

Leicestershire Academic Health Partners

Author: Nigel Brunskill Sponsor: Andrew Furlong

Trust Board paper F

Executive Summary

Context

Over the last 24 months detailed discussions have taken place between UHL, University of Leicester (UoL) and Leicestershire Partnership Trust (LPT) about the establishment of a more formal strategic partnership to replace the informal arrangements that each Trust currently has with UoL, with the aim of strengthening the academic underpinning of healthcare delivery across LLR. The accompanying paper explains the rationale for this development. The paper has evolved following discussion at the UHL Trust Board Thinking Day on two occasions in 2017 and 2018, and multiple other meetings with senior stakeholder representatives. The LAHP descriptive paper was approved by the UHL Executive Strategy Board in October 2018 and by the University of Leicester Leadership Team in November 2018. The paper was also presented to the LPT Executive Team in November 2018. The MoU has been approved at UoL Leadership Team, by UHL Executive Performance Board in Feb 2019, and is being presented to LPT Board in Feb 2019.

Questions

1. Is the establishment of Leicestershire Academic Health Partnership (LAHP) appropriate at this stage?
2. Are the financial and governance arrangements satisfactory?
3. Is the Trust Board happy with the stated milestones?
4. Is the Trust Board happy with the MoU.

Conclusion

1. This is an opportune time to establish LAHP.
2. The governance arrangements are pragmatic and acceptable at this stage of LAHP development
3. Senior leadership and oversight will be put in place to maximise chances of success.
4. The MoU is suitable at this stage to underpin LAHP functions.

Input Sought

Report is presented for approval.

For Reference

Edit as appropriate:

1. The following objectives were considered when preparing this report:

| | |
|---|------------------|
| Safe, high quality, patient centred healthcare | [Yes] |
| Effective, integrated emergency care | [Yes] |
| Consistently meeting national access standards | [Not applicable] |
| Integrated care in partnership with others | [Yes] |
| Enhanced delivery in research, innovation & ed' | [Yes] |
| A caring, professional, engaged workforce | [Yes] |
| Clinically sustainable services with excellent facilities | [Yes] |
| Financially sustainable NHS organisation | [Yes] |
| Enabled by excellent IM&T | [Yes] |

2. This matter relates to the following governance initiatives:

| | |
|------------------------------|-------|
| Organisational Risk Register | [Yes] |
| Board Assurance Framework | [Yes] |

3. Related Patient and Public Involvement actions taken, or to be taken: [Insert here]

4. Results of any Equality Impact Assessment, relating to this matter: n/a

5. Scheduled date for the next paper on this topic: [TBC]

6. Executive Summaries should not exceed 1 page. [My paper does comply]

7. Papers should not exceed 7 pages. [the paper is longer than this]

Leicestershire Academic Health Partners

1.0 BACKGROUND

Over the last 18 months discussions have taken place between senior colleagues from the University of Leicester (UoL) and the University Hospitals of Leicester NHS Trust (UHL) and the Leicestershire Partnership Trust (LPT) to explore the possibility of establishing Leicestershire Academic Health Partners (LAHP) group to harmonise activities in key areas.

Bilateral UoL/UHL and UoL/LPT Joint Strategy Boards already exists, chaired alternately by the UoL Head of College of Life Sciences and the UHL or LPT Chief Executive, with wide senior representation from both organisations. These activities form a nucleus around which an LAHP model could be developed. With respect to the current UoL/UHL and UoL/LPT Joint Strategy Boards, much progress has been made around several projects although the Board has no executive powers, no budget, and often before any proposals can be implemented they need ratification through the internal governance processes of two separate organisations.

In addition, regular high-level strategy working dinners are held between UoL and UHL, and UoL and LPT hosted by the UoL President and Vice Chancellor.

These important strategic activities between the NHS organisations and their academic partner are completely lacking in external visibility.

There are other problems to be addressed.

- NHS clinical teams are busy and service focused, thus academic concerns are often not well integrated into clinical service development plans, even when there are strong research elements to the clinical speciality
- UoL academics are often not able to use their considerable expertise to influence health policy and service developments
- there is often a 'disconnect' between academic excellence and clinical service delivery
- there is an absence of academic input into LLR-wide healthcare system leadership
- recruitment and retention of healthcare workforce is challenging
- there is currently no joint vehicle to present a unified academic 'offer' to potential investors such as industry, local government, or private philanthropy.

1.1 Existing AHP Models in the UK

In 2014 the Department of Health designated 6 Academic Health Science Centres in England:

- Cambridge University Health Partners Academic Health Science Centre
- Imperial College Academic Health Science Centre
- King's Health Partners Academic Health Science Centre
- Manchester Academic Health Science Centre
- Oxford Academic Health Science Centre
- University College London Partners Academic Health Science Centre

These AHSCs are high profile, internationally recognised partnerships of multiple large NHS and academic institutions with senior leadership and well developed infrastructure.

In 2014 a joint bid was made to NIHR for an East Midlands AHSC. This was unsuccessful, and probably some distance from being competitive.

In addition across the UK there are 7 other Academic Health Partnership Groups in existence with a web presence (see Appendix 1 for details on structure and finance where available):

- Academic Health Science Partnership for South East Wales
- Academic Health Partnership Tayside
- Birmingham Health Partners
- Bristol Health Partners
- Leeds Academic Health Partnership
- Liverpool Health Partners
- Newcastle Academic Health Partnership

There is also a Nottingham Health Science Partners group which lacks a web presence and may be dormant.

This type of organisation may represent a more realistic aspiration for Leicestershire. Indeed some of these AHPs are not that much more extensive than the existing UoL/UHL and UoL/LPT strategic partnerships, albeit better publicised and more professionally presented internally and externally.

1.2 Leicestershire Academic Health Partners (LAHP) Model

Although there are several existing models nationwide, the current strategic meetings between UoL and NHS partners already fulfil some of the functions of an AHP, but in an informal way with low visibility.

Therefore rather than directly adopting a model existing elsewhere, it is may be most appropriate to identify the local challenges that a well-planned LAHP could more effectively address, and then evolve the existing strategic relationship accordingly such that 'form follows function'. These challenges may include:

- Increasing the visibility of the LAHP to the public, industry and other potential partners
- Ensuring support and development of areas of strong biomedical research with alignment to clinical developments
- Providing robust support to develop nascent areas of research strength
- Supporting excellence in education
- Highlighting academic excellence in teaching and research to attract, motivate and retain a highly trained healthcare workforce
- Where possible using a joint approach to shared estate and facilities
- Supporting local investigators, clinicians and managers to implement local projects into the LLR health landscape
 - Provides important evidence of impact
 - Fulfils NIHR remit
 - Improves healthcare for LLR patients

Furthermore there is a very clear message from NIHR that future priorities (and funding) will include public health research and enhanced implementation activity. UoL and NHS partners alone cannot lead public health research, but academics associated with UHL, LPT and UoL could if the right people were round the table. LCRN is being given a very clear indication that they need to deliver more public health research. Unless their budget increases accordingly, more public health research will result in reduced income to NHS provider trusts, unless UHL/LPT/UoL researchers feature prominently.

With regard to implementation, LLR researchers are prominently involved in health services research often with outstanding results (eg CLAHRC, Leicester Diabetes Centre, frailty). However, there is a disconnect between the findings of these

researchers and the operations of service providers who could benefit from implementation. There is no established path or structure for these academics to implement their research for the benefit of LLR residents or use LLR healthcare system as a 'test bed' for evaluation. Bringing partners to the LAHP table could allow greater scope of activity and greater impact across the healthcare system.

At the UHL Trust Board Development Day on 21st June 2018 the LAHP development team were asked to develop a more detailed proposal for LAHP, and in July 2018 senior colleagues from LPT expressed an interest in becoming founder members of LAHP and requested sight of a more detailed proposal.

1.3 External Consultation

In August 2018 the UoL President and Vice Chancellor hosted a dinner at Knighton Hall inviting Dr John Williams, Managing Director of Birmingham Health Partners to discuss his experience of developing an effective academic health partnership in the Midlands. His advice can be summarised as:

- The senior leaders of partner organisations must be fully committed to the project
- The AHP Board should be chaired by the senior leaders of partner organisations
- Need pragmatic approach to identifying and solving problems
- MoU based agreement allows quick start and flexibility
- Final strategy can be developed after the partnership is established
- Choosing the right individuals to lead projects is crucial
- Selecting promising and driven individuals to contribute to project leadership and delivery gives opportunity to develop new leaders
- Academic health partnerships can be key levers for obtaining continued and increasing funding from NIHR for BRCs and CRFs

2.0 STRATEGY

The overarching vision for LAHP is to create an integrated partnership to harness academic excellence in an environment that facilitates the performance and implementation of excellent research to improve healthcare for the people of LLR delivered by a highly trained workforce.

This will be achieved through a series of mutually agreed work programmes subject to robust operational management and accountable to the LAHP Board.

A detailed strategy will be developed following discussion and agreement between the partners comprising LAHP.

3.0 GOVERNANCE AND LEADERSHIP

The governance arrangements for LAHP will build on the existing bilateral joint UoL/UHL and UoL/LPT Strategy Board meetings, together with the existing close professional relationships and bilateral/trilateral working agreements already in place between the members. The outline governance structure of LAHP is shown in Figure 1.

Initially, LAHP will be developed and based around a Memorandum of Understanding to be signed by all partners. Depending on the views of members this structure may progress to a more formal legal entity in the future, but the existence of LAHP is not contingent upon this.

3.1 LAHP Board

The LAHP Board will meet quarterly and will be chaired in rotation by the UoL President and VC, the Chair of UHL and the Chair of LPT. The LAHP will report to the Boards of the partner organisations (see 3.5). The proposed membership will include the UoL Pro Vice Chancellor and Head College of Life Sciences, the Chief Exec of East Midlands AHSN, the LAHP Director, and a senior industry representative(s).

The key functions of the Board are to agree and approve the LAHP priorities and the establishment of individual AHTs, to monitor the activities of the Operations Group and to identify and remove any barriers to delivery. The Board will also quickly identify resources needed to support delivery. The Board will receive quarterly finance reports from the Operations Group.

3.2 LAHP Operations Group

The Operations Group meet monthly, will be accountable to the Board and will be chaired by the LAHP Director, supported by a Chief Operating Officer/Manager. The proposed membership will include R&I Directors, LPMI Director, BRC Director, HDRUK Leicester, PPI/E, LHEA Director, AHT Leads will attend where necessary,

additional members may be co-opted onto the Operations Group as required for specific projects.

The key functions of the Operations Group are to establish AHTs, aligned with LAHP strategic priorities, for approval by the Board. The Operations Group will ensure full engagement of partners and will monitor delivery of AHT projects, whilst escalating and reporting delivery issues to the Board. The Operations Group will monitor the finances of LAHP.

3.3 Academic Health Teams

The AHTs are the delivery arms of LAHP. They will be established by the Operations Group following approval by the Board and will have an allocated budget where necessary. AHT activities will be guided by the strategic priorities of LAHP partners and closely aligned to the Leicester Biomedical Research Centre and other elements of NIHR architecture in LLR. Each AHT will have a lead and a support team drawn from the partners, and beyond as necessary. The AHTs will be accountable to, and report to, the Operations Group.

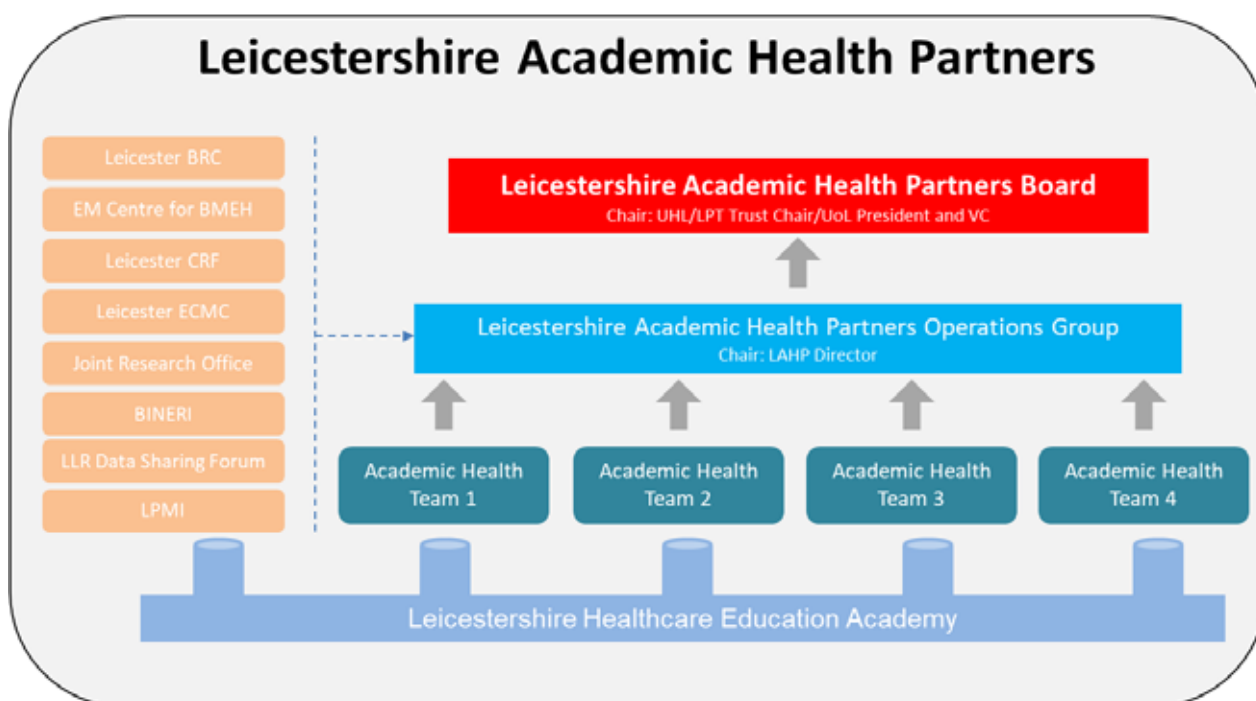


Figure 1. LAHP Governance Structure – underpinned by Leicestershire Health Education Academy (Appendix 2).

3.4 Financial Arrangements

LAHP will require some financial support and key posts. It is anticipated that the LAHP partners will find this, at least in part, by the re-purposing of existing funding and/or staff.

