### **EDITORIAL**

### Rabies Elimination is Feasible with Collaboration

With the new goal of an end to human rabies deaths by 2030, a major step has been taken towards getting canine rabies control the political attention it needs. But setting a goal is just the beginning, and must be supported by strategies and mechanisms that would allow countries and regions to rapidly progress their rabies control efforts.

As the tenth World Rabies Day approaches, it is a good time to reflect on the way that GARC has spent these 10 years advocating for and supporting more effective rabies control initiatives.

GARC has always sought to bring together and unify as many partners as possible behind a shared vision to reduce suffering due to rabies and to devise mechanisms that can facilitate progress. By working together, we have grown and assisted a global community with an interest in rabies control and a network of activists that celebrate World Rabies Day through specific activities and events. We have linked veterinary and medical professionals to tackle rabies with the necessary One Health approach.



We have gathered the evidence that canine rabies is a huge, economically significant problem, which is vastly underreported but its elimination is nevertheless feasible. We have supported national and regional cooperation with workshops that provide access to resources and tools and where countries can learn from and help each other. We have brought together international stakeholders at the annual Partners for Rabies Prevention (PRP) meetings to find ways of increasing global attention to the disease.

We have combined expertise into practical tools, such as the Blueprint and Stepwise Approach towards Rabies Elimination together with our Educational Platform, which can be used by all those fighting rabies. We have demonstrated cross-institutional support for rabies control and the evidence that it can be achieved, and the recently launched End Rabies Now advocacy campaign aims to attract more financial support for rabies control. These efforts are all linked, with GARC's stakeholders taking part in World Rabies Day, signing up to the End Rabies Now campaign and participating at regional workshops and in-country meetings. Through all these different initiatives, one theme runs: an understanding that networks and organizations will be more effective than isolated individuals and countries trying to go it alone.

In this newsletter we have updates on several of our areas of work, including (1) the most recent <u>PARACON</u> regional meeting where several tools to support countries were used, (2) GARC's outreach at a <u>global travel</u> medicine conference, (3) the preparations underway for this year's <u>World Rabies Day</u>, and (4) an example of the continued dissemination of the <u>Rabies Educator Certificate</u>.

Over the last 10 years, GARC and its many partners have put in place not only the evidence for global rabies elimination but also the mechanisms through which we can make progress. Over the next 10 years, we will strive to see that work translated into progress and falling death rates in those countries currently struggling with rabies control. We have ahead of us a lot of work if we are to deliver on the promise of a rabies-free world, and we need everyone to collaborate – to work together towards a world where no one dies of rabies.

By Louise Taylor, Scientific Director of GARC

## **NEWS FROM GARC AND WRD**

# What are YOU doing this World Rabies Day?

As momentum gathers behind the elimination of human deaths from canine rabies by 2030, and we approach the 10th World Rabies Day, it has never been more important to thank the individuals who dedicate their time and effort to making a difference, to shine a light on the fantastic work that takes place—and to inspire all of us to become part of this global movement to end rabies.

So we created this short video—<u>An A-Z of World Rabies Day</u>, from Awareness to Zero Deaths—that we hope captures the determination, commitment and creativity that make World Rabies Day special. Enjoy—and please share widely.

Awareness to Zero Deaths

An A to Z of World Rabies Day, September 28



Occasionally we meet people who proudly tell us about their World Rabies Day events only to later mention that they did not register them. We get it. It's just another job to do in a busy day, but registering your activity really does multiply its impact.

Why? Because only registered events appear on the event map that acts as evidence to policy makers and potential donors that people care about rabies and are willing to take action to prevent it.

Collectively, events can show particular national and regional trends—for example, in 2015 Africa, as a region, showed a 56% increase in the number of events.

You can register <a href="here">here</a>—it takes less than 5 minutes. Alternatively, you can also register by creating a Facebook event and inviting @GlobalAllianceforRabiesControl and using the hashtag #WorldRabiesDay.



We've even created a <u>step-by-step pictorial guide</u> as a reminder—so register your event—and make even more of a difference this World Rabies Day!

Contributed by Liz Davidson and Deepa Balaram of the GARC WRD team

# Pan-African Rabies Control Network (PARACON) 1st Regional Workshop

The first regional PARACON workshop was held in Grand Bassam, Cote d'Ivoire from 29-30 June 2016 and introduced the delegates to several new tools to support their rabies control efforts.

