

Horizon Scanning Case Study: Developing standards for Adeno- associated virus gene therapies

The Issue

Gene therapies are medicines that modify a person's genes to prevent, treat or cure disease. These innovative approaches fall under the class of medicines called Advanced Therapy Medicinal Products or ATMPs (other ATMP are cell therapies). A gene therapy medicine is composed of a carrier or vector that helps transfer the gene or genetic material into cells. One area of innovation and growth currently is gene therapies based on Adeno-associated viral (AAV) vectors, which are non-replicative, non-pathogenic single-stranded DNA parvoviruses. However, this field can be challenged by analytical and manufacturing barriers.

Analytical methods to assess the presence of impurities, quality and concentration of a product have been developed, but these are performed without any common point of reference and different analytics measure different characteristics of the product, thereby limiting comparison between products, batches of product and sites of manufacture. Standardisation of AAV products would enable manufacturers to harmonise dosing and the quality of their products thereby increase patients' confidence in these therapies and ultimately increase the safety of these potentially life transforming innovative medicines.

The change that is needed

In this case, horizon scanning identified a need for standardisation of AAV products to support developers and manufacturers of these therapies, and to enable patients to access these innovative products but to also ensure they are regulated appropriately and are safe and effective. Without a reference material to benchmark their products to it is difficult to establish the concentration (copies or particles per mL), and the particle empty/full ratio of products. To this end, AAV reference materials are required, that are available and used by all, to further advance the field.

What the MHRA did

To help with this issue, we searched the life sciences funding ecosystem for relevant funding opportunities to support the manufacture and characterisation of an AAV reference material. Together with colleagues at the [UK Cell and Gene Therapy Catapult \(CGTC\)](#), we secured funding from the [Regulators' Pioneer Fund \(RPF\)](#), launched by the Department for Business, Energy and Industrial Strategy (BEIS), to support the 6-month project.

The CGTC produced and purified a batch of AAV2 material using their new state

of the art bioreactors and facilities at Braintree, which we then analysed by Enzyme Linked Immunosorbent Assays (ELISA), electron microscopy and Polymerase Chain Reaction (PCR). We trialed freeze drying the material, which removes the need for a low temperature-controlled supply chain, so easing future distribution. The materials are now being evaluated by multiple external collaborators, from industrial stakeholders to academic laboratories, and its 'fitness for use' as a reference material is being assessed.

Outcomes

Through horizon scanning we identified the need for AAV reference materials to support future standardisation of AAV-based gene therapies, which will increase patient confidence in these therapies and the safety of these innovative medicines, and by securing external grant funding we are moving closer to meeting the objective of AAV standardisation. Through this work we have also developed strong collaborative working arrangements with the CGTC and a network of experts interested in [AAV standardisation](#).

The Scientist Sarah Kempster, who led the work for the MHRA said: 'Securing the funding from the Regulators Pioneers Fund was critical to making this project happen; it has enabled us to build a network of experts in the field which ensures the MHRA is at the cutting edge of new technologies in gene therapy analytics leading to better patient health'.

Electron micrograph of AAV viral particles

This project has been made possible by a grant from the £3.7 million Regulators' Pioneer Fund launched by the Department for Business, Energy and Industrial Strategy (BEIS). The fund enables UK regulators and local authorities to help create a UK regulatory environment that unleashes innovation and makes the UK the best place to start and grow a business. The Cell and Gene Therapy Catapult is part of the Catapult Network, which supports businesses in transforming great ideas into valuable products and services. It is a network of world-leading technology and innovation centres established by Innovate UK.

[PM meeting with Indian Prime Minister Modi: 16 November 2022](#)

Press release

Prime Minister Rishi Sunak met Indian Prime Minister Narendra Modi at the G20 Summit in Indonesia.



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The leaders agreed on the enduring importance of the UK-India relationship, and of the living bridge between our countries. The Prime Minister passed on his thanks to Prime Minister Modi for the overwhelming response of the Indian people to his appointment as Prime Minister.

