

50 Movers and Shakers in BioBusiness 2016

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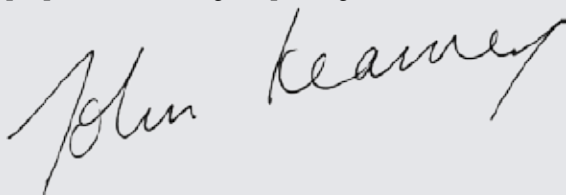
John Kearney
President, Association of the British
Pharmaceutical Industry

Breakthroughs and transformations in health and life sciences happen because of the inspirational and motivated professionals working tirelessly behind the scenes. 50 Movers and Shakers in BioBusiness 2016 is a well-deserved celebration of the dedicated women who are changing the face and future of healthcare.

At a time when our industry has reported challenges in recruiting key positions due to skills gaps, it is hugely encouraging to see ambitious and intellectually curious women determined to help keep the UK at the forefront of developing innovative medicines and treatments for patients. While there are now medicines to treat many diseases, we know there is more we can do if we are to continue to improve patient care and women are making a difference.

The advances in research, funding models, technology and drug development that these women are pursuing and delivering give a glimpse of what could be achieved. The following pages highlight incredible examples of scientific innovation across a diverse range of disease areas, including cancer, dementia, and sepsis.

We know there is a need for female role models in this industry and these women are an inspiration for the next generation of Life Science leaders. Each of them are working towards a brighter, healthier future, committed to making the greatest different to people's lives – through improving their health.




Miranda Weston-Smith
BioBeat Founder

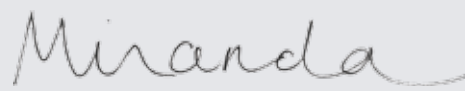
Here is fresh inspiration for making the world healthy. In this time of flux, the women in this report are transforming today's challenges into tomorrow's opportunities. They are the pioneers who are setting the pace in laboratories, healthcare, entrepreneurial companies, established Pharma, finance, advice and policy.

There are 24 Rising Stars alongside more senior colleagues, and they all share a common characteristic: they are all extraordinary leaders. They are making an impact in a wide range of areas, such as genomic research, patient health outcomes, new biomaterials to improve disease models, tackling antibacterial resistance, cancer and Alzheimer's disease, and the development of new funding models.

And what are the trends to watch? This year, for the first time, the report also includes a selection of views from key opinion leaders.

This is not a definitive list but the women are magnetic in their creativity and openness to change. And with this they are re-writing the boundaries and connections throughout the spectrum of life sciences and health.

Come and join the community!



Looking ahead.... If you would like to make a nomination for 2017, please email Miranda@mws-consulting.co.uk



This year's Movers and Shakers report is a strong indication of the outstanding talent that exists in UK bioscience, and an inspiring reminder of the impact that such strong female leaders are making on the growth of the sector. It's encouraging to see so many new faces in the top 50 list, and interesting to see the variety of backgrounds and broad experiences which are represented. And the inclusion of 'Rising Stars' is a wonderful recognition of the depth of developing potential



To grow the economy, make an impact on the world and respond to the rapid changes in the biosector, we need movers and shakers with a diversity of skills, experience, and mindset. This report highlights 50 women who represent just that. BioBeat is an excellent forum where successful women are presented, showing the variety of career paths and achievements. A true inspiration



Having the right people behind a brilliant idea is one of the key ingredients to successful innovation. Here is a celebration of 50 such individuals. We meet women in science, entrepreneurship and business. Through their contributions in the life sciences, these movers and shakers are making a real difference to people's lives.

At Innovation Forum our mission is to bring together academics, start-ups, investors and

within our sector!

Biopharma companies have traditionally been very inclusive in terms of their workforce, and we are delighted to work within a sector that consistently values individuals for their ability, experience, behaviour, work performance and demonstrated potential. A wide range of experiences, alongside a variety of skills, talents and points of view will be vital for biopharma companies as we continue to face critical challenges, in the UK and on the wider global stage, as we focus collectively on work that helps save lives and improve people's health.

to both men and women!

It is with great pleasure and pride that we have supported BioBeat from its inception and to witness it grow and evolve, attract a following, and establish a reputation for being a forum for discussing cutting edge biobusiness. It is also a testament to the synergies being created within and beyond Cambridge Judge Business School that women that started on EnterpriseWISE (a women only enterprise programme for STEM women), and progressed through Accelerate Cambridge get recognised by BioBeat and others.

industry. We are proud to support BioBeat. It is an event that is always inviting to all – from the curious PhD researcher to seasoned CEOs and entrepreneurs. We see this reflected not only on the day, but also in the lasting legacy of this report. It represents those just beginning their journey through to the senior and experienced. In doing so, BioBeat has the power to forge invaluable mentoring relationships.

As a grassroots network organisation run by young researchers and entrepreneurs, we are particularly excited to see so many Rising Stars emerging as Movers and Shakers this year. We look forward to following their stories in the years to come.

