FOUNDERS FORUM HEALTHTECH

2018 REPORT

FOUNDERS FORUM HEALTHTECH

HAVAS LYNX

CONTENTS

A WORD OF THANKS

Thank you for joining us at our recent third Founders Forum HealthTech event co-hosted by ourselves, Dr Jack Kreindler (Founder, CHHP & Chair FF Healthtech), Simon Stevens (CEO, NHS England), Dr Daniel Kraft (Founder & Chair, Exponential Medicine), and Dr Vernon Bainton (CMO, Havas Lynx), and supported by our international Advisory Board who helped curate and chair this special annual gathering.

This year brought together some of the world's most dynamic and celebrated individuals from leading health systems and the healthcare industry – all with the aim of discovering, debating and shaping the future of health tech and breakthrough technologies.

Leveraging health tech is more relevant in healthcare now than ever. In the first quarter of 2018 alone, digital healthcare companies raised nearly $2.5 billion,[1] and healthcare in general accounted for almost 27% of all investment dollars through the Dow Jones – more than any other sector.[2]

As such, this year's discussions focussed on Technology and AI in cancer treatment and broader aspects of care, and were followed by an evening session in central London which explored how communications and the creative arts can support the understanding and adoption of new breakthrough science and technology in healthcare.

We warmly welcomed and were grateful to the Under Secretary of State for Health, Lord James O'Shaughnessy, who gave us the opening keynote this year on the pioneering UK Government-led Dame Tessa Jowell Brain Cancer Research Mission, along with Tessa's daughter, Jess Mills, who co-founded the 'ACT for Cancer' charity and initiated the Brain Cancer Research Mission with her mother, who sadly passed away just one month before. The mission is to bring about new technology, new science and new hope for universally accessible, personalised options for currently incurable cancers, of all kinds.

Our main aim for the event was to spark meaningful discussion and debate; your activities and contributions on the day surpassed our expectations, and we can only hope that you left feeling as inspired and energised to accelerate innovation as we did.

We hope to see you at the next Founders Forum HealthTech event!

Brent Hoberman, Dr Jack Kreindler, and Dr Vernon Bainton

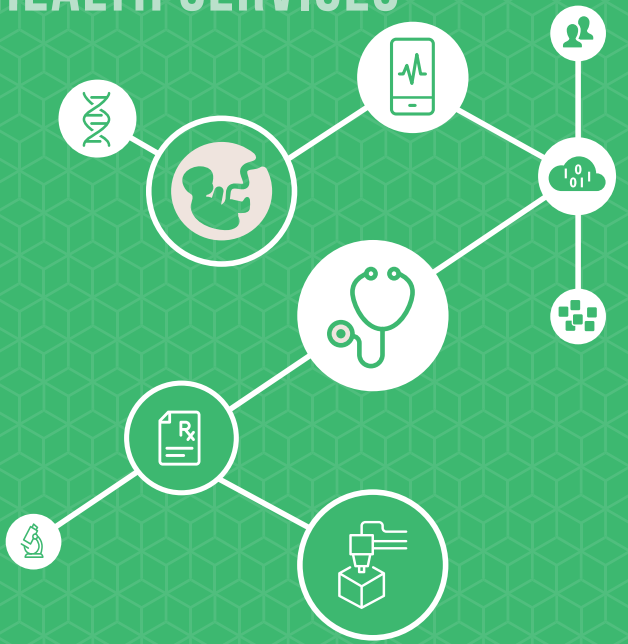
IN Q1 OF 2018:

DIGITAL HEALTHCARE COMPANIES RAISED **$2.5 BILLION**[1]

HEALTHCARE ACCOUNTED FOR **ALMOST 27%** OF ALL INVESTMENT DOLLARS[2]

01

THE FUTURE MAY NO LONGER BE ABOUT NATIONAL HEALTH SERVICES, BUT **PERSONAL** HEALTH SERVICES



Lord James O'ShaughnessyDr Jack Kreindler

The recent passing of Dame Tessa Jowell, and the continued campaigning of her daughter Jess Mills, has brought the need for a revolution in the way cancer care and treatment are developed and accessed to the forefront.

