

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

The screenshot displays the PANAFTOSA website interface. At the top, there are logos for the Organización Panamericana de la Salud (OPS) and Organización Mundial de la Salud (OMS). Below the logos is a search bar and navigation links for 'Calendario Global', 'Contacto', 'webmail PANAFTOSA', 'File Cabinet', and 'Intranet'. The main content area is divided into several sections: 'Inicio' (Home), 'Acercas de PANAFTOSA' (About PANAFTOSA), 'Países y Centros' (Countries and Centers), 'Temas de Salud' (Health Topics), 'Eventos y Reuniones' (Events and Meetings), 'Sitios de Interés' (Sites of Interest), 'Unidades Técnicas' (Technical Units), 'Publicaciones' (Publications), 'Recursos' (Resources), 'Noticias PANAFTOSA' (PANAFTOSA News), 'Feeds', and 'Social Media' (Twitter, YouTube). The 'Eventos' section highlights the 'Segunda Conferencia mundial de los Laboratorios de Referencia y Centros Colaboradores de la OIE' (Second World Conference of Reference Laboratories and Collaborating Centers of the OIE) held in Buenos Aires, Argentina, from June 21-23, 2010. Other news items include 'OPS dice a los aficionados al fútbol: ¡La leche materna es el primer alimento de los campeones!' and 'PANAFTOSA participa do II Seminário de Gestão do Conhecimento realizado na OPAS/OMS no Brasil'.

El nuevo portal del Centro Panamericano de Fiebre Aftosa (PANAFTOSA) de la Organización Panamericana de la Salud / Organización Mundial de la Salud (OPS/OMS) fue lanzado en mayo reciente y visa la consolidación de la WEB 2.0 como herramienta de cooperación técnica.

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

Enfermedades Negligenciadas / Neglected Diseases



Which new approaches to tackling neglected tropical diseases show promise?

Spiegel JM, Dharamsi S, Wasan KM, Yassi A, Singer B, Hotez PJ, Hanson C, Bundy DA
PLoS Med. 2010 May; 7 (5): e1000255

This PLoS Medicine Debate examines the different approaches that can be taken to tackle neglected tropical diseases (NTDs). Some commentators, like Jerry Spiegel and colleagues from the University of British Columbia, feel there has been too much focus on the biomedical mechanisms and drug development for NTDs, at the expense of attention to the social determinants of disease. Burton Singer argues that this represents another example of the inappropriate "overmedicalization" of contemporary tropical disease control. Peter Hotez and colleagues, in contrast, argue that the best return on investment will continue to be mass drug administration for NTDs.

Text in English

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2872649/pdf/pmed.1000255.pdf>

Fiebre Aftosa / Foot-and-Mouth Disease



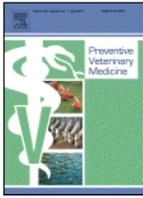
Deletion mutants of VPg reveal new cytopathology determinants in a picornavirus

Arias A, Perales C, Escarmis C, Domingo E
PLoS One 2010 May; 5 (5): e10735

BACKGROUND: Success of a viral infection requires that each infected cell delivers a sufficient number of infectious particles to allow new rounds of infection. In picornaviruses, viral replication is initiated by the viral polymerase and a viral-coded protein, termed VPg, that primes RNA synthesis. Foot-and-mouth disease virus (FMDV) is exceptional among picornaviruses in that its genome encodes 3 copies of VPg. Why FMDV encodes three VPgs is unknown. **METHODOLOGY AND PRINCIPAL FINDINGS:** we have constructed four mutant FMDVs that encode only one VPG: either VPg(1), VPg(3), or two chimeric versions containing part of VPg(1) and VPg(3). All mutants, except that encoding only VPg(1), were replication-competent. Unexpectedly, despite being replication-competent, the mutants did not form plaques on BHK-21 cell monolayers. The one-VPg mutant FMDVs released lower amounts of encapsidated viral RNA to the extracellular environment than wild type FMDV, suggesting that deficient plaque formation was associated with insufficient release of infectious progeny. Mutant FMDVs subjected to serial passages in BHK-21 cells regained plaque-forming capacity without modification of the number of copies of VPg. Substitutions in non-structural proteins 2C, 3A and VPg were associated with restoration of plaque formation. Specifically, replacement R55W in 2C was repeatedly found in several mutant viruses that had regained competence in plaque development. The effect of R55W in 2C was to mediate an increase in the extracellular viral RNA release without a detectable increase of total viral RNA that correlated with an enhanced capacity to alter and detach BHK-21 cells from the monolayer, the first stage of cell killing. **CONCLUSIONS:** The results link the VPg copies in the FMDV genome with the cytopathology capacity of the virus, and have unveiled yet another function of 2C: modulation of picornavirus cell-to-cell transmission. Implications for picornaviruses pathogenesis are discussed.

