

## The Vision for the Academic Health Science Centre





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## How to use this document

This document describes the AHSC Vision and Mission, and sets out its ambitions and objectives. It provides the foundations for the development of the AHSC's corporate strategy, business planning process and broader communications with stakeholders. It is also intended to help AHSC Project workstream sponsors and leads, CPG Directors, the Heads of academic Divisions and their teams to formulate their strategies.

It will be followed by the three to five-year Corporate Strategy which will develop the AHSC's competitive position, establish corporate level goals and identify how to achieve them, particularly within the AHSC's stated specialities.



## Foreword

The creation of the UK's first Academic Health Science Centre (AHSC) by Imperial College Healthcare NHS Trust and Imperial College London is the most exciting innovation in the NHS since its creation in 1948.

The UK is recognised as second only to the US for the quality of its biomedical research, yet this excellence is not reflected in the quality of its clinical outcomes. Our patients are losing out from this failure to turn discoveries and innovations into new treatments and ways of caring for them.

The AHSC will close this gap. For the first time in this country we seek to truly integrate biomedical research and healthcare provision to provide the best healthcare in the world, free at the point of delivery.

Our AHSC is a unique partnership between Imperial College London and the National Health Service, both of whom have made a commitment to empower the partnership to deliver this Vision. To turn this Vision into reality we will take bold steps together. We will bring clinical and academic management together in a way that is unprecedented in the UK health system. We will focus on the translation of our outstanding research into treatments that will benefit our patients and the wider health sector. And we will measure ourselves not just against our colleagues in the UK, but by comparison with the best from around the world.

This document sets out the range of our ambition over the next 10 years and challenges us to build on the success of the merger of our predecessor Trusts and make something unique within UK healthcare today. I look forward to working with you to take the fullest advantage of this unique opportunity.

Professor Stephen Smith  
Principal, Faculty of Medicine, Imperial College London  
and Chief Executive, Imperial College Healthcare NHS Trust

June 2008



## 1 Executive Summary



**1.1** The AHSC is a unique partnership between Imperial College London and the NHS as represented by Imperial College Healthcare NHS Trust. This Vision document, written six months after the formation of the AHSC in October 2007, sets ambitions for its first ten years and gives direction to the development of the AHSC's corporate strategy, business planning processes and communications with stakeholders.

**1.2** The unifying Vision of those working in the AHSC is that the quality of life of our patients and populations will be vastly improved by taking the discoveries that we make and translating them into advances - new therapies and techniques — and by promoting their application in the NHS and around the world, in as fast a timeframe as is possible.

**1.3** The Mission of those working in the AHSC is to make it become one of the top five global academic health science centres, channelling excellence in research to provide world class healthcare for patients, within the next ten years.

**1.4** To achieve the AHSC's goals, the College and Trust will undergo changes that require careful coordination, and which call for integrated leadership and management.

**1.5** The AHSC will develop new management structures to support its research-led care model: seven autonomous and clinically led Clinical Programme Groups will be the forums for aligning academic research and clinical provision, and central Directorates of Research and Education will coordinate their respective strategies across the AHSC.

**1.6** To earn itself the title of the UK's first AHSC, the organisation has set itself challenging criteria. It will distinguish itself from other UK healthcare providers in several ways:

- It will measure its healthcare, research and economic performance against the best healthcare centres internationally
- It will be a globally recognised centre for basic and translational research excellence
- It will provide world-class clinical care in critical areas of present and future health needs where the AHSC already has a world-class research presence
- It will draw on the College's multi-disciplinary scientific and engineering research strengths to develop and apply the latest healthcare technologies
- It will seek to dramatically improve patient satisfaction with its healthcare
- Through partnering with commissioners and other providers it will develop a healthcare network that will drive improvements both locally and nationally
- As the leading UK centre of excellence for training clinical academics it will continue to seek the best staff and students from around the world, who will be inspired by the opportunities that the AHSC's translational research agenda provides
- It will foster a supportive learning culture among all its staff, and investigate creating a Postgraduate Health Science Academy for all healthcare professionals



## 2 The AHSC Vision and Mission

**2.1** The AHSC's Vision is that the quality of life of our patients and populations will be vastly improved by taking the discoveries that we make and translating them into advances — new therapies and techniques - and by promoting their application in the NHS and around the world, in as fast a timeframe as is possible.

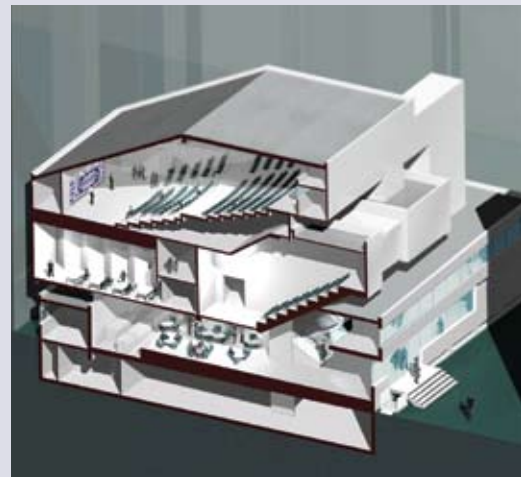
**2.2** The Mission of those working in the AHSC is to make it become one of the top five global academic health science centres, channelling excellence in research to provide world class healthcare for patients, within the next ten years.

**2.3** Achieving this challenging mission will significantly improve the quality of healthcare for the local community, London and the UK as a whole, and enhance the UK's position as a global leader in biomedical research and healthcare. The NHS can be the best in the world, but it must support the development of the integrated approach outlined in this Vision document to achieve that goal. Whilst delivering care locally and nationally, the AHSC aspires to operate at a level comparable with the best international equivalents and it will demonstrate its success across a range of measures including healthcare, research, and wider economic benefits.



## AHSC successes to date

- A central building block of the AHSC partnership was the joint award to Imperial College London and the former St Mary's and Hammersmith Hospitals NHS Trusts of Comprehensive Biomedical Research Centre status in November 2006. This five-year funding from the National Institute for Health Research was the largest award to any UK institution, worth £19.5 million in 2007/08
- The Trust achieved strong operational performance in 2007/08, including the achievement of targets on four-hour waits in A&E and 18-week waits from referral to treatment, improved Auditor Local Evaluation scores, and finishing the year ahead of MRSA reduction targets
- This performance is all the more creditable as it was achieved at the same time as the execution of the successful merger of the former St Mary's and Hammersmith Hospitals NHS Trusts, while maintaining excellent financial performance
- An agreement between College and Trust as to a £100 million redevelopment of new clinical and research facilities on the Hammersmith campus



- Imperial College London recently won an £8.9 million research excellence award from the British Heart Foundation for cardiovascular research



### 3 Integrated leadership and management

**3.1** To implement the AHSC Vision, Imperial College London and Imperial College Healthcare NHS Trust will undergo a substantial shift in their activities. The changes will affect both organisations and will need careful coordination. Through integrated leadership and management, a consistent strategy will be set across the two organisations, while retaining a governance structure that allows sufficient autonomy for the leadership of each organisation to discharge their obligations to the Council of Imperial College London and the NHS.

