West of England AHSN Limited
6th Floor, South Plaza, Marlborough Street
Bristol BS1 3NX

Date: 10th February 2014
Ref: LS/NK

Dear Chloe,

Please find the West of England Academic Health Science Network's evidence to the Inquiry into Access to Medical Technologies in Wales that is being conducted by the National Assembly for Wales Health and Social Care Committee.

Background

The West of England Academic Health Sciences Network (WE-AHSN) is one of 15 Academic Health Science Networks (AHSNs) which have been set up in response to a recent consultation under Sir David Nicholson, the results of which were published in the report '*Innovation Health and Wealth, Accelerating Adoption and Diffusion in the NHS'* [1]published by Department Of Health. It was recommended that regionally distinct AHSNs be set up and that responsibility for ensuring the NHS accelerates the adoption and spread of innovation, and harnessing the potential of the NHS to act as an economic driver, be devolved to these organisations. The West of England AHSNS (WE-AHSN) was licensed in Sept 2013 and is now a company limited by guarantee, wholly owned by its members and licensed to operate for 5 years by NHS England. It represents all the major stakeholders in health in the West of England. http://www.weahsn.net. Our member organisations are attached at appendix 1.

1 http://webarchive.nationalarchives.gov.uk/20130107105354/http:/www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_134597.pdf

Chair Professor Steven West **Managing Director** Deborah Evans

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Working in Partnership to put innovations at the heart of health and care to improve patient outcomes and contribute to wealth creation

The West of England Academic Health Science Network has come together with the clear purpose of unlocking innovation and wealth in our health economies. Its stated missions are:

- To deliver measurable gains in health and wellbeing across the West of England focusing on the needs of our patients and local population.
- To make a meaningful contribution to the West of England and UK economy.
- To build a learning and delivery network to accelerate the adoption and spread of innovation and improvement of clinical outcomes and patient experience.
- To build a culture of partnership and collaboration.

In Response to the request for evidence we are pleased to offer the following comments

To examine the financial barriers that may prevent the timely adoption of effective new medical technologies, and innovative mechanisms by which these might be overcome.

One of our key priorities concerns working to streamline and harmonise procurement and adoption across WE-AHSN, thus making it easier, particularly for SMEs, to gain access to the NHS market. We have had excellent support in this endeavour from procurement colleagues in the Task & Finish group and are initially focussing on:

- Harmonising pre-qualifying criteria and approaches to procurement ie describing procurement opportunities in terms of outcomes & standards rather than a technical specification.
- Setting up clinical challenges with our members, working with companies to respond to these challenges and thus helping them to generate the evidence they need to respond to future procurement opportunities.
- Helping our procurement colleagues to engage with SMEs through joint outreach events and master classes and describe the processes already in place to facilitate procurement from a wide range of suppliers.

On a national level, we are contributing to the Procurement Rapid Design Group to support the 3ML (Three Million Lives) telehealth programme run by NHS England.

To understand the ways in which academia engages with the NHS and industry;

We have recently completed a scoping exercise studying over 20 leading international centres to determine elements of good practice in terms of how industry interacts with the academic and health sectors[2]. In terms of interacting with industry we found that the models were often dictated by the industry sector with which the institutions were collaborating with.

For example the pharmaceutical sector is clearly keen to collaborate with the academic sector (basic and clinical) particularly in the in the translational research space and it

[2] Hecht and Sundstrom 20131

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sees this as a mechanism to leverage public research to reduce its own R&D spend in the future.
We found that pharmaceutical companies are attracted mostly by 3 things:

- Access to key academic opinion leaders (particularly clinical opinion leaders)
- Places with enough critical mass to justify the overheads of putting in place a strategic relationship and an ability to grow the relationship for both partners benefit
- Infrastructures that have the ability to move quickly from concept to collaborative projects with minimal administrative burden

Partnerships between the pharmaceutical industry, the academic sector and the NHS are usually thematic in areas of strategic importance to the company for example infection/immunity or cancer. The prime attractant seemed to be access to a critical mass of high quality science or clinical expertise in the strategic area and mostly these involved one or a few institutions. In the research phases pharmaceutical companies generally like to work in closed consortia, they are happy to subscribe to these financially, and do not seem to mind working with several potential competitors to share the risk of setting these up. So at least in the earlier research phases, collaboration among pharmaceutical companies was not a barrier in the cases we looked at. Mobility of researchers between companies and academic/clinical settings is important and the companies frequently supply resources from their side to encourage the collaboration. When projects transition into clinical trials the relationship with clinical opinion leaders becomes more important and consortia are less likely. In these cases the companies prefer to deal individually with clinical research centres.

With larger companies in the medical technology sector consortia between companies is less frequent and there is generally an exclusive relation between one company and one institution. In contrast to the pharmaceutical industry the work carried out in these collaborations is often considered commercially sensitive. The prime output of these larger collaborations is knowledge transfer, graduate and postgraduate training. They are often seen as places for companies to try things out that they could not do in a more rigid corporate R&D environment. In the medical technology/device sector, the local clinical environment is absolutely critical: access to research active clinicians is the driving force, understanding how devices will be used in a local clinical setting is the key factor and this feedback is considered essential to drive innovation. Access to patients, a support structure to get studies off the ground quickly and leveraged public sector funding is often present in successful centres.

