



**RCVS NEWS / NOVEMBER 2018**

*Text-only version of  
RCVS News email*

# Are you part of #TheBigPicture?

Earlier this month we launched one of our most ambitious consultations yet regarding the future of veterinary education and how the profession can better help support veterinary graduates through the transition into life in practice.

Launching at the London Vet Show with a call to be part of #TheBigPicture, our Graduate Outcomes Consultation asks for the views of all veterinary surgeons, veterinary nurses, veterinary students and other members of the veterinary team on four key areas relating to how veterinary students are educated and trained, and how recent graduates are prepared and supported into life in practice:

Covering the four key areas of Day-One Competences, the Professional Development Phase, Extra-Mural Studies and clinical education for general practice, the consultation has generated much interest already, including over 450 completed responses so far, and 1,400+ further responses currently underway.

The consultation is being conducted on our behalf by the Work Psychology Group which emailed a unique link to the online consultation to all vets and vet nurses in mid-November. This personalised link means that you do not have to answer the survey in one sitting but can save your progress and return to it later.

Further background information about #GradOutcomes is available at [www.rcvs.org.uk/go](http://www.rcvs.org.uk/go), together with blogs, videos, competitions, social media tools and details of our weekly prize draw for a £100 book voucher.

If you want to be part of #TheBigPicture please make sure to tell us your views and encourage all your colleagues to do the same!

# Call for candidates for RCVS and VN Councils 2019 elections

Nominations are now being invited from all veterinary surgeons and veterinary nurses who are eligible to stand for RCVS Council and Veterinary Nurses (VN) Council, respectively, for next year's elections.

Next year's elections for RCVS Council will be the first that are fully affected by the recent changes to our governance structure which received ministerial approval in May this year, meaning that only three seats will be available as opposed to the previous six.

The changes have also reduced the size of Council and changed its composition. It currently comprises 36 members: six appointed lay members, two appointed veterinary nurse members, seven members appointed by each of the RCVS-accredited veterinary schools and 21 by direct election.

Over the next three years the number of elected Council members will be further reduced to 13. Furthermore, Council members will now only be able to serve a total of three consecutive four-year terms and, once these have ended, will have to wait at least two years before standing for Council again.

Veterinary Nurses (VN) Council also recently agreed changes to its governance and composition, reducing the number of elected members from eight to six and introducing new appointed veterinary nurse, veterinary surgeon and lay members. Another key change is that the term of office for VN Council members has been reduced from four to three years and the same three-term limit also applies. These changes also meant that no VN Council election was held in 2018.

The nomination period for both RCVS and VN Councils runs until 5pm on Thursday 31 January 2019. In order to stand, candidates for either Council will need to complete a nomination form, submit a short biography and personal statement and supply a high resolution digital photo.

Each candidate will also need to have two nominators. For RCVS Council candidates, these should be veterinary surgeons who are on the RCVS Register but are not current RCVS Council members; for VN Council candidates, the nominators must be registered veterinary nurses who are not currently on VN Council.

Eleanor Ferguson, our Registrar and the Returning Officer for both the elections, said: "As always, we would encourage those who are interested in playing a part in some of the current debates around veterinary regulation – whether that's in regards to telemedicine, the impact of Brexit, the future of veterinary education or professional standards – to consider putting themselves forward for their relevant Council.

"There are many important issues coming up to be debated and decided upon and we appreciate knowledge, expertise, constructive criticism and insight from a broad range of people from all parts of the veterinary profession.

"One thing to note is that, with the changes to the governance structure, Council will be meeting generally between six and eight times a year and VN Council will be meeting four times a year, so there will be a small increase in the number of days we expect candidates to spend on Council or VN Council business."

The election period will start around mid-March and run until 5pm on Friday 26 April 2019. Ballot papers and emails with a secure link to a unique voting website will be sent to all registered veterinary surgeons and veterinary nurses who are eligible to vote.

Furthermore, prior to the launch of the election period, we will also be sourcing questions from members of the professions to put to the candidates, who will be asked to produce a video giving their responses to two questions of their choice. These videos will be published at the start of the election.

Nomination forms, guidance notes and frequently asked questions for prospective RCVS Council candidates can be found on the dedicated RCVS Council election page. The equivalent documents for VN Council candidates are available on the dedicated VN Council election page.

Prospective candidates for either Councils are welcome to contact our Registrar, Eleanor Ferguson ([e.ferguson@rcvs.org.uk](mailto:e.ferguson@rcvs.org.uk)) and our CEO, Lizzie Lockett ([l.lockett@rcvs.org.uk](mailto:l.lockett@rcvs.org.uk)) for more information about the role of the College and/or RCVS

Council and VN Council members.

RCVS Council will also be holding a public meeting on Thursday 17 January 2019, prior to the closure date for RCVS Council candidate nominations. Prospective candidates are welcome to attend the Council meeting as an observer. Please contact Dawn Wiggins, RCVS Council Secretary, on [d.wiggins@rcvs.org.uk](mailto:d.wiggins@rcvs.org.uk) if you wish to attend.

