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Northern Health Science Alliance









# THE **NORTHERN HEALTH SCIENCE IS THE NORTH** OF ENGLAND'S HEALTH PARTNERSHIP



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THE HEALTH SCIENCE SECTOR IS ONE OF FOUR 'PRIME CAPABILITIES' FOR AN INDUSTRIAL STRATEGY IN THE NORTH OF ENGLAND, 2016 NIER

#### OUR VISION

To end Northern inequality through health research and innovation

#### OUR MISSION

Establishing the North of England as an internationally recognised health research system

#### OUR WORK

**To grow** visibility of the North's health economy nationally and internationally

**To increase** health research conducted in the North by the private and public sector

**To act** as a conveying body for pan-Northern research collaboration

**To link** Northern IP with investors

#### OUR MEMBERS

8 top research Universities in the North

8 top research-intensive NHS teaching Trusts

> 4 Academic Health Science Networks (AHSNs)

### FOREWORD

#### Professor lan Greer Chair of the Northern Health Science Alliance

The North of England excels in health innovation – this fact has been recognised in the Life Sciences Industrial Strategy, by the Northern Powerhouse team at BEIS, by research conducted by IPPR North, in the Northern Independent Economic review and by former chancellor George Osborne's Northern Powerhouse Partnership Group.

One of the reasons the region has been recognised for this excellence is due to the work of the Northern Health Science Alliance (NHSA) and the joining together of its key players in health research to maximise the clinical excellence of the region.

This has been a very successful year for the NHSA and I hope that the successes of this health partnership will be seen in the health and wealth of the North, and the UK as a whole, for decades.

This review outlines key successes we've achieved for our membership of NHS teaching Trusts, Universities and AHSNs this year but is the tip of a very deep iceberg that will have an effect on the lives of many for years.

I would like to thank all of those who have supported us over the past months in helping to bring the NHSA's vision to life.



#### A VOICE FOR TH

I HEALTH SCIENCE IS £17.5 BILLION OF THE NORTH'S £304BN OUTPUT AND IS FORECAST TO GROW BY 44.6 % BY 2030



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### KEY Achievements

The North of England is a region of unrealised potential. This makes it a hugely exciting place to work. A significant part of the NHSA's work is opening people's eyes to just how exciting that potential is. There are great cities, beautiful countryside, huge ports and a pool of innovative clinicians, researchers, academics and industry with the talent to deliver paradigm-changing shifts in the health and wealth of the region.

At the heart of what we do is helping our members to realise the full scale of the North's health innovation economy through providing ways for the North, and for industry, to collaborate with the region's dynamic clinical research ecosystem.

In this way we hope to increase the health and the wealth of the North, benefiting academia, clinicians, industry partners but most importantly the citizens of the North.

Dr Hakim Yadi OBE Chief Executive We've given an international business voice to the North



We've increased the amount of research

funding coming into the North

We've helped Government to understand the North's offering in health research

We've helped share best practice by setting up expert pan-Northern groups, saving costs and lives

We've helped Northern hospitals and universities to stay at the cutting edge of research

We've driven Government awareness of health inequality in the North - and offered solutions

We've driven positive media coverage of the North's health care offering

We've helping create jobs in the North which would otherwise go elsewhere

We've given the North a voice in the heart of Government



We're driving projects, such as Connected Health Cities, that help

improve and save lives

as at help

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THROUGH OUR WORK WE'VE SHOWN THE HEALTH AND LIFE SCIENCE ECONOMY IN THE NORTH IS WORTH OVER £17 BILLION TO THE UK ECONOMY

DOWNING STREET SW





### A **VOICE** FOR THE NORTH'S HEALTH SCIENCES

- We have taken the North's Health Clinical Research strength global, with representation in the USA, Japan, Australia, SIngapore, Dubai and across Europe
- This year has seen the NHSA take its seat at the policy table. In November the UK Government brought together a steering group to establish and structure a new life sciences industrial strategy we're part of that group
- We've worked with the Northern Powerhouse Partnership to shape their health innovation offering and are continuing to support them moving forward
- We've worked with politicians of all parties to demonstrate the value of the North's health innovation sector
- There were 92,654,822 opportunities to see, hear or read about the NHSA in the media – a 1,713% increase on the previous year
- National coverage was achieved on the Northern Health Science Alliance and North health innovation in the Financial Times, The Times, Huffington Post, The New Statesman, ITV, the BBC, Daily Mail, Daily Express and many others
- We attended international bioscience conferences, Northern Powerhouse and political party conferences to raise the profile of the NHSA
- We've grown the profile of health innovation in the North exponentially