**3.2** The AHSC's strength will be derived from the quality and breadth of the talented and skilled people it can call upon in its network of academic and healthcare institutions. The framework of leadership and management implemented to achieve this goal will therefore span from the boards of the College and Trust through to clinical delivery and the research laboratory.

**3.3** The creation of the AHSC partnership was accompanied by a commitment from the College and the NHS to empower the partnership to meet its objectives. Executive personnel have been appointed with responsibilities that straddle both the College and the Trust allowing a level of cross-partnership leadership and management previously unseen in the UK. Foremost amongst these has been the appointment of Professor Stephen Smith to both the roles of Principal of the Faculty of Medicine at Imperial College and Chief Executive of the Trust. The Trust Board and College Management Board reflect this integrated approach in the presentation of a Chief Executive's report covering events and performance in both the Trust and College.

**3.4** The AHSC executive managers will be supported by a governance structure that seeks to ease decision-making, while recognising the status of the Trust and College as distinct legal entities. The Trust and the College will remain accountable to their respective governing bodies (the Trust Board and the Council of Imperial College London) and a shared senior management presence will enable consistent representation to respective funding providers. While the final corporate status of the AHSC is as yet undefined, the Trust will continue to work towards Foundation Trust status, while considering alternative options. Any option pursued will need to satisfy the requirements of both the NHS and Imperial College London.

**3.5** To achieve its objective of research-led clinical services, a new Clinical Programme Board will act as a body for professional control and accountability within the AHSC. This board will ensure that the research, education and clinical strategies are effectively implemented through close collaboration between clinical and academic leaders.





## 4 Clinical Programme Groups – the foundations of the AHSC

**4.1** Alongside the integrated leadership and management described above, the AHSC is developing wholly new management structures to support its research-led care model in the form of the Clinical Programme Groups (CPGs). The CPGs have responsibility for coordination and delivery of the AHSC's innovative healthcare, research and education plan within agreed strategic frameworks.

**4.2** The CPGs will be clinically led and will be the main interface between fundamental research, clinical research, and patient care. The AHSC's approach to strategy, management and service delivery converges in the CPGs and consequently they are critical. To allow them to fulfil their role they will be organised by groups of specialties and not geography, and they will benefit from a greater scale, increased accountability and the removal of institutional barriers between research and clinical delivery.

**4.3** This unified management structure for clinical care, research and education within each CPG represents a fundamental change within the NHS and builds on best practice established in overseas AHSCs.

**4.4** The academic Heads of Divisions will work closely with the CPGs with which they are most closely aligned in order to ensure a coherent approach to the formulation and delivery of their research strategy. This close cooperation will in turn enable the CPGs to match research expertise with the clinical needs of their patient base. Further benefits of this approach will be the financial sustainability of the CPGs' research strategies and the development of clinicians' skills through regular exposure to new techniques and developments in the AHSC's core specialties.



**4.5** CPGs are the critical forum for developing deeper interaction between Trust and College. Each CPG will create a Vision for their group in concert with the Head of Division and present this to the Clinical Programme Board. CPG Directors and Heads of Division will ensure their annual business planning cycles incorporate input from across College and Trust, and work with the Director of Research and the Director of Education

### Summary of current key CPG appointments and relationships

| CPG   | Director                    | Academic Lead                | Related Academic Divisions   |
|---|-----------------------------|------------------------------|--|
| 1 Medicine                                  | Dr Gill Gaskin              | Professor Jonathan Weber     | Medicine   |
| 2 Surgery and Cancer                        | Mr Justin Vale              | Professor Mervyn Maze        | SORA*; Clinical Sciences Centre (CSC)  |
| 3 Specialist Services                       | Professor James Van Dellen  | Professor Lefkos Middleton   | Neuroscience and Mental Health; SORA; CSC; Kennedy Institute of Rheumatology |
| 4 Circulation Sciences and Renal Medicine   | Professor Nick Cheshire     | Professor Tony Newman Taylor | National Heart and Lung Institute; Medicine; CSC                             |
| 5 Women and Children                        | Mr Keith Edmonds            | Professor John Warner        | SORA, Medicine   |
| 6 Clinical and Investigative Sciences       | Professor Martin Wilkins    | Professor Martin Wilkins     | Investigative Science; CSC   |
| 7 Preventative Interventional Public Health | To be appointed Summer 2008 | Professor Elio Riboli        | Epidemiology, Public Health and Primary Care                                 |

\* Surgery, Oncology, Reproductive Biology and Anaesthetics. A full list of specialties per CPG is given in Appendix 1.



to ensure that research and education priorities are planned and implemented.

**4.6** The organisational structure of the CPGs has been created with key features that support the demands placed on them:

- Each CPG will be an autonomous business unit responsible for its own clinical, research and financial performance
- Clinicians will manage each CPG to ensure it is able to identify and respond to emerging clinical needs and focus research efforts on the areas where it will make the most significant impact
- CPG Directors and the Heads of Divisions will set challenging, measurable goals that span the demands of the College and Trust in order to drive improved performance
- Service line reporting will allow the CPG Directors to manage the service in each area effectively

**4.7** CPGs will contribute to a transparent approach to funding that will enable more effective allocation of resources, and deliver greater value for money in the attainment of commissioners and other funding providers' goals. It will also allow greater awareness within the CPGs of their research and education activity, as research and education money flows to where it is most in demand. The relative autonomy of CPGs will also allow them to invest in new equipment to agreed limits, with the possibility of earning a progressive increase in the level of capital spend based on previous performance.

**4.8** The vision for the AHSC to be delivered by the CPGs is summarised in the following five chapters, each of which explores a distinctive feature of the AHSC in more detail:

- Greater focus and scale in translational research
- Delivery of innovative and exemplary patient care
- Local and national roles in the healthcare economy
- Attracting the best staff and educating the best students
- Optimising the use of resources and infrastructure to support investment