The box below outlines the budget based on each partner contributing £75,000 per annum:

| | | | |
|---------------------|-----------------|--------------|-----------------|
| Income: | | | |
| Partner 1 | | | £75,000 |
| Partner 2 | | | £75,000 |
| Partner 3 | | | £75,000 |
| | | Total | £225,000 |
| Expenditure: | | | |
| LAHP Director | NHS Consultant | 2 PA | £20,000 |
| LAHP COO/Manager | AfC mid Band 8b | 1 WTE | £68,856 |
| LAHP Secretary | AfC mid Band 3 | 0.5 WTE | £11,674 |
| LAHP Administrator | AfC mid Band 3 | 1 WTE | £23,348 |
| AHT Budget | | | £100,000 |
| | | Total | £223,878 |

It is expected that LAHP will be self-sustaining financially and profit generating by 3 years.

3.5 Reporting Lines

LAHP will be accountable through the internal governance processes of the partner organisations as follows:

- For UHL and LPT minutes of the LAHP Board will be reported with an explanatory covering paper to the appropriate Executive Board on a quarterly basis. In addition, an LAHP paper will be presented to the public Trust Board every 6 months.
- For UoL, an LAHP progress paper with Board minutes will be reported to the University Leadership Team on a quarterly basis.

4. THEMES AND WORK PROGRAMMES

The key themes will be determined by LAHP on behalf of the partner organisations and will address key issues where there is significant underpinning academic activity or realistic potential to develop new activity in LLR.

The identified thematic elements of LAHP will be led by individual AHTs. Each AHT theme will have a budget and may include several workstreams.

The AHT themes listed below are for illustration (Figure 2) only and the final form will depend on input from LAHP partners, However AHT themes may include:

4.1 Big Data

Harnessing the power of big data to improve healthcare and support research is recognised as a national priority area. Some cities (eg Leeds and Manchester) have made big advances in their local health informatics systems. Leicester is strong in big data research. There is much academic activity and potential in Leicester – eg HDRUK, Digital Innovation Hub, data sharing between primary and secondary care – but a lack of coordination and senior oversight. An LLR Big Data AHT accountable to LAHP would make big advances in this area.

4.2 Body and Mind – Managing Multi-Morbidity for Holistic Health

Multimorbidity, including mental health and dementia are NIHR priority areas for future research funding and healthcare system challenges for LLR. The challenges of multimorbidity and frailty cross organisational boundaries and a coordinated approach to identify key local issues for research and healthcare improvement would be appropriate for an AHT supervised by LAHP.

4.3 Diversity in Healthcare

Ethnicity and health research is a key USP for Leicester. There is much excellent activity particularly in the EM Centre for Black and Minority Ethnic Health based at Leicester General Hospital. A focused strategy to deliver key local projects led by an AHT accountable to LAHP will enable more focused progress to be made.

4.4 New Partnership Models between NHS, Academia and Industry

LAHP will provide a new interface for business to interact with the NHS and academia in LLR, enabling a co-ordinated local response to, and engagement with

the UK Life Sciences: Industrial Strategy (2017). An appropriately constituted AHT will provide access for business to senior academic and healthcare leaders in LLR will allow formation of AHTs to deliver projects of mutual interest and drive inward investment. Specifically, an LAHP AHT in this area will establish key local priority areas for the LLR healthcare system to capitalise on the Life Sciences Sector Deal in areas such as diagnostics, clinical trials, regulation, skills, and artificial intelligence – all proposed priority areas for the next phase of the Life Sciences Sector Deal.

4.5 Precision Healthcare in LLR

Precision medicine is a theme of the Leicester BRC and the Leicester Precision Medicine Institute (LPMI) has been established between UoL and UHL to support precision medicine research in LLR. An AHT focused on precision healthcare will provide test-beds for implementation of local research findings in LLR increasing research impact and health of the LR population. The AHT will ensure that BRC precision medicine outputs are implemented rapidly and widely.

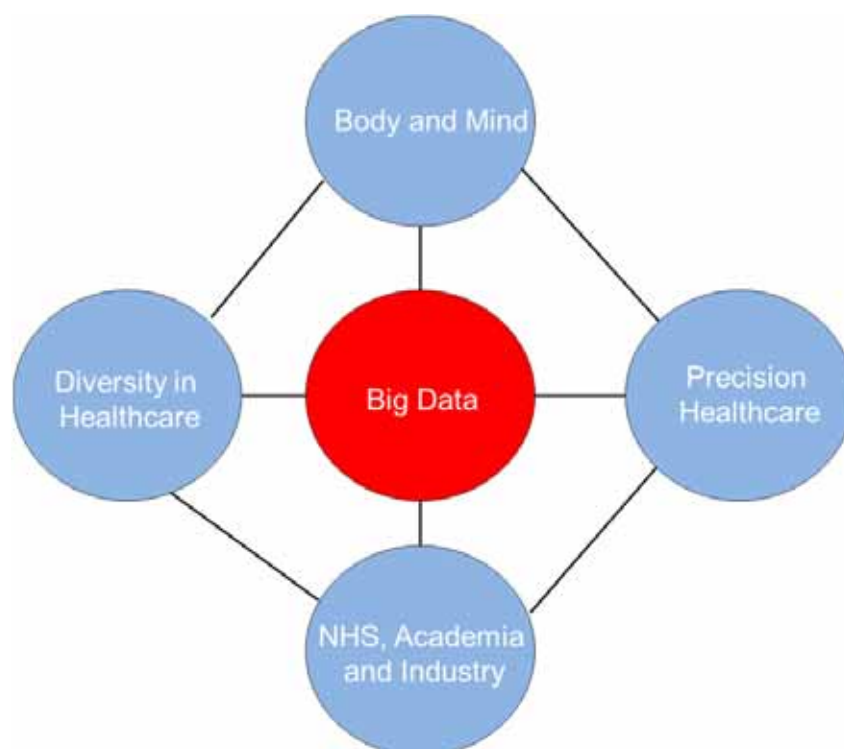


Figure 2. LAHP Possible Theme Structure and Relationships

5.0 PERFORMANCE OBJECTIVES

The specific objectives of LAHP are:

5.1 Short Term Deliverables (1-2 years)

- Appoint LAHP Director and Chief Operating Officer
- Establish a functional LAHP Board and Operations Group
- Implement a communications strategy for LAHP
- Establish single strategic oversight for clinical academic developments in LLR
- Establish Academic Health Teams (AHTs) in priority areas
- Begin discussions with potential additional members
- Work with LPMI and AHSN to develop commercial/philanthropic opportunities

5.2 Medium Term Deliverables (2-3 years)

- Monitor delivery of AHT projects
- Membership of LAHP completed
- Integrated data sharing platform across LLR
- Establish 'LAHP Associate' status for pharma and SMEs

5.3 Long Term Deliverables (3-5 years)

- Complete delivery of AHT projects
- Implement new pathways for multi-morbidity management across LLR
- 10 LAHP Associates

5.4 Initial Project Milestones

| No | Description | Start Date | End Date |
|----|--|------------|------------|
| 1 | Announce formation of LAHP and sign MoU | 01/01/2019 | 31/01/2019 |
| 2 | Existing strategic groups coalesce to form LAHP Board | 01/01/2019 | 31/01/2019 |
| 3 | LAHP Board meets to discuss and agree priority areas for Academic Health Teams | 01/01/2019 | 31/03/2019 |
| 4 | Appoint Director/Manager and key staff | 01/01/2019 | 30/04/2019 |
| 5 | Establish LAHP Ops Group and first meeting | 01/01/2019 | 31/03/2019 |

| | | | |
|----|--|------------|------------|
| 6 | Establish AHTs and appoint leaders and team members | 01/01/2019 | 30/06/2019 |
| 7 | Finalise LAHP strategy | 01/01/2019 | 20/06/2019 |
| 8 | Develop communications strategy and website | 01/01/2019 | 30/06/2019 |
| 9 | Explore other potential partners | 01/01/2019 | 31/12/2019 |
| 10 | Use LAHP to support applications for research funding >£1M | 01/01/2019 | 31/12/2020 |

5.5 Key Performance Indicators

Whilst some KPIs will necessarily be based around AHT activities yet to be decided, the following will be specific high level KPIs:

- Increased external grant income for research
- At least one successful LAHP supported grant application >£1M by 30 months
- Successful BRC application with increased number of themes and increased overall funding
- Evidence of improved recruitment and retention of staff at partner organisations by 5 years
- >£5M external investment into LAHP projects in first 5 years of operation
- Self-sustaining financially at 3 years

5.6 Critical Success Factors

The following are regarded as being essential to a functional LAHP:

- Engagement of senior leaders of partner organisations
- Board reliably chaired by senior leaders
- Dedicated resources/staff to LAHP
- Robust selection of AHT topics
- Appointment of appropriate individuals to lead AHT topics

6.0 DRIVING INVESTMENT

LAHP will offer a new way for industry to interact with senior NHS and academic leaders across LLR by providing a robust structure for engagement with the UK Life

Sciences Industrial Strategy (2017). Selected business representatives will be invited to become members of the LAHP Board.

7.0 STRATEGIC PARTNERSHIPS & WORKING WITH NIHR FUNDED RESEARCH INFRASTRUCTURE IN LLR

UHL hosts the NIHR Leicester BRC, the NIHR Leicester CRF and the EM LCRN. UHL and UoL jointly host an ECMC. The EM CLAHRC Director is based in Leicester. Leicester contributes many trainees to the NIHR Integrated Academic Training Pathway.

A key goal of LAHP is to maximise delivery from the currently funded NIHR infrastructure across LLR, and to increase future funding into LLR from NIHR by developing new research opportunities. The senior leaders of the NIHR infrastructure in LLR will contribute to LAHP governance and to the scoping, development and delivery of LAHP AHT themes. Furthermore, LAHP will provide a delivery vehicle for NIHR and other researchers to implement research findings into NHS practice.

7.1 LLR Stakeholders & Interested Parties

| Who? | How will they be involved? |
|--------------------------|--|
| Other local universities | Explore possibility of partnering |
| Patients/public | PPI input into operations group and AHTs as appropriate |
| CCGs | Explore possibility of partnering and contribute to AHTs |
| Public Health/Council | Explore possibility of partnering and contribute to AHTs |

8.0 WORKING WITH NHS AND OTHER INFRASTRUCTURE

Close working between the partners in LAHP already exists. The formal establishment of LAHP will provide a new impetus to agree, and monitor delivery of, academic components within large NHS service developments and reconfigurations. The senior leadership of LAHP will ensure engagement with Clinical Commissioning Groups and Public Health to open new test beds for research and provide a seamless pathway to implementation.

DRAFT

LEICESTERSHIRE ACADEMIC HEALTH PARTNERSHIP (LAHP)

Memorandum of Understanding

This **MEMORANDUM OF UNDERSTANDING** (MOU) is made on the **INSERT DATE HERE**

BETWEEN

- (1) **UNIVERSITY OF LEICESTER** of University Road, Leicester, LE1 7RH;
- (2) **UNIVERSITY HOSPITALS OF LEICESTER NHS TRUST** of University Hospitals of Leicester Trust Headquarters, Level 3, Balmoral Building, Leicester Royal Infirmary, Infirmary Square, Leicester, LE1 5WW;
- (3) **LEICESTERSHIRE PARTNERSHIP NHS TRUST** of Riverside House Bridge Park, Bridge Park Rd, Thurmaston, Leicester LE4 8PQ;

together “**the Parties**”

1. Clarification Statement

- 1.1. This MOU is not intended to be legally enforceable; however, each of the Parties shall endeavour to adhere to its principles wherever practicable and mutually beneficial.
- 1.2. This MOU may be supplemented or replaced by additional agreements as required.

2. Background

- 2.1. The University of Leicester (UoL) is an academic institution and a leading university committed to international excellence, world-changing research and high quality, inspirational teaching.
- 2.2. University Hospitals of Leicester (UHL) is one of the largest and busiest teaching hospitals in the United Kingdom. It has a strong research and education portfolio linked to the University of Leicester and is recognised for the strength of its clinical services including cancer, cardio-vascular, renal, respiratory and diabetes.
- 2.3. Leicestershire Partnership NHS Trust (LPT) is.....

3. Purpose

- 3.1. The Parties have agreed to enter into this Memorandum of Understanding (MOU) to create an integrated partnership (to be known as the Leicestershire Academic Health Partnership) (LAHP) in order to harness academic excellence in an environment that facilitates the performance and implementation of excellent research which will improve healthcare for the people of Leicester, Leicestershire and Rutland (LLR), delivered by a highly trained workforce.

3.2. This will be achieved through a series of mutually agreed work programmes, which will be subject to robust operational management and accountable to a Board established by the parties.

4. Principles and Behaviours

4.1. The Parties commit to the following code of conduct:

- 4.1.1. To act reasonably, with respect and in good faith;
- 4.1.2. To work collaboratively as equals supporting each other;
- 4.1.3. To be accountable for their individual actions and responsibilities; and
- 4.1.4. To communicate well and share all relevant information or intelligence.

