

In this issue

- Scanner brings new research
- Coming out can help your health
- Widening participation in medicine

Assisted dying

Professor Bobbie Farsides discusses a delicate subject





from the Dean,
Professor Malcolm Reed

I was delighted to learn last month that the medical school will have 50 new places for undergraduate medical students from 2019-2020, as part of the 1,000 new medical places announced by the government to fill the shortfall in clinicians.

The increased places will help BSMS meet future workforce needs in order to improve health outcomes for an increasingly aged and frail population, and to address the current health inequalities in the Kent, Surrey and Sussex region, particularly in areas of coastal deprivation.

We plan to allocate all extra places to candidates who meet certain contextual data criteria, including living in deprived areas, attending a below average school, whose parents are in receipt of benefits, or who are coming from care. As one of the most successful medical schools in terms of widening participation, the allocation of these extra places will allow us to increase our focus on medicine as a career for those from underrepresented backgrounds.

Known for our supportive and encouraging atmosphere, we received an overall score of 99% in the National Student Survey 2017, making us the top undergraduate medical school. The newly allocated places will allow us to continue to provide an outstanding educational experience for students, while offering such an opportunity to those who would otherwise very probably miss out.

As part of this commitment to widening participation, the medical school will extend the reach of its outreach programme, which helps talented students from local state schools, who may not have considered medicine a possibility, to apply to and prepare for medical school. Our students are hugely committed to widening

participation and make significant contributions to the programme. You can read my views on the importance of widening participation on page 17.

In this issue of BSMS Pulse, we look at an issue that is close to many of us, as patients, family members and medical professionals – assisted dying. As public opinion appears to shift on this controversial topic, Bobbie Farsides, Professor of Clinical and Biomedical Ethics at BSMS and member of the British Medical Association ethics committee, considers the implications of assisted dying, and how this might affect both patients and clinicians.

We also find out more about our new state-of-the-art scanner, which has enabled us to take part in some really exciting research projects that may lead to new treatments and approaches for conditions ranging from anxiety in autism, to chronic fatigue and brain tumours.

Husband and wife cancer research team Professor Chris and Dr Andrea Pepper tell us why they got involved in leukaemia research and what they are working on now, while Dr Kebede Deribe makes progress in creating a global map of the debilitating and stigmatising neglected tropical disease, podoconiosis.

We hope you enjoy our magazine, and please do let us know if you have any suggestions for features.

Best wishes,



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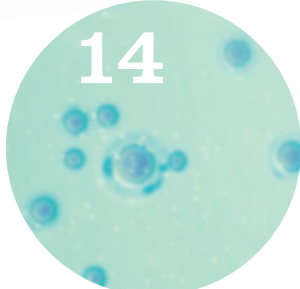
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Is it time to rethink assisted dying?

Palliative care and assisted dying are not incompatible, argues
Bobbie Farsides, Professor of Clinical and Biomedical Ethics
at BSMS.

Professor Farsides' commentary in *The BMJ* appeared alongside a number of articles exploring the debate around assisted dying, by which, subject to safeguards, terminally ill people who are near to death, suffering, and of sound mind, could ask for drugs that they would take to end their lives. We ask Professor Farsides about her views on this emotive issue.

What is the British Medical Association's position on assisted dying?

As a body, the BMA opposes the concept of assisted dying. However, there has been a real shift in public opinion, with a poll in 2015 showing more than 80% supported a change in the law, and in a recent survey of UK doctors most supported assisted dying.

The BMA ethics committee has been encouraging doctors throughout the UK to consider this issue, so when they next vote on it at their annual representatives meeting, they will be well informed, and less subject to the pressure groups that operate on both sides of the debate.

It's important that doctors themselves, particularly those in specialties that are directly related to caring for dying patients, are the ones who decide the position of the BMA.

What impact might the introduction of assisted dying have on doctors?

Many doctors find the idea of medically assisting a patient to die to be ethically challenging, which is understandable.

But others are coming around to the idea that this might be part of their practice in the future. In other countries where doctors have become part of assisted dying protocols there is evidence

that they have developed ways of managing this moral challenge. I wouldn't underestimate the burden on them but they are coping with it.

If assisted dying were introduced in the UK, how would we ensure the process wasn't abused?

We need to remember that if assisted dying was legalised, it would only be the choice of a small number of people and it would very much be *their* choice, rather than something that doctors would be routinely offering patients after a serious diagnosis.

Assisted dying would have to be very carefully managed so all parties were protected. By all parties, I include society in general – we all want to feel safe in our ongoing relationship with the medical profession.

The process would only ever occur in very clear-cut, medically defined cases. So there may have to be a diagnosis of a terminal illness and a certain length of prognosis. The patient may find their suffering is unbearable or their pain uncontrollable or they might, as evidence suggests, be a person who has always wanted to be in control of their life and now wish the same for their death.

Could introducing assisted dying lead to a slippery slope and potential abuse?

People have genuine concerns that making assisted dying legal could lead to a slippery slope, in terms of broadening the criteria for such deaths, leading to the 'assisted dying' of people with disabilities, difficult family members, and so on.