- Coverage continued in the big regional newspapers including Yorkshire Post, Newcastle Journal, Manchester Evening News, Northern Echo and in the health science sector press including DigitalHealth Age, EPN, Bio Portfolio, Hospital Matters, International Pharmaceutical Industry and Lab Bulletin
- Our social media profile also increased massively. Views on Twitter went up 256%, followers went up 144%. Linkedin views went up 10,644% and followers 170%
- We've worked with the Department for International Trade and the Office for Life Sciences on international missions to Japan and the US and directly with inbound companies to identify collaborations and sites for investment
- We've worked with the Northern Powerhouse team in UK Government to help form their life sciences offering
- We led a pan-Northern call to action for Government with the Northern Powerhouse Partnership with 36 signatories printed in The Times newspaper
- Our Day of Action on November 22 was attended by 200 top health sciences leaders from across the North, Government, civil service and industry. Two health ministers spoke in addition to the Chair of NHS England

With access to the broad cross-section of population and solid relationships with a range of Universities the NHSA acts as a great point of contact for both governments and companies from overseas.

Professor Steve Myint, NHSA board member, doctor, businessman and investor.







### WORKING WITH INDUSTRY

- The global life sciences industry is waking up to the business opportunities in the North of England thanks to the NHSA's international outreach work
- We're working with major pharmaceutical and MedTech companies, such as Abbvie, Gruntenthal, Phillips Healthcare, Takeda, Oxford Nanopore and Metabolon. These collaborations are looking to secure million-pound investments in the region
- The NHSA has travelled to international global conferences to give the North's health sciences representation where they've never been before
- The North's global stature in health sciences has never been so high

- With outreach in the US we've spoken to the Mayo Clinic and Massachusetts General Hospital, the largest teaching hospital of Harvard Medical School. We've set up links with Advamed the largest MedTech trade body in North America
- Our business outreach has opened up global conversations
- In Japan we ran a UK industry event with MedCity with attendees including; Shionogi, Fujifilm and Asahi-Kasei. We initiated relationships with the Japanese BioIndustry Association and the Japanese Health Sciences Foundation among many others

It's been a pleasure working with the NHSA team who have facilitated us accessing the expertise across multiple Universities and experts. We have received valuable advice that really helps us to be successful in UK.

> Jaime ternational Ma



### **BUSINESS** HIGHLIGHTS

- \*
- UK's Oncimmune is working with the NHSA to secure an SBRI grant for their lung cancer diagnostic unit with Leeds University and Leeds Teaching Hospitals NHS Trust
- Canadian digital health company Mims is working with the NHSA to see how their digital health platform can support clinical genomic centres across the North

Essed, nager, TelePsy

Photopharmics has asked the NHSA to help the company to identify suitable Northern clinical research facilities to further their technology which stimulates nerve cells in the eye to treat Parkinson's disease



Japanese business Matrixome is working with NHSA to discover regenerative medicine groups to work with the company to develop its cell therapy technology

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#### RESEARCH COLLABORATIONS





Health research is integral to the North's current and future prosperity. The NHSA's University members are all in the top 200 of global Universities and work closely together with its excellent teaching hospitals

The region's Universities bring in research income worth £1 billion

We bring the North's leading researchers together to complement and enrich research strengths for time and cost-effective collaboration

This year we've supported successful research collaborations across pain, cancer, child health technology, biomedical research centres, ageing, and medtech cooperatives

Thanks to extensive mapping work and an application into Government, the NHSA has been awarded a Science Innovation Audit for the Northern Powerhouse in Health Research. Crossing the health science ecosystem in the entire North, recognising its excellence in health research and opening it up to future funding and more collaborations

One of our huge research successes is the Health North: Connected Health Cities programme which is already making a difference by looking at health data intelligently to improve patient care

The Northern Powerhouse in health research has built great momentum this year

### **HIGHLIGHTS**

This year saw the NHSA bring together the four successful Northern NIHR Biomedical Research Centres at the University of Manchester, University of Sheffield, University of Leeds and Newcastle University, to get to know about the work being carried out across the entire region. This is forging the way for collaborative working for the full five-year duration of the awards and beyond

We supported successful Northern NIHR Med Tech and In Vitro Diagnostic Cooperatives (MICs) bids which we will continue to support, making sure they've continued access to NHSA member expertise and facilities

Our work with the Technology and Innovation Transforming Child Health (TITCH) network led to a 'Bridging the Gap' event in April bringing together industry and paediatric experts. A full report now sets out crucial recommendations to support child health technology development

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THE TOP EIGHT NORTHERN RESEARCH UNIVERSITIES BRING IN INCOME WORTH £1BILLION

#### CASE STUDY **ACTIVE AND HEALTHY AGEING**

a national issue.





The NHSA led a bid across the North to apply for European Commission Reference Site Status in Active and Healthy Ageing.

