

Centro de Documentación / Documentation Center

Objetivos/ Objectives

Identificar y atender las necesidades de información, adquisición, organización, almacenamiento, generación, uso y difusión de la información en salud pública veterinaria y proveer recursos bibliográficos técnicos-científicos al equipo de profesionales de la unidad y a los usuarios externos.

Identify and take care of the needs of information, acquisition, organization, storage, generation, use and diffusion of the information in veterinary public health and provide technical scientific bibliographical resources to the professional staff of the unit and to the users external.

Temas de interés general / Subjects of general interest

PANAFTOSA realiza Seminario Internacional Pre COSALFA para discutir el Plan de Acción 2011-2020



En el Hotel Mar Recife de la ciudad de Recife, Pernambuco, Brasil, se esta llevando a cabo el Seminario Internacional Pre COSALFA "Etapa final de la Erradicación de la Fiebre Aftosa: el Plan de Acción del PHEFA 2011-2020".

El objetivo del seminario es analizar en forma detallada las necesidades y el avance de la erradicación de la Fiebre Aftosa en la América del Sur, y los desafíos y compromisos de acción en el marco del nuevo Plan de Acción 2011-2020 del Programa Hemisférico de Erradicación (PHEFA), con el fin de contribuir a

el fortalecimiento de las acciones por los países.

Participan del Seminario cerca de 350 profesionales de los Servicios Veterinarios, del sector privado y de los organismos internacionales del continente.

http://new.paho.org/panaftosa/index.php?option=com_content&task=view&id=641&Itemid=1926

Informaciones disponibles en formato electrónico / Information available in electronic format

Emergencias / Emergencies

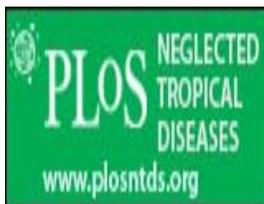


WHO in emergencies and humanitarian action: a business model framework
World Health Organization
March 2011

An effective business model depends upon a clear strategy and well defined objectives that are understood and agreed across the institution. It, too, has to reflect a clear sense of the institutional assets that are and should be available to achieve such strategic objectives, and at the same time a general appreciation of how such assets should be best employed – at what levels and by whom. This framework document is intended to explore these issues to determine what will be precisely needed to move towards a business model for WHO that serves the organisation’s purposes now and for a longer-term future.

Text in English

Enfermedades Desatendidas / Neglected Diseases



Collaborative teaching and learning: a model for building capacity and partnerships to address NTDs

Wilson ME, Ko AI, Reis MG
PLoS Negl Trop Dis. 2011 Mar; 5 (3): e939

Education, training, and understanding the social, political, economic, and environmental factors underlying poor health and health disparities are key elements in dealing with neglected tropical diseases. The Harvard-Brazil Collaborative Public Health Field Course aims to prepare students, faculty, and researchers to find new approaches to reducing the burden of NTDs. The benefits of this investment to improve global health should continue to be realized for years.

Text in English

<http://www.plosntds.org/article/info:doi/10.1371/journal.pntd.0000939>

Fasciola



Prevalence of liver condemnation due to bovine fasciolosis in Southern Espírito Santo: temporal distribution and economic losses

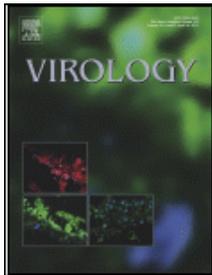
Bernardo CC, Carneiro MB, Avelar BR, Donatele DM, Martins IVF, Pereira MJS
Rev Bras Parasitol Vet. 2011 Jan-Mar; 20 (1):49-53

The present study was conducted to evaluate the economic losses and temporal distribution of the prevalence of liver condemnation due to bovine fasciolosis. The abattoir in Atilio Vivacqua, in the South of the State of Espírito Santo, which is under state inspection by the veterinary service of the Livestock and Forest Protection Institute of Espírito Santo, was used as the data source. The prevalence of liver condemnation due to fasciolosis over the period 2006-2009 was calculated. The χ^2 test, simple linear regression analysis and χ^2 for trend were used, with a significance level of $p \leq 0.05$. Over the period analyzed, 110,956 cattle were slaughtered and the prevalence of liver condemnation due to *Fasciola hepatica* was 15.24% in 2006, 23.93% in 2007, 28.57% in 2008 and 28.24% in 2009. The historical trend of liver condemnation is an increasing trend, thus indicating that this parasitism has become established in the herd as a problem in this region, with prevalence similar to that of traditionally endemic regions. Condemnations occurred throughout the year, with the highest prevalence in April and May and with significant differences between the dry and wet seasons. The economic losses from liver condemnation can be considered high.