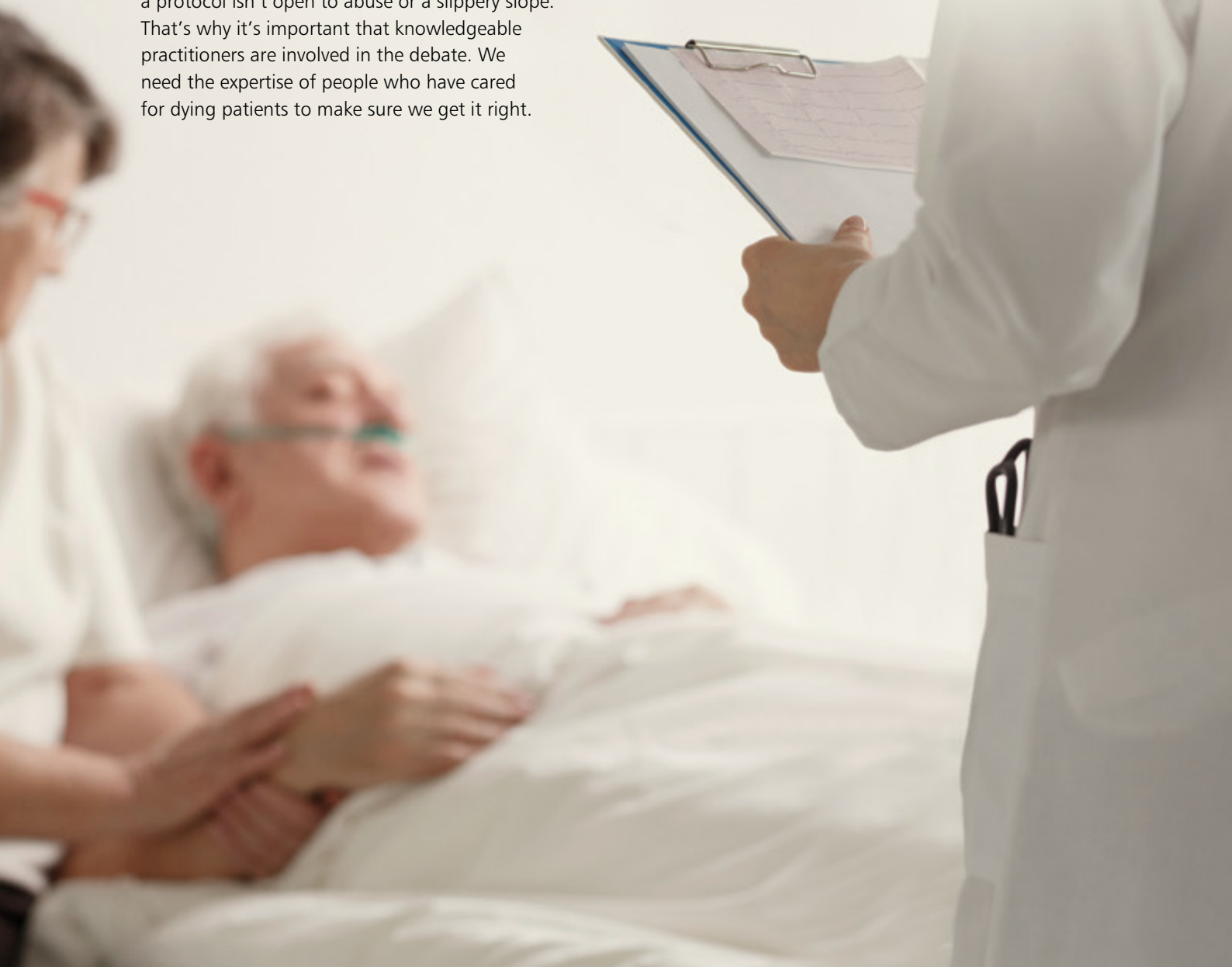
But others are confident that with the correct regulatory barriers in place, we can ensure that such a protocol isn't open to abuse or a slippery slope. That's why it's important that knowledgeable practitioners are involved in the debate. We need the expertise of people who have cared for dying patients to make sure we get it right.

Do you really believe palliative care and assisted dying can work together?

I think it's time that we accepted the fact that assisted dying is not *logically* incompatible with excellent palliative care. I would challenge the belief that the wish of patients with terminal and life-limiting illnesses to die at a particular time in a particular way can be 'cared away', however great the skill of the professionals involved in this care.

For a small number of patients, their desire for medical assistance to die will be very important, and knowing that there is the possibility of such assistance may help them to live longer and better and die a good (not necessarily assisted) death. This is what palliative care is all about.