The leaders discussed the range of areas where the UK and India are working increasingly closely and have the opportunity to further develop our links, including defence and security.

They looked forward to the agreement of a UK-India free trade deal, which has the potential to unlock investment and increase jobs in both our countries, as well as expanding our deep cultural links.

The Prime Minister and Prime Minister Modi agreed that the UK and India's shared values, not least our commitment to democracy, are a huge asset in international forums like the G20 and the Commonwealth.

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[Environment Secretary calls for action to protect and restore nature at COP27](#)

The Environment Secretary Thérèse Coffey has today called for renewed global action on nature as she sets out an ambitious path forward for nature at COP's Biodiversity Day (16 November).

Outlining the importance of next month's vital meeting of the UN Convention

on Biological Diversity in Montreal , she is calling on countries to come together at that summit and agree a robust global plan for tackling nature loss. While significant progress has been made, more action is needed from both the public and private sectors to bridge the reported \$700 billion funding gap needed to stop nature loss.

Our security, livelihoods and productivity depend on the global web of life including our forests and the ocean, with over half of the world's GDP reliant on nature.

Today at Biodiversity Day, the UK Government continues to drive global efforts to embrace nature to help lower global temperatures and build a sustainable future. It will:

- Commit £30 million of seed finance into the Big Nature Impact Fund – a new public-private fund for nature in the UK which will unlock significant private investment into nature projects, such as new tree planting or restoring peatlands. Managed by Federated Hermes and Finance Earth, these habitat creation projects will aid small business growth and job creation as well as soak up carbon emissions and support cleaner air and water.
- Pledge an additional £12 million to the Ocean Risk and Resilience Action Alliance to protect and restore vulnerable coastal communities and habitats
- Commit a further £6 million to provide capacity building support to developing countries to increase commitments to nature and nature-based solutions under the Paris Agreement, through the UNDP Climate Promise.
- Announce new UK climate finance contribution of £5 million toward the Inter-American Development Bank's (IDB) Multi-Donor Trust Fund for the Amazon. This will help to tackle deforestation through community-led projects harnessing local knowledge to protect the world's most precious forests that the planet relies on, whilst providing sustainable business opportunities to Indigenous People whose livelihoods depend on forests.
- Raise awareness of the incredible importance of mangroves and their role in coastal resilience by endorsing the [Mangrove Breakthrough](#) led by the UNFCCC High-Level Champions and the Global Mangrove Alliance. This vital project aims to secure the future of vital coastal mangrove forests.
- Highlight the climate benefits of blue carbon through continued support for the new Global Ocean Decade Programme for Blue Carbon (GO-BC), which has now launched a new Global Graduate scheme for early career blue carbon researchers.

Speaking at Biodiversity Day at COP27, Environment Secretary Thérèse Coffey said:

Over half of the world's GDP reliant on nature, which is why the United Kingdom put nature at the heart of our COP26 Presidency and led calls to protect 30 per cent of land and ocean by 2030.

We continue to demonstrate international leadership through commitments to create a natural world that is richer in plants and

wildlife to tackle the climate crisis, and at next month's meeting of the UN Convention on Biological Diversity we will strive for an ambitious agreement that includes a global 30by30 target, a commitment to halt and reverse biodiversity loss, and an increase in resources for the conservation and protection of nature from all sources.

Lord Goldsmith, Minister for International Environment, Climate, Forests & Energy, said:

The fastest route to Net Zero is restoring the world's forests and protecting nature. And the value of forests and other ecosystems goes so much further than climate. The greatest guardians of nature has always been indigenous people, which is why the UK is delighted to support communities in the Amazon in their efforts to protect and restore their environment.

Global momentum is now behind plans to halt nature's decline, with 95 world leaders and over 100 non-state actors having now signed the Leaders' Pledge for Nature which commits to global action to reverse biodiversity loss by 2030.