The Reviewers

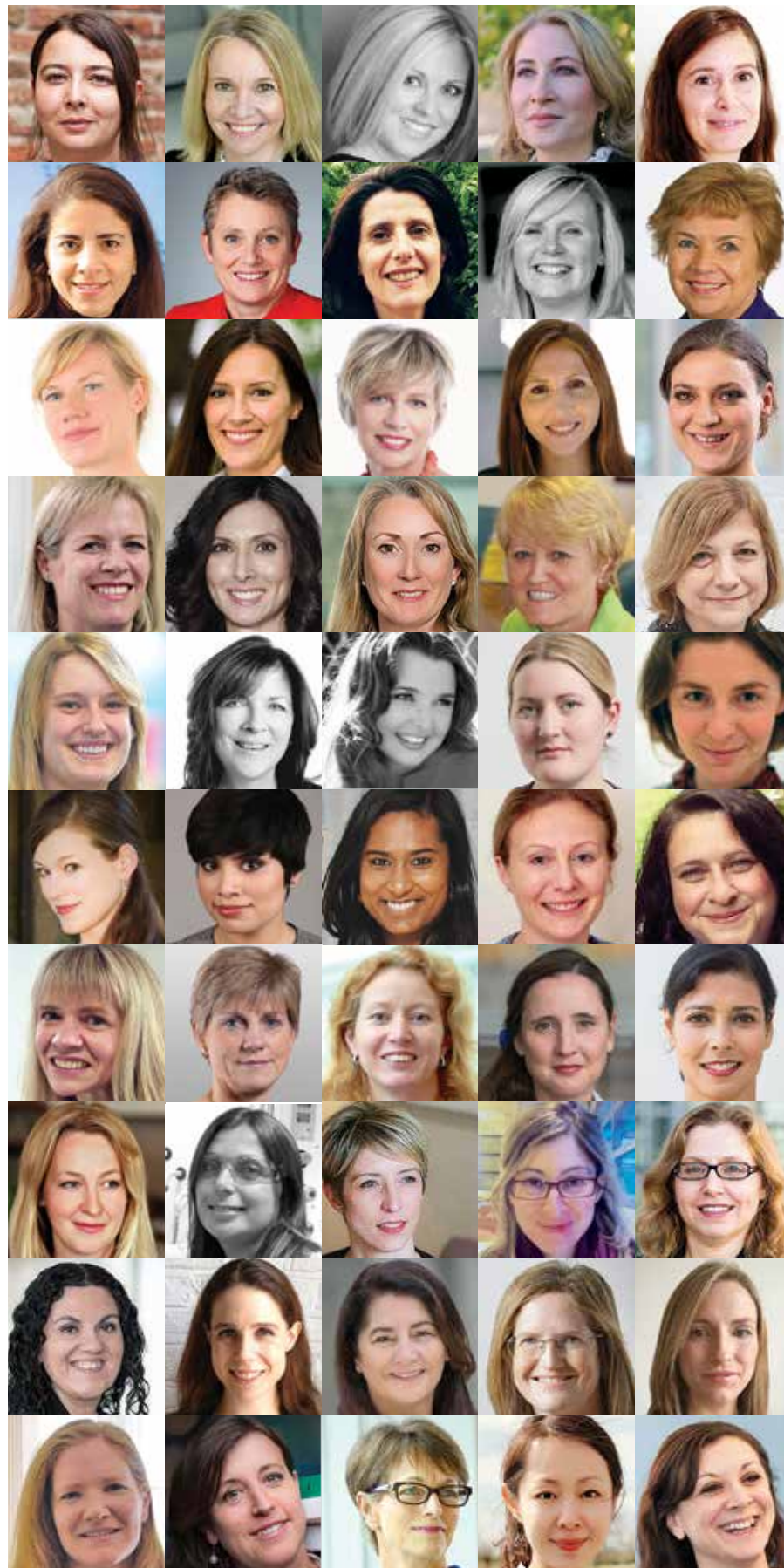
I give many thanks to the Reviewers of this year's report. Dr Andy Richards CBE, Serial Biotechnology Entrepreneur and Business Angel, Dr Lars Gredsted, Senior Business Analyst, Innovations, The Wellcome Trust and Professor Heather Wallace, University of Aberdeen reviewed the senior nominations. For the Rising Stars, the Reviewers were Dr Anne Dobrée, Head, Cambridge Enterprise Seed Funds, Dr Barbara Domayne-Hayman, CBO, Autifony and Chairman, Puridify, Dr Howard Marriage, Entrepreneur in Residence, Crick Institute and Sunergos Innovations and Dr Marek Tyl, CEO, the Innovation Forum.

—Miranda Weston-Smith

Advisors, nominators and supporters

Many thanks to all the people who have made this report possible. They include:

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Dr Clare Wilson, Royal Society of Chemistry
Dr Julia Wilson, Wellcome Trust Sanger Institute
Dr Hakim Yadi, Northern Health Science Alliance



The Rising Star signifies Movers and Shakers who are under 40



Jelena Aleksic, CEO and Co-founder, GeneAdviser

A geneticist by training, Jelena co-founded GeneAdviser to foster the access of genomic medicine, supporting the needs of clinicians and leading to faster diagnosis for patients. Shortly after launch in January 2016, the company raised £350,000 in equity investment. The online marketplace provides clinicians worldwide with access to technical, scientific and clinical expertise in genetic testing, and has partnered with world-leading genetic laboratories within the NHS in the UK.

Jelena is passionate about facilitating access to genomic medicine, and advocates for a more open sharing of genomic data and expertise for the benefit of science and patients.



Liz Ashall-Payne, Founder and CEO, ORCHA

Liz founded ORCHA, the Organisation for the Review of Care and Health Applications, in 2015. She is bringing the benefits of apps to patient and public health and care, as well as organisational efficiencies, as part of patient-centred health. Aided by investment from Sir Terry Leahy and Bill Currie, ORCHA offers impartial reviews of health and care apps and guidance to developers. ORCHA licences web-based platforms for public and healthcare professionals that make it easier to find, compare and recommend the best apps for public, patient and organisational outcomes.