You can read the articles on assisted dying at bmj.com



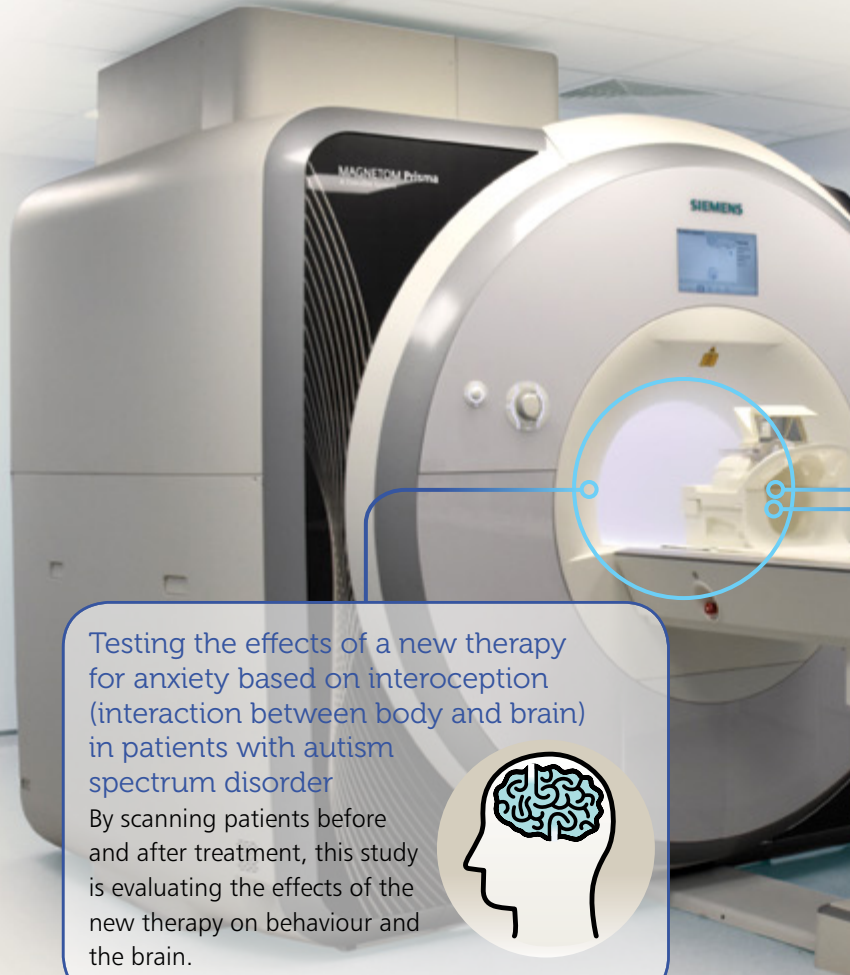
New scanner brings medical research and care ‘into the premiership’

A state-of-the-art 3T MRI scanner has created exciting new opportunities for research at the medical school.

Late in 2017, Chairman of Brighton and Hove Albion Football Club, Tony Bloom officially opened the new scanner, which weighs 13 tonnes and had to be winched into the Clinical Imaging Sciences Centre (CISC) building by crane.

The new Siemens scanner is already providing new research and educational possibilities, particularly in the field of neuroscience, along with expanded clinical scanning options for patients.

“Our new MRI facility means that researchers at the medical school, along with their colleagues at the University of Sussex and the University of Brighton, are able to develop their ground-breaking research, truly bringing it into the ‘premiership’,” says Professor Mara Cercignani, Academic Director of CISC. “Not only that, but we hope soon to be able to scan local patients for a wider range of conditions such as prostate cancer.”



Testing the effects of a new therapy for anxiety based on interoception (interaction between body and brain) in patients with autism spectrum disorder

By scanning patients before and after treatment, this study is evaluating the effects of the new therapy on behaviour and the brain.



The neurocognitive effects of Atomoxetine

A European Union's Horizon 2020 funded study investigating the effect of the drug Atomoxetine on control processes in the brain in a population of young binge drinkers.



Cognitive impairment in HIV-positive patients

This ancillary study of a PET scan study (also at CISC) looks at a pathological mechanism (called amyloid-beta deposition) similar to that occurring in Alzheimer's disease in patients with HIV, taking antiretroviral medications and showing cognitive impairment. A subgroup of patients will also receive MRI to look for microstructural correlates of this mechanism.



Neural correlates of post-exertional malaise in patients with chronic fatigue syndrome (CFS) / myalgic encephalopathy (ME)

This study investigates what happens in the brain for patients suffering with severe exercise-induced fatigue, a key-feature of CFS/ME.



Understanding how the brain processes colour

This study aims to localise colour categories in the brain and measure the extent to which the colour lexicon influences our representation of colour categories in the brain.



Effects of peripheral inflammation on fatigue in CFS/ME

Inflammation rapidly impairs mood motivation and cognition, and we are looking into why this is particularly pronounced in patients with CFS/ME. Funded by Arthritis Research UK.



An exploratory study comparing the functional activations of various language tasks used for pre-surgical mapping of patients with brain tumours

Functional MRI is often used to localise the activity related to language before surgical removal of tumours, in order to avoid removing eloquent tissue. We are comparing a number of language tasks among healthy participants with the aim of designing an optimised protocol for tumour patients.



A pilot study of non-invasive imaging of the glymphatic system

We are investigating whether existing MRI techniques can measure this recently discovered clearance system in the brain, which takes care of eliminating waste products (mainly proteins) and is active during sleep.