Cancer is complex – it displays genetic diversity just as we as humans are genetically different from one another – but it is only in recent years that we have recognised the true extent of its complexity.

Despite this, our approach to the development of treatments, and the ability of patients to access them, hasn't evolved; the process remains slow, cumbersome and expensive, and we continue to develop therapies with broad targets.

Now, more than ever, a personalised approach to healthcare is needed.

The key to a personalised approach is high quality data, and in vast amounts. The UK's National Health Service (NHS) has made great strides here, creating and curating a data set of over 60 million people. However, it is largely in analogue format, and is being digitised and organised to make it more easily available. Of further importance is leveraging wearables technology to combine citizen-generated data with genomic data, giving people control of their own genetic health profile.

01 CONT.

Artificial Intelligence (AI)-driven health technology is a critical ally to make personalised healthcare a reality. AI has already demonstrated its capacity for handling and interpreting large complex datasets, and has the ability to augment existing pathology and radiology services. While developments such as this are encouraging, the innovation needs to be broader – including clinical trial design.

Adaptive clinical trials* are an alternative approach to the testing and approval of drugs, which could help to identify potential therapies more quickly than conventional trials currently do.[3] While these adaptive trials are slowly becoming more commonplace, AI could lend further support in their design, and help generate and analyse even more clinical data, making research a much more effective tool in reforming patient care.

What could the future look like with truly exceptional, personalised care as the norm? Imagine a world in which people have their own genetic data available on a database from birth, and the ability to access it from a mobile device with their own wearable-generated data feeding into the database. Settings would allow us to determine where our data is shared and used, allowing us to pick the causes we contribute our genetic information to. GPs and hospital staff would have access to this information instantaneously, and be able to 3D print the medicine they prescribe. Meanwhile, ongoing data collection hones treatment algorithms, continually improving patient care and research.

Imagine a world in which people have their own genetic data available on a database from birth, and the ability to access it from a mobile device with their own wearable-generated data feeding into the database.

While the concept of a 'Personal Healthcare Service' is attractive for obvious reasons, bringing about the change to make it a reality will be disruptive and challenging – how do we overcome this? Even with something as fundamental as the clinical trial system?

* In adaptive clinical trials, traditionally rigid protocols are replaced with a more flexible series of pre-specified adaptations which can be made following the analysis of data at certain intervals. Based on observations of the responses of participants in the trial, treatment(s) can be adjusted in line with these adaptations as the trial progresses.

02

MAKING DISRUPTIVE IDEAS & TECHNOLOGY A REALITY

Lord James O'Shaughnessy Under Secretary of State for Health
Jess Mills ACT for Cancer
Prof Colin Watts University of Birmingham
CHAIR: Dr Jack Kreindler CHHP

How do we challenge the status quo and better involve patients?

Patients are keen to contribute to bringing about change, as evidenced by a survey of 270 patients carried out by the Brain Tumour Charity: 97% stated that they would be happy to share their data to help improve brain tumour treatment and care.[4]

Adaptive clinical trials provide patients with such an opportunity, but the panel noted that communication around this is essential in order to make sure that patients are invested in the process – it cannot be 'something that happens to them'. A collective vision between everyone in the scientific community is essential to effectively break through any challenges that may stand in the way.

From a political perspective, the potential for risk is a significant barrier to introducing new technologies and methodologies. Future regulatory and ethical frameworks will need to provide a sense of security that can assuage any fears policy makers may have.

Yet, at the same time, stakeholders must recognise that patients have the right to make an unwise decision: after all, as long as people are provided with accurate information and appropriate safeguards are in place, and their alternative is death, why shouldn't they be allowed to make their own informed choices?

In the face of the complexity and rigidity of the current situation, one thing is for certain: as Dame Tessa Jowell said at her parliamentary speech in May 2018, we cannot let the introduction of new systems that could make a real difference to patients fall into the bucket of 'too difficult'.

FORAYS INTO THE FUTURE

WHAT DOES THE FUTURE HOLD FOR HEALTHCARE TECHNOLOGY AND INNOVATION?

Four speakers shared their vision.