Initially a Speech and Language Therapist, Liz has almost 20 years of NHS experience.



Tania Villares Balsa, Investment Manager, Cambridge Enterprise

Tania joined Cambridge Enterprise in 2015 and led the recent investment into Healthera, a provider of next-generation, pharmacy-integrated personal health management solutions. She transformed the business model and helped structure the team and is now a Non Executive Director. Last year, Tania headed the establishment of a business plan competition to encourage postdoc entrepreneurship in the University of Cambridge.

Earlier Tania worked in venture capital in Spain investing in spin outs from universities. She holds an MBA from Cambridge Judge Business School and degrees in Finance and Economics from the University of Santiago de Compostela.



Eva-Lotta Allan, CBO, Immunocore

Since joining Immunocore in May 2013, Eva-Lotta has contributed to the raise of \$320 million in a Series A round, established four discovery partnerships (GSK, Genentech, MedImmune and Lilly) and entered into two clinical trial collaborations with MedImmune and Lilly. She had the opportunity to introduce innovative deal structures within the company allowing more potential value to be retained. Her desire is to grow a successful independent world-leading company in immuno-oncology by implementing creative business strategies.

Eva-Lotta is also a non-executive director of Targovax in Oslo and has held a number of different roles in private and public biotechs. She started her career as a bench scientist.



Professor Sabin Bahn, Chair in Neurotechnology and Director, Cambridge Centre for Neuropsychiatric Research, University of Cambridge

As a practising psychiatrist, Sabine's main research interests are to understand the molecular basis of neuropsychiatric disorders, with a focus on schizophrenia and mood disorders. In 2015 she co-founded PsyOmics, together with Dan Cowell. PsyOmics is developing combined digital and blood based biomarker diagnostics to facilitate earlier and improved diagnosis of key mental health disorders. In 2005, Sabine co-founded Psynova Neurotech, which has launched the first blood test aiding the early diagnosis of schizophrenia.

Sabine has published many articles in high impact journals and is a Fellow of the Royal Society of Biology.



Sonia Benhamida, VP, Business Development R&D, Ipsen

Within Ipsen, Sonia is responsible for executing partnerships in oncology, neurology and endocrinology from discovery to phase 1, with a particular interest in late research/early development of peptides, toxins and small molecules. Rather than considering biotech companies as a source of assets, she sees an ecosystem of people who can together generate innovation for patients. In her current and past experiences as a group leader in mathematical modelling applied to biological systems, or as an investment banker using scientific literature to value opportunities in M&A deals, she believes in multidisciplinary interfaces.

Sonia graduated in corporate finance from HEC and then pursued studies in biology through a PhD in gene therapy.



Kate Bingham, Managing Partner, SV Life Sciences

Kate played an active role in setting up the new Dementia Discovery Fund (DDF) to find disease-modifying drugs for Alzheimer's by 2025. The fund has support from Biogen, GSK, Johnson & Johnson, Lilly, Pfizer, Takeda, UK's Department of Health and Alzheimer's Research UK. Kate is on the Investment Committees for all SV funds, including the DDF.

Kate serves or has served on the boards of companies in the UK, US, Ireland, Sweden and Germany and her current investments include Atopix, Autifony, Bicycle, Calchan, Kalvista, Karus, Kesios, Pulmocide, TopiVert and VHSquared. Prior to joining SVLS in 1991, Kate worked at Vertex Pharmaceuticals. She has a biochemistry degree from Oxford and an MBA from Harvard Business School.



Jenna Bowen, Co-founder, Cotton Mouton Diagnostics and Lecturer, School of Pharmacy and Pharmaceutical Sciences, Cardiff University

Jenna and the team at Cotton Mouton Diagnostics (CMD) are developing an innovative magneto-optical diagnostic platform to bring about a paradigm shift in the diagnosis of sepsis – a condition that kills one person every few seconds. A prototype assay and instrument is expected by spring 2017. CMD's proprietary technology is affordable, reliable and critically maintains sensitivity under challenging conditions to deliver results in less than 15 minutes. Within the first year CMD has received £1M of grant and equity investment and assembled a multi-disciplinary team of 10.

A pharmacist by training, Jenna was awarded her PhD in 2011.



Maria Dahl, Executive Business Development Director - Oncology, AstraZeneca plc

Maria is responsible for global licensing and partnering of oncology assets in early clinical development and research at AstraZeneca. She is passionate about innovation and negotiating deals to get stakeholders from different organisations together to create win-win solutions and bring new medicines to patients. She was among AstraZeneca's lead negotiators on the establishment of the Apollo Therapeutics LLP fund.

Maria trained in tumor immunology in the UK and the US and also has an MBA from UC Berkeley. Prior to joining AstraZeneca, she worked in roles of increasing responsibility in global business development and portfolio management at Cell Genesys and Ipsen.



Lynn Drummond, Chair, Venture Life Group plc and Chair, infirst HEALTHCARE

Lynn is chair of two innovative healthcare companies. Venture Life focuses on developing, manufacturing and commercialising products for the ageing population and infirst HEALTHCARE brings innovation to the consumer through early intervention for everyday ailments. Her focus is on encouraging collaboration and empowering the consumer towards better quality of life.

Lynn's career as a research scientist, together with her time at the Cabinet Office and then as an investment banker has given her unique experience to help her companies to build while remaining financially strong and ambitious. Lynn is also a Non-Executive Director of RPC plc, a global polymer engineering company.



