On October 6, a brain sample from the immature female Daubenton's bat tested positive using the mouse inoculation test (MIT) in combination with the fluorescent antibody test (FAT). Two mice inoculated intracerebrally with brain tissue from the suspect bat showed clinical signs of disease between 13 and 17 days postinoculation (pi) and were destroyed humanely on day 17 pi. Impression smears from the inoculated mouse brains were tested by the FAT, confirming the presence of rabies virus antigen. The presence of an EBLV infection was confirmed following the detection of a discrete 606 base pair (bp) product using a reverse transcriptase-PCR (RT-PCR). Identification of an EBLV-2 genotype was obtained using a pan-lyssavirus 145 bp PCR product with lyssavirus-specific probes to distinguish between EBLVs in a real-time quantitative RT-PCR Taqman assay (Wakeley and others 2005). In addition, a 405 bp fragment was sequenced from the RT-PCR product, which, when aligned with a panel of lyssavirus sequences, further confirmed that the virus was EBLV-2. Sequence analysis of the 606 bp fragment of the N gene showed that it aligned most closely to the 1996 EBLV-2 isolate from Sussex (Whitby and others 2000), with only a single nucleotide substitution differentiating the two sequences, suggesting that this EBLV-2 lineage is still circulating in southern England. Interestingly, initial FATs undertaken on original brain material failed to detect viral antigen, suggesting there was a low viral load in the brain that could be detected only by amplifying the virus using additional diagnostic tests including the MIT. This result reinforces the need to undertake conventional (FAT, MIT) with molecular (RT-PCR, sequencing) diagnostic tests for the identification and characterisation of bat variants of lyssaviruses, especially in target bat species, specifically Daubenton's and serotine bats. This case represents the fifth isolation of EBLV-2 from a Daubenton's bat in Great Britain.

The couple who initially found the bat were unimmunised. In contrast, the bat handler had been previously immunised, with a high antibody titre of 40 iu/ml (measured in March 2006) following his last booster in early 2002. In addition, the bat handler's partner was immunised in January 2005, albeit with a lower titre of 7·79 iu/ml. Both antibody titres were above the minimum threshold of 0·5 iu/ml representing acceptable seroconversion to rabies immunisation. The couple who found the bat have been offered a full regimen of postexposure prophylaxis (PEP), while the bat worker and his partner both received PEP vaccine boosters only. This case supports the need for bat rehabilitators to be immunised against rabies, especially if they receive dead or injured bats as part of a bat rehabilitation programme. Moreover, the case re-emphasises the need for continual education in the risks of rabies transmitted by bats and the threat posed to public health.

Further research is currently underway to understand more fully the relationship between EBLV-2 and its natural host, the Daubenton's bat. Particular emphasis is focused on salivary excretion of EBLV-2 from an infected Daubenton's bat and whether a healthy Daubenton's bat infected with EBLV-2 is capable of transmitting the disease without showing clinical signs of rabies (www.defra.gov.uk/animalh/diseases/notifiable/rabies/bat-research.htm). This study will improve our scientific understanding of rabies pathogenesis in bats with respect to the excretion of virus in saliva, in order to inform and support current and future policy on rabies.

Anthony R. Fooks, Denise Marston, Graham Parsons, Daniel Earl, Alison Dicker, Sharon M. Brookes,
Rabies and Wildlife Zoonoses Group (WHO Collaborating Centre for the Characterisation of Rabies and Rabies-related Viruses), Department of Virology, VLA – Weybridge, New Haw, Addlestone, Surrey KT15 3NB

References

BROOKES, S. M., AEGERTER, J. N., SMITH, G. C., HEALY, D. M., JOLLIFFE, T. A., SWIFT, S. M., MACKIE, I. J., PRITCHARD, J. S., RACEY, P. A., MOORE, N. P. & FOOKS, A. R. (2005) European bat lyssavirus in Scottish bats. *Emerging Infectious Diseases* **11,** 572-578