# RCVS launch online leadership programme

This programme is part of the wider RCVS Leadership Initiative, launched in April at the British Small Animal Veterinary Association (BSAVA) Congress in Birmingham, and inspired by our joint Vet Futures project with the British Veterinary Association (BVA). The overall aim is to integrate development of leadership skills into veterinary professionals' continuing education.

The Edward Jenner Veterinary Leadership Programme runs as a MOOC (massive open online course) and is hosted on the well-established FutureLearn digital education platform. The programme is now accepting registrations for a new cohort of learners to begin the first of three courses on 26 November. A 'sign-up' email has been sent out to all veterinary surgeons and veterinary nurses ahead of the course starting.

This course is the result of a collaboration between us and the NHS Leadership Academy. By adopting a range of conventional and innovative teaching techniques, the course aims to emphasise the importance of leadership by helping to foster the range of skills that underpin it.

This includes building confidence around the everyday aspects of leadership, such as the active application of decision-making, growing resilience, implementing an inclusive culture and encouraging reflective learning approaches.

One of the course's most popular aspects is its audio drama, which follows the lives of veterinary professionals living in the fictional county of Glenvern. The stories that depict the characters' working lives seek to reveal the diverse leadership challenges that veterinary professionals face on a day-to-day basis. This in turn prompts the listener to reflect, consider how they would respond, and learn from their own experiences as well as those of other people.

The programme comprises two free-to-access courses and an optional paid for assessment. The first course was piloted this summer, with over 550 veterinary surgeons, veterinary nurses, students and practice managers helping us to develop and refine the material, whilst a group of learners are currently piloting the second course in the series.

Given the overwhelmingly positive feedback received on the first course (as shown by the feedback quotes shown throughout this page) we have now opened the programme to all veterinary professionals. The first course in the programme will begin on 26 November and the second course will open in January, once the second stage of piloting is complete.

Commenting on the roll out of the leadership programme, our Director of Leadership and Innovation, Anthony Roberts (pictured above), said: "I am very pleased to be able to announce the launch of this programme. I would urge anyone with an interest in developing their leadership skills, as well as those looking to refine their longstanding leadership skills, to take part.

The feedback we have received on the first course in this programme has shown us that this MOOC has a far-reaching application, and is both educational and enjoyable. Whether you are a vet, veterinary nurse, practice manager or student, this programme will be relevant and useful in your professional career."

For more information you can email [leadership@rcvs.org.uk](mailto:leadership@rcvs.org.uk)

# ViVet launches new Innovation Workshop Series

A new series of Innovation Workshops is being launched by ViVet – the veterinary innovation network run by the RCVS – to help provide veterinary surgeons and veterinary nurses with the tools needed to turn ideas into innovations.

To be held in Cambridge in January and February next year, the innovation and creativity training programme will cover a broad spectrum of innovation methodologies across two one-day courses. Delegates can choose to attend one or both courses depending upon their experience and stage in the innovation process.

The courses will be led across two days by veterinary surgeons Guen Bradbury and Greg Dickens (pictured), both experts in supporting innovation.

The first course, on 16 January 2019, will introduce tools and techniques to help individuals and organisations think creatively and guide participants through the innovation process from identifying need, selecting an idea and developing it into a concrete concept.

The second course, on 20 February 2019, will cover how to test ideas and refine solutions, how to develop business models, and how to win support and funding to maximise the chances of the innovation's success.

Anthony Roberts, Director of Leadership and Innovation at the RCVS says: "Our ideation workshop is not just for entrepreneurs or innovators, it's to give vets and vet nurses the tools and techniques to create new ideas or nurture existing ones. These could be ideas for starting a new business, a new product, new content, or even just inventive ways of talking about or marketing an existing product or service."

Each full-day course costs £100, including course materials, certificate of completion, lunch, and all refreshments. Booking the full workshop, ie both courses, will attract a 10% discount.

To read further information about the course – including the programme, venue, timings and directions – and to register, please visit the event's dedicated Eventbrite page.

ViVet: inspired by #VetFutures

# Research grants in memory of Council member

The RCVS Mind Matters Initiative has announced its Sarah Brown Mental Health Research Grants, named for an elected RCVS Council member who tragically passed away last year.

One £20,000 grant will be awarded each year for five years starting in 2019 (making a total of £100,000 by 2023) to fund research that focuses on mental health and wellbeing within the veterinary professions, including areas such as prevention, diagnosis, intervention and treatment. Sarah (pictured right) passed away in October 2017, shortly after becoming a member of RCVS Council in July of that year.

Professor Stuart Reid, Chair of the Mind Matters Initiative, said: "The passing of Sarah was a tragedy. She was talented and committed and although only recently elected to Council, she was respected and loved by many. I am very proud we are launching the Sarah Brown Mental Health Research Grants in her memory.