Abi Graham, Technology Consultant, The Technology Partnership

As part of the Desktop Biology team, Abi takes on intractable problems in the development of new biotechnology and medical devices. She led the development of bioprinting-technology which prints live cells onto hundreds of microarrays a minute. This technology is expected to revolutionise the field of diagnostics and is currently being scaled up for high-throughput production. She was also lead scientist in developing a patent-pending very low cost cartridge for preparing human cell samples for DNA sequencing, obviating the need for a trained biologist.

Abi previously worked in the University of Cambridge discovering new electron physics. She is also a two-times British Champion Powerlifter.



Professor Joanne Hackett, Chief Commercial Officer, Precision Medicine Catapult

Appointed in October 2016, Joanne will catalyse innovative ideas and build on her previous experience at UCLPartners. There, over three years, she expanded the UCLPartners' Quintiles Prime Site to facilitate access to over 2000 clinical trials, so that patients improved their quality of life and the health economy saved over £30,000 per patient; a total savings of over £50 million. For example, by using precision medicine, patients with wet Age-related Macular Degeneration, enrolled in the Novartis Luminous study, were accurately treated and approximately £14 million in drug savings resulted.

Joanne is a serial entrepreneur, investor, academic and yoga instructor.



Professor Véronique Birault, Head of Translation, The Francis Crick Institute

In September 2015, Veronique joined the Institute to lead one of the five strategic priorities: accelerating translational science for the benefit of health and wealth. She has established a team with a breadth of complementary expertise in translational science, entrepreneurship, IP licencing and portfolio management. Her passion is to drive translational science, through creative partnerships and innovative ways to accelerate opportunities emerging from the Crick biomedical research to impact health.

Veronique has 16 years of drug discovery expertise, she has led multidisciplinary research teams including a Discovery Performance Unit at GSK, and delivered programmes to the clinic and translational projects with academic partners.



Sue Charles, Managing Partner and Life Sciences Practice Founder, Instinctif Partners

Sue advises companies both small and large, as well as organisations including academic, investor and not-for-profits on promoting positive engagement for biotech amongst its numerous audiences. Clear and inclusive communication is vital to winning public, industry and investor trust, especially important through times of change and uncertainty and with ground-breaking science and medical technologies.

With an academic career in biochemistry, Sue has founded and grown leading communications consultancies over 30 years in the industry.



Inga Deakin, Healthcare Ventures Associate, Imperial Innovations plc

Inga is excited about investing in companies using technology to transform medicine, therapeutics and healthcare. She represents the venture capital investment group Imperial Innovations plc on the boards of Ieso Digital Health, Puridify, Precision Ocular and Veyan. Ieso delivers highly effective mental health therapy online, Puridify is revolutionizing biotherapeutics manufacturing, Precision Ocular is enabling and improving ophthalmology therapeutics, and Veyan has a best in class peripheral stent.

Previously, Inga worked in business development at the Royal Veterinary College/London Bioscience Innovation Centre, completed her DPhil in neuroscience at the University of Oxford and read natural sciences at the University of Cambridge.



Hayley Francies, Senior Staff Scientist, Wellcome Trust Sanger Institute

As part of the global Human Cancer Model Initiative, Hayley is leading a new translational team at the Wellcome Trust Sanger Institute to make the next generation of cancer cell models using 3 dimensional 'organoids' that resemble human and mammalian organs. The aim is to reproduce the diversity of cancer in these organs and to identify novel cancer treatments and biomarkers of successful drug response. These models and associated data will be made available to the research community.

Hayley recently won a highly commended prize from the National Centre for the Replacement Refinement & Reduction of Animals in Research for her work with cancer organoids.



Nicki Grundy, CFO, Exco InTouch

Nicki believes the scope for technology to improve patient health outcomes is vast – from generating efficiencies in drug development to delivering healthcare in remote regions. Exco InTouch is launching products in digital engagement for patients, especially those with chronic illness. Nicki oversees raising finance and operational efficiencies in order to grow the company and accelerate the launch of new approaches to managing health.

Previously Nicki led the spin out of PRECOS from Nottingham University to successful exit to Crown Bioscience Inc. Nicki is a Chartered Accountant and Chartered Tax Advisor.



Sarah Haywood, CEO, MedCity

Sarah has led MedCity since its launch, first as COO, then as its first CEO. MedCity is now an internationally recognized flagship for the life sciences and med tech sectors across London and Oxford with deep links to Cambridge. She is an active promoter of investment in life-sciences through work with the London Stock Exchange. Sarah works part time and is a keen advocate for flexible working – during the Conservative/Liberal Democrat coalition government, she led the design and legislated for the right to request flexible working and shared parental leave.

Sarah has worked in the NHS, at the Novartis Institute for Medical Sciences and the Civil Service.



Professor Sue Hill OBE, Chief Scientific Officer, NHS England

Sue is leading the introduction of cutting edge genomic technologies and personalised medicine into the NHS. She has driven the broader use of analytics, evidence and scientific methodology to inform service transformation both at a local level and across a range of national initiatives. She has devoted her professional career to ensuring that science is at the centre of improving outcomes for patients and wider communities.

Sue is a respiratory scientist by background with an international academic research reputation. She was appointed Chief Scientific Officer at the Department of Health in 2002, moving to NHS England with the role in 2012.



Eleanore Irvine, Business Development Manager, Biogelx

Eleanore is a founding member of Biogelx, an early stage biomaterials company designing tuneable peptide hydrogels for 3D cell-based applications, including drug development, 3D bioprinting and regenerative medicine. The technology enables cells to be grown in the laboratory in an environment closely mimicking the human body, offering the potential to reduce animal testing and speed the use of a patient's own stem cells. Eleanore drives revenues through sales to a wide range of customers, including leading international academic researcher groups, high growth SMEs, three global pharmaceutical companies and a leading cosmetics company.