A conversation with husband and wife team ...

Professor Chris Pepper and Dr Andrea Pepper

Tell us about your current research

Chris Pepper (CP): I'm Professor of Cancer Research with a remit to build a cancer research team within BSMS. Andrea and I are focused on trying to understand how chronic lymphocytic leukaemia (CLL) cells move between different anatomic sites: peripheral blood, bone marrow and lymph nodes. This is important because the cells change their behaviour in these different environments and so (small) changes in their ability to traffic can have a profound impact on the clinical course of the disease. In addition, I have a long-standing interest in drug development and so we are currently working on a number of promising new agents targeting molecules that we know are important in the pathology of CLL – CDK9 and NF- κ B.



Andrea Pepper (AP): I am a Senior Lecturer in Cancer Research, working closely with Chris to build the research team. We have been collaborating together for many years so this is a fantastic opportunity for us to continue working together. We are both investigating the effect of the micro-environment in CLL with a particular focus on how tumour cells migrate. Tumour cells have the ability to move around the body and find protective niches where they are able to 'hide' from drugs. If they could not move and were static, cancer would be a lot easier to treat.

At BSMS we are looking at the mechanisms tumour cells use to move to different parts of the body, with the aim of identifying drugable targets that will prevent such migration. If we could do this, tumour cells would not be able to traffic to protective niches and thus would be susceptible to traditional drug therapies.

We both have many years' experience of culturing tumour cells from patients in the laboratory and building physiological models to mimic events that take place in the body. We are combining this experience with my interest in Toll-like receptor (TLR) signalling and collaborating with Dr Sandra Sacre to investigate whether this signalling pathway is involved in aiding tumour cell migration. Alongside this we are using Chris's obsession with the transcription factor NF- κ B and extensive drug development expertise to find ways of blocking migration.

How did you get involved in cancer research?

CP: For as long as I can remember I have been a science geek! I clearly recall nagging my mum and dad to buy me a microscope when most of my friends wanted bikes or football boots! I started my career working in the field of drug discovery for the treatment of breast cancer but when my dad was diagnosed with CLL I changed tack and the rest is history.

AP: My father was a physician and as a child I was fascinated by his job. I always wanted a medicine-based career and really enjoyed working in laboratories, so started out as a biomedical scientist. I was interested in haematological malignancies, and at King's College Hospital I joined a research team working on a gene therapy project for leukaemia. I got my PhD, and have never looked back since!

Tell us about your current projects

AP: I have two main projects on the go in the lab at the moment. One is wrapping up a project that I have been working on for a couple of years in which I have identified that a small percentage of very aggressive CLL cells express a molecule called TLR9 on their cell surface. TLR9 is normally expressed inside the cell so this is a novel finding and as it is on the more aggressive cells within a patient, this finding seems to suggest that TLR signalling is playing a role in CLL and is therefore a prime target for potential therapies. Secondly, my PhD student Emma Kennedy is starting to look at the effect of activating and blocking the TLR9 pathway in CLL. This is a new project ... so, watch this space!

What has been the biggest breakthrough in your careers?

CP: My biggest breakthrough would be the contribution I have made to understanding the role of a family of proteins called the BCL2 family. These proteins regulate the potential of a cell to die or to survive. So we now know, in a way that we never really appreciated in the past, that the clinical progression of a cancer is governed to some extent by the balance between the growth rate of the tumour and the rate at which they die – so cancer cells are not immortal! Some CLL patients have incredibly stable disease and we now understand that the disease is self-limiting in those patients as their leukaemia cells are dying at roughly the same rate that they're growing.

AP: Chris's team in Cardiff set up a circulating system which I also got going at King's College London. This system provides a new way of looking at the migration of leukaemia cells, which gives us the ability to separate out those cells that are really quite aggressive compared with the cells that don't cause as many problems. The cancerous cells migrate and interact with other cells, which is how cancer spreads. So the more we find out about cells in terms of what makes them migrate and what makes them live, the better chance there is of developing a drug to target these malignant cells specifically.

Coming out could improve healthcare of LGBT patients

Doctors should display rainbow posters and other 'visual clues' in their waiting rooms to encourage gay and bisexual patients to come out, according to new research.

More than one in 20 of the population identify themselves as lesbian, gay, bisexual or transgender (LGBT), and there is good evidence that their healthcare and certain health outcomes are inferior to those of heterosexuals – including mental health problems, diabetes and substance abuse. Knowing and understanding patients' sexual orientation is essential for providing optimum healthcare, but there are currently many barriers to patients sharing this information.

BSMS researchers Dr Carrie Llewellyn and Hannah Brooks reviewed the international literature on this topic, analysing more than 30 research studies involving almost 2,500 patients. They concluded that there is inadequate teaching about the healthcare needs of LGBT people in both undergraduate and postgraduate medical education.

"Healthcare professionals and settings such as GP surgeries need to be aware of the differing physical and psychological needs of the LGBT community and remain open minded regarding their patients' sexual orientation in order to provide the best possible healthcare," says Dr Carrie Llewellyn, Reader in Applied Behavioural Medicine at BSMS. "Incorporating more LGBT-specific knowledge and communication skills into medical education is essential to ensure that future healthcare professionals are armed with the

tools to help their future patients disclose their sexual orientation if they feel comfortable to do so, and then provide them with appropriate care and advice."