This momentum will only continue if the right incentives are in place. The UK, together with Ecuador, Gabon and the Maldives, recently led the creation of a Political Vision: 10 Point Plan for Financing Biodiversity (10PP), launched with 17 early endorsers. At COP27, ministers and representatives from 15 existing signatories and others were drawn together in a [closed door meeting](#) to kick-start next steps on translating this plan into action ahead of CBD-COP15.2 in Montreal.

As outgoing UNFCCC (UN Framework Convention on Climate Change) COP Presidents, it is vital that the United Kingdom's level of ambition for nature is continued under future Presidencies to achieve Net Zero goals and halt the damage that climate change is causing to our planet.

Looking ahead to UN CBD, this includes scaling strong investments into nature-based solutions, committing to protecting and restoring critical ecosystems, such as mangroves and peatlands, improving the abundance of species and plants, and halting the decline of biodiversity to create a more sustainable future and drive economic growth.

ENDS.

Further information on the Big Nature Impact Fund

- The new blended fund is being launched with £30 million of government investment. From the 16 November the fund will start to engage with private investors to help fund green projects around the country, this will include tree planting, peat restoration and water quality

improvement projects.

- The £30m seed public investment will drive much greater investment from the private sector to invest in nature projects in England to help tackle climate change.
- Investment generated through the fund will support new woodland creation in England – equivalent to 15-16 million trees of new planting. The fund will also support peatland restoration and habitat creation.
- The Big Nature Impact Fund will boost the economy through new nature recovery projects that will create green jobs, secure existing ones and open up new avenues in UK green finance.
- Projects will generate revenue to provide a financial return for investors by selling high-integrity carbon and biodiversity units to businesses to help them fulfil their net zero commitments and biodiversity net gain obligations.

At the UN CBD meeting in Montreal in December, the United Kingdom will:

- Seek further support for the target to protect at least 30% of the land and of the ocean globally by 2030 ('30by30')
- Continue leading calls for ambitious and meaningful outcomes for the ocean
- Aim to provide a significant increase in the mobilisation of resources from all sources to fund the global effort to halt nature loss.
- Look to strengthen mechanisms for holding countries to account for implementing the framework.
- Work towards agreement on ensuring that benefits arising from the use of biodiversity are shared with the communities that take care of them

Forests

- The Inter-American Development Bank (IDB) Multi-Donor Trust Fund for the Amazon is a new initiative that will work to promote forest protection and sustainable development across the Amazon. As part of the initiative, the UK will work together with the IDB, Amazon countries and other key regional stakeholders, and partners such as the Netherlands and Germany, to fund innovative projects that improve management of vital forest landscapes, support sustainable, nature-positive livelihoods for indigenous people and local communities, and upscale economic solutions to eliminate deforestation and ecosystem degradation. The initiative will deliver support across eight Amazon countries – Brazil, Colombia, Bolivia, Peru, Guyana, Venezuela, Ecuador, and Suriname.
- In addition, we invested over £2 million through the Mobilising Finance for Forests programme in projects to conserve, restore and sustainably manage two million hectares of tropical forest landscapes that will reduce emissions significantly by 2030.
- This year, the UK has also invested through the UK's Conflict, Stability and Security Fund (CSSF) an additional £800,000 in climate security projects tackling the illegal drivers of deforestation in the Amazon region.

Mangroves breakthrough:

- The Mangrove Breakthrough was launched by the Global Mangrove Alliance (GMA) in conjunction with Nigel Topping and the UNFCCC High-Level Climate Champions (HLCs). They launched at COP27 on 10 November with endorsements from states (including the UK) and non-state actors.
- The Mangrove Breakthrough's aims to catalyse the financial support needed to achieve its target of \$4bn corresponding to 15million hectares of mangroves globally by 2030, through collective action on halting mangrove loss, restoring half of recent losses, doubling protection of mangroves globally, and ensuring sustainable long-term finance for all existing mangroves.
- The ambition aligns with Defra and HMG priorities to champion ocean-climate action and to drive forward a step change in nature-based solutions, including under the Blue Planet Fund, and towards the Glasgow Leaders Declaration on Forests, recognising mangroves as blue forests.