Following the success of this, and awarding of 4<sup>\*</sup> status the NHSA set up AHA North – a pan-Northern consortium bringing together the North's top clinical and academic experts in ageing to share knowledge and innovations for a joined-up approach to







- Our four Northern Academic Health Science Networks excel in introducing innovations into the National Health Service
- We work closely with them, on a pathway to innovation, to see the most impactful healthcare solutions put into practice quickly and effectively

#### WORKING WITH ACADEMIC HEALTH SCIENCE NETWORKS: **A PATHWAY TO INNOVATION**



#### AHSNs NATIONALLY

Over 6 million patients benefited from AHSN input



improve health and support NHS, care and industry partners

Over £330m leveraged by AHSNs to



Over 500 jobs created



Hundreds of commercial innovators

Over 11,000 locations developing innovations supported by AHSNs



This year a key £20m NHSA project, Health North: Connected Health Cities (CHC), was launched. It unites local health data and advanced technology to improve health services for patients in Northern England.

CHC is reducing demand on NHS services through more efficient use of existing data and reducing health inequalities between the North and South. It is transparent about how it plans to use data; securely and only for patient benefit.

### THIS YEAR'S KEY HIGHLIGHTS INCLUDE:

The NHSA has demonstrated its capacity to advance the national agenda on health data by mapping out capability in the North of England, leading to the £20m Government investment into Health North: Connected Health Cities. This project is driving forward the UK's expertise in health data by looking at innovative ways of using depersonalised data to improve health processes, prediction and ultimately patient care.

Alan Payne, Vice President & CIO International, Aetna.

The Northern Health Science Alliance and the Northern Academic Health Science Networks work closely together to raise awareness of the excellence and opportunity in health science research and innovation across the North of England. This mutually beneficial relationship has improved the visibility of both organisations work at local, national and international scale, leading to increased commercial and Government interest

Dr Liz Mea

NHSA board member and CEO of Innovation Agency, AHSN for the North West Coast.



North East and North Cumbria CHC project Great North Care Record gains agreement of 369 GP practices, or 96% in the North East, to share information, allowing secondary care providers to view the GP records of 3.6 million people



All 88 GP surgeries in Bradford agree to share de-identified medical data used to improve treatments for frailty and childhood obesity. Two Trusts, Bradford Council and three CCGs are participating



CHC CityMoves launched with Nokia Health, a mass participation programme across the North tracking step count with heart health



CHC Yorkshire research on unplanned emergency care shows a quarter of walk-in patients at A&E units in Yorkshire demand treatment for minor ailments. There is also evidence that pressures in other parts of the NHS could be driving patients to casualty units



A Northern Powerhouse Partnership call for £100m to be put into the CHC programme in its latest report supporting the Health Innovation strand of the Industrial Strategy



### WORK WITH THE NHSA

Working with the NHSA is simple. We provide one point of access to the health science system across the North of England.

For more information on working with the NHSA on its projects and collaborations email info@theNHSA.co.uk or visit our website www.theNHSA.co.uk

Next year we want to see the North delivering the

We're looking to bring Northern delegations

conferences to showcase their excellence

We want to see yet more investment in the

outcomes for patients and hospitals

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North's clinical research infrastructure with better

We want to see more funding into the groundbreaking work of Connected Health Cities

We want to move towards tackling the North/

South health and wealth divide through driving investment, the creation of high-skilled jobs and better and more effective treatments for patients

to the big international life and health science

Life Sciences Industrial Strategy



Hakim Yadi OBE Chief Executive Officer

Suzanne Ali-Hassan **Business Development Manager** 

Hannah Davies

**Communications Manager** 







Shirley Hannan Research Coordination and Funding **Development Manager** 

Nicola Wilson Chief of Staff

When we decided to work inside the UK we realised the navigation of its health sciences could be difficult - which is why it's been a delight working with the NHSA team who have connected us to several clinicians and researchers. We are now about to start a clinical test thanks to the introductions made by the NHSA.

Rui Chen. Chief Technical Officer, Melog.

## THE ALLIANCE

The NHSA is a health partnership of the top eight Northern researchintensive Universities, NHS teaching Trusts and four Northern Academic Health Science Networks.

Newcastle University

South Tees Hospitals **NHS Foundation Trust** 

The Newcastle upon Tyne Hospitals NHS NHS Foundation Trust

 $\sim$ Durham University

Hull and East Yorkshire Hospitals NHS

The Royal Liverpool and NHS Broadgreen University Hospitals

UNIVERSITY OF LEEDS



YORKSHIRE & HUMBER ACADEMIC HEALTH SCIENCE NETWORK

LEADING THE NEXT INDUSTRIAL REVOLUTION IN HEALTH SCIENCE





Through these we reach a population of £15m.













UNIVERSITY of York











**INNOVATION** AGENCY