She suggests that healthcare settings such as GP surgeries could demonstrate a more "accepting atmosphere", reflected in the verbal and non-verbal communication of doctors and practice staff. Careful use of language in the consultation, being direct and candid as well as sensitive, and avoiding making assumptions (regarding contraception and sexual health, for example) should form part of core GP training. Patient information leaflets should also reflect an awareness of the differing needs of LGBT individuals.

Professor Kamilla Hawthorne, Vice Chair of the Royal College of GPs, told the *Daily Telegraph*: "Patients should never be made to feel as though they have to disclose their sexual orientation to their GP, if they don't want to. But at the same time, they should be reassured that anything they discuss with their GP is strictly confidential, and that the consultation room is a safe space."

The study is published in the *British Journal of General Practice*.



What makes people tic?

Tourette syndrome affects a far larger area of the brain than previously thought, a new study at BSMS shows. Brain scanning has revealed that a much wider network of brain areas can be affected than just the areas responsible for movement.

Tourette's is a neurodevelopmental condition characterised by chronic multiple tics, physical or verbal, which feel compulsive and 'unwilled'. These rapid recurrent actions or vocalisations can range from simple brief acts such as blinking or coughing to complex action sequences. Patients can differ markedly in the frequency, severity and bodily distribution of their tics. Moreover, they will frequently also have other conditions such as attention deficit hyperactivity disorder (ADHD), obsessive compulsive disorder (OCD), anxiety disorders or depression.

Researchers at BSMS conducted a 'meta-analysis', pooling together the results from a number of individual studies that looked at changes in the brain identified through functional MRI (fMRI) scanning among people with tics.

"We predicted that we would see evidence across the fMRI studies for changes in activity in movement regions of the brain in Tourette syndrome," says Dr Charlotte Rae, Research Fellow at BSMS. "But we were surprised to see that not only was there evidence for altered activity in the areas responsible for movement, there was additional evidence for much more widespread alterations across many regions of the brain, including prefrontal cortex, somatosensory cortex (which registers bodily sensations), and even visual areas.

"We believe that this may represent the diversity of individuals who have Tourette syndrome, with widely varying symptom profiles, not just in tics, but also in accompanying conditions, such as ADHD and OCD."

However, when it came to altered activity in regions that were specifically linked to the severity of a patient's tics, only the movement planning areas of the brain were identified. This suggests there are indeed quite specific changes in movement circuits of the brain that relate closely to tics, while other features of the condition may be driven by alterations in brain regions outside the core movement areas.

"As the wider variation of anatomical alterations may be linked to participants' other conditions, the medication they might be on, or their stage of neurodevelopment, we believe that further studies need to address these differences. These would help us develop a more precise understanding of patients' brain activity and work on further treatments for this condition," says Dr Rae.



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- Internal Medicine*
- Medical Education
- Medical Research
- Paediatrics and Child Health
- Physician Associate Studies
- Psychiatry
- Public Health
- Simulation in Clinical Practice
- Surgical Studies*

*New courses added in 2018



Please note that bursaries are offered for some courses.

Find out more: bsms.ac.uk/postgraduate

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Dental care in early dementia could be key

Dental problems among patients with dementia could be reduced by providing preventive dental care around the time of diagnosis, according to new research.

BSMS medical student Anne Sorensen and Robert Emanuel of Sussex Community NHS Foundation Trust investigated the oral care habits of 51 patients recently diagnosed with dementia.

"We know that dementia can have a major impact on patients' health habits, including diet and teeth cleaning. As their disease progresses, they can have problems with cleaning their teeth, and may also have a more sugary diet in care homes. This means that by the time they may see a dentist, their teeth can be in a very poor condition and difficult to treat," says Ms Sorensen.

The team asked participants whether they were registered with a dentist and if they received preventive dental care.

A promising 41 patients, or 80 percent, were registered or seen regularly by a dentist, with 35 having visited a dentist in the past year. About half of the patients attended regular hygienist sessions.

However, there was little in the way of preventive care. Most patients didn't receive oral hygiene instruction or diet advice, and were not offered fluoride treatments, particularly fluoride varnishes, which can help prevent cavities and tooth decay.

"I believe it's important to increase the focus on preventive dental care for patients with dementia, rather than being reactive. If we can help patients develop positive dental habits in the early stages of the disease, this will stand them in good stead for the future," says Ms Sorensen.

The study is published in the *British Dental Journal*.

Stem cell online searches lead to unproven therapies

Nearly half of the top websites on stem cell therapy returned by Google are from treatment centres offering such therapy, mostly in the US, despite the fact that this treatment is still largely in the domain of clinical trials.

A recent study at BSMS found that 44% of the top 200 websites returned from searching on Google were for treatment centres offering stem cell therapy (SCT), while 22% were for news outlets (eg, TV, magazines, newspapers).