Text in English

http://cbpv.com.br/rbpv/documentos/2012011/rbpv_v20n1_a09.pdf

Fiebre Aftosa / Foot and Mouth Disease



Antiviral activity of bovine type III interferon against foot-and-mouth disease virus

Díaz-San Segundo F, Weiss M, Perez-Martín E, Koster MJ, Zhu J, Grubman MJ,
de Los Santos T
Virology. 2011 Mar

Foot-and-mouth disease (FMD) is one of the most serious threats to the livestock industry. Despite the availability of a vaccine, recent outbreaks in disease-free countries have demonstrated that development of novel FMD control strategies is imperative. Here we report the identification and characterization of bovine (bo) interferon lambda 3 (IFN- λ 3), a member of the type III IFN family. Expression of boIFN- λ 3 using a replication-defective human adenovirus type 5 vector (Ad5-boIFN- λ 3) yielded a glycosylated secreted protein with antiviral activity against FMD virus (FMDV) and vesicular stomatitis virus in bovine cell culture. Inoculation of cattle with Ad5-boIFN- λ 3 induced systemic antiviral activity and up-regulation of IFN stimulated gene expression in multiple tissues susceptible to FMDV infection. Our results demonstrate that the type III IFN family is conserved in bovines and boIFN- λ 3 has potential for further development as a biotherapeutic candidate to inhibit FMDV or other viruses in cattle.

Text in English (article in press)



Diagnostic performance and application of two commercial cell viability assays in foot-and-mouth disease research

Willems T, Lefebvre DJ, Neyts J, De Clercq K
J Virol Methods. 2011 Apr; 173 (1): 108-14

Cell-based assays are still used widely in foot-and-mouth disease (FMD) research, despite the existence of a wide variety of molecular techniques. The aim of this study was to validate an automated, quantitative spectrometric reading to replace the time-consuming and subjective microscopic (MIC) evaluation of the FMD virus-induced cytopathic effect (CPE). Therefore, the diagnostic performance of two commercial cell viability assays (CellTiter 96® AQueous One Solution Cell Proliferation Assay (MTS) and CellTiter-Blue® Cell Viability Assay (CTB), both from Promega, Leiden, The Netherlands) was evaluated. Following optimization of the assay protocols and using the MIC results as a reference standard, the absorbance-read MTS assay, the fluorescence-read CTB assay and the absorbance-read CTB (CTB(abs)) assay demonstrated similar high sensitivities (97%, 99% and 98%, respectively), specificities (100%, 98% and 99%, respectively), accuracy measures (0.99, 0.98 and 0.98, respectively), precision measures (1.00, 0.98 and 0.99, respectively) and Cohen kappa agreement indices (0.97, 0.97 and 0.96, respectively) for detecting CPE in cell cultures. Due to its performance, cost effectiveness and ease of use, the CTB(abs) assay was selected for further evaluation of its ability to detect virus neutralization and to screen antiviral compounds. The CTB(abs) assay had 99% sensitivity and 100% specificity for the detection of neutralizing antibodies in sera from cattle infected with FMDV and in sera from unvaccinated, uninfected cattle and resulted in a mean Z'-factor of 0.85 for antiviral compound test plates. The CTB(abs) assay is now used routinely in the Belgian FMD reference laboratory for serological testing and high-throughput antiviral compound screening.