## 5 Translational research – defining the AHSC

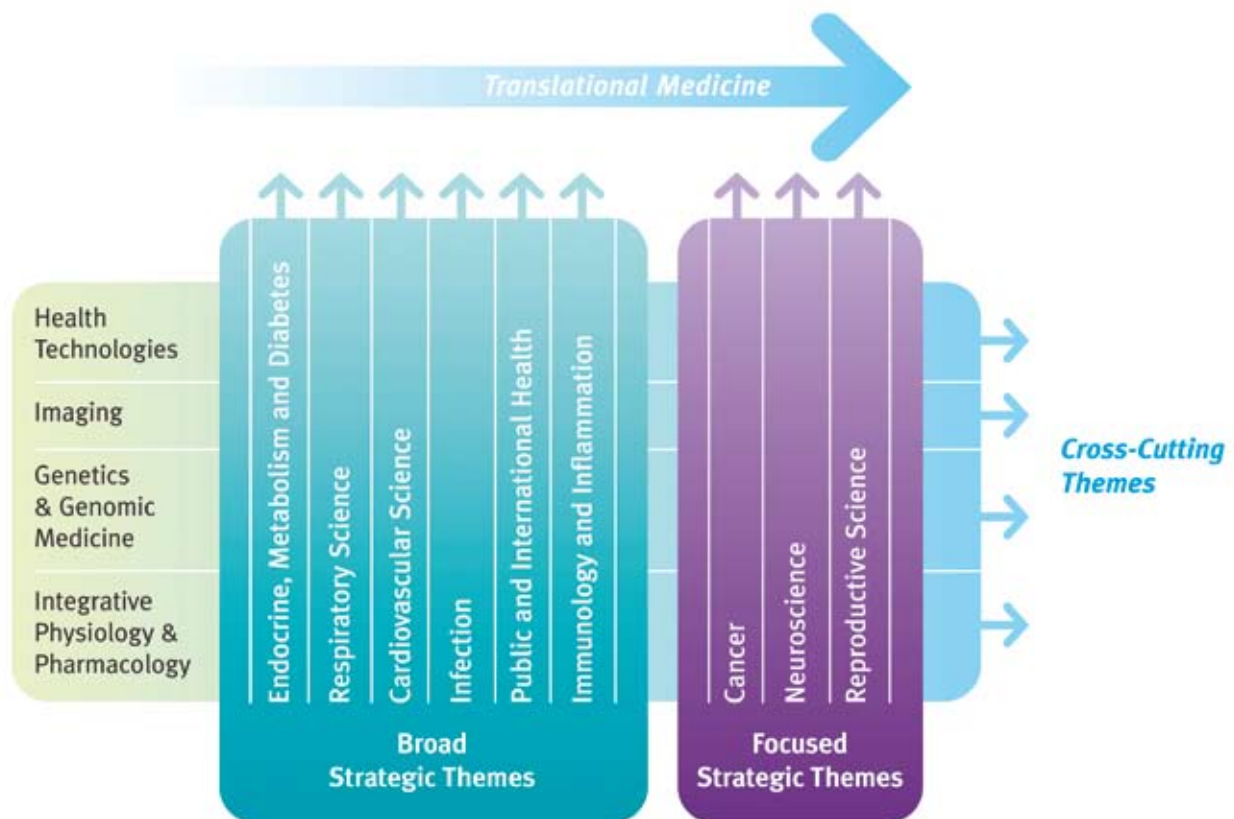
**5.1** Research is central to the AHSC’s mission and all activities within it. The AHSC will be defined by its commitment to research excellence in order to create a leading internationally competitive research institution, building on Imperial College’s position as one of the world’s top five universities<sup>1</sup> and the Trust’s position as one of the top two Trusts in the UK<sup>2</sup>. The focus of the AHSC will be to develop areas of research excellence by:

- Increasing the volume and quality of biomedical research, at both the basic and applied levels
- Accelerating the translation of research into practical treatments and therapies, while maintaining safety standards and probity
- Encouraging multidisciplinary approaches to biomedical research

Research in the AHSC will build on the areas of research focus in Imperial College’s Faculty of Medicine as shown below:

**5.2** Government funded biomedical research in the UK has grown significantly over the past 10 years, and will continue to do so over the next three years, as the government seeks to capitalise on the country’s strong science base to achieve healthcare and economic benefits. The overall science research budget doubled between 1997 and 2007, and government spend on medical research is set to grow to £1.7 billion<sup>3</sup> by 2011; an increase of £300 million per annum. Both the Department of Health and the Department for Innovation, Universities and Skills have prioritised funding for translational research activities<sup>4</sup>. The Medical Research Council has launched a new strategy for funding translational research, and the Wellcome Trust has also signalled its commitment with the announcement of its Health Innovation Challenge Fund.

**5.3** The AHSC aims to harness the outstanding research base fostered by Imperial College London and the Trust, in order to attract an increasing share of this funding. The College’s ability to carry out fundamental scientific research, securing a pipeline of scientific innovation, will be central to this ambition, while the Trust’s access to a large and diverse patient population, alongside its established clinical and research expertise, places it in a unique position to undertake translational research and deliver effective and efficient clinical trials.



<sup>1</sup> Times Higher Education Supplement, World University Rankings 2007

<sup>2</sup> Dr Foster Good Hospital Guide, Best Performing Trusts on Mortality 2003–06

<sup>3</sup> Major boost for UK health research funding, Office for Strategic Co-ordination of Health Research, 2007

<sup>4</sup> Best Research for Best Health, DoH 2006, The Cooksey Review, 2006, Allocations of the Science Budget, DIUS 2008



**5.4** The AHSC's approach to translational research will be led through the creation of a unified AHSC Research Directorate, and the appointment of a Director of Research. It will support the transfer of academic research into clinical trials by providing a single point of access for the management, governance and conduct of these trials. In conjunction with the CPGs, it will also deliver enhanced coordination of research and clinical resources.

**5.5** By creating the Research Directorate, the AHSC is not only streamlining the process for testing new treatments and techniques, but also will increase the speed with which new diagnostic and therapeutic options are introduced for some of the clinical community's most challenging medical conditions. In this way the AHSC will provide benefits across the NHS and set an example for the effective delivery of translational research.

**5.6** The benefits of an integrated AHSC Directorate of Research include:

- Creation of a central Clinical Research Office and an academically led Clinical Trials Unit to improve governance, data capture, repository, and audit capabilities, and providing a single point of contact for research queries
- Establishment of a management unit that ensures a strategic focus to research across the AHSC, providing increased transparency over the allocation and outcomes of research funding



## Examples of interfaculty collaboration

- **Institute of Biomedical Engineering (IBE):** The IBE has technology networks in cardiovascular, musculoskeletal, biomedical information, metabolic technology and neurology that draw together scientists, engineers and clinicians to create innovative tools for surgical and medical applications
- **Institute of Systems and Synthetic Biology:** This institute applies engineering, physical sciences and mathematical or computer modelling techniques to biological problems
- **Hamlyn Centre for Robotic Surgery:** In March 2008, Imperial College announced the creation of a research centre that will develop advanced robotic technologies for specific use in medicine, for example in minimally invasive surgery

- The setting of key performance indicators for research, the coordination of planning cycles, reporting metrics and strategies with CPG Directors and Heads of academic Divisions, and clarifying accountability for research performance
- An increase in the standard of research projects and their funding requirements and, ultimately, in project and financial management
- Acting as a conduit for the introduction and coordination of the College's research themes with CPGs' research programmes
- Providing a focus for initiatives such as the development of multidisciplinary research projects

**5.7** The success of the AHSC's research strategy will be assessed through research income, the volume of high quality research publications, the percentage of patients in clinical trials, and the successful translation of scientific advance and technological innovation into clinical practice.