DR DIETRICH STEPHAN

Peptilogics / LifeX

OBSERVING DISEASE TRENDS TO BE PREPARED SOONER

Where many companies and technology ventures are working to treat existing large unmet healthcare needs, LifeX is working to stay ahead of the game, by identifying where gaps exist in disease pipelines and working to fill these.

For example, there has been a worrying trend in the rates of antibiotic-resistant 'superbugs' emerging in hospitals which are spreading across countries and continents at an alarming rate, becoming virtually pandemic. LifeX anticipated this trend, and sourced an antibiotic with a novel mechanism of action that targets both gram-negative and gram-positive bacteria that pathogens cannot become resistant to, and which is now entering clinical trials.

Hopefully this treatment will become a ubiquitous, front-line antibiotic, which could combat all bacterial infections.

DR RICCARDO SABATINI

Orionis Biosciences

WHY MAKE ONE DRUG WHEN YOU COULD SCREEN FOR THOUSANDS?

The pharmaceutical industry is the only one in the world that is becoming exponentially inefficient. Currently, in the process of bringing one drug to market, pharmaceutical companies may spend billions of dollars, and have hundreds of compounds fail along the way.

Orionis Biosciences are developing solutions which can help overcome these limitations:

- Firstly, with a platform which can screen a single drug over the entire human proteome and determine drug targets with even more precision
- Secondly, designing molecules to land on a single cell type rather than a protein which occurs over many cells
- Finally, screening thousands of drugs against the human genome, and releasing the matrix of chemistry vs. the human proteome as open-source data

VANDERLEI DOS SANTOS

Abbott

PIONEERING SIMPLE SOLUTIONS FOR EMERGING MARKETS

Abbott Pharma are working with emerging markets which are hungry to use technology, where many patients cannot access a doctor easily. The Abbott A-Care programme aims to bring and apply such technology to link HCPs, patients, pharmacists and other healthcare stakeholders. At events like Founders Forum, there is a lot of talk and excitement around the potential of AI, but emerging markets often need solutions that rely on more basic technologies, such as WhatsApp or offline mobile services. With these, patients can easily access information about diseases or treatments, and educate themselves around treatment adherence. The latter is a significant problem, where non-adherence leads to significant medicines wastage.

Abbott are working to find ways to offer further support to rural communities, and improve patient education around healthcare.

TARA GRABOWSKY

HVH

HVH PRECISION ANALYTICS: ENDING MISDIAGNOSIS

HVH Precision Analytics are aiming to end the fear of misdiagnosis using healthcare analytics.

While AI and machine learning are relatively new to healthcare, defence and security agencies have been using them for decades. As such, HVH has repurposed the analytics from the intelligence and defence communities and applied them to healthcare. They have also brought HCPs together with satellite engineers, information theoreticians and image scientists to help identify people with rare diseases much earlier. This system has already been able to proactively alter the course of diseases including Pompe disease, ALS and Hunter syndrome, and predict which patients will develop ankylosing spondylitis.

By doing this, HVH hopes to enable patients to start appropriate therapies sooner, and enable payers to refer patients to appropriate specialists more promptly.

03
PATIENT DATA: IS IT THE KEY TO CURES?

Amanda Jobbins Oracle
Stefan Roever AIKON
Karenann Terrell GSK
DeKai Wu HKUST
CHAIR: Dr Asif Waim MedShr

Patient data is a powerful tool, with the potential to help find new understanding and cures for diseases. But what kind of patient data is most useful, and how do we manage the growing concerns around privacy?

From the panel's description of what their 'perfect' data set would be, there's no single answer, but all panellists agreed that the data needs to be deep and vast to maximise the accuracy and speed at which solutions can be achieved.

