

## Grippe aviaire

Mai 2008

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## Risques alimentaires et maladies animales : L' Agence Francaise de Securite Sanitaire des Aliments de la vache folle a la grippe aviaire; Food safety and animal diseases : The Food Safety Agency from mad cow disease to bird flu

**Titre :** Risques alimentaires et maladies animales : L' Agence Francaise de Securite Sanitaire des Aliments de la vache folle a la grippe aviaire; Food safety and animal diseases : The Food Safety Agency from mad cow disease to bird flu

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**Langue(s) :** French

**Langue(s) du résumé :** English

**Type de document :** Serial

**Nombre de références :** 32 ref.

**Résumé :** >Pourquoi l' Agence française de sécurité sanitaire des aliments (AFSSA) a-t-elle été particulièrement mobilisée par des zoonoses comme l' encéphalopathie spongiforme bovine ("vache folle ") ou l' influenza aviaire hautement pathogène ("grippe aviaire")? Parce que les crises sanitaires rendent manifeste un rapport ambivalent des hommes aux animaux (ceux-ci étant perçus alternativement comme fournisseurs de biens et comme porteurs de menaces) et au vivant en général (crise du sang contaminé provoquée par le rapprochement entre le donneur de sang et le bénéficiaire). Il faut donc réintroduire dans la sociologie des risques l' idée d' une intention des porteurs de risques (risque avec ennemi), et dans la sociologie de l' alimentation l' analyse des conditions de la production. La maladie de la vache folle est le risque alimentaire paradigmatique parce qu' elle relie les pôles de la production et de la consommation, de l' animal et de l' homme. Elle relève donc d' une approche anthropologique.

**Code(s) de classement :** 002A35A04; 002B30A06B; 002A36C03

### Descripteur(s) anglais

*Descripteur(s) :* Food security; Food; Zoonosis; Animal; Anthropology; Sociology; Health hazards; Food safety; Avian influenza; Food security agency; Creutzfeldt Jakob disease; Prion

*Desc. génériques :* Agriculture; Food industry; Biological sciences; Public health; Medical sciences; Terrestrial vertebrates zootechny; Agriculture; Animal production; Biological sciences; Infection; Viral disease; Prion disease; Cerebral disorder; Degenerative disease; Central nervous system disease; Nervous system diseases

### Descripteur(s) français

*Descripteur(s) :* Sécurité alimentaire; Aliment; Zoonose; Animal; Anthropologie; Sociologie; Risque santé; Salubrité des aliments; Grippe aviaire; Agence de sécurité alimentaire; Encéphalopathie spongiforme de Creutzfeldt Jakob; Prion

*Desc. génériques :* Agriculture; Industries alimentaires; Sciences biologiques; Santé publique; Sciences médicales; Zootechnie des vertèbres terrestres; Agriculture; Production animale; Sciences biologiques; Infection; Virose; Maladie à prions; Pathologie de l' encéphale; Maladie dégénérative; Pathologie du système nerveux central; Pathologie du système nerveux

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## Ethical planning for an influenza pandemic

**Titre :** Ethical planning for an influenza pandemic

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**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial

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**Résumé :** A UK Pandemic Influenza Contingency Plan was developed in 2006 but little research has since been carried out as to how ethically acceptable it will be to society. A survey containing two hypothetical scenarios was distributed to 1,018 hospital staff. The survey considered their attitudes to the professional and ethical responsibilities of healthcare workers, and to resource allocation on the intensive care unit (ICU). Of those distributed, 406 (40%) surveys were returned. During a pandemic, 320 (79%) healthcare professionals would continue to work and 339 (83%) felt it would be unprofessional for doctors to leave work. Only 218 (54%) chose the same patient for the last ICU bed. Most staff surveyed felt they should (professionally) and would (voluntarily) work during a pandemic despite high personal risk. A wide diversity of opinion existed regarding resource allocation of ICU beds. These ethical issues require open debate to ensure UK pandemic plans are ethically acceptable and practically applicable.

**Code(s) de classement :** 002B01; 002B31; 002B30A09

### **Descripteur(s) anglais**

*Descripteur(s) :* Influenza; Ethics; Public health; World; Resource; Sorting; Emergency; Medicine

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

### **Descripteur(s) français**

*Descripteur(s) :* Grippe; Ethique; Sante publique; Monde; Ressource; Triage; Urgence; Medecine; Plan pandémie; Pandémie

*Desc. génériques :* Sciences médicales; Ethique; Sciences médicales; Sante publique; Sciences médicales; Virose; Infection

**Localisation :** INIST, Shelf number 13339, INIST No. 354000175062480120

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## Low pathogenicity H5N2 avian influenza outbreak in Japan during the 2005-2006

**Titre :** Low pathogenicity H5N2 avian influenza outbreak in Japan during the 2005-2006

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**Date de publication :** 2007

**Pays de publication :** Netherlands

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 1 p.1/2

**Résumé :** At the end of May 2005, a low-pathogenicity avian influenza (LPAI) virus of subtype H5N2 was isolated for the first time from chickens in Japan. Through active and epidemiological surveillance, 5.78 million chickens on 41 farms were found to be affected and 16 H5N2 viruses were isolated. Antigenic analysis revealed antigenic similarity of these isolates. Phylogenetic analysis showed that they originated from a common ancestor and clustered with the H5N2 strains prevalent in Central America that have been circulating since 1994. Experimental infection of chickens with the index isolate (A/chicken/Ibaraki/1/05) demonstrated that this virus replicated efficiently in the respiratory tract without clinical signs, and dust-borne and/or droplet-borne transmission was considered as a possible mode of transmission. These results suggested that the H5N2 LPAI viruses isolated in Japan were highly adapted to chickens.

**Code(s) de classement :** 002A05C06

### **Descripteur(s) anglais**

*Descripteur(s) :* Avian influenzavirus; Pathogenicity; Japan; Antigenicity; Phylogeny; Transmission; Epidemiology; Avian influenza

*Desc. génériques :* Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Asia; Infection; Viral disease; Zoopathogen

### **Descripteur(s) français**

*Descripteur(s) :* Influenzavirus aviaire; Pouvoir pathogene; Japon; Antigenicite; Phylogenese; Transmission; Epidemiologie; Grippe aviaire

*Desc. génériques :* Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Asie; Infection; Virose; Zoopathogene

**Localisation :** INIST, Shelf number 16884, INIST No. 354000161550470040

**Origine de la notice :** INIST

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## Organisation de la reanimation en situation de pandémie de grippe aviaire; Organization of intensive care units, in case of pandemic avian flu

**Titre :** Organisation de la reanimation en situation de pandémie de grippe aviaire; Organization of intensive care units, in case of pandemic avian flu

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**Pays de publication :** France

**Langue(s) :** French

**Type de document :** Serial

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**Code(s) de classement :** 002B27A

### **Descripteur(s) anglais**

*Descripteur(s) :* Avian influenza; Resuscitation; Intensive care unit; Anesthesia

*Desc. génériques :* Anesthesia; Medical sciences; Viral disease; Infection

### **Descripteur(s) français**

*Descripteur(s) :* Grippe aviaire; Reanimation; Unite soin intensif; Anesthesie

*Desc. génériques :* Anesthesie; Sciences medicales; Virose; Infection

**Localisation :** INIST, Shelf number 19491, INIST No. 354000174356380220

**Origine de la notice :** INIST

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## Activity of the neuraminidase inhibitor A-315675 against oseltamivir-resistant influenza neuraminidases of N1 and N2 subtypes

**Titre :** Activity of the neuraminidase inhibitor A-315675 against oseltamivir-resistant influenza neuraminidases of N1 and N2 subtypes

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**Type de document :** short-communication

**Nombre de références :** 1 p.

**Résumé :** Clinical use of the neuraminidase inhibitor (NAI) oseltamivir has been associated with the emergence of viral resistance resulting from subtype-specific neuraminidase (NA) mutations. In this study, we evaluated the impact of the most frequent oseltamivir-resistant NA mutations including E119V, H274Y, R292K and N294S on the susceptibility profile to a novel NAI (A-315675) using recombinant NA proteins of N1 and N2 subtypes and also selected oseltamivir-resistant influenza H1N1 and H3N2 viruses. In the N1 subtype, recombinant NA proteins containing mutations H274Y and N294S previously associated with resistance to oseltamivir (754- and 197-fold increases in IC<sub>50</sub> values, respectively, compared to WT) remained susceptible to A-315675 (2.5- and 2-fold increases in IC<sub>50</sub> values, respectively). In the N2 subtype, NA proteins harboring mutations E119V and R292K conferring high levels of resistance to oseltamivir (1016- and >10,000-fold increases in IC<sub>50</sub> values, respectively) had IC<sub>50</sub> values that increased by only 1.5- and 13-fold, respectively, against A-315675. Similar susceptibility patterns to A-315675 were obtained when testing recombinant H1N1 mutant viruses (H274Y and N294S) and clinical H3N2 mutants (E 119V). The V 116A and 1117V mutations, previously associated with oseltamivir resistance in H5N1 viruses, were susceptible to oseltamivir when tested in the H1N1 background suggesting a strain-specific impact of these mutations. These results confirm the potent inhibitory effect of A-315675 against oseltamivir-resistant influenza viruses of the N1 and N2 subtypes and support the clinical development of its bioavailable prodrug A-322278.

**Code(s) de classement :** 002B02S05

### Descripteur(s) anglais

*Descripteur(s) :* Neuraminidase inhibitor; Oseltamivir; Resistance; Exo <alpha> sialidase; Subtype; Antiviral; Mechanism of action; Mutation; Influenza A virus

*Desc. génériques :* Virology; Infectious diseases; Pharmacology; Medical sciences; Glycosidases; Glycosylases; Hydrolases; Enzyme; Influenzavirus A; Orthomyxoviridae; Virus; Enzyme inhibitor

### Descripteur(s) français

*Descripteur(s) :* Inhibiteur neuraminidase; Oseltamivir; Résistance; Exo <alpha> sialidase; Soustype; Antiviral; Mécanisme action; Mutation; Virus grippal A; A 315675; Influenzavirus AH1N1; Influenzavirus AH3N2

*Desc. génériques :* Virologie; Maladies infectieuses; Pharmacologie; Sciences médicales; Glycosidases; Glycosylases; Hydrolases; Enzyme; Influenzavirus A; Orthomyxoviridae; Virus; Inhibiteur enzyme

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**Origine de la notice :** INIST



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## Amantadine-resistance among H5N1 avian influenza viruses isolated in Northern China

**Titre :** Amantadine-resistance among H5N1 avian influenza viruses isolated in Northern China

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**Date de publication :** 2008

**Pays de publication :** Netherlands

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 3/4 p.

**Résumé :** We tested the amantadine-resistance among avian influenza A (H5N1) viruses isolated from chicken in Hebei Province of Northern China from 2001 to 2005, and investigated the amantadine use in this area. Plaque reduction assay in MDCK cells showed that 83.3% isolates (5/6) were amantadine-resistant strains. The M2 sequence analysis revealed that four of five resistant isolates contained the point mutations (Ser to Asn) at position 31 that could confer resistance to amantadine. These results indicated that the incidence of amantadine-resistant viruses isolated in Northern China was particularly high. In the investigation of amantadine use, we found that amantadine was used extensively in poultry farms in this area, which maybe was one of reasons of the high amantadine-resistance incidence.

**Code(s) de classement :** 002B02S05

### Descripteur(s) anglais

*Descripteur(s) :* Amantadine; Resistance; Avian influenza virus; China; Gene; Poultry; Antiviral; Antiparkinson agent; Influenzavirus AH5N1

*Desc. génériques :* Virology; Infectious diseases; Pharmacology; Medical sciences; Influenzavirus A; Orthomyxoviridae; Virus; Asia; Agonist; Antagonist; Dopamine receptor; Glutamate receptor; NMDA receptor; Dopamine agonist; Amantadine derivatives; Genetics

### Descripteur(s) français

*Descripteur(s) :* Amantadine; Resistance; Influenzavirus aviaire; Chine; Gene; Volaille; Antiviral; Antiparkinsonien; Influenzavirus AH5N1

*Desc. génériques :* Virologie; Maladies infectieuses; Pharmacologie; Sciences médicales; Influenzavirus A; Orthomyxoviridae; Virus; Asie; Agoniste; Antagoniste; Recepteur dopaminergique; Recepteur glutamate; Recepteur NMDA; Stimulant dopaminergique; Derive de l' amantadine; Genetique

**Localisation :** INIST, Shelf number 18839, INIST No. 354000173959560100

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## Hydrophobic polycationic coatings inactivate wild-type and zanamivir-and/or oseltamivir-resistant human and avian influenza viruses

**Titre :** Hydrophobic polycationic coatings inactivate wild-type and zanamivir-and/or oseltamivir-resistant human and avian influenza viruses

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**Pays de publication :** Netherlands

**Langue(s) :** English

**Type de document :** Serial

**Type de document :** research-paper

**Nombre de références :** 1/2 p.

**Résumé :** Glass slides painted with the hydrophobic long-chained polycation N,N-dodecyl,methyl-poly-ethylenimine (N,N-dodecyl,methyl-PEI) are highly lethal to waterborne influenza A viruses, including not only wild-type human and avian strains but also their neuraminidase mutants resistant to currently used anti-influenza drugs.

**Code(s) de classement :** 002A31; 215

### Descripteur(s) anglais

*Descripteur(s) :* Coatings; Zanamivir; Oseltamivir; Resistance; Human; Virus; Avian influenza; Antiviral; Amine

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

### Descripteur(s) français

*Descripteur(s) :* Revêtement; Zanamivir; Oseltamivir; Résistance; Homme; Virus; Grippe aviaire; Antiviral; Amine

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

**Localisation :** INIST, Shelf number 18225, INIST No. 354000183432450160

**Origine de la notice :** INIST

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## Microfluidic Device Architecture for Electrochemical Patterning and Detection of Multiple DNA Sequences

**Titre :** Microfluidic Device Architecture for Electrochemical Patterning and Detection of Multiple DNA Sequences

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**Pays de publication :** United States

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 33 ref.

**Résumé :** Electrochemical biosensors pose an attractive solution for point-of-care diagnostics because they require minimal instrumentation and they are scalable and readily integrated with microelectronics. The integration of electrochemical biosensors with microscale devices has, however, proven to be challenging due to significant incompatibilities among biomolecular stability, operation conditions of electrochemical sensors, and microfabrication techniques. Toward a solution to this problem, we have demonstrated here an electrochemical array architecture that supports the following processes in situ, within a self-enclosed microfluidic device: (a) electrode cleaning and preparation, (b) electrochemical addressing, patterning, and immobilization of sensing biomolecules at selected sensor pixels, (c) sequence-specific electrochemical detection from multiple pixels, and (d) regeneration of the sensing pixels. The architecture we have developed is general, and it should be applicable to a wide range of biosensing schemes that utilize gold-thiol self-assembled monolayer chemistry. As a proof-of-principle, we demonstrate the detection and differentiation of polymerase chain reaction (PCR) amplicons diagnostic of human (H1N1) and avian (H5N1) influenza.

