
La grippe aviaire et l'homme

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Influenza virus-like particles comprised of the HA, NA, and M1 proteins of H9N2 influenza virus induce protective immune responses in BALB/c mice

Titre : Influenza virus-like particles comprised of the HA, NA, and M1 proteins of H9N2 influenza virus induce protective immune responses in BALB/c mice

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Langue(s) : English

Type de document : Serial

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Résumé : Avian influenza viruses represent a growing threat for an influenza pandemic. To develop recombinant vaccine for avian influenza of the H9N2 subtype, we expressed in insect cells virus-like particles (VLPs) consisting of three structural proteins of influenza A/Hong Kong/1073/99 (H9N2) virus. Upon infection of Sf9 cells with recombinant baculoviruses, the hemagglutinin (HA), neuraminidase (NA), and matrix (M1) proteins were co-expressed in the infected cells, self-assembled, and released into the culture medium as VLPs of 80-120nm in diameter. VLPs exhibited functional characteristics of influenza virus including hemagglutination and neuraminidase activities. In BALB/c mice, VLPs elicited serum antibodies specific for influenza A/Hong Kong/1073/99 (H9N2) virus and inhibited replication of the influenza virus after challenge. Thus, VLPs represent a potential strategy for the development of human vaccines against avian influenza H9N2 viruses.

Code(s) de classement : 002A05F04; 002A05C10

Descripteur(s) anglais

Descripteur(s) : Influenzavirus; Mouse; Virus like particle; Protein; Immunoprotection; Vaccine; Avian influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Virology; Microbiology; Biological sciences; Orthomyxoviridae; Virus; Rodentia; Mammalia; Vertebrata

Descripteur(s) français

Descripteur(s) : Influenzavirus; Souris; Particule type viral; Proteine; Immunoprotection; Vaccin; Grippe aviaire

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquee; Microbiologie; Sciences biologiques; Virologie; Microbiologie; Sciences biologiques; Orthomyxoviridae; Virus; Rodentia; Mammalia; Vertebrata

Localisation : INIST, Shelf number 20289, INIST No. 354000134455400070

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Highly pathogenic avian influenza (H7N7) : Vaccination of zoo birds and transmission to non-poultry species

Titre : Highly pathogenic avian influenza (H7N7) : Vaccination of zoo birds and transmission to non-poultry species

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Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

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Résumé : In 2003 an outbreak of highly pathogenic avian influenza virus (H7N7) struck poultry in The Netherlands. A European Commission directive made vaccination of valuable species in zoo collections possible under strict conditions. We determined pre- and post-vaccination antibody titres in 211 birds by haemagglutination inhibition test as a measure of vaccine efficacy. After booster vaccination, 81.5% of vaccinated birds developed a titre of ≥ 40 , while overall geometric mean titre (GMT) was 190 (95% CI: 144-251). Birds of the orders Anseriformes, Galliformes and Phoenicopteriformes showed higher GMT, and larger percentages developed titres ≥ 40 than those of the other orders. Antibody response decreased with increasing mean body weight in birds ≥ 1.5 kg body weight. In the vicinity of the outbreak, H7N7 was detected by RT-PCR in wild species (mallards and mute swans) kept in captivity together with infected poultry, illustrating the potential threat of transmission from poultry into other avian species, and the importance of protecting valuable avian species by means of vaccination.

Code(s) de classement : 002A05F04

Descripteur(s) anglais

Descripteur(s) : Aves; Pathogenicity; Vaccination; Transmission; Poultry; Vaccine; Avian influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Vertebrata; Veterinary

Descripteur(s) français

Descripteur(s) : Aves; Pouvoir pathogene; Vaccination; Transmission; Volaille; Vaccin; Grippe aviaire

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquee; Microbiologie; Sciences biologiques; Vertebrata; Veterinaire

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Anticipating crisis : Towards a pandemic flu vaccination strategy through alignment of public health and industrial policy

Titre : Anticipating crisis : Towards a pandemic flu vaccination strategy through alignment of public health and industrial policy

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Langue(s) : English

Type de document : Serial

Nombre de références : 37 ref.

Résumé : Flu pandemics (worldwide epidemics) have occurred at irregular and unpredictable intervals, and have been associated with substantial morbidity, mortality and economic cost. In response to the emerging potential for a new pandemic to occur, national and international preparedness plans are being drawn up specifying the use of antivirals and vaccines. A number of challenges to pandemic vaccine development, large-scale production and the timing of distribution have also been highlighted. This article reviews the rationale and consequential policy for aligned public- and private sector planning in the present inter-pandemic period despite the prevalent risks and uncertainties. We propose a model for product development of pandemic flu vaccine based on public-private partnership, including push and pull incentive mechanisms for stimulating work in this therapeutic area. In addition, we argue that innovative vaccination strategies, together with special vaccine formulations which may offer cross-protection against multiple flu pandemic strains might avert the worse effects of an influenza infection.

Code(s) de classement : 002A05F04

Descripteur(s) anglais

Descripteur(s) : Vaccination; Public health

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences

Descripteur(s) français

Descripteur(s) : Vaccination; Sante publique

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquee; Microbiologie; Sciences biologiques

Localisation : INIST, Shelf number 20289, INIST No. 354000134455400050

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A review of vaccine research and development : Human acute respiratory infections

Titre : A review of vaccine research and development : Human acute respiratory infections

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Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

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Résumé : Worldwide, acute respiratory infections (ARIs) constitute the leading cause of acute illnesses, being responsible for nearly 4 million deaths every year, mostly in young children and infants in developing countries. The main infectious agents responsible for ARIs include influenza virus, respiratory syncytial virus (RSV), parainfluenza virus type 3 (PIV-3), Streptococcus pneumoniae and Haemophilus influenzae. While effective vaccines against influenza, H. influenzae type b (Hib) and S. pneumoniae infections have been available for several years, no vaccine is available at present against illnesses caused by RSV, PIV-3, metapneumovirus or any of the three novel coronaviruses. In addition, the threat constituted by the multiple outbreaks of avian influenza during the last few years is urgently calling for the development of new influenza vaccines with broader spectrum of efficacy, which could provide immunity against an avian influenza virus pandemic. This article reviews the state of the art in vaccine R&D against ARIs and attempts to address these basic public health questions.

Code(s) de classement : 002A05F04; 002A05B15; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Human; Haemophilus influenzae; Review; Vaccine; Research and development; Acute; Pneumococcal infection; Bronchiolitis; Severe acute respiratory syndrome; Influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Bacteriology; Microbiology; Biological sciences; Virology; Infectious diseases; Medical sciences; Pasteurellaceae; Bacteria; Streptococcal infection; Bacteriosis; Infection; Respiratory disease; Viral disease; Lung disease; Bronchus disease

Descripteur(s) français

Descripteur(s) : Homme; Haemophilus influenzae; Article synthese; Vaccin; Recherche developpement; Aigu; Pneumococcie; Bronchiolite; Syndrome respiratoire aigu severe; Grippe; Virus respiratoire syncytial

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquee; Microbiologie; Sciences biologiques; Bacteriologie; Microbiologie; Sciences biologiques; Virologie; Maladies infectieuses; Sciences medicales; Pasteurellaceae; Bacterie; Streptococcie; Bacteriose; Infection; Appareil respiratoire pathologie; Virose; Poumon pathologie; Bronche pathologie

Localisation : INIST, Shelf number 20289, INIST No. 354000134455400030

Origine de la notice : INIST

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Genetic characterization of H5N1 avian influenza viruses isolated in southern China during the 2003-04 avian influenza outbreaks

Titre : Genetic characterization of H5N1 avian influenza viruses isolated in southern China during the 2003-04 avian influenza outbreaks

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Date de publication : 2005

Pays de publication : Austria

Langue(s) : English

Type de document : Serial

Type de document : short-communication

Nombre de références : 26 ref.