"Improving mental health and wellbeing within the professions was one of Sarah's passions and so I can think of no more fitting tribute to her than these grants, which will help advance forward research in this area and contribute to improving the overall mental health of the professions.

"I would particularly like to thank Sarah's family who have given their blessing for this project and fully support the Mind Matters Initiative's mission to reduce stigma, increase awareness, encourage members of the profession to seek support and encourage further research."

Further information about the research grants and how to apply for them will be released in early 2019. Researchers who wish to have an initial discussion about the grants should contact Lisa Quigley, Mind Matters Initiative Manager, on [l.quigley@rcvs.org.uk](mailto:l.quigley@rcvs.org.uk)

# RCVS receives ENQA accreditation

We are delighted to announce the RCVS has received recognition from a pan-European association which accredits organisations which themselves quality assure higher education institutions and degrees.

The European Association for Quality Assurance in Higher Education (also known as ENQA) took part in a visitation of the RCVS in April of this year, after we applied for recognition from the association in respect of its accreditation of veterinary and veterinary nursing education.

During the visitation the panel from ENQA undertook a thorough review of the College's structure and governance, its procedures and policies relating to the accreditation of veterinary and veterinary nursing education, the independence of the accreditation process and how decisions are scrutinised.

- The report produced by ENQA following the visit highlighted some key strengths of the College and its accreditation and quality assurance processes including:
- dedicated and experienced staff and RCVS Council and committee members;
- a dedication to learning and improvement throughout the organisation with great awareness of the importance of quality assurance;
- a sound and robust methodology for training the best graduates through its Day One Competences; and,
- excellent relationships with key stakeholders and active communication of its activities and achievements.

The report also pointed out some of the areas where we could improve our processes, which include:

- the development of a comprehensive quality assurance policy which would help external stakeholders understand the scope of its quality assurance activities as well as its processes and aims;
- consideration of further alignment between the accreditation processes for veterinary and veterinary nursing degrees to achieve greater consistency;
- adopting a greater and more diverse pool of accreditors, particularly for veterinary nursing degrees; and,
- improving the internal quality assurance including scrutiny of decision making processes by the Audit & Risk Committee.

Professor Susan Dawson (pictured above right), Chair of the RCVS Education Committee, said: "We are delighted that the College has been accredited by ENQA on its first application for recognition – something that is apparently quite a rare occurrence!

"We did a lot of preparation for ENQA's visit earlier this year and appreciate the thoroughness with which they looked at the College, its structure, how it works and the way in which we accredit higher education institutions.

"What the visitation demonstrated was just how useful it is to have a completely fresh set of eyes on how we do things and we are glad that, though areas for improvement were certainly found, the overall impression they had of the College was professional, thorough and dedicated, with a strong ethos on the importance of quality assurance.

"We are already putting into place some of the recommendations made by the ENQA panel, for example, widening the pool of expert visitors for accreditation of veterinary nursing degree programmes and closer integration and consistency between our processes for accrediting veterinary and veterinary nursing degrees.

"I would like to thank all the RCVS Council and committee members as well as staff who gave up their time to talk to the ENQA panel and particularly our Education and Veterinary Nursing Teams who spent a great deal of time and effort preparing for the visit."

A copy of the full report can be downloaded from our dedicated ENQA page.



# RCVS Council members request further development on telemedicine trial

At its meeting on Thursday 1 November RCVS Council voted to refer a proposed telemedicine trial to the Standards Committee for further development.

The aim of the proposed trial is to assess the benefits and risks of the remote prescription of prescription-only veterinary medicines (or POM-Vs) where there has been no physical examination of the animal and a more detailed proposal will come back to a future meeting of Council for discussion.

The discussion over the proposed trial, which would be limited and time-bound, took place at the November 2018 meeting of RCVS Council (Thursday 1 November 2018).

A number of Council members raised points about the potential animal welfare implications of the trial. Issues raised included how this would affect the provision of 24/7 emergency care and pain relief, considerations around antimicrobial resistance and the effect such a trial might have on the current definition of an animal being 'under his or her care'.

Members of Council also spoke about the possible benefits of telemedicine saying that it has the potential to extend the reach of vets and empower clients and that, as the technology is already being developed, it is key that the College, as regulator, remains on the front-foot and safeguards the public.

After a lengthy debate Council members voted to refer the trial back to the Standards Committee to consider the issues that were raised, alongside the parameters and scope of the trial, and to carry out further consultation with a number of external stakeholders as they develop a more detailed proposal.

Amanda Boag, our President, said: "This was a very important and necessary debate and I appreciate that passions were, quite rightly, very high in relation to such a fundamental issue as remote prescribing where an animal has not been physically examined.

"I appreciate all the contributions that were made and the Standards Committee now has a clear steer as to the further work it needs to conduct before bringing the proposed trial back to a future meeting of Council."