**Code(s) de classement :** 001C01I; 001C01J; 001C01H

### Descripteur(s) anglais

*Descripteur(s) :* Device; Electrochemistry; Patterning; DNA; Biosensor; Instrumentation; Microelectronics; Stability; Support; In situ; Electrodes; Cleaning; Preparation; Immobilization; Regeneration; Gold; Thiol; Self assembly; Monolayer; Chemistry; Differentiation; Chain reaction; Human

*Desc. génériques :* Surface physical chemistry; General chemistry; Physical chemistry; Chemistry; Colloidal state; Dispersed states; General chemistry; Physical chemistry; Chemistry; Electrochemistry; General chemistry; Physical chemistry; Chemistry; Transition metal

### Descripteur(s) français

*Descripteur(s) :* Dispositif; Electrochimie; Formation motif; DNA; Biodetecteur; Appareillage; Microelectronique; Stabilité; Support; In situ; Electrode; Nettoyage; Préparation; Immobilisation; Régénération; Or; Thiol; Autoassemblage; Couche monomoléculaire; Chimie; Différenciation; Réaction chaîne; Homme

*Desc. génériques :* Physicochimie de surface; Chimie générale; Chimie physique; Chimie; Etat colloïdal; Etats dispersés; Chimie générale; Chimie physique; Chimie; Electrochimie; Chimie générale; Chimie physique; Chimie; Métal transition

**Localisation :** INIST, Shelf number 20642, INIST No. 354000183478160770

**Origine de la notice : INIST**

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## Control and prevention of avian influenza in an evolving scenario. 4th International Veterinary Vaccines and Diagnostics Conference, Oslo, 25-29 June 2006

**Titre :** Control and prevention of avian influenza in an evolving scenario. 4th International Veterinary Vaccines and Diagnostics Conference, Oslo, 25-29 June 2006

**Auteur(s) :** CAPUA Ilaria; MARANGON Stefano; SIHVONEN Liisa, ed

**Affiliation(s) :** OIE, FAO and National Reference Laboratory for Newcastle Disease and Avian Influenza, Istituto Zooprofilattico Sperimentale delle Venezie, Viale dell'Università 10, 35020, Legnaro, Padova, Italy; Virology, Research on Animal Diseases and Food Safety, EVIRA, Mustialankatu 3, 00790 Helsinki, Finland

**Source :** Vaccine . 2007; 25 (30) : 5645-5652

**Informations congrès :** \*IVVDC: International Veterinary Vaccines and Diagnostics Conference, \*4, \*Oslo Norway, \*2006-06-25

**ISSN :** 0264-410X

**CODEN :** VACCDE

**Date de publication :** 2007

**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial; \*Conference-Meeting

**Nombre de références :** 25 ref.

**Résumé :** Continuing outbreaks of highly pathogenic avian influenza (HPAI) across Eurasia and in Africa, caused by a type A influenza virus of the H5N subtype appear out of control and represent a serious risk for animal and public health worldwide. It is known that biosecurity represents the first line of defence against AI, although in certain circumstances strict hygienic measures appear to be inapplicable for social and economic conditions. The option of using vaccination against AI viruses of the H5 and H7 subtypes, has made its way in recent times-primarily as a tool to maximise the outcome of a series of control measures in countries that are currently infected, but also as a means of reducing the risk of introduction in areas at high risk of infection. In developing countries vaccination programmes in avian species have been recommended recently, however it will require concurrent management of local husbandry practices and industry compliance to eradicate the disease rather than the establishment of an endemic situation. Other key deliverables expected for this control strategy include maintaining a major source of food for rural communities and the preservation of the commercial viability of the local poultry industry. In developed countries vaccination is being used as a means of increasing resistance of susceptible animals to reduce the risk of introduction from the reservoir host or to reduce secondary spread in densely populated poultry areas. The recent joint OIE/FAO summits recommended applying vaccination, using the differentiating infected from vaccinated animals (DIVA) strategy when there is risk of major spread and depopulation is not feasible or desirable. Particularly in developing countries, stamping out of infected animals does not seem to be an appropriate means of reducing the spread of infection, if food supplies are to be guaranteed and economic consequences minimised. Crucial points to the success of a vaccination campaign are the implementation of complex territorial strategy involving upgraded biosecurity, monitoring vaccine efficacy, identification of field exposure and the appropriate management of infected flocks, regardless of vaccination status. Granting financial support for the compensation of farmers is also a key part of this strategy. Poultry veterinarians working for the industry or for the public sector represent the first line of defence against the pandemic threat and for the prevention and control of this infection in poultry and in wild birds.

**Code(s) de classement :** 002A05C07

### Descripteur(s) anglais

*Descripteur(s) :* Aves; Prevention; Vaccination; Poultry; Public health; Animal health; Avian influenza

*Desc. génériques :* Immunology; Pharmacology; Virology; Microbiology; Biological sciences; Vertebrata; Infection; Viral disease; Farming animal; Veterinary

**Descripteur(s) français**

*Descripteur(s)* : Aves; Prevention; Vaccination; Volaille; Sante publique; Sante animale; Grippe aviaire

*Desc. génériques* : Immunologie; Pharmacologie; Virologie; Microbiologie; Sciences biologiques; Vertebrata; Infection; Virose; Animal élevage; Veterinaire

**Localisation** : INIST, Shelf number 20289, INIST No. 354000162391710240

**Origine de la notice** : INIST

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## An overview of the epidemiology of avian influenza. 4th International Veterinary Vaccines and Diagnostics Conference, Oslo, 25-29 June 2006

**Titre :** An overview of the epidemiology of avian influenza. 4th International Veterinary Vaccines and Diagnostics Conference, Oslo, 25-29 June 2006

**Auteur(s) :** ALEXANDER Dennis J; SIHVONEN Liisa, ed

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**Source :** Vaccine . 2007; 25 (30) : 5637-5644

**Informations congrès :** \*IVVDC: International Veterinary Vaccines and Diagnostics Conference, \*4, \*Oslo Norway, \*2006-06-25

**ISSN :** 0264-410X

**CODEN :** VACCDE

**Date de publication :** 2007

**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial; \*Conference-Meeting

**Nombre de références :** 84 ref.

**Résumé :** Only viruses of the Influenzavirus A genus have been isolated from birds and termed avian influenza AI viruses, but viruses with all 16 haemagglutinin H1-H16 and all 9 neuraminidase N1-N9 influenza A subtypes in the majority of possible combinations have been isolated from avian species. Influenza A viruses infecting poultry can be divided into two groups. The very virulent viruses causing highly pathogenic avian influenza HPAI, with flock mortality as high as 100%. These viruses have been restricted to subtypes H5 and H7, although not all H5 and H7 viruses cause HPAI. All other viruses cause a milder, primarily respiratory, disease LPAI, unless exacerbated. Until recently HPAI viruses were rarely isolated from wild birds, but for LPAI viruses extremely high isolation rates have been recorded in surveillance studies, with overall figures of about 11% for ducks and geese and around 2% for all other species. Influenza viruses may infect all types of domestic or captive birds in all areas of the world, the frequency with which primary infections occur in any type of bird usually depending on the degree of contact there is with feral birds. Secondary spread is usually associated with human involvement, either by bird or bird product movement or by transferring infective faeces from infected to susceptible birds, but potentially wild birds could be involved. In recent years there have been costly outbreaks of HPAI in poultry in Italy, The Netherlands and Canada and in each millions of birds were slaughtered to bring the outbreaks under control. Since the 1990s AI infections due to two subtypes have been widespread in poultry across a large area of the World. LPAI H9N2 appears to have spread across the whole of Asia in that time and has become endemic in poultry in many of the affected countries. However, these outbreaks have tended to have been overshadowed by the H5N1 HPAI virus, initially isolated in China, that has now spread in poultry and/or wild birds throughout Asia and into Europe and Africa, resulting in the death or culling of hundreds of millions of poultry and posing a significant zoonosis threat.

**Code(s) de classement :** 002A05C06

### Descripteur(s) anglais

*Descripteur(s) :* Epidemiology; Review; Avian influenza

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

### Descripteur(s) français

*Descripteur(s) :* Epidemiologie; Article synthese; Grippe aviaire

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

**Localisation :** INIST, Shelf number 20289, INIST No. 354000162391710230

**Origine de la notice :** INIST

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## Epidemiology of cases of H5N1 virus infection in Indonesia, July 2005-June 2006

**Titre :** Epidemiology of cases of H5N1 virus infection in Indonesia, July 2005-June 2006

**Auteur(s) :** SEDYANINGSIH Endang R; ISFANDARI Siti; SETIAWATY Vivi; RIFATI Lutfah; HARUN Syahrial; PURBA Wilfred; IMARI Sholah; GIRIPUTRA Sardikin; BLAIR Patrick J; PUTNAM Shannon D; UYEKI Timothy M; SOENDORO Triono

**Affiliation(s) :** National Institute of Health Research and Development, United States; Directorate General of Disease Control and Environmental Health, Ministry of Health, United States; Infectious Disease Hospital Sulianti Saroso, United States; Naval Medical Research Unit No. 2, Jakarta, Indonesia; Centers for Disease Control and Prevention, Atlanta Georgia, United States

**Source :** The Journal of infectious diseases. 2007; 196 (4) : 522-527

**ISSN :** 0022-1899

**CODEN :** JIDIAQ

**Date de publication :** 2007

**Pays de publication :** United States

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 26 ref.

**Résumé :** Background. Highly pathogenic avian influenza A (H5N1) virus was detected in domestic poultry in Indonesia beginning in 2003 and is now widespread among backyard poultry flocks in many provinces. The first human case of H5N1 virus infection in Indonesia was identified in July 2005. Methods. Respiratory specimens were collected from persons with suspected H5N1 virus infection and were tested by reverse-transcriptase polymerase chain reaction and viral culture. Serum samples were tested by a modified hemagglutinin inhibition antibody and/or microneutralization assay. Epidemiological, laboratory, and clinical data were collected through interviews and medical records review. Close contacts of persons with confirmed H5N1 virus infection were investigated. Results. From July 2005 through June 2006, 54 cases of H5N1 virus infection were identified, with a case-fatality proportion of 76%. The median age was 18.5 years, and 57.4% of patients were male. More than one-third of cases occurred in 7 clusters of blood-related family members. Seventy-six percent of cases were associated with poultry contact, and the source of H5N1 virus infection was not identified in 24% of cases. Conclusions. Sporadic and family clusters of cases of H5N1 virus infection, with a high case-fatality proportion, occurred throughout Indonesia during 2005-2006. Extensive efforts are needed to reduce human contact with sick and dead poultry to prevent additional cases of H5N1 virus infection.

**Code(s) de classement :** 002B05C02C; 002A05C06

### Descripteur(s) anglais

*Descripteur(s) :* Epidemiology; Indonesia; Poultry; Farming animal; Viral disease; Avian influenza

*Desc. génériques :* Virology; Infectious diseases; Medical sciences; Virology; Microbiology; Biological sciences; Asia; Infection; Veterinary

### Descripteur(s) français

*Descripteur(s) :* Epidémiologie; Indonésie; Volaille; Animal élevage; Virose; Grippe aviaire

*Desc. génériques :* Virologie; Maladies infectieuses; Sciences médicales; Virologie; Microbiologie; Sciences biologiques; Asie; Infection; Vétérinaire

**Localisation :** INIST, Shelf number 2052, INIST No. 354000161484220030

**Origine de la notice :** INIST

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## Progress and shortcomings in European national strategic plans for pandemic influenza. Public health education

**Titre :** Progress and shortcomings in European national strategic plans for pandemic influenza. Public health education

**Auteur(s) :** MOURNER JACK Sandra; JAS Ria; COKER Richard; SADANA Ritu, limin; PETRAKOVA Alena, limin  
**Affiliation(s) :** Department of Public Health and Policy, London School of Hygiene and Tropical Medicine, Keppel Street, London WC1E 7HT, United Kingdom; Ethics, Equity, Trade and Human Rights, World Health Organization, 20 avenue Appia, 1211 Geneva, Switzerland; Human Resources for Health, World Health Organization, Geneva, Switzerland

**Source :** Bulletin of the World Health Organization. 2007; 85 (12) : 923-929

**ISSN :** 0042-9686

**CODEN :** BWHOA6

**Date de publication :** 2007

**Pays de publication :** International

**Langue(s) :** English

**Langue(s) du résumé :** French; Spanish; Arabic

**Type de document :** Serial

**Nombre de références :** 26 ref.

**Résumé :** Objectif Renouveler et mettre à jour notre précédente évaluation (2005) des plans nationaux européens de préparation à la grippe pandémique et évaluer les progrès réalisés. Méthodes Nous avons évalué les plans nationaux de préparation à la grippe pandémique publiés par les pays de l'Union européenne, par deux pays en voie d'accession à l'UE (Bulgarie et Roumanie) et par la Norvège, la Suisse et la Turquie. Pour être inclus dans l'étude, les plans devaient avoir été formellement publiés avant le 30 septembre 2006. Nous nous sommes référés aux recommandations de l'OMS et nous avons utilisé un formulaire d'extraction des données systématiquement appliqué. Nous avons examiné le contenu des plans en ce qui concerne les contrôles aux frontières, les antiviraux et les vaccins. Résultats Les plans de vingt-neuf pays ont été inclus dans l'analyse contre vingt-et-un en 2005. Ces plans présentaient des différences substantielles à propos des mesures de contrôle aux frontières et beaucoup d'entre eux s'écartaient des recommandations de l'OMS. De même, le volet médicaments antiviraux et vaccins des plans était traité de manière variable et le volet planification opérationnelle restait peu développé. Conclusion Malgré les progrès réalisés en matière de complétude, il reste à résoudre des problèmes de divergence des plans avec les recommandations internationales, d'incohérence persistante sur le plan stratégique et de limitation de la planification opérationnelle, en relation éventuellement avec un manque de moyens. En ce qui concerne les contrôles aux frontières, les plans présentent aussi des lacunes et des incohérences et sont susceptibles d'être modifiés en fonction de considérations politiques pendant une pandémie.

**Code(s) de classement :** 002B30A11

### **Descripteur(s) anglais**

*Descripteur(s) :* Europe; Public health; Sanitary program; Strategy; Strategic planning; WHO

*Desc. génériques :* Public health; Medical sciences

### **Descripteur(s) français**

*Descripteur(s) :* Europe; Santé publique; Programme sanitaire; Stratégie; Planification stratégique; OMS; Pandémie; Grippe pandémique; Virus H5N1

*Desc. génériques :* Santé publique; Sciences médicales

**Localisation :** INIST, Shelf number 4905A, INIST No. 354000162697310020

**Origine de la notice :** INIST

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## Use of a Pandemic Preparedness Drill to Increase Rates of Influenza Vaccination Among Healthcare Workers

**Titre :** Use of a Pandemic Preparedness Drill to Increase Rates of Influenza Vaccination Among Healthcare Workers

**Auteur(s) :** KUNTZ Jennifer L; HOLLEY Stephanie; HELMS Charles M; CAVANAUGH Joseph E; BERG Jeff Vande; HERWALDT Loreen A; POLGREEN Philip M

**Affiliation(s) :** Department of Epidemiology, University of Iowa College of Public Health, United States; Program of Hospital Epidemiology, University of Iowa Hospitals and Clinics, Iowa City, United States; Department of Internal Medicine, University of Iowa Carver College of Medicine, United States; Department of Biostatistics, University of Iowa College of Public Health, United States

**Source :** Infection control and hospital epidemiology. 2008; 29 (2) : 111-115

**ISSN :** 0899-823X

**Date de publication :** 2008

**Pays de publication :** United States

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 15 ref.