Résumé : The recent H5N1 avian influenza outbreaks in Asia spread over more than 8 countries. It has caused enormous economic loss and grand challenges for the public health. During these breakouts we isolated three strains of H5N1 Avian Influenza Virus (AIV) from chickens and one from duck in different farms of Southern China. We completely sequenced these four AIVs. Molecular characterization demonstrated that these strains retain the reported H5N1 AIV sequence properties relevant to virus virulence and host adaptation. Phylogeny results demonstrated that three of these isolates (except A/Chicken/Guangdong/174/04) were closely linked to other H5N1 AIVs isolated from the recent H5N1 outbreaks in Asia. Six of 8 segments (except PA and M) of A/Chicken/Guangdong/174/04 also shares a close linkage to other H5N1 AIVs isolated from the recent H5N1 outbreaks. However, the PA gene of A/Chicken/Guangdong/174/04 and another H5N1 strain forms a distinct subgroup along with an H6N1 AIV, and the M gene of A/Chicken/Guangdong/174/04 shows a close linkage to some H5N1 AIVs from aquatic species in China. Our findings suggest that a new genotype of AIV (in addition to previous reported ones) was present during the 2003-04 Asian bird flu outbreaks and that continuing virus surveillance of AIVs be conducted to monitor the evolutionary paths of the A/Chicken/Guangdong/174/04-like AIVs.

Code(s) de classement : 002A05C04; 002B05C03; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Avian influenza; Aves; Clinical isolate; China; Molecular epidemiology; Poultry; Phylogeny; Avian influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Virology; Infectious diseases; Medical sciences; Virology; Infectious diseases; Medical sciences; Influenzavirus A; Orthomyxoviridae; Virus; Vertebrata; Asia; Veterinary; Farming animal

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; Aves; Isolat clinique; Chine; Epidemiologie moleculaire; Volaille; Phylogenese; Grippe aviaire

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Virologie; Maladies infectieuses; Sciences medicales; Virologie; Maladies infectieuses; Sciences medicales; Influenzavirus A; Orthomyxoviridae; Virus; Vertebrata; Asie; Veterinaire; Animal elevage

Localisation : INIST, Shelf number 6355, INIST No. 354000124953220180

Origine de la notice : INIST

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Oseltamivir resistance during treatment of influenza A (H5N1) infection

Titre : Oseltamivir resistance during treatment of influenza A (H5N1) infection

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Langue(s) : English

Type de document : Serial

Type de document : short-communication

Nombre de références : 16 ref.

Résumé : Influenza A (H5N1) virus with an amino acid substitution in neuraminidase conferring high-level resistance to oseltamivir was isolated from two of eight Vietnamese patients during oseltamivir treatment. Both patients died of influenza A (H5N1) virus infection, despite early initiation of treatment in one patient. Surviving patients had rapid declines in the viral load to undetectable levels during treatment. These observations suggest that resistance can emerge during the currently recommended regimen of oseltamivir therapy and may be associated with clinical deterioration and that the strategy for the treatment of influenza A (H5N1) virus infection should include additional antiviral agents.

Code(s) de classement : 002B01; 002B02S05

Descripteur(s) anglais

Descripteur(s) : Oseltamivir; Treatment resistance; Influenza A; Medicine; Antiviral; Influenzavirus AH5N1

Desc. génériques : Medical sciences; Virology; Infectious diseases; Pharmacology; Medical sciences; Viral disease; Infection; Exo <alpha> sialidase; O Glycosidases; Glycosidases; Hydrolases; Enzyme; Enzyme inhibitor; Neuraminidase inhibitor

Descripteur(s) français

Descripteur(s) : Oseltamivir; Résistance traitement; Grippe A; Médecine; Antiviral; Influenzavirus AH5N1

Desc. génériques : Sciences médicales; Virologie; Maladies infectieuses; Pharmacologie; Sciences médicales; Virose; Infection; Exo <alpha> sialidase; O Glycosidases; Glycosidases; Hydrolases; Enzyme; Inhibiteur enzyme; Inhibiteur neuraminidase

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Risk management and global governance of zoonosis

Titre : Risk management and global governance of zoonosis

Auteur(s) : Ministry of Education Culture Sports Science and Technology of Japan MEXT 21st Century COE Program for Zoonosis Control, Japan, org cong.; Japan Society for the Promotion of Science JSPS, Japan, org cong.

Source : Environmental health and preventive medicine. 2005; 10 (5) : 249-314

Informations congrès : *International Symposium for Zoonosis Control, *7, *Sapporo City Japan, *2004-10-05

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Pays de publication : Japan

Langue(s) : English

Type de document : Serial; *Conference-Meeting

Nombre de références : dissem.

Code(s) de classement : 002B30A03A

Descripteur(s) anglais

Descripteur(s) : Risk management; Zoonosis; Human; Public health; Congress; Bovine spongiform encephalopathy; Severe acute respiratory syndrome

Desc. génériques : Public health; Medical sciences; Prion disease; Infection; Viral disease; Respiratory disease; Lung disease

Descripteur(s) français

Descripteur(s) : Gestion risque; Zoonose; Homme; Sante publique; Congres; Encephalopathie spongiforme bovine; Syndrome respiratoire aigu severe; Grippe aviaire

Desc. génériques : Sante publique; Sciences medicales; Prion maladie; Infection; Virose; Appareil respiratoire pathologie; Poumon pathologie

Localisation : INIST, Shelf number 26502, INIST No. 354000135172720035

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New genotype of avian influenza H5N1 viruses isolated from tree sparrows in China

Titre : New genotype of avian influenza H5N1 viruses isolated from tree sparrows in China

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Date de publication : 2005

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 21 ref.

Résumé : The 2004 outbreaks of highly pathogenic avian influenza H5N1 disease in China led to a great poultry loss and society attention. A survey of avian influenza viruses was conducted on tree sparrows (*Passer montanus*) collected in China in 2004. Four viruses were isolated from free-living tree sparrows. The results of the whole-genome analysis indicated that an H5N1 virus with a new genotype is circulating among tree sparrows. The hemagglutinin and neuraminidase genes of the new genotype were derived from Gs/Gd/96-like viruses and the nuclear protein gene descended from the 2001 genotype A H5N1 viruses, while the other inner genes originated from an unknown influenza virus. In experimental infection, all four viruses were highly pathogenic to chickens but not pathogenic to ducks or mice. The four tree sparrow viruses were different from the 2003 tree sparrow strain (genotype Z) in Hong Kong. The results suggested that H5N1 viruses might be distributed widely in tree sparrows.

Code(s) de classement : 002A05C10

Descripteur(s) anglais

Descripteur(s) : Genotype; China; Microbiology; Virology; Avian influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Asia

Descripteur(s) français

Descripteur(s) : Genotype; Chine; Microbiologie; Virologie; Grippe aviaire

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Asie

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Origine de la notice : INIST

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Bioprocess engineering issues that would be faced in producing a DNA vaccine at up to 100 m³ fermentation scale for an influenza pandemic

Titre : Bioprocess engineering issues that would be faced in producing a DNA vaccine at up to 100 m³ fermentation scale for an influenza pandemic

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Source : Biotechnology progress. 2005; 21 (6) : 1577-1592

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Date de publication : 2005

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 135 ref.

Résumé : The risk of a pandemic with a virulent form of influenza is acknowledged by the World Health Organization (WHO) and other agencies. Current vaccine production facilities would be unable to meet the global requirement for vaccine. As a possible supplement a DNA vaccine may be appropriate, and bioprocess engineering factors bearing on the use of existing biopharmaceutical and antibiotics plants to produce it are described. This approach addresses the uncertainty of timing of a pandemic that precludes purpose-built facilities. The strengths and weaknesses of alternative downstream processing routes are analyzed, and several gaps in public domain information are addressed. The conclusion is that such processing would be challenging but feasible.

Code(s) de classement : 002A31; 215

Descripteur(s) anglais

Descripteur(s) : Operating process; Genetic vaccine; Fermentation; Influenza

Desc. génériques : Biotechnology; Biological sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Procédé; Vaccin génétique; Fermentation; Grippe

Desc. génériques : Biotechnologie; Sciences biologiques; Virose; Infection

Localisation : INIST, Shelf number 20940, INIST No. 354000134512660010

Origine de la notice : INIST

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A new European perspective of influenza pandemic planning with a particular focus on the role of mammalian cell culture vaccines

Titre : A new European perspective of influenza pandemic planning with a particular focus on the role of mammalian cell culture vaccines

Auteur(s) : OXFORD J S; MANUGUERRA C; KISTNER O; LINDE A; KUNZE M; LANGE W; SCHWEIGER B; SPALA G; DE ANDRADE H Rebelo; PEREZ BRENA P R; BEYTOUT J; BRYDAK L; DE STEFANO D Caraffa; HUNGNES O; KYNCL J; MONTOMOLI E; GIL DE MIGUEL A; VRANCKX R; OSTERHAUS A

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Langue(s) : English

Type de document : Serial

Nombre de références : 54 ref.