Text in English



Pan-serotypic detection of foot-and-mouth disease virus using a minor-groove binder probe reverse transcription polymerase chain reaction assay

McKillen J, McMenamy M, Reid SM, Duffy C, Hjertner B, King DP, Bělak S, Welsh M, Allan G
J Virol Methods. 2011 Mar

A novel assay for the pan-serotypic detection of foot-and-mouth disease virus (FMDV) was designed using a 5' conjugated minor-groove binder (MGB) probe real-time RT-PCR system. This assay targets the 3D region of the FMDV genome and is capable of detecting 20 copies of a transcribed RNA standard. The linear range of the test was eight logs from 2×10^1 to 2×10^8 copies and amplification time was approximately 2h. Using a panel of 83 RNA samples from representative FMDV isolates, the diagnostic sensitivity of this test was shown to be equivalent to a TaqMan real-time RT-PCR that targets the 5' untranslated region of FMDV. Furthermore, the assay does not detect viruses causing similar clinical diseases in pigs such as swine vesicular disease virus and vesicular stomatitis virus, nor does it detect marine caliciviruses causing vesicular exanthema. The development of this assay provides a useful tool for the differential diagnosis of FMD, potentially for use in statutory or emergency testing programmes, or for detection of FMDV RNA in research applications.

Text in English (article in press)

Influenza Aviar / Avian Influenza



The use of FTA® filter papers for diagnosis of avian influenza virus

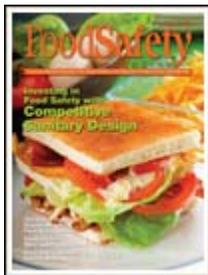
Abdelwhab EM, Lüschow D, Harder TC, Hafez HM

J Virol Methods. 2011 Mar

Avian influenza viruses (AIVs) infect a wide range of host species including domestic poultry and wild birds; also, AIVs may infect humans in whom some highly pathogenic viruses (HPAIV) may cause acute fatal disease. Accurate laboratory diagnosis of AIV infections requires time-consuming and logistically complex precautionary measures for shipment of specimens or viruses to avoid biohazard exposure. The feasibility was investigated of the Flinders Technology Associates filter paper (FTA(®) card) for infectivity of AIVs and to preserve viral RNA for detection by RT-qPCR, sequencing and by DNA microarray assay. The infectivity of AIV subtype H6N2 and HPAIV subtype H5N1 was inactivated completely within one hour after adsorption to the FTA card at room temperature. FTA-adsorbed viral RNA remained stable for five months. Swab samples obtained from chickens infected experimentally with H5N1 virus and spotted directly onto the FTA(®) cards allowed a sensitive and straightforward diagnosis by RT-qPCR. FTA(®) cards were also suitable for examination of field samples, although AIV RNA was detected with reduced sensitivity in comparison to direct examination of swab fluids. The use of FTA(®) cards will facilitate safe transport of samples for molecular diagnosis of AIV avoiding the need for an uninterrupted cold storage.

Text in English (article in press)

Inocuidad de los Alimentos / Food Safety



Food safety interventions: reducing risk from farm to table

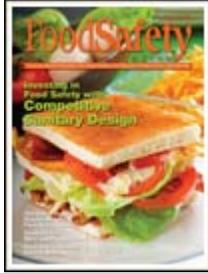
Bucknavage MW, Cutter CN

Food Safety March 2011

Interventions can be added to a process as a means to reduce the risk of potential hazards, most notably, pathogenic microorganisms. They can be added throughout the product flow from pre-harvest through processing of a finished product. However, it is important to make sure the intervention is worth the cost in terms of achieving required performance levels. Validation by evaluation of supporting documentation, as well as in-plant microbiological testing, should be conducted, especially when large financial resources are allocated.

Text in English

<http://www.foodsafetymagazine.com/article.asp?id=3941&sub=sub1>



Managing the microbiological safety and stability of ready-to-eat meat

Stewart CM, Williams Jr. J

Food Safety March 2011

Illnesses caused by foodborne pathogenic microorganisms, as well as their control, are major worldwide public health issues. The prevention and/or reduction of foodborne disease has been, and continues to be, a major goal of societies that dates back to when food was first preserved by drying and salting.[1] Currently there is a much greater public concern about (and less tolerance towards) health risks associated with foods than risks from other manufactured products, such as cars and tobacco. Due to the biological nature of food and the emergence/evolution of potentially deadly microorganisms, the socioeconomic impact of foodborne illness is well chronicled. Pressure for new and stricter enforcement of food safety regulations typically gains momentum with highly publicized incidents of food contamination, such as those that have been associated with bovine spongiform encephalopathy, *Salmonella*, *Escherichia coli* and *Listeria monocytogenes*.