Eleanore is a PhD chemist and Royal Society of Edinburgh Enterprise fellow.



Olga Kubassova, CEO, Image Analysis

Olga founded Image Analysis to bring novel medical image analysis algorithms, cloud-based solutions and machine learning into pharmaceutical clinical research, especially to challenge the speed and cost of bringing a new compound to the market. The science behind Image Analysis's technology platform allows biotech and pharma clients to cut their drug development cost by eliminating data discrepancies, optimizing patient cohorts and saving time. This speeds up the delivery of new treatments for patients.

Olga has degrees in mathematics and computer science and interest in disruptive healthcare technologies, artificial intelligence and deep learning aiming to cure cancer, rheumatic and neuro-degenerative conditions. She is also a biotech investor.



Maxine Mackintosh, Chair, HealthTechWomen UK and PhD candidate, University College London

Maxine is the Chair and co-founder of HealthTech Women UK, which aims to support and promote women to be the future leaders in medical innovation. The network was established in Autumn 2015 and has grown to 8,000 members across the six hubs in the UK in just nine months. She is a mentor to a number of digital health startups, a Global Shaper for the World Economic Forum and a Fellow of the Digital Health Forum.

Maxine is a portfolio academic, having completed degrees in neuroscience, health economics and is currently doing a data science PhD at University College London.



Ipshita Mandal, Co-founder and President, Global Biotech Revolution, Head of Business Development, Bactevo

Global Biotech Revolution, a student-led think tank, has brought together 300 Leaders of Tomorrow from 42 countries in Cambridge UK, and in 2017 will convene in Washington DC. The Voices of Tomorrow Global Innovation Completion has developed 40 ideas which have catalysed new ventures such as rare diseases biotech Healx and oncology biotech Oncolinx. Ipshita also leads business development at Bactevo. Bactevo's natural microbe mutant libraries are being used to discover novel drugs in infectious and mitochondrial diseases internally, and across therapy areas in pharma collaborations.

She has won many awards in grand challenges debate, entrepreneurship and innovation.



Nicole Mather, Director, Office for Life Sciences, Department for Business, Innovation and Skills and Department of Health

As Director of the Office for Life Sciences, Nicole works closely with No10 and Ministers, leading on policy and strategy for Life Sciences and supports UK trade and investment. She formulates a range of national programmes including work to support fast-growing new industries and transform the NHS's ability to collaborate with innovators and use the best products. This includes the innovation test beds, 100,000 genomes, advanced therapies manufacturing task force and the Accelerated Access Review.

Nicole has fifteen years' experience as a strategy consultant in healthcare and pharmaceuticals for Deloitte and AT Kearney and a DPhil in neurosciences from the University of Oxford.



Jackie Hunter CBE, CEO, benevolentBio

Jackie took up the role as CEO of benevolentBio in 2016. The company uses artificial intelligence to augment the research capabilities of its drug scientists and gain new insights for drug discovery and development. She founded OI Pharma Partners in 2010 to harness the power of open innovation in the sector and has extensive experience of pharmaceutical drug discovery and development. She feels that the impacts of new digital technologies will start to have significant impacts on drug development.

Jackie also holds a personal chair at St George's Hospital Medical School. Most recently she was CEO of the BBSRC.



Mary Kerr, CEO, NeRRe Therapeutics

Mary was appointed CEO in 2015 to develop a unique portfolio of drugs to treat neuronal hypersensitivity in a variety of chronic diseases in women's health, dermatology and respiratory conditions. The mid-stage company has two compounds ready for Phase 2b clinical trials and was spun out of GSK in 2012 raising £8 million.

Prior to her appointment at NeRRe, Mary held senior leadership roles at GSK, most recently SVP and Global Franchise leader and before that Executive VP and Head of Europe at ViiV Healthcare. Mary is an Operating Partner with Advent Life Sciences and serves as an independent Non-Executive Director at Galapagos.



Rebecca Lumsden, Head of Science Policy, Association of the British Pharmaceutical Industry (ABPI)

Rebecca is developing the ABPI's work on rare diseases, precision medicines and antibiotics for the benefit of UK patients. This includes championing a new UK reimbursement model for antibiotics. She also delivers policy advocacy for the biopharmaceutical and CRO sector, with a focus on enhancing the UK environment for drug discovery and early-phase clinical research. She leads the ABPI's activities around maintaining the excellence of the UK's science base, as an essential foundation for keeping life sciences R&D investment in the UK.

She was a post-doctoral scientist prior to pursuing a career in policy, with a PhD from the University of Cambridge in cancer cell signalling.



Theresa Maier, CEO and Co-founder, JustMilk Limited

In late 2015, Theresa spun out the for-profit JustMilk Ltd from the JustMilk charity to enable the commercialisation of a novel device for delivering medicines to infants during breastfeeding. It revolutionizes paediatric treatment in low-resource settings by not requiring clean water or medicine refrigeration. In 2016, JustMilk Ltd won both the national McKinsey Venture Academy as well as HRH the Duke of York's Pitch@Palace 5.0 competition, and was ranked 75 amongst the 100 most disruptive start-ups globally by Tällt Ventures.

Theresa is a WD Armstrong Scholar at the University of Cambridge and has a background in development work and engineering research across four continents.