Résumé : Sixteen EU scientists and doctors were interviewed about pandemic planning using psychometric methods applied to a scientific problem for the first time. Criticism was aimed at countries which have no plan whatsoever, the majority of nations. Many such countries have not invested in scientific infrastructure and public health. Amongst the 15 or so published pandemic plans a lack of detail was identified. Of particular need was investment into avian virus vaccine stocks (H1-15), prepared licenses of vaccine and pre purchase and agreed distribution, investment into stocks of antivirals, antibiotics and masks. Most but not all members of the group predicted a global outbreak within 5 years, most probably starting in SE Asia. However it was recognised that a pandemic could start anywhere in the world which had juxta position of young people, chickens, ducks and pigs. Mammalian cell culture production using wild type virus with the production factory at category III levels of security was exemplified. Antivirals would be essential to ameliorate the first wave of infection although significant quantities of cell grown vaccine could be produced if, as in 1918, 1957 and 1968 there is a long period between the first virus isolation and person to person spread. The wider scientific community is more energised than previously for very serious preparations to be in place way before the outbreak begins as this is a major public health problem, completely dwarfing concerns about bioterrorism.

Code(s) de classement : 002A05F04

Descripteur(s) anglais

Descripteur(s) : Mammalia; Cell culture; Vaccine; Antiviral; Influenza A

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Vertebrata; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Mammalia; Culture cellulaire; Vaccin; Antiviral; Grippe A

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Vertebrata; Virose; Infection

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Protection against multiple influenza A subtypes by vaccination with highly conserved nucleoprotein

Titre : Protection against multiple influenza A subtypes by vaccination with highly conserved nucleoprotein

Auteur(s) : EPSTEIN Suzanne L; KONG Wing Pui; MISPLON Julia A; LO Chia Yun; TUMPEY Terrence M; LING XU; NABEL Gary J

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Source : Vaccine . 2005; 23 (46-47) : 5404-5410

ISSN : 0264-410X

CODEN : VACCDE

Date de publication : 2005

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 35 ref.

Résumé : Influenza epidemic and pandemic strains cannot be predicted with certainty. Current vaccines elicit antibodies effective against specific strains, but new strategies are urgently needed for protection against unexpected strains. DNA vaccines encoding conserved antigens protect animals against diverse subtypes, but their potency needs improvement. We tested DNA prime-recombinant adenoviral boost immunization to nucleoprotein (NP). Strong antibody and T cell responses were induced. Protection against challenge was T cell-dependent and substantially more potent than DNA vaccination alone. Importantly, vaccination protected against lethal challenge with highly pathogenic H5N1 virus. Thus, gene-based vaccination with NP may contribute to protective immunity against diverse influenza viruses through its ability to stimulate cellular immunity.

Code(s) de classement : 002A05F04; 002A05C10

Descripteur(s) anglais

Descripteur(s) : Adenoviridae; Subtype; Vaccination; Nucleoprotein; Genetic vaccine; Vector; Antigen; Animal model; Influenza A; Avian influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Virology; Microbiology; Biological sciences; Virus; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Adenoviridae; Soustype; Vaccination; Nucleoproteine; Vaccin genetique; Vecteur; Antigene; Modele animal; Grippe A; Grippe aviaire

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquee; Microbiologie; Sciences biologiques; Virologie; Microbiologie; Sciences biologiques; Virus; Virose; Infection

Localisation : INIST, Shelf number 20289, INIST No. 354000121379080200

Origine de la notice : INIST

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Pathogenicity of influenza viruses with genes from the 1918 pandemic virus : Functional roles of alveolar macrophages and neutrophils in limiting virus replication and mortality in mice

Titre : Pathogenicity of influenza viruses with genes from the 1918 pandemic virus : Functional roles of alveolar macrophages and neutrophils in limiting virus replication and mortality in mice

Auteur(s) : TUMPEY Terrence M; GARCIA SASTRE Adolfo; TAUBENBERGER Jeffery K; PALESE Peter; SWAYNE David E; PANTIN JACKWOOD Mary J; SCHULTZ CHERRY Stacey; SOLORZANO Alicia; VAN ROOIJEN Nico; KATZ Jacqueline M; BASLER Christopher F

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Source : Journal of virology. 2005; 79 (23) : 14933-14944

ISSN : 0022-538X

Date de publication : 2005

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 77 ref.

Résumé : The Spanish influenza pandemic of 1918 to 1919 swept the globe and resulted in the deaths of at least 20 million people. The basis of the pulmonary damage and high lethality caused by the 1918 H1N1 influenza virus remains largely unknown. Recombinant influenza viruses bearing the 1918 influenza virus hemagglutinin (HA) and neuraminidase (NA) glycoproteins were rescued in the genetic background of the human A/Texas/36/91 (H1N1) (1918 HA/NA:Tx/91) virus. Pathogenesis experiments revealed that the 1918 HA/NA:Tx/91 virus was lethal for BALB/c mice without the prior adaptation that is usually required for human influenza A H1N1 viruses. The increased mortality of 1918 HA/NA:Tx/91-infected mice was accompanied by (i) increased (>200-fold) viral replication, (ii) greater influx of neutrophils into the lung, (iii) increased numbers of alveolar macrophages (AMs), and (iv) increased protein expression of cytokines and chemokines in lung tissues compared with the levels seen for control Tx/91 virus-infected mice. Because pathological changes in AMs and neutrophil migration correlated with lung inflammation, we assessed the role of these cells in the pathogenesis associated with 1918 HA/NA:Tx/91 virus infection. Neutrophil and/or AM depletion initiated 3 or 5 days after infection did not have a significant effect on the disease outcome following a lethal 1918 HA/NA:Tx/91 virus infection. By contrast, depletion of these cells before a sublethal infection with 1918 HA/NA:Tx/91 virus resulted in uncontrolled virus growth and mortality in mice. In addition, neutrophil and/or AM depletion was associated with decreased expression of cytokines and chemokines. These results indicate that a human influenza H1N1 virus possessing the 1918 HA and NA glycoproteins can induce severe lung inflammation consisting of AMs and neutrophils, which play a role in controlling the replication and spread of 1918 HA/NA:Tx/91 virus after intranasal infection of mice.

Code(s) de classement : 002A05C10; 002A05C04

Descripteur(s) anglais

Descripteur(s) : Virus; Mouse; Pathogenicity; Gene; Pulmonary alveolus; Neutrophil; Replication; Microbiology; Virology; Influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Virology; Microbiology; Biological sciences; Rodentia; Mammalia; Vertebrata; Respiratory system; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Virus; Souris; Pouvoir pathogene; Gene; Alveole pulmonaire; Neutrophile; Replication; Microbiologie; Virologie; Grippe

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Virologie; Microbiologie; Sciences biologiques; Rodentia; Mammalia; Vertebrata; Appareil respiratoire; Virose; Infection

Localisation : INIST, Shelf number 13592, INIST No. 354000135123560470

Origine de la notice : INIST

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Masques et vaccins contre la grippe aviaire

Titre : Masques et vaccins contre la grippe aviaire

Auteur(s) : MAILLARD Christine

Source : Concours medical Paris. 2005; 127 (38) : 2171-2173

ISSN : 0010-5309

CODEN : COMEAO

Date de publication : 2005

Pays de publication : France

Langue(s) : French

Type de document : Serial

Nombre de références : 5 ref.