Text in English

<http://www.foodsafetymagazine.com/article.asp?id=3940&sub=sub1>

Leishmaniasis



Active surveillance of canine visceral leishmaniasis and american trypanosomiasis in rural dogs from non endemic area

Tome RO, Gaio FC, Generoso D, Menozzi BD, Langoni H

Rev Bras Parasitol Vet. 2011 Jan-Mar; 20 (1): 64-6

The canine visceral leishmaniasis (CVL) and american trypanosomiasis are important zoonoses in public health and dogs are the main domestic reservoir of the parasite for humans. The goal of this study was to estimate the prevalence of circulating antibodies anti-*Trypanosoma cruzi* and anti-*Leishmania* sp. in sera of dogs from the rural area of Botucatu, SP, Brazil. During the annual vaccination campaign against canine rabies in rural area, 689 blood samples were taken and processed by indirect immunofluorescent antibody test. The serological tests revealed the absence of antibodies anti-*Leishmania* spp., but anti-*T. cruzi* antibodies were detected in 3 (0.4%) dogs.

Text in English

http://cbpv.com.br/rbpv/documentos/2012011/rbpv_v20n1_a12.pdf



The use of conjunctival swab samples for PCR screening for visceral leishmaniasis in vaccinated dogs

Leite RS, Mendes VC, Ferreira ALC, Andrade ASR

Rev Bras Parasitol Vet. 2011 Jan-Mar; 20 (1): 36-41

The polymerase chain reaction (PCR) has been shown to provide a rapid and sensitive technique for *Leishmania* detection. The aim of this study was to evaluate the technique of noninvasive conjunctival swabs (CS) as a sampling method for molecular screening for visceral leishmaniasis (VL) in a group of 42 police dogs, all of them vaccinated against VL, and to compare the results with those obtained by serological tests. The serological assays were performed independently by three laboratories. Laboratories 1 and 2 were private laboratories and laboratory 3 was the National Reference Laboratory. The first serological screening performed by laboratory 1 showed 15 reactive dogs and 4 indeterminate. Laboratory 2 confirmed only 3 reactive dogs and 2 indeterminate. Laboratory 3 confirmed 7 reactive dogs and 3 indeterminate. The PCR diagnosis using the CS procedure was performed on all 42 animals and was able to detect *Leishmania* DNA in 17 dogs. The PCR assay confirmed all the cases that were simultaneously reactive in the serological tests by two laboratories. The results showed that the CS technique was a sensitive and practical method for sample collection, thus allowing reliable diagnostic tests through PCR.

Text in English

http://cbpv.com.br/rbpv/documentos/2012011/rbpv_v20n1_a07.pdf

Rabia



Antemortem diagnosis of human rabies in a veterinarian infected when handling a herbivore in Minas Gerais, Brazil

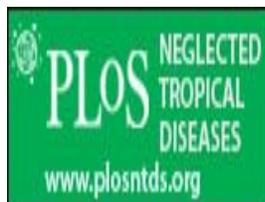
Brito MG, Chamone TL, Silva FJ, Wada MY, Miranda AB, Castilho JG, Carrieri ML, Kotait I, Lemos FL

Rev Inst Med Trop Sao Paulo. 2011 Feb; 53 (1): 39-44

The Ministry of Health's National Human Rabies Control Program advocates pre-exposure prophylaxis (PEP) for professionals involved with animals that are at risk of contracting rabies. We report an antemortem and postmortem diagnosis of rabies in a veterinarian who became infected when handling herbivores with rabies. The antemortem diagnosis was carried out with a saliva sample and a biopsy of hair follicles using molecular biology techniques, while the postmortem diagnosis used a brain sample and conventional techniques. The veterinarian had collected samples to diagnose rabies in suspect herbivores (bovines and caprines) that were subsequently confirmed to be positive in laboratory tests. After onset of classic rabies symptoms, saliva and hair follicles were collected and used for antemortem diagnostic tests and found to be positive by RT-PCR. Genetic sequencing showed that the infection was caused by variant 3 (*Desmodus rotundus*), a finding confirmed by tests on the brain sample. It is essential that professionals who are at risk of infection by the rabies virus undergo pre-exposure prophylaxis. This study also confirms that molecular biology techniques were used successfully for antemortem diagnosis and therefore not only allow therapeutic methods to be developed, but also enable the source of infection in human rabies cases to be identified accurately and quickly.