**5.8** The AHSC also derives significant capacity for innovation from Imperial College's established framework for collaborative, interfaculty research, which draws upon the diverse capabilities of the broader College community. The AHSC is therefore well placed to demonstrate that it has outstanding interdisciplinary research capabilities, meeting a criterion which is increasing in importance for research funding providers.



## 6 Innovative and exemplary patient care

**6.1** In recent years, patient outcomes in the UK have seen significant advances. However, for some of the main causes of death that are amenable to healthcare, UK performance still lags behind comparable developed countries. For example, the graph of mortality from strokes below shows how the UK's performance is above the OECD average but behind comparable countries, such as the USA and France.

**6.2** The Trust has provided high quality care by overall UK standards, being ranked in the top two in the Dr Foster Good Hospital Guide in England. However, the AHSC aims to reach, and be compared against, the highest international standards.

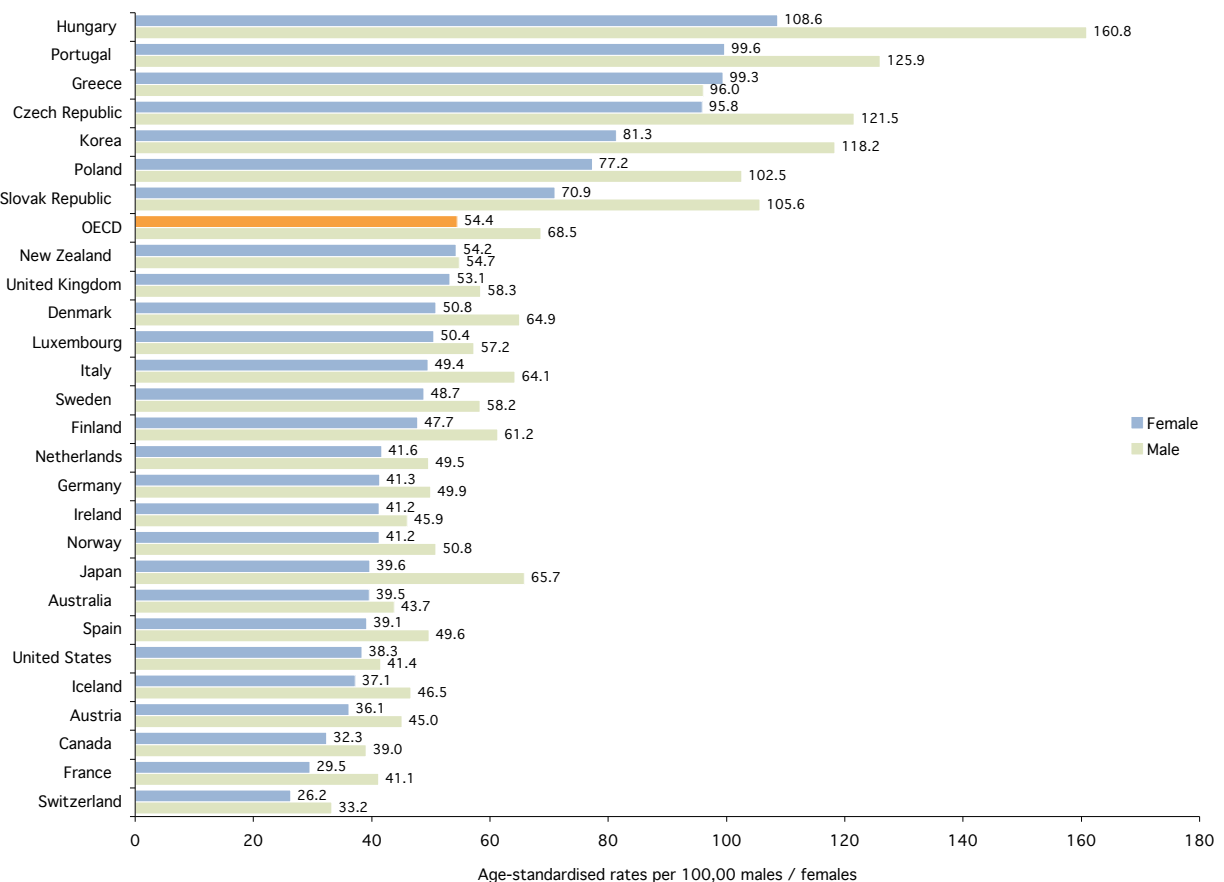
**6.3** In other countries, AHSCs have excellent track records in delivering world class patient outcomes. Their approach combines a focus on certain specialities with active

collaboration between researchers and clinicians, who together lead the transition from basic research through to improved clinical outcome. This enables the most successful AHSCs to act as engines for change and innovation within their healthcare systems.

**6.4** There is evidence to demonstrate that specialist units performing larger numbers of cases achieve better results, particularly with more complex work. The AHSC will become a focal point for the development of world class specialist clinical service in areas of present and future health needs where the AHSC already has a world leading research presence. These areas include:

- Cardiovascular
- Endocrinology, diabetes and obesity
- Chronic inflammatory diseases, such as arthritis
- Infectious diseases, including respiratory infection

### Stroke mortality, 2004



Notes: (1) 2003 data, (2) 2002 data, (3) 2001 data Source: Health at a glance 2007: Focus on quality of care, OECD, 2007



The diagram below highlights why the AHSC is positioned to lead discovery and intervention in these four areas, and how the resulting clinical services will meet our commissioners' priorities and our patients' needs:

|  |  |
|--|--|
| <b>Cardiovascular</b>  | <b>Endocrinology, diabetes, obesity</b>  |
| <ul style="list-style-type: none"> <li>• Five star rating for cardiovascular science</li> </ul>  | <ul style="list-style-type: none"> <li>• Imperial College London is the established world leader in endocrine and metabolism research</li> </ul>   |
| <ul style="list-style-type: none"> <li>• 100 researchers with over £100m annual research income</li> </ul>   | <ul style="list-style-type: none"> <li>• The College has pioneered the genetic understanding of metabolic disease</li> </ul>   |
| <ul style="list-style-type: none"> <li>• Established and service partnership with Royal Brompton and Harefield</li> </ul>  | <ul style="list-style-type: none"> <li>• Combination of these unique capabilities and Trust's expertise is needed to address emerging diabetes epidemic</li> </ul>   |
| <ul style="list-style-type: none"> <li>• Track record of leadership in applying innovative therapeutic interventions</li> </ul>  | <ul style="list-style-type: none"> <li>• A priority issue for the NHS and for PCTs catering for London's diverse communities</li> </ul>  |
| <ul style="list-style-type: none"> <li>• Major Imperial College Healthcare infrastructure development at Hammersmith</li> </ul>  |  |
| <b>Chronic inflammatory disease</b>  | <b>Infectious diseases</b>   |
| <ul style="list-style-type: none"> <li>• A core strategic research theme of Imperial College London</li> </ul>   | <ul style="list-style-type: none"> <li>• Imperial College London is an international centre for the study of infectious disease, with over 160 principal investigators leading infection-related projects</li> </ul>               |
| <ul style="list-style-type: none"> <li>• Chronic inflammation is at the root of a very large number of diseases whose incidence is increasing with an aging population, such as arthritis, COPD, many cancers and degenerative diseases</li> </ul> | <ul style="list-style-type: none"> <li>• Healthcare-acquired infections, HIV, tuberculosis and sexually transmitted infections are London PCT priorities</li> </ul>  |
| <ul style="list-style-type: none"> <li>• Recent achievements include the discovery of anti-tumour necrosis factor therapy as an effective treatment for rheumatoid arthritis</li> </ul>  | <ul style="list-style-type: none"> <li>• Imperial College London meningococcal research helped death rate in critically ill children at St Mary's Campus suffering from meningitis and septicaemia drop from 23% to 6%.</li> </ul> |

**6.5** Clinical services at the heart of local networks, such as the West London Renal and Cancer networks and the proposed West London Specialist Children's Centre, will benefit from the College's focused research strengths in their areas.