**Résumé :** OBJECTIVE. To determine the effect of a pandemic influenza preparedness drill on the rate of influenza vaccination among healthcare workers (HCWs). DESIGN. Before-after intervention trial. SETTING. The University of Iowa Hospitals and Clinics (UIHC), a large, academic medical center, during 2005. SUBJECTS. Staff members at UIHC. METHODS. UIHC conducted a pandemic influenza preparedness drill that included a goal of vaccinating a large number of HCWs in 6 days without disrupting patient care. Peer vaccination and mobile vaccination teams were used to vaccinate HCWs, educational tools were distributed to encourage HCWs to be vaccinated, and resources were allocated on the basis of daily vaccination reports. Logit models were used to compare vaccination rates achieved during the 2005 vaccination drill with the vaccination rates achieved during the 2003 vaccination campaign. RESULTS. UIHC vaccinated 54% of HCWs (2,934 of 5,467) who provided direct patient care in 6 days. In 2 additional weeks, this rate increased to 66% (3,625 of 5,467). Overall, 66% of resident physicians (311 of 470) and 63% of nursing staff (1,429 of 2,255) were vaccinated. Vaccination rates in 2005 were significantly higher than the hospitalwide rate of 41% (5,741 of 14,086) in 2003. CONCLUSIONS. UIHC dramatically increased the influenza vaccination rate among HCWs by conducting a pandemic influenza preparedness drill. Additionally, the drill allowed us to conduct a bioemergency drill in a realistic scenario, use innovative methods for vaccine delivery, and secure administrative support for future influenza vaccination campaigns. Our study demonstrates how a drill can be used to improve vaccination rates significantly.

**Code(s) de classement :** 002B05C02C

### Descripteur(s) anglais

*Descripteur(s) :* Influenza; Immunoprophylaxis; Vaccination; Health care staff

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

### Descripteur(s) français

*Descripteur(s) :* Grippe; Immunoprophylaxie; Vaccination; Equipe soignante; Pandemie

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

**Localisation :** INIST, Shelf number 19430, INIST No. 354000161861580020

**Origine de la notice :** INIST

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## Prevalence and diversity of avian influenza viruses in environmental reservoirs

**Titre :** Prevalence and diversity of avian influenza viruses in environmental reservoirs

**Auteur(s) :** LANG Andrew S; KELLY Anke; RUNSTADLER Jonathan A

**Affiliation(s) :** Department of Biology, Memorial University of Newfoundland, St John's, NL A1B 3X9, Canada; Institute of Arctic Biology, PO Box 757000, University of Alaska Fairbanks, Fairbanks, AK 99775, United States

**Source :** Journal of general virology. 2008; 89 (p. 2) : 509-519

**ISSN :** 0022-1317

**CODEN :** JGVIAY

**Date de publication :** 2008

**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 1 p.

**Résumé :** Little is known about the ecology and evolution of avian influenza in the natural environment, despite how these affect the potential for transmission. Most work has focused on characterizing viruses isolated from hosts such as waterfowl, and there have also been several instances of isolation and detection from abiotic sources such as water and ice. We used RT-PCR to amplify and characterize the influenza virus sequences present in sediments of ponds that are used heavily by waterfowl. The detection rate of influenza virus was high (>50%). Characterization of the viruses present by sequencing part of the haemagglutinin (HA) gene showed that there is a diverse collection of viruses in these sediments. We sequenced 117 partial HA gene clones from 11 samples and detected four different HA subtypes (H3, H8, H11 and H12), with approximately 65% of clone sequences being unique. This culture-independent approach was also able to detect a virus subtype that was not found by sampling of birds in the same geographical region in the same year. Viruses were detected readily in the winter when the ponds were frozen, indicating that these sediments could be a year-to-year reservoir of viruses to infect birds using the ponds, although we have not shown that these viruses are viable. We demonstrate that this approach is a feasible and valuable way to assess the prevalence and diversity of viruses present in the environment, and can be a valuable complement to more difficult viral culturing in attempting to understand the ecology of influenza viruses.

**Code(s) de classement :** 002A05C10; 002A05C06

### Descripteur(s) anglais

*Descripteur(s) :* Avian influenza virus; Prevalence; Epidemiology; Environment; Microbiology

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

### Descripteur(s) français

*Descripteur(s) :* Influenzavirus aviaire; Prevalence; Epidemiologie; Environnement; Microbiologie

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

**Localisation :** INIST, Shelf number 13533, INIST No. 354000161879900170

**Origine de la notice :** INIST

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## Rapid detection of H5 avian influenza virus by TaqMan-MGB real-time RT-PCR

**Titre :** Rapid detection of H5 avian influenza virus by TaqMan-MGB real-time RT-PCR

**Auteur(s) :** LU Y Y; YAN J Y; FENG Y; XU C P; SHI W; MAO H Y

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**Source :** Letters in applied microbiology. 2008; 46 (1) : 20-25

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**CODEN :** LAMIE7

**Date de publication :** 2008

**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 1/2 p.

**Résumé :** Aims: Real-time reverse transcription-polymerase chain reaction (RT-PCR) assay based on a TaqMan-minor groove binder (MGB) probe was developed for the rapid detection of avian influenza virus subtype H5. Methods and Results: Conserved regions in the haemagglutinin genes of avian influenza viruses subtype H5 served as targets for the primers and TaqMan-MGB probe design. Concentrations of primers and probe were optimized to improve the sensitivity and specificity of the reactions. A plasmid containing the haemagglutinin gene was constructed and in vitro transcribed for a quantitative assay of copy numbers of the target gene. The results revealed that the optimal concentration of primers and probe was 640 and 480 nmol l<sup>-1</sup>, respectively. The threshold of 100 copies of target molecules could be detected. The linear range for detection was determined as 10<sup>2</sup> to 10<sup>8</sup> molecules in reaction. Conclusions: It took less than 3 h to complete the detection from viral RNA extraction, with good sensitivity and repeatability. Significance and Impact of the Study: Real-time RT-PCR assay with MGB probe was an effective means for quick and quantitative laboratory detection and monitoring of H5 avian influenza viruses.

**Code(s) de classement :** 002A05

### Descripteur(s) anglais

*Descripteur(s) :* Rapid technique; Detection; Real time; Polymerase chain reaction; Subtype; Avian influenza virus; Laboratory; Analysis method; Probe; Applied microbiology

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

### Descripteur(s) français

*Descripteur(s) :* Technique rapide; Detection; Temps reel; Reaction chaine polymerase; Soustype; Influenzavirus aviaire; Laboratoire; Methode analyse; Sonde; Microbiologie appliquee

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

**Localisation :** INIST, Shelf number 7415L, INIST No. 354000174541830040

**Origine de la notice :** INIST

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## A vaccine prepared from a non-pathogenic H5N1 avian influenza virus strain confers protective immunity against highly pathogenic avian influenza virus infection in cynomolgus macaques

**Titre :** A vaccine prepared from a non-pathogenic H5N1 avian influenza virus strain confers protective immunity against highly pathogenic avian influenza virus infection in cynomolgus macaques

**Auteur(s) :** ITOH Yasushi; OZAKI Hiroichi; TSUCHIYA Hideaki; OKAMOTO Kiyoko; TORII Ryuzo; SAKODA Yoshihiro; KAWAOKA Yoshihiro; OGASAWARA Kazumasa; KIDA Hiroshi

**Affiliation(s) :** Department of Pathology, Shiga University of Medical Science, Otsu, Shiga 520-2192, Japan; Creative Research Initiative "Sousei", Hokkaido University, Sapporo 001-0021, Japan; Research Center for Animal Life Science, Shiga University of Medical Science, Otsu, Shiga 520-2192, Japan; Laboratory of Microbiology, Department of Disease Control, Graduate School of Veterinary Medicine, Hokkaido University, Sapporo 060-0818, Japan; Division of Virology, Department of Microbiology and Immunology, Institute of Medical Science, University of Tokyo, Tokyo 108-8639, Japan; Department of Pathological Science, University of Wisconsin-Madison, Madison, WI 53706, United States; Research Center for Zoonosis Control, Hokkaido University, Sapporo 060-0818, Japan

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**CODEN :** VACCDE

**Date de publication :** 2008

**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 31 ref.

**Résumé :** In order to prepare for the emergence of pandemic influenza viruses, we have established an influenza virus library that contains non-pathogenic influenza A virus strains with 135 combinations of 15 hemagglutinin and 9 neuraminidase subtypes. In this study, we developed a vaccine against H5N1 highly pathogenic avian influenza (HPAI) virus infection in humans using a virus strain selected from the library. We examined its immunogenic potency using cynomolgus macaques as a primate model. Virus antigen-specific antibodies were elicited by intranasal or subcutaneous administration of inactivated whole virus particle vaccines. After challenge with an H5N1 HPAI virus isolate obtained from a Vietnamese patient, the virus was detected only on next day following inoculation in the nasal and/or tracheal swabs of vaccinated macaques that were asymptomatic. On the other hand, the viruses were isolated from nasal and tracheal swabs from non-vaccinated macaques until day 5 and day 7 after inoculation of the H5N1 HPAI virus, respectively. Although six non-vaccinated macaques developed a high body temperature, and two of them lost their appetite after HPAI virus infection, they recovered by the end of the 12-day observation period and did not show the severe symptoms that have been reported in human H5N1 virus infection cases. This demonstrates that the vaccine prepared with the non-pathogenic H5N1 virus from our influenza virus library conferred protective immunity against H5N1 HPAI virus infection to macaques.

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

### Descripteur(s) anglais

*Descripteur(s) :* Influenza A virus; Avian influenza virus; Macaca fascicularis; Monkey; Vaccine; Pathogenicity; Strain; Immunoprotection

*Desc. génériques :* Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Simioidea; Primates; Mammalia; Vertebrata; Zoopathogen

### Descripteur(s) français

*Descripteur(s) :* Virus grippal A; Influenzavirus aviaire; Macaca fascicularis; Singe; Vaccin; Pouvoir pathogène; Souche; Immunoprotection

*Desc. génériques* : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Simioidea; Primates; Mammalia; Vertebrata; Zoopathogene

**Localisation** : INIST, Shelf number 20289, INIST No. 354000173959720140

**Origine de la notice** : INIST

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## Combination adjuvants for the induction of potent, long-lasting antibody and T-cell responses to influenza vaccine in mice

**Titre :** Combination adjuvants for the induction of potent, long-lasting antibody and T-cell responses to influenza vaccine in mice

**Auteur(s) :** WACK Andreas; BAUDNER Barbara C; HILBERT Anne K; MANINI Llara; NUTI Sandra; TAVARINI Simona; SCHEFFCZIK Hanno; UGOZZOLI Mildred; SINGH Manmohan; KAZZAZ Jina; MONTOMOLI Emanuele; DEL GIUDICE Giuseppe; RAPPUOLI Rino; O' HAGAN Derek T

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**Source :** Vaccine . 2008; 26 (4) : 552-561

**ISSN :** 0264-410X

**CODEN :** VACCDE

**Date de publication :** 2008

**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 57 ref.

**Résumé :** Influenza is controlled by protective titres of neutralizing antibodies, induced with the help of CD4 T-cells, and by antiviral T-cell effector function. Adjuvants are essential for the efficient vaccination of a naive population against avian influenza. We evaluated a range of adjuvants for their ability to enhance, in naive mice, protective hemagglutination inhibition (HI) titres, which represent the generally accepted correlate of protection, virus-neutralizing titres and T-cell responses to a new generation influenza vaccine produced in cell culture. The selected adjuvants include alum, calcium phosphate (CAP), MF59, the delivery system poly(lactide co-glycolide) (PLG) and the immune potentiator CpG. MF59 was clearly the most potent single adjuvant and induced significantly enhanced, long-lasting HI and neutralizing titres and T-cell responses in comparison to all alternatives. The combination of alum, MF59, CAP or PLG with CpG generally induced slightly more potent titres. The addition of CpG to MF59 also induced a more potent Th1 cellular immune response, represented by higher IgG2a titres and the induction of a strongly enhanced IFN-gamma response in splenocytes from immunized mice. These observations have significant implications for the development of new and improved flu vaccines against pandemic and inter-pandemic influenza virus strains.

**Code(s) de classement :** 002A05F04

### Descripteur(s) anglais

*Descripteur(s) :* Mouse; Immunological adjuvant; Humoral immunity; Immune response; Cellular immunity; Vaccine; Cytokine; Influenza

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

### Descripteur(s) français

*Descripteur(s) :* Souris; Adjuvant immunologique; Immunité humorale; Réponse immunitaire; Immunité cellulaire; Vaccin; Cytokine; Grippe

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

**Localisation :** INIST, Shelf number 20289, INIST No. 354000173959720130

**Origine de la notice :** INIST

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## A combination in-ovo vaccine for avian influenza virus and Newcastle disease virus

**Titre :** A combination in-ovo vaccine for avian influenza virus and Newcastle disease virus

**Auteur(s) :** STEEL John; BURMAKINA Svetlana V; THOMAS Colleen; SPACKMAN Erica; GARCIA SASTRE Adolfo; SWAYNE David E; PALESE Peter

**Affiliation(s) :** Department of Microbiology, Mount Sinai School of Medicine, 1 Gustave Levy Pl, New York, NY 10029-6574, United States; USDA-ARS, Southeast Poultry Research Laboratory, Athens, GA 30605-2195, United States; Department of Medicine, Division of Infectious Diseases, Mount Sinai School of Medicine, 1 Gustave Levy Pl, New York, NY 10029-6574, United States; Emerging Pathogens Institute, Mount Sinai School of Medicine, 1 Gustave Levy Pl, New York, NY 10029-6574, United States

**Source :** Vaccine . 2008; 26 (4) : 522-531

**ISSN :** 0264-410X

**CODEN :** VACCDE

**Date de publication :** 2008

**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 31 ref.

**Résumé :** The protection of poultry from H5N1 highly pathogenic avian influenza A (HPAI) and Newcastle disease virus (NDV) can be achieved through vaccination, as part of a broader disease control strategy. We have previously generated a recombinant influenza virus expressing, (i) an H5 hemagglutinin protein, modified by the removal of the polybasic cleavage peptide and (ii) the ectodomain of the NDV hemagglutinin-neuraminidase (HN) protein in the place of the ectodomain of influenza neuraminidase (Park MS, et al. Proc Natl Acad Sci USA 2006; 103(21 ):8203-8). Here we show this virus is attenuated in primary normal human bronchial epithelial (NHBE) cell culture, and demonstrate protection of C57BL/6 mice from lethal challenge with an H5 HA-containing influenza virus through immunisation with the recombinant virus. In addition, in-ovo vaccination of 18-day-old embryonated chicken eggs provided 90% and 80% protection against highly stringent lethal challenge by NDV and H5N1 virus, respectively. We propose that this virus has potential as a safe in-ovo live, attenuated, bivalent avian influenza and Newcastle disease virus vaccine.

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

### Descripteur(s) anglais

*Descripteur(s) :* Avian influenza virus; Newcastle disease virus; Vaccine; Avian influenza

*Desc. génériques :* Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Rubulavirus; Paramyxovirinae; Paramyxoviridae; Mononegavirales; Zoopathogen; Viral disease; Infection; Veterinary

### Descripteur(s) français

*Descripteur(s) :* Influenzavirus aviaire; Virus de la maladie de Newcastle; Vaccin; Grippe aviaire

*Desc. génériques :* Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Rubulavirus; Paramyxovirinae; Paramyxoviridae; Mononegavirales; Zoopathogène; Virose; Infection; Vétérinaire

**Localisation :** INIST, Shelf number 20289, INIST No. 354000173959720100

**Origine de la notice :** INIST

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## LOW PATHOGENICITY AVIAN INFLUENZAS AND HUMAN HEALTH

**Titre :** LOW PATHOGENICITY AVIAN INFLUENZAS AND HUMAN HEALTH

**Auteur(s) :** TEAM Influenza

**Source :** Euro surveillance. 2007; 12 (3-6) : 183-184

**ISSN :** 1025-496X

**Date de publication :** 2007

**Pays de publication :** France

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 16 ref.