Code(s) de classement : 002B01; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Mask; Vaccine; Avian influenza

Desc. génériques : Medical sciences; Virology; Infectious diseases; Medical sciences

Descripteur(s) français

Descripteur(s) : Masque; Vaccin; Grippe aviaire

Desc. génériques : Sciences médicales; Virologie; Maladies infectieuses; Sciences médicales

Localisation : INIST, Shelf number 10949, INIST No. 354000135450590020

Origine de la notice : INIST

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Preparing for pandemic influenza : Should hospitals stockpile oseltamivir?

Titre : Preparing for pandemic influenza : Should hospitals stockpile oseltamivir?

Auteur(s) : CINTI Sandro; CHENOWETH Carol; MONTO Arnold S

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Source : Infection control and hospital epidemiology. 2005; 26 (11) : 852-854

ISSN : 0899-823X

Date de publication : 2005

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 27 ref.

Résumé : The outbreak of H5N1 avian influenza in Asia has reignited concerns about an influenza pandemic. It is clear that influenza vaccine will be in short supply (or nonexistent) early in an influenza pandemic. Without vaccine, the role of antiviral agents, especially oseltamivir, in treatment and prophylaxis is of paramount importance. Unfortunately, the government cannot possibly stockpile enough oseltamivir to provide long-term prophylaxis or treatment for every healthcare worker in the United States. We think that hospitals should consider stockpiling oseltamivir, and we provide a strategy for doing so at a reasonable cost.

Code(s) de classement : 002B30A11; 002B05C02C; 002B02S05

Descripteur(s) anglais

Descripteur(s) : Influenza; Oseltamivir; Hospital; Public health; Antiviral

Desc. génériques : Public health; Medical sciences; Virology; Infectious diseases; Medical sciences; Virology; Infectious diseases; Pharmacology; Medical sciences; Viral disease; Infection; Exo <alpha> sialidase; O Glycosidases; Glycosidases; Hydrolases; Enzyme; Enzyme inhibitor; Neuraminidase inhibitor

Descripteur(s) français

Descripteur(s) : Grippe; Oseltamivir; Hopital; Sante publique; Antiviral

Desc. génériques : Sante publique; Sciences medicales; Virologie; Maladies infectieuses; Sciences medicales; Virologie; Maladies infectieuses; Pharmacologie; Sciences medicales; Virose; Infection; Exo <alpha> sialidase; O Glycosidases; Glycosidases; Hydrolases; Enzyme; Inhibiteur enzyme; Inhibiteur neuraminidase

Localisation : INIST, Shelf number 19430, INIST No. 354000132807070010

Origine de la notice : INIST

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Characterization of the 1918 influenza virus polymerase genes

Titre : Characterization of the 1918 influenza virus polymerase genes

Auteur(s) : TAUBENBERGER Jeffery K; REID Ann H; LOURENS Raina M; RUIXUE WANG; GUOZHONG JIN; FANNING Thomas G

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Source : Nature London. 2005; 437 (7060) : 889-893

ISSN : 0028-0836

CODEN : NATUAS

Date de publication : 2005

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Type de document : correspondence,-letters

Nombre de références : 30 ref.

Résumé : The influenza A viral heterotrimeric polymerase complex (PA, PB1, PB2) is known to be involved in many aspects of viral replication and to interact with host factors¹, thereby having a role in host specificity^{2,3}. The polymerase protein sequences from the 1918 human influenza virus differ from avian consensus sequences at only a small number of amino acids, consistent with the hypothesis that they were derived from an avian source shortly before the pandemic. However, when compared to avian sequences, the nucleotide sequences of the 1918 polymerase genes have more synonymous differences than expected, suggesting evolutionary distance from known avian strains. Here we present sequence and phylogenetic analyses of the complete genome of the 1918 influenza virus^{4,8}, and propose that the 1918 virus was not a reassortant virus (like those of the 1957 and 1968 pandemics^{9,10}), but more likely an entirely avian-like virus that adapted to humans. These data support prior phylogenetic studies suggesting that the 1918 virus was derived from an avian source". A total of ten amino acid changes in the polymerase proteins consistently differentiate the 1918 and subsequent human influenza virus sequences from avian virus sequences. Notably, a number of the same changes have been found in recently circulating, highly pathogenic H5N1 viruses that have caused illness and death in humans and are feared to be the precursors of a new influenza pandemic. The sequence changes identified here maybe important in the adaptation of influenza viruses to humans.

Code(s) de classement : 002A05C05

Descripteur(s) anglais

Descripteur(s) : Influenza A virus; RNA directed RNA polymerase; Phylogenetic tree; Gene; Comparative study; Strain; Influenza A

Desc. génériques : Genetics; Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Nucleotidyltransferases; Transferases; Enzyme; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Virus grippal A; RNA directed RNA polymerase; Arbre phylogenetique; Gene; Etude comparative; Souche; Grippe A

Desc. génériques : Genetique; Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Nucleotidyltransferases; Transferases; Enzyme; Virose; Infection

Localisation : INIST, Shelf number 142, INIST No. 354000131640260210

Origine de la notice : INIST

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Les antiviraux dans la grippe : Un complement a la vaccination, dans certains cas; Antivirals for the treatment of influenza: to complement influenza vaccine, in some cases

Titre : Les antiviraux dans la grippe : Un complement a la vaccination, dans certains cas; Antivirals for the treatment of influenza: to complement influenza vaccine, in some cases

Source : La Revue Prescrire. 2005; 25 (265) : 678-681

ISSN : 0247-7750

Date de publication : 2005

Pays de publication : France

Langue(s) : French

Type de document : Serial

Nombre de références : 12 ref.

Résumé : <Mathematical point> La grippe est une affection respiratoire aigue frequente, a l' origine d' epidemies annuelles. Durant le 20^e siecle, trois pandemies graves sont survenues en 1918-1919, 1957 et 1968, du fait notamment de la variabilite genetique du virus grippal de type A. <Mathematical point> Au cours des epidemies annuelles en zone temperee, l' incidence des hospitalisations augmente. Habituellement, plus de 90 % des deces lies a la grippe surviennent chez des personnes agees de plus de 65 ans. <Mathematical point> Les manifestations cliniques de la grippe ne sont pas specifiques. Les complications sont principalement des infections des voies respiratoires, notamment pulmonaires, et touchent le plus souvent des personnes fragiles: personnes agees de plus de 65 ans, enfants ages de moins de 1 an, personnes atteintes de pathologies chroniques (pulmonaires, cardiaques, renales ou metaboliques) ou de deficits immunitaires. <Mathematical point> La vaccination est la mesure preventive de premier choix. Habituellement, la souche vaccinale et la souche epidemique ont une bonne proximite antigenique: la vaccination des personnes agees de plus de 65 ans permet de reduire, en valeur relative, d' environ 80 % les deces lies a la grippe, d' environ 50 % les hospitalisations ou les pneumonies, et d' environ 30 % les episodes symptomatiques de grippe. Elle est recommandee chaque annee, egalement chez des personnes plus jeunes, a risque de complications en raison d' une maladie grave. <Mathematical point> En 2005, trois medicaments antiviraux sont commercialises en France pour le traitement preventif ou curatif de la grippe: l' omantodine, et deux inhibiteurs de la neuraminidase, le zanamivir et l' oseltomivir. <Mathematical point> Aucun essai comparatif randomise n' a evalue l' efficacite des antiviraux principalement en termes de deces et de complications de la grippe. <Mathematical point> Chez les personnes en bonne sante, selon une synthese methodique de 20 essais comparatifs randomises ayant inclus environ 2 500 participants, l' amantodine a reduit la frequence des episodes symptomatiques d' allure grippale de 7 % environ en valeur absolue (26,3 % versus 33,1 % sous placebo). Sous zanamivir ou oseltomivir, seule une reduction des episodes de grippe confirmes par serologie a ete demontree: 0,4 % a 2,5 % sous inhibiteur de la neuraminidase, versus 4,4 % a 14,9 % sous placebo. <Mathematical point> Dans un essai randomise oseltamivir versus placebo chez 548 personnes agees de plus de 65 ans vivant en collectivites et vaccinees dans plus de 80 % des cas, les infections respiratoires ont ete moins frequentes dans le groupe oseltomivir, mais ce resultat est peu robuste en raison du faible nombre de cas. <Mathematical point> L' utilisation d' antiviraux au cours d' epidemie de grippe aviaire a ete etudiee lors de l' epidemie neerlandaise du type A/H7N7 de 2003. Parmi les 38 personnes exposees qui ont ete traitees, environ 3 % ont ete symptomatiques, versus environ 10 % parmi les 52 personnes exposees qui ont refuse le traitement (p = 0,38). La puissance statistique insuffisante et l' absence de tirage au sort ne permettent ni d' affirmer ni d' infirmer une efficacite preventive eventuelle. <Mathematical point> Les profils d' effets indesirables et d' interactions medicamenteuses des trois antiviraux sont differents. L' amantadine expose a des effets indesirables neuropsychiques, atropiniques et dopaminergiques, et a des interactions avec les medicaments ayant des effets semblables. Le zanamivir expose a des bronchospasmes parfois mortels. On dispose encore de peu de recul avec l' oseftomivir; pour le moment, ses effets indesirables connus sont surtout des troubles digestifs benins; quelques cas d' effets indesirables cutanes graves ont ete rapportes depuis la commercialisation. <Mathematical point> L' apparition d' une resistance in vitro a ete rapportee apres utilisation pour chacun de ces antiviraux, mais les consequen