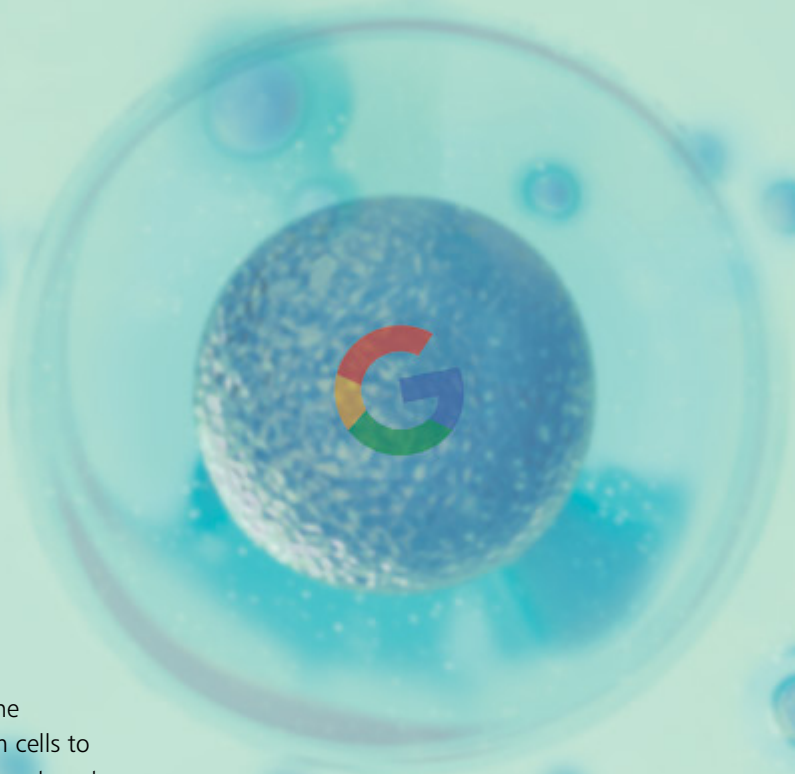
“Although there is much hope that research on stem cells will lead to new therapies for many diseases, in most cases, the efficacy of stem cell therapy is still being tested clinically,” says Professor Pietro Ghezzi, RM Phillips Chair in Experimental Medicine at BSMS, who led the study. “Therefore it was surprising to find so many websites offering clinical treatment.

“Also surprising was the fact that while the news shows an interest in the use of stem cells to cure neurological diseases, existing treatment centres offer, above all, treatment for joints, sport injury or arthritis – all conditions for which the efficacy of stem cells have not been completely demonstrated yet.”

Another interesting finding was that none of the treatment centres’ websites reports using stem cells from human embryos, a controversial issue, and all centres offer treatment with stem cells derived from adult tissues, mainly fat tissue.

“There are expectations among the public that SCT will treat many currently untreatable diseases. As the internet is widely used by patients seeking information about new treatments, Google can be used as an environmental monitor to find out what information is available on a topic. In this case, it shows that there is a disconnect between a public expectation of stem cells curing untreatable disease and the reality of an unregulated health market treating, for instance, sport injuries,” says Professor Ghezzi.

The study is published open access in *Frontiers in Public Health*.





Distribution of debilitating disease mapped in Cameroon

For the first time, the distribution of the neglected tropical disease podoconiosis (podo) has been mapped in Cameroon.

Podo is a non-infectious disease which causes massive swelling of the legs, and arises in barefoot subsistence farmers who are in frequent contact with red volcanic clay soil. It is one of several neglected diseases causing pain, disability and disfigurement that contribute to the world's poorest and most vulnerable communities remaining in a cycle of poverty and disease.

The disease has been reported in more than 32 countries, with an estimated 4 million cases worldwide, but until now Ethiopia has been the only country where the risk of podo has been extensively mapped.

Dr Kebede Deribe, Postdoctoral Research Fellow at BSMS, is working on a global map of the disease. He and colleagues in Cameroon sampled 76 villages from 40 health districts. In each village, everyone aged 15 and older was surveyed and screened

for lymphedema – the swelling that is indicative of elephantiasis. In cases of lymphedema, other diagnoses were then excluded using field tests.

Overall, 10,178 individuals from 4,603 households participated. There were 83 people identified with lymphedema and 52 diagnosed with podoconiosis. The overall prevalence of podoconiosis was found to be low at just 0.5%, but at least one case was found in every region, suggesting nationwide distribution of the disease.

“We have clear prevention and control strategies, and can beat this disabling disease in one generation,” says Dr Deribe. “We must do more to improve podoconiosis control in high-risk countries by increasing coverage with proven interventions, such as footwear and foot washing. The elimination of the disease requires a combination of political will, policy formulation and operational and financial commitment by governments of endemic countries and donors.”

Dr Deribe is continuing his work on the global map of podo, and next on the list of high-risk countries are Rwanda, Uganda and Burundi.

First BSMS physician associates set to emerge in the NHS

Our first cohort of physician associates (PAs) will be graduating this summer, helping to fill the gap in an overstretched and understaffed NHS.

