



ACADEMIC HEALTH SCIENCE CENTRES SPECIFIC THEME / WORK PROGRAMME

1. DETAILS OF THE PROPOSED ACADEMIC HEALTH SCIENCE CENTRE (AHSC)

Name of the English NHS Provider/University Partnership:

Cambridge University Health Partners

2. THEME / WORK PROGRAMME

2.1 Name of the theme/work programme.

Theme 1: Development of the Cambridge Biomedical Campus (CBC)

2.2 Aims and objective of the theme/work programme.

Since 1999 CUHFT, UoC and the MRC have been jointly committed to a strategy of expansion and development of their shared site as the CBC. The campus has doubled in size from 70 acres in 2006 to 140 acres today, with options to extend by a further 17 acres by 2040. The existing site provides a remarkable environment, largely because of the wide range of occupants spanning service, education, research and innovation interests. These include: (1) NHS : CUHFT (Addenbrooke's and the Rosie Maternity Hospital), selected services of CPFT, NHS Blood and Transplant, and a base for the East Anglian Ambulance Services Trust; (2) University of Cambridge: School of Clinical Medicine with its 12 departments and the Cancer Research UK Cambridge Institute, the Wellcome Trust-MRC Institute of Metabolic Science, the Institute for Public Health and the Wellcome Trust Cambridge Institute for Medical Research (3) Medical Research Council: the Laboratory of Molecular Biology, the Mitochondrial Biology Unit and the Biostatistics Unit (4) Pharmaceutical companies: GlaxoSmithKline Clinical Research Unit Cambridge, AstraZeneca (from 2016) (5) Multiprofessional Education; the Deakin Centre, providing a range of high quality community services combined with excellent education and training provision; (6) within a five minute walk is the Strangeways Research Laboratory, home to the University's Centre for Genetic Epidemiology and the Public Health Genomics Foundation.

Our vision is that the campus should become the best environment in the world for patient care, training, discovery science and translational research.

Key aims over the next five years include:

- development of a masterplan for the campus, with engagement of a wide range of stakeholders including a large number beyond the existing four AHSC partners
- co-location on the campus of a broader range of stakeholders, who will benefit from close proximity and derive a step change benefit in furthering their leading edge work at pace and scale
- creating a culture amongst campus stakeholders of collaboration and partnership working – developing 'a campus community without organisational boundaries'
- as the campus grows, ensuring that we maintain and build on the existing relationships and other elements that already work well
- positioning the CBC as a driving force for innovation and enterprise; attracting industry collaboration beyond those located directly on the campus as a result of the streamlined research and other processes.

These strategic aims will be realised through three workstreams. Together they will ensure that the evolving

campus has not only the right “anatomy” in the form of buildings, but optimal physiology in terms of promoting collaboration and connectivity.

Workstream 1: Coordinating the development and delivery of a CBC masterplan. This will use the existing CBC Strategic Development Forum which comprises senior representatives of a wide range of stakeholders. The CBC Delivery Group of CUHP partners will translate the vision into reality, and coordinate practical and operational issues. The master planning workstream will develop a strategic plan for decisions related to use of the available land, timetabling and phasing of development; communication and branding; public realm (consistent signage, public arts and spaces); transport infrastructure across and to the campus site; facilities to support collaboration, such as a range of high quality social spaces. It will also consider support facilities for innovation and enterprise, including facilities for small and medium sized enterprises not located on the site but enabling development of initiatives in conjunction with a range of others including those who are. It will address issues of environmental sustainability of the campus developments (eg green travel plans); contribution to public health and wellbeing through design and operational functioning (as a specific example of the latter, we intend that the entire campus should be smoke-free by 2014; this will be coupled with a range of approaches supporting staff, patients and visitors to quit smoking successfully); and supporting infrastructure functions including car parking, energy and waste management. The masterplanning workstream will also aim to coordinate the provision of facilities and arrangements to support robust and high profile patient and public involvement in the activities of the campus partners. This will include opportunities for active engagement with the wider community, including investing in the next generation of scientists and researchers, building on the already successful Cambridge Science Week initiatives, and supporting partners to open their doors through summer camps, placements, internships and on-going engagement activities. Our approach will be to develop the CBC as a ‘rich hub’, by building and enhancing connectivity and ensuring that the physical environment is optimal. This model has been described by one of our Board members as aiming to be “a Schipol rather than a Heathrow”.

Workstream 2: Developing interactions with other organisations and institutes: This workstream will consider how the Campus will operate as part of a connected network with other institutions, both locally within Cambridgeshire, and further afield, including UCL Partners and the Crick Institute.

a) Cambridge based campuses and institutes. The workstream will consider interactions and connectivity with other campuses and institutes, both within the city and surrounding area. This will include connectivity with other University of Cambridge sites, especially considering how we can foster interdisciplinary working with maths, physics, engineering, chemistry and biological sciences some of which are located several miles from the campus. Initiatives are likely to include improved cycleways, public transport, touchdown spaces and satellite laboratory groupings. It will also work closely with the CUHP sponsored £10m University Technical College which will provide biomedical science and technology education to 670 young people from September 2014, exploiting the educational opportunities presented by the healthcare and biotech organisations and their need for skilled young recruits. Other interactions that we will work on are with the Wellcome Trust Sanger Institute at Hinxton, Granta Park and the other Cambridge science parks, the Babraham Institute, and the NHS sites of Papworth and Fulbourn. A strategic vision for the cluster working effectively together, will further strengthen the success of the sub region in attracting skills and investment and fostering interaction.

b) Biomedical campuses and institutes beyond the Cambridge sub region. Developing the CBC with reference to partners in North London and along the M11 corridor, and in Oxford, will provide scope for the collaboration to perform optimally at a global level, with both national and international benefit. We will explore how CUHP and the CBC can interact as effectively as possible with this extended environment. GSK (at Stevenage), UCL and UCL partners (North London) and the Francis Crick Institute (King’s Cross) will be particular priorities.