Code(s) de classement : 002B02S05

Descripteur(s) anglais

Descripteur(s) : Toxicity; Chemotherapy; Vaccination; Prevention; Influenza; Treatment; Human; Review; Oseltamivir; Zanamivir; Amantadine; Complication; Antiviral

Desc. génériques : Virology; Infectious diseases; Pharmacology; Medical sciences; Viral disease; Infection; Neuraminidase inhibitor; Enzyme inhibitor; Exo <alpha> sialidase; O Glycosidases; Glycosidases; Hydrolases; Enzyme; Agonist; Dopamine receptor; Glutamate receptor; NMDA receptor; Dopamine agonist; Antagonist

Descripteur(s) français

Descripteur(s) : Toxicite; Chimiotherapie; Vaccination; Prevention; Grippe; Traitement; Homme; Article synthese; Oseltamivir; Zanamivir; Amantadine; Complication; Antiviral

Desc. génériques : Virologie; Maladies infectieuses; Pharmacologie; Sciences medicales; Virose; Infection; Inhibiteur neuraminidase; Inhibiteur enzyme; Exo <alpha> sialidase; O Glycosidases; Glycosidases; Hydrolases; Enzyme; Agoniste; Recepteur dopaminergique; Recepteur glutamate; Recepteur NMDA; Stimulant dopaminergique; Antagoniste

Localisation : INIST, Shelf number 21322, INIST No. 354000131702620340

Origine de la notice : INIST

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Human infection with an avian H9N2 influenza A virus in Hong Kong in 2003

Titre : Human infection with an avian H9N2 influenza A virus in Hong Kong in 2003

Auteur(s) : BUTT K M; SMITH Gavin J D; HONGLIN CHEN; ZHANG L J; CONNIE LEUNG Y H; XU K M; LIM Wilina; WEBSTER Robert G; YUEN K Y; PEIRIS J S Malik; YI GUAN

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Source : Journal of clinical microbiology Print. 2005; 43 (11) : 5760-5767

ISSN : 0095-1137

CODEN : JCMIDW

Date de publication : 2005

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 23 ref.

Résumé : Avian H9N2 influenza A virus has caused repeated human infections in Asia since 1998. Here we report that an H9N2 influenza virus infected a 5-year-old child in Hong Kong in 2003. To identify the possible source of the infection, the human isolate and other H9N2 influenza viruses isolated from Hong Kong poultry markets from January to October 2003 were genetically and antigenically characterized. The findings of this study show that the human H9N2 influenza virus, A/Hong Kong/2108/03, is of purely avian origin and is closely related to some viruses circulating in poultry in the markets of Hong Kong. The continued presence of H9N2 influenza viruses in poultry markets in southern China increases the likelihood of avian-to-human interspecies transmission.

Code(s) de classement : 002A05; 002B05

Descripteur(s) anglais

Descripteur(s) : Human; Hong Kong; Microbiology; Influenza A; Avian influenza

Desc. génériques : Microbiology; Biological sciences; Infectious diseases; Medical sciences; China; Asia; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Homme; Hong Kong; Microbiologie; Grippe A; Grippe aviaire

Desc. génériques : Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences médicales; Chine; Asie; Virose; Infection

Localisation : INIST, Shelf number 17088, INIST No. 354000135136510520

Origine de la notice : INIST

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Serological analysis of serum samples from humans exposed to avian H7 influenza viruses in Italy between 1999 and 2003. Commentary

Titre : Serological analysis of serum samples from humans exposed to avian H7 influenza viruses in Italy between 1999 and 2003. Commentary

Auteur(s) : HAYDEN Frederick, comment; CROISIER Alice, comment; PUZELLI Simona; DI TRANI Livia; FABIANI Concetta; CAMPITELLI Laura; DE MARCO Maria Alessandra; CAPUA Laria; AGUILERA Jean Francois; ZAMBON Maria; DONATELLI Isabella

Affiliation(s) : Health Sciences Center, University of Virginia, Charlottesville, United States; Global Influenza Programme, World Health Organization, Geneva, Switzerland; Department of Infectious, Parasitic and Immuno-Mediated Diseases, Istituto Superiore di Sanita, Rome, Italy; Department of Food and Animal Health, Istituto Superiore di Sanita, Rome, Italy; Istituto Nazionale per la Fauna Selvatica, Ozzano Emilia, Bologna, Italy; Istituto Zooprofilattico Sperimentale delle Venezie, Legnaro, Padova, Italy; Centre for Infection, Health Protection Agency, London, United Kingdom

Source : The Journal of infectious diseases. 2005; 192 (8) : 1311-1314,1318-1322 [9 p.]

ISSN : 0022-1899

CODEN : JIDIAQ

Date de publication : 2005

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Type de document : article; comments

Nombre de références : 46 ref.

Résumé : We evaluated the potential for avian-to-human transmission of low pathogenic avian influenza (LPAI) and highly pathogenic avian influenza (HPAI) H7N1 and LPAI H7N3 viruses that were responsible for several outbreaks of influenza in poultry in Italy between 1999 and 2003. A serological survey of poultry workers was conducted by use of a combination of methods. Evidence of anti-H7 antibodies was observed in 3.8% of serum samples collected from poultry workers during the period in 2003 when LPAI H7N3 virus was circulating. These findings highlight the need for surveillance in people occupationally exposed to avian influenza viruses, so that they can be monitored for the risk of avian-to-human transmission during outbreaks of avian influenza caused by both LPAI and HPAI viruses.

Code(s) de classement : 002A05; 002B05

Descripteur(s) anglais

Descripteur(s) : Human; Serum; Italy; Microbiology; Infection; Avian influenza

Desc. génériques : Microbiology; Biological sciences; Infectious diseases; Medical sciences; Europe

Descripteur(s) français

Descripteur(s) : Homme; Serum; Italie; Microbiologie; Infection; Grippe aviaire

Desc. génériques : Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences médicales; Europe

Localisation : INIST, Shelf number 2052, INIST No. 354000131975050010

Origine de la notice : INIST

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Influenza pandemics and avian flu

Titre : Influenza pandemics and avian flu

Auteur(s) : FLEMING Douglas

Affiliation(s) : Birmingham Douglas Fleming, United Kingdom

Source : BMJ British medical journal International ed. 2005; 331 (7524) : 1066-1069

ISSN : 0959-8146

Date de publication : 2005

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 1 ref.

Résumé : Douglas Fleming is general practitioner in a large suburban practice in Birmingham. In this article he seeks to clarify clinical issues relating to potential pandemics of influenza, including avian influenza.

Code(s) de classement : 002B01; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Public health; World; Medicine; Avian influenza; Pandemic

Desc. génériques : Medical sciences; Virology; Infectious diseases; Medical sciences

Descripteur(s) français

Descripteur(s) : Sante publique; Monde; Medecine; Grippe aviaire; Pandemie

Desc. génériques : Sciences medicales; Virologie; Maladies infectieuses; Sciences medicales

Localisation : INIST, Shelf number 5002A, INIST No. 354000135666180140

Origine de la notice : INIST

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La grippe aviaire : En fait-on trop?; Bird flu : Too much ado about it?