The PA course was introduced with the vision that students would gain the knowledge, professional and clinical skills required to work alongside doctors. Although this is a fairly new medical role in the UK, the number of PA courses has been increasing rapidly as the place of PA posts becomes better understood and valued by NHS trusts and community services.

Second-year PA student Katie Morgan-Jones had previously worked as a healthcare assistant in ophthalmology theatres and general surgery, and has a degree in Biomedical Science. "I wanted to be a PA because I was keen to work in medicine and use my degree but not to have to train for many years," she says. "The varied and interactive teaching style at BSMS, including being able to view prosecutions in anatomy and developing clinical practice techniques,

has really solidified our learning and I've learnt a lot very quickly. The faculty are really supportive and the teaching is fantastic; the placements have been really accommodating and the course has been a really positive experience overall. I am due to graduate this summer, and I'm really looking forward to developing my career as a PA."

The diverse role of the PA means that students can go on to work in hospitals, GP surgeries and academic institutions. They can take histories, examine patients, diagnose and make treatment plans after discussion with the consultants. They also see patients in GP practices independently and discuss difficult cases with the GP.

Course Leader, Dr Wesley Scott-Smith believes the role can offer great flexibility: "PAs are broadly trained in all medicine specialties using the medical model of assessment, and therefore can work within many disciplines under supervision of a doctor. At present within most specialties the working week usually excludes out-of-hours commitment or on-call rotas, and is more family friendly. Postgraduate training provides the extra skills for more specialised roles. PAs can also change specialty if they feel like a new challenge at any time and will recertify every six years by passing national examinations."

To find out more about the Physician Associate course, visit bsms.ac.uk/pa



Why widening participation matters

Professor Malcolm Reed, Dean, BSMS

Last November, BSMS was privileged to host Rt Hon Alan Milburn, former Secretary of State for Health and previous Chair of the Social Mobility Commission, who gave a thought-provoking talk on social mobility (see page 19).

Over the past 40 years much progress has been made to address gender and race inequalities in many professions and medicine has been at the forefront of this. However, opening up the professions to people from disadvantaged backgrounds has not made the same progress and among the professions medicine as a whole lags well behind.

As a career, medicine attracts high social status and significant rewards, and therefore offers great opportunities for social mobility. However, 80% of applicants to medicine come from just 20% of schools and 50% of schools have had no students apply to medicine in the past five years. Genuine efforts have been made for a considerable period of time with outreach and widening participation programmes making some impact, but this has not changed the overall demographic of undergraduate medical students in many schools.

On arriving at BSMS three years ago, I was immediately impressed by the medical school's widening participation programme BrightMed, which I believe to be one of the most successful and well-run programmes in the UK. While it is difficult to find suitable ways



of reliably identifying students from a disadvantaged background, there is no doubt that BSMS has achieved well above the target set by the Selecting for Excellence Report of 2014. Using these measures, our most recent cohort of new students includes 24.5% from a widening participation background.

Alan Milburn highlighted the changing demographics of the UK population. An increasingly elderly and frail society means that medicine is moving away from the challenge of acute episodic illness to the management of multiple and chronic disorders, requiring a different attitude and skill set from doctors and all health professionals.

Rather than seeing widening participation as some form of charitable or social endeavour, we must recognise the substantial benefits that can be gained from recruiting students who have experienced significant challenges in their formative years that will help them understand and relate to their future patients. Instead of worrying about a possible detrimental impact on the academic standards and skills of our future doctors, we should recognise the importance of equality of opportunity in building the medical workforce of the future.

The aim of our widening participation programme is to ensure that our graduates reflect the full range of the society from which they are drawn and which they will go on to serve – that way our medical workforce will be in the best position to meet the needs of that society.

Research news

- The Wellcome Trust Brighton and Sussex Centre for Global Health Research has been awarded £2.5 million to address tuberculosis (TB) in African populations.
- Bobbie Farsides, Professor of Clinical and Biomedical Ethics at BSMS, was joint awardee of a Wellcome Trust Collaborative award of £1.2 million for a five-year project 'Facilitating Ethical Preparedness in Genomics'.
- Dr Collins Iwuji, Senior Lecturer in Sexual Health and HIV Medicine, has been awarded a Sussex Sustainability Research Programme grant for his project exploring the links between drought, poverty and HIV drug resistance in a vulnerable rural setting.
- The Crawley Leukaemia Research fundraising group is now raising funds specifically for leukaemia research at BSMS.
- Dame Lesley Fallowfield (below left), Professor of Psycho-oncology, was key academic for The Estée Lauder Companies' Breast Cancer Campaign, joining actress and model Liz Hurley in promoting the campaign's 25th anniversary.
- PhD student Oliver Rogoyski won a poster prize at the prestigious international EMBO Conference on eukaryotic RNA (ribonucleic acid) turnover.
- Dr Jessica Eccles, NIHR Academic Clinical Lecturer, has been awarded £225,000 as an MQ Fellow to develop a new therapy to treat anxiety in people who have hypermobility.