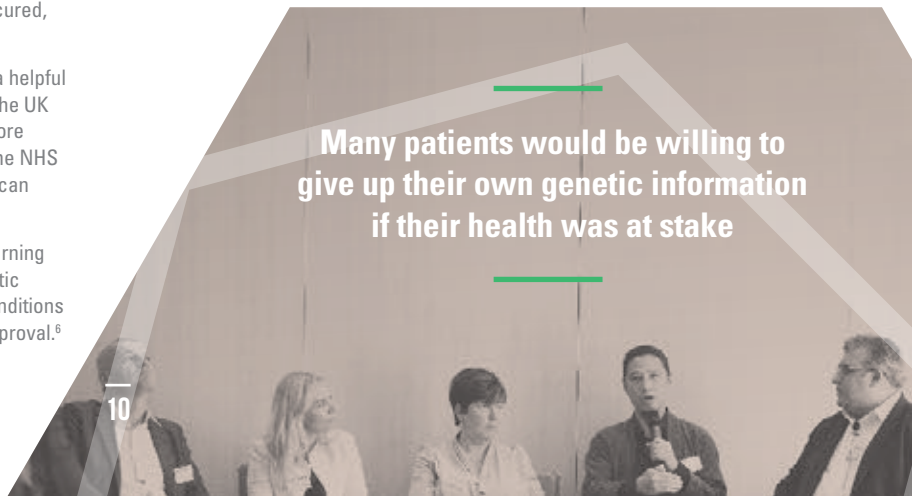
But who owns that data? Many patients would be more than willing to give up their own genetic information if their health, and that of others, was at stake. However, if patients are fortunate enough to be cured, can they choose to no longer share their data?

Regulation is key here, but the line between what constitutes a helpful body that collects data and an obstructive system is blurred. The UK has the NHS, however other countries, like the USA, have a more fragmented health system, and the dynamics are different to the NHS where there is (for the most part) a single payer. At times, this can hinder progress.

For example, in 2013 the FDA sent DNA service 23andMe a Warning Letter admonishing them for providing an unapproved diagnostic device.[5] The company was forced to remove the 200 health conditions they reported on from their service until they achieved FDA approval.[6]

Further complicating the issue of patient data is privacy – a topic which has been thrown into the public eye with the Cambridge Analytica scandal, where Facebook users' profile and browsing data was sold. If this is the situation with data surrounding internet habits, how are systems to cope with something as deeply personal as genetic data?

It's obvious that technology has advanced at a much faster rate than our regulatory bodies. The panel agreed that, without a doubt, patients should be the owners of their own information, but the issue of how it is used once shared remains a complicated ethical and regulatory question.



04

AI: NEW TECH TO AUGMENT DOCTORS

AI and its application to healthcare technology are exciting topics in the sector. It has the power to further empower an already engaged patient population who Google their symptoms before visiting an HCP; and it can bring better access to healthcare, especially for rural communities who may only have one or two minutes with a doctor. Away from the clinic, AI and machine learning can help support research, potentially bringing new treatments to patients sooner, or red-flagging individuals who show traits that predict disease.

Ultimately however, only a fraction of innovative ideas that could support the healthcare sector make it to market – largely because they do not meet a need. Additionally, ideas may suffer over issues such as trust and risk-taking.

The panel identified that trust in a technology is often compromised through over-promising and under-delivering. Whatever is developed, it must focus on delivering quality, and an excellent experience for the end user. There should be transparency about how any data is used, handled and stored, and how the originator of that data can choose to share it (or not).

Further discussion identified that other industries have gone through similar challenges in developing trust and overcoming risk-averseness. In fact, most successful, high-performing companies tend to have three characteristics in common: they are fast-moving, risk-seeking and driven from the top. With this in mind, bringing in new talent from other industries, being more pro-risk, and exploiting what data, technology and opportunities healthcare companies have available could bring AI further into the fold, and augment the role of the HCP.

Neil Sholay Oracle
Dr Alex Young Virti
Ori Geva Medial EarlySign
Dr Claire Novorol Ada Health
CHAIR:
Lauren Kunze Pandorabots

05
AI DRUG DISCOVERY

AI is arguably one of the most highly anticipated innovations in healthcare, and has already been shown to be of high value in diagnostic and pathology services.[7] But how can AI support the evolution of the clinical trial process and personalised medicine?

It was first highlighted that while the 'holy grail' of AI would be to design a drug and predict its outcomes in clinical trials, this is an unrealistic goal. But AI does have the potential to streamline and support a number of existing areas, for example by bridging the gaps between specialised research groups to interpret and combine information, or supporting in the design of adaptive clinical trials to shorten their length and get treatments to patients sooner.