Meanwhile, at its meeting in September, the Standards Committee had agreed some minor changes to the current wording of chapter 2 ('Veterinary care') of the supporting guidance to the Code of Professional Conduct to make clearer what is now permissible in terms of offering advice remotely.

In addition, Standards Committee is also working up case studies to provide further clarification and reassurance to the profession.

# RCVS Council approves plans for non-vets to support export certification

At its meeting on Thursday 1 November, RCVS Council approved changes to the supporting guidance that underpins its Code of Professional Conduct to allow for non-veterinarians to support veterinary surgeons in the certification of products of animal origin for export.

The plans developed by the Animal and Plant Health Agency (APHA), an agency of the Department for Environment, Food & Rural Affairs (DEFRA), involved the creation of a new role of Certification Support Officers (CSOs), non-veterinarians who would support the work of Official Veterinarians (OVs) in the signing of export health certificates for products of animal origin such as meat, dairy, processed products and animal by-products.

The proposals for the creation of CSOs by APHA has arisen due to concerns about the growth of exports in recent years and the potential for an up to 300% increase in products requiring OV certification if the UK has to certify exports of products of animal origin to the EU once the UK leaves the EU.

Under APHA's plans CSOs will work under the direction of veterinary surgeons and support their certification work (for example, verifying temperature checks), although the final certification will always need to be signed by OVs. The role will not involve certification relating to live animals or germinal products.

At the RCVS Council meeting on Thursday 1 November 2018 Council members agreed to facilitate APHA's proposals and to make changes to the RCVS requirements so as to allow CSOs to support OVs in their certification work.

Amanda Boag, our President, said: "As we have stated in our recent statement on 'no-deal' Brexit, it has been estimated that there would be 325% increase in veterinary certification requirements if the UK leaves the EU without a deal, and with these proposals Defra and APHA are preparing for this by increasing the support available for Official Veterinarians.

"Furthermore the proposal is in line with the concept of a vet led team with veterinary surgeons focussing on tasks only vets can do whilst delegating some tasks to suitably trained and quality-assured members of our teams.

"We appreciate that there were some concerns over the level of education and training required by CSOs and are glad that the APHA has accommodated those views by increasing the level of education to three A-Levels (or equivalent in Scotland) and clarifying the nature of the training required by CSOs.

"By signalling its support for the proposals, RCVS Council has been assured that the integrity and value of the veterinary signature will be upheld and we are glad that we can play a key role in helping the veterinary profession prepare the UK for leaving the EU."

The RCVS position statement on the potential impact of a 'no-deal' Brexit scenario is available to download from our dedicated Brexit page.

# Deadline extended for Vet Wellbeing Awards and nominate your Practice Stars

The deadline for submissions to the joint Mind Matters Initiative (MMI) and Society of Practising Veterinary Surgeons (SPVS) Vet Wellbeing Awards has been extended to allow for more submissions to be made.

The Wellbeing Awards were launched in late August to help find the happiest practices in the UK that are dedicated to demonstrating their commitment to improving staff wellbeing through initiatives, management systems and other forms of staff engagement.

The original deadline was Friday 23 November but this has now been extended to Wednesday 5 December to allow more submissions, particularly for the large practice category (51 or more staff or full-time equivalents).

Applications for the award are looking for evidence of dedication to wellbeing in six key areas of work that, if well-managed, can promote wellbeing and reduce the risk of work-related stress, and the Award judges will be looking for evidence of commitment to enhancing wellbeing for each of these.

These are:

- Work demands
- Workload and work scheduling
- Relationships at work
- Career development
- Communication at work
- Promoting physical and psychological health at work
- More information about the awards and how to make a nomination can be found on the Vet Wellbeing Award's dedicated website.

Throughout the nomination period the Vet Wellbeing Awards has also been running its inaugural Wellbeing Practice Stars awards, which recognise individual members of staff in practices who go the extra mile to help make the practice a happy place to work.

Nominations for these run alongside the Wellbeing Awards and are open to all practices, even those that don't enter the main awards. Nominations for Practice Star awards can be made up to Monday 31 December 2018.

Examples of recent Practice Star nominations have included Melissa Pearmain from Westpoint Farm Vets in Chelmsford who, in her nomination, was described as someone who "genuinely cares about everyone's wellbeing.... She is always coming up with intuitive ways to make things easier for everyone, like more efficient labelling systems, and keeping records that are easy to follow. Melissa always reassures and comforts us in difficult times and is an absolute pleasure to see first thing in the morning."

Zetland Veterinary Hospital in Bristol nominated its practice manager Jo Prosser as its Practice Star. Her nomination said: "Jo always greets everyone with a smile. Her door is always open and she writes a different inspirational message on our white board every day. The practice love these quotes and her attempts at trying to get them to eat more fruit. In addition, she has helped pioneer our new mental health practices and has made sure there are Vetlife stickers around the practice."

Practice Star nominations can also be made via the Vet Wellbeing Awards website. Unlike with the main Wellbeing Awards there is no formal judging process but practices only need to submit the individual's name, job title and contact details with a short paragraph explaining why they have been nominated.