**Code(s) de classement :** 002B30A01C; 002B05C02C

**Descripteur(s) anglais**

*Descripteur(s) :* Avian influenza; Pathogenicity; Human; Public health; Sanitary surveillance; Europe

*Desc. génériques :* Public health; Medical sciences; Virology; Infectious diseases; Medical sciences; Viral disease; Infection

**Descripteur(s) français**

*Descripteur(s) :* Grippe aviaire; Pouvoir pathogene; Homme; Sante publique; Surveillance sanitaire; Europe

*Desc. génériques :* Sante publique; Sciences medicales; Virologie; Maladies infectieuses; Sciences medicales; Virose; Infection

**Localisation :** INIST, Shelf number 26438, INIST No. 354000173983800230

**Origine de la notice :** INIST

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## Update on Avian Influenza A (H5N1) Virus Infection in Humans

**Titre :** Update on Avian Influenza A (H5N1) Virus Infection in Humans

**Auteur(s) :** Writing Committee of the Second World Health Organization Consultation on Clinical Aspects of Human Infection with Avian Influenza A H5N1 Virus, Unknown

**Source :** The New England journal of medicine. 2008; 358 (3) : 261-273

**ISSN :** 0028-4793

**CODEN :** NEJMAG

**Date de publication :** 2008

**Pays de publication :** United States

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 76 ref.

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

### **Descripteur(s) anglais**

*Descripteur(s) :* Avian influenza; Influenza A virus; Influenza A; Human; Medicine; Influenzavirus AH5N1

*Desc. génériques :* Medical sciences; Virology; Infectious diseases; Medical sciences; Viral disease; Infection; Influenzavirus A; Orthomyxoviridae; Virus

### **Descripteur(s) français**

*Descripteur(s) :* Grippe aviaire; Virus grippal A; Grippe A; Homme; Medecine; Influenzavirus AH5N1

*Desc. génériques :* Sciences médicales; Virologie; Maladies infectieuses; Sciences médicales; Virose; Infection; Influenzavirus A; Orthomyxoviridae; Virus

**Localisation :** INIST, Shelf number 6013, INIST No. 354000174576400070

**Origine de la notice :** INIST

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## Modeling the avian flu, lessons form complex adaptive systems in biology

**Titre :** Modeling the avian flu, lessons form complex adaptive systems in biology

**Auteur(s) :** ELGAZZAR E Ahmed A S; HEGAZIA A S

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Mathematics Department, Faculty of Education, Al-Arish, Egypt

**Source :** Applied mathematics and computation. 2008; 195 (1) : 351-354

**ISSN :** 0096-3003

**CODEN :** AMHCBQ

**Date de publication :** 2008

**Pays de publication :** United States

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 16 ref.

**Résumé :** Recently avian (Bird's) flu has caused severe problems worldwide. We apply results from complex adaptive systems in biology (CASiB) to this problem. We show that fractional order coupled map lattice is suitable to model avian flu. Stability results are given.

**Code(s) de classement :** 001A02E; 001A02I01; 001A02B02

### Descripteur(s) anglais

*Descripteur(s) :* Complex system; Adaptive system; Numerical stability; Applied mathematics; Numerical analysis

*Desc. génériques :* Mathematics; Numerical analysis; Mathematics; Mathematics

### Descripteur(s) français

*Descripteur(s) :* Systeme complexe; Systeme adaptatif; Stabilite numerique; Mathematiques appliquees; Analyse numerique; 06Bxx

*Desc. génériques :* Mathematiques; Analyse numerique; Mathematiques; Mathematiques

**Localisation :** INIST, Shelf number 15766, INIST No. 354000174568730320

**Origine de la notice :** INIST

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## Development and application of monoclonal antibodies against avian influenza virus nucleoprotein

**Titre :** Development and application of monoclonal antibodies against avian influenza virus nucleoprotein

**Auteur(s) :** MING YANG; BERHANE Yohannes; SALO Tim; MINGYI LI; HOLE Kate; CLAVIJO Alfonso

**Affiliation(s) :** National Centre for Foreign Animal Disease, 1015 Arlington Street, Winnipeg, Manitoba, R3E 3M4, Canada

**Source :** Journal of virological methods. 2008; 147 (2) : 265-274

**ISSN :** 0166-0934

**CODEN :** JVMEDH

**Date de publication :** 2008

**Pays de publication :** Netherlands

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 1/2 p.

**Résumé :** Rapid and accurate diagnosis of avian influenza (AI) infection is important for an understanding epidemiology. In order to develop rapid tests for AI antigen and antibody detection, two monoclonal antibodies (mAbs) against influenza nucleoprotein (NP) were produced. These mAbs are designated as F26-9 and F28-73 and able to recognize whole AI virus particles as well as the recombinant NP. Both of the mAbs were tested in a slot blot for their reactivity against 15 subtypes of influenza virus; F28-73 reacted with all tested 15 subtypes, while F26-9 failed to react with H13N6 and H15N8. The mAb binding epitopes were identified using truncated NP recombinant proteins and peptide array techniques. The mAb F26-9 reacted with NP-full, NP-1 (638 bp), NP-2 (315 bp), NP-4 (488 bp), and NP-5 (400 bp) in the Western blot. The peptide array results demonstrated that the mAb F26-9 reacted with NP peptides 15-17 corresponding to amino acids 71-96. The mAb F28-73 recognized the NP-full, -1 and -4 fragments, but failed to bind to NP-2, -3, -5, and any peptides. This antibody-binding site is expected to be contained within 1-162 amino acids of AI NP, although the exact binding epitope could not be determined. The two mAbs showed reactivity with AI antigen in immunofluorescence, immunohistochemistry and immune plaque assays. Immune response of AI infected animals was determined using the mAb F28-73 in a cELISA. All tested chickens were positive at 11 days post-infection and remained positive until the end of the experiment on day 28 (>50% inhibition). The two mAbs with different specificities are appropriate for developing various tests for diagnosis of AI infection.

**Code(s) de classement :** 002A05C09

### Descripteur(s) anglais

*Descripteur(s) :* Avian influenza virus; Monoclonal antibody; Nucleoprotein; Antigenic determinant; Microbiology; Method; Virology

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

### Descripteur(s) français

*Descripteur(s) :* Influenzavirus aviaire; Anticorps monoclonal; Nucleoprotéine; Déterminant antigénique; Microbiologie; Méthode; Virologie

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

**Localisation :** INIST, Shelf number 18295, INIST No. 354000162723470100

**Origine de la notice :** INIST

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## Development of an antigen-capture ELISA for detection of H7 subtype avian influenza from experimentally infected chickens

**Titre :** Development of an antigen-capture ELISA for detection of H7 subtype avian influenza from experimentally infected chickens

**Auteur(s) :** VELUMANI Sumathy; QINGYUN DU; FENNER Beau J; PRABAKARAN Mookkan; LIM CHEE WEE; LIN YUEH NUO; KWANG Jimmy

**Affiliation(s) :** Animal Health Biotechnology, Temasek Life Sciences Laboratory, National University of Singapore, Singapore 117604, Singapore; Agri-Food and Veterinary Authority (AVA) of Singapore, Singapore

**Source :** Journal of virological methods. 2008; 147 (2) : 219-225

**ISSN :** 0166-0934

**CODEN :** JVMEDH

**Date de publication :** 2008

**Pays de publication :** Netherlands

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 3/4 p.

**Résumé :** Emergence of highly pathogenic avian influenza H7N1 was due to mutation of low pathogenic avian influenza H7N1 strain, which caused outbreaks in Italy between 1999 and 2000, and resulted in complete mortality of infected poultry. This outbreak places increased importance on the early detection of H7N1 AIV. Here we describe the development of a detection method for H7N1 virus from infected chickens using a specific antigen-capture-ELISA (AC-ELISA). A panel of mAbs was developed against the surface antigen HA of H7N1 AIV strain A/chicken/Singapore/94. The mAbs were screened by immunofluorescence assays, ELISA and immunoblotting. Selected mAbs 5E5 and 8F10 were of isotypes IgM and IgG and were conformation- or linear epitope-specific, respectively. These mAbs were used as capture antibodies for AC-ELISA development. The detection limit was as little as  $10^{2-3}$  TCID<sub>50</sub> units of virus derived from tissue culture supernatants. Virus from the tracheal swab samples of experimentally infected chickens was detected from days 3 to 7 post-infection using the AC-ELISA, with results being confirmed by RT-PCR. AIV subtypes H4N1, H5N3 H9N2 and H10N5 did not react in the AC-ELISA but were RT-PCR positive, indicating that this AC-ELISA is specific for H7N1 strains.

**Code(s) de classement :** 002A05C09

### Descripteur(s) anglais

*Descripteur(s) :* Chicken; Antigen; ELISA assay; Detection; Subtype; Experimental disease; Monoclonal antibody; Microbiology; Method; Avian influenza; Virology

*Desc. génériques :* Virology; Microbiology; Biological sciences; Aves; Vertebrata; Veterinary; Viral disease; Infection

### Descripteur(s) français

*Descripteur(s) :* Poulet; Antigène; Technique ELISA; Détection; Sous-type; Pathologie expérimentale; Anticorps monoclonal; Microbiologie; Méthode; Grippe aviaire; Virologie

*Desc. génériques :* Virologie; Microbiologie; Sciences biologiques; Aves; Vertebrata; Vétérinaire; Virose; Infection

**Localisation :** INIST, Shelf number 18295, INIST No. 354000162723470040

**Origine de la notice :** INIST

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## Influenza Viral Infection in 2005-2006 in Samitivej Hospital

**Titre :** Influenza Viral Infection in 2005-2006 in Samitivej Hospital

**Auteur(s) :** SAENGHIRUNVATTANA Sawang; LAOHATHAI Piboon; THAWATSUPHA Pranee; KITPLATI Rungrueng; MASAKUL Naruemol; JATURAPHUNSATHAPORN Wimonthip

**Affiliation(s) :** Samitivej Sukumvit Hospital, Thailand; Ministry of Public Health, Thailand

**Source :** Chot Mai Het Thang Phaet. 2007; 90 (3) : 448-451

**ISSN :** 0125-2208

**CODEN :** JMTHBU

**Date de publication :** 2007

**Pays de publication :** Thailand

**Langue(s) :** English

**Langue(s) du résumé :** Thao

**Type de document :** Serial

**Nombre de références :** 6 ref.

**Résumé :** Objective: Set an alarm system for early detection of respiratory viral infection. Material and Method: The authors prospectively investigated avian flu and SARS between March 2005 and April 2006. Specimens from a nasopharyngeal swab or bronchial washing were analyzed for influenza A, B, parainfluenza, adenovirus, respiratory syncytial virus and avianflu and SARS by using technique of PCR and immunofluorescence by the Department of Medical Sciences. Results: Eighty-nine patients who were enrolled in the present study. Peak of the incidence was 43% on April 2005 and there was no incidence of the influenza from December 2005 till April 2006. This may be due to the mass campaign of influenza vaccination or seasonal variation. Conclusion: Vaccination remains the primary strategy for the prevention of influenza, and the broadened recommendations should lead to protection of a larger portion of the population.

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

### **Descripteur(s) anglais**

*Descripteur(s) :* Influenza; Immunoprophylaxis; Bronchoalveolar lavage; 2005; Public health; 2006; Hospital; Hospitalization; Vaccine; Tropical medicine

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

### **Descripteur(s) français**

*Descripteur(s) :* Grippe; Immunoprophylaxie; Lavage bronchoalveolaire; 2005; Sante publique; 2006; Hopital; Hospitalisation; Vaccin; Medecine tropicale

*Desc. génériques :* Sciences medicales; Virologie; Maladies infectieuses; Sciences medicales; Virose; Infection

**Localisation :** INIST, Shelf number 17480, INIST No. 354000174560060070

**Origine de la notice :** INIST

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## Hemostatic disorders in bird flu infection

**Titre :** Hemostatic disorders in bird flu infection

**Auteur(s) :** WIWANITKIT Viroj

**Affiliation(s) :** Department of Laboratory Medicine, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand

**Source :** Blood coagulation and fibrinolysis. 2008; 19 (1) : 5-6

**ISSN :** 0957-5235

**Date de publication :** 2008

**Pays de publication :** United States

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 16 ref.

**Résumé :** Bird flu or avian flu, caused by the H5N1 virus, is a new emerging infectious disease. The present review summarizes the details of thrombohemostatic disorders in human bird flu infection. According to present evidence, thrombocytopenia is a common presentation of H5N1 infection but disturbance of the coagulation pathway is not. In conclusion, bleeding presentation in patients with bird flu might relate to the pathology of platelets. Based on present knowledge, there is no report of thrombotic complication in H5N1 infection.

**Code(s) de classement :** 002B19C; 002A04I

### **Descripteur(s) anglais**

*Descripteur(s) :* Avian influenza; Hemostatic; Hemostasis; Thrombosis

*Desc. génériques :* Hematology; Medical sciences; Cell biology; Hematology; Biological sciences; Viral disease; Infection; Cardiovascular disease; Vascular disease

### **Descripteur(s) français**

*Descripteur(s) :* Grippe aviaire; Hemostatique; Hemostase; Thrombose

*Desc. génériques :* Hematologie; Sciences médicales; Biologie cellulaire; Hematologie; Sciences biologiques; Virose; Infection; Pathologie de l'appareil circulatoire; Pathologie des vaisseaux sanguins

**Localisation :** INIST, Shelf number 22532, INIST No. 354000162761650020

**Origine de la notice :** INIST

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## Novel reassortant of swine influenza H1N2 virus in Germany

**Titre :** Novel reassortant of swine influenza H1N2 virus in Germany

**Auteur(s) :** ZELL Roland; MOTZKE Susann; KRUMBHOLZ Andi; WUTZLER Peter; HERWIG Volker; DURRWALD Ralf

**Affiliation(s) :** Institut für Virologie und Antivirale Therapie, Universitätsklinikum, Friedrich Schiller Universität, Hans-Knoll-Str. 2, 07745 Jena, Germany; Impfstoffwerk Dessau-Tornau (IDT), Bereich Forschung und Entwicklung, Streezter Weg 15a, 06861 Dessau-Rosslau, Germany

**Source :** Journal of general virology. 2008; 89 (p. 1) : 271-276

**ISSN :** 0022-1317

**CODEN :** JGVIAY

**Date de publication :** 2008

**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial

**Type de document :** short-communication

**Nombre de références :** 1/2 p.

**Résumé :** European porcine H1N2 influenza viruses arose after multiple reassortment steps involving a porcine influenza virus with avian-influenza-like internal segments and human H1N1 and H3N2 viruses in 1994. In Germany, H1 N2 swine influenza viruses first appeared in 2000. Two German H1N2 swine influenza virus strains isolated from pigs with clinical symptoms of influenza are described. They were characterized by the neutralization test, haemagglutination inhibition (HI) test and complete sequencing of the viral genomes. The data demonstrate that these viruses represent a novel H1N2 reassortant. The viruses showed limited neutralization by sera raised against heterologous A/sw/Bakum/1832/00-like H1N2 viruses. Sera pools from recovered pigs showed a considerably lower HI reaction, indicative of diagnostic difficulties in using the HI test to detect these viruses with A/sw/Bakum/1832/00-like H1N2 antigens. Genome sequencing revealed the novel combination of the human-like HA<sub>H1</sub> gene of European porcine H1N2 influenza viruses and the NA<sub>N2</sub> gene of European porcine H3N2 viruses.