FOOKS, A. R., BROOKES, S. M., JOHNSON, N., MCELHINNEY, L. M. & HUTSON, A. M. (2003a) European bat lyssaviruses: an emerging zoonosis. *Epidemiology and Infection* **131,** 1029-1039

FOOKS, A. R., MCELHINNEY, L. M., MARSTON, D. A., SELDEN, D., JOLIFFE, T. A., WAKELEY, P. R., JOHNSON, N. & BROOKES, S. M. (2004a) Identification of a European bat lyssavirus type 2 in a Daubenton's bat (*Myotis daubentonii*) found in Staines, Surrey, UK. *Veterinary Record* **155,** 434-435

FOOKS, A. R., MCELHINNEY, L. M., POUNDER, D. J., FINNEGAN, C. J., MANSFIELD, K., JOHNSON, N., BROOKES, S. M., PARSONS, G., WHITE, K., MCINTYRE, P. G. & NATHWANI, D. (2003b) Case report: isolation of a European bat lyssavirus type-2a from a fatal human case of rabies encephalitis. *Journal of Medical Virology* **71,** 281-289

FOOKS, A. R., SELDEN, D., BROOKES, S. M., JOHNSON, N., MARSTON, D. A., JOLIFFE, T. A., WAKELEY, P. R. & MCELHINNEY, L. M. (2004b) Identification of a European bat lyssavirus type 2 in a Daubenton's bat found in Lancashire. *Veterinary Record* **155,** 606-607

HARRIS, S. L., BROOKES, S. M., JONES, G., HUTSON, A. M. & FOOKS, A. R. (2006a) Passive surveillance (1987 to 2004) of United Kingdom bats for European bat lyssaviruses. *Veterinary Record* **159,** 439-446

HARRIS, S. L., BROOKES, S. M., JONES, G., HUTSON, A. M., RACEY, P. A., AEGERTER, J., SMITH, G. S., MCELHINNEY, L. M. & FOOKS, A. R. (2006b) European bat lyssaviruses: distribution, prevalence and implications for conservation. *Biological Conservation* **131,** 193-210

JOHNSON, N., SELDEN, D., PARSONS, G., HEALY, D., BROOKES, S. M., MCELHINNEY, L. M., HUTSON, A. M. & FOOKS, A. R. (2003) Isolation of a European bat lyssavirus type 2 from a Daubenton's bat in the United Kingdom. *Veterinary Record* **152,** 383-387

KUZMIN, I. V., HUGHES, G. J., BOTVINKIN, A. D., ORCIARI, L. A. & RUPPRECHT, C. E. (2005) Phylogenetic relationships of Irkut and West Caucasian bat viruses within the *Lyssavirus* genus and suggested quantitative criteria based on the N gene sequence for lyssavirus genotype definition. *Virus Research* **111,** 28-43

MÜLLER, T., JOHNSON, N., FREULING, C. M., VOS, A., FOOKS, A. R. & SELHORST, T. (2006) Epidemiology of bat rabies in Germany. *Archives of Virology* (In press)

PICARD-MEYER, E., BARRAT, J., WASNIEWSKI, M., WANDELER, A., NADIN-DAVIS, S., LOWINGS, J. P., FOOKS, A. R., MCELHINNEY, L., BRUYERE, V. & CLIQUET, F. (2004) Epidemiology of rabid bats in France, 1989 to 2002. *Veterinary Record* **155,** 774-777

RACEY, P. & FOOKS, A. R. (2005) Rabies in bats in Britain. *Biologist* **52,** 34-38

VAN DER POEL, W. H. M., VAN DER HEIDE, R., VERSTRATEN, E. R., TAKUMI, K., LINA, P. H. C. & KRAMPS, J. A. (2005) European bat lyssaviruses, the Netherlands. *Emerging Infectious Diseases* **11,** 1854-1859

WAKELEY, P. R., JOHNSON, N., MARSTON, D., MCELHINNEY, L. M., SAWYER, J. & FOOKS, A. R. (2005) A real-time differential RT-PCR TaqMan assay for lyssavirus genotypes 1, 5 and 6. *Journal of Clinical Microbiology* **43,** 2786-2792