Titre : La grippe aviaire : En fait-on trop?; Bird flu : Too much ado about it?

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Affiliation(s) : Service des maladies infectieuses et tropicales, Groupe hospitalier Pitie-Salpetriere, Paris, France;
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Source : La Presse medicale 1983. 2005; 34 (20; CAH1) : 1501-1502

ISSN : 0755-4982

CODEN : PRMEEM

Date de publication : 2005

Pays de publication : France

Langue(s) : French

Type de document : Serial

Nombre de références : 1 ref.

Code(s) de classement : 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Avian influenza

Desc. génériques : Virology; Infectious diseases; Medical sciences

Descripteur(s) français

Descripteur(s) : Grippe aviaire

Desc. génériques : Virologie; Maladies infectieuses; Sciences medicales

Localisation : INIST, Shelf number 242, INIST No. 354000135518750010

Origine de la notice : INIST

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Cloning of the chicken RNA polymerase I promoter and use for reverse genetics of influenza A viruses in avian cells

Titre : Cloning of the chicken RNA polymerase I promoter and use for reverse genetics of influenza A viruses in avian cells

Auteur(s) : MASSIN Pascale; RODRIGUES Pierre; MARASESCU Monica; VAN DER WERF Sylvie; NAFFAKH Nadia

Affiliation(s) : Unite de Genetique Moleculaire des Virus Respiratoires, URA 1966 CNRS, Institut Pasteur, Paris, France

Source : Journal of virology. 2005; 79 (21) : 13811-13816

ISSN : 0022-538X

Date de publication : 2005

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 24 ref.

Résumé : Reverse genetics techniques to rescue influenza viruses have thus far been based on the use of a human polymerase I (Poll) promoter to direct the synthesis of the eight viral RNAs. They can only be used on cells from primate origin due to the species specificity of the Poll promoter. Here we report the cloning of the chicken Poll promoter sequence and the generation of recombinant influenza virus upon transfection of bidirectional Poll/PolII plasmids in avian cells. Potential contributions of this new reverse genetics system in the fields of influenza virus research and influenza vaccine production are discussed.

Code(s) de classement : 002A05C10; 002A05C05

Descripteur(s) anglais

Descripteur(s) : Chicken; DNA directed RNA polymerase; Genetics; Microbiology; Virology; Influenza A; Avian influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Genetics; Virology; Microbiology; Biological sciences; Aves; Vertebrata; Nucleotidyltransferases; Transferases; Enzyme; Veterinary; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Poulet; DNA directed RNA polymerase; Genetique; Microbiologie; Virologie; Grippe A; Grippe aviaire

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Genetique; Virologie; Microbiologie; Sciences biologiques; Aves; Vertebrata; Nucleotidyltransferases; Transferases; Enzyme; Veterinaire; Virose; Infection

Localisation : INIST, Shelf number 13592, INIST No. 354000131986280600

Origine de la notice : INIST

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Composting helps manage avian bird flu outbreak

Titre : Composting helps manage avian bird flu outbreak

Auteur(s) : FARRELL Molly

Source : Biocycle . 2005; 46 (5) : 50-54

ISSN : 0276-5055

CODEN : BCYCDK

Date de publication : 2005

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Résumé : When a bird flu infected poultry populations in a region of British Columbia, composting was selected as one of the carcass and manure management options.

Code(s) de classement : 001D16B04

Descripteur(s) anglais

Descripteur(s) : British Columbia; Animal waste; Poultry by product; Waste management; Waste treatment; Biological treatment; Composting; Prevention; Avian influenza

Desc. génériques : Wastes; Pollution; Nuisances; Applied sciences; Canada; North America; America

Descripteur(s) français

Descripteur(s) : Colombie britannique; Dechet animal; Volaille sous produit; Gestion dechet; Traitement dechet; Traitement biologique; Compostage; Prevention; Grippe aviaire

Desc. génériques : Dechets; Pollution; Nuisances; Sciences appliquees; Canada; Amerique du Nord; Amerique

Localisation : INIST, Shelf number 20607, INIST No. 354000124663560080

Origine de la notice : INIST

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Results of survey of national influenza pandemic preparedness in Europe

Titre : Results of survey of national influenza pandemic preparedness in Europe

Auteur(s) : CIOTTI M; KARCHER F; GANTER B; TULL P

Auteur(s) : European Commission Health Threats Unit, Luxembourg; World Health Organization WHO Regional Office for Europe Copenhagen, International

Source : EUROSURVEILLANCE EUROPEAN COMMUNICABLE DISEASE QUARTERLY. 2005; 10 (1-3) : 69-70; 3 tabl.

ISSN : 1025-496X

Date de publication : 2005

Pays de publication : France

Langue(s) : English

Type de document : Serial

Nombre de références : 2 ref.

Code(s) de classement : 002B30A11

Descripteur(s) anglais

Descripteur(s) : Influenza; Virus; Epidemic; WHO; European community; Planning; Prevention; Europe; Congress; Sanitary program; Questionnaire; Vaccine; Vaccination

Desc. génériques : Public health; Medical sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Grippe; Virus; Epidemie; OMS; Communauté européenne; Planification; Prevention; Europe; Congres; Programme sanitaire; Questionnaire; Vaccin; Vaccination

Desc. génériques : Santé publique; Sciences médicales; Virose; Infection

Localisation : BDSP/INVS

Origine de la notice : BDSP

Final analysis of Netherlands avian influenza outbreaks reveals much higher levels of transmission to humans than previously thought

Titre : Final analysis of Netherlands avian influenza outbreaks reveals much higher levels of transmission to humans than previously thought

Auteur(s) : BOSMAN A; MEIJER A; KOOPMANS M

Auteur(s) : National Institute for Public Health and the Environment RIVM Bilthoven, Netherlands; Netherlands Institute for Health Services Research NIVEL Eiss co ordination centre Utrecht, Netherlands

Source : EUROSURVEILLANCE EUROPEAN COMMUNICABLE DISEASE QUARTERLY. 2005; 10 (1-3) : 57-58
ISSN : 1025-496X

Date de publication : 2005

Pays de publication : France

Langue(s) : English

Type de document : Serial

Nombre de références : 7 ref.

Résumé : Recent alerts demonstrate that the transmission of avian influenza to humans, which re-emerged at the beginning of 2004, is far from over in South East Asia. As efforts to control the epidemic and prevent further human cases continue, the need to assess the effectiveness of current control measures grows. An executive summary of the final report of the outbreak of avian influenza A/H7N7 in the Netherlands has recently been published in English

Code(s) de classement : 002B30A11

Descripteur(s) anglais

Descripteur(s) : Influenza; Virus; Contagion; Human; Epidemic; Netherlands; Symptomatology; Questionnaire; Epidemiology; Sanitary surveillance; Serology; Zoonosis; Epizootics

Desc. génériques : Public health; Medical sciences; Viral disease; Infection; Europe

Descripteur(s) français

Descripteur(s) : Grippe; Virus; Contagion; Homme; Epidemie; Pays Bas; Symptomatologie; Questionnaire; Epidemiologie; Surveillance sanitaire; Serologie; Zoonose; Epizootie

Desc. génériques : Sante publique; Sciences medicales; Virose; Infection; Europe

Localisation : BDSP/INVS

Origine de la notice : BDSP

Considerable progress in European preparations for a potential influenza pandemic

Titre : Considerable progress in European preparations for a potential influenza pandemic

Auteur(s) : PAGET J

Auteur(s) : Eurosurveillance editorial office Editorial team Londres, United Kingdom

Source : EUROSURVEILLANCE EUROPEAN COMMUNICABLE DISEASE QUARTERLY. 2005; 10 (1-3) : 67-68

ISSN : 1025-496X

Date de publication : 2005

Pays de publication : France

Langue(s) : English

Type de document : Serial

Nombre de références : 3 ref.