5. Objectives

The specific objectives of LAHP are:

5.1 Short Term Deliverables (1-2 years)

- 5.1.1. Appoint LAHP Director and Chief Operating Officer
- 5.1.2. Establish a functional LAHP Board and Operations Group
- 5.1.3. Create a business plan for the partnership with key deliverables, timescales and owners
- 5.1.4. Implement a communications strategy for LAHP
- 5.1.5. Establish single strategic oversight for clinical academic developments in LLR
- 5.1.6. Establish Academic Health Teams (AHTs) in priority areas
- 5.1.7. Begin discussions with potential additional members
- 5.1.8. Work with the Leicester Precision Medicine Institute (LPMI) and East Midlands
- 5.1.9. Academic Health Services Network (EMAHSN) to develop commercial/philanthropic opportunities

5.2 Medium Term Deliverables (2-3 years)

- 5.2.1. Monitor delivery of AHT projects
- 5.2.2. Membership of LAHP completed
- 5.2.3. Integrated data sharing platform across LLR
- 5.2.4. Establish 'LAHP Associate' status for pharma and small and medium enterprises (SMEs)

5.3 Long Term Deliverables (3-5 years)

- 5.3.1. Complete delivery of AHT projects
- 5.3.2. Implement new pathways for multi-morbidity management across LLR
- 5.3.3. 10 LAHP Associates

6. Key Performance Indicators

Whilst some KPIs will necessarily be based around AHT activities yet to be decided, the following will be specific high level KPIs:

- 6.1. Increased external grant income for research
- 6.2. At least one successful LAHP supported grant application >£1M by 30 months
- 6.3. Successful Biomedical Research Centre (BRC) application with increased number of themes and increased overall funding
- 6.4. Evidence of improved recruitment and retention of staff at partner organisations by 5 years
- 6.5. >£5M external investment into LAHP projects in first 5 years of operation
Self-sustaining financially at 3 years

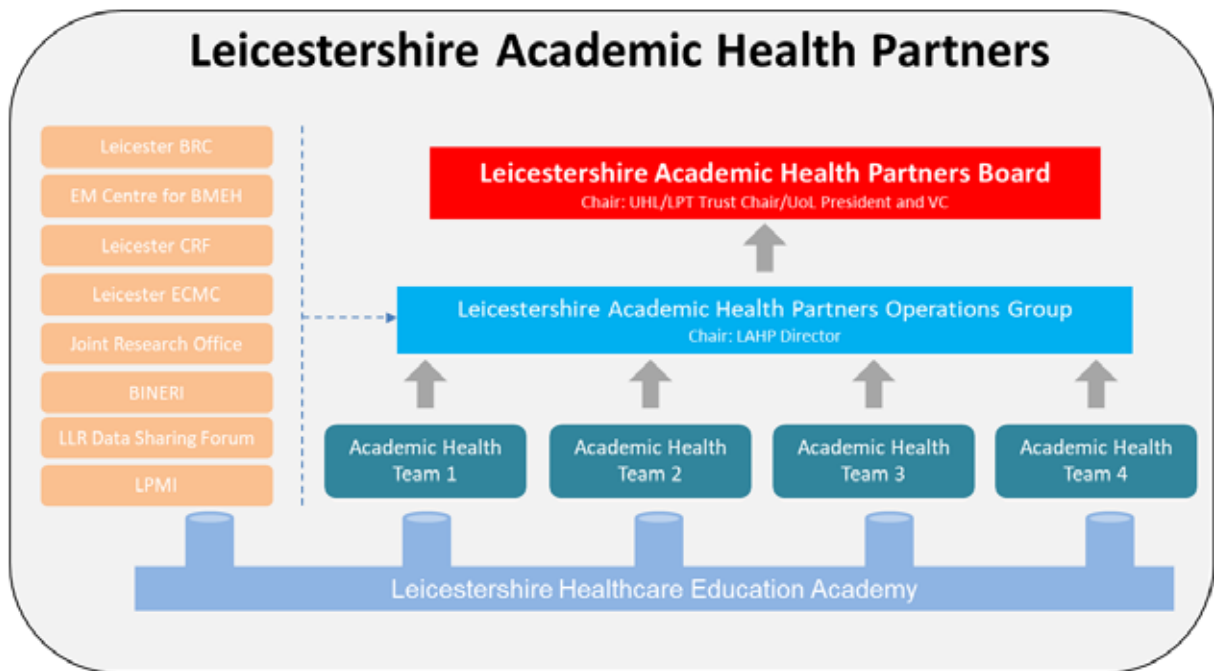
7. Critical Success Factors

The following are regarded as being essential to a functional LAHP:

- 7.1 Engagement of senior leaders of partner organisations
- 7.2 Board reliably chaired by senior leaders
- 7.3 Dedicated resources/staff to LAHP
- 7.4 Robust selection of AHT topics
- 7.5 Appointment of appropriate individuals to lead AHT topics

8. Governance and Leadership

8.1. The governance structure of LAHP is shown in figure 1 below:



8.2. LAHP Board

- 8.2.1. The LAHP Board will meet quarterly and will be chaired in rotation by the UoL President and VC, the Chair of UHL and the Chair of LPT. The LAHP will report to the Boards of the partner organisations. The proposed membership will include the UoL Pro Vice Chancellor and Head College of Life Sciences, the Chief Executive of East Midlands AHSN, the LAHP Director, and a senior industry representative(s).
- 8.2.2. The key functions of the Board are to agree and approve the LAHP priorities and the establishment of individual AHTs, to monitor the activities of the Operations Group and to identify and remove any barriers to delivery. The Board will also quickly identify resources needed to support delivery. The Board will receive quarterly finance reports from the Operations Group.

8.3. LAHP Operations Group

- 8.3.1. The Operations Group will meet monthly, be accountable to the LAHP Board and will be chaired by the LAHP Director, supported by a Chief Operating Officer/Manager. The proposed membership will include Research and Innovation Directors, LPMI Director, BRC Director, HDRUK Leicester, PPI/E, LHEA Director, and AHT Leads will attend where necessary. Additional parties may be co-opted onto the Operations Group as required for specific projects.

8.3.2. The key functions of the Operations Group are to establish AHTs, aligned with LAHP strategic priorities, for approval by the Board. The Operations Group will ensure full engagement of partners and will monitor delivery of AHT projects, whilst escalating and reporting delivery issues to the Board. The Operations Group will monitor the finances of LAHP.

8.4. Academic Health Teams

8.4.1 The AHTs are the delivery arms of LAHP. They will be established by the Operations Group following approval by the Board and will have an allocated budget where necessary. AHT activities will be guided by the strategic priorities of LAHP partners and closely aligned to the Leicester Biomedical Research Centre and other elements of National Institute of Health Research (NIHR) architecture in LLR. Each AHT will have a lead and a support team drawn from the partners, and beyond as necessary. The AHTs will be accountable to, and report to, the Operations Group.

9. Financial Arrangements

9.1. The table below identifies the initial financial contribution to be made by each of the Parties, in cash, by re-purposing or in kind, and indicative initial expenditure:

| | | |
|----------------|--------------|-----------------|
| Income: | | |
| Partner 1 | | £75,000 |
| Partner 2 | | £75,000 |
| Partner 3 | | £75,000 |
| | Total | £225,000 |

| | | | |
|---------------------|-----------------|---------|-----------------|
| Expenditure: | | | |
| LAHP Director | NHS Consultant | 2 PA | £20,000 |
| LAHP COO/Manager | AfC mid Band 8b | 1 WTE | £68,856 |
| LAHP Secretary | AfC mid Band 3 | 0.5 WTE | £11,674 |
| LAHP Administrator | AfC mid Band 3 | 1 WTE | £23,348 |
| AHT Budget | | | £100,000 |
| | Total | | £223,878 |

9.2. As stated under Section 6 above, it is expected that LAHP will be self-sustaining financially and profit generating by year 3 following its establishment.

10. Senior Contacts

10.1. Each party will appoint an officer who will act as their senior contact in relation to LAHP, as recorded in the appendix to this MOU.

11. Terms

11.1. This MOU will take effect from the date of its signing by each Party and will remain in force for a period of three years unless replaced by alternative agreements or terminated at any time on written notice from either Party.

11.2. This may be extended for a further period at any time with the prior written agreement and authorised signature of each Party.

DRAFT

Signed by

On behalf of the **UNIVERSITY OF
LEICESTER**

Signed:

Name:

Date:

Signed by John Adler, Chief Executive,
on behalf of
**UNIVERSITY HOSPITALS OF
LEICESTER**

Signed:

Name:

Date:

On behalf of **LEICESTERSHIRE
PARTNERSHIP NHS TRUST**

Signed:

Name:

Date:

Appendix

Senior contacts for the Parties:

(1) **UNIVERSITY OF LEICESTER**

(2) **UNIVERSITY HOSPITALS OF LEICESTER NHS TRUST**

(3) **LEICESTERSHIRE PARTNERSHIP NHS TRUST**



Academic Health Partnerships in the UK

(Excl. the golden triangle)

Prepared for: Nigel Brunskill









By: Debbie Oldham 09/03/2018

Information gathered from the web for the following AHP's:

1. Leeds Academic Health Partnership
2. Academic Health Partnership Tayside
3. Newcastle Academic Health Partnership
4. Liverpool Health Partners
5. Bristol Health Partners
6. Academic Health Science Partnership for South East Wales
7. Birmingham Health Partners

The information available for each of the partnerships was varied. However, attempts have been made to provide a general overview of the partnership wherever possible. Financial information and decision making in most cases is unavailable.

Documents attached:

-  1. Leeds Business Case 070416.pdf
-  2. NHS Tayside Internationalisation Strategy.pdf
-  2. Tayside AHSP_Strategy_0615_update June 2016.pdf
-  3. Newcastle AHP brochure.pdf
-  3. Newcastle AHP Strategy.pdf
-  3. newcastle-crf-organogram.pdf
-  4. LHP - LRLCA- workshop 23 September 2016 - Strategy Doc...
-  5. BHP hit-operational-guide-v2-march-2016.docx

Leeds Academic Health Partnership

<http://www.leedsacademichealthpartnership.org/>

Our purpose is:

“To improve the health and wellbeing of the people of Leeds by engaging academic capabilities in education and research with the health and social care system across the city in order to speed up the adoption of research and innovation. And to help attract inward investment and raise the national and international profile and reputation of the city and our member organisations.

Or, put simply:

Innovation through collaboration

We aim to:

1. Improve service quality and efficiency. We look for ways to deliver services which are safer, higher quality and provide patients with a better experience overall, and at lower cost to the taxpayer.
2. Reduce health inequalities. Everyone should have the same chance to lead a healthy life, no matter who they are, where they live or what their circumstances. We look for ways to reduce long-standing health inequalities in our communities.
3. Create wealth to improve health. We support inclusive economic growth. We look for ways to increase social mobility and drive inward investment into Leeds, growing partnerships with industry, creating more and better jobs. This is key to improving people’s long-term health and wellbeing.

We’re achieving our aims by developing:

One Leeds workforce –

In an unprecedented approach, we’re developing ‘one Leeds workforce’ across the health and care sector.

The vision is that through a pioneering Health and Care Academy, around 57,000 staff will have the best skills founded upon the best research and evidence, to care for and empower the people of Leeds.

Personalised medicine and health -

We’ve established the Leeds Centre for Personalised Medicine and Health, enabling Leeds people to benefit from the latest innovations, treatments and technologies.

Personalised medicine is about moving away from a ‘one size fits all’ approach to the treatment and care of people with particular health conditions. It harnesses technological and medical advances to enable more informed decision making so that therapies can be carefully targeted for each person. That means their health condition can be prevented, managed or treated in an individual or ‘personalised’ way specific to their needs.

As this means we can identify a person's likelihood of developing a disease, we can then better understand how they can to care for themselves and potentially prevent it developing.

Information and technology –

Harnessing the power of data, information and cutting-edge technology, we're:

- exploring the potential of the Leeds Care Record. Built on outstanding collaboration and connectivity across the whole local health and care sector this secure, virtual health and social care record connects the data of more than 3/4 of a million people to their GP, hospital, mental health, community, hospices and social care services. Used by more than 5,000 clinical and care staff, it is helping them provide people with safer care that is better coordinated, more accurate and more efficient.
- exploring ideas for applying artificial intelligence (AI) to transform health and care, such as in medical devices, surgical procedures and smart drug delivery devices
- supporting the adoption of new technologies to enable people to play a greater part in their own self-care and interact in new ways with health and care professionals
- working with the Leeds Institute of Data Analytics, to connect world class academic data research and analysis with innovation which responds to local community needs.

A culture of health and care innovation

We're working across the health and care system to develop a culture which prioritises and facilitates the adoption and spread of innovation

Partners -

Leeds and York Partnership NHS Foundation Trust
Leeds Beckett University
Leeds Clinical Commissioning Groups Partnership
Leeds City Council
Leeds Community Healthcare NHS Trust
Leeds Trinity University
The Leeds Teaching Hospitals NHS Trust
The University of Leeds

Associate Members: - These are members who closely align in purpose but serve a wider geography than Leeds.

Yorkshire and Humber Academic Health Science Network (Y&HAHSN)

Affiliate Members: - These are members who contribute to the health and wealth of the city and support our aims and purpose

St. Gemma's Hospice
Leeds City College
Yorkshire Cancer Research

Management Structures

Our Board is made up of senior leaders from all our Partner organisations, plus the Managing Director of Yorkshire and Humber Academic Health Science Network. All Board members have the ability to influence and make strategic decisions about health and care in Leeds.

[Sir Alan Langlands](#) Vice-Chancellor, University of Leeds and Chair of the Leeds Academic Health Partnership

[Tom Riordan](#) Chief Executive, Leeds City Council

[Thea Stein](#) Chief Executive, Leeds Community Healthcare NHS Trust

[Professor Peter Slee](#) Vice-Chancellor, Leeds Beckett University

[Julian Hartley](#) Chief Executive, Leeds Teaching Hospitals NHS Trust

[Professor Margaret House](#) Vice Chancellor, Leeds Trinity University

[Dr Sara Munro](#) Chief Executive, Leeds and York Partnership NHS Foundation Trust

[Philomena Corrigan](#) Chief Executive, Leeds Clinical Commissioning Groups Partnership

[Professor Paul Stewart](#) Faculty Dean of Medicine & Health, Professor of Medicine and Consultant Endocrinologist, University of Leeds

[Dr Simon Stockill](#) Joint Medical Director, Leeds Clinical Commissioning Groups Partnership

[Richard Stubbs](#) Chief Executive Officer, Yorkshire and Humber Academic Health Science Network

Large Projects

[Yorkshire Lung Screening Trial funded by Yorkshire Cancer Research](#) Yorkshire Cancer Research is investing at least £100 million to reduce the number of cancer deaths across the region by 2,000 a year by 2025.

[Leeds Centre for Personalised Medicine and Health](#) Personalised medicine is about moving away from a ‘one size fits all’ approach to the treatment and care of people with a particular condition.

[Leeds Health and Care Academy](#) The involvement of our universities will position the Academy at the forefront of digitally-enabled learning, with a curriculum based on world-leading evidence and research

Financial Information

See 1. Leeds Business case pdf (separate document)

Academic Health Partnership Tayside

<https://www.ahspartnership.org.uk/ahsp>

Established in May 2014, AHSP is the first Academic Health Science Centre (AHSC) in Scotland, jointly supported by the Scottish Government, University of Dundee and NHS Tayside.