**Code(s) de classement :** 002A05C10

### Descripteur(s) anglais

*Descripteur(s) :* Swine; Pig; Influenzavirus; Germany; Microbiology; Genetic reassortment

*Desc. génériques :* Virology; Microbiology; Biological sciences; Artiodactyla; Ungulata; Mammalia; Vertebrata; Orthomyxoviridae; Virus; Europe; Veterinary

### Descripteur(s) français

*Descripteur(s) :* Porcin; Porc; Influenzavirus; Allemagne; Microbiologie; Reassortiment génétique

*Desc. génériques :* Virologie; Microbiologie; Sciences biologiques; Artiodactyla; Ungulata; Mammalia; Vertebrata; Orthomyxoviridae; Virus; Europe; Veterinaire

**Localisation :** INIST, Shelf number 13533, INIST No. 354000173936620250

**Origine de la notice :** INIST

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## Protective effect of low-concentration chlorine dioxide gas against influenza A virus infection

**Titre :** Protective effect of low-concentration chlorine dioxide gas against influenza A virus infection

**Auteur(s) :** OGATA Norio; SHIBATA Takashi

**Affiliation(s) :** Research Institute, Taiko Pharmaceutical Co. Ltd, 3-34-14 Uchihonmachi, Suita, Osaka 564-0032, Japan

**Source :** Journal of general virology. 2008; 89 (p. 1) : 60-67

**ISSN :** 0022-1317

**CODEN :** JGVIAY

**Date de publication :** 2008

**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 1 p.

**Résumé :** Influenza virus infection is one of the major causes of human morbidity and mortality. Between humans, this virus spreads mostly via aerosols excreted from the respiratory system. Current means of prevention of influenza virus infection are not entirely satisfactory because of their limited efficacy. Safe and effective preventive measures against pandemic influenza are greatly needed. We demonstrate that infection of mice induced by aerosols of influenza A virus was prevented by chlorine dioxide (ClO<sub>2</sub>) gas at an extremely low concentration (below the long-term permissible exposure level to humans, namely 0.1 p.p.m.). Mice in semi-closed cages were exposed to aerosols of influenza A virus (1 LD<sub>50</sub>) and ClO<sub>2</sub> gas (0.03 p.p.m.) simultaneously for 15 min. Three days after exposure, pulmonary virus titre (TCID<sub>50</sub>) was 10<sup>2.6</sup> ± 1.5 in five mice treated with ClO<sub>2</sub>, whilst it was 10<sup>6.7</sup> ± 0.2 in five mice that had not been treated (P=0.003). Cumulative mortality after 16 days was 0/10 mice treated with ClO<sub>2</sub> and 7/10 mice that had not been treated (P=0.002). In in vitro experiments, ClO<sub>2</sub> denatured viral envelope proteins (haemagglutinin and neuraminidase) that are indispensable for infectivity of the virus, and abolished infectivity. Taken together, we conclude that ClO<sub>2</sub> gas is effective at preventing aerosol-induced influenza virus infection in mice by denaturing viral envelope proteins at a concentration well below the permissible exposure level to humans. ClO<sub>2</sub> gas could therefore be useful as a preventive means against influenza in places of human activity without necessitating evacuation.

**Code(s) de classement :** 002A05C10

### Descripteur(s) anglais

*Descripteur(s) :* Influenza A virus; Prevention; Chlorine dioxide; Infection; Microbiology

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

### Descripteur(s) français

*Descripteur(s) :* Virus grippal A; Prevention; Dioxyde de chlore; Infection; Microbiologie

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

**Localisation :** INIST, Shelf number 13533, INIST No. 354000173936620030

**Origine de la notice :** INIST

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## Molecular analysis of avian H7 influenza viruses circulating in Eurasia in 1999-2005 : s-detection of multiple reassortant virus genotypes

**Titre :** Molecular analysis of avian H7 influenza viruses circulating in Eurasia in 1999-2005 : s-detection of multiple reassortant virus genotypes

**Auteur(s) :** CAMPITELLI Laura; DI MARTINO Angela; SPAGNOLO Domenico; SMITH Gavin J D; DI TRANI Livia; FACCHINI Marzia; ALESSANDRA DE MARCO Maria; FONI Emanuela; CHIAPPONI Chiara; MORENO MARTIN Ana; HONGLIN CHEN; YI GUAN; DELOGU Mauro; DONATELLI Isabella

**Affiliation(s) :** Department of Infectious, Parasitic and Immune-Mediated Diseases, Istituto Superiore di Sanita, Viale Regina Elena 299, 00161 Rome, Italy; Department of Food Safety and Veterinary Public Health, Istituto Superiore di Sanita, Viale Regina Elena 299, 00161 Rome, Italy; State Key Laboratory of Emerging Infectious Diseases, Department of Microbiology, The University of Hong Kong, Faculty of Medicine Building, 21 Sassoon Road, Pokfulam, Hong Kong; Department of Veterinary Public Health and Animal Pathology, Faculty of Veterinary Medicine, University of Bologna, Ozzano Emilia (BO), Italy; Istituto Zooprofilattico Sperimentale of Lombardia and Emilia, Parma, Italy; Istituto Zooprofilattico Sperimentale of Lombardia and Emilia, Brescia, Italy

**Source :** Journal of general virology. 2008; 89 (p. 1) : 48-59

**ISSN :** 0022-1317

**CODEN :** JGVIAY

**Date de publication :** 2008

**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 1 p.3/4

**Résumé :** Avian influenza infections by high and low pathogenicity H7 influenza viruses have caused several outbreaks in European poultry in recent years, also resulting in human infections. Although in some cases the source of H7 strains from domestic poultry was shown to be the viruses circulating in the wild bird reservoir, a thorough characterization of the entire genome of H7 viruses from both wild and domestic Eurasian birds, and their evolutionary relationships, has not been conducted. In our study, we have analysed low pathogenicity H7 influenza strains isolated from wild and domestic ducks in Italy and southern China and compared them with those from reared terrestrial poultry such as chicken and turkey. Phylogenetic analysis demonstrated that the H7 haemagglutinin genes were all closely related to each other, whereas the remaining genes could be divided into two or more phylogenetic groups. Almost each year different H7 reassortant viruses were identified and in at least two different years more than one H7 genotype co-circulated. A recent precursor in wild waterfowl was identified for most of the gene segments of terrestrial poultry viruses. Our data suggest that reassortment allows avian influenza viruses, in their natural reservoir, to increase their genetic diversity. In turn this might help avian influenza viruses colonize a wider range of hosts, including domestic poultry.

**Code(s) de classement :** 002A05C10

### Descripteur(s) anglais

*Descripteur(s) :* Avian influenza virus; Eurasia; Genotype; Microbiology; Genetic reassortment

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

### Descripteur(s) français

*Descripteur(s) :* Influenzavirus aviaire; Eurasie; Genotype; Microbiologie; Reassortiment génétique

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

**Localisation :** INIST, Shelf number 13533, INIST No. 354000173936620020

**Origine de la notice :** INIST

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## Molecular diagnosis of viral diseases, present trends and future aspects A view from the OIE Collaborating Centre for the Application of Polymerase Chain Reaction Methods for Diagnosis of Viral Diseases in Veterinary Medicine. 4th International Veterinary Vaccines and Diagnostics Conference, Oslo, 25-29 June 2006

**Titre :** Molecular diagnosis of viral diseases, present trends and future aspects A view from the OIE Collaborating Centre for the Application of Polymerase Chain Reaction Methods for Diagnosis of Viral Diseases in Veterinary Medicine. 4th International Veterinary Vaccines and Diagnostics Conference, Oslo, 25-29 June 2006

**Auteur(s) :** BELAK Sandor; SIHVONEN Liisa, ed

**Affiliation(s) :** Joint R&D Division, Departments of Virology, The National Veterinary Institute and the Swedish University of Agricultural Sciences, OIE Collaborating Centre for the Application of Polymerase Chain Reaction Methods for Diagnosis of Viral Diseases in Veterinary Medicine, Uppsala, Sweden; Virology, Research on Animal Diseases and Food Safety, EVIRA, Mustialankatu 3, 00790 Helsinki, Finland

**Source :** Vaccine . 2007; 25 (30) : 5444-5452

**Informations congrès :** \*IVVDC: International Veterinary Vaccines and Diagnostics Conference, \*4, \*Oslo Norway, \*2006-06-25

**ISSN :** 0264-410X

**CODEN :** VACCDE

**Date de publication :** 2007

**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial; \*Conference-Meeting

**Nombre de références :** 33 ref.

**Résumé :** The emergence and re-emergence of transboundary animal diseases (TADs), e.g., foot-and-mouth disease, classical swine fever and the highly pathogenic avian influenza strongly indicate the need for the development of powerful and robust new diagnostic methods. The experiences of an OIE-Collaborating Centre and of two EU project consortia are summarised on the diagnostic application of gel-based PCR, general PCR systems, phylogeny, molecular epidemiology, real-time PCR (TaqMan, Molecular Beacons, Primer-Probe Energy Transfer), amplification without thermocycling (Invader), multiplex PCR, nucleic acid extraction and pipetting robotics, automation and quality control, including internal controls. By following the steps of OIE validation, the diagnostic assays are nationally and internationally standardised. The development of padlock probes and microarrays, as well as ultra rapid PCR and sequencing methods is further improving the arsenal of nucleic acid based molecular diagnosis. Further trends of diagnostic development are also mentioned, in order to combat TADs and other viral infections more effectively in the future.

**Code(s) de classement :** 002A05C07

### **Descripteur(s) anglais**

*Descripteur(s) :* Diagnosis; Polymerase chain reaction; Method; Veterinary; Automation; Review; Epizootics; Animal; Viral disease

*Desc. génériques :* Immunology; Pharmacology; Virology; Microbiology; Biological sciences; Infection

### **Descripteur(s) français**

*Descripteur(s) :* Diagnostic; Reaction chaine polymerase; Methode; Veterinaire; Automatiser; Article synthese; Epizootie; Animal; Virose

*Desc. génériques :* Immunologie; Pharmacologie; Virologie; Microbiologie; Sciences biologiques; Infection

**Localisation :** INIST, Shelf number 20289, INIST No. 354000162391710010

**Origine de la notice : INIST**

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## Toxicological evaluation of live attenuated, cold-adapted H5N1 vaccines in ferrets

**Titre :** Toxicological evaluation of live attenuated, cold-adapted H5N1 vaccines in ferrets

**Auteur(s) :** JIN H; MANETZ S; LEININGER J; LUKE C; SUBBARAO K; MURPHY B; KEMBLE G; COELINGH K L

**Affiliation(s) :** MedImmune, Inc., 297 North Bernardo Avenue, Mountain View, CA 94043, United States; MedImmune, Inc., One MedImmune Way, Gaithersburg, MD 20878, United States; Laboratory of Infectious Diseases, NIAID, NIH, Bethesda, MD 20892, United States

**Source :** Vaccine . 2007; 25 (52) : 8664-8672

**ISSN :** 0264-410X

**CODEN :** VACCDE

**Date de publication :** 2007

**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 23 ref.

**Résumé :** Live attenuated influenza vaccines (LAIV) have several attributes related to safety, immunogenicity, cross-protection against antigenic drift strains, high yield and needle-free administration that make them attractive candidates for control of pandemic influenza. H5N1 LAIV vaccine candidates are attenuated in ferrets, chickens and mice. These vaccine candidates were further characterized in the ferret model to evaluate their toxicity at doses comparable to seasonal LAIV and at doses up to 100-fold higher. The results demonstrated that H5N1 LAIV, even when administered at high doses, is restricted in replication in the lower respiratory tract of ferrets. However, intranasal administration of 0.5 mL can result in deposition of H5N1 LAIV in the ferret lung, where it induces a pulmonary inflammatory response in the absence of significant local replication of the vaccine virus. Thus, smaller vaccine dose volumes should be considered for evaluation of LAIV in animal models.

**Code(s) de classement :** 002A05F04

### Descripteur(s) anglais

*Descripteur(s) :* Attenuated strain; Vaccine; Influenza

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

### Descripteur(s) français

*Descripteur(s) :* Souche atténuée; Vaccin; Grippe

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

**Localisation :** INIST, Shelf number 20289, INIST No. 354000162680060030

**Origine de la notice :** INIST

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## A dual reporter gene based system to quantitate the cell fusion of avian influenza virus H5N1

**Titre :** A dual reporter gene based system to quantitate the cell fusion of avian influenza virus H5N1

**Auteur(s) :** YAN SU; HUAIYI YANG; BAOJIANG ZHANG; XIAOXUAN QI; PO TIEN

**Affiliation(s) :** Molecular Virology Research Center, Institute of Microbiology, Chinese Academy of Sciences, Beijing 100101, China; Graduate School of the Chinese Academy of Sciences, Beijing, China

**Source :** Biotechnology letters. 2008; 30 (1) : 73-79

**ISSN :** 0141-5492

**CODEN :** BILED3

**Date de publication :** 2008

**Pays de publication :** Netherlands

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 3/4 p.

**Résumé :** Membrane fusion is central to the entry of influenza virus into host cells. To quantitatively determine the fusion activity of hemagglutinin (HA) of avian influenza virus H5N1, we established a cell fusion assay based on a dual luciferase reporter gene. The HA fusion activity was assayed by measuring luciferase expression in fused cells, allowing a rapid, sensitive, and quantitative comparison of HA fusion activities at various pHs and in different cells types. The simplicity and the quantitative nature of this novel assay are ideally suited for identifying viral receptors or screening for inhibitors of viral entry in the future.