GO-BC:

- Defra provides support for the running of Global Ocean Decade Programme for Blue Carbon (GO-BC), a new research programme within the UN Decade of Ocean Science for Sustainable Development. GO-BC It is looking to build blue carbon scientific capability (in part through launching its global graduate scheme) and exploring potential blue carbon research projects it will endorse (one such project where there could be future opportunities for collaboration is the Convex Seascape Survey).

Glasgow legacy

- The Glasgow Leaders Declaration on Forests and Land Use is part of the ambitious legacy from COP26. Led by the United Kingdom, 145 countries – representing over 90% of the world's forests – signed a pledge to halt deforestation and land degradation by 2030 while delivering sustainable development and rural transformation. This commitment will deliver resilient and inclusive growth and accelerate efforts to limit global warming. Countries now need to deliver on their Glasgow commitments and the Forests and Climate Leaders' Partnership – launched earlier this week – will play a critical part in driving this through providing accountability and space for enhanced cooperation. The declaration was signed by 145 countries at COP26. For more information visit: [Glasgow Leaders' Declaration on Forests and Land Use – UN Climate Change Conference \(COP26\) at the SEC – Glasgow 2021 \(ukcop26.org\)](https://www.ukcop26.org/declaration)
- COP26 also gave much greater prominence to the ocean's role in climate action. Since Glasgow, the United Kingdom has increased support to developing countries through the flagship £500m Blue Planet Fund to support adaptation to climate change and build sustainable, prosperous coastal communities. The United Kingdom will build on this ambition at COP15, seeking agreement of an ambitious Global Biodiversity Framework to halt and reverse biodiversity loss by 2030.
- The 10 Point Plan is a political blueprint that defines a clear pathway for bridging the global nature finance gap and to manage the significant risks of biodiversity loss to the global economy and public health. It

was launched at the UN General Assembly (UNGA 77) on 20 September 2022. 17 countries have signed up to the 10 Point Plan, led by Ecuador, Gabon, Maldives and the UK. The plan demonstrates the role that all sources of finance have to play, including domestic, international, public and private. It has a particular focus on how international, public finance can support developing countries to accelerate the transition to become nature positive. [The 10 Point Plan for financing biodiversity – GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/the-10-point-plan-for-financing-biodiversity)

Ocean Risk and Resilience Action Alliance:

- ORRAA is a multi-sector collaboration connecting the international finance and insurance sectors, governments, non-profits, and stakeholders from the Global South to pioneer finance products that incentivise investment into coastal and ocean Nature-based Solutions. The Alliance's goal, by 2030, is to activate at least \$500 million of investment into this space, and in so doing, help build the resilience of at least 250 million climate vulnerable coastal people [Homepage – ORRAA \(oceanriskalliance.org\)](https://oceanriskalliance.org)

Health and Social Care Secretary: NHS Providers Conference

Good morning everyone,

A lot has clearly happened since the last NHS Providers conference took place including, of course, several changes of Secretary of State.

And I know that might not matter to everyone as ministers change but I wanted to start by assuring you that the challenges that you are facing are uppermost in the thinking of this government.

And having previously held roles in Number 10, Cabinet Office and the Treasury, one of the things that I can bring to this role, is making sure on your behalf that the very real challenges you face are given the upmost visibility in the department's discussions with the centre of the government.

And in contrast to what some of you might have read in the papers last weekend, I have been very clear in setting out the extent of those challenges in shaping the context of the Chancellor's statement to the House tomorrow. I'm really looking forward to working with colleagues here and across the health and social care sector, which is an important part of all of our families' stories – and I am no exception in that.

My first memory was when my Mum was doing cleaning work in a caring home and I went along, and one of the things I remember so well is the kindness of the

residents who used to treat me to lots of biscuits as a very little child and treated me so well when I was there.