Yet uptake by 'Big Pharma' has been limited. In part due to the highly strategised approach to the drug development process from R&D through to clinical trials, and also due to the highly bureaucratised nature of large companies who may still view AI as 'hype'.

Communication is also a barrier: while the technology behind AI traditionally sits in the realm of computer scientists, pharma is more used to talking in terms of biochemistry. Having somebody involved with enough knowledge of each subject is important to effectively communicate between the various disciplines and reach a mutually beneficial outcome.

To overcome these barriers, panel members described how they had shifted their focus from Big Pharma to smaller biotech start-ups, academia and emerging countries (such as China), who are more willing to embrace new technologies and collaborate.

Szabi Nagy Turbine
Thomas Clozel Owkin
Rabia Khan Benevolent AI
CHAIR: Alex Zhavoronkov Insilico Medicine

How can AI support the evolution of the clinical trial process and personalised medicine?

06

THE FUTURE SOURCES OF MEDICAL EVIDENCE, AND INTEGRATING THESE INTO CLINICAL PRACTICE

Data has already been shown to have the potential to increase survival in cancer patients – in one study, **median survival in cancer patients was increased by 5.2 months** when additional data was reported to HCPs by patients.[8]

06 CONT.

Dr Richard Loomis Elsevier **Anne Bruinvels** Px Healthcare
Chris Wigley QuantumBlack **Sophie Chung** Qunomedical
CHAIR: Dr Jack Kreindler CHHP

From the discussion thus far, it is clear that data is crucial to affect outcomes for patients. The benefits of this can even be seen at a relatively small scale: a 2017 study found that when cancer patients used a web-based portal to share patient-reported outcomes (PROs)** with their HCPs, their median overall survival actually increased by 5.2 months, compared to patients who did not share PROs.[8]

This is encouraging, but the reality is that most HCPs simply don't have the time to utilise the data in the volumes in which it continues to be gathered. This problem is further compounded by how the information available will change and evolve in years to come.

The panel identified that any data supplied to the HCP must be delivered in a convenient, tailored, digestible and actionable format, and that above all it must be trustworthy.

Understanding how and where HCPs use data is important when building this trust and convenience. AI can identify how HCPs consume information so we can deliver information when it is needed.

Additionally, patients have a growing desire to be more in control of their own information, and there is an emerging paradigm shift where the HCPs are no longer being perceived as the 'guardians of information'.

As such, we must also support patients as they endeavour to gather and interpret their own data. A simple solution discussed during the panel is an app that records important conversations – this is especially vital when it comes to difficult discussions, like being diagnosed with cancer. These moments are traumatic, and even after patients have access to information it may still be too complex for them to fully understand. Solutions that interpret data in the context of clinical guidelines can offer trustworthy support services and generate personalised reports for patients.

In terms of examples of how new data can be introduced into the clinic, the view from the panel was that it depends on the country in question. In China, where the government is heavily involved in defining policy and care, a top-down approach has been shown to be effective. However in other markets, success may hinge on the patient – and leveraging their drive for data to be used in a personalised and effective manner.

HCPs are no longer being perceived as 'guardians of information'

** Patient-reported outcomes are reports that come directly from patients about how they are feeling or functioning – they are not interpreted by a healthcare professional. Through questionnaires, patients describe how they are feeling with regard to aspects including physical health and functioning, mental health and functioning and their quality of life.[9]

07

BIOME† TECH

Dr Maria Chatzou LifeBit
Dr Yu Cheng Nestlé Health Science
Dr Paul Grewal MyMD
Shahram Lavasani ImmuneBiotech
CHAIR: Dr Greg Bailey Juvenescence Ltd

The microbiome is perhaps one of the last unexplored frontiers of the human body, and its potential is so far relatively untapped. The panel began with discussing the possibility of modifying the microbiome, and if it was a matter of fact, or a case of science fiction.