Text in English

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2873979/pdf/pone.0010735.pdf>



A modelling approach to support dynamic decision-making in the control of FMD epidemics

Ge L, Mourits MC, Kristensen AR, Huirne RB
Prev Vet Med. 2010 May; 95 (3-4): 167-74

Most studies on control strategies for contagious diseases such as foot-and-mouth disease (FMD) evaluate pre-defined control strategies and imply static decision-making during epidemic control. Such a static approach contradicts the dynamic nature of the decision-making process during epidemic control. This paper presents an integrated epidemic-economic modelling approach to support dynamic decision-making in controlling FMD epidemics. This new modelling approach reflects ongoing uncertainty about epidemic growth during epidemic control and provides information required by a dynamic decision process. As demonstrated for a Dutch FMD-case, the modelling approach outperforms static evaluation of pre-fixed control strategies by: (1) providing guidance to decision-making during the entire control process; and (2) generating more realistic estimation of the costs of overreacting or underreacting in choosing control options.

Text in English

Ganaderia- Diversidad Genetica / Livestock - Genetic Diversity



Genetic diversity in farm animals--a review

Groeneveld LF, Lenstra JA, Eding H, Toro MA, Scherf B, Pilling D, Negrini R, Finlay EK, Jianlin H, Groeneveld E, Weigend S; GLOBALDIV Consortium
Anim Genet. 2010 May; 41 Suppl 1:6-31

Domestication of livestock species and a long history of migrations, selection and adaptation have created an enormous variety of breeds. Conservation of these genetic resources relies on demographic characterization, recording of production environments and effective data management. In addition, molecular genetic studies allow a comparison of genetic diversity within and across breeds and a reconstruction of the history of breeds and ancestral populations. This has been summarized for cattle, yak, water buffalo, sheep, goats, camelids, pigs, horses, and chickens. Further progress is expected to benefit from advances in molecular technology. Domestication of livestock species and a long history of migrations, selection and adaptation have created an enormous variety of breeds. Conservation of these genetic resources relies on demographic characterization, recording of production environments and effective data management. In addition, molecular genetic studies allow a comparison of genetic diversity within and across breeds and a reconstruction of the history of breeds and ancestral populations. This has been summarized for cattle, yak, water buffalo, sheep, goats, camelids, pigs, horses, and chickens. Further progress is expected to benefit from advances in molecular technology.

Text in English

<http://infoscience.epfl.ch/record/148418/files/SJ4.pdf>

Influenza Aviar / Avian Influenza



A duplex real-time RT-PCR assay for detecting H5N1 avian influenza virus and pandemic H1N1 influenza virus

Kang XP, Jiang T, Li YQ, Lin F, Liu H, Chang GH, Zhu QY, Qin ED, Qin CF, Yang YH.
Virol J. 2010 Jun; 7 (1): 113