Nominations must be approved on behalf of the practice by a partner, director, clinical director or practice manager. Nominees will then be sent a congratulatory certificate.

# Complication rates of neutering revealed in national audit

The first major audit of routine neutering of cats and dogs in the UK has revealed the complication rates associated with the procedure, including the number of abnormalities requiring medical treatment or further surgical intervention.

The audit data, comprising over 30,000 individual cases from veterinary practices across the country, provides benchmarks against which the profession can measure its performance and levels of improvement.

and levels of improvement.

The following are key points-of-interest highlighted by the data, analysed and released by vetAUDIT in August 2018:

- Between 8.2% and 9.1% of all cases involved one or more abnormalities requiring medical treatment or surgical intervention
- Just under one in ten of all cases were classified as abnormal but with no further treatment necessary
- Fatality occurred in 0.1% of animals
- No abnormality was present in over three quarters of all cases
- In both species, spays suffered more complications needing treatment or surgical intervention than castrates
- Neutering of dogs and bitches triggered more abnormalities than the equivalent procedures in cats
- The figures have remained remarkably static when compared to those of previous years

Bradley Viner, one of the team behind vetAUDIT and the Chair of the Quality Improvement Advisory Board at RCVS Knowledge, said:

“Benchmarking is a great way to compare how your practice is performing compared to the national average, but it needs to be the first stage in a quality improvement process.

“Veterinary teams invariably want to do the best for their patients but we have to recognise that we work in complex systems that do not always function perfectly. Recognising that we can always do things better and discouraging defensive behaviour are the first steps in driving forward quality of care.

“I am hopeful that by encouraging practices to reflect upon their performance and consider how they can reduce their complication rates, we will start to see continual improvements over time.”

Practices can include themselves in the audit by submitting their data using the form found on the vetAUDIT website: [www.vetaudit.rcvsk.org](http://www.vetaudit.rcvsk.org). It will be analysed free of charge and incorporated into the national benchmarks allowing you to compare your results to the UK averages. All published data will remain anonymous.

Practices can carry out their own audits and produce internal benchmarks, guidelines and checklists to help monitor their progress by using the free resources on the RCVS Knowledge website: [www.rcvsknowledge.org/quality-improvement/tools-and-resources/](http://www.rcvsknowledge.org/quality-improvement/tools-and-resources/).

# Reminder to pay VN annual renewal fee by end of year

We are reminding veterinary nurses that they must pay their annual renewal fees by the end of this year.

We have recently sent out reminders by email and post to veterinary nurses who have not yet paid their fee. These fees must be paid on or before Monday 31 December 2018 with those who do not pay being removed from the Register.

The annual renewal fee for veterinary nurses is currently set at £67 and payments can be made by debit or credit card via the 'My Account' area of our website or by cheque, bank draft or bank transfer.

All veterinary nurses also need to confirm their Register details, confirm their compliance with the continuing professional development requirement of 45 hours over a three year period and declare any convictions, cautions and/or adverse findings.

Veterinary nurses with any queries about paying the annual renewal fee should contact our Finance Team 020 7202 0723 or [finance@rcvs.org.uk](mailto:finance@rcvs.org.uk)

# Graduates fit for the 21st Century

**Stephen May - RCVS Senior Vice-President and Chair of Graduate Outcomes Working Party**

In the early 2000s, in response to the internet age, educators around the world declared 'a paradigm shift' in societal expectations of graduates from purveyors of knowledge to professionals helping clients make sense of large amounts of information as this was customised to meet their individual needs.

In veterinary medicine, this has led to continued specialisation from species to systems within species, in parallel with changes in medicine, and further development of the veterinary team with increased specialisation and professionalisation of veterinary nurses, as no individual can have an in-depth knowledge or comprehensive skill set that embraces every area of modern practice.

These developments are a particular challenge for the generalist - the veterinary surgeon who sees a full range of first-opinion cases, on behalf of their clients, and 'orchestrates' an animal's or a flock's care as specialist input from others is required.

Our profession gains its authority from being science-based, and science is the most powerful method we have for moving ever closer to truths about our material world. However, our many successes in science can lead us to false conclusions: that science gives us certainty about the phenomena that we observe and, even worse, that science must have the answer to everything.

This means, when faced with a complex first-opinion problem, the new graduate, in particular, can feel overwhelmed by client expectations for a diagnosis and therapeutic plan, and assume that their struggle to provide these is due to their lack of knowledge and their personal failings as a professional.

A hundred years ago, the great physician and medical educator, Sir William Osler, pointed out that medicine is the "practice of an art which consists largely in balancing possibilities ... a science of uncertainty and an art of probability".

More recently, Murdoch<sup>1</sup> has described the first-opinion caseload as embracing the "not sick", the "not yet sick" and the "inexplicably sick", alongside the "definitely sick", with established disease, that when complicated gravitates towards specialist care.