**Code(s) de classement :** 002A31; 215

### **Descripteur(s) anglais**

*Descripteur(s) :* Reporter gene; Cell fusion; Hemagglutinin; Quantitative analysis; Avian influenza virus; H5N1; Influenzavirus AH5N1

*Desc. génériques :* Biotechnology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus

### **Descripteur(s) français**

*Descripteur(s) :* Gene indicateur; Fusion cellulaire; Hemagglutinine; Analyse quantitative; Influenzavirus aviaire; Souche H5N1; Influenzavirus AH5N1

*Desc. génériques :* Biotechnologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus

**Localisation :** INIST, Shelf number 18225, INIST No. 354000173905510110

**Origine de la notice :** INIST

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## Share and share alike

**Titre :** Share and share alike

**Source :** Lancet Infectious diseases print. 2008; 8 (1) : p. 1

**ISSN :** 1473-3099

**Date de publication :** 2008

**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial

**Code(s) de classement :** 002B05C02C; 002B30A01C

**Descripteur(s) anglais**

*Descripteur(s) :* Avian influenza; Sanitary program; WHO; Prevention; Human

*Desc. génériques :* Virology; Infectious diseases; Medical sciences; Public health; Medical sciences; Viral disease; Infection; Public health organization; Public health

**Descripteur(s) français**

*Descripteur(s) :* Grippe aviaire; Programme sanitaire; OMS; Prevention; Homme; Pandemie

*Desc. génériques :* Virologie; Maladies infectieuses; Sciences médicales; Santé publique; Sciences médicales; Virose; Infection; Organisation sante; Santé publique

**Localisation :** INIST, Shelf number 27478, INIST No. 354000173897850010

**Origine de la notice :** INIST

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## L' influenza aviaire : niveau de risque et mesures de securite

**Titre :** L' influenza aviaire : niveau de risque et mesures de securite

**Auteur(s) :** SOROSTE Alain

**Source :** OPTION QUALITE. 2007-11; (265) : 15-21

**ISSN :** 0755-6225

**Date de publication :** 2007

**Pays de publication :** France

**Langue(s) :** French

**Type de document :** Serial

**Résumé :** Depuis plusieurs annees, l' influenza aviaire hautement pathogene perturbe le fonctionnement du marche de la volaille. Cet article revient sur le cadre general de ces mesures qui concernent en premier lieu les eleveurs de volailles, leurs groupements de production et par ricochet les abattoirs et potentiellement toute la filiere selon le niveau de risque determine. Sont detaillees les dispositions de l' arrete du 5 fevrier 2007 et du 28 septembre 2007

**Code(s) de classement :** 002B30A11

### **Descripteur(s) anglais**

*Descripteur(s) :* Influenza; Virus; Animal; Rearing; Farmer; Regulation; France; Meat; Crisis; Emerging disease; Slaughterhouse; Risk management; Epizootics

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

### **Descripteur(s) français**

*Descripteur(s) :* Grippe; Virus; Animal; Elevage; Agriculteur; Reglementation; France; Viande; Crise; Maladie emergente; Abattoir; Gestion risque; Epizootie

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

**Localisation :** BDSP/ENSP, Shelf number 163827

**Origine de la notice :** BDSP

## Elaboration du volet Risque Sanitaire de type infectieux des Plans Communaux de Sauvegarde. Application a la commune de Chateaubourg (35)

**Titre :** Elaboration du volet Risque Sanitaire de type infectieux des Plans Communaux de Sauvegarde. Application a la commune de Chateaubourg (35)

**Auteur(s) :** GOIN Carolyne

**Auteur(s) :** Ecole Nationale de la Sante Publique ENSP Rennes, France, tutelle

**Source :** 2007; 2007; 67 p.; ann.

**Informations thèse :** Memoire ENSP d'Ingenieur du Genie sanitaire, 2007, 2007

**Éditeur :** Ecole Nationale de la Sante Publique. (E.N.S.P.). Rennes.. France

**Date de publication :** 2007

**Pays de publication :** France

**Langue(s) :** French

**Type de document :** Thesis

**Nombre de références :** 1 p.

**Résumé :** Le plan Communal de Sauvegarde (PCS) est un document de gestion de crise, permettant d'organiser l'information et la mise en oeuvre du soutien aux populations lors d'un événement de Sécurité Civile (inondations, tremblements de terre, accident industriel...). Suite aux récentes grandes alertes sanitaires infectieuses (grippe aviaire, SRAS, meningites...), les municipalités doivent également se préparer à affronter des épidémies en incluant le risque infectieux parmi les risques menaçant le territoire communal et ses habitants. Ce rapport, élaboré à partir de l'exemple de la commune de Chateaubourg (Ille et Vilaine), propose de décrypter ce risque infectieux et de détailler les missions qui incombent à la commune pour (1) soutenir les personnes touchées et (2) limiter la propagation de la maladie. Ce travail initial a pour but d'inciter les élus à initier la rédaction du volet infectieux des PCS. (R.A.)

**Code(s) de classement :** 002B30A11

### Descripteur(s) anglais

*Descripteur(s) :* Plane; Prevention; Crisis; Management; Organization; Emergency; Natural disaster; Risk analysis; Epidemic; Local community; Responsibility; Information; Infection; Ille et Vilaine; Politician

*Desc. génériques :* Public health; Medical sciences; Bretagne; France; Europe

### Descripteur(s) français

*Descripteur(s) :* Plan; Prevention; Crise; Gestion; Organisation; Urgence; Cataclisme; Analyse risque; Epidemie; Collectivite locale; Responsabilite; Information; Infection; Ille et Vilaine; Homme politique

*Desc. génériques :* Sante publique; Sciences medicales; Bretagne; France; Europe

**Localisation :** BDSP/ENSP, Shelf number 163766, OL07/0018, OL07/0017

**Origine de la notice :** BDSP

## Grippe aviaire, ESB ... le delire sanitaire. Plaidoyer pour une civilisation de la vie

**Titre :** Grippe aviaire, ESB ... le delire sanitaire. Plaidoyer pour une civilisation de la vie

**Auteur(s) :** LEON Marie Helene

**Source :** 2007 07; 110 p.

**Éditeur :** L'Harmattan, Paris

**Date de publication :** 2007

**Pays de publication :** France

**Langue(s) :** French

**Type de document :** Book

**Nombre de références :** 1 p.

**Résumé :** Les crises sanitaires (Grippe aviaire, ESB,) sont revelatrices des mefaits d' une industrialisation agricole excessive. Paysans, animaux, sont au coeur d' un delire sanitaire attise par le principe de precaution et entretenu par la mediatisation. Cheptels abattus, eleveurs en detresse : le bilan est lourd. L' auteur invite a reflechir sur les relations entre les humains et les animaux, a s' interroger sur les choix de societe indispensables afin de se diriger vers une civilisation de la vie

**Code(s) de classement :** 002B30A01

### Descripteur(s) anglais

*Descripteur(s) :* Encephalitis; Farmer; Regulation; France; Rearing; Organic agriculture; Risk analysis; Epidemic; Mass media; Prevention; Health; Meat; Crisis; Spongiform encephalopathy; Risk management; Slaughterhouse; Precautionary principle; Sheep

*Desc. génériques :* Public health; Medical sciences; Europe; Prion disease; Infection; Artiodactyla; Ungulata; Mammalia; Vertebrata

### Descripteur(s) français

*Descripteur(s) :* Encephalite; Agriculteur; Reglementation; France; Elevage; Agriculture biologique; Analyse risque; Epidemie; Mass media; Prevention; Sante; Viande; Crise; Encephalopathie spongiforme; Gestion risque; Abattoir; Principe de precaution; Mouton

*Desc. génériques :* Sante publique; Sciences medicales; Europe; Maladie a prions; Infection; Artiodactyla; Ungulata; Mammalia; Vertebrata

**Localisation :** BDSP/ENSP, Shelf number 162077, CK50/0194

**Origine de la notice :** BDSP



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## Maladies sans frontieres

**Titre :** Maladies sans frontieres

**Auteur(s) :** MANUS Jean Marie

**Source :** REVUE DU SOIGNANT EN SANTE PUBLIQUE. 2007-10; (22) : 11-18

**ISSN :** 1766-2389

**Date de publication :** 2007

**Pays de publication :** France

**Langue(s) :** French

**Type de document :** Serial

**Nombre de références :** dissem.

**Résumé :** Occupant les esprits et les conversations actuelles, certains "problemes prioritaires de sante publique" necessitent information et mesures sanitaires. Par leur meconnaissance (lymphome), leur surprenante irruption mondiale (chikungunya), leur forte presence mediatique (grippe aviaire) ou leur montee inquietante (tuberculose ultrasensible), les quatre sujets de sante developpes dans ce dossier constituent une preoccupation mondiale

**Code(s) de classement :** 002B30A11

**Descripteur(s) anglais**

*Descripteur(s) :* Health promotion; Tuberculosis; Drug; Sensitivity resistance; Epidemiology; Sanitary surveillance; World; Emerging disease; Lymphoma

*Desc. génériques :* Public health; Medical sciences; Mycobacterial infection; Bacteriosis; Infection

**Descripteur(s) français**

*Descripteur(s) :* Promotion sante; Tuberculose; Medicament; Sensibilite resistance; Epidemiologie; Surveillance sanitaire; Monde; Maladie emergente; Lymphome

*Desc. génériques :* Sante publique; Sciences medicales; Mycobacteriose; Bacteriose; Infection

**Localisation :** BDSP/APHPDOC

**Origine de la notice :** BDSP

## HOUSEHOLD AND COMMUNITY TRANSMISSION OF THE ASIAN INFLUENZA A (H2N2) AND INFLUENZA B VIRUSES IN 1957 AND 1961

**Titre :** HOUSEHOLD AND COMMUNITY TRANSMISSION OF THE ASIAN INFLUENZA A (H2N2) AND INFLUENZA B VIRUSES IN 1957 AND 1961

**Auteur(s) :** NISHIURA Hiroshi; CHOWELL Gerardo

**Affiliation(s) :** Department of Medical Biometry, University of Tubingen, Tubingen, Germany; Research Center for Tropical Infectious Diseases, Nagasaki University Institute of Tropical Medicine, Nagasaki, Japan; Center for Nonlinear Studies, Theoretical Division (MS B284), Los Alamos National Laboratory, Los Alamos, NM, United States

**Source :** Southeast Asian journal of tropical medicine and public health. 2007; 38 (6) : 1075-1083

**ISSN :** 0125-1562

**CODEN :** SJTMAK

**Date de publication :** 2007

**Pays de publication :** Thailand

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 1 p.1/4

**Résumé :** This study analyzed the distribution of the number of cases in households of various sizes, reconsidering previous survey data from the Asian influenza A (H2N2) pandemic in 1957 and the influenza B epidemic in 1961. The final size distributions for the number of household cases were extracted from four different data sources ( $n = 547, 671, 92$  and  $263$  households), and a probability model was applied to estimate the community probability of infection (CPI) and household secondary attack rate (SAR). For the 1957 Asian influenza pandemic, the CPI and household SAR were estimated to be  $0.42$  95% confidence intervals (CI):  $0.37, 0.47$  and  $7.06\%$  (95% CI:  $4.73, 9.44$ ), respectively, using data from Tokyo. The figures for the same pandemic using data from Osaka were  $0.21$  (95% CI:  $0.19, 0.22$ ) and  $9.07\%$  (95% CI:  $6.73, 11.53$ ), respectively. Similarly, the CPI and household SAR for two different datasets of influenza B epidemics in Osaka in 1961 were estimated as  $0.37$  (95% CI:  $0.30, 0.44$ ) and  $18.41\%$  (95% CI:  $11.37, 25.95$ ) and  $0.20$  (95% CI:  $0.13, 0.28$ ) and  $10.51\%$  (95% CI:  $8.01, 13.15$ ), respectively. Community transmission was more frequent than household transmission, both for the Asian influenza pandemic and the influenza B epidemic, implying that community-based countermeasures (eg, area quarantine and social distancing) may play key roles in influenza interventions.

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

### Descripteur(s) anglais

*Descripteur(s) :* Influenza A; Influenza B; Household; Community; Transmission; Tropical medicine

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

### Descripteur(s) français

*Descripteur(s) :* Grippe A; Grippe B; Menage; Communauté; Transmission; Médecine tropicale

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

**Localisation :** INIST, Shelf number 19778, INIST No. 354000174502230150

**Origine de la notice :** INIST

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## Les maladies émergentes animales : Defis et opportunités; Animal emerging diseases : Challenges and opportunities

**Titre :** Les maladies émergentes animales : Defis et opportunités; Animal emerging diseases : Challenges and opportunities

**Auteur(s) :** CAMUS Emmanuel; LANCELOT Renaud

**Affiliation(s) :** Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD) pour le Languedoc -Roussillon, France; Charge de mission Santé animale et Maladies émergentes au CIRAD, France

**Source :** Bulletin de l'Académie vétérinaire de France. 2007; 160 (3) : 223-228

**ISSN :** 0001-4192

**CODEN :** BAVFAV

**Date de publication :** 2007

**Pays de publication :** France

**Langue(s) :** French

**Langue(s) du résumé :** English

**Type de document :** Serial

**Nombre de références :** 1/4 p.

**Résumé :** Les maladies animales émergentes ont pris une importance particulière ces dernières années. En témoignent l'influenza aviaire, la fièvre catarrhale ovine (bluetongue), la fièvre du Nil Occidental. Ces maladies ont souvent un berceau tropical d'où elles menacent ou atteignent les pays occidentaux. Les maladies émergentes représentent des défis économiques et sociaux, financiers, internationaux, biologiques, partenariaux et médiatiques. Elles constituent aussi des opportunités pour améliorer la nécessaire solidarité entre les pays du Nord et les pays du Sud, renforcer la présence des services vétérinaires, développer de nouveaux thèmes et disciplines de recherche revoir l'enseignement en épidémiologie et créer de nouveaux moyens de diffusion des informations. Le savoir-faire vétérinaire français dispose de tous les atouts nécessaires pour relever ces défis.

**Code(s) de classement :** 002A05A

### **Descripteur(s) anglais**

*Descripteur(s) :* Veterinary; Infection; Epidemiology; Emerging disease

*Desc. génériques :* Microbiology; Biological sciences

### **Descripteur(s) français**

*Descripteur(s) :* Vétérinaire; Infection; Épidémiologie; Maladie émergente

*Desc. génériques :* Microbiologie; Sciences biologiques

**Localisation :** INIST, Shelf number 815, INIST No. 354000146490090070

**Origine de la notice :** INIST

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## Maladies émergentes de la faune sauvage en Europe : Leçons à retenir pour se prémunir d'un retour de l'influenza aviaire; Emerging diseases of wildlife in Europe : Lessons to draw to prevent a resurgence of avian influenza

**Titre :** Maladies émergentes de la faune sauvage en Europe : Leçons à retenir pour se prémunir d'un retour de l'influenza aviaire; Emerging diseases of wildlife in Europe : Lessons to draw to prevent a resurgence of avian influenza

**Auteur(s) :** ARTOIS Marc; BICOUT Dominique; COPPALLE Jerome; DOCTRINAL Delphine; DURAND Ingrid; HARS Jean; SABATIER Philippe

**Affiliation(s) :** UR Environnement et prévision de la santé des populations, Ecole nationale vétérinaire de Lyon, 1 av. Bourgelat, 69280 Marcy l'Etoile, France; Ecole nationale des services vétérinaires, 1 avenue Bourgelat, 69280 Marcy l'Etoile, France; Unité sanitaire, Office national de la chasse et de la faune sauvage. ZI de Mayencin. 5 Allée de Bethleem, Gieres 38610, France

**Source :** Bulletin de l'Académie vétérinaire de France. 2007; 160 (3) : 215-222

**ISSN :** 0001-4192

**CODEN :** BAVFAV

**Date de publication :** 2007

**Pays de publication :** France

**Langue(s) :** French

**Langue(s) du résumé :** English

**Type de document :** Serial

**Nombre de références :** 3/4 p.

**Résumé :** La contamination de l'avifaune sauvage en Europe, en 2006, par des foyers d'Influenza Aviaire Hautement Pathogène (IAHP) a été une nouvelle illustration du risque sanitaire que représente la faune sauvage pour l'homme ou les animaux domestiques. Afin de mieux anticiper des incursions similaires et éviter les dérives liées à une communication mal conduite, cet article décrit la façon dont le risque a été étudié et géré dans le passé pour d'autres maladies de la faune sauvage en Europe. L'auteur propose aussi une méthodologie générale pour anticiper de tels événements.