And that kind and caring environment has always stuck and stayed with me.

I believe that in explaining how that has manifested itself, it is far better to show and not tell.

For any that care to look at my record during four years on the Public Accounts Committee, you will see that I was a strong champion for NHS staff who raised issues of patient safety – because I've always felt very strongly that listening to and learning from staff is critical to improving outcomes for patients.

I know that I am speaking against an extremely difficult backdrop.

We are all conscious of the fiscal statement from the Chancellor and the wider economic challenges caused by two "once in a hundred year" events – happening within the space of three years in the form of the pandemic and the war in Ukraine.

And that places constraints on pay and creates the backdrop of industrial action, along with the pressure you face as local leaders.

In these difficult times, I am extremely keen to work with you on identifying all the practical measures that we can put in place to support the NHS and care workforce.

If I can make the point more explicitly, when people ask what my priorities are for the NHS then supporting the workforce is first amongst those priorities.

We know that this will be one of the toughest winters in the 74-year history of the NHS.

And I fully understand why a survey ahead of this conference by NHS Providers showed that 85% of Trust leaders are more worried about this winter than any in their NHS career.

We face the twin threats of Covid and flu, huge external pressures around energy and cost of living.

We enter the colder months without the breathing space that we might usually have had over the summer and that I'm sure colleagues were used to in the earlier stages in their career.

And due to the Covid pressures, which have remained high, that has continued that pressure.

So there is a huge amount to do together to steer health and care through this storm and, crucially, make the changes that will make us better prepared for the future.

I am extremely grateful for everything that you have done so far in these difficult conditions – working hard to get more nurses on the frontline, and to meet those challenges.

And we in government, through our manifesto commitment to recruit 50,000 more nurses, are recognising the extent of those pressures and working with you.

We'll do everything we can to protect the NHS this winter through the booster programme, more staff on the NHS 111 and 999.

And within the Department of Health and Social Care itself, our focus is very much on what practical measures we can take to support you.

As an example, when I was minister for the Cabinet Office, I was surprised to discover that we had over 60 strategies across Whitehall – just for science and technology.

And there may be some here who feel they are often asked to contribute to long-term plans at the expense of time spent on more immediate pressures.

My focus will be on the areas that matter most to patients and workforce, and working with you on those practical measures of support.

And so alongside workforce, a second priority will be on our recovery plan.

With the backlog at 7.1 million, we will relentlessly focus on the elective recovery work that is being led by chief executive of NHS Improvement Sir Jim Mackey and delivered by you as chief executives and chairs.

Chief executive of NHS England Amanda Pritchard and I want to see the department and NHS England working closely together on these shared priorities.

As part of this close working, Amanda and I are pleased to announce two important appointments today who will work closely across both the department and NHS England.

I am pleased that Professor Sir Tim Briggs – who a number of you in this room will know very well, and who is one of this nation's most highly regarded orthopaedic surgeons – will bring his considerable clinical expertise to a new role as Clinical Lead for the Elective Recovery across that programme, taking on a broader role as well as his leadership of Get It Right First Time and his clinical practice.

I can also announce that Sarah-Jane Marsh will be taking up the role of Deputy Chief Operating Officer and National Director for Urgent and Emergency Care.

She will work closely with regional teams and Integrated Care Systems to deliver our transformation of Urgent and Emergency Care and make sure patients get the right care, in the right place, at the right time.

Sarah-Jane will replace Pauline Philip, who I'd like to thank for her

dedicated service in the role since 2015.

Initiatives like Get It Right First Time and Sarah Jane's work over the summer on the 100 Day Discharge taskforce sprint have been making good progress in better using data to prioritise and address variations in performance between areas.

We took together an extremely positive step over the summer, with the two-year waits being virtually eliminated, and – as we focus on the next steps of hitting the 78-week target by April 2023 – we will work with you as Trust leaders to more quickly scale best practice.

This summer, I saw how problems often manifest themselves in one part of a complex system but are caused elsewhere.