The workshop was organised by GARC with support from Centre Suisse de Recherches Scientifiques (CSRS) in Côte d'Ivoire who formed the local organising committee. This workshop was a region-specific workshop for West and Central African countries as a follow-up to the PARACON meeting held last year in South Africa. The workshop focussed predominantly on Francophone countries; with some Anglophone countries from the region also present. In total, 15 African countries were represented, with 10 of the 15 countries having representatives from both the medical and veterinary sectors. Of these 15 countries represented, 4 were not represented at PARACON in 2015 predominantly due to the Ebola crisis, so this meeting extended the reach of PARACON to representatives from 37 of the 48 mainland African countries (plus Madagascar).

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...**PARACON** continued from page 2.

Following from the successes at the inaugural PARACON meeting, this regional PARACON Workshop again focussed on the use of the Stepwise Approach towards Rabies Elimination (SARE) tool in order for countries to perform self-evaluations regarding their progress towards controlling and eliminating rabies. At the first PARACON meeting in 2015, it was proposed that the SARE tool be an ever-updating and improving tool. Building on this promise by GARC and all of the organisations involved in its development, a newly revised version of the SARE tool was used for the first time at this PARACON workshop. The revised tool was shown to be a huge improvement, particularly with the inclusion of a feature for automatic scoring of the country's stage. This, and other revisions, resulted in a more comprehensive and accurate assessment of the situation in each country. Several countries performed the SARE evaluation for the first time. The preparedness of all of the delegates, as well as the fact that most countries were represented by both Medical and Veterinary delegates, enabled a fruitful and accurate self-assessment of each of the countries' progress.

The newly developed PARACON Bulletin another outcome of the first PARACON meeting developed over the course of the past year—was also first unveiled to the PARACON network at this meeting. Country representatives were provided login details and shown the basics of reporting data directly onto the Bulletin-eliminating the need for paper-based or basic electronic country reports. The PARACON Bulletin provided immediate and useful analyses to country automatically representatives, calculating totals and percentages for various important data elements. Importantly, a basic estimate of dog populations within each country was automatically calculated for countries, from



Premier atelier regional du PARACON, Côte d'Ivoire, Juin 2016 First regional PARACON workshop, Côte d'Ivoire, June 2016



which estimated vaccination coverage was determined. These important data were especially interesting to delegates and showed the value of the PARACON Bulletin in providing essential information for advocacy and targeted control efforts. Any African country that was not represented at the PARACON workshop is now welcome to contact the PARACON team (paracon@rabiesalliance.org) for more information about the bulletin or for access to the bulletin. The web address and walkthrough for the bulletin is also available on the <u>PARACON website</u> (paracon. rabiesalliance.org).

Lastly, the next GARC Education Platform (GEP) course was beta-launched at the workshop. The Community Caregiver Certificate (CCC) is a course specifically targeting those individuals interested in helping their communities fight rabies. The CCC trains individuals as community workers that are then able to facilitate interactions between the community and professionals involved in rabies control and elimination. After a short presentation about the course, valuable feedback was obtained from the delegates at the workshop, which highlighted the importance of networking and inviting countries to contribute relevant information from their experiences and knowledge. This feedback included the suggestions for the inclusion of further modules into the course as well as editing to better suit all countries in Africa, making it a universally applicable, relevant, and useful course. The course materials will be revised and improved upon in order to create a comprehensive course for the GEP.

PARACON would like to thank all of the partners and sponsors involved in hosting and enabling this regional workshop. It was our experience that this workshop provided a valuable and insightful platform for neighbouring countries within a region to network, communicate, and share their experiences and efforts towards rabies control and elimination, whilst being introduced to new and ever-evolving tools that may facilitate their efforts. Country representatives departed the workshop with a self-set goal to achieve 5 activities from the SARE tool before the next main PARACON meeting scheduled for 2018. These 5 activities will enable each country to progress further upon the SARE scale and were set to be achievable goals to demonstrate good progress within their country.

Contributed by Terence Scott and Andre Coetzer of GARC who are members of the PARACON Steering Committee

## **NEWS FROM THE COMMUNITY**

### When Teachers Become Students

The saying "what goes around comes around" proved to be true for 17 veterinary professors and staff from the University of the Philippines Los Baños College of Veterinary Medicine (UPLB-CVM) who passed the Rabies Educator Certificate (REC) in June 2016.