For all of these, there is often uncertainty around outcomes of clinical management and, in addition, for the first three, uncertainty around the nature of the problem, given the limitations of diagnostic testing in this context and the economic constraints of general practice.

This means that it is important for new graduates to develop a full range of professional skills to complement their prodigious scientific knowledge. They need to be able to make sound judgements in the face of uncertainty, and communicate their conclusions effectively to animal carers, so that rational and defensible decisions can be made.

They need to be able to reflect on and judge decisions not just by outcomes, but by their quality in context, at the time they were made, and recognising the provisional nature of most diagnoses, confidently modify their advice as cases progress differently from the ways predicted and expected.

Mistakenly, specialisation is often viewed as an advancement from generalism. It is a way that some clinicians can restrict the degrees of uncertainty with which they deal and focus on caseloads with more predictable outcomes. They solve the complicated, and push forward the boundaries of therapy in established disease.

However, this should not cause us to lose sight of the fact that general practice is the most challenging of all clinical environments, despite it being the workplace in which most newly-qualified veterinary surgeons start to practise independently.

Established disease forms a subset of the problems that present, so it is important that their knowledge, skill set and experience is fully developed so that they are capable and confident in this challenging role, and can feel good about this most valuable of veterinary services to society.

Huge progress in knowledge and technical skills has exposed the deficiencies in the non-technical skills so relevant to all sectors in which those with veterinary degrees work. However, for the above reasons, this is particularly the case in general practice.

The RCVS Graduate Outcomes Consultation is about addressing this educational need, during the undergraduate and immediate postgraduate phases, to empower young veterinary surgeons, and help them to live with and take action in the face of complexity and uncertainty.

It is essential that we all contribute to ensuring that our successors successfully navigate the challenges of general practice and go on to successful and fulfilling careers.

1Murdoch, J.C. (1997) Mackenzie's puzzle - the cornerstone of teaching and research in general practice. British Journal of General Practice 47, 656-658.

The Graduate Outcomes Consultation

Watch this video to hear the views of just some of the vets, vet nurses and vet students who have helped us to put together the #GradOutcomes consultation...about the importance of responding, and being part of #TheBigPicture!

# The algorithm will see you now

## Deep Learning and the upcoming automation revolution

Turn on the radio or browse social media today and you'll likely be bombarded with a slew of terms like big data, algorithms and predictive analytics. Amidst the frenzy of buzz words and hyperbole are a spectrum of opinions on the potential of such technologies, ranging from critical reviews of existing applications all the way to apocalyptic predictions of machines enslaving humanity.

At the time of writing, the hottest topic is an area of artificial intelligence called machine-learning. This is a process where computers can take a set of data, learn something from it, and then change their behaviour accordingly. In other words, they can act in ways without being explicitly told how.

Within the field of machine-learning, the area grabbing the headlines is that of deep learning, a technology proving itself in a number of fields with incredible performance on challenges that were once intractable to anything but the human mind.

### Learning to See

The first sign of deep learning's power came in 2012, when the winning team in an image recognition competition[1] used it to beat the previous accuracy record by a wide margin. Since then, deep learning has been unleashed on problems from self-driving cars[2] and language translation[3] to finding signals from extra-terrestrials[4].

In healthcare, deep learning is already making inroads into several areas, including drug discovery[5], treatment recommendations and personalised medicine[6]. However, perhaps the biggest area of impact so far has been in computer vision, with several studies now showing human-like levels of performance (if not better) in spotting disease in medical scans. Dozens of papers can be found in the literature, dealing with radiographs[7], CT scans[8], MRI scans[9] and cytology images[10], across applications such as disease detection and classification, to organ segmentation.

### Under the Hood

The core concept underlying deep learning's ability is something called a neural network. This is a mathematical model that takes a number of inputs along with a known outcome, combines them in certain ways and learns how much emphasis or weight to place on each input throughout the network in order to get the correct result.

As an example, take predicting whether or not a patient will respond to a certain type of treatment. The inputs could be things like their age, sex, blood pressure, etc. The deep learning network would be given training data comprised of many (typically thousands at a minimum) examples of patient information along with whether or not they responded to the treatment. The neural network would then attempt to incrementally adjust the weights for each input until it minimised the number of outcomes it classified incorrectly. This model, once trained, could then make predictions on future cases.

### The Future

The industrial revolution took jobs away from people that involved manual labour. Deep learning is set to do the same for jobs involving mental labour. Exactly what this means for the future of any industry is unclear, but the best way forwards has to be for as many people as possible to be up to speed with the basic workings of whatever disruptive technology comes their way.

As a consequence, professionals such as vets can be on the inside of such events; understanding, reacting and guiding the process as much as the pace of change allows.

In short, deep learning is here to stay and the future of healthcare will have a level of systemic automation undreamt of today. The question is, what skills should the next generation of vets be focussing on that are the least likely to be affected by such a change?