Event recognises title holders

BSMS celebrated the commitment of our honorary title holders at the AMEX stadium last month. Speeches by both staff and title holders on the role were followed by networking and a relaxed dinner.



"The work our honorary title holders do for the medical school is outstanding," says Professor Kevin Davies, Head of the Department of Clinical and Experimental Medicine. "Their contribution ranges from teaching in a variety of roles, to CPD, supervision of Masters' dissertations, mentorship and collaboration on research, and more. We are grateful for their commitment to BSMS, and hosting the dinner was just a small way of giving our thanks."

Professor Davies opened the evening, with a brief overview of the role, then Dean Professor Malcolm Reed discussed some of the medical school's recent achievements, to which our title holders have all contributed. Title holders Professor Graeme Dewhurst, Dr Sabina Dizdarevic and Dr Catherine Chinyama all shared their experiences as title holders at BSMS.

If you are involved with BSMS and would like to find out more about honorary titles please email BSMSHonoraryTitles@bsms.ac.uk

School and student news

- Students Fraser Todd and Jack Whiting won the presentation prize at the Trans European Pedagogy Anatomy Research Group in Paris for their exploration of the public's understanding of human anatomy. Jack, who is intercalating in a Masters in Medical Education, also had his comic on geriatric medicine published in the *British Geriatric Society Journal*.
- Dr Harry Witchel, Discipline Leader in Physiology at BSMS, has been awarded the David Jordan Teaching Award by the Physiological Society.
- Student Chloe Knox has won the Royal College of Paediatrics and Child Health prize for the 2018 Outstanding Student of the Year in Paediatrics.
- Year 5 student Katherine Kirupakaran presented her poster on neonatal research at the 2017 Congress of Joint European Neonatal Societies, in Venice, Italy. Fellow fifth-year Loredana Kent presented her fourth-year research project as a poster the 16th European AIDS conference in Milan, Italy.
- BSMS students hosted the National Student Psychiatry Conference at the medical school in January, in conjunction with the Royal College of Psychiatrists.
- Students William Whyte, Camilla Stokholm, Victoria Cathie and Rosiemarie Patterson have co-authored four papers published in the new journal *MedEdPublish*.

Events

Anatomy nights

The more scientifically than romantically inclined had a rather different Valentine's Day as anatomists from BSMS explored the scientific wonders of the heart. Dr Claire Smith (left), Head of Anatomy and Ms Catherine Hennessy (right), Teaching Fellow in Anatomy, kept a sell-out audience captivated as they investigated this amazing organ through live dissection and ultrasound.

After finding out how blood enters the heart, where the real heartstrings are and how it beats, the audience were keen to get involved, donning gloves to join staff and students dissecting ox and sheep hearts.



Karra Brenchley attended the event with a friend. "I wasn't really sure what to expect from the evening, but the speakers were passionate, highly knowledgeable and funny, and all the information was delivered clearly and without making you

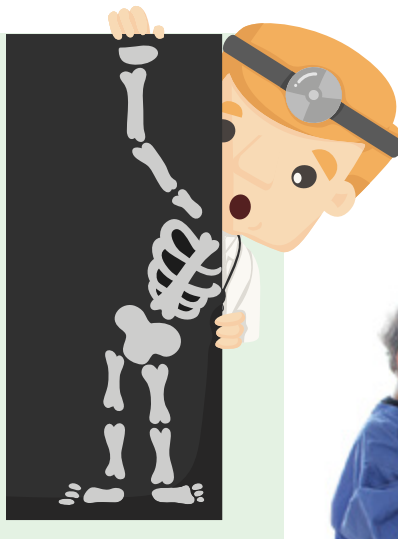
feel you were a complete dolt! The last section where you could get your hands on the specimens was great, being able to handle the hearts and talk more informally with the speakers and students was definitely the highlight," she says.

Secrets from within the human body

Join our anatomists for a live exploration of the human body using ultrasound scanning, non-human dissection and anatomical resources.

This is a rare and fascinating opportunity to gain a deeper understanding of our bodies and how they work. A fun and interactive session in the Brighton Fringe for ages 10+.

Tuesday 8 May 6pm
Medical School Teaching Building,
University of Sussex *Free*



Community Festival

Join the University of Sussex and BSMS for our summer community festival. BSMS will again be hosting the popular teddy bear hospital, along with other fun for all the family.

Sunday 24 June 11-3pm
Medical School Teaching Building

Free



Social mobility in medicine a real challenge

Only 4 percent of medics in the UK come from working class backgrounds, and that simply isn't good enough, argued the Rt Hon Alan Milburn when he visited BSMS last November.

The former Secretary of State for Health and previous Chair of the Social Mobility Commission gave a special lecture to students, families and the public, claiming that despite two decades of government efforts to improve social mobility there has been little real progress in reducing the gap between Britain's 'haves and have nots'.

Mr Milburn argued that more needs to be done to address the lack of doctors from working class backgrounds, but praised BSMS for its widening participation programme, which is helping to tackle this issue.

"Through its widening participation programme, BSMS is providing opportunities to young people who wouldn't get the same chance everywhere else. This is also hugely beneficial for our health services," Mr Milburn said.

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