It was the teachers' turn to be the students for the two-day REC Training of Trainers and suffice to say, they enjoyed every minute of it.



The participants took their final assessment online on the second day.

What was supposed to be a simple presentation after the discussion of the modules turned out to be a showcase of the participants'



The participants giving it their all in the case scenarios

creativity, resourcefulness, and acting skills as they role-played each case scenario. It was also refreshing to hear their perspective as this was the first time that the REC was conducted for academic staff.

The training essentially aimed to introduce REC to the faculty and guide them on how to facilitate the REC for their students. Following this, the UPLB-CVM faculty intends to include the REC in the curriculum of the veterinary medicine students next semester. Following that, the veterinary students are expected to conduct a rabies IEC activity for the community after passing the REC.

Contributed by Dane Medina, Communications officer for the GARC Philippines office

# Newborn Babies Survive Exposure to Rabies During Birth

In a recent report in the *Journal of Venomous Animals and Toxins including Tropical Diseases*, Chinese physicians describe the unusual occurrence of a pregnant woman with rabies giving birth to a healthy child in Henan Province. The 25-year-old, pregnant woman began to show symptoms on the day she went into labor—pain, agitation and insomnia—with her symptoms worsening the following day. After giving birth to her son by caesarean section, the mother succumbed to the virus within a few days. But the newborn child and his father were administered rabies post-exposure prophylaxis (PEP) immediately after the mother's death, and they have not shown any signs of infection henceforth.

The mother possibly contracted rabies after a dog bit her foot while walking on her village road when she was four-months pregnant. Her wound was treated, but she did not receive any rabies prophylaxis at the time, nor was she informed of the possibility of rabies transmission. Only when she entered the hospital to deliver her child did she become symptomatic for rabies, passing away two days later in her home after treatments with traditional Chinese medicines, sedatives and antibiotics proved ineffectual.

Once rabies was confirmed as the mother's cause of death postpartum, the baby and his father were treated with the full course of rabies vaccine. The authors of the paper did not speculate how the baby escaped transmission, but certainly the rapid treatment with anti-rabies vaccine may have played a significant role in preventing the disease from developing. The authors also did not postulate on any additional protections provided by a caesarean versus a vaginal delivery.

Cases of rabid, pregnant women delivering babies are very rare, and cases of mother-to-child transmission of rabies during delivery are even rarer. Another recent study in the journal Vaccine reported a further two cases of probable rabies in mothers near to, or at term (one in Africa and one in Asia) both of whose babies survived. Their review of 14 other documented cases of rabid mothers delivering babies, revealed only one where the baby had contracted rabies. Amongst the surviving babies, some had not received PEP, and some were born vaginally and some by cesarean.

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# A personal contribution to fighting rabies in KwaZulu-Natal, South Africa

Mduduzi Michael Mtshali, a Senior Animal Health Technician in the KwaZulu-Natal Department of Agriculture and Rural Development, shares his experiences.

When the new political dispensation came to South Africa in 1994, the whole of KwaZulu-Natal was engulfed in severe rabies outbreaks, with the highest incidences of rabies experienced in 1997. Drastic steps by the state to fight the rabies scourge were inevitable. The KwaZulu-Natal Department of Agriculture and Environmental Affairs then approached rabies vaccination in a unique manner by forming a subdivision solely responsible for rabies eradication and control. It has been headed by the Provincial Rabies Project Manager who coordinates and organizes mass campaigns that are carried out jointly by all the state's veterinary areas under the auspices of different animal health control technicians. This has been a major step forward in the attempt to eradicate the rabies disease because it ensures that vaccine and equipment are provided for the staff to carry out vaccinations. The rabies project has done a sterling job in organizing mass rabies campaigns in rural and peri-urban areas of all municipalities of KwaZulu-Natal, South Africa.



Mr MM Mtshali during a radio talk at Radio Ukhozi in Durban.

However, there was a significant gap in the programme. It did not carry out awareness campaigns that were able to reach all levels of society with information about rabies and how to prevent it. As a field worker, I had seen several times how we arrived in a community only to find that people were not aware of the prevalence of rabies in the province. That is where I felt I could personally make a difference in fighting the rabies scourge.