The panel first described how everyone's microbiome constantly shifts as part of a natural process. Problems arise when significant changes happen to our biome, and this can be reflected in the diversity of microbial flora that are present. Generally a good diversity of microbes reflects a better state of health, and particular diseases, stresses and environmental pollution can all lead to decreases in this.[10-15]

Given this level of complexity, can we effectively diagnose problems with the biome? Our biomes are not pre-determined by genetics, so while modulation is possible it requires a broad understanding of the wider ecosystem. We must move to an approach where we combine our knowledge of genetics with our understanding of the biome.

The panel identified that first having an understanding of the gut is important – but this cannot simply be a snapshot of the situation. We need vast amounts of data that can be interpreted with machine learning to build algorithms which can help us better understand how diseases impact our microbes.

What technology is likely to be disruptive in the field of microbiome science? The panel identified a range of approaches, including:

- Developing a greater understanding of how faecal transplants can help patients, and standardising this process
- Investigating the roles that different dietary fibres play in the curation of a biome, and how pre- and post-biotics can support this
- Personalising biome care to reflect cultural and geographical differences

Beyond technology, the panel also identified that collaboration between disciplines will be vital. By bringing together the collective knowledge of microbiologists, nutritionists and geneticists, perhaps we could one day develop a pill that would give us all a healthy biome.

† The 'biome' (or 'microbiome') refers to the microorganisms that live on or inside our bodies such as bacteria, fungi and other microbes.

08

BRAIN TECH

Dr Tonya Frolov UCL
Matt Eagles Havas Lynx
Sarah Lindsell The Brain Tumour Charity
Adam Pantanowitz think3dots
CHAIR: Dr Newton Howard ni2o

The brain is typically seen as a frightening organ to work with, and has potentially seen less innovation than other areas of healthcare. As such, gaining a detailed understanding of how the brain works, and how treatments work on it, is a challenge – after all, taking a biopsy of the brain is no simple matter.

But technological innovation has the potential to make an enormous impact to neurological conditions and cancers that arise here. The panel discussed the role of implants, such as those used in deep brain stimulation, and how these have the potential to give us an insight into some of the most detailed molecular pathways; helping us understand disease states and how treatments impact them. With knowledge like this, we could even potentially predict certain conditions that affect the brain years before they actually arise.

Patients are strong supporters of each other – a survey conducted by the Brain Cancer Charity showed that 67% of patients would be willing to undergo a biopsy to support their treatment, and that of others, in the future. The panel noted that the possibility of being able to contribute through a sophisticated network of implants, with potentially less risk attached to them than biopsy, would make this even more attractive to patients.

We could potentially predict certain conditions that affect the brain years before they arise

09

BEHAVIOUR TECH

Prof Daniel Horner Northern Care Alliance
Elena Mustatea Bold Health **Dr Julia Shaw** Spot
Prof John Mattison Kaiser Permanente
CHAIR: Dr Vernon Bainton The Havas Lynx Group

Decision-making in healthcare is often subject to bias, which can influence outcomes and the patient experience. Such bias is varied, but panellists highlighted several key types:

- Cognitive, or last case, bias: where HCPs make decisions based on a similar situation in their recent memory, or from a particularly difficult or traumatic experience
- Memory change bias: where memories begin to change from the moment they are encoded by the brain
- Interviewer bias: where the interview technique of those who are interrogating an individual inadvertently impacts on the quality and amount of a memory that is recalled
- Bias of underserved conditions: where some conditions (for example endometriosis, irritable bowel syndrome, chronic pain, etc.) are not taken as seriously as others

Overcoming biases such as these can ensure more balanced and rational decision-making. Solutions do not need to be complicated – among those posed by the panel, most centred around one key methodology: to introduce objectivity.

This can be achieved through a number of methods. For example developing tools that can support an HCP at the point of care, or creating apps that support patients in 'outsourcing' important memories by recording them as soon as possible after they are encoded.

Chatbots are also a valuable technology to leverage, as they can encourage individuals to communicate more sincerely and facilitate learning through social interaction.

While such technology can be helpful in supporting decision-making and reducing bias, the role of the doctor should not be excluded. Their authority and healing perception should be included to ensure trustworthiness and continued patient monitoring.