**Code(s) de classement :** 002A05A

### Descripteur(s) anglais

*Descripteur(s) :* Human; Europe; Avian influenza; Wild animal; Veterinary; Zoonosis; Prevention; Epidemiology; Emerging disease

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

### Descripteur(s) français

*Descripteur(s) :* Homme; Europe; Grippe aviaire; Animal sauvage; Vétérinaire; Zoonose; Prévention; Épidémiologie; Maladie émergente

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

**Localisation :** INIST, Shelf number 815, INIST No. 354000146490090060

**Origine de la notice :** INIST

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## Vorbereitungen der Stadt Munchen auf eine Influenzapandemie; The City of Munich's preparations for an influenza pandemic

**Titre :** Vorbereitungen der Stadt Munchen auf eine Influenzapandemie; The City of Munich's preparations for an influenza pandemic

**Auteur(s) :** DREWECK C; GRAF P

**Affiliation(s) :** Landeshauptstadt Munchen, Referat fur Gesundheit und Umwelt, Abteilung Gesundheitsschutz (RGU-GS), Munchen, Germany

**Source :** Das Gesundheitswesen Stuttgart Thieme. 2007; 69 (8-9) : 470-474

**ISSN :** 0941-3790

**Date de publication :** 2007

**Pays de publication :** Germany

**Langue(s) :** German

**Langue(s) du résumé :** English

**Type de document :** Serial

**Nombre de références :** 10 ref.

**Résumé :** The publication of the German National Influenza Pandemic Plan initiated many public health activities at state and regional levels to get prepared for an influenza pandemic. Because of their population densities, urban areas will likely be affected earlier and more extensively. Therefore, the City of Munich started its preparations for a crisis situation early. The Division of Health and Environment of the City of Munich is the public health office responsible for putting plans into action. The main responsibilities are coordination and communication. Common measures to prevent and control infections on the basis of the Infectious Disease Control Act have to be implemented in a pandemic situation. The surveillance of influenza including laboratory diagnosis is highly sophisticated in Bavaria. Therapeutic means have developed significantly compared with the last pandemic in 1968. Nevertheless, at the peak of a pandemic, a shortage of personnel, hospital beds, vaccines and medications is expected. Priorities in the distribution of health resources should be defined in advance to help with decision making during the pandemic. Adequate communication with the public and all partners will be critical in order to reduce fear and unforeseen social disruption.

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

### **Descripteur(s) anglais**

*Descripteur(s) :* Urban environment; Preparation; Public health; Health service; Dragging; Teaching; Community; Influenza

*Desc. génériques :* Public health; Medical sciences; Virology; Infectious diseases; Medical sciences; Viral disease; Infection

### **Descripteur(s) français**

*Descripteur(s) :* Milieu urbain; Preparation; Sante publique; Service sante; Entrainement; Enseignement; Communaute; Grippe; Grippe pandemique; Pandemie; Plan pandémie; Etat de preparation

*Desc. génériques :* Sante publique; Sciences medicales; Virologie; Maladies infectieuses; Sciences medicales; Virose; Infection

**Localisation :** INIST, Shelf number 22028, INIST No. 354000162023020060

**Origine de la notice :** INIST

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## Genetic and Antigenic Analysis of Epidemic Influenza Viruses Isolated During 2006-2007 Season in Taiwan

**Titre :** Genetic and Antigenic Analysis of Epidemic Influenza Viruses Isolated During 2006-2007 Season in Taiwan

**Auteur(s) :** LIN Jih Hui; CHIU Shu Chun; LEE Cheng Hao; SU Yung Jui; TSAI Han Chuan; PENG Yen Tzu; WU Ho Seng

**Affiliation(s) :** Research and Diagnostic Center, Centers for Disease Control, Taipei, Taiwan

**Source :** Journal of medical virology. 2008; 80 (2) : 316-322

**ISSN :** 0146-6615

**CODEN :** JMVIDB

**Date de publication :** 2008

**Pays de publication :** United States

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 3/4 p.

**Résumé :** Influenza viruses are some of the most active pathogens in Taiwan. The monitoring influenza activity has been coordinated by the Centers for Diseases Control, Taiwan, and the surveillance is based on integrated clinical and virological surveillance components. Data from sentinel physician networks and other sources, mainly hospitals were collected. During 2006-07 season, a total of 1724 cases of laboratory-confirmed influenza were reported by collaborating laboratories and sentinels, which was five fold higher than during the corresponding part of the 2005-06 season. Of the Taiwan isolates analyzed using post-infection ferret antisera, 1.5% were H1N1 (A/Hi), 21.5% H3N2 (A/H3), and 77.0% influenza B viruses. This reflects the predominance of influenza B viruses during 2006-07 season. In addition, continued antigenic drift was seen with the A/I-B viruses compared with the previous season's reference strains. However, an increasing number of recent A/H3 isolates characterized in our report were amantadine sensitive. Preparation for an influenza pandemic is presently a high priority in Taiwan. Laboratory-based surveillance systems must be timely in order to be effective. The data presented here highlights the need to characterize the circulating strains both antigenically and genetically during regular surveillance. Any contribution of individual genes or gene combinations to usual or unusual epidemic characteristics might thus be identified ensuring that virus strains can be selected for vaccine formulation that will most closely match the circulating viruses.

**Code(s) de classement :** 002A05C10; 002B05C02J; 002A05C05

### Descripteur(s) anglais

*Descripteur(s) :* Influenzavirus; Genetics; Epidemic; Public health; Influenza; Taiwan; Phylogeny

*Desc. génériques :* Virology; Microbiology; Biological sciences; Virology; Infectious diseases; Medical sciences; Genetics; Virology; Microbiology; Biological sciences; Orthomyxoviridae; Virus; Viral disease; Infection; Asia

### Descripteur(s) français

*Descripteur(s) :* Influenzavirus; Genetique; Epidemie; Sante publique; Grippe; Taiwan; Phylogenese

*Desc. génériques :* Virologie; Microbiologie; Sciences biologiques; Virologie; Maladies infectieuses; Sciences medicales; Genetique; Virologie; Microbiologie; Sciences biologiques; Orthomyxoviridae; Virus; Virose; Infection; Asie

**Localisation :** INIST, Shelf number 17422, INIST No. 354000173907910190

**Origine de la notice :** INIST

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## La grippe humaine et aviaire due au virus H<sub>5</sub>N<sub>1</sub>. Ou en est-on en fevrier 2007 ?; Human and avian influenza due to the H<sub>5</sub>N<sub>1</sub> virus

**Titre :** La grippe humaine et aviaire due au virus H<sub>5</sub>N<sub>1</sub>. Ou en est-on en fevrier 2007 ?; Human and avian influenza due to the H<sub>5</sub>N<sub>1</sub> virus

**Auteur(s) :** DURAND Maurice Paul

**Source :** Sante Montrouge. 2007; 17 (1) : 3-10

**ISSN :** 1157-5999

**Date de publication :** 2007

**Pays de publication :** France

**Langue(s) :** French

**Langue(s) du résumé :** English

**Type de document :** Serial

**Nombre de références :** 2 ref.

**Résumé :** Les recentes alertes a la "grippe aviaire " communement appelee dans les milieux veterinaires " peste aviaire vraie " et son passage a l' homme, regulierement rappele par les medias, justifie cette mise au point. Apres avoir aborde quelques notions fondamentales sur la structure du virus grippal et ses divers types et sous-types, nous evokerons les differentes epidemies de grippe aviaire et de grippe humaine au cours de l' histoire. Nous decrirons ensuite l' influenza aviaire actuelle, son historique, sa presence sur les oiseaux migrateurs et domestiques, ses aspects cliniques. Nous aborderons egalement le passage a l' homme: les faits, les conditions, les cas humains, la consommation de viande de volaille. Le traitement sera ensuite evoque: nul en pathologie animale, tres restreint en pathologie humaine. La vaccination, ayant deja ete traitee precedemment, sera pratiquement tres peu abordee. Suivront ensuite les recommandations et les mesures prises tant au niveau national qu' international. Notre conclusion se voudra relativement optimiste, insistant sur la barriere d' espece et la multiplicite des virus aviaires pathogenes rencontres recemment chez l' homme. Elle insistera sur la necessite de contenir l' epizootie, au besoin par la vaccination animale, pour diminuer les chances de contaminer l' homme.

**Code(s) de classement :** 002B30A11; 002B01; 002B05C02C

### **Descripteur(s) anglais**

*Descripteur(s) :* Avian influenza; 2007; Human; Prevention; Vaccination; Virology; Tropical medicine; Public health; Influenzavirus AH5N1

*Desc. génériques :* Public health; Medical sciences; Medical sciences; Virology; Infectious diseases; Medical sciences; Viral disease; Infection

### **Descripteur(s) français**

*Descripteur(s) :* Grippe aviaire; 2007; Homme; Prevention; Vaccination; Virologie; Medecine tropicale; Sante publique; Virus H5N1; Influenzavirus AH5N1

*Desc. génériques :* Sante publique; Sciences medicales; Sciences medicales; Virologie; Maladies infectieuses; Sciences medicales; Virose; Infection

**Localisation :** INIST, Shelf number 22469, INIST No. 354000162508970010

**Origine de la notice :** INIST

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## Apport des modelisations des epidemies dans la decision de sante publique : exemple de la pandémie grippale; Contribution of simulation models to public health decisions : the influenza pandemic

**Titre :** Apport des modelisations des epidemies dans la decision de sante publique : exemple de la pandémie grippale; Contribution of simulation models to public health decisions : the influenza pandemic

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**Source :** Medecine et maladies infectieuses Supplement. 2007; 37 (3) : S204-S209

**ISSN :** 1166-8237

**Date de publication :** 2007

**Pays de publication :** France

**Langue(s) :** French

**Langue(s) du résumé :** English

**Type de document :** Serial

**Nombre de références :** 11 ref.

**Résumé :** Avec la menace d' une pandémie grippale, les travaux de preparation se sont multiplies dans le monde et plusieurs equipes ont modelise l' impact de mesures de controle sur une pandémie grippale. Nous avons revu les travaux de modelisation menés depuis 2003 et discute l' apport de ces travaux dans les choix de sante publique en France. Ces etudes ont montre que, sous certaines conditions, il etait envisageable de stopper une pandémie a sa source. En cas d' echec, il etait possible d' arreter un foyer naissant a partir de cas importes dans une communaute mais la quantite d' antiviraux necessaire serait vite prohibitive si le nombre de foyers se multipliait. L' utilisation d' antiviraux, en preventif ou en curatif, au cours d' une pandémie permettrait de reduire le nombre d' hospitalisations mais aussi l' incidence. Enfin, si certaines mesures mises en place seules pourraient controler une pandémie tant que le taux de reproduction est modere, une combinaison de mesures deviendrait le seul moyen de la controler pour des taux de reproduction plus eleves. Les resultats des modeles ont ete pris en compte a plusieurs reprises dans les recommandations d' utilisation des antiviraux en France.

**Code(s) de classement :** 002B05C02C; 002B28C; 002B30A01C

### Descripteur(s) anglais

*Descripteur(s) :* Influenza; Antiviral; Modeling; Epidemic; Simulation model; Mathematical model; World; France; Incidence; Public health; Sanitary program; Decision aid; Influenzavirus AH5N1

*Desc. génériques :* Virology; Infectious diseases; Medical sciences; Biomedical computer applications; Medical sciences; Public health; Medical sciences; Viral disease; Infection; Europe; Epidemiology

### Descripteur(s) français

*Descripteur(s) :* Grippe; Antiviral; Modelisation; Epidemie; Modele simulation; Modele mathematique; Monde; France; Incidence; Sante publique; Programme sanitaire; Aide decision; Pandemie; Influenzavirus AH5N1

*Desc. génériques :* Virologie; Maladies infectieuses; Sciences medicales; Informatique biomédicale; Sciences medicales; Sante publique; Sciences medicales; Virose; Infection; Europe; Epidemiologie

**Localisation :** INIST, Shelf number 15434S, INIST No. 354000174336740050

**Origine de la notice :** INIST

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## Organisation de la reanimation en situation de pandémie de grippe aviaire; Organization of intensive care units, in case of pandemic avian flu

**Titre :** Organisation de la reanimation en situation de pandémie de grippe aviaire; Organization of intensive care units, in case of pandemic avian flu

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**Affiliation(s) :** Societe de pathologie infectieuse de langue francaise, France; Societe de reanimation de langue francaise, France; Societe francaise d'anesthesie-reanimation, France; Groupe francophone de reanimation et urgences pediatriques, France; Societe francaise de medecine d'urgence, France; Societe de pneumologie de langue francaise, France; Societe francaise de neonatologie, France

**Source :** Medecine et maladies infectieuses Supplement. 2007; 37 (3) : S194-S203

**ISSN :** 1166-8237

**Date de publication :** 2007

**Pays de publication :** France

**Langue(s) :** French

**Type de document :** Serial

**Nombre de références :** 22 ref.

**Code(s) de classement :** 002B05C02C

### **Descripteur(s) anglais**

*Descripteur(s) :* Avian influenza; Resuscitation; Intensive care unit; Public health organization; Human

*Desc. génériques :* Virology; Infectious diseases; Medical sciences; Viral disease; Infection; Public health

### **Descripteur(s) français**

*Descripteur(s) :* Grippe aviaire; Reanimation; Unite soin intensif; Organisation sante; Homme; Pandemie

*Desc. génériques :* Virologie; Maladies infectieuses; Sciences medicales; Virose; Infection; Sante publique

**Localisation :** INIST, Shelf number 15434S, INIST No. 354000174336740040

**Origine de la notice :** INIST

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## Comparative study of the hemagglutinin and neuraminidase genes of influenza A virus H3N2, H9N2, and H5N1 subtypes using bioinformatics techniques

**Titre :** Comparative study of the hemagglutinin and neuraminidase genes of influenza A virus H3N2, H9N2, and H5N1 subtypes using bioinformatics techniques

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**Source :** Canadian journal of microbiology. 2007; 53 (7) : 830-839

**ISSN :** 0008-4166

**CODEN :** CJMIAZ

**Date de publication :** 2007

**Pays de publication :** Canada

**Langue(s) :** English

**Langue(s) du résumé :** French

**Type de document :** Serial

**Nombre de références :** 1 p.

**Résumé :** Afin d'étudier les patrons génomiques de sous-types du influenza A virus tels H3N2, H9N2 et H5N1, nous avons recolté 1842 séquences de gènes codant l'hémagglutinine et la neuraminidase à partir de la banque de données du NCBI et les avons catégorisées selon 7 critères: numéro d'accès, espèce hôte, année d'échantillonnage, pays, sous-type, nom du gène et séquence. Les séquences qui ont été isolées de populations humaines, aviaires ou porcines ont été extraites et gardées dans une base de données MySQL<Registered> pour une analyse plus poussée. Le contenu en GC et les valeurs d'utilisation non aléatoire de codons synonymes (RSCU, acronyme de relative synonymous codon usage) ont été calculés par des codes JAVA. L'analyse de correspondance des valeurs de RSCU qui en a résulté a généré un patron d'utilisation de codon unique (CUP, acronyme de codon usage pattern) pour chaque sous-type et n'a révélé aucune différence marquée entre les isolats humains, aviaires et porcins. Les virus du sous-type H5N1 ne révélaient que peu de variation de CUP comparativement aux autres sous-types, suggérant que le CUP de H5N1 n'a pas changé de façon significative à l'intérieur de chacun des hôtes. De plus, nous avons fait quelques observations qui pourraient être pertinentes quant à la variation de CUP survenue au cours du temps chez les virus du sous-type H3N2 isolés de l'humain. Toutes les séquences ont été divisées en 3 groupes en fonction du temps et chaque groupe semblait avoir des patrons de codons synonymes préférés pour chaque acide aminé, spécialement pour l'arginine, la leucine et la valine. Les techniques de bioinformatique que nous avons utilisées dans cette étude peuvent être utiles pour prédire les patrons d'évolution de virus pandémiques.