Maryanne Mariyaselvam, Clinical Research Fellow, Cambridge University Hospitals and The Queen Elizabeth Hospital, Kings Lynn

Maryanne works to understand why errors occur in healthcare, and specifically in 'never' or life-threatening events. Drawing on engineering principles to reduce the risk of human mistakes, she has helped develop two devices which design out two 'never' events from healthcare: a device which prevents wrong route drug administration into the arterial line and a device which prevents foreign objects staying in the body after clinical procedures.

After studying neuroscience and medicine and working as a junior doctor in the NHS, Maryanne is now undertaking a doctorate in patient safety at the University of Cambridge.



Lisa Mohamet, Co-founder, StrataStem

Lisa and her colleagues are creating stem cell models to close the gap between diagnosis and treatment of Alzheimer's disease. Lisa co-founded StrataStem in 2012 while at the University of Manchester. Her research generated intellectual property allowing them to study 'Alzheimer's disease in a dish', which was supported by proof of concept funding from BBSRC together with investment from The University of Manchester Intellectual Property Fund (UMIP) and The University of Manchester.

Lisa has over ten years' experience in human stem cell research and was awarded a Royal Society of Edinburgh/BBRC Enterprise Fellowship for her work.



Karen O'Hanlon, Head of Engagement, Aridhia

Karen is leading Scotland's response to a shifting innovation model for precision medicine through her dual role spanning Aridhia and the Stratified Medicine Scotland Innovation Centre– the country's national centre for precision medicine – of which Aridhia is the key technology partner. Her current focus is on putting into practice the Centre's Precision Medicine Ecosystem initiative; a Scottish Government funded programme which coordinates academic, industrial and healthcare resources and expertise to deliver new, integrated precision medicine services to pharma.

Prior to joining Aridhia Karen completed an MBA, and spent 12 years working on eHealth strategy and policy development for the Scottish Government.



Jane Osbourn, VP Research and Development, MedImmune and Site Leader, MedImmune Cambridge

An expert in antibody engineering, Jane originated several key publications and patents, and has made a significant contribution to building the technologies which led to the discovery and development of marketed drugs (Humira and Benlysta) and more than 40 clinical candidates. She has worked across a range of disease areas and currently leads a team of researchers developing biosuperior biologics medicines in oncology, cardiovascular disease and diabetes.

Jane was appointed as Chair of the Board of Directors of the BioIndustry Association in January 2016; and she is also a Director of Babraham Bioscience Technologies and a Director of Cambridge Enterprise. In addition, she has presented at a number of parliamentary Select Committees.



Professor Nazneen Rahman CBE, The Institute of Cancer Research

Nazneen is leading two innovative translational research programmes. The Mainstreaming Cancer Genetics (MCG) programme is undertaking technological, scientific and translational work required to make cancer predisposition gene testing part of routine cancer care. The Transforming Genetic Medicine Initiative (TGMi) is building the knowledge base, tools and processes required to deliver the promise of genetic medicine.

Nazneen is an internationally-recognised expert on cancer predisposition genes and has discovered many such genes during her career, particularly for breast, ovarian and childhood cancers. She has garnered numerous awards, including a CBE in the 2016 Queen's birthday honours. She is also a singer-songwriter.



Angela Russell, Associate Professor of Medicinal Chemistry, University of Oxford and Co-founder OxStem

Launched in May 2016, Angela co-founded OxStem, a revolutionary University of Oxford spin-out company focussed on regenerative medicine. OxStem aims to identify new classes of drugs that can re-program or stimulate existing resident cells to repair tissues in age-related conditions including cancer, neurodegenerative diseases and heart failure. The company has raised £16.9 million this year, a record for a UK spin-out, to fund the development of a series of daughter companies.

In her academic career, with over 15 years medicinal chemistry experience, Angela has published over 80 original articles, book chapters and patent applications and co-founded the Oxford spin-out MuOx Ltd, acquired by Summit Therapeutics plc in 2013.



Gaia Schiavon, Associate Director Physician in Translational Science, Innovative Medicines Oncology, AstraZeneca plc

Gaia is connecting novel science, for example detecting circulating tumour DNA, with breast cancer clinical trials so we can understand more precisely which patients are likely to respond best to targeted cancer therapies. She is a medical oncologist and joined AstraZeneca in 2015 and has already identified opportunities of collaborative translational research with worldwide leading academics.

Earlier, in Nick Turner's lab at the Institute of Cancer Research in London, Gaia discovered that mutations of the oestrogen receptor gene (ESR1) are commonly selected for during endocrine therapy for metastatic disease and only rarely acquired during adjuvant therapy.



Andrea Spezzi, CMO, R&D Head, Co-founder Orchard Therapeutics

Andrea is leading the clinical aspects of partnerships with world-renowned experts bringing transformative gene therapies to people with life-threatening rare diseases. Formed in 2015, Orchard's technology consists in taking a patient's own stem cells and genetically correcting them outside of their body using a lentiviral vector carrying a functioning copy of the faulty gene. The genetically corrected cells are then transplanted back into the patient's body. The first applications are in immune deficiencies and metabolic rare diseases.

Earlier, Andrea held senior medical roles at global pharmaceutical companies. She has practiced as a paediatrician in Argentina, Spain and the UK.



Lucinda Osborne, Partner, Covington & Burling LLP

Lucinda specialises in collaborations and licences in the life science sector including new models for sharing risks and rewards in intellectual property transactions. As a lawyer advising clients on their most innovative and strategic arrangements, Lucinda sees first-hand the market forces behind the drive for cheaper, more effective medicines, including the promises made for Big Data and 21st century analytics, and consumers' appetite for information on their own health.