Workstream 3: The location to the campus of key stakeholders and building construction

This workstream will coordinate and assist with efficient delivery of the following key CBC developments and manage their interface with the masterplan:

- the Forum, which includes a new 100 bed, 6 theatre private hospital run by Ramsey Healthcare; a hotel and 900 delegate conference facility run by intercontinental Hotels Group; and a world class education centre, including state of the art simulation facilities and a cadaveric training centre fully operational from summer 2016.
- an ~£17m expansion of our clinical research facilities planned to open in 2016.
- the relocation of PHFT to the campus from 2017. This will be one of the largest cardiothoracic centres in the world, treating 90,000 patients a year, expected to double by 2023/24, increasing staff numbers from 1,438 WTE to over 2,000. The relocation will lead to integration of cardiothoracic services with specialist acute services and facilities.
- a £40m Heart and Lung Research Institute planned to open in 2017.

- a £70m building to contain a Stem Cell Institute, and Institutes of Infection & Immunity and Global Health
- the construction of a £100m University of Cambridge Pre-clinical Translational Medicine Facility for the School of Biological Sciences and School of Clinical Medicine. This is planned to be fully operational from October 2017
- supporting the £330m relocation by AstraZeneca of its global headquarters; small molecule function; and MedImmune's biologics research and development facilities, with a combined highly skilled workforce of 2,000 people (500 transferring from Granta Park).

The workstream will also coordinate a number of aspirational developments currently under discussion, including:

- the relocation to the CBC of selected Cambridge and Peterborough Mental Health Services
- expansion and redevelopment of clinical facilities which currently have capacity constraints or are operating in out of date space including oncology; neurology; emergency department; and paediatrics.

2.3 Description of how the proposed theme or work programme will contribute to the aims of the AHSC.

The co-location of high quality clinical care, leading edge research and education and training is central to CUHP's vision to be a centre of excellence providing outstanding care to our local population, and having a global impact on health.

The work delivered by this theme will allow us to capitalise on the current strengths of the site, increase engagement of external stakeholders, and bring in new organisations with complementary capabilities, including independent research institutes, biotech companies, incubator space and large pharmaceutical companies. It will deliver maximum benefit to all by making the campus the most exciting, interactive and productive environment in which to work. It will also foster extensive collaboration with other relevant organisations based on the campus and nearby, including the MRC Units and LMB, UoC Departments of Chemistry, Physics, Engineering, Maths & Computer Sciences, the Babraham Institute, the Wellcome Trust Sanger Institute, and the European Bioinformatics Institute.

CUHP organisations, other stakeholders and wider society will all benefit from the critical mass of world class expertise, and the benefits of a highly collaborative, external-facing culture, supported with an enabling infrastructure underpinned by a coherent and sustainable masterplan.

2.4 Description of how the proposed theme or work programme will contribute to the further integration of research, health education and/or patient care and how this will lead to improvements in patient care.

Further integration of research, education and patient care will be greatly facilitated by progressive co-location of highly skilled personnel, supported by an enabling infrastructure and a partnership culture. The environment will encourage collaboration, both internally and externally, which will contribute to breaking down disciplinary boundaries. The environment will be ideal for pooling resources to provide state of the art infrastructure, equipment & facilities; for sharing data & ideas; and for attracting and developing a highly skilled workforce. If we succeed in realising our vision, there will be enormous benefit for research, education and patient care.

2.5 Description of how the theme/work programme will involve and enhance multi-disciplinary and multi-professional working.

Multi-professional and multi-disciplinary working will be enormously enhanced by all four CUHP organisations being based on the site and sharing it with a wider range of other partners. Additional facilities will be available to support collaboration for those not located on the site but who will benefit from interaction with those that are, eg a planned CBC Innovation Centre, University of Cambridge IdeaSpace; continuation of the highly successful ABC Dinners (Academic, Business, Clinical), with shared learning and networking of the highest quality. This is further enabled by the range of education facilities (The Forum, UTC, Deakin Centre) which promote and deliver multi professional education and training; and the CBC's supporting infrastructure including development of a range of 'social spaces' to encourage cross organisational interaction; communication and transport facilities.

2.6 Description of leadership and key individual and organisational contributors with responsibility for delivering the theme/work programme.

The Campus work theme is led by the **CBC Delivery Group** which includes senior representation from each partner and is chaired by Stephen Bridge, CEO PHFT, and is supported by Sally Standley as CUHP's CBC development lead. The CBC Delivery Group reports regularly to the Board, to which it is directly accountable.

Professor Patrick Maxwell, CUHP CEO and Regius Professor of Physic, convenes and chairs the **CBC Strategic Development Forum**. This includes patients and the public, and specific expertise from each partner organisation (for example the University of Cambridge's academic leads of the University's Strategic Research Initiatives); the MRC's Laboratory for Molecular Biology; local partner institutes (the Babraham Institute; The Wellcome Trust Sanger Institute; European Bioinformatics Institute); the NIHR Biomedical Research Centre (BRC); a wide range of external partners organisations with interests in research, education and innovation for example CRUK, Medimmune/ AstraZenca, Cambridge Enterprise; and other key NHS partners: Public Health England, NHS England, and importantly, service user and carer perspectives. The Strategic Development Forum is central to obtaining broad engagement with masterplanning of the CBC, considering how to develop the most collaborative environment, and promoting external connectivity. It feeds into the CBC Delivery Group through Sally Standley.