AHSP is based on a globally adopted concept for delivering healthcare improvement. AHSCs share the tripartite mission of undertaking high quality research, educating health professionals and achieving high standards of clinical care. AHSCs also aim to connect NHS and academic organisations, local authorities, the third sector and industry, and are the catalysts that create the right conditions to facilitate change across whole health and social care economies, with a clear focus on improving outcomes for patients.

Partners

University of Dundee

Tayside Health Board

Medtronic http://www.ahspartnership.org.uk/admin/js/libs/tiny_mce/plugins/moxiemanager/data/files/AHSP/Medtronic%20case%20study.pdf see

also the video clip <http://www.ahspartnership.org.uk/ahsp/business/strategic-partnering-with-medtronic>

<http://europe.medtronic.com/xd-en/about/impact/world-class-partnerships.html>

See:

2. Tayside Five year strategic Plan –pdf included.

2. NHS Tayside Strategy for Internationalising Healthcare Delivery – see pdf included

Management Structures

AHSP Board

AHSP Board provides oversight of the AHSP to ensure the efficient, effective and accountable governance of the Partnership. The Board is chaired by the Principal of the University of Dundee and the Chief Executive Officer of the NHS Tayside and reports directly to the University Court and the NHS Tayside Board. Membership of the Board includes key high level officials from the University and NHS Tayside.

Members of the AHSP Board:

Ms Lesley McLay, Chief Executive Officer, NHS Tayside (Joint Chair)

Professor Sir Pete Downes, Principal, University of Dundee (Joint Chair)

Mr Lindsay Bedford, Director of Finance, NHS Tayside

Ms Julia Brown, Senior Director of Chemical and Life Sciences, Scottish Enterprise

Professor John Connell, Chair, NHS Tayside Board
Mrs Gillian Costello, Nurse Director, NHS Tayside
Mr Stephen Hay, Non Executive Member, Tayside NHS Board
Professor Mark Hector, Dean, School of Dentistry, University of Dundee
Mr Andrew Hewett, Director of Finance, University of Dundee
Professor Tim Kelly, Dean, School of Education and Social Work, University of Dundee
Ms Bernadette Malone, Chief Executive, Perth & Kinross Council
Professor Margaret Smith, University Co-Director of the AHSP
Professor Lynn Kilbride, Dean, School of Nursing and Health Sciences, University of Dundee
Professor Dilip Nathwani, NHS Tayside Co-Director of the AHSP
Professor Timothy Newman, Vice Principal for Research, Knowledge Exchange & Wider Impact, University of Dundee
Professor Andrew Russell, Medical Director, NHS Tayside
Professor Gary Mires, Dean, School of Medicine, University of Dundee
Ms Lorna Wiggin, Director of Acute Services, NHS Tayside
Ms Karen Reid, Court Representative, University of Dundee

AHSP Executive

AHSP Executive is responsible for the overall development of the Partnership and co-ordination of Partnership activity. AHSP Executive reports to the AHSP Board and is chaired by two AHSP Co-Directors, who represent the University and NHS and who have the overarching responsibility for the management of the Partnership. AHSP Executive also includes Executive Leads for AHSP thematic Areas, who are responsible for co-ordinating the activity and programmes in their domains, and the AHSP Associate Director.

Members of the AHSP Executive:

Professor Dilip Nathwani, NHS Tayside Co-Director of the AHSP (Joint Chair)
Professor Margaret Smith, University Co-Director of the AHSP (Joint Chair)
Mrs Angela Duncan, Business Projects Lead
Dr John Colvin, Lead for Quality Improvement
Professor John Dillon, Lead for eHealth
Mr Graeme Findlay, Associate Director
Dr Jacob George, R & D Director (Joint NHS Tayside and University of Dundee)
Dr Ellie Hothersall, Lead for Informatics
Mr Stuart Lyall, Finance Manager, NHS Tayside
Dr Kevin McConville, Joint Lead for Primary Care
Dr Michelle Watts, Joint Lead for Primary Care

Professor Rory McCrimmon, Lead for Research
Ms Diane McCulloch, Lead for Social Care
Dr Neil Merrylees, Joint Tayside Institute for Global Health Representative
Professor Peter Mossey, Joint Tayside Institute for Global Health Representative
Mr Rodney Mountain, Lead for Design & Innovation
Professor Emanuele Trucco, Cross-School Lead

AHSP Office

AHSP Office provides everyday support to the AHSP Co-Directors in all aspects of management of AHSP. It also works closely with leads for the AHSP thematic areas and projects leads to facilitate the delivery of AHSP activity. AHSP Office is the first point of contact to discuss collaborations with NHS Tayside as well as University of Dundee and NHS Tayside engagement with external partners.

Co-Directors: Professor Dilip Nathwani and Professor Margaret Smith

Associate Director of AHSP/Director of Strategic Development, NHS Liaison, University of Dundee: Graeme Findlay

Business Projects Lead: Angela Duncan

Secretary: Abby Milne

The Way they Work

A primary focus for AHSP is to drive forward healthcare related projects, including with the public and private sectors in the UK and overseas. AHSP aligns its operating environment and resources to support project development clustered around one or more of its **key thematic domains**.

A priority for AHSP has been to create a business development and support environment to better assist NHS Tayside and the University in identifying and engaging in joint project collaborations, including with third parties, particularly industry (see **Business** below). The AHSP Defining Principles have been developed to help determine when projects and developments fall within the AHSP domain.

Defining Principles - AHSP

The following defining principles will be used to determine whether or not activities fall within the remit of AHSP. Defining principles 1 to 3 must be met.

Collaborative input from both the University of Dundee (“University”) and NHS Tayside (“NHST”) and where neither institution could achieve or optimise added value acting in isolation.

Alignment with the Mission and Strategic Priorities of the Academic Health Science Partnership in Tayside.

Ambition to achieve sustainable and transformational change.

The proposed outputs of activities must be aimed at achieving at least one of the following:

- (a) increased alignment of University and NHST activities and ambitions in some or all of education and training, quality improvement and safety, research, informatics, e-health, innovation or healthcare delivery;
- (b) improved patient and population health outcomes;
- (c) a reduction in unmet clinical need;
- (d) improvement in the prevention of illness and promotion of healthy lifestyles;
- (e) improved patient experience;
- (f) increased health equality;
- (g) translation of knowledge across the academic, healthcare, public health and social care boundaries;
- (h) attraction and retention of high quality clinical and academic staff;
- (i) the diffusion of research & innovation outputs and their early adoption into practice including through partnership with the private sector, entrepreneurs and other external partners;
- (j) increased development, testing, evaluation and commercialisation of innovative technologies;
- (k) increased leveraging of external project funding from commercial and non-commercial sources;
- (l) increased exporting of clinical know-how and expertise, in particular to developing parts of the world, for the purposes of reducing suffering, saving lives, networking and generating income;
- (m) increased stakeholder and public engagement including with patients, carers, local authorities, students, the wider public, professional bodies, government and other Academic Health Science Centres and Networks both national and international;
- (n) improved systems, processes and organisational alignment at the interface between the University and NHST;
- (o) increased potential opportunities for engagement with the broader NHS and other universities.

Key Thematic Domains:

[Education and Lifelong Learning](#)

[Research](#)

[Health Informatics](#)

[Quality Improvement and Safety](#)

Design and Innovation

Innovation in Health and Social Care

AHSP working in close collaboration with Scottish Health Innovations Limited (SHIL) aspires to support those delivering and receiving care across the health and social care domains in becoming 'innovation active' and in taking ideas forward. Our ambition is to drive a culture of innovation, creative thinking and problem solving and our goal is clear – to improve health outcomes and create jobs and wealth. We will do this by promoting the growth and adoption of innovation within health and social care.

Healthcare Design

Our AHSP Healthcare Design team aspires to promote a new philosophy of human centered design and thereby develop new products and services that are desirable to patients, technically feasible to develop in Scotland and viable to implement within a global healthcare economy.

Design covers a wide range of people-centred innovation and enterprise, placing users at the center of the creation of novel healthcare products and services that they value.

TASC - supporting innovation and excellence in Clinical Trials and Research

Improvement Team NHS Tayside

In support of this vision the Improvement team collaborates with staff and other support functions in NHS Tayside to improve the patient's experience of care by reducing waste, variation and harm.

The **Improvement Team** aims to achieve this by creating capacity, capability and confidence for Quality Improvement (QI) in the workforce in NHS Tayside, through direct support to QI projects, programmes and the development of staff.

Business

One of the most important goals of AHSP is to further develop and maintain an environment where industry finds it easy to establish collaborative partnerships with both the University and NHS Tayside.

AHSP, in partnership with professional business support services from across the University, NHS Tayside and beyond, offers the following types of support in pursuit of collaboration with industry:

- -a single point of contact for collaboration involving both the University and NHS Tayside, bringing together academic, research and clinical staff;

- -advice and support for the establishment of new strategic projects, collaborations and partnerships locally, nationally and internationally;
- -identification and establishment of links with additional collaborators and stakeholders in support of project objectives and help with forging effective networks;
- -identification and help with leveraging third party funding to support collaborative projects with industry, including, for example, from the European Commission;
- - preparation of business plans in support of collaborative projects and partnerships;
- - supporting staff and student exchange with industry for the purposes of relationship building, knowledge exchange and identifying collaborative opportunities.

Internationalisation

Strategy for Internationalising Healthcare Delivery

In August 2016 Tayside NHS Board approved an innovative **Strategy** for Internationalising Healthcare Delivery. Produced by the Academic Health Science Partnership (AHSP) working in collaboration with Healthcare UK and aligned to University of Dundee strategy this is the first strategy of its type within an NHS Board in Scotland.

Recognising healthcare excellence in Tayside and that 'brand NHS' is amongst the best in the world, the purpose of the strategy is to address healthcare training and development needs in emerging and developing nations while furthering improving patient care within Tayside.

To support the strategy AHSP has developed a fully approved business toolkit comprising:

- Contract templates (Memorandum of Understanding, Confidentiality Agreement, Schedule to Over-Arching Agreement between NHS Tayside and University of Dundee)
- Full economic costing model and pricing strategy with disbursement of income policy
- Due diligence process
- Risk Register template
- Standard Operating Procedure for release of NHS Tayside staff

AHSP will be the first point of contact regarding any potential income generating international collaborative projects between the University of Dundee and NHS Tayside. The AHSP Office will provide guidance and link NHS Tayside staff with relevant University of Dundee internationalisation colleagues for development of potential projects and will apply the above tools to support NHS Tayside contribution to any projects.

HoloLens Projects - <http://www.ahspartnership.org.uk/ahsp/business/strategic-partnering-with-medtronic/test-2>

AHSP Research Support Awards

NHS Tayside clinical staff are invited to apply for new research support funding offered by the Academic Health Science Partnership in Tayside (AHSP).

High quality research, alongside education and training of health professionals and high standards of clinical care underpin the ambition of AHSP to create world-leading improvements in population health and transform healthcare. Consistent with this ambition, AHSP seeks to support non-medical NHS Tayside employed clinical staff in developing a research career within their NHS post through a new funding scheme entitled 'AHSP Research Support Awards'.

This scheme is open to the following NHS Tayside staff including those holding honorary contracts: nurses (medical and dental), AHPs, pharmacists, biomedical/clinical scientists, and others, excluding medical doctors. NHS Tayside staff will be the principal recipient of the research award but may collaborate with University of Dundee or Abertay as academic partners or with those working in the social care sector where appropriate. The scheme complements the research support scheme open to medical consultants via **AHSP Clinical Fellowships**.

Awards of up to **£25,000** are available for protected time (sessions) to be dedicated to research.

The primary criteria for award is that proposals must have clear patient benefit, be of high quality and have an emphasis on applied health services research.

The next call for applications will be announced in March 2018.

AHSP Research Support Awards documentation

[Scheme Outline and Application Guidance](#)

[Application Form](#)

[AHSP - Terms and Conditions of Grant Funding](#)

Contact

Should any aspect of the application process require clarification, please contact AHSP team on [**ahsp@dundee.ac.uk**](mailto:ahsp@dundee.ac.uk) or telephone 01382 383140.

Newcastle Academic Health Partnership

<http://nahp.org.uk/>

See included Strategy brochure 3. Newcastle AHP Strategy.pdf also available at: <http://nahp.org.uk/documents/NAHP%20Strategy.pdf>

Newcastle Academic Health Partners harnesses clinical and academic expertise to make sure patients will benefit sooner from new treatments, diagnostics and prevention strategies. The partnership brings together Newcastle Hospitals and Northumberland, Tyne and Wear NHS Foundation Trusts with Newcastle University

Working together, Newcastle Academic Health Partners works with industry partners in a range of activities across:

research
business
knowledge exchange

We support the economic development of Newcastle and the wider North East by collaborating with public, private and voluntary organisations to:

- generate jobs
- create and support businesses
- improve the overall health and wealth of the population

We will focus on delivering scientific advances that improve physical and mental health in age-related chronic diseases such as dementia and musculoskeletal disease. It will also seek to improve understanding and treatment of:

- cancer
- diseases that affect the brain
- diseases affecting children

Note also work closely with The Academic Health Science Network – give financial support to project – this was mentioned on <http://www.ncl.ac.uk/medicalsciences/about/nhs/>

Partners

Newcastle Hospitals and
Northumberland, Tyne and Wear NHS Foundation Trusts

Newcastle University

Management Structures

The previous Newcastle Biomedicine Board will become the NAHP Executive Board with additional members as outlined below. A formal Memorandum of Understanding will be signed based on the current Terms of Reference: - “To promote and maximise all joint ventures across each organisation including, but not limited to, business opportunities, research potential and undergraduate and postgraduate medical and dental education”. The NAHP Board will report to both NHS FT Boards and the NU Faculty of Medical Sciences Executive Board. NAHP Board members sit on one or more of these three Boards.

The Executive Board will set the strategy for NAHP and be responsible for ensuring the integration across the entire centre.

(1) The NAHP Research and Innovation Hub will bring together into a single structure and manage all of our clinical research platforms and facilities to enable an effective bench-to-bedside transition across our 4 principal themes and our 5 enabling domains. It will be overseen by the Joint Research Executive.

(2) The Health Informatics Group will drive the development and implementation of an integrated health informatics system.