Résumé : The threat of an influenza pandemic has been heightened in the past two years by outbreaks of avian influenza concentrated in South East Asia which have resulted in human deaths. So far, the avian influenza virus seems difficult to transmit from human to human, but changes in the virus genome may well increase transmissibility. Possibly worse, a person or animal (such as a pig) could become co-infected with human and avian influenza. These viruses could then combine, creating a very novel influenza virus that is both highly pathogenic and easily transmitted to humans. (Introduction)

Code(s) de classement : 002B30A11

Descripteur(s) anglais

Descripteur(s) : Influenza; Virus; Epidemic; Europe; Network; Sanitary surveillance; Epidemiology; Vaccine; Planning; Prevention; Epizootics

Desc. génériques : Public health; Medical sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Grippe; Virus; Epidemie; Europe; Reseau; Surveillance sanitaire; Epidemiologie; Vaccin; Planification; Prevention; Epizootie

Desc. génériques : Sante publique; Sciences medicales; Virose; Infection

Localisation : BDSP/INVS

Origine de la notice : BDSP

Expanding the frontiers of existing antiviral drugs : Possible effects of HIV-1 protease inhibitors against SARS and avian influenza

Titre : Expanding the frontiers of existing antiviral drugs : Possible effects of HIV-1 protease inhibitors against SARS and avian influenza

Auteur(s) : SAVARINO Andrea

Affiliation(s) : Laboratory of Viral Immunology, Department of Infectious Diseases, Universita Cattolica del Sacro Cuore, Largo Agostino Gemelli 8, 00168 Rome, Italy

Source : Journal of clinical virology. 2005; 34 (3) : 170-178

ISSN : 1386-6532

Date de publication : 2005

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Nombre de références : 33 ref.

Résumé : When unexpected diseases such as the severe acute respiratory syndrome (SARS) and avian influenza become a serious threat to public health, an immediate response is imperative. This should take into consideration existing licensed antiviral drugs against other viral diseases already known to be safe for use in humans. In this report, evidence is presented that HIV-1 protease inhibitors (Pis) currently used in anti-HIV-1 therapies might exert some effects on SARS and perhaps, on avian influenza. Evidence for the potential benefits of PIs against the SARS coronavirus (SARS-CoV) is provided by empirical clinical studies, in vivo viral inhibition assays and computational simulations of the docking of these compounds to the active site of the main SARS-CoV protease. As suggested by in silico docking of these molecules to a theoretical model of a subunit of type A influenza virus RNA-dependent RNA polymerase, there also exists a remote possibility that these PIs may have an effect on avian influenza viruses. Although this evidence is still far from being definitive, the results so far obtained suggest that PIs should be seriously taken into consideration for further testing as potential therapeutic agents for SARS and avian influenza.

Code(s) de classement : 002A05C10; 002B05C02J

Descripteur(s) anglais

Descripteur(s) : HIV 1 virus; Coronavirus; Antiviral; Peptidases; Antiretroviral agent; RNA directed RNA polymerase; Microbiology; Virology; Severe acute respiratory syndrome; Influenza A; Avian influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Virology; Infectious diseases; Medical sciences; Human immunodeficiency virus; Lentivirus; Retroviridae; Virus; Coronaviridae; Nidovirales; Hydrolases; Enzyme; Nucleotidyltransferases; Transferases; Respiratory disease; Viral disease; Infection; Lung disease

Descripteur(s) français

Descripteur(s) : Virus HIV1; Coronavirus; Antiviral; Peptidases; Antiretroviral; RNA directed RNA polymerase; Microbiologie; Virologie; Syndrome respiratoire aigu severe; Grippe A; Grippe aviaire

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Virologie; Maladies infectieuses; Sciences médicales; Virus immunodéficience humaine; Lentivirus; Retroviridae; Virus; Coronaviridae; Nidovirales; Hydrolases; Enzyme; Nucleotidyltransferases; Transferases; Appareil respiratoire pathologie; Virose; Infection; Poumon pathologie

Localisation : INIST, Shelf number 26272, INIST No. 354000132618630020

Origine de la notice : INIST

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In vitro and in vivo influenza virus-inhibitory effects of viramidine

Titre : In vitro and in vivo influenza virus-inhibitory effects of viramidine

Auteur(s) : SIDWELL Robert W; BAILEY K W; WONG M H; BARNARD D L; SMEE D F

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Source : Antiviral research. 2005; 68 (1) : 10-17

ISSN : 0166-3542

CODEN : ARSRDR

Date de publication : 2005

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Nombre de références : 22 ref.

Résumé : Viramidine, the 3-carboxamidine derivative of ribavirin, was effective against a spectrum of influenza A (H1N1, H3N2 and H5N1) and B viruses in vitro, with the 50% effective concentration (EC₅₀) ranging from 2 to 32 μ g/ml. The mean 50% cytotoxic concentration (CC₅₀) in the MDCK cells used in these experiments was 760 μ g/ml. Ribavirin, run in parallel, had a similar antiviral spectrum, with EC₅₀ values ranging from 0.6 to 5.5 μ g/ml; the mean CC₅₀ for ribavirin was 560 μ g/ml. Oral gavage administrations of viramidine or ribavirin to mice infected with influenza A/NWS/33 (H1N1), A/Victoria/3/75 (H3N2), B/Hong Kong/5/72 or B/Sichuan/379/99 viruses were highly effective in preventing death, lessening decline in arterial oxygen saturation, inhibition of lung consolidation and reducing lung virus titers. The minimum effective dose of viramidine in these studies ranged from 15 to 31 mg/kg/day, depending upon the virus infection, when administered twice daily for 5 days beginning 4 h pre-virus exposure. The LD₅₀ of the compound was 610 mg/kg/day. Ribavirin's minimum effective dose varied between 18 and 37.5 mg/kg/day with the LD₅₀ determined to be 220 mg/kg/day. Viramidine's efficacy was also seen against an influenza A/NWS/33 (H1N1) virus infection in mice, when the compound was administered in the drinking water, the minimum effective dose being 100 mg/kg/day. Delay of the initiation of either viramidine or ribavirin therapy, using the approximate 1/3 LD₅₀ dose of each, was protective as late as 48 h after exposure to the A/NWS/33 virus. While both compounds appear to have similar efficacy against influenza virus infections, when one considers the lesser toxicity, viramidine may warrant further evaluation as a possible therapy for influenza.

Code(s) de classement : 002B02S05; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : In vitro; In vivo; Influenzavirus; Ribavirin; Influenza; Analog; Antiviral

Desc. génériques : Virology; Infectious diseases; Pharmacology; Medical sciences; Virology; Infectious diseases; Medical sciences; Orthomyxoviridae; Virus; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : In vitro; In vivo; Influenzavirus; Ribavirine; Grippe; Analogue; Antiviral; Viramidine

Desc. génériques : Virologie; Maladies infectieuses; Pharmacologie; Sciences médicales; Virologie; Maladies infectieuses; Sciences médicales; Orthomyxoviridae; Virus; Virose; Infection

Localisation : INIST, Shelf number 18839, INIST No. 354000132724070020

Origine de la notice : INIST

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Sequence comparison between the extracellular domain of M2 protein human and avian influenza A virus provides new information for bivalent influenza vaccine design

Titre : Sequence comparison between the extracellular domain of M2 protein human and avian influenza A virus provides new information for bivalent influenza vaccine design

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Source : Microbes and infection. 2005; 7 (2) : 171-177

ISSN : 1286-4579

Date de publication : 2005

Pays de publication : France

Langue(s) : English

Type de document : Serial

Nombre de références : 26 ref.

Résumé : To prevent the human and economic losses caused by human and avian influenza viruses, it is necessary to prepare safe bivalent influenza vaccines. Recent studies found that human influenza vaccines based on the extracellular domain of influenza M2 protein (M2e) induced broad-spectrum protective immunity in various antigen constructs. A prerequisite for using the M2e protein as a bivalent influenza vaccine component was to find out the sequence differences between human and non-human (avian or swine) influenza M2e proteins. Here, we completed such a comparison using 716 influenza M2e sequences available in Genbank. The results found one region on M2e protein consistent with host restriction specificities: PIRNEWGCRCN, PTRNGWECKCS and PIRNGWECRCN (aa10-20; the human, avian and swine specific M2e sequence, respectively). Interestingly, the comparison result was then validated by immunoblotting and enzyme-linked immunosorbent assay. The monoclonal antibody against the EVETPIRN sequence (aa6-13) of human M2e protein could weakly recognize avian M2e proteins bearing the EVETPTRN sequence (aa6-13) but failed to recognize avian M2e proteins bearing the EVETLTRN sequence (aa6-13). The data in this study provided useful information in the race to develop bivalent influenza vaccines against avian and human influenza A virus infection in human beings.