**6.6** The AHSC will continue to serve its local and national patient base with a broad range of services as agreed in collaboration with our commissioners, while simultaneously fulfilling its intention of leading the world in its chosen areas of excellence. In line with Lord Darzi's recommendations, CPG Directors will develop ways of working with local networks that allow certain conditions to be treated in the most appropriate settings. These strategies will be decided and driven by clinicians, with any proposals for service reconfiguration subject to consultation with the public and NHS London.

**6.7** Imperial College Healthcare NHS Trust is the largest NHS Trust in the country, providing general and specialist care for patients from a nationwide base as well as serving a large local community in west London. Our proposals for the creation of the AHSC have been developed in partnership with patient groups, GPs, PCTs, oversight and scrutiny committees and the new Local Involvement Networks (LINKs). The AHSC is committed to working with its patients and communities in developing any proposals for improving existing

services or developing new centres of excellence. By going beyond statutory consultation requirements to achieve real engagement with its stakeholders, the AHSC will ensure that its quest for the highest national and international standards in research and service quality will continue to complement and support its crucial role in the local commercial, employment and healthcare economies.

**6.8** Healthcare delivery in the AHSC will be characterised by a commitment to developing and applying the latest health technology, drawing in particular on the discoveries emerging from Imperial College's cross-cutting research themes, such as imaging, genetics and genomic medicine, and health technologies, including robotic surgery.

**6.9** As well as driving improvements in patient care, the AHSC will seek to improve the patient experience dramatically and increase patient satisfaction with its services. Recent NHS reforms, such as patient choice, have further strengthened the need to ensure that the patient experience and clinical outcomes are improved.

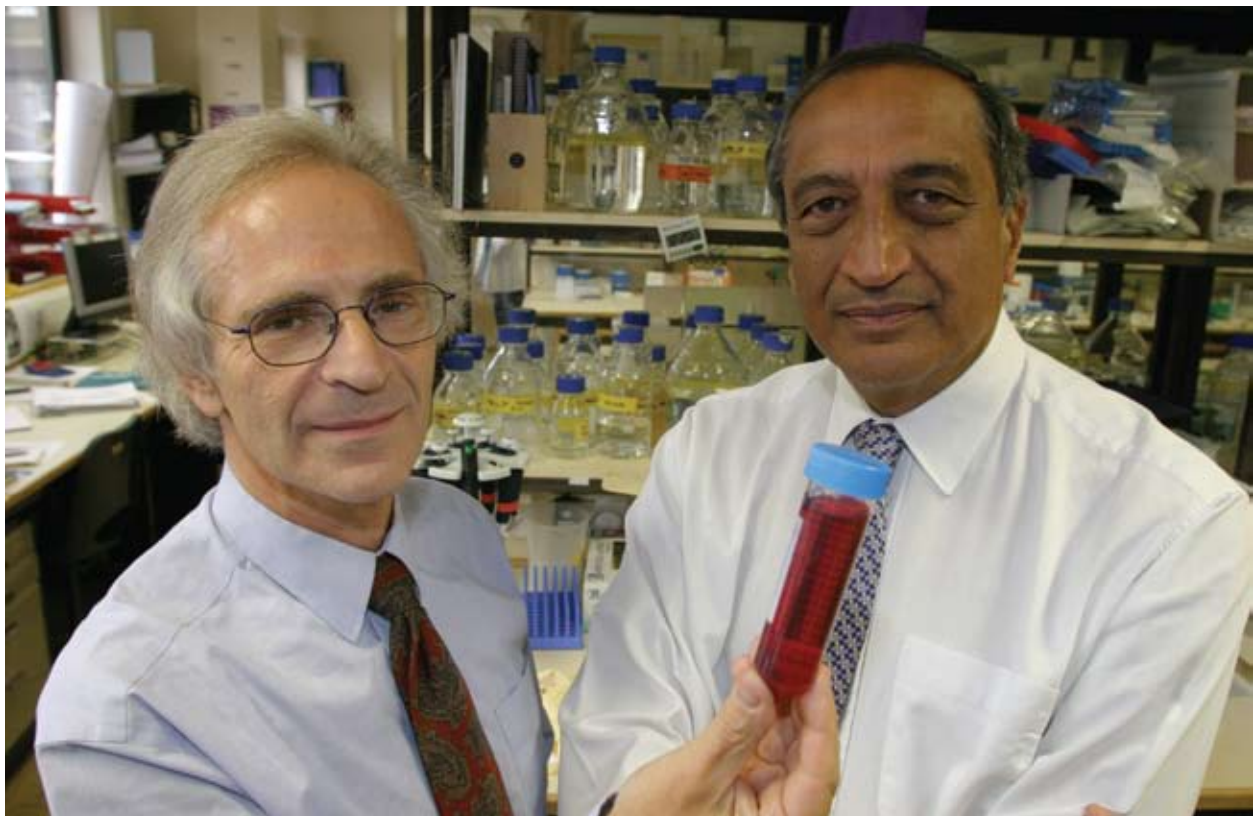


**6.10** Patient satisfaction surveys within the Trust clearly indicate that there is room for improvement, as illustrated by the results below from the 2007 Picker Report.