At a meeting that was held at Ixopo, I stood up and proposed a radio talk focused on rabies. Convinced of its value, I continued to pursue this idea. I visited Radio Ukhozi, the studios and offices of South African Broadcasting Corporation (SABC) in Durban, where I explained to them about rabies and the need to have a radio talk show. At first I was offered 1 hour and 30 minutes on the current affairs programme. That talk show was miraculous becauseso many people called that all the lines were full throughout the talk. I was asked especially to remain in studio for the next hour. By that time my office was inundated with calls from throughout the province.

Radio Ukhozi caters for Zulu-speaking listenership, with around 8 million listeners in KwaZulu-Natal, Gauteng, Mpumalanga, Free State, Eastern Cape as well as neighbouring countries such as Swaziland and Lesotho. These radio talks have contributed immensely in fighting the rabies scourge in KwaZulu-Natal and other areas. They told people how to get effective treatment for bites; helped to inform vaccination programmes that

consider the local ecology of the dogs; involved linking across sectors; and facilitated ethnically suitable education efforts to illiterate or semi-illiterate people who are in the majority in KwaZulu-Natal. The talks became a proactive means to build community participation and empowerment in rabies control activities and were a key factor in the success of the dog vaccination campaigns in KwaZulu-Natal.

The vaccination programme in KwaZulu-Natal managed to reverse the upward trend of rabies cases and is edging close to elimination, but outreach is still needed to ensure the sustainability of rabies vaccination. Recent radio talks had been conducted together with different prominent figures like the KwaZulu-Natal Member of Executive Council (MEC) for Agriculture and Environmental Affairs and other senior managers to maintain the awareness of rabies disease. There have been several invitations to address nurses in hospitals, health workers, livestock associations, agricultural shows, MECs, and traditional leaders on rabies. For World Rabies Day in 2015, I organized all 11 radio stations in KwaZulu-Natal to speak with one voice on the elimination of rabies.

I have always believed that cooperation between community members and Veterinary Services staff is the key in curbing animal diseases such as rabies, and it has been a pleasure to contribute in this way.

Michael Mtshali graduated with a Master of Agriculture degree from the University of KwaZulu-Natal in April 2014, conducting research on the Effectiveness of the house-to-house rabies vaccination programme in Magabheni Township. In June 2015, he received the <a href="KwaZulu-Natal Premier Gold Award">KwaZulu-Natal Premier Gold Award</a> for the best Frontline Public Service employee of the year and was a finalist in the National Awards.

# NECTM6 - 6th Northern European Conference on Travel Medicine

From June 1–4, over 600 delegates gathered in London for the 6th Northern European Conference on Travel Medicine. The audience of doctors, nurses, public health and veterinary professionals came from over 44 countries including as far away as Australia and New Zealand.

The itinerary was a packed, 4–day schedule covering a wide range of subjects, including a session on rabies—that one the organisers felt went particularly well—which featured a presentation by Professor Sarah Cleaveland on the imperative to push for the elimination of canine rabies.

GARC was there as the charity partner of the event, and it proved an excellent platform to showcase the goal of rabies elimination by 2030 and GARC's work towards it. Some of the participants were already familiar with GARC, but for those that were not, their familiarity with the disease from a travel perspective gave them an instant insight into the relevance of GARC's work.

Imported rabies cases into the UK are relatively rare. The last one was in 2013. But there is an untold story here. How many travellers find they have to make urgent, unscheduled detours to look for vaccine following a potential exposure?

Many of the travel nurses visiting the GARC stall at the conference expressed

frustration at complacency among many travellers about rabies. The cost of pre-exposure vaccines and the option 'to get the vaccination after a bite' deters many travellers from taking rabies vaccines before they travel.

A nurse at the University of Sheffield showed <u>this video</u> (*Rabies Advice from the Sheffield University Health Service*) that she recorded for clients at her clinic. All travellers at her clinic watch this information before making a decision.

Another nurse spoke of a client who came up to her some time after returning home from a visit to India. The client thanked the nurse for persuading her to have the rabies vaccine, despite her initial reluctance. Although she hadn't been bitten herself, she had been with someone when they were bitten, and because of the nurse's advice, she had understood the risk and knew what to do.

GARC's mission is to eliminate the risk of canine-rabies transmission to people, and various fundraising activities took place as part of conference partnership, including sponsored events and an auction.