**Rob Harrand is a data scientist at Avacta Animal Health, where he works on general data analysis, the development of machine learning algorithms, and helps the wider team to make better use of their data.**



**He uses the R programming language and data management best practices to create an environment of reproducible research at the company. His background is in physics and engineering, with degrees from the universities of York and Leeds.**

#### References

ImageNet Large Scale Visual Recognition Challenge (ILSVRC) <http://www.image-net.org/challenges/LSVRC/End-to-End>

Deep Learning for Self-Driving Cars <https://devblogs.nvidia.com/deep-learning-self-driving-cars/>

Google Neural Machine Translation [https://en.wikipedia.org/wiki/Google\\_Neural\\_Machine\\_Translation](https://en.wikipedia.org/wiki/Google_Neural_Machine_Translation)

Artificial Intelligence Helps Find New Fast Radio Bursts <https://www.seti.org/press-release/artificial-intelligence-helps-find-new-fast-radio-bursts>

The rise of deep learning in drug discovery <https://www.sciencedirect.com/science/article/pii/S1359644617303598>

IBM Watson for Oncology <https://www.ibm.com/us-en/marketplace/ibm-watson-for-oncology>

Deep Learning at Chest Radiography: Automated Classification of Pulmonary Tuberculosis by Using Convolutional Neural Networks <https://pubs.rsna.org/doi/10.1148/radiol.2017162326>

Classification of CT brain images based on deep learning networks <https://www.sciencedirect.com/science/article/pii/S0169260716305296>

Deep learning predictions of survival based on MRI in amyotrophic lateral sclerosis <https://www.sciencedirect.com/science/article/pii/S2213158216301899>

DeepPap: Deep Convolutional Networks for Cervical Cell Classification <https://ieeexplore.ieee.org/document/7932065>

# Events

## **ViVet Innovation Workshop series part 1 – Turning ideas into innovation**

16 January 2019, The Study Centre at the Moller Centre, Storey's Way, Cambridge

## **RCVS Council – January 2019**

17 January 2019, RCVS, Belgravia House, London

## **SPVS VMG Congress 2019**

24 – 26 January 2019, Celtic Manor Resort, Newport, Wales

## **ViVet Innovation Workshop series part 2 – Turning ideas into innovation**

20 February 2019, The Study Centre at the Moller Centre, Storey's Way, Cambridge

# Undertakings imposed on Bolton-based veterinary surgeon

The Disciplinary Committee of the Royal College of Veterinary Surgeons (RCVS) has postponed judgement for a period of two years on a Bolton-based vet after he admitted to clinical failings. This postponement was on the basis that the Respondent agree to a form of undertakings, which if breached could lead to the Disciplinary Committee being reconvened at an earlier date.

The Disciplinary Committee hearing for Mr David Henry Eccles MRCVS took place on Monday 5 and Tuesday 6 November 2018 after he admitted two charges relating to the treatment of a cat, Leo.

The first charge related to events that took place on 29 September 2017, involving failure to diagnose Leo correctly, and a failure to make a clear, accurate and detailed clinical record in respect of the consultation.

The second charge related to events that took place the following day, 30 September 2017, and involved numerous elements including the fact that Mr Eccles failed to undertake an adequate assessment of Leo's presenting condition; failed to offer a referral as an option to the owners; performed inadequate surgery; and failed to provide Leo with the care and monitoring he needed post-operatively.

Mr Eccles also failed to inform Leo's owners in advance that the cat would be left alone on the premises post-operatively and discharged Leo home when he was not fit to be discharged and without providing his owners with adequate discharge information and instructions. Mr Eccles also admitted that he anaesthetised Leo when the cat was not fit for anaesthesia and failed to make clear and accurate clinical records.

The first charge related to events that took place on 29 September 2017, involving failure to diagnose Leo correctly, and a failure to make a clear, accurate and detailed clinical record in respect of the consultation. In this case, Mr Eccles' failings began from the day of the first examination of Leo, and continued to the following day, the day of the surgery, at which point his failings were considered to be more wide-ranging and serious. The Committee noted that nowhere in his witness statement did Mr Eccles seek to contest the charges.

The Committee found that the Respondent's conduct fell far short of that which is to be expected of a veterinary surgeon. The Committee thereby reached the conclusion that the conduct of Mr Eccles clearly constituted serious professional misconduct.

Aggravating factors in this matter included the fact that Mr Eccles' failings caused Leo injury, in this case with fatal consequences. Mitigating factors however, included the fact that Mr Eccles' failings could be considered to be a single incident and the fact that he has had an otherwise long and unblemished career as a veterinary surgeon. Furthermore, the Committee acknowledged the admissions made by Mr Eccles prior to the hearing. Finally, the Committee accepted that in the lead up to the hearing, Mr Eccles had demonstrated insight into his deficiencies.