**6.11** The AHSC will take a leadership role in working with local networks of care providers to improve patient experience from

before patients enter hospital through to aftercare at home. In the longer term, the Trust will also need to reinforce these efforts by improving aspects of the estate that are potentially detrimental to the patient experience.

| Service area             | Below national average performance  |
|--------------------------|---|
| Admission                | <ul style="list-style-type: none"> <li>• Should have been admitted sooner</li> <li>• Had long time to wait to get room / ward / bed</li> </ul>                                |
| Hospital facilities      | <ul style="list-style-type: none"> <li>• Shared sleeping area with opposite sex</li> <li>• Toilets not very clean or not at all clean</li> </ul>                              |
| Service provision        | <ul style="list-style-type: none"> <li>• Did not receive clear answers to questions from nurses</li> <li>• Doctors talked in front of you as if you were not there</li> </ul> |
| Quality of care          | <ul style="list-style-type: none"> <li>• Test results not explained well / not explained at all</li> <li>• Could not always find staff to discuss concerns with</li> </ul>    |
| Discharge/Follow-up care | <ul style="list-style-type: none"> <li>• Discharge was delayed</li> <li>• Not told who to contact if worried</li> </ul>   |



*Professor Marc Feldmann and Emeritus Professor Sir Ravinder Maini, winners of the prestigious 2008 Dr Paul Janssen Award for Biomedical Research and the Albert Lasker Award for Clinical Medical Research 2003 for their work on TNF $\alpha$  inhibitors, which stop the inflammatory and tissue-destructive pathways of rheumatoid arthritis and other autoimmune diseases.*



## 7 Local and national roles in the healthcare economy

**7.1** The AHSC will play a pioneering role in the national healthcare economy. Partnerships with NHS organisations, public, private and charitable providers will create the AHSC's healthcare network, critical to delivering better care for Londoners and the wider UK population. As a result of historical collaboration, the AHSC has strong links with several major Trusts as well as many Primary Care Trusts and GPs across the UK. It will build on these relationships to support the development of a healthcare system that drives improvement throughout the NHS.

**7.2** As Lord Darzi identified in his report A Framework for Action, London faces particular challenges within the UK, such as the need to cater for a socially and ethnically diverse population, reduce London's particular geographic and demographic health inequalities, and provide more centralised specialist care. The report also envisaged more routine healthcare being delivered in the community, with specialist and major acute hospitals becoming more specialised and focused on complex medicine. The AHSC will seek to adopt a new approach to public health in support of this vision:

- Primary care and public health specialists play a vital role in the delivery of high-quality care, the monitoring of outcomes and the delivery of preventative interventions in healthcare settings. Despite this, they have traditionally been located outside of acute NHS Trusts, creating an artificial boundary that can impede the delivery of continuity of care. The AHSC will address this through the creation of its seventh Clinical Programme Group, Interventional Public Health, which will draw together Imperial College London's extensive academic expertise in epidemiology, public health and primary care with clinicians delivering primary care and community based services to deliver high quality, evidence-based programmes in the areas of clinical epidemiology, health service evaluation, primary care (especially patient pathways and communications) and preventative interventions



- London has several specialist hospitals that excel in providing care in specific areas such as paediatrics, cancer and heart disease. The College and the Trust have already developed strong working relationships with many of these hospitals, such as the Royal Brompton and Harefield NHS Trust for cardiovascular conditions and the Royal Marsden NHS Foundation Trust for cancer care. Many of these relationships go beyond standard arrangements between healthcare institutions and are distinguished by features such as joint academic and research posts. The AHSC will seek to strengthen these partnerships in order to provide specialised clinical care and to improve the development of clinical, education and research exchanges, building on the long-established and close links Imperial College London has with its local NHS Trusts





## 8 Attracting the best staff and educating the best students

**8.1** The presence of a supportive learning culture will reinforce the AHSC's attractiveness to the best students, researchers, clinicians, nurses and practitioners of professions allied to medicine. Imperial College London is the leading British centre of excellence for the training of clinical academics and the AHSC's substantial involvement in translational research represents a significant opportunity to build on this position and educate students who in the future will become the lifeblood of the healthcare profession and clinical research within the AHSC, the UK and beyond.

**8.2** The AHSC will continue to compete for high quality research staff and postgraduates in an increasingly intensive marketplace that not only includes the UK's leading institutions but also those of the USA and Europe, as well as a growing number in Asia. While the leading academic health science centres in the USA benefit from well established structural and financial advantages, the AHSC's proven ability to attract substantial research funding awards, and to provide regular patient access within dedicated facilities, will position it to continue to attract leading research and clinical academics. The AHSC has signalled its confidence in this regard with the recent announcement of the intention to appoint 30 new professors (jointly appointed by the College and the Trust). Attracting the world's best clinical academics will create a ripple effect that, in turn, will draw in the best students and associated medical professionals, thereby supporting the delivery of the highest levels of patient care.

**8.3** The changing nature of health challenges facing the UK, such as the increasing burden of chronic disease, will require doctors, nurses and other medical professionals to develop a greater range of expertise. Their training must reflect the evolving needs of the different institutions in the NHS and new models of healthcare delivery must be created. The AHSC will aim to address these new demands and the training of healthcare practitioners will be a core role for the AHSC.

**8.4** To support this commitment it will create a new Education Directorate to manage education provision across both the College and the Trust. The Education Directorate will work with the undergraduate medicine office and CPGs to take a broad view of education across the AHSC from undergraduate through post-graduate and ongoing training and development for all healthcare professionals. It will play a central role in working with CPGs to increase the transparency and effectiveness of education funding. It will also look to unify the management of existing postgraduate courses and teaching facilities across the AHSC's campuses.

**8.5** Through the Education Directorate working with the Research Directorate, the AHSC plans to initiate the creation of a Postgraduate Health Science Academy that will develop

a coordinated programme for postgraduate medical and non-medical healthcare professionals. One of the aims of the academy will be to develop research skills and postgraduate courses for nursing and professions allied to medicine. These courses will be of the highest academic standards and meet the rigorous quality requirements of an Imperial College London education.





## 9 Optimising the use of resources and infrastructure

**9.1** The AHSC will require a flexible funding base to support clinical activities, leading-edge research and significant capital investment, while ensuring that the interests of its two parent organisations and their structures of governance are fully protected. It aims to achieve this while also creating an entrepreneurial environment that fosters greater awareness of the commercial impact and opportunities of the partnership's activities.

**9.2** The key financial indicators of success are as follows:

- Diversification of funding: An increasing and more diverse funding base across the three service areas of research, education and clinical care, including the development of a stronger and more significant international income stream
- Growth in revenue: Smooth management of changes in patient flows and associated tariffs, increasing research income
- Generating surpluses: Consistent delivery of financial surpluses for investment
- Increased investment: Growth in capital budgets to enable investment in estates and equipment, while managing risk for College and Trust

**9.3** The AHSC's new leadership will be charged with implementing measures to increase transparency in the use of funds. This will enable CPG Directors and Heads of Division to monitor activity and resources and respond quickly to changing research and clinical priorities, and to demonstrate efficient use of funding to its providers. Individual clinicians' and researchers' performance targets will deliver more direct accountability and transparency, and the integrated management of CPGs will ensure the efficient allocation of multiple funding streams.

**9.4** A further stage of development may see the Trust and College move towards shared corporate services in the medium term. In the shorter term, other opportunities for collaboration and integration, such as aligning policies and procedures, and advertising positions across both organisations, are being explored.

