1900 and believed to be the UK's first redbrick university, Birmingham established a new model for higher education, breaking away from the Oxbridge tradition. Through the foresight of our founders we have inherited one of our greatest assets – our beautiful parkland campus, which is currently undergoing a £175 million enhancement programme that includes the new Bramall Music Building, a new sports centre containing the city's first 50m swimming pool and a proposed library development to provide outstanding facilities for students and researchers alongside an open access cultural hub with facilities available to the public.

The University was founded through philanthropy and fundraising. This is just as important today. Birmingham's 'Circles of Influence' campaign has raised over £60 million since its launch in 2009 and continues to provide funding for five priority areas – Health and Lifestyle; Children and Young People; Heritage, Culture and Sport; Student Support; and Innovation and Immediate Impact.

With 28,000 students from 150 countries, the quality of the student experience offered at the University of Birmingham remains of paramount importance. The University is one of the leading members of the Russell Group in terms of the size of its graduate school and the quality of its student experience as shown by the National Student Survey. As well as high-quality teaching, students also enjoy an enriched experience through other activities such as sport, for which Birmingham is ranked second in the UK.

As Birmingham seeks to extend its global footprint further it is investing in its international strategy, having established overseas offices in India, China and Brussels. These new offices are developing existing contacts and forging new partnerships with academic colleagues and businesses across the Asia Pacific Region and into Australasia. Birmingham is also building strategic partnerships in North America (notably Chicago) and through its membership of Universitas 21.

The city of Birmingham

Birmingham is a major European centre and the second city of the United Kingdom. It is a city of business and ballet, canals and world-class concerts, jewellery and jazz, historical interest and cosmopolitan atmosphere. Birmingham is also the ideal base for exploring one of Britain's most fascinating regions for tourism, being within an hour's drive of Stratford-upon-Avon, Warwick, the Potteries, and the Cotswolds.

The new heart of Birmingham is symbolised by Symphony Hall, considered one of the greatest concert venues in the world. Symphony Hall forms part of the impressive International Convention Centre, which overlooks attractive canals at the hub of the UK's canal network. This setting is a very suitable venue for the CBSO, the globally respected symphony orchestra. At the magnificent Hippodrome Theatre is the internationally renowned Birmingham Royal Ballet, adding further cultural depth to the city. Apart from London's West End, Birmingham boasts the highest concentration of live theatre in the UK, including regular tours by the major opera companies.

The City Museum and Art Gallery houses the world's finest collection of Pre-Raphaelite paintings, alongside a major collection of Old Masters, Modern and Contemporary pictures. The Barber Institute of Fine Arts houses one of the best UK university collections of Impressionist and Renaissance art. The restored Gas Hall Gallery has international touring exhibitions, while the Halcyon and Ikon galleries feature innovative contemporary works. National landmark sites abound, including the National Indoor Arena, the National Exhibition Centre, National Motorcycle Museum, National Car Heritage Museum and the National Sealife Centre.

The iconic Bullring Centre is the largest dedicated shopping facility in Europe. Sports and recreation are well served; the city offers international Test cricket, top-flight football, International Championship golf and top-class rugby. The International Convention Centre and National Indoor Arena have spawned a whole new Downtown area at the centre of the city. The National Exhibition Centre, on the outskirts to the city, remains one of the largest exhibition facilities in Europe.

Birmingham is at the crossroads of the UK's motorways. From Birmingham

International Airport, more than a dozen different airlines operate scheduled services to 60 destinations worldwide. The University is the only mainland UK university to have its own railway station, while 50 million passengers a year use Birmingham New Street Station, which will be at the centre of the proposed high speed rail network. London is 90 minutes away by shuttle service, with trains every 20 minutes until the evening. There is a high standard of all types of private accommodation, with high-quality affordable family housing in several attractive residential suburbs. Public parks and large domestic gardens are a special feature of this greenest of European cities. Quality public and private schools are widely available, with several consistently rated in the top 10 on examination performance in annual league tables of England and Wales.