The Committee then proceeded to consider the question of sanction. It was decided that it would be proportionate to postpone judgement on condition that Mr Eccles agree to abide by a set of undertakings. These undertakings include: the preparation of a personal development plan; enrolment in the RCVS Practice Standards Scheme; the appointment of a veterinary mentor; completion of additional training and CPD; and to incur the costs of complying with the undertakings, including the appointment of and work undertaken by the appointed mentor. Mr Eccles was advised of the consequences of breaching the undertakings, including the potential of the hearing being resumed at an earlier date.

Ian Green, chairing the Committee and speaking on its behalf, said: "The Committee considers that a No Further Action order outcome is wholly inadequate to meet the seriousness of the failings which are confirmed by the Respondent's admissions of the Charges to which he entered pleas.

"In those circumstances the Committee proceeded next to consider the adequacy or otherwise of the sanction, namely the sanction of Postponement accompanied by suitable Undertakings. This Committee takes a very serious view of the Respondent's failings and considered the question of the adequacy of this sanction carefully and for a long period.

"The Committee reminded itself that the purpose of the sanctions available to it is not to punish the Respondent but to seek to ensure the protection of the welfare of animals, to maintain public confidence in the profession and to declare and uphold proper standards of conduct and competence."

Please note: This news story is a summary of the hearing produced on behalf of the RCVS Disciplinary Committee. It does not form part of the full facts and findings which are the only authoritative documentation. The full facts and findings are available to download from our Disciplinary Committee hearings page.

# Vet suspended for assault and medicine misadministration

The RCVS Disciplinary Committee has suspended a North Yorkshire veterinary surgeon for six months, following his conviction for common assault and failings related to inappropriate attempts at surgery and administration of medicines to another person.

The hearing for Richard Sutcliffe took place from Monday 12 to Wednesday 14 November and concerned three charges against him.

The first charge related to his conviction on two counts of common assault by beating, relating to an incident on 3 December 2016 in which he assaulted two individuals, and as a result of which he was made subject to a community order and a restraining order, as well as being fined and made to pay a victim surcharge and costs.

The second charge related to him undertaking, or attempting to undertake, in or around August or September 2015, non-emergency surgery on the eyelid of one of the individuals referred to in the first charge, and administering, or attempting to administer, a Prescription-Only Veterinary Medicines to the same person.

The third charged related to him supplying, in or around August 2016, that same individual with a Prescription-Only Medication other than in accordance with a valid prescription.

At the outset of the hearing Mr Sutcliffe admitted the first and second charges against him and that these constituted serious professional misconduct. He denied the third charge. In relation to that charge the Committee found that, having considered the totality of the evidence, it was unable to be sure that the College had proved the allegation to the requisite standard of proof, namely so that the Committee was sure. Accordingly Charge 3 was dismissed.

The Committee decided that the convictions in the first charge rendered Mr Sutcliffe unfit to practise veterinary surgery and that his conduct in Charge 2 constituted serious professional misconduct. The Committee then went on to consider sanction.

The Committee considered the aggravating features for both charges. For the first charge it considered the actual injury to one of his victims and risk of injury to the other, noting also that both of his victims were vulnerable people and one was a child, and that the overall incident during which the assaults occurred lasted over a seven hour period.

For the second charge, aggravating factors were that the non-emergency surgery performed by Mr Sutcliffe was wholly inappropriate, that there was a risk of injury to the individual on whom he performed the surgery and that his conduct was reckless.

The mitigating factors considered by the Committee were that Mr Sutcliffe recognised the gravity of the findings against him and demonstrated insight into the allegations, that the incident in charge 1, though prolonged, was an isolated one, that the incident in charge 2 was consensual and did not result in actual harm and that neither charge had any connection with Mr Sutcliffe's veterinary practice, nor did they affect client care or animal welfare.

Professor Alistair Barr, chairing the Committee and speaking on its behalf, said: "As recognised by the Committee, the respondent has displayed insight as to the seriousness of his behaviour. Having regard to the evidence of all the character witnesses and the written testimonials the Committee accepts that the respondent's conduct as set out in charges 1 and 2 was wholly out of character and, therefore, there is no significant risk of repeat behaviour. The Committee considers that the respondent would be fit to return to practise, having regard to his excellent track record as a veterinary surgeon to date, after any period of suspension.

"Having regards to the aggravating and mitigating factors in this case, the Committee has decided that it is sufficient to maintain public confidence in the profession and declare and uphold proper standards of conduct to give a direction for suspension of the respondent's name from the Register of Veterinary Surgeons.

"The Committee considers that the period of suspension must be sufficient to mark the seriousness of the charges but must be proportionate and fair in the circumstances of the case. The Committee has therefore concluded that the appropriate period of suspension is six months."

Mr Sutcliffe has 28 days from being informed of the Committee's decision to appeal to the Privy Council.

Please note: This news story is a summary of the hearing produced on behalf of the RCVS Disciplinary Committee. It does not form part of the full facts and findings which are the only authoritative documentation. The full facts and findings are available to download from our Disciplinary Committee hearings page.