### Estates and Capital expenditure

**9.5** The merger of the Trusts and partnership with the College allows staff, students and patients to make better use of facilities, share common spaces and allow investment to be targeted to make the maximum impact. However, the current combined estate infrastructure of the College and Trust is not appropriate for a partnership with the objectives of the AHSC, and could potentially constrain improvements in patient satisfaction and the cohesion of clinical care and research. Substantial investment, such as that already underway at



*Artist's impression of the new L Block being built at Hammersmith Campus to secure and build upon its capacity as a powerhouse for Imperial's research.*

the Hammersmith campus, is likely to be required to improve facilities and create new centres of excellence across each campus.

**9.6** The AHSC will address the current shortcomings of its estate infrastructure by developing a comprehensive, prioritised and staged capital investment plan. As part of this initiative, specialist services will be concentrated on specific sites to improve patient outcomes, and will consequently reinforce the cohesion between research and clinical care in those areas. Additionally, the AHSC will align and share best practice in support functions, particularly information and communications technology, across the Trust and College. This investment plan will need to be carefully developed alongside CPG service reconfiguration initiatives, and involve effective consultation with patients, staff, PCTs, GPs, and local communities.

**9.7** In considering the approaches to releasing capital expenditure, each initiative will address several considerations including:

- Delivery of a fit-for-purpose research and clinical environment which enables co-location of specialist functions
- Enhancement of patient and staff experience of the estate, particularly to address patient satisfaction issues and to reduce patients', staff and visitors' travel time between sites
- Development of commercial partnering arrangements to support capital funding, where possible
- Provision of a modern, vibrant workplace for staff



## 10 One, five and ten-year goals

### Goals over the next year

**10.1** In the short term the emphasis for the partnership will be to complete the successful merger of its predecessor Trusts, and continue the development of the CPGs. The AHSC will begin to demonstrate positive improvements for patients and staff, and will improve its performance against NHS and Imperial College assessment criteria.

**10.2** High level goals for the leadership of the AHSC over the next year are to:

- Create a single Clinical Research Office with integrated internal processes to increase efficiency of translational research
- Embed new working practices and performance metrics amongst researchers and clinicians that address the demands of College and Trust
- Ensure that staff continue to support the transition towards the AHSC through open communication and appropriate consultation
- Develop Preventative Interventional Public Health as the seventh CPG and set out its approach to delivering primary care, including defining the extent of its healthcare network and epidemiologic base
- Deliver services to meet local, regional and national commissioner and funder expectations across service, education and research
- Maintain strong performance against NHS targets including:
  - Four-hour waiting times in A&E
  - 18-week waits from referral to treatment
  - Reducing healthcare-acquired infections
  - Financial controls
- Develop a service strategy ensuring critical mass of services for patient quality and safety, and staff and financial efficiency
- Define the AHSC governance arrangements and pursue FT status or other variant models as appropriate
- Improve patient care and satisfaction in some areas of immediate need, such as maternity, stroke and accident and emergency
- Manage the financial transition to ensure that financial targets are delivered, risks are managed and operational synergies are realised

**10.3** The development of CPG business plans will involve each CPG and Division in establishing ambition and activity over the next year, alongside the identification of resource requirements, risks and their mitigation strategies. Organisational development activities to develop the AHSC commenced in April

2008, and this programme will assist CPG Directors and their teams to develop and strengthen their groups.

**10.4** Managing the performance of the AHSC will require the development of a set of goals, the implementation of mechanisms to measure and evaluate performance against these goals and to establish accountability for the delivery of these goals throughout the organisation. Baseline data and targets for these goals will be incorporated in the AHSC Corporate Strategy that will be developed based on this document. Key steps in the next year include the development of patient satisfaction and health informatics which will be assessed against their ability to both drive improved performance in key areas and facilitate comparison against national and international competitors. The College's Business School will be consulted on developing a customer care programme to improve the patient experience in the AHSC.

**10.5** Developing a fit for purpose ICT system will be a priority for the AHSC. In the first year there will be some important first steps e.g. completing the integration of the Trust systems, and resolving issues around the implementation of the Care Record System.

**10.6** Progress on the establishment of the AHSC will need to be communicated to internal stakeholders at all levels and to engage key external stakeholders.

**10.7** Additionally the AHSC needs to define its approach to key operational areas in more detail. It will develop a preferred approach to engagement with overseas institutes and organisations, the provision of private medical services, and the pursuit of private sector funding. In each case, consideration will need to be given to the contribution that each specific area makes to the fulfilment of the AHSC's vision and the viability of its aspirations in that field.





### Goals over five years

**10.8** Years two to five will be critical in delivering the objectives of the AHSC. During this period, the operating model will become fully functional and the AHSC will start to achieve global recognition in its specialist areas. By 2013:

- Patient outcomes and satisfaction will be comparable to the best international providers
- The target number of clinical trials completed will be around double current levels, with each CPG having specific clinical trial targets

**10.9** Within five years, the aim is for every consultant to hold an honorary appointment, with research and teaching responsibilities built into all job plans. In achieving this, a common and demanding rigour will be applied to the assessment and management of all research across the AHSC ensuring that research and clinical trials performance is comparable to that of leading global institutions.

**10.10** Improvements in research outcomes will be tracked by the performance metrics for academic achievement pioneered by Imperial College and will complement the Trust's measurement of patient care and satisfaction, driven by the CPGs. This combination of clinical and research performance measurement, together with the introduction of analysts in each CPG, will provide transparent information enabling the active management of all activities, from translational research to patient care.

**10.11** By delivering these benefits in its first five years, and making information on performance publicly available, the AHSC can begin to transform patient care in the NHS, and to redefine the organisational relationship between health services, research and education in the UK.





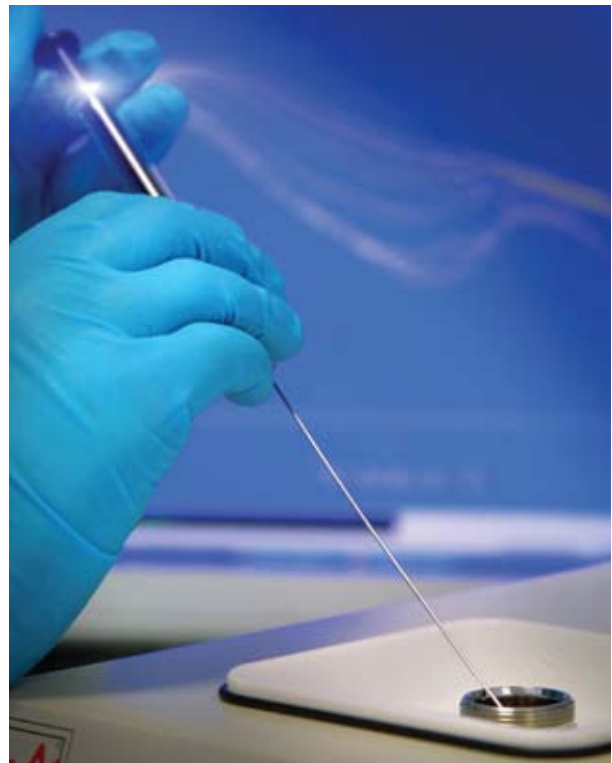
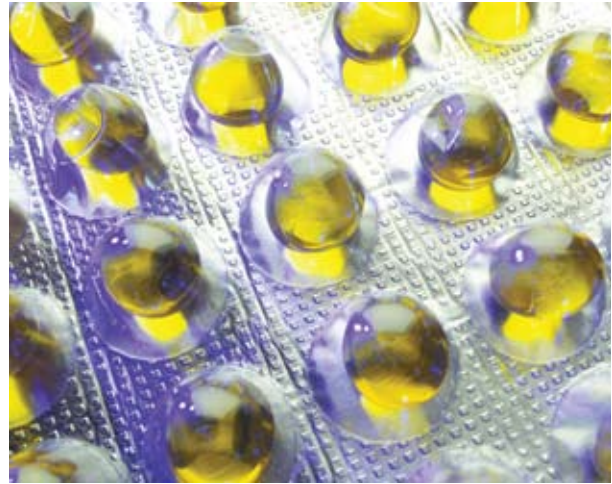
### The next ten years