Text in English

<http://www.scielo.br/pdf/rimtsp/v53n1/v53n1a07.pdf>



Evaluation of cost-effective strategies for rabies post-exposure vaccination in low-income countries

Hampson K, Cleaveland S, Briggs D

PLoS Negl Trop Dis. 2011 Mar; 5 (3): e982

BACKGROUND: Prompt post-exposure prophylaxis (PEP) is essential in preventing the fatal onset of disease in persons exposed to rabies. Unfortunately, life-saving rabies vaccines and biologicals are often neither accessible nor affordable, particularly to the poorest sectors of society who are most at risk and

upon whom the largest burden of rabies falls. Increasing accessibility, reducing costs and preventing delays in delivery of PEP should therefore be prioritized.

METHODOLOGY/PRINCIPAL FINDINGS: We analyzed different PEP vaccination regimens and evaluated their relative costs and benefits to bite victims and healthcare providers. We found PEP vaccination to be an extremely cost-effective intervention (from \$200 to less than \$60/death averted). Switching from intramuscular (IM) administration of PEP to equally efficacious intradermal (ID) regimens was shown to result in significant savings in the volume of vaccine required to treat the same number of patients, which could mitigate vaccine shortages, and would dramatically reduce the costs of implementing PEP. We present financing mechanisms that would make PEP more affordable and accessible, could help subsidize the cost for those most in need, and could even support new and existing rabies control and prevention programs.

CONCLUSIONS/SIGNIFICANCE: We conclude that a universal switch to ID delivery would improve the affordability and accessibility of PEP for bite victims, leading to a likely reduction in human rabies deaths, as well as being economical for healthcare providers.

Text in English

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3050908/pdf/pntd.0000982.pdf>

Eventos / Events

Brucellosis 2011, International Research Conference

21-23 September, 2011

Buenos Aires, Argentina

www.aam.org.ar/brucellosis2011

Student/Young Investigator Travel Awards to Attend the Brucellosis 2011 International Research Conference

Contingent upon funding of an award from the National Institutes of Allergy and Infectious Diseases, it is anticipated that a limited number of awards will be available to support the travel of doctoral students, postdoctoral fellows and young independent investigators (≤ 5 years beyond receipt of their doctoral degree) to make oral or poster presentations at the Brucellosis 2011 International Research Conference, which will be held September 21-23, 2011 in Buenos Aires, Argentina. Specific information about the meeting including registration and abstract submission deadlines can be found at the meeting website (www.aam.org.ar/brucellosis2011). Applications will be reviewed by an international committee composed of active *Brucella* investigators, and recipients for these awards will be selected based on a) the scientific quality of the abstract; and b) the applicant's eligibility based on the criteria listed above. If they wish, international applicants can identify themselves as residing in a region where brucellosis remains a serious public health concern, and U.S. applicants can inform the committee that they qualify for inclusion in the category of an underrepresented minority, as such factors will also be considered in the review of the applications. Awards will be limited to the cost of coach-class airfare, meeting registration, and lodging and meals, and **will not exceed \$1,000 per awardee**. Since these awards are being funded by the NIAID, it is important to note that to be eligible for reimbursement for airfare, the regulations set forth in Section 4.1.11 of the NIH Grants Policy Statement (http://grants.nih.gov/grants/policy/nihgps_2010/nihgps_ch4.htm) must be followed.

Attendees who wish to be considered for one of these awards should submit a copy of their abstract along with a brief curriculum vitae (including updated contact information) via e-mail to Dr. R. Martin Roop II, Department of Microbiology and Immunology, East Carolina University School of Medicine (roopr@ecu.edu) by May 28, 2011.

IV Congresso Nacional de Saúde Pública Veterinária e II Encontro Internacional de Saúde Pública Veterinária

20-23 Novembro, 2011

Curitiba, PR, Brasil

<http://www.abspv.org.br/ii-congresso-nacional-de-saude-publica-veterinaria/>



Salud Pública Veterinaria
Centro Panamericano de Fiebre Aftosa



Veterinary Public Health
Pan American Foot and Mouth Disease Center

Centro de Documentación / Documentation Center (CEDOC)

Teléfono / Phone: 55 21 3661-9045 -

<http://new.paho.org/panaftosa>

<http://bvs.panaftosa.org.br>

<http://bvs.panalimentos.org>

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