(3) The Joint Business Executive (JBE) will develop potential commercial outputs from NAHP, identify and develop new patents, and facilitate collaboration and investment from the life sciences industry across NAHP.

(4) The Joint Education Executive will be responsible for the development and delivery of multi-disciplinary training and education across the host organisations.

(5) The PPI/PPE Oversight Group will ensure that patients and the public inform the strategy and shape priorities at the Executive and Group levels.

See included – 3. Newcastle crf organogram

The names below are believed to be members of the NAHP Executive as of 2016 as information obtained from a set of minutes from the 2016 minutes of the NAHP Executive meeting

Dr Alan Bagnall Interim Clinical Director of R&D,
NuTH Professor Chris Day Pro-Vice Chancellor, FMS
Professor John Kirby Dean of Postgraduate Studies, FMS
Mr John Lawlor CEO, NTW
Dr Rajesh Nadkarni Medical Director, NTW

Professor Julia Newton (Chair) Director of Newcastle Academic Health Partners
Professor John Simpson Dean of Research & Innovation (Clinical), FMS
Dr Séamus O'Neill CEO, Academic Health Science Network
Secretary: Amanda Tortice Head of Newcastle Joint Research Office

Apologies for Absence

Professor David Burn, Director of the Biomedical Research Unit Sir Leonard Fenwick, CEO, NuTH
Dr Bruce Owen, Director of Medical Education, NTW Mr Andrew Welch, Medical Director, NuTH
Professor Avan Sayer, Director of the Biomedical Research Centre
Emma Shipley, Head of Training and Development, NuTH
Professor Paula Whitty, Clinical Director of Research, NTW

Financial Information – information not found

Large Projects

See pdf '3. Newcastle AHP Brochure' for various projects undertaken

Liverpool Health Partners

<http://www.liverpoolhealthpartners.org.uk/partnership.php>

Liverpool Health Partners is a **strategic partnership** between twelve of the world's leading education, health and research organisations, all based right here in the Liverpool City Region.

We have exclusive access to some of the best skills, resources, knowledge and expertise in the region, which means we can have a direct impact on people's health. Our collaborative approach has the potential to equip each of our partner organisations with additional knowledge and skills to enable us to deliver greater degrees of improvements to patient health and patient care. We can all learn from each other and share our expertise and ideas.

And it doesn't stop there... we are also working hard to further increase available resources by developing a wider network of leading healthcare, education and private companies across the globe.

Liverpool Health Partners' vision is to improve research, innovation, training and healthcare and we are fortunate enough to have access to twelve internationally renowned institutions with a shared goal. Our partners combine clinical and scientific expertise to develop and showcase world-leading research, education, healthcare and innovation. Together, we promote and encourage the very best individuals within the very best organisations and combine our expertise and knowledge to create a healthcare system where patients receive top-quality care.

All of the work carried out by Liverpool Health Partners is ultimately designed to have a **positive impact on patient outcomes**. We prioritise evidence-based research and innovation that can improve the way patients are treated and the way professionals work and learn.

Our exclusive access to the specialised expertise of our range of partners puts us in a uniquely privileged position. It means we can collaborate, learn from and support each other's work. Pooling resources and expertise in this way is a way to fast track progress, and we are committed to having a positive impact on the state of health and healthcare for people in Liverpool, the UK and the wider world.

LHP has established itself as a (self-designated) Academic Health Science Centre and plays a crucial role within the wider Academic Health Science System across the North West Coast, alongside our AHSN.

Partners

Aintree University Hospital NHS Foundation Trust

Alder Hey Children's NHS Foundation Trust

Liverpool Heart and Chest Hospital NHS Foundation Trust

Liverpool School of Tropical Medicine

The Clatterbridge Cancer Centre NHS Foundation Trust

NHS Liverpool Clinical Commissioning Group

Liverpool Women's NHS Foundation Trust

The Walton Centre NHS Foundation Trust

Mersey Care NHS Foundation Trust
Royal Liverpool and Broadgreen University Hospitals NHS Trust
University of Liverpool
Liverpool John Moores University

Management Structures

Dr. Neil Goodwin CBE
Prof. Sir Munir Pirmohamed - Executive Director
Rosalind Way - Director of Operations
Dr Oscar Fredy - Director of Education
Prof. Martin Lombard - Director of Clinical Strategy
Prof. Robert Sutton - _____ Director of Research
Prof. Neil French _____ - CAP LEAD Infection
Prof. Robert Moots _____ CAP LEAD Musculoskeletal
Janet Legget-Jones _____ - Education Programme Manager
Sarah Wright _____ - Strategic Projects Manager
Collette Lorne - Office Manager / PA

Financial Information

Unable to locate financial information

Large Projects

Clinical Academic Programme Themes

Investing in high-quality clinical, academic programmes is an important priority for Liverpool Health Partners. We only support the best, most promising programmes that demonstrate **international excellence** in research and are supported by clinical services that can be developed in a co-ordinated way across the partnership. Our four clinical academic programmes are:

Cancer (see 4. [Liverpool Cancer Inequalities Research Network \(LCIRN\)](#) pdf is included.

Infection,

Infection has substantial importance for all LHP Trusts, underpinned by extensive, expanded research capacity in UoL and LSTM.

The infection theme has four key topic areas of respiratory infection, gastro-intestinal infections, neurological infections and sepsis, where we have evidence of national (and in most cases international) leadership. We have appropriate skill sets amongst Liverpool based researchers to cover the major pre-clinical and clinical requirements of infection research.

Pathogen and host omics (genomics, transcriptomics, proteomics, metabolomics)

- Molecule discovery
- Clinical chemistry
- Pre-clinical models
- Pathogen biology
- Vaccine immunology
- Point of care diagnostics
- Pharmacology of infection PK/PD
- Epidemiology (including molecular epi)
- Molecular diagnostics
- Clinical trials (phase 1-4)

Therapeutics

1) Personalised Health related initiatives: A central part of the therapeutics theme is to foster research in stratified medicine. In addition, working with the AHSN, we aim to introduce some form of genetic testing into clinical care by working with a diagnostics company

*One example is the **FUTURE initiative**. A project to develop a panel of healthy volunteers who have been genotyped for polymorphisms in drug metabolising enzyme and transporter genes, who can then be readily recruited for Phase I healthy volunteer studies.*

2) NW Genomics Healthcare Alliance: To develop a strategy to bring together the enormous expertise that is available within the NW Coast region. This should involve a consolidation of the existing strengths by leveraging this to develop a new model which places the region on the national map as a centre of excellence for clinical care, research and education. In late 2013, LHP established the North West Coast Genomics Healthcare Alliance (NWC GHA), supported by NWC Academic Health Science Network (NWCAHSN). Chaired by Professor Munir Pirmohamed, the Alliance brings together a range of clinical and academic genomics expertise from across the region, to look at the themes of research, education and services. Now looking at building genomics into Masters qualifications at the University of Liverpool, the Alliance will also be involved in several other upcoming bids in 2015.

- **NWC GHA** was responsible for coordinating the successful bid for the NWC Genomic Medicine Centre led by Liverpool Womens' Hospital and has established a range of genomics educational workshops for clinicians.

- **Liverpool PRiME**. LHP has been working with Liverpool Local Enterprise Partnership and NWC AHSN to develop the Liverpool Precision in Medicine Report, produced by Price Waterhouse Coopers. This report aims to bring investment into the region in the area of precision medicine, outlining several projects which are looking for longer term funding.

3) Pharmacovigilance in LHP: Reporting of adverse drug reactions to the MHRA is an important marker of quality of care of patients. There is wide variability in reporting at present. Having convened a working group, LHP aims to improve reporting of adverse drug reactions within LHP Trusts to make the region stand out in improving drug safety. This effort will be linked to improving education and training in this area, and will also involve the prevention of drug-drug interactions. The YCWG is exploring the possibility of holding an annual event in the Mersey region to engage practitioners further. Methods to engage patients and increase patient reporting are also under investigation

- **The Yellow Card Working Group (YCWG)**. Established in May 2014 to improve adverse drug reaction reporting via the Yellow Card Scheme in LHP Trusts. A number of different initiatives and approaches have been adopted with overall reporting up 61% in 2014/15 compared with in 2013/14.

- **Liverpool Adverse Drug Reaction Causality Assessment Tool**. A project to evaluate the implementation of the tool has been submitted to the CLAHRC North West Coast.

4) Alcohol: Alcohol misuse remains a major cause of morbidity, mortality, hospital admission and social problems within the LHP patch. There are initiatives in the community to reduce the transition from social to problem drinking, and this preventive approach is clearly important. However, for the many patients who have gone beyond this point, and are classed as alcohol dependent, there is a need to better develop how we use drugs that prevent relapse to drinking. Four areas are being targeted: (a) define the pharmacoepidemiology of current drug use by using health informatics databases; (b) develop baclofen as a treatment for alcohol dependent patients with liver impairment; (c) stratify the use of naltrexone in patients by genotyping for the mu-opioid receptor; and (d) identify new biomarkers of hepatic fibrosis/cirrhosis, and identify new drug targets. The LHP Alcohol Research Alliance (LARA) has been established to foster closer working links between alcohol related researchers in the Liverpool region. The group consists of clinicians, specialist nurses, academics and policy makers, with the aim of developing cross theme programmes that will allow a range of translational research questions to be addressed.

- **Alcohol Research Biobank**. Initial funding has been secured from the Liverpool BRC in Personalised Health. Once established the team will be looking for larger, sustainable funding streams.

- **GenomALC**. A collaboration has been established with an international consortium (GenomALC) to investigate the relationship between alcohol consumption, genetics and progression to alcoholic liver cirrhosis.

- **Alcohol Research UK** has funded several Liverpool, and other national, projects to identify how drugs are used in the treatment of alcohol dependence.

5) Cardiovascular pharmacology: Cardiac disease is the major cause of death nationally, and working with 5LHCH, we intend to identify new areas which can be developed that will improve existing drug therapy and improve capability in the region. The warfarin example reflects a project which is far advanced, but other areas which are being discussed include personalised renal function monitoring in patients with heart failure being treated with diuretics and stratification of anti-platelet therapy.

Musculoskeletal

Musculoskeletal (MSK) diseases are a major burden to our population and affect LHP stakeholders at all levels. Challenges include poor understanding of the aetiology of conditions, inadequate communication and collaboration, limited effective therapies and a disjointed patient pathway for care.

LHP is in a unique position to address these problems with:

- **excellence in research and care for MSK diseases that uniquely spans all ages from children to the elderly,**
- **medical and veterinary clinicians working alongside laboratory scientists and National Centres for musculoskeletal ageing (CIMA, University of Liverpool), Behçet's Syndrome (Aintree), juvenile SLE (Alder Hey) and alkaptonuria (AKU RLBUHT).**

The MSK research programme brings clinicians and scientists together with patients to develop and deliver world class research and care. This provides clinicians with access to scientists with cutting edge technology to address unmet needs and allow a more rapid roll out of scientific developments into the local population

Close engagement with industry is encouraged, with the ultimate aims of LHP becoming the preferred site for clinical trials in MSK diseases in the UK and partnerships established for development and commercialisation of research findings from LHP scientists.

Our next focus will be to raise the international profile of LHP, with the aim of MSK research and care recognised as World class so as to attract international funding and personnel.. An example of activity comes from a series of research workshops between LHP and key Indian scientists that is laying the foundation for new collaborations allowing LHP to connect globally in new ways.

Rheumatology

- LHP is leading on an international study of a stratified medicines approach to management of Behçet's syndrome (~£600,000 MRC/NIHR EME grant).
- Industry funding has been secured from Novartis to investigate the role of vitamin D on potential interactions between IL-17 and therapeutic inhibition of this cytokine in neutrophils.

Gait research

- Collaborations are ongoing between Liverpool John Moores University, the University of Liverpool and Aintree University Hospital NHS Foundation Trust to develop a new gait research facility.

Paediatrics

- The UK's National Experimental Arthritis Treatment Centre for Children (EATC) has four priority disease areas: JIA, childhood lupus, JIA-associated uveitis (a potentially serious eye condition that can lead to blindness if untreated) and childhood bone diseases.
- With internationally recognised expertise (including in clinical pharmacology, drug safety science, personalised medicine, biostatistics, trials methodology and translational biosciences), the EATC works closely with the pharmaceutical industry and a national network of world-leading research institutions to speed up the development of new treatments for children with arthritis, by running small clinical trials of promising drugs currently in the pipeline that would otherwise take years to come onto the market.

One Health

- Following a successful workshop in 2014, which brought together academic and clinical musculoskeletal experts from across many disciplines (including medicine, veterinary medicine, biology and sports science), LHP is establishing research groupings within the area of musculoskeletal diseases in animal and man.

LHP is lead partner for : **Liverpool PRiME** (PRrecision in Medicine) strategy document available:

<http://www.liverpoolhealthpartners.org.uk/media/PDF/small%20PRiME%20Executive%20Summary%20Sept%202015%20vers%202.3a%20.pdf>

Services

LHP Joint Research Office?

The Joint Research Office was established in October 2013 as part of the Liverpool Health Partners strategic partnership to streamline the research and development process across the Liverpool-City region. It brings together expertise from the University of Liverpool and Partner Trusts to provide practical help and support to research projects involving the University of Liverpool and at least one of the Partners.

The JRO will provide assistance in:

- Advice and knowledge base
- Study costings
- Sponsorship
- Clinical Research Governance
- Contracts
- Funding applications

The LHP JRO is unique as it brings together 1 university, 2 acute trusts, 5 specialist trusts, a mental health trust and a CCG working to bring and develop excellent clinically focussed research for tangible patient benefit. We will ensure that studies are set up in a timely manner with an integrated, effective approach with support available through the lifetime of the study.

HP Industry Gateway Office?

The Industry Gateway Office is a 'one stop shop' for life science companies who wish to access all our world class research expertise through one door.

We aim to work closely with both industry and our Trust Partners to streamline processes throughout the study lifecycle to deliver commercial research to time and target. By raising the visibility of the Partner Trusts we will promote commercial research within the Liverpool city region and ultimately improve the health and wealth of the region.