A duplex real-time reverse transcriptase polymerase chain reaction (RT-PCR) assay was improved for simultaneous detection of highly pathogenic H5N1 avian influenza virus and pandemic H1N1 (2009) influenza virus, which is suitable for early diagnosis of influenza-like patients and for epidemiological surveillance. The sensitivity of this duplex real-time RT-PCR assay was 0.02 TCID₅₀ (50% tissue culture infective dose) for H5N1 and 0.2 TCID₅₀ for the pandemic H1N1, which was the same as that of each single-target RT-PCR for pandemic H1N1 and even more sensitive for H5N1 with the same primers and probes. No cross reactivity of detecting other subtype influenza viruses or respiratory tract viruses was observed. Two hundred and thirty-six clinical specimens were tested by comparing with single real-time RT-PCR and result from the duplex assay was 100% consistent with the results of single real-time RT-PCR and sequence analysis.

Text in English

<http://www.virologyj.com/content/pdf/1743-422x-7-113.pdf>

Inocuidad de los Alimentos / Food Safety



Importancia de la inocuidad de los alimentos en el Cono Sur de América

De Dieu GC

IICA, Paraguay May 2010

Un mayor suministro de alimentos inocuos y sanos reduce los efectos de las enfermedades transmitidas por los alimentos (ETA), que provocan todos los años numerosas enfermedades y fallecimientos, además de tener consecuencias nocivas en la economía, tanto en los países en desarrollo como en los desarrollados. Asimismo la garantía de la inocuidad y calidad de las exportaciones de alimentos promueve el comercio internacional, que representa un medio para fomentar el crecimiento y reducir la pobreza.

Text in Spanish

http://www.iica.org.uy/index.php?option=com_content&view=article&id=548&Itemid=548

<http://www.iica.org.uy/images/stories/PDF/coy-junio.pdf>



Prepared Foods: Fast & Easy for the Consumer, but Prepared Safely?

Parsons BE

Food Safety June/July 2010

The larger retail chains have food safety specialists and good training programs in-house to ensure food safety throughout the operation. Today, this is a matter of necessity because of the potential negative impact that a foodborne illness would impose upon the business. Smaller operators—those that have three or four units—know about food safety and may have someone in a specialist oversight position. Other small establishments may understand most of the concepts, but may not have the time or money to put one person in charge of overseeing food safety in their organization. Consumers are confident that supermarkets will deliver safe food, but this is only one segment of the marketplace where you can obtain food. The focus needs to be on ALL retail establishments with the understanding that problems exist, issues should be resolved through training, and companies must find a way to have a designated person monitor food safety throughout the supply chain. But the big question is: how? How can food safety be instilled in employees? How are establishments held accountable? How can an establishment be proactive and prevent incidents, rather than being reactive when an outbreak occurs? Following Hazard Analysis and Critical Control Points (HACCP) guidelines may be one way, but few states require HACCP plans to be implemented. Prepared foods at retail would be safer with HACCP, but this process will not occur without both regulation and training.

Text in English

<http://www.foodsafetymagazine.com/article.asp?id=3671&sub=sub1>

Rabia / Rabies



Why does the prognosis remain so poor in human rabies?

Jackson AC

Expert Rev Anti Infect Ther. 2010 Jun; 8 (6): 623-5

Human rabies has been a problem since antiquity. Although rabies may be effectively prevented after a recognized exposure, medical management once the clinical disease develops has almost universally proved to be ineffective, resulting in a fatal outcome. Worldwide, there are at least 55,000 human cases of rabies each year, largely owing to transmission related to endemic dog rabies in developing countries in Asia and Africa. In North America, most human cases of rabies are caused by bat rabies variants, and there may be no history of a bat exposure in these cases.

Text in English

<http://www.expert-reviews.com/doi/full/10.1586/eri.10.50>

<http://www.expert-reviews.com/doi/pdfplus/10.1586/eri.10.50>



Salud Pública Veterinaria
Centro Panamericano de Fiebre Aftosa



Veterinary Public Health
Pan American Foot and Mouth Disease Center

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It's possible to have access to publications in the mentioned link under the summaries or to ask our Documentation Center for them via e-mail.

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