**10.12** Just as Imperial College London has established itself as a pre-eminent academic medical institution over the past ten years, so the AHSC will require this period of time to establish itself on the world stage. Its ten year objective is to establish itself as one of the world's top five academic health science centres, as assessed by quality of patient outcomes, patient satisfaction, level of research income, number of patients in clinical trials, and other measures of research esteem.

**10.13** By 2018, the AHSC will have met these ten unifying goals, which are aligned closely with the AHSC criteria proposed in Appendix B:

- Be number one or two globally for research and clinical outcomes in its chosen specialist fields
- Attract, develop and retain the best clinical academics in those fields
- Show tangible examples of service change driven by research discoveries, with demonstrable positive impact on the delivery of care and outcomes for patients
- Play a leading role in networks that provide high quality specialist care, and deliver exemplary levels of patient satisfaction
- Have a research-driven culture embedded throughout the organisation
- Stimulate innovative thinking and train the next generation of clinician scientists
- Have identified and filled critical gaps in clinical service and research expertise
- Be a well managed organisation with a strong track record for financial stability and timely investment in equipment and facilities
- Develop an estate which can deliver clinical service, research and education that corresponds to the AHSC's global ambitions
- Drive wider economic benefits through its leadership role in GMEC
- Have created an entrepreneurial culture that captures the commercial benefits of its research innovations by working with the College's established commercialisation network

Through achieving these goals, the AHSC will meet its Mission to make it become one of the top five global academic health science centres, channelling excellence in research to provide world class healthcare for patients, within the next ten years.





## 11 Appendix A: Specialties by CPG

| CPG                                     | Specialties   |
|---|---|
| Medicine                                | <ul style="list-style-type: none"> <li>• Accident and emergency</li> <li>• Acute medicine</li> <li>• Elderly medicine</li> <li>• Gastroenterology and hepatology</li> <li>• Diabetes and endocrinology</li> <li>• Infectious diseases and infection control</li> <li>• HIV and genitourinary medicine</li> <li>• Dermatology</li> <li>• Respiratory medicine</li> </ul>   |
| Surgery and Cancer                      | <ul style="list-style-type: none"> <li>• Acute surgery</li> <li>• Breast surgery</li> <li>• Gastrointestinal and hepatobiliary surgery</li> <li>• Endocrinological and bariatric surgery</li> <li>• Urological surgery</li> <li>• Medical oncology</li> <li>• Clinical oncology</li> </ul>  |
| Specialist Services                     | <ul style="list-style-type: none"> <li>• Anaesthesia, critical care and theatres</li> <li>• Neurology and neurosurgery</li> <li>• Pain medicine and palliative care</li> <li>• Medical and surgical ophthalmology</li> <li>• Ear, nose and throat, and head and neck surgery</li> <li>• Maxillo-facial surgery and dentistry</li> <li>• Plastic and reconstructive surgery</li> <li>• Orthopaedic surgery</li> <li>• Rheumatology</li> <li>• Sports medicine</li> </ul> |
| Circulation Sciences and Renal Medicine | <ul style="list-style-type: none"> <li>• Cardiology, cardiothoracic and thoracic surgery</li> <li>• Vascular medicine (including systemic rheumatology, lipid medicine and hypertension) and vascular surgery</li> <li>• Renal medicine and transplantation</li> </ul>  |
| Women's and Children's                  | <ul style="list-style-type: none"> <li>• Obstetrics, reproductive and antenatal Medicine</li> <li>• Gynaecology</li> <li>• Neonatology</li> <li>• Paediatric medicine, surgery and critical care</li> <li>• Paediatric haematology and bone marrow transplantation</li> </ul>   |
| Clinical and Investigative Sciences     | <ul style="list-style-type: none"> <li>• Imaging and interventional radiology</li> <li>• Clinical and laboratory haematology</li> <li>• Biochemistry</li> <li>• Histopathology, cytology and immunology</li> <li>• Laboratory microbiology</li> <li>• Molecular medicine and genetics</li> <li>• Therapies</li> <li>• Medicines</li> <li>• Clinical trials</li> </ul>   |



## 12 Appendix B: The criteria for our AHSC

Lord Darzi's report 'A Framework for Action', noted that 'AHSC is not a label that should be applied indiscriminately' and proposed the development of criteria to be developed further by NHS London and the Department of Health to assess if a university/hospital partnership is an AHSC 'with a real intent to pursue an internationally recognised and integrated clinical, teaching and research mission. This would ensure that the AHSC label did not 'become a term like "university hospital" and "teaching hospital," which are both used loosely and liberally.'

Imperial College London and Imperial College Healthcare NHS Trust have created the UK's first Academic Health Science Centre based on the nine criteria outlined below:

- 1.** International quality in education, research and clinical services (demonstrated, for example, through an internationally recognised benchmarking process such as receiving Biomedical Research Centre status)
- 2.** Strategic and operational alignment of its research, education and clinical services, leading to faster translation of discoveries into treatments that benefit patients
- 3.** Integration of the organisation and its mission with local healthcare provision (not just medical education, research and acute services) but including involvement in a wide spectrum of services
- 4.** An associated AHSC Healthcare Network through which best practice and innovations are disseminated locally
- 5.** Aligned governance of the academic and service components exemplified by combined leadership for the academic and clinical activities; this can be achieved, for example, by two posts (CEO and Principal/Dean) being held by one person
- 6.** A dual post holder will be the accountable officer for service, education and research but will focus on the strategic and external context bringing leverage, creating partnerships, and attracting inward investment to the AHSC
- 7.** Integrated operational management at level of delivery (programme or service directorate)
- 8.** Integrated management of resources
- 9.** A single identity; AHSC linked to the core brand of the academic partnership



For further information on Imperial College London or Imperial  
College Healthcare NHS Trust, visit [www.imperial.ac.uk](http://www.imperial.ac.uk) or  
[www.imperial.nhs.uk](http://www.imperial.nhs.uk)