Health Informatics Research Strategy

A joined-up approach to health data is essential to improve healthcare and support research. This strategy outlines the steps needed to create a trustworthy approach, enabling the use of personal health data for research purposes – full strategy at:

<http://www.liverpoolhealthpartners.org.uk/flipbook/>

Liverpool Alcohol Research Alliance

LHP Alcohol Research Alliance (LARA) is a multidisciplinary group which has been established to foster closer working links between alcohol related researchers in the Liverpool region. By bringing experts from different fields together we aim to develop cross theme programmes that will allow a range of translational research questions to be addressed. LARA's vision is to utilise our unique position in the North West to deliver high impact outputs that will ultimately result in the best identification, treatment and monitoring strategies across the alcohol misuse/abuse spectrum. The following five themes have been developed to help achieve this vision: Behaviour Change; Biobank, Health Policy; Pharmacotherapy; and Clinical Pathways.

Education <http://www.liverpoolhealthpartners.org.uk/Education.php>

Liverpool Health Partners delivers **dynamic and innovative education programmes**, underpinned by research and the needs of our partner trusts:

- **UK Education**
- **International Education**
- **Patient Safety and Quality**

Bristol Health Partners

<http://www.bristolhealthpartners.org.uk/>

A strategic collaboration between the city region's major health institutions, covering the Bristol, North Somerset and South Gloucestershire area.

Mission is to generate significant health gain and improvements in service delivery in the Bristol city region by integrating, promoting and developing the region's strengths in health services, research, innovation and education.

Created in April 2012

Partners

Avon and Wiltshire Mental Health Partnership NHS Trust
Bristol City Council
Bristol Clinical Commissioning Group
North Bristol NHS Trust
North Somerset Clinical Commissioning Group
South Gloucestershire Clinical Commissioning Group
University Hospitals Bristol NHS Foundation Trust
University of Bristol
University of the West of England (UWE Bristol)

Management Structures

Board members

- Andrea Young, Chief Executive North Bristol NHS Trust and Chair of the Bristol Health Partners Board
- Mary Backhouse, Chair and Chief Clinical Officer, North Somerset Clinical Commissioning Group
- Jenny Donovan, Director, NIHR CLAHRC West (National Institute for Health Research Collaboration for Leadership in Applied Health Research and Care West)
- Rebecca Eastley, Medical Director, Avon and Wiltshire Mental Health Partnership NHS Trust
- Natasha Swinscoe, interim Managing Director, West of England Academic Health Science Network
- John Iredale, Pro Vice-Chancellor (Health), University of Bristol
- Martin Jones, Chair of Bristol Clinical Commissioning Group
- Stephen Neill, Pro Vice-Chancellor and Executive Dean of the Faculty of Health and Applied Sciences, University of the West of England
- David Relph, Bristol Health Partners Director

- Julia Ross, BNSSG Chief Executive Officer
- Jonathan Sandy, Dean of Health Sciences, University of Bristol
- Steven West, Vice-Chancellor and Chief Executive Officer, University of the West of England
- Robert Woolley, Chief Executive, Universtiy Hospitals Bristol NHS Foundation Trust

Staff:- only found two – possibly more.

Two Project Managers, Jan Connett and Oliver Watson

Financial Information

Unable to locate

Large Projects

See HIT's below –

Health Integration Teams (HITs) – see 5. BHP HIT operational guide document included

20 Health Integration Teams have emerged, focusing on clinical pathways, system change, public health and mental health.

Active Older People (APPHLE)

Avoiding Hospital Admissions (ITHAcA)

Bristol Bones and Joints

Bristol Immunisation Group

Child Injury (CIPIC)

Chronic Kidney Disease

Dementia

Drug and Alcohol

Early Years Health and Wellbeing (BoNEE)

Eating Disorders

Healthy Neighbourhood Environments (SHINE)

Improving Care in Self-Harm (STITCH)

Improving Perinatal Mental Health (IMPROVE)

Integrated Pain Management

Parkinson's and Other Movement Disorders

Psychological Therapies in Primary Care (InPsyTe)

Psychosis
Respiratory Infections (RuBICoN)
Retinal Conditions (RENOIR)
Sexual Health Improvement (SHIPP)
Stroke

More than 600 people have been involved in HITs, from more than 50 organisations in the region.

They are responsible for **at least**:

- **£1,275,000** savings for our city's two acute NHS trusts
- **£19,495,057** in income to the city's health system through research and service development
- This breaks down as **£3,041,188** for service development and **£16,453,869** in research funding
- More than **60 new projects** to increase health gain and improve service delivery in Bristol

11 HIT work streams and 9 HITs themselves have been accelerated or supported with additional, strategic funding from Bristol Health Partners.

17 out of 27 successful project applications to NIHR CLAHRC West's two calls were linked to HITs.

The HIT model was evaluated by NIHR CLAHRC West, with a paper published in BMC Health Services Research in June 2016.

Our Health Integration Teams (HITs) tackle health priorities by working in new ways, harnessing the best research, innovation, care and education to make a difference to people's health. HITs draw their membership from some or all of our partner organisations and work across disciplines. Our HITs must evaluate, involve patients and the public and have a whole system approach. This pioneering approach to research, health service and public health integration can help solve seemingly intractable problems.

Health Integration Teams:

1. **Deliver the very best evidence-based care for our patients and population**, leading to outcomes that meet or exceed national and international standards and targets. Becoming a HIT will enable you and your colleagues to have a direct, positive impact on the standard of public health and health care in Bristol and beyond.
2. **Increase grant income**: research funders increasingly emphasise the importance of collaboration and impact. HITs harness local strengths and address clear priorities. Their cross-organisational, multi-disciplinary nature, plus their potential for rapid and substantial impact will appeal to funding bodies.

3. **Influence future investment in research infrastructure and staff.** A successful HIT with a coherent, integrated, cross-institutional strategy and clearly defined milestones and health outcomes will be in a good position to identify staffing gaps, and therefore make successful business cases for new appointments. Similarly, business cases for maintenance, enhancement or new development of resources or facilities will be improved.
4. **Accelerate the adoption of research findings, new methodologies and technologies.** HITs will be the vehicle through which our research and the global research evidence base will inform and transform public health, health service delivery, health outcomes, training and education in Bristol and beyond.
5. **Work with others to break down barriers.** By taking a health system, holistic approach and working with a dedicated cross-institutional team a HIT will identify barriers and be in a position to remove them.

Local Digital Health Research and Development Group

Bristol Health Partners convenes a Local Digital Health Research and Development Group, bringing together academics, NHS organisations and local authorities in Bristol, North Somerset and South Gloucestershire (BNSSG).

The group aims to:

- [Create an inventory of health-related data sources in the region](#)
- Explore and improve how local data is used for research and service planning to meet the needs of patients and the local health and care system
- Support academic and student informatics placements in the NHS and local authorities
- Share knowledge about research priorities and activities in digital health and informatics
- Support public communications and engagement around digital health and informatics

By connecting researchers, information governance experts, developers and members of the public with the priorities of our health and care system, this group hopes to improve health outcomes of local people.

Bristol Health Partners: five years of achievement

The first Bristol Health Partners partnership agreement was signed in April 2012, with a lifespan of five years. It's been extended for another year while our future direction is mapped out, but it's a good moment to reflect on what Bristol Health Partners has achieved during that time.

Link to website for five year annual review: <http://annual-review-2016.bristolhealthpartners.org.uk/>

Academic Health Science Partnership for South East Wales

<https://sewahsp.wordpress.com/>

Note: there seems to be a productive link between the AHP and the Academic Science Network - <https://www.mediwales.com/members/south-east-wales-academic-health-science-partnership-sewahsp/>

South East Wales Academic Health Science Partnership (SEWAHSP)

NHS and HEI organisations collaborating to improve health.

The South East Wales Academic Health Science Partnership (SEWAHSP) is an alliance with a mission to cooperate and collaborate strategically and operationally, to integrate high quality research and education and enhance the Region's outputs in developing and applying improvements, innovations and health technologies to benefit the health and wealth of the population of Wales.

SEWAHSP was formed by the Higher Education Institutions and NHS organisations in South East Wales to reduce fragmentation in R&D and accelerate health improvement in line with Government policies. It will work closely with industry and funders, and bring together researchers, managers, practitioners, patient groups, planners and policy makers to achieve the mission.

A partnership between the NHS, Universities, Third Sector and Industry in South East Wales

- Focused on prudent health and social care benefit
- Bringing the expertise of HEIs and Industry into the NHS in order to improve patient care, while offering support for improved collaboration between NHS Wales, academia, industry and third sector.

- Funded by our Partners
- Cardiff Metropolitan <http://www.cardiffmet.ac.uk>
- Cardiff University <http://www.cardiff.ac.uk>
- University of South Wales <http://southwales.ac.uk>

- Aneurin Bevan UHB <http://www.wales.nhs.uk/sitesplus/866/home>
- Cardiff & Vale UHB <http://www.cardiffandvaleuhb.wales.nhs.uk/home>
- Cwm Taf UHB <http://www.cwmtafuhb.wales.nhs.uk/>

- Velindre NHS Trust <http://www.velindre-tr.wales.nhs.uk/home>

Collaborative partners

Clinical Innovation: The Clinical Innovation Partnership is a creative initiative aimed at delivering better patient healthcare and wealth creation in Wales. The agreement between Cardiff and Vale University Health Board and Cardiff University strengthens a commitment to deliver better patient healthcare and boost the economy in Wales. It aims to accelerate the translation of clinical innovation into improvements in health and clinical service. <http://www.cardiff.ac.uk/innovation/our-partnerships/cardiff-and-vale>

Management Structures

Director: Professor Sue Bale OBE
FRCN, PhD, BA, RGN, NDN, RHV, PG Dip, Dip N

Manager: Mr Robyn Davies & Dr Corinne Squires job share

Foundation & Practitioner Project Manager: Mrs Sue Bevan

Industry Group led by Professor Joyce Kenkre - various named members (no affiliations listed)

Financial Information

Unable to locate any financial information other than the AHP is funded by the partners.

Large Projects

The Health Technology Challenge first launched in 2013, and is SEWAHSP's flagship Innovation gateway, which allows healthcare practitioners, members of the public, academics and businesses to work together to source innovative solutions to healthcare challenges. It supports an interactive website where those with ideas to improve healthcare can post their challenges and link with technology developers. The best challenges are then entered into a funding competition with applications invited from interdisciplinary teams to solve these.

We award up to £25,000 per project and have 4-8 projects per year depending on funding. We have had support from the Intellectual Property Office Fast Forward Awards, Tenovus Cancer Care, Public Health Wales 1000 Lives Service Improvement, the Life Sciences Hub and Welsh Government. All sponsorship for the Health Technology Challenge is channelled into funding projects.

The projects have been a very diverse mix with the principle of patient benefit being at the forefront and have included projects ranging from translational research to practical tools such as patient communication aids, Apps and surgical jigs. They have proved popular for companies particularly local SMEs with commercial partners being involved in more than half of the projects over the last 2 rounds

If you have an idea which could improve healthcare or would like to get involved, please join our community. You can view all the challenges on the site, comment and vote for ideas you like and add your own challenges. Go to <http://www.htc.wales>

Case Studies listed under Health Technology Challenges: <https://sewahsp.wordpress.com/case-studies/>

Rapid detection of metastatic breast cancer in lymph nodes for intraoperative testing. *Cardiff University, Cardiff & Vale UHB.*

This project is aiming to develop current technology into a rapid, accurate test for metastatic breast cancer in lymph nodes. Currently when tumours are removed from the breast, lymph nodes are biopsied, with a second surgery required if malignancies are detected. This test would allow intraoperative testing meaning only one surgery would be required and there would be no unnecessary removal of non-metastatic lymph nodes. Early tests on clinical samples are looking promising and the data produced will support further development of a routine diagnostic test.

This project aims to address the challenge of infection following joint replacement surgery. One of the first tranche of Health Technology Challenge projects funded in 2014, the project uses antibiotics encapsulated in liposomes and introduced into the bone cement used to fabricate replacement joints. The liposomes allow controlled release of antibiotics as well as improving the properties of the PMMA (polymethyl methacrylate) cement. The technology was protected by a patent filed by Cardiff University in 2014. Further work has focussed on optimising the antibiotics and making the system scalable.

Publications

- Nishio Ayre, W.*et al.* 2015. [A novel liposomal drug delivery system for PMMA bone cements](#). *Journal of Biomedical Materials Research Part B: Applied Biomaterials*([1002/jbm.b.33488](#))
- Patent – Liposomal Drug Delivery System for Bone Cements WO2015004450 (A1) 2015-01-15

Show Me Where communication tool

Show me where? is a communication tool which enables adults and children who have verbal disability or who are unable to speak English, to convey the location of pain or discomfort to other people.

<http://www.cardiffandvaleuhb.wales.nhs.uk/show-me-where>

Useful for those with

- Stroke
- Autism (ASD)
- Early stage Dementia
- Disabilities affecting speech. E.g. Cerebral Palsy, Multiple Sclerosis
- Deafness and hearing problems
- Intubated or tracheostomy patients
- People suffering from trauma or anxiety.
- Non English speaking people

Affected people can indicate pain or discomfort by choosing from a list of pictorial body images and written symptoms.

Carers can use the app to explain and gain consent for examination, reducing anxiety.

Multi-lingual with audio, includes the following languages Arabic, Urdu, Bengali, Polish, Welsh and Somali.

Endorsed by The national Autism Society and Cardif and Vale University Health Board

Currently used by:

Cardiff and Vale University Health Board – Llandough and University Hospital of Wales.

28 Special Schools in Wales

Ty Hafren Hospice, Cardiff

Welsh Ambulance Service Trust (WAST)

South Manchester University Hospital

Australian Nursing and Midwifery Federation

App has sold in the UK and worldwide

Development of a mobile App for those with Neuromuscular conditions

Cardiff and Vale UHB, SymlConnect Ltd

“My care”, is focussed on the crucial patient-professional partnership to improve communication and information sharing and consists of personal notes covering medical history and treatment, clinical, social and emergency contact information and details of their neuromuscular team. A paper version has been well tested but changing to digital version will be more convenient and will allow the information to be instantly shared and updated and will be readily available when needed to treat an individual at a time of deterioration. With rare neuromuscular conditions the patient is often the best source of information about their condition – access to this vital information is critical and empowers patients and their families to be in control of their own care – a critical feature of ‘patient-centred care’.

The use of rapid prototyping jigs in the planning of knee osteotomies.