Lucinda read Human Sciences at Oxford University and joined Covington's Life Sciences group in 1997. She lives in Norwich with her husband and three children and spends her spare time kayaking on the Norfolk Broads.



Carolyn Porter, Deputy Head of Technology Transfer, Oxford University Innovation (OUI)

Over the last year, Carolyn has seen the transformational impact of patient capital with 18 companies spinning out of Oxford and a shift in scale of seed funding in these companies. The latter is illustrated by recent spin-outs from Carolyn's team Vaccitech, Evox and OxStem collectively raising £36.9 million. Carolyn holds board positions in four spin-outs. Since joining OUI Carolyn has led or mentored the creation of 12 spin outs.

Carolyn formerly worked in senior business development roles in Novartis and Chiron and corporate finance at Ernst & Young.



Elizabeth Roper, Partner, Epidarex Capital

Elizabeth works with leading scientists, institutions and entrepreneurs to shape opportunities and translate their research into world class, commercially driven companies. She is responsible for investing and managing the portfolio of healthcare investments in Europe and the US. In the last two years, she has led series A investments in, and serves on the boards of, Enterprise Therapeutics, Nodthera, Caldan Therapeutics and Edinburgh Molecular Imaging.

Elizabeth has 15 years' experience in the life sciences sector and was previously part of the management team at Chroma Therapeutics, and in venture investing at the Wellcome Trust Investment division and Atlas Ventures.



Emma Sceats, CEO, CN Bio Innovations

CN Bio's aim is to transform drug discovery and development by replacing animal testing with experiments on sophisticated mimics of human organs. Under Emma's leadership CN Bio has completed deals with 25 pharma, raised £5 million in equity investment and secured £2 million research funding. CN Bio is currently working with the Massachusetts Institute of Technology on a \$26 million US Department of Defence contract to build a human body-on-a-chip: a tablet sized device containing ten miniature interacting human organs.

Emma is a chemist by training and was a Presidential scholar at MIT and a graduate scholar at Oxford University.



Julie Simmonds, Director, Equity Research, Panmure Gordon

Julie raises funds for both large and small companies both in the UK and continental Europe in the biotechnology, specialty pharma, medical device and diagnostics subsectors, enabling the development of many new healthcare technologies and services. Most recently this included the IPO of MaxCyte, which has a novel flow electroporation technology being adopted by many cell therapy companies. This disruptive technique potentially enables cell therapy treatment with a 24 hour manufacture time, lower side effects and the promise of use in solid tumours.

Julie has been an Equity Analyst since shortly after completing her microbiology PhD in 2007.



Professor Eleanor Stride, Institute of Biomedical Engineering, University of Oxford, Co-founder, AtoCap

Eleanor's research is on developing methods to deliver drugs to their targets through advanced encapsulation, controlled release of chemicals, and engineering microbubbles for diagnostics and therapeutics. While at University College London, she and Professor Mohan Edirisinghe co-founded AtoCap to commercialise a novel electro-hydrodynamic processing technology. The first application is for on the encapsulation of antibiotics in a controlled release formulation to enable urinary tract infections to be treated in a targeted manner via a single minimally invasive injection.

Her work has been recognized through numerous awards and in 2016 she was selected as one of the top 50 most influential Women in Engineering.



Vicky Steadman,
Director of Discovery, Selcia

The need for novel antibacterials that address the rising problem of multi-drug resistant bacteria is clear. Vicky contributed to the discovery of novel antibacterial teixobactin, published in Nature in 2015. Teixobactin has a unique mode of action and a promising resistance profile and was widely recognised as a breakthrough. At Selcia, Vicky oversees and integrates medicinal chemistry, biology and the pharmacokinetic profiling of new medicines.

Vicky held a Royal Society Fulbright Fellowship at the University Pennsylvania, and worked in medicinal chemistry at MSD and GSK prior to joining Selcia.



Laura Taylor, CFO, Congenica

Laura joined Congenica in 2015 to play a key role in the Series B Fundraising, due to close in late 2016, and in shaping and promoting the long term success of the company. A surprising number of people currently have an undiagnosed disease – 3.5 million people in the UK alone. Congenica's Sapientia™ platform allows clinicians to rapidly screen an entire genome to identify potentially pathogenic mutations – helping these patients get faster diagnoses.

After an early career at Deloitte, Laura held senior positions at the ink-jet printing company Xaar and then Abcam, which supplies protein-research tools, gaining both financial and investor relations experience.



Julie Walters, Founder, Raremark

Julie Founded Raremark to bring the needs of rare disease patients closer to pharmaceutical companies so they can develop more effective medicines. In 2016 she secured £680,000 seed funding for Raremark to create a patient database and data-sharing platform on clinical trials, journals, research centres, and open a US office. She says 'Pharma needs to be more humane and human and engage with the outside world'.

Earlier, Julie founded two companies, she is a journalist by training, with a degree in molecular genetics. She is a Trustee of Findacure.



Shen Liang Wei, Associate Director, Product Development and Asia-Pacific/Corporate Development, Horizon Discovery plc

Shen is committed to creating specific genome-editing technology products for Asia. In 2012, 48% of total cancer cases occurred in Asia with an expected mortality rate of over 16 million in 2025. At the moment, there are no genetically defined Asian Disease Models and few novel targeted cancer therapies that are developed are based on Asian patient genetics. Shen is working to speed up the development of Asian disease models and discovery of novel anti-cancer therapy.