In several cases public private partnerships (PPPs) have evolved where the public sector and or charities (e.g. CRUK or Wellcome Trust) participate in these PPPs. Two models that have been evolved that typify this type of working with the Health sector (NHS) are Translational Research Partnerships[3] which support pharmaceutical companies in the experimental medicine space and early clinical development phases (supported by

[3] http://www.nocri.nihr.ac.uk/research-expertise/translational-research-partnerships/

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NIHR) and Health Technology Cooperatives (HTCs[4]) more focused on medical technology development and supported by NIHR and EPSRC[5].
Drivers are somewhat different working with the SME sector than working with larger companies.

SMEs are more heavily dependent on accessing resources to be able to enter into partnerships with academia or the NHS. The classical push model involving technology transfer from the academic sector to SMEs or creation of spin outs continues to operate but is currently limited by the availability of risk capital. Some of this slack has been taken up by the public sector (e.g. Technology Strategy Board) or Research Councils (e.g. Biomedical Catalysts funds) and some major charities (e.g. Wellcome Trust translational programmes).

We have been involved in an alternative model in which challenge led innovation is encouraged through procurement of product development. The Small Business Research Initiative provides a 2-3 stage funding model for SMEs to develop solutions for unmet clinical needs. A first feasibility stage (£100K) explores the suitability of a product to fill a need indentified by health practitioner and a second stage (up to £1M) delivers a solution which can be evaluated for adoption. We believe this model based on 'Clinical Pull' will be very effective as it has been already in several sector in the US. In this model the AHSNs collectively work to define the call topics and provide clinical challenges and assessors for review panels[6].

To understand how a partnership approach between the NHS, academic institutions and industry could be developed further.

Encouraging and supporting the formation of partnerships between local NHS and HEI organisations to create local clusters of expertise and take advantage of local microenvironments seems to us to be critical. The WE-AHSN is an example of such a structure and this allows to collectively prioritise areas for development as well as deliver consistency of care across our area. 2 other good example in our area of similar partnerships are 1) Bristol Health Partners[7] which use integrates groups focusing on health research into coordinated delivery teams (Health Integration Teams) and 2) the nascent Clahrc-West which will develop programmes to deliver evidence based research programmes in our area[8].

Such local partnerships provide a framework to generate critical mass and allows the stakeholders to develop common agendas which bring scale and pace to adoption and spread of innovation. One way this can be achieved is by putting in place agreements allowing the free movement of resources across the partnership to minimise time from idea to implementation. This is also attractive to industry as it creates in effect a single

[4] http://www.nihr.ac.uk/infrastructure/Pages/HTCs.aspx
[5] http://www.epsrc.ac.uk/SiteCollectionDocuments/Calls/2013/EPSRC-NIHR%20HTC%20Partnership%20Award%20Call%20workshop%20presentation.pdf
[6] http://www.sbrihealthcare.co.uk/
[7] http://www.bristolhealthpartners.org.uk/
[8] http://www.bristol.ac.uk/news/2013/9662.html

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point of contact and reduces the administrative burden form them in maintaining multiple relations.

Using local unmet clinical need as the main driver for initiating projects to drive collaboration with the SME sector through challenge led innovation exemplified by the SBRI scheme, seems to us to be a good mechanism to use the pulling power of the NHS to drive local economic growth. A corollary of this is the availability of rapidly deployable proof of concept funding as the main driver for stimulating collaboration between the HEI, NHS and SME sectors.

Building consortia between academia Industry and larger companies around themes of common interest and strength seems like an excellent way to develop relations with larger companies where appropriate critical mass exists in a region. Using access to key opinion leaders to drive the formation of these consortia seems to us critical. A good example of this in Wales seems to be the nascent Welsh Wound Healing Innovation Centre.

Yours sincerely

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Appendix 1

PROVIDERS OF NHS SERVICES
Avon and Wiltshire Mental Health Partnership NHS Trust
Gloucestershire Care Services NHS Trust
Gloucestershire Hospitals NHS Foundation Trust
Great Western Hospitals NHS Foundation Trust
North Bristol NHS Trust
Royal United Hospital Bath NHS Foundation Trust
South West Ambulance Service NHS Foundation Trust
University Hospitals NHS Foundation Trust
Weston Area Health NHS Trust
2Gether Partnership NHS Foundation Trust
Representative of the CIC 'club'
UNIVERSITIES
University of Bath
University of Bristol
University of the West of England
CLINICAL COMMISSIONING GROUPS
Bath and North East Somerset CCG
Bristol CCG
Gloucestershire CCG
North Somerset CCG
South Gloucestershire CCG
Swindon CCG
Wiltshire CCG

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