WHITBY, J. E., HEATON, P. R., BLACK, E. M., WOOLDRIDGE, M., MCELHINNEY, L. M. & JOHNSTONE, P. (2000) First isolation of a rabies-related virus from a Daubenton's bat in the United Kingdom. *Veterinary Record* **147,** 385-388

MRSA in companion animals

SIR, – In 2004, we reported that we had confirmed 95 isolates of methicillin-resistant *Staphylococcus aureus* (MRSA) from companion animals between January 2003 and January 2004 (Rich and Roberts 2004). We would like to update our findings to include the past three-and-a-half years.

Between January 2003 and August 2006, we cultured and confirmed a total of 561 isolates of MRSA from companion animals. The sources of these isolates are summarised in Table 1. All isolates were cultured from a site of clinical infection, including postoperative infections, wound breakdowns and skin sites.

TABLE 1: Sources of methicillin-resistant *Staphylococcus aureus*

Animal	Number of isolates
Avian	2
Canine	388
Equine	6
Feline	156
Lagomorph	7
Rodent	2

TABLE 2: Susceptibility of 561 isolates of MRSA from companion animals to various antimicrobial agents

Antimicrobial	Susceptible (%)
Penicillin	0
Ampicillin	0
Potentiated amoxicillin	0
Cephalexin	0
Erythromycin	53
Clindamycin*	63
Enrofloxacin	13
Potentiated sulphonamide	97
Tetracycline	93
Gentamicin	97
Mupirocin	99
Fusidic acid	100

* Includes isolates that are phenotypically susceptible but demonstrate inducible resistance

In 2005, we carried out a study screening healthy dogs for MRSA carriage. Two veterinary clinics took part in the study, and swabs were taken from the nose, throat and skin of healthy dogs attending the clinics for check-ups or vaccination. In total, 765 swabs were taken from 255 healthy dogs. MRSA was detected in only one swab, from the nose of a dog with no obvious signs of infection or ill health.

During the same period as the study, 114 MRSAs were isolated from clinical samples submitted to our laboratory, mainly from wound and postoperative infections. Of these, 31 were randomly selected for further investigation at the Staphylococcal Reference Laboratory of the Health Protection Agency. Analysis of these strains revealed that they belonged to the most prevalent strain types in the human population in the UK.

Susceptibility testing of these isolates demonstrated universal resistance to all the beta-lactam antibiotics, and variable susceptibility to the other antimicrobial agents tested. No significant resistance was detected to the topical agents mupirocin and fusidic acid (Table 2). No significant difference was seen in the susceptibility of isolates from the different animal sources.

Studies are currently underway to try to establish an understanding of the epidemiology of MRSA infections in companion animals. This includes the follow-up of clinical cases, with screening of participating owners and veterinary surgeons for carriage of MRSA. We hope that the data will be available in early 2007 (Pfeiffer and others 2005).

MRSA infection continues to pose a significant problem in clinical cases, although preliminary data indicate that carriage rates in the healthy pet population appear to be low. Antimicrobial sensitivity patterns confirm that effective therapy is possible.

Michael Rich, *Microbiology Department Manager,*
Larry Roberts, *UK Head of Clinical Pathology, IDEXX Laboratories, Wetherby, West Yorkshire LS22 7DN*

References

PFEIFFER, D., LLOYD, D., LOEFFLER, A., SOARES-MAGALHAES, R., RICH, M., ROBERTS, L. & LINDSAY, J. (2005) Investigation of MRSA in small animal practice. *Veterinary Record* **157,** 179-180

RICH, M. & ROBERTS, L. (2004) Methicillin-resistant *Staphylococcus aureus* isolates from companion animals. *Veterinary Record* **154,** 310

Modular RCVS certificates

SIR, – Most vets within the profession will by now be aware that the old-style RCVS certificates are to be replaced by new, modular ones from November 2007. Over the past few years the Society of Practising Veterinary Surgeons (SPVS) has been working closely with the RCVS to try to ensure that the new qualification meets the needs of practising veterinary surgeons, basing its views upon research carried out by the SPVS Masters and Doctorate groups. As a result, the first complete certificate that will be on offer later this year is expected to be the CertAVP (Certificate in Advanced Veterinary Practice) (VetGP), the first qualification that the RCVS has ever offered in veterinary general practice. The course format and module handbooks have been drawn up, and official accreditation is expected within the next six weeks.