The College of Medical and Dental Sciences

The University's structure is one of Colleges and Schools, and the College of Medical and Dental Sciences contains five Schools that cover the whole range of pre-clinical and clinical disciplines:

- School of Cancer Sciences
- School of Clinical and Experimental Medicine
- School of Dentistry
- School of Health and Population Sciences
- School of Immunity and Infection

The principal base of the College lies immediately between the main campus of the University and the new Queen Elizabeth Hospital, University Hospitals Birmingham NHS Foundation Trust. Other key NHS Trust buildings are also on the same campus including Birmingham Women's Hospital and The Barberry (Psychiatric) Hospital.

Research

The College of Medical and Dental Sciences is the largest of the University's five Colleges and, with over 800 researchers and in excess of £60M research funding per year, it represents a major international centre for biomedical research.

Our overall research objective is to develop and promote excellence in basic and clinical science with an ultimate goal of delivering improvements in human health. We take pride in a truly translational pipeline, delivering cutting edge clinical trials and patient studies, underpinned by cell and molecular biology research on both model organisms and humans.

Strategically, our research encompasses seven major internationally-renowned research domains:

- Cancer
- Genetics and Development
- Health and Population Sciences
- Cardiovascular, Respiratory and Neurological Sciences
- Endocrinology and Metabolism
- Dentistry
- Immunity and Infection

Importantly, each domain is allied to a range of clinical specialties through which the College links its basic research to translational endpoints.

We have great pride in our interactions with local NHS environment, most obviously exemplified through 'Birmingham Health Partners', an exciting collaborative platform between the University and the University Hospitals Birmingham NHS Foundation Trust (UHBFT) that will enable rapid movement from laboratory discovery to patient benefit, fostering new therapeutic and healthcare innovations by creating a truly integrated environment for researchers and clinicians.

Education

Each year the College trains 390 medical students including the Graduate Entry course, 75 dental students, 20 biomedical materials science students, 90 medical science students (plus a further 25 medical students who intercalate into the third and final year of the course), 100 nursing and 65 physiotherapy students. 2013 also sees the introduction of two undergraduate Pharmacy programmes that will initially recruit 70 students per year*. Medical student teaching takes place at all hospitals in Birmingham, but has recently expanded into many of the hospitals in the Black Country.

There are also approximately 500 postgraduate taught students and 350 research students in the College, managed by a cross-College Graduate School. The College has excellent library and reference facilities including the newly refurbished Barnes library and Doug Ellis Learning Hub.

Facilities

The College has invested more than £73m in an ongoing programme of works to improve and expand its research and teaching facilities, with the aim of advancing its position at the forefront of developments in medical science. This includes the £35m Institute of Biomedical Research, the state-of-the-art £11.8m Wolfson Centre for Medical Education and a prosectorium facility for anatomy teaching incorporating 10 ventilated tables and high tech AV teaching aids.

In more recent years, the College has created a new £1m phantom head teaching laboratory facility within the School of Dentistry. The College also launched the Health Research Bus in 2010, a mobile clinical research facility funded via Birmingham Science City via Advantage West Midlands. This was the first of its kind and a great development for clinical research in the College.

The collaboratively-funded NIHR Centre for Surgical Reconstruction and Microbiology was developed in 2011, which combines clinical practice in the battlefield and innovation in medical research to benefit all trauma patients.

In 2012, the College secured high quality laboratory and clinical research facilities within the new University Hospitals Birmingham NHS Foundation Trust (UHBFT) Queen Elizabeth Hospital, for Translational Inflammation Research and will support the newly awarded Medical Research Council (MRC) Arthritis Research UK (ARUK) Centre in Musculoskeletal Ageing.

In 2012, the College developed a state-of the-art Advanced Therapies Facility which includes a new purpose built HTA-compliant biorepository, cell and gene therapy pharmacy, and commercial spin out laboratory. Alongside these developments, the Wellcome Trust Clinical Research Facility (WT-CRF) received the largest award renewal in the UK of £12.8 million from the National Institute for Health Research (NIHR) to support its activity and to strengthen its current expansion.

In 2012 government funding was also announced for the development of an Institute of Translational Medicine in Birmingham in collaboration with UHBFT, bringing Birmingham into the forefront of international translational medicine research.

*Subject to GPhC approval