Here you can see Team NECTM6 in London after successfully completing the Vitality 10,000 m race on the Monday



before the conference started. (Nathan, first on the left, travelled on to Stockholm to take part in the marathon on Saturday and raising more money for GARC.) In total, Team NECTM6 raised £1709. Thank you Nathan, James, Tania, Emi, and Roger! The auction raised a further £1341 to bring the total effort for the conference to a fantastic £3050.

Overall GARC is delighted with the partnership with NECTM6 and is grateful to the organisers for the opportunity to be the event's charity partner, to raise funds at the conference, and to raise awareness of the goal to end human deaths from rabies by 2030.

Contributed by Liz Davidson who represented GARC at the meeting

...Newborn Babies continued from page 4.

The authors of the *Vaccine* paper postulated that viral transmission during pregnancy is low because the virus, which travels through the nervous system, is not present in blood and the exposure of the baby's mucosal tissues to infected maternal fluids is also low in the birth canal, further reducing the possibility of transmission. Additionally, the placenta acts as a barrier and protects the unborn child from infectious maternal fluids; and, the lack of in utero connections to the mother's nervous system prevents the virus from traveling from the mother to the child.

These papers both remind us that pregnant women who become exposed to rabies through a dog bite should seek treatment immediately. The current cell-culture vaccines used to stop the development of the disease are safe and effective for use, even in pregnant and lactating women and very young children and newborns. The authors also recommend giving PEP as a precautionary measure to any baby born of a mother with rabies.

Submitted by Laura Baker, GARC Newsletter Co-Editor. Summarized from "Survival of a newborn from a pregnant woman with rabies infection" in the Journal of Venomous Animals and Toxins including Tropical Diseases and "Rabies transmission risks during peripartum – Two cases and a review of the literature" in Vaccine.



## A round up of recent research most relevant to GARC's mission

#### **Laboratory Diagnosis**

<u>Disinfection protocols for necropsy equipment in rabies laboratories: Safety of personnel and diagnostic outcome</u>. None of the disinfectants tested proved to be effective at destroying virus and viral RNA under label conditions. The results indicate that an effective disinfection protocol should be carefully validated to guarantee staff safety and reliability of the results obtained from molecular diagnostic tests.

<u>Evaluation of Six Commercially Available Rapid Immunochromatographic Tests for the Diagnosis of Rabies in Brain Material</u>. Easy-to-use tests, such as lateral flow devices (LFD), may increase surveillance and improve control efforts. Using field samples, six commercially available LFDs produced sensitivities between 0% up to 100% depending on the LFD and the samples, while for experimentally infected animals the maximum sensitivity was 32%. None of the tests investigated proved to be satisfactory, with a high number of false negatives and batch-to-batch variation found.

### Surveillance

<u>Prevalence of Dog Bites in Rural and Urban Slums of Delhi: A Community-based Study.</u> A house-to-house survey revealed dog bite incidence rates of 30.1/1000 in urban slums and 19.6/1000 in rural slums over the last year. Two-fifths of the dog bite patients did not wash the wound with soap and water, one-fifth of the patients did not receive anti-rabies vaccine, and most did not receive anti-rabies serum.

The incidence of jackal bites and injuries in the Zagreb anti rabies clinic during the 1995-2014 period. 18,094 patients were bitten by various animals, but only 2 cases were caused by jackals, one of which was imported (from France). Jackal bites and injuries are exceptionally low, and it is justified that these are classified in the group of 'other animals' when officially reported.

Probable Rabies Virus Transmission through Organ Transplantation, China, 2015. In July 2015, physicians in Beijing, diagnosed rabies in 2 patients who had each received a kidney from a common organ donor who had died from acute progressive encephalitis of unknown cause. The patients had rabies incubation periods of 42 and 48 days and both went into a deep coma within 80 days, before dying. Two other recipients received corneas but remained well after receiving timely rabies prophylaxis.

#### **Epidemiology**

Revealing spatio-temporal patterns of rabies spread among various categories of animals in the Republic of Kazakhstan, 2010-2013. Outbreak clusters were detected by spatial statistics and used to calculate the basic reproductive ratio, R0. For farm animals, the value of R0 was 1.62 (1.11-2.26) and for wild animals 1.84 (1.08-3.13), while it was close to 1 for domestic animals (dogs and cats). These results were used to design recommendations for control measures.

Zoning the territory of the Republic of Kazakhstan as to the risk of rabies among various categories of animals. This paper presents the zoning of the territory of the Republic of Kazakhstan with respect to the risk of rabies outbreaks in domestic and wild animals. The zoning considers environmental and climatic conditions and is based on the national database of rabies outbreaks in Kazakhstan in the period 2003-2014.