This new approach to obtaining certificates will differ in several ways from the previous scheme:

- The learning will be work-based, encouraging the development of practical skills that will make a real difference to the way in which clinicians practise their profession.
- Candidates will regularly meet in learning sets, with trained facilitators, in order to support and encourage each other in their studies.
- Learning will be supported by a web-based resource called the Learning Net, enabling the exchange of information and even the submission of work online.
- Whereas only about 20 per cent of practitioners who registered for the old certificates successfully completed them, the expectation is that any candidate who is sufficiently committed will be given the support required to obtain the qualification.

Candidates wishing to obtain the CertAVP (VetGP) will need to satisfactorily complete the A and B modules, and three C modules in clinical audit, consultation skills, and professional practice and responsibilities. These subject areas have been specifically developed to enhance the delivery of the highest quality of patient and client care, and help candidates to cope with the pressures they face working in veterinary practice.

A meeting will be held at the Trent Park campus of Middlesex University on Wednesday, October 25, for anyone interested in joining one of the groups. This is a unique opportunity to participate in a revolutionary new form of CPD, focused upon developing the skills that practising vets most need in order to thrive. A maximum of three pilot learning sets will be established this year, and at the current time this is the only route through to a complete RCVS CertAVP. Attendance at the meeting is not essential, but it will provide an opportunity to meet up and find out more about what is being offered, and the commitment that will be required. As places on the course will be strictly limited, may I encourage anyone who feels that they may be interested in applying for the new certificate to attend the meeting later this month. Further details are available from the course coordinator, e-mail: ruth.fillery-travis@pdf.net

Ewan McNeill, *President, SPVS, 61 Castle Boulevard, Nottingham NG7 1FD*

Treatment for fear of fireworks in dogs

SIR, – We are currently undertaking an extensive series of studies into the efficacy of homeopathic remedies. Having already completed a placebo-controlled study in the efficacy of a homeopathic treatment for firework fear in dogs, we will next be undertaking a twin cohort study at the end of this year.

The study will be testing two homeopathic formulations for fear of firework noises in dogs. The study will be triple blinded, meaning that neither the owner, their vet, nor ourselves will know which of the two remedies the dog is assigned. The blinding procedure will be carried out by an independent researcher not involved in the study. Once the data have been gathered, analysis will be undertaken following partial unblinding, allowing us to allocate each subject to treatment group A or B. Only once analysis is complete will we then determine the nature of A and B.

All clients will also be provided with behavioural advice on how to manage the immediate impact of fireworks on their dogs, and all clients will be free to try any other intervention if they are not satisfied with the response they see with the homeopathic remedy. Indeed, the switch to other interventions will be one of the outcome variables assessed.

We are looking for veterinary practices to assist us in this work, regardless of their opinion of homeopathy. Their role will be to enrol suitable, willing clients on to the study, which will take place over the October/November fireworks season. Any practice seeking more information on the study should contact Nina Cracknell, telephone 01522 895478, e-mail: ncracknell@lincoln.ac.uk

Daniel Mills, Nina Cracknell,
Animal Behaviour Clinic, Department of Biological Sciences, University of Lincoln, Riseholme Park, Lincoln LN2 2LG

Original letters on all topics relating to the science, practice and politics of veterinary medicine and surgery will be considered for publication. They can be submitted by post, fax or e-mail and must give full address details of all authors as well as a contact telephone number. They should be typed, double-spaced and addressed to the Editor, *The Veterinary Record*, 7 Mansfield Street, London W1G 9NQ; fax (0)20 7637 0620; e-mail: letters@bva-edit.co.uk.

Letters may be shortened for publication