Cardiff and Vale UHB and PDR (Cardiff Met)

Knee osteotomies are a realignment process to treat knee pain by offloading damaged cartilage. It involves a precise break and insertion of a plate to fix the bone in place. This project will use a CT scan image to design and make a custom made jig using 3D printing, to guide the process and ensure optimal correction in the angle of the bone is achieved. In a recent audit only around 50% of corrections were shown to be optimal with current methods – this should significantly increase this. This project will demonstrate the principle, test in models and then use in surgery with 5 patients.

Monitoring Eye Health at Home.

Cardiff University, Aneurin Bevan UHB, and Vision Game Labs.

Current methods screening for eye disease have high margins of error, particularly for young children, which delays early diagnosis and treatment, and causes avoidable blindness. This project uses an interactive gaming app to measure vision on tablet devices. This gives accurate measures of visual performance and can be used at home. The technology is primarily for children; however it will also allow convenient and cost-effective monitoring of vision in the elderly. In the future, this will flag up early vision loss and allow those with established eye disease the ability to conveniently monitor their vision at home (rather than in clinic), so that precious out-patient appointments can be used for patients whose vision is identified as deteriorating.

Development of a “TripAdvisor” feedback website for Care Homes

“Think About Me”: Good Care Guide

Aneurin Bevan UHB, Care Forum Wales, 1000 Lives Improvement Service, Local Authorities, RVS, My Home Life Cymru, NHS Retirement Fellowship, and The Good Care Guide

Patients and Carers highlighted a lack of transparent feedback and user views to assist those needing to choose a Care Home. This is a decision that sometimes has to be made quickly and often in stressful and difficult circumstances. Easily accessible information based on current and candid views from current residents and carers will help in making an informed decision and reassure people that they are choosing the home that is right for them. In collaboration with the Care Homes and My Family Care, the providers of the goodcareguide.co.uk feedback website, we are developing a useful resource to guide those choosing their future care home.

Projects <https://sewahsp.wordpress.com/projects/>

- Aneurin Bevan UHB Friend of Mine
- Built a pathway to enable our business community to engage with our partners
- Community Dental Strategy for Wales
- Community Nursing Research
Strategy- <http://www.wspcr.ac.uk/resources/Community%20Nursing%20Research%20Strategy%20for%20Wales.pdf>
- Developing policy – Knowledge Mobilization funded by NHS and NIHR to determine what is needed to ensure that best evidence is implemented into practice. This research contributed to the NISCHR recommendations in 2014
- Further development of the Health Technology Challenge to include Third Sector and Industry
- Health Technology Challenge – two year grant funding from IPO for an open innovation platform <https://HTC.Wales>
- Industry to continue collating unmet health needs from NHS staff and patients to develop prototypes and solutions with up to £25k
- Intern Project: Small Welsh Government funded project to plug students into some of the challenges within the NHS, a number of partners were identified these included:
 - WIMAT – Surgical Training Centre – Cardiff University
 - St Mary’s Pharmacy – Cardiff and Vale University Health Board <http://www.pharmacyresearch.wales/>
 - Welsh Wound Innovation Centre
 - Radiology Academy – Post Graduate Deanery and NHS Wales Collaboration
 - KESS
 - National Technology Adoption Hub
- Pathfinder Operations Research project using Maths Modelling; embedding 4 post doc modellers into an NHS UHB, using evidence to improve and re-design services

- Pharmacy Research Wales Strategy- www.pharmacyresearch.wales
- Stroke Research and Innovation Strategy: Helping to develop a Stroke Research and Innovation Strategy for Wales designed to deliver high quality research to patients in SE Wales and beyond – supporting Dr Anne Freeman
- Occupational Health Research Strategy-

Intern Project

This was an innovative project which was designed to develop high quality business plans and proposals for specific academic health services in Wales, whilst providing the richest educational experience for students. The experience included working closely with clinical/health leads and commercial mentors within a structured framework developed to maximize successful outcomes.

In co-hort pilot of four students came from Cardiff University Business School, and were competitively selected and supported through a twenty week programme which included dedicated workshops. The Programme was co-produced with a partnership that includes the Healthcare Innovation Department, Welsh Government, the South East Wales Academic Health Science Partnership, Cardiff University (Cardiff Business School, School of Medicine and Post Graduate Deanery), Fulcrum Direct, Cardiff and Vale UHB, Public Health Wales and the Life Science Hub. From a policy perspective the Programme targeted both the health and wealth priority for Wales.

The unique difference with this programme was that the focus was on *“fresh thinking”* along with a *“business”* approach in order to enhance creativity, efficiency and sustainability, whilst identifying opportunities for future growth and development. It was not specifically about commercialisation or technology transfer but recommendations may include a “business unit” consider for example, becoming a spinout, joint venture or a social enterprise, based on what is considered to be most appropriate. The acid test of the pilot was the quality of the business plans that were presented to a ‘dragons den’ including funders and investors at the Life Sciences Hub in Cardiff.

On the back of this project our very own Benjamin Land was the Public Value Placement Student of the Year for 2015/16 award.

Birmingham Health Partners

<http://www.birminghamhealthpartners.co.uk/>

Birmingham Health Partners (BHP) is a strategic alliance between the University of Birmingham (UoB) and three major teaching hospitals; the Shelford Group member University Hospitals Birmingham NHS Foundation Trust (UHB) and Birmingham Women and Children's NHS Foundation Trust (BWC). BHP's mission is to harness research strengths in the University and NHS to deliver better treatments and care to our patients.

Together, we are delivering *research that matters*.

The Birmingham Life Sciences Engine

Accelerating patient access to new innovative medicines and technologies is at the heart of what we do in Birmingham. We improve patient care and wellbeing by facilitating discoveries made in the laboratory and translating them into clinical practice as quickly as possible. Birmingham can do this at a pace, scale and efficiency which is unrivalled in the UK.

Globally, we are one of the few cities equipped to deliver the full circle of translational medicine and Birmingham Health Partners (BHP) is the driving force behind the Birmingham Life Sciences Engine.

Partners -

Birmingham Women and Children's NHS Foundation Trust (BWC)
University Hospitals Birmingham NHS Foundation Trust (UHB)
University of Birmingham (UoB)

Industry Partners

A collaborative approach to working with industry

The Industry Partnerships Team within Birmingham Health Partners (BHP) combines the expertise of the member Hospital Trusts and University of Birmingham Business Engagement Teams to facilitate collaborative research and licensing opportunities, with pharmaceutical, diagnostic, device and biotech companies.

Ranging in size from start-up companies to multinational organisations and including regional, UK and global companies, we tailor every collaboration to meet the company's specific needs.

These collaborations are essential to achieving our vision of accelerating innovations to reach the patients quicker.

Our BHP Industry Partnerships Team is well versed in understanding the requirements of commercial partners and engaging with appropriate academics, clinicians and trials teams across BHP. Following initial discussions, they will organise an exploratory meeting which will take place in the Institute of Translational Medicine (ITM), bringing together all of the relevant teams, who will be involved in the research.

Once the research collaboration is established, there is an opportunity for the commercial partner to explore the option of having a physical presence in the ITM, co-locating them alongside the researchers and enabling them to respond quickly to any challenges which may arise.

Patient groups are also located within the ITM, providing a valuable source of research for our commercial partners.

In addition, the commercial partners will be able to access the services of the co-located West Midlands Area Health Science Network (AHSN), who can facilitate adoption of their innovation into the West Midlands NHS Trusts.

In addition, the commercial partners will be able to access the services of the co-located West Midlands [Academic Health Science Network \(WMAHSN\)](#), who can facilitate potential adoption of their devices into the West Midlands NHS Trusts.

Management Structures

BHP Leadership Team

Professor David Adams, BHP Director

Dr John Williams, BHP Managing Director

Dr Emma Robinson, BHP Chief Operating Officer

Board Members

Professor Sir David Eastwood

Jacqui Smith

Dame Julie Moore

Sarah Jane Marsh

Professor David Adams

Tim Jones

Mike Sexton

Professor Tim Jones
Dr David Rosser
David Burbridge
Lee Sanders
Professor Tim Softley
Chris Granger
Professor Charlie Craddock
Dr Emma Robinson
Dr John Williams

Research

For nearly two centuries, medical research in Birmingham has been driven towards patient benefit through therapeutic innovation and medical education, from the foundation of the Medical School by William Sands Cox in 1825 to the ever-improving state-of-the-art research facilities available today.

Today Birmingham Health Partners acts as the foundation bringing together world-leading research of the University of Birmingham (UoB) and two major NHS Trusts; University Hospitals Birmingham NHS Foundation Trust (UHBFT), Birmingham Women and Children's NHS Foundation Trust (BWC) with the mission of harnessing these research strengths in the University to deliver better treatments and care to our patients.

The BHP mission is underpinned by the sector leading work of its partners. Through the University and its College of Medical and Dental Sciences that houses the second largest Medical School in the UK and offering outstanding innovation in Biomedicine, to the work of UHBFT, BWC in delivering secondary and tertiary care to the surrounding multi-ethnic population of over 5 million (including 1.2 million children) and provision of specialized services that are of national importance. Together this partnership provides unrivaled opportunities for experimental Medicine-based patient-oriented research that underpins early pathways of translation, rapidly bringing new drugs, devices and diagnostics to NHS patients.

Ageless Approach

The clinical partners of BHP ensure we can deliver an ageless approach to our research, from pregnancy and paediatrics through to adulthood (UHB). The realisation that most of the NIHR and Research Council research priorities have their origins and earliest manifestations in Childhood (e.g. Cancer and Rare Diseases) has allowed us to move away from research defined by the limitations of organ-based specialties, to an 'ageless' approach, developing and evaluating new mechanisms of disease and therapies through shared patients from all age groups on all sites.

RESEARCH STRENGTHS

Immunology and Inflammation

A longstanding strength of Birmingham is its research in the fields of Immunology and inflammation. Birmingham is at the forefront of medical research and we are among the leaders of this exciting, fast-evolving field. From basic science, to clinical trials of new drugs, to exercise interventions in the community, we cover every aspect of research within this field. With one of the greatest concentrations of scientists and doctors in the world, we are also at the cutting edge of immunotherapy – treatment that uses certain parts of a person's immune system to fight diseases. This activity has been underpinned by the recently awarded [NIHR BRC in Inflammation](#).

Oncology

Birmingham has made a unique and powerful contribution to understanding of how genetic abnormalities within cancer cells lead to disease. We use this information to design and rigorously assess new and proven cancer treatments. Through [Birmingham's Cancer Research UK Clinical Trials Unit](#) – one of Europe's leading clinical trials unit- and the [Birmingham Adult ECMC](#) and [Paediatric ECMC](#) – we use this information to design and rigorously assess new and proven cancer treatments. In so doing, we will play a significant role in accelerating the ultimate control of cancer. Our [Centre for Clinical Haemato-oncology \(CCH\)](#) is accelerating the delivery of new treatments to patients through its innovative trials acceleration programme. Strengths in genomic science provide a strong underpinning for the [West Midlands Genomic Medicine Centre](#) which is a leading part of the [national 100k genomes project](#).

Clinical Trials

BHP has considerable experience in the design and delivery of clinical trials, with Birmingham now one of Europe's largest clusters in this field. These trials are supported by our access to the West Midlands population of 5.4million, made up of a highly diverse socio-economic mix. Along with the [CR-CTU](#) we house the [Birmingham Clinical Trials Unit \(BCTU\)](#) who is a partner in the [Birmingham Surgical Trials Consortium \(BiSTC\)](#), one of five national surgical clinical trials units supported by the Royal College of Surgeons.

Maternal Health

Birmingham has a wide programme of activity within the research theme of maternal health both nationally and more recently globally. Our work is aiming to improve the health and care of women and infants during and after pregnancy and birth. It includes cohort studies to establish risk factors, randomised controlled trials to test potentially effective interventions, systematic reviews and qualitative research. These studies are within a variety of topic areas, including childbirth related health problems, antenatal and postnatal care, maternity care in deprived populations, use of lay workers, postnatal depression, urinary and faecal incontinence, breastfeeding and maternity care and health in the developing world. This has recently been strengthened by the award of the [Tommy's National Centre for Miscarriage Research](#), the largest miscarriage research centre in Europe and for which we are the lead centre.

Rare diseases

A rare disease by definition affects less than 1 in 2,000 people. However, with more than 7,000 individual rare diseases, their collective prevalence is about 1 in 17 of the general population. 50% of affected people are children, and for over 50% there is no cure or specific treatment. In Birmingham, our health services and science institutions have come together through the [Academic Health Science Network](#) and BHP to invest heavily in rare diseases translational research delivery through both [Paediatric](#) and [Adult Centres of Rare Diseases](#) which is underpinned by the [West Midlands Regional Genetics Service at BWH](#).

Informatics

Birmingham has a world-leading clinical informatics platform which enables highly characterised patient cohort data collection across bioinformatics (e.g. genetics, phenotyping, metabolomics), clinical informatics (e.g. diagnostic categories, co-morbidities, social phenotyping, haematology, biochemistry, drug treatments) health informatics (e.g. patient outcomes, patient reported outcome measures) and IT platforms that enable patient data-sharing across NHS organisations. This expertise is led academically from the University's [Centre for Computational Biology](#).