The role of the doctor should not be excluded

10

ENSURING THAT CUTTING-EDGE HEALTHCARE IS AVAILABLE GLOBALLY

The final panel discussion focussed on how we can ensure that future innovations in healthcare are available to those who need them, no matter where they are.

The scalability of healthcare, particularly in developing countries, is a recognised issue.[16] A number of factors can contribute to this, from perceptions that accepting help can be considered a sign of weakness, to unwillingness to try new technology because it isn't sufficiently personalised to a country's needs.

Key to overcoming barriers such as these are to recognise that one size does not fit all – just as treatments should be personalised, so should the approach with which they are delivered. Iterative co-creation with the end users of technology can help to ensure the relevance and usability of technology. Furthermore, ideas should not be limited to large-scale projects which may be difficult to implement in locations where infrastructure and capital are limited – we should seek to empower patients and end users, and not overpower them.

Despite the barriers that need to be overcome when bringing innovations to developing countries, the panel also identified that in some cases, implementing change could be easier in those locations where there is limited infrastructure to have to adapt to and work around than countries with more advanced and rigid healthcare systems.

Prof Neil Sebire GOSH
Terri Bresenham GE Healthcare
Dr Claudia Turner Angkor Hospital for Children
Johannes Schildt KRY
CHAIR: Dr Harpreet Sood (NHS England)

We should seek to empower patients and end users, not overpower them

DRIVING BREAKTHROUGH SCIENCE WITH COMMUNICATION EXCELLENCE

HAVAS HEALTH AND YOU

HKX, Central London

EVENING SESSION

Hosted by Havas Health and You
at the Havas Village in King's Cross,
Central London

As highlighted during the day's sessions, communicating the innovations in health tech is just as important as bringing them to the patients and HCPs who need them to ensure that they are effectively implemented.

The following pages will highlight the discussion and presentations from the evening.

To learn more about Havas Health and You, visit:

havashealthandyou.com

@HavasHealthYou

MATTHEW ZACHARY

Founder & CEO Stupid Cancer

MUSICAL INTERLUDE

The evening opened with a musical interlude from Matt Zachary.

Matt started playing the piano at age 11, he dreamed of becoming a Hollywood composer. But in1995, when Matt was a senior, he began to lose motor coordination in his left hand. He was diagnosed with a huge tumour on the brain. Matt had brain surgery and extensive radiation but refused chemotherapy because he wanted to be able to continue to play the piano. Throughout his treatment, music was his anchor, and he made every effort to sit down at the piano and play, even if only just for minutes a day.

Once he finished treatment, he felt jaded and angry. There were no support groups or internet resources for people like him, cancer survivors in their 20s. And at the time, the word survivorship didn't really exist within the oncology community.

Matt then went on to become the founder of Stupid Cancer, the largest, most disruptive, digitally-savvy and hyper-connected Adolescent and Young Adult (AYA) cancer network on the planet.

To learn more about Stupid Cancer, visit:
stupidcancer.org

DAVID HUNT

CEO The Havas Lynx Group

THE BIG "C"

David Hunt then shared Havas Lynx's vision for how we combine breakthrough science with the very best contemporary communications to help change outcomes for patients and their loved ones.

Through communication & creativity we can; Transform HCPs into innovators, so they are the rule vs. the exception. Ensure patients are educated & engaged – activists for their own health and that of others. Help carers to become advocates and champions for their loved ones. And ensure equal access to the latest most progressive science, technology and data.

David then shared Havas Lynx's **SWITCHED ONcology** programme, which is uniting a multi-disciplinary team of cancer care experts to address the information inequality prevalent in healthcare and ensure that patients are benefitting from the true potential of the latest treatments.

Learn more about Havas Lynx's SWITCHED ONcology programme and download 'The Big Communication' white paper:
switchedoncology.com

In the time since Founders Forum, Havas Lynx have been awarded the ultimate achievement in creativity: the Cannes Lions Healthcare Agency of the Year.