Code(s) de classement : 002A05C10; 002A05F04

Descripteur(s) anglais

Descripteur(s) : Human; Influenza A virus; Protein; Vaccine; Avian influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus

Descripteur(s) français

Descripteur(s) : Homme; Virus grippal A; Proteine; Vaccin; Grippe aviaire

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Immunologie; Pharmacologie; Microbiologie appliquee; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus

Localisation : INIST, Shelf number 26816, INIST No. 354000125271400050

Origine de la notice : INIST

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Use of antiviral agents and other measures in an influenza pandemic

Titre : Use of antiviral agents and other measures in an influenza pandemic

Auteur(s) : GROENEVELD K; VAN DER NOORDAA J

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Source : Netherlands journal of medicine. 2005; 63 (9) : 339-343

ISSN : 0300-2977

Date de publication : 2005

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Nombre de références : 29 ref.

Résumé : The Dutch Ministry of Health asked the Health Council for advice on how to prepare for a possible influenza pandemic. In two advisory reports the Committee responsible indicated the measures that it believes would need to be taken if such a pandemic were to reach the Netherlands. During a pandemic, the Committee recommends that every resident of the Netherlands with influenza-like illness should be treated with neuraminidase inhibitors such as antiviral agents. This approach serves to mitigate the course of the disease, to reduce infectivity and to allow patients to build up immunity to the virus. Since up to 30% of the population could become ill, the Committee anticipates that a stock of five million courses of the neuraminidase inhibitor oseltamivir is sufficient. If a pandemic were to occur at a time that the stock does not exceed the present 225,000 courses, the committee advises restricting treatment to three specified groups of patients. If the first few patients are traced shortly after they fall ill, the Committee recommends treatment of the patient and postexposure prophylaxis for his/her dose contacts. The Committee does not advocate prophylaxis in general, but it can envisage prophylaxis for particular groups of patients or under particular circumstances. The Committee believes that in order to reduce rapid spread of the virus, schools should be closed and events where large numbers of people gather in a confined space should be cancelled. Because this recommendation would have major social and economic consequences, the Committee understands that its implication will depend on the anticipated severity and extent of the pandemic. The Committee regards vaccination against influenza as the best means of protecting the population. The development of a vaccine should be the absolute priority.

Code(s) de classement : 002B01; 002B02S05

Descripteur(s) anglais

Descripteur(s) : Use; Antiviral; Quantitative analysis; Influenza; Public health; World; Risk factor; Risk; Epidemiology; Ring; Prevention; Treatment; Medicine; Pandemic

Desc. génériques : Medical sciences; Virology; Infectious diseases; Pharmacology; Medical sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Utilisation; Antiviral; Analyse quantitative; Grippe; Santé publique; Monde; Facteur risque; Risque; Epidémiologie; Anneau; Prévention; Traitement; Médecine; Pandémie

Desc. génériques : Sciences médicales; Virologie; Maladies infectieuses; Pharmacologie; Sciences médicales; Virose; Infection

Localisation : INIST, Shelf number 17581, INIST No. 354000132590730020

Origine de la notice : INIST

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Stability of intracellular influenza virus nucleocapsid protein oligomers

Titre : Stability of intracellular influenza virus nucleocapsid protein oligomers

Auteur(s) : PROKUDINA E N; SEMENOVA N P; CHUMAKOV V M

Affiliation(s) : D. I. Ivanovsky Institute of Virology, Moscow, Russia

Source : Archives of virology. 2005; 150 (4) : 833-839

ISSN : 0304-8608

Date de publication : 2005

Pays de publication : Austria

Langue(s) : English

Type de document : Serial

Type de document : short-communication

Nombre de références : 14 ref.

Résumé : Stability of AJDuck/Ukrainae/63 (H3N8) influenza virus intracellular NP oligomers was studied using reducing agents, denaturants, detergents, salts, various pH and a range of temperatures. The results obtained indicate that influenza virus NP oligomers are noncovalently stabilized, and NP subunits are not linked by disulfide bonds. NP oligomers are thermostable and SDS resistant. Urea and high ionic strength also do not dissociate avian influenza virus intracellular NP oligomers. However, NP oligomers are completely dissociated at pH < 5. The data obtained suggest that hydrophobic bonds together with the electrostatic interactions take part in the stabilization of compact conformation of influenza virus NP oligomers. It was also shown that intrachain disulfides revealed in nascent NPs are reduced in NP subunits of NP oligomers, and this probably contributes to the stability and compactness of the oligomers.

Code(s) de classement : 002A05C10

Descripteur(s) anglais

Descripteur(s) : Avian influenza virus; Intracellular; Nucleocapsid; Protein; Oligomer; Thermal stability; Chemical stability; Environmental factor

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; Intracellulaire; Nucleocapside; Proteine; Oligomere; Stabilité thermique; Stabilité chimique; Facteur milieu

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus

Localisation : INIST, Shelf number 6355, INIST No. 354000127124780160

Origine de la notice : INIST

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Characterization of the reconstructed 1918 spanish influenza pandemic virus

Titre : Characterization of the reconstructed 1918 spanish influenza pandemic virus

Auteur(s) : TUMPEY Terrence M; BASLER Christopher F; AGUILAR Patricia V; HUI ZENG; SOLORZANO Alicia; SWAYNE David E; COX Nancy J; KATZ Jacqueline M; TAUBENBERGER Jeffery K; PALESE Peter; GARCIA SASTRE Adolfo

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Source : Science Washington DC. 2005; 310 (5745) : 77-80

ISSN : 0036-8075

CODEN : SCIEAS

Date de publication : 2005

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Type de document : review

Notes : 1/4 p. ref. et notes

Résumé : The pandemic influenza virus of 1918-1919 killed an estimated 20 to 50 million people worldwide. With the recent availability of the complete 1918 influenza virus coding sequence, we used reverse genetics to generate an influenza virus bearing all eight gene segments of the pandemic virus to study the properties associated with its extraordinary virulence. In stark contrast to contemporary human influenza H1N1 viruses, the 1918 pandemic virus had the ability to replicate in the absence of trypsin, caused death in mice and embryonated chicken eggs, and displayed a high-growth phenotype in human bronchial epithelial cells. Moreover, the coordinated expression of the 1918 virus genes most certainly confers the unique high-virulence phenotype observed with this pandemic virus.

Code(s) de classement : 002A05C04

Descripteur(s) anglais

Descripteur(s) : Pathogenicity; Phenotype; Gene; Virulence; Influenza A; Spanish flu

Desc. génériques : Virology; Microbiology; Biological sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Pouvoir pathogène; Phenotype; Gene; Virulence; Grippe A; 1918; Grippe espagnole

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Virose; Infection

Localisation : INIST, Shelf number 6040, INIST No. 354000132730170110

Origine de la notice : INIST

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Highly pathogenic H5N1 influenza virus infection in migratory birds

Titre : Highly pathogenic H5N1 influenza virus infection in migratory birds

Auteur(s) : LIU J; XIAO H; LEI F; ZHU Q; QIN K; ZHANG X W; ZHANG X L; ZHAO D; WANG G; FENG Y; MA J; LIU W; WANG J; GAO G F

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Source : Science Washington DC. 2005; 309 (5738) : p. 1206

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CODEN : SCIEAS

Date de publication : 2005

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Code(s) de classement : 002A05C04

Descripteur(s) anglais

Descripteur(s) : Avian influenza virus; Aves; Migratory; China; Veterinary; Isolate; Pathogenicity

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Vertebrata; Asia

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; Aves; Migrateur; Chine; Veterinaire; Isolat; Pouvoir pathogene; Influenzavirus aviaire H5N1

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Vertebrata; Asie

Localisation : INIST, Shelf number 6040, INIST No. 354000138450870120

Origine de la notice : INIST

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