UNDERPINNING RESEARCH INFRASTRUCTURE

CHRONIC INFLAMMATION AND METABOLIC DISEASE

- [Arthritis Research UK Rheumatoid Arthritis Pathogenesis Centre \(RACE\)](#)
- [Arthritis Research UK Birmingham Experimental Arthritis Treatment Centre for Rheumatoid Arthritis \(BEAT-RA\)](#)
- [Healing Foundation Centre for Burns Research](#)
- [Medawar Centre for Healthy Ageing Research](#)
- [Centre for Translational Inflammation Research](#)
- [MRC-Arthritis Research UK Centre for Musculoskeletal Ageing Research](#)

Oncology

- [ECMC \(Experimental Cancer Medicine Centre\)](#)
- [CRUK Stratified Medicine Programme](#)
- [Cancer Immunology and Immunotherapy Centre \(CiC\)](#)
- [Birmingham Centre for Clinical Trials](#)
- [Centre for Human Virology](#)

- [Centre for Clinical Haemato-oncology \(CCH\)](#)
- [West Midlands Genomic Medicine Centre](#)

CLINICAL TRIALS

- [Cancer Research UK Clinical Trials Unit](#)
- [Birmingham Clinical Trials Unit \(BCTU\)](#)
- [Birmingham Surgical Trials Consortium \(BiSTC\)](#).
- [Wellcome Trust/NIHR Clinical Research Facility \(CRF\)](#)

MATERNAL HEALTH

- [Centre for Human Reproductive Science](#)
- [Centre for Women & Children's Health](#)
- [National Tommy's Centre for Early Miscarriage Care and Research](#)

RARE DISEASES

- [100,000 Genomic Medicine Project](#)
- [Centre for Rare Diseases and Personalised Medicine](#)
- [Centre for Genome Biology](#)
- [UHB – Centre for Rare Diseases](#)
- [BCH – Centre for Rare Diseases](#)

INFORMATICS / CROSS CUTTING

- [The Health Services Management Centre \(HSMC\)](#)
- [Multidisciplinary Assessment of Technology Centre for Healthcare \(MATCH\)](#)
- [Centre for Computational Biology](#)
- [Clinical IT: Health Informatics: Statistics](#)
- [EPSRC Centre for Doctoral Training in Physical Sciences of Imaging](#)

INFRASTRUCTURE

NIHR FUNDED DEVELOPMENTS

- [NIHR CLAHRC-BBC](#)
- [NIHR Horizon Scanning Centre](#)
- [NIHR Liver Biomedical Research Unit](#)
- [NIHR Research Design Service \(RDS\)](#)
- [NIHR Surgical Reconstruction & Microbiology Research Centre \(SRMRC\)](#)
- [NIHR Translational Research Partnerships \(TRPs\)](#)
- [NIHR Rare Diseases Translational Research Collaboration \(RD-TRC\)](#)
- [NIHR Trauma Management HTC](#)
- [NIHR/Wellcome Trust Birmingham Clinical Research Facility \(WTCRF\)](#)

RESEARCH FACILITIES

- [Advanced Therapies Facility](#)
- [Birmingham Centre for Clinical Trials \(BCCT\)](#)
- [Clinical Immunology Service](#)
- [Health Research Bus](#)
- [Henry Wellcome Building for Nuclear Magnetic Resonance Facility \(HWB-NMR\)](#)
- [Human Biomaterials Resource Centre \(HBRC\)](#)
- [Institute of Translational Medicine](#)
- [Birmingham Phenome Centre](#)
- [Centre for Patient Reported Outcome Research \(CPROR\)](#)
- [The Birmingham BioHub](#)

Services

The Joint Research Office

The Joint Research Office brings together University and NHS research support functions into a “one-stop-shop” to facilitate applied and translational

health research, through the provision of dedicated research support infrastructure. The core support is derived from the College of Medical and Dental Sciences' Research and Knowledge Transfer Office at the University of Birmingham and University Hospitals Birmingham NHS Foundation Trust Research and Development Service.

The office is based within the Institute of Translational Medicine, Birmingham.

Our aims are to:

- Increase research quality and activity
- Simplify the research processes in the NHS and the University
- Maximise research income and patient recruitment to clinical studies
- Support the submission of high quality grant applications through enhanced University/NHS collaboration
- Increase the emphasis on applied translational health research
- Increase engagement between NHS clinical staff and university academics, to broaden the research base in the conduct of high quality research
- Collaborate with the Comprehensive Local Research Network (CLRN) to improve patient and the public recruitment to clinical studies
- Support clinical academic training
- Improve joint research governance processes and oversight of collaborative research

Institute of Translational Medicine

Birmingham Health Partners led the development of a new [Institute of Translational Medicine \(ITM\)](#), a new world class clinical research facility in Birmingham opened in 2015.

The centre helps to progress the very latest scientific research findings from the University into enhanced treatments for patients across a range of major health issues including cancer and liver disease.

The Institute builds on Birmingham's excellent track record in clinical trials by increasing capacity and enabling more patients to be co-located alongside clinicians and researchers. It will also make it easier for both SME and large pharma and biotechnology firms to work more closely with clinicians and academics, bringing additional investment into the city.

Visit our website – www.itmbirmingham.co.uk

Centre's and Facilities:

[Centre for Patient Reported Outcome Research \(CPROR\)](#)

Putting patients at the heart of our research Birmingham Health Partners is firmly committed to co-production of research with patient partners and hosts the world-leading Centre for Patient Reported Outcomes

[Health Services Management Centre](#)

The Health Services Management Centre (HSMC) at the University of Birmingham is the leading UK centre providing a combination of research, teaching, professional development and consultancy to health and social

[NIHR Liver Biomedical Research Unit](#)

The Birmingham NIHR Liver Biomedical Research Unit (BRU) at UHB, in partnership with UoB, is part of a multi-million pound scheme to prevent, diagnose and treat ill-health.

[Cancer Research UK Clinical Trials Unit \(CRCTU\)](#)

The CRCTU specialises in the design, conduct and analysis of phase I to IV cancer clinical trials for Investigators nationwide and internationally in a number of specialist areas.

[West Midlands Regional Genetics Laboratory](#)

The [West Midlands Regional Genetics Laboratory](#) provides comprehensive genetic testing services (many of which are UKAS ISO 15189:2012 accredited) to NHS patients within the West Midlands region; to private consultants and hospitals and to other healthcare institutions both nationally and internationally. With more than 200 scientific, technical and support staff, the laboratory is the largest in the UK.

[Clinical Immunology Service](#)

The [Clinical Immunology Service](#) provides a comprehensive clinical immunology service to local NHS Trusts which includes out-patient work, immunophenotyping in haemato-lymphoid malignancy and immunodeficiency, autoimmune serology, immunochemistry, allergy, cell function and neuroimmunology. For specialised aspects of autoimmunity and for immunodeficiency and blood cancers, the CIS provides a regional CPA accredited NHS laboratory service.

Phenome Centre Birmingham

The £8M Phenome Centre Birmingham is a large metabolic phenotyping facility led by internationally-recognised metabolomics and clinical experts at the University of Birmingham, in collaboration with Birmingham Health Partners.

Centre for Rare Diseases

BHP has invested in a patient centred, trials focused, [Centre for Rare Diseases](#), at the heart of its biomedical campus, co-located with the immuno- and genetic-phenotyping facilities within the ITM. This Centre, aligned with a matching Children's Rare Disease Centre at BCH adjacent to the children's NIHR/Wellcome CRF and 3T MR imaging facility provides a focus for rare disease practice spanning all ages and serving a local, regional and national catchment population of ethnically diverse patients.

NIHR/Wellcome Trust Birmingham Clinical Research Facility

The Birmingham Wellcome Trust/NIHR Clinical Research Facility (CRF) secured the largest UK award in 2012 and provides state of the art clinical facilities to deliver experimental studies.

Centre for Human Brain Health

[The Centre for Human Brain Health](#) (CHBH) is an inter-disciplinary brain research facility established with the mission of understanding what makes a brain healthy, how to maintain it, how to prevent and reverse damage and how to develop the next generation of interventions and tools for personalised brain healthcare.

NIHR Trauma Management Healthcare Technology Co-operative

The National Institute for Health Research Trauma Management Healthcare Technology Co-operative (NIHR Trauma Management HTC) represents a patient focused, centralised and co-ordinated trauma management research strategy.

Centre for Clinical Haematology

The Birmingham Centre for Clinical Haematology oversees one of the most active academic and clinical haematology practices in the world.

NIHR Surgical Reconstruction and Microbiology Research Centre

The [National Institute for Health Research Surgical Reconstruction and Microbiology Research Centre](#) is a joint venture between the MoD, UHB and the University to innovate in and share medical research and advanced clinical practice in battlefield medicine to benefit all trauma patients in the NHS at an early stage of injury.

Centre for Computational Biology

The Centre for Computational Biology supports the analysis of big data including data arising from our extensive clinical research portfolio.

NIHR Biomedical Research Centre (BRC) in Inflammatory Diseases

The [recently awarded](#) NIHR Biomedical Research Centre will capitalise on the established world-class strengths in inflammation research and experimental medicine in Birmingham, to accelerate access to and adoption of new therapies and diagnostic tests for patients with chronic inflammatory disease. The BRC will focus on the disease areas of sarcopenia, inflammatory arthritis, and inflammatory bowel disease.

Birmingham University Imaging Centre (BUIC)

Birmingham University Imaging Centre (BUIC) is an inter-disciplinary research centre dedicated to the study of the human brain, and is a collaboration between the Schools of Psychology, Medicine and Sport, Exercise and Rehabilitation Sciences. Research at BUIC converges around the use of magnetic resonance imaging (MRI), with a strong focus on combining MRI with other techniques such as electroencephalography (EEG) and transcranial magnetic and direct current stimulation (TMS/TDCS).

NIHR Experimental Cancer Medicine Centre

The [Birmingham ECMC](#) aims to improve the feasibility and quality of research in the areas of immunotherapy and gene therapy, translational genetics

and biomarkers which is being conducted in many different types of cancer. The centre has established bio-repositories, developed antibody-based assays and conducted various clinical trials.

The BioHub Birmingham

The BioHub Birmingham is a fully serviced biomedical research laboratory specifically designed to nurture and support the growth of life science companies from proof of concept stage into businesses attracting investment.

NHS Blood and Transplant Service (NHSBT)

NHSBT has a site within BHPs campus but is part of a joint England and Wales Special Health Authority. Its remit includes the provision of a reliable, efficient supply of blood and associated services to the NHS in England and North Wales. It is also the organ donor organisation for the UK and is responsible for matching and allocating donated organs. Additionally it acts as a partner to BHP both in support of clinical services but also supporting the partnerships clinical research.

Advanced Therapies Facility

The Advanced Therapies Facility is an expansion of the flagship Birmingham NIHR/Wellcome Trust Clinical Research Facility (CRF).

Institute of Translational Medicine (ITM)

Birmingham Health Partners led the development of a new Institute of Translational Medicine (ITM), a new world class clinical research facility in Birmingham opened in 2015.

Birmingham Dental Hospital and School of Dentistry

Birmingham Dental Hospital, home to the University of Birmingham's School of Dentistry, is one of only 10 dental hospitals in England.

Human Biomaterials Resource Centre (HBRC)

The University Of Birmingham has established a Human Tissue Authority (HTA) licensed human tissue biorepository, the Human Biomaterials Resource Centre HBRC, which is dedicated to human tissue collection, storage and distribution to researchers. Human biomaterials are collected and banked in response to local demand and/or research strategies to facilitate existing research, and enable future research areas to be developed; including the support of new technologies.

The University Medical Practice

The [University Medical Practice](#) are a long established group practice of doctors working from purpose built premises on the edge of campus in Edgbaston. Whilst we have a close relationship with the University and cater mainly for students and staff, we are fully independent as a 'normal' general practice and we welcome local residents who live within the practice area to register.

Henry Wellcome Nuclear Magnetic Resonance Facility

The [HWB-NMR](#) is the UK's largest Biomolecular NMR facility, providing academic and industrial users with open access to seven NMR spectrometers operating at 500-900 MHz, six cryogenic probes, and high-throughput autosamplers. Researchers from across the world are invited to study the 3D structures and interactions of proteins, nucleic acids, carbohydrates, lipids and metabolites at the facility; a national resource based in Birmingham, providing scientists with insights into the molecular basis of human health, cancer progression and infectious diseases.

Education

Continuing development to boost knowledge, support project delivery and improve patient care

Enabling and supporting educational development is one of the central building blocks of the Birmingham Health Partners alliance. We are committed to supporting training, helping to embed research findings, share knowledge and offer new qualifications, with the ultimate aim of improving patient outcomes and accelerating access to drugs, devices and diagnostics.

Some of our current programmes include:

- [Training for health care professionals](#)
- [Clinical Academic Careers Programmes](#)
- [Genomics](#)
- [Seminars@ITM](#)

Clinical Academic Careers Programmes

The Clinical Academic Programmes support the national agenda to increase the capability of non-medical professionals to contribute to the improvement of patient outcomes and innovations in healthcare.

Individuals undertaking these programmes will start to develop the skills and knowledge required to undertake their own clinical research and progress along the clinical academic career pathway.

Birmingham Health Partners (BHP) delivers two programmes:

[Clinical Academic Internship Programme \(CAIP\)](#)

The CAIP provides individuals with an introduction to research, enabling them to explore their own area of interest. It will prepare individuals to apply for the Pre-doctoral Clinical Academic Fellowship (HEE/NIHR – see links below), a Masters in Research, or help them to identify the next step in their career development.

[Masters to Doctorate Bridging Programme \(MDBP\)](#)

The MDBP is designed to bridge the gap for individuals with Masters-level qualifications who aspire to doctoral level study and to progress along the clinical academic career pathway.

The programmes are funded by Health Education England (HEE) in the West Midlands (HEE-WM) and are designed to link into the **HEE/National Institute of Health Research (NIHR) Integrated Clinical Academic (ICA) Programme for Non-medical Healthcare Professionals**.

Genomics

The [100,000 Genomes Project](#) has the potential to change clinical practice, bringing benefits to patients across the region and creating a legacy which embeds genomics in healthcare. West Midlands is the largest genomic medicine centre taking part in the 100,000 Genomes Project and comprises a consortium of 18 trusts across the region.

A genomics education and training programme has been established at the ITM to support the delivery of the project and provide genomics education and training. This includes a suite of educational programmes to prepare staff to work with the 100,000 Genomes Project and embed genomics knowledge through all NHS professional groups.

Seminars@ITM

These cross-discipline Seminars@ITM are designed to showcase the research conducted across the Birmingham Health Partners (BHP).

“Seminars@ITM provide a fantastic opportunity for staff from different disciplines to come together to share best practice. They are a valuable forum for encouraging networking and collaborative working across the BHP organisations.”

Professor Lorraine Harper, Associate Director of Academic Development, University Hospitals Birmingham NHS Foundation Trust

Previous seminar topics have included:

- Vestigial no more... The emerging potential role of therapeutic appendicectomy in the treatment of Ulcerative Colitis
- Opportunities for Translational Research in Histopathology
- Head and neck cancer: the potential benefits of tailoring the experiences of patients' symptoms and care into therapeutic pathways
- The who, why and where of clinical research: a personal view
- Patient-reported outcomes: making patient centred care a reality

More seminars are planned for the future and we will add these to the [ITM website](#) as and when they become available.

Financial Information

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