Learn more about the Havas Lynx Group here:
www.havaslynx.com

DAVE BIRSS

Author, Speaker, Broadcaster & Advisor

EMBRACING DIVERSITY TO INJECT CREATIVITY

Dave Birss shared his perspectives on what kills creativity, and how to inject more creativity into life with a simple ethos: hug a weirdo. It may seem strange, but creativity can often suffer through the tried and tested approaches of brainstorms, or working with people who are creative experts, rather than fresh junior creatives, and even through having a 'no idea is a bad idea' policy.

Key to overcoming these creativity-killing barriers is to bring fresh new thinking and, most importantly, individuals to the table – those who would be (affectionately) perceived as the 'weirdos'. These individuals inject different perspectives, insights and experiences into the mix; and through doing so, help keep creativity fresh, and ground-breaking, making communications, and human understanding, far more effective.

To learn more about Dave Birss, visit:
davebirss.com

PROF SHAFI AHMED

Consultant surgeon & co-founder
of Virtual Medics & Medical Realities

CONNECTING A BILLION BRAINS

Five billion people across the planet do not have access to safe and effective surgeries,[17] and this number is only set to increase. Prof Ahmed shared his perspectives on how virtual reality and health tech can now truly connect billions of brains, to train and support the surgeons of the future.

For hundreds of years, surgical training has been based around trainees gathering around an operating table and watching a senior surgeon carry out a procedure – a process which is highly limiting as there simply isn't enough space for many people to be involved. However with available technologies and media, trainee surgeons now have the opportunity to watch and learn remotely, yet still be immersed and engaged, asking questions and getting answers. In Prof Ahmed's own experience, his team was able to reach 14,000 individuals in 132 countries, effectively scaling up education. What's more, as technology evolves even more platforms and channels can be added, from social media platforms such as snapchat to virtually being in the same operating room with HoloLens.

Prof Ahmed is truly the real-life Virtual Surgeon, educating more surgeons than anyone else in history.

You can read more about Prof Ahmed's work in developing VR and AR surgical training techniques here:
bit.ly/VRsurgeon

PROF ELEANOR STRIDE

Engineering Science, University of Oxford

WHAT DOES AN ENGINEER HAVE TO DO WITH CANCER?

As many of the sessions throughout the day highlighted, collaboration among experts from different fields and backgrounds is crucial in developing health tech that will effectively support patients and HCPs.

Prof Stride explained that engineering brings collaborative problem solving to cancer care. By working with a team of engineers, biomedical scientists and medics, they are developing and researching nanobubble technology. This technique uses nanobubbles loaded with oxygen and specific anti-cancer drugs to get inside the tumour that are then burst using pulses of ultrasound. This delivers increased amounts of treatment right where it's needed, reducing side effects in healthy tissues elsewhere in the body.

This work is part of the Oxford Medical School faculty restructuring, which now includes the School of Engineering, ensuring that collaborative approaches can be nurtured from the point of learning for the medics of the future.

Learn more about Prof Stride's work with nanobubbles here:
bit.ly/EStride

STEVE COOGAN

Actor & Screenwriter

DR DAISY ROBINTON PHD

Molecular Biologist, Science Storyteller & Strategist

FIRESIDE CHAT

To end the evening, Steve Coogan and Dr Daisy Robinton discussed the critical role that storytelling plays in communications.

Steve related that storytelling can be an effective method to allow difficult or complicated topics to be shared – a technique which could support the adoption of new breakthroughs or evolving medical practices. Examples of this effective storytelling include the Oscar-nominated 'Philomena' which dealt with forcible adoption; and Mary Shelley's 'Frankenstein', which posed questions over humanity's control of the scientific process.

Crucial to an excellent narrative is telling both sides of the story: being respectful of opinions creates a discourse that draws the audience in. Without this, stories risk being polarising, and may only worsen long-standing beliefs or behaviours, rather than progressing them.

Clearly, stories can be a catalyst for driving meaningful change. This creativity in communication is critical as we seek to support patients, their families and the myriad of HCPs within the medical and scientific communities.

Keep up to date with Dr Daisy Robinton on Twitter: **@DaisyRobinton**

Read more about Steve Coogan's writing process for Philomena here:
bit.ly/SteveCoogan

11
SUPPORTING REFERENCES

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