For instance, I know that the issues that we are seeing around delayed discharge are a symptom of a broader pressure across health and care.

To support this work, we have launched a £500 million Adult Social Care Discharge Fund to help get people who do not need to be on wards – and where this damages their health – out of hospital and into social care.

Today I am pleased to announce details of the fund, which will be provided to ICBs and local authorities to free up beds at a time when bed occupancy is at 94%, and to improve capacity for social care.

The first tranche will be provided by early December, and the second will be distributed at the end of January.

In line with our devolved and data-driven approach, we will allow local areas to determine how we can speed up the discharge of patients out of hospital.

This might be through purchasing supportive technology, through boosting domiciliary care capacity or funding physiotherapists or occupational therapists to support recovery at home.

Meanwhile, we will also be looking closely at the impact of how funding is used and using this data to inform future decisions on funding, including a more compelling evaluation capacity to help those discussion with the centre of government.

Tackling delayed discharge must be an effort that spans a number of different areas across health and care, with social care, primary care, community services all working together with hospitals.

I want to move away from blame being attached to particular parts of the system for problems that arise but are the consequences of issues that have arisen elsewhere in that complex system.

Delayed discharge needs to be much more of a team effort, where everyone plays their part, and where decisions on where risk sits within a local system are best made by those closer to the issue.

Equally, I am sure you can appreciate that quite often as a Secretary of

State being held accountable for individual operational failure, it can feel far removed from the day-to-day decisions made at a local level.

It is far better that variation in the different needs of demographics and local healthcare systems is reflected in devolving decisions to local leaders, who of course are better placed to assess the trade-offs about where risk sits within those decisions, rather than it being determined in a one-size fits all way within a ministerial office.

So a key direction of travel will to be empower the ICBs much more to harness advances around population level data, with the role of the centre being geared around supporting areas to address those variations in performance – of which, of course, you all play one of the largest parts.

We will support Trusts in stopping lower priority spend so they can prioritise areas that matter most to patients – like cancer care.

And we will also show more transparency from the centre about how our own resource is being deployed, to ensure this spend better aligns with fewer targets and more ICB autonomy.

We're again showing not telling, in that regard, and so providing transparency of department spend for DHSC and our central ALBs – which it's worth remembering accounts for £2.8 billion of spend – and the department along with the vast majority of our Arm's Length Bodies have now published searchable organograms showing all job titles and the number of people working in each team.

So you as health leaders can see more clearly where resource is spent at the centre, and we can start a conversation about whether priorities and resource is best aligned with supporting you in meeting the challenges your local health system faces.

I'd like to touch briefly on pay, which I know is an important issue for your teams.

As in all sectors, pay is a central issue, particularly given the wider cost of living pressures.

I am keen to work constructively with trade union colleagues.

Last week, I met representatives from the Royal College of Nursing and yesterday I held a roundtable with a wide range of trade unions – discussing the issues that they have raised on patient safety, non-pay benefits, and of course pay itself.

But I do not think it is realistic that increases should be three times the amount paid to those outside the public sector.

And the £9 billion cost this would entail would impact other important areas of spend, such as buildings and technology, which are also important to staff.

However, I am grateful for the discussions that we had over the past few weeks and look forward to future discussions, and have made clear my door is open and we want to engage constructively.

And I can assure you all that this is an issue that I am determined to take forward.

Turning to GP access, which is another key priority.

Because when it comes to people's direct experience of the NHS, over 90% of that experience is through primary care.

So addressing the 8am morning scramble opening access to appointments is a key area of focus, and indeed was a key component of the Plan for Patients.

We know that there is no single solution, and we will be looking to ensure that we have a wider workforce for primary care.

We'll be looking at the skills mix in primary care, creating more appointments for patients, rolling out the extra phone lines, looking at how we can progress Pharmacy First.

Exploring ways to do things differently, such as new areas like home testing, and redesigning patient pathways so that all the burden doesn't fall on GPs.