During her PhD at the University of Cambridge she was the President of Cambridge University Entrepreneurs, and won three awards.



Elaine Sullivan, CEO and Founder, Carrick Therapeutics

In 2015, Elaine Founded Carrick Therapeutics to create a world-class innovative R&D pipeline targeting key pathways in cancer progression and adaptive resistance. She has built an experienced team and established a unique coalition of cancer researchers from Cambridge, London, Edinburgh and Oxford collaborating with global experts. The launch of Carrick Therapeutics signals a new approach to developing cancer therapies with the \$95 million first round funding from a syndicate of leading investors.

She also serves as a Non-Executive Director of the IP Group plc and is a member of the Supervisory Board at Evotec. Elaine has over 25 years of experience working in the pharmaceutical industry.



Helen Townley, Nuffield Department of Obstetrics & Gynaecology, University of Oxford, Co-founder Xerion Healthcare

Nearly 40% of people will be diagnosed with cancer at some point during their lifetimes. Helen co-founded Xerion Healthcare in 2015 to commercialize her nanoparticle work from Oxford University. The technology uses nanoparticles to improve the efficacy of radiotherapy. Early trials in mice have shown that whereas the tumours doubled in size using conventional radiotherapy, growth was halted when used in combination with the nanoparticles. The company has raised £1.5M and is further developing the doped titania particles for trials.

Helen is a biochemist by training, and her research focuses on applications of nanoparticles in healthcare and particularly cancer.



Sally Waterman, SVP Corporate Development, Abzena plc

Sally has been in senior executive roles in many pharma and biotech companies and has first-hand experience of developing and implementing strategies for both growth and survival. She joined PolyTherics, which subsequently became Abzena in 2009, as Chief Operating Officer. She was one of the early employees of Vanguard Medica (now Vernalis), arguably the first company to undertake 'virtual' drug development, where she developed the modus operandi to successfully support this way of working. Sally subsequently applied this to other companies to help them move from a focus on R to D whilst conserving cash.

She was appointed Chair of the OBN in February 2016.



Anna Zecharia, Head of Education, Training and Policy, The British Pharmacological Society, Co-founder, ScienceGrrl

'Collaboration is how we will solve big health challenges.' Anna is leading the Focus on Pharmacology programme to redefine how the pharmacology community could work synergistically across disciplinary and sector boundaries to maximise contributions to health and wellbeing. In parallel, Anna is supporting the education communities that will be at the heart of solutions.

Anna co-founded ScienceGrrl, a campaign for gender equality in science and led on its manifesto report: 'Through Both Eyes'. As a result, she joined the government's Diversity Steering Group. Anna completed her PhD and postdoctoral training at Imperial College London.

Join the community

The biotech market has experienced remarkable growth over the past five years, and this upward trend shows no signs of stopping. Sales of vaccines and biologics are expected to grow from \$289 billion in 2010 to an estimated \$445 billion by 2019 (1). Similarly, the demand for in vitro diagnostics is projected to grow by 5.1 percent annually.

With the field moving at such a pace, it's increasingly important to know what the next next big thing is. We asked our community of experts to give us their thoughts on the key trends for 2017. Here's what they said...

(1) Deloitte 2016 Global life sciences outlook

Jelena Aleksic, CEO and Co-founder, GeneAdviser

With the dropping price of DNA sequencing and access to novel genome editing tools now in mainstream use, now it is the time to make sure that knowledge is open and accessible so that it can reach the clinic and benefit patients.

Tania Balsa, Investment Manager, Cambridge Enterprise

We are seeing many start-ups that are providing solutions to save costs and increase efficiency to overcome the reduction in available funds in the healthcare system. New technologies are much more patient-centred.

Nicki Grundy, CFO, Exco InTouch

2017 will see the launch of many full-scale digital health networks to support people.

Jackie Hunter, CEO, Stratified Medical

The impact of digital technologies on drug development will be huge.

Nicole Mather, Director, Office of Life Sciences, Department for Business Innovation and Skills & Department of Health

Key trends will be increasing focus on improving the

efficiency of markets and healthcare systems given the pressures on cost containment and demand. Also, supporting the development of technologies which patients, clinicians and healthcare systems say they need and/or which improve efficiency to help people care for themselves outside of the system.

Jane Osbourn, VP Research and Development, MedImmune and Site Leader, MedImmune Cambridge; Chair, UK BioIndustry Association

There is a key role for the biopharma industry in helping to address the challenges of seeing scientific research and innovations reaching the patient. Through our experience and connections we can support the work of smaller, growing research teams and link translational research together: we need to be bold in our ambition and work as a seamless community to make the UK a global leader in translational medicine.

Carolyn Porter, Deputy Head of Technology Transfer, Oxford Sciences Innovation

The next challenge for patient capital is to follow

its money to grow the next generation of companies akin to Immunocore and Adaptimmune.

Julie Simmonds, Director, Equity Research, Panmure Gordon

The first T-cell therapy products are expected to be approved by the FDA in 2017, marking a milestone in the harnessing of the immune system to beat cancer. Developments in this field are likely to be fast and furious as significant investment has brought together complimentary technologies and accelerated research timelines.

Vicky Steadman, Director of Discovery, Selcia

Let's ensure that initiatives to support antibacterial research continue.

Helen Townley, Nuffield Department of Obstetrics & Gynaecology, University of Oxford, Co-Founder Xerion Healthcare

Personalized medicine will undoubtedly play an increasingly important role in treatment regimes, and could be augmented by enhanced nano-delivery systems.

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