Travel-Associated Rabies in Pets and Residual Rabies Risk, Western Europe. In 2015, countries in Western Europe were declared free of rabies in nonflying mammals. Surveillance data for 2001-2013 indicate that risk for residual rabies is not 0 because of pet importation from countries with enzootic rabies. However, the risk is so low (7.52 × 10-10) that it probably can be considered negligible. Expert Opinion to Identify High-Risk Entry Routes of Canine Rabies into Papua New Guinea. A structured, in-country expert-elicitation workshop identified the highest risk routes for entry of dogs - associated with the movement of people - into PNG from canine rabies-endemic countries. Twenty entry routes were identified with the highest risk ones being three land routes from Papua, Indonesia and two sea routes involved in fishing and logging trade.

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...**Recent Research** continued from page 7.

### Dog ecology and vaccination

<u>Dog Ecology and Barriers to Canine Rabies Control in the Republic of Haiti, 2014-2015</u>. An epidemiologic survey of dog owners found that over 50% of owned dogs were allowed to roam freely, and > 80% of dog owners reported barriers to accessing rabies vaccination for their dogs. Nearly one-third of the dog population evaluated in this study died in the year preceding the survey (32%), and 18% of these deaths were clinically consistent with rabies. More than 3% of the study population had been bitten within the year preceding the survey.

<u>Free-Roaming Dogs in Nepal: Demographics, Health and Public Knowledge, Attitudes and Practices</u>. In central Nepal, dog owners regularly fed free-roaming dogs but provided minimal health care, and 42% of respondents did not claim ownership of the dog for which they provided care. Following rabies vaccination, 97% of dogs maintained an adequate antibody titre for ≥6 months. Most dogs appeared healthy, although many had parasites (correlated with poor skin condition) and, puppy mortality was 60%.

Risk factors associated with non-vaccination rabies status of dogs in KwaZulu-Natal, South Africa. Husbandry practices, rabies knowledge, geographical area/location, and the ages of dogs were important factors associated with the risk of non-vaccination. Dog owners reported being more likely to vaccinate their dogs when vaccination was free (52%) and available less than 1 km from their homes (91%). The data showed that 70% vaccination coverage was not reached in the surveyed dog population.

#### Post Exposure Prophylaxis

<u>Procedures.</u> Of 515 cases treated in the emergency room from August 2012 and December 2013, 44.7% were administered inappropriate prophylaxis. Thirty-seven percent of cases received less rabies Ig than recommended, despite category 3 contact, and some were given unnecessary rabies Ig or vaccine.

A Comparative Study on the Adverse Reactions of Purified Chick Embryo Cell Vaccine (PCECV) and Purified Vero Cell Rabies Vaccine (PVRV). In a clinical trial, 1449 people bitten by animals received 5 intramuscular injections of the PVRV or PCECV vaccines. The most common local adverse reaction in both groups was pain at the injection site (4%). Most of the reported systemic adverse reactions were headache (2.5%) and fever (1.9%) in PCECV and PVRV group, respectively, and these were not significantly different. The incidence of itching was significantly higher in the PVRV group compared to the PCECV group (1% vs. 0.1%).

# **Upcoming Conferences**

**The 4th Antivirals Congress 2016** will be held from 18-21 September 2016 in Sitges, Barcelona, Spain. More information is available <a href="here">here</a>.

**The 41st World Small Animal Veterinary Association Congress** is taking place September 27-30, 2016 in Cartagena, Colombia. See <u>the website</u> for further details.

**The XXVII Rabies in the Americas** meeting will be held in Belem Brazil from 23-28th October. The website is now available <a href="here">here</a>.

The 2nd GLOBAL CONFERENCE ON ONE HEALTH - Moving forward from the One Health Concept to One Health Approach. The conference will be held in Kitakyushu City, Japan from Nov 10th to 11th.

The One Health EcoHealth 2016 conference will bring together the global One Health and EcoHealth communities in Melbourne, Australia, from December 4th to 7th.

The editors of the GARC newsletter are Louise Taylor and Laura Baker, typesetting is by Pete Else. Contribute stories to louise.taylor@rabiesalliance.org. For further information on the Alliance's work see www.rabiesalliance.org.