Another of my priorities is ensuring a stronger future for health and care in terms of how we use the latest technologies and trends to improve outcomes for patients and make sure that taxpayers' money is well spent.

One example of that is on the NHS estate.

I know that there are huge concerns about issues of the RAAC concrete used in certain hospitals, which needs urgent attention.

And I want to speak directly to the chief executives of all the hospital trusts that are affected.

I understand the seriousness of this issue and I am committed to delivering the government's commitment to eradicating RAAC from the NHS estate.

Equally, there has been great interest in the wider new hospitals build programme – and Saffron, I know that you have talked a lot about the importance of our capital programme to the longer-term future of the NHS.

And I couldn't agree more.

I want to use the opportunity of this biggest hospital building programme in a generation, to think differently about how we approach the NHS estate.

It's important to bear in mind that if you look at the last 10 hospitals, nine of the last 10 hospitals built in England were over time and over budget.

It interests me that, given where we were four years ago, as Minister of

State in the department I visited the Royal Liverpool Hospital, which I was told four years ago was near completion when on my visit to that hospital – and four years later I am now visiting again today with it only opening last month.

So there is an urgent need to change how all NHS buildings are constructed in the future.

This means moving away from bespoke designs by local Trusts and instead having national standardised designs built through modern methods of construction, where the construction time on site is much quicker, the operational performance is delivered quicker, and the environmental features are better integrated into the build.

And the central evaluation process within government, which to date has been a sticking point for many Trusts, can be streamlined because of the greater consistency of design.

While Covid has left us with many challenges, it has also shown us that there are new ways of working which could apply.

One of the most important of those opportunities is around better use of the NHS app, which should be much more central to how people access health services.

I very much welcome that so many GPs are now making their patient records and testing results available on the NHS app, and I think there are significant opportunities to harness the NHS app further – particularly in the context of pressures in primary care, but more widely on preventative medicine.

And we have some big updates to come, including from the end of this month, allowing people to book their Covid jab through the NHS app.

But I also want to look at how we can make greater use of patient data in a safe and secure way to power life-changing medical research, and cement our nation's status as a science superpower.

I want patients to have more opportunities to share data, on an opt-in basis, to support our great universities, start-ups and scale-ups who are making incredible breakthroughs.

And through cloud computing, machine learning and the Internet of Things allow for data to be used and interrogated in new ways.

This can give us a competitive advantage when it comes to attracting tech pioneers and researchers in the future of health but also help us deliver more, effective, personalised care for patients.

This has to sit of course alongside basic improvements like the Electronic Patient Records being rolled out more quickly, and the poor Wi-Fi coverage that remains too often a frustration for staff.

No-one here is in any doubt as to the size of the challenge that we

collectively face.

We have to deal with pressures from flu and Covid this winter, substantial backlogs from the pandemic, the wider cost of living challenges faced by our workforce.

And so as a result, my key areas of focus in the months ahead will be first and foremostly supporting our workforce, focusing forensically on our recovery plans – across electives, urgent and emergency care – including the issue of tackling delayed discharge and primary care access.

Alongside this, we need to fix the issue in term of the RAACs, and we need to maintain momentum on the new hospital building programme, in particular streamlining the central approval process.

And invest in tech, so we can make it easier to deliver good patient outcomes and better harness our approach on preventative medicine in a way that incentivises patients to provide data for our scientific community – who in turn, enable those treatments to be personalised, and pathways to be streamlined.

I will play my part in to try and reduce the number of top-down requests that you face, devolve decision making to a greater degree, and allow those closest to the patient to better balance how risk is addressed – given the complex landscape in which you all work.

And I will set a much higher bar within government to any new legislation, which so often creates undue distraction.

Thank you once again for everything that you do.

I'm very much looking forward in this role to working with you all to build a more resilient, healthier NHS for the long-term, so that collectively we can give the security to the people we represent of knowing it will be there for them when they need it.

Thank you very much.