**Code(s) de classement :** 002A05

### Descripteur(s) anglais

*Descripteur(s) :* Influenza A virus; Comparative study; Hemagglutinin; Exo <alpha> sialidase; Gene; Subtype; Bioinformatics; Codon; Avian influenza

*Desc. génériques :* Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Glycosidases; Glycosylases; Hydrolases; Enzyme; Infection; Viral disease

### Descripteur(s) français

*Descripteur(s) :* Virus grippal A; Etude comparative; Hémagglutinine; Exo <alpha> sialidase; Gène; Soustype; Bioinformatique; Codon; Grippe aviaire

*Desc. génériques* : Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Glycosidases; Glycosylases; Hydrolases; Enzyme; Infection; Virose

**Localisation** : INIST, Shelf number 2184, INIST No. 354000160904750030

**Origine de la notice** : INIST

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## Novel 3-sulphonamido-quinazolin-4(3H)-one derivatives : microwave-assisted synthesis and evaluation of antiviral activities against respiratory and biodefense viruses

**Titre :** Novel 3-sulphonamido-quinazolin-4(3H)-one derivatives : microwave-assisted synthesis and evaluation of antiviral activities against respiratory and biodefense viruses

**Auteur(s) :** SELVAM Periyasamy; VIJAYALAKSHIMI Paulchamy; SMEE Donald F; GOWEN Brian B; JULANDER Justin G; DAY Craig W; BARNARD Dale L

**Affiliation(s) :** Arulmigu Kalasalingam College of Pharmacy, Krishnankoil-626190, India; Institute for Antiviral Research, Utah State University, Logan, Utah, United States

**Source :** Antiviral chemistry and chemotherapy. 2007; 18 (5) : 301-305

**ISSN :** 0956-3202

**Date de publication :** 2007

**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial

**Type de document :** short-communication

**Nombre de références :** 1/2 p.

**Résumé :** We designed and synthesized novel 2,3-disubstituted quinazolin-4(3H)-ones by microwave technique and characterized them by spectral analysis. Synthesized compounds were screened for cytotoxicity and for antiviral activity against influenza A (H1N1, H3N2 and H5N1), severe acute respiratory syndrome corona, dengue, yellow fever, Venezuelan equine encephalitis (VEE), Rift Valley fever, and Tacaribe viruses in cell culture. A neutral red uptake assay was used to determine 50% virus-inhibitory concentrations ( $EC_{50}$ ) of test compounds and their 50% cytotoxicity concentration ( $CC_{50}$ ) in uninfected Madin-Darby canine kidney, Vero, and Vero 76 cells; selectivity indices (ratio of  $CC_{50}$  to  $EC_{50}$ ) were derived from the data. The compound 4-(6,8-dibromo-4-oxo-2-phenyl quinazolin-3(4H)-yl)-N-(4,5-dimethylloxazol-2yl) benzenesulphonamide 15 inhibited the replication of avian influenza (H5N1) virus ( $EC_{50}=8.4$   $\mu$ g/ml,  $CC_{50}>100$   $\mu$ g/ml,  $SI>11.9$ ) as did 4-(6-bromo-4oxo-2phenylquinazolin-3(4H)-yl) benzenesulphonamide 5 ( $EC_{50}=3$   $\mu$ g/ml,  $CC_{50}=32$   $\mu$ g/ml,  $SI=11$ ). Compound 5 was also moderately active against VEE and Tacaribe viruses. The methodology described in this report is applicable for rapid synthesis of many compounds with potential antiviral properties.

**Code(s) de classement :** 002B02S05

### Descripteur(s) anglais

*Descripteur(s) :* Venezuelan equine encephalomyelitis virus; Evaluation; Antiviral; Respiratory tract; Chemical synthesis; Tacaribe virus; Influenzavirus AH5N1

*Desc. génériques :* Virology; Infectious diseases; Pharmacology; Medical sciences; Alphavirus; Togaviridae; Virus; Arenavirus; Arenaviridae

### Descripteur(s) français

*Descripteur(s) :* Virus encephalite equine Venezuela; Evaluation; Antiviral; Voie respiratoire; Synthèse chimique; Virus Tacaribe; Derive de la quinazolinone; Influenzavirus AH5N1

*Desc. génériques :* Virologie; Maladies infectieuses; Pharmacologie; Sciences médicales; Alphavirus; Togaviridae; Virus; Arenavirus; Arenaviridae

**Localisation :** INIST, Shelf number 22101, INIST No. 354000173593330060

**Origine de la notice :** INIST

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## How much would closing schools reduce transmission during an influenza pandemic?

**Titre :** How much would closing schools reduce transmission during an influenza pandemic?

**Auteur(s) :** GLASS Kathryn; BARNES Belinda

**Affiliation(s) :** National Centre for Epidemiology and Population Health; Australian National University, Canberra, Australia

**Source :** Epidemiology Cambridge Mass. 2007; 18 (5) : 623-628

**ISSN :** 1044-3983

**Date de publication :** 2007

**Pays de publication :** United States

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 22 ref.

**Résumé :** Background: When deciding whether to close schools during an influenza pandemic, authorities must weigh the likely benefits against the expected social disruption. Although schools have been closed to slow the spread of influenza, there is limited evidence as to the impact on transmission of disease. Methods: To assess the benefits of closing schools for various pandemic scenarios, we used a stochastic mathematical model of disease transmission fitted to attack rates from past influenza pandemics. We compared these benefits with those achieved by other interventions targeted at children. Results: Closing schools can reduce transmission among children considerably, but has only a moderate impact on average transmission rates among all individuals (both adults and children) under most scenarios. Much of the benefit of closing schools can be achieved if schools are closed by the time that 2% of children are infected; if the intervention is delayed until 20% of children are infected, there is little benefit. Immunization of all school children provides only a slight improvement over closing schools, indicating that schools are an important venue for transmission between children. Relative attack rates in adults and children provide a good indication of the likely benefit of closing schools, with the greatest impact seen for infections with high attack rates in children. Conclusions: Closing schools is effective at reducing transmission between children but has only a moderate effect on average transmission rates in the wider population unless children are disproportionately affected.

**Code(s) de classement :** 002B30A11; 002B30A01A

### **Descripteur(s) anglais**

*Descripteur(s) :* School environment; Transmission; Public health; Closure; School; Child; Influenzavirus; Epidemiology

*Desc. génériques :* Public health; Medical sciences; Public health; Medical sciences; Human; Orthomyxoviridae; Virus

### **Descripteur(s) français**

*Descripteur(s) :* Milieu scolaire; Transmission; Sante publique; Fermeture; Ecole; Enfant; Influenzavirus; Epidemiologie; Grippe pandemique; Pandemie

*Desc. génériques :* Sante publique; Sciences medicales; Sante publique; Sciences medicales; Homme; Orthomyxoviridae; Virus

**Localisation :** INIST, Shelf number 26076, INIST No. 354000146614750170

**Origine de la notice :** INIST

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## Use of Prediction Markets to Forecast Infectious Disease Activity

**Titre :** Use of Prediction Markets to Forecast Infectious Disease Activity

**Auteur(s) :** POLGREEN Philip M; NELSON Forrest D; NEUMANN George R

**Affiliation(s) :** Department of Internal Medicine, University of Iowa Carver College of Medicine, United States; Department of Economics, University of Iowa Henry B. Tippie College of Business, Iowa City, Iowa, United States

**Source :** Clinical infectious diseases. 2007; 44 (2) : 272-279

**ISSN :** 1058-4838

**CODEN :** CIDIEL

**Date de publication :** 2007

**Pays de publication :** United States

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 17 ref.

**Résumé :** Prediction markets have accurately forecasted the outcomes of a wide range of future events, including sales of computer printers, elections, and the Federal Reserve's decisions about interest rates. We propose that prediction markets may be useful for tracking and forecasting emerging infectious diseases, such as severe acute respiratory syndrome and avian influenza, by aggregating expert opinion quickly, accurately, and inexpensively. Data from a pilot study in the state of Iowa suggest that these markets can accurately predict statewide seasonal influenza activity 2-4 weeks in advance by using clinical data volunteered from participating health care workers. Information revealed by prediction markets may help to inform treatment, prevention, and policy decisions. Also, these markets could help to refine existing surveillance systems.

**Code(s) de classement :** 002B05C02C

### **Descripteur(s) anglais**

*Descripteur(s) :* Infection; Emerging disease; Severe acute respiratory syndrome; Predictive factor; Avian influenza; Iowa; Human; Health care staff; Treatment

*Desc. génériques :* Virology; Infectious diseases; Medical sciences; Viral disease; United States; North America; America; Respiratory disease; Lung disease

### **Descripteur(s) français**

*Descripteur(s) :* Infection; Maladie émergente; Syndrome respiratoire aigu sévère; Facteur prédictif; Grippe aviaire; Iowa; Homme; Équipe soignante; Traitement

*Desc. génériques :* Virologie; Maladies infectieuses; Sciences médicales; Virose; États Unis; Amérique du Nord; Amérique; Pathologie de l'appareil respiratoire; Pathologie des poumons

**Localisation :** INIST, Shelf number 18407, INIST No. 354000173819150160

**Origine de la notice :** INIST

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## Environmental effects of intensification of agriculture : livestock production and regulation

**Titre :** Environmental effects of intensification of agriculture : livestock production and regulation

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**Affiliation(s) :** Department of Economics, University of Central Florida, PO Box 161400, Orlando, FL 32816-1400, United States; School of Economic Development, Georgia Southern University, PO Box 8152, Statesboro, GA 30460, United States; Research Institute for Humanity and Nature, 457-4, Kamigamo-Motoyama, Kyoto 603-8047, Japan

**Source :** Environmental economics and policy studies. 2007; 8 (4) : 315-336

**ISSN :** 1432-847X

**Date de publication :** 2007

**Pays de publication :** Japan

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 1 p.

**Résumé :** This article deals with the relationship between industrialization of agriculture and the environment in developing countries. We specifically focus on livestock production and regulation. We develop a simple economic framework to demonstrate the effect of location on intensification of industrial activity in farming, and discuss this issue in the context of urbanization and economic growth in developing countries. Policy implications of the model are discussed in light of the experience of developed countries in regulating livestock pollution and other externalities. We argue that environmental problems from agricultural industrialization in developing countries may pose major challenges. In the case of livestock production, these are compounded by production intensity, high population densities in periurban and urban areas, and the generally lower public health standards. As the recent outbreaks of severe acute respiratory syndrome (SARS) and avian influenza epidemics in Asia suggest, the new era of globalization and the onset of a free world trade regime points to the urgent need for developing countries to install inspection and enforcement mechanisms that ensure product safety and quality, as well as minimize the adverse effects on the environment.

**Code(s) de classement :** 001E01O04; 226B04

### **Descripteur(s) anglais**

*Descripteur(s) :* agriculture; regulations; Third World; focus; frame structure; urbanization; growth; policy; models; pollution; populations; density; urban areas; standard samples; Synthetic aperture radar; Asia; safety; quality

*Desc. génériques :* Engineering geology; Earth sciences; Universe sciences

### **Descripteur(s) français**

*Descripteur(s) :* Agriculture; Reglementation; Tiers Monde; Foyer; Bati; Urbanisation; Croissance; Politique; Modele; Pollution; Population statistique; Densite; Zone urbaine; Echantillon reference; Radar ouverture synthetique; Asie; Securite; Qualite

*Desc. génériques :* Geologie de l'ingenieur; Sciences de la Terre; Sciences de l'univers

**Localisation :** INIST, Shelf number 26864, INIST No. 354000174341850040

**Origine de la notice :** INIST

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## Variable effect of vaccination against highly pathogenic avian influenza (H7N7) virus on disease and transmission in pheasants and teals

**Titre :** Variable effect of vaccination against highly pathogenic avian influenza (H7N7) virus on disease and transmission in pheasants and teals

**Auteur(s) :** VAN DER GOOT Jeanet A; VAN BOVEN Michiel; KOCH Guus; DE JONG Mart C M

**Affiliation(s) :** Virology Department, Central Institute for Animal Disease Control Lelystad, Houtribweg 39, 8221 RA Lelystad, Netherlands; Quantitative Veterinary Epidemiology, Animal Sciences Group Wageningen University and Research Centre, Lelystad, Netherlands; Virology Department, Central Institute for Animal Disease Control Lelystad, Lelystad, Netherlands; Quantitative Veterinary Epidemiology, Wageningen University and Research Centre, Wageningen, Netherlands

**Source :** Vaccine . 2007; 25 (49) : 8318-8325

**ISSN :** 0264-410X

**CODEN :** VACCDE

**Date de publication :** 2007

**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 27 ref.

**Résumé :** Highly pathogenic avian influenza viruses can affect many bird species, with disease symptoms ranging from severe morbidity and high mortality to mild transient illness. Much is known about infections in chickens, but for other captive birds the relations between disease symptoms, excretion patterns, and transmission, as well as the effect of vaccination on these relations are not clear. We report results from experimental transmission studies with a highly pathogenic H7N7 virus and two commonly kept bird species (ringed teals and golden pheasants). The results show that depending on the host species the virus can spread in unvaccinated birds with or without disease symptoms. Vaccination reduces disease symptoms markedly, but need not always reduce virus transmission. We discuss the implications for the control of highly pathogenic avian influenza.

**Code(s) de classement :** 002A05C10

### Descripteur(s) anglais

*Descripteur(s) :* Avian influenza virus; Anas crecca; Vaccination; Pathogenicity; Transmission; Avian influenza

*Desc. génériques :* Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Aves; Vertebrata; Zoopathogen; Viral disease; Infection

### Descripteur(s) français

*Descripteur(s) :* Influenzavirus aviaire; Anas crecca; Vaccination; Pouvoir pathogène; Transmission; Grippe aviaire

*Desc. génériques :* Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Aves; Vertebrata; Zoopathogène; Virose; Infection

**Localisation :** INIST, Shelf number 20289, INIST No. 354000174405470140

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## Influenza aviaire : un point d' actualite. La sante au travail en agriculture : 40 ans de pratique; Influenza aviaire : an actuality point

**Titre :** Influenza aviaire : un point d' actualite. La sante au travail en agriculture : 40 ans de pratique; Influenza aviaire : an actuality point

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**Source :** La Revue du praticien Paris. 2007; 57 (11; SUP) : 33-36

**ISSN :** 0035-2640

**CODEN :** REPR3

**Date de publication :** 2007

**Pays de publication :** France

**Langue(s) :** French

**Langue(s) du résumé :** English

**Type de document :** Serial

**Nombre de références :** 4 ref.

**Résumé :** Depuis 1997, l' influenza aviaire a virus hautement pathogene est devenu une zoonose, apres avoir ete une maladie exclusivement animale. L' annee 2003 a vu le virus H5N1 HP se developper chez les volailles en Asie du Sud-Est, puis s' etendre par la suite aux pays europeens et a l' Afrique. Les cas humains sont toujours lies a un contact etroit et intensif avec des volailles infectees ils restent actuellement en petit nombre si on les met en rapport avec le nombre de personnes exposees dans le monde. De nombreuses mesures de precaution ont ete prises pour prevenir l' extension de foyers, tant sur le plan de la sante animale que sur le plan de la protection des personnes potentiellement exposees a des oiseaux infectes. A cote de l' aspect zoonotique, le potentiel evolutif genetique des virus influenza et l' inhabituelle circulation mondiale chez les oiseaux de ces virus H5N1 HP font craindre la survenue d' une nouvelle pandémie grippale. C' est pourquoi les pouvoirs publics ont mis en place un plan de preparation de grande ampleur pour faire face a cette eventualite.

**Code(s) de classement :** 002B30A03C; 002B01; 002B05C02C

### **Descripteur(s) anglais**

*Descripteur(s) :* Avian influenza; Medicine; Human

*Desc. génériques :* Public health; Medical sciences; Medical sciences; Virology; Infectious diseases; Medical sciences; Viral disease; Infection

### **Descripteur(s) français**

*Descripteur(s) :* Grippe aviaire; Medecine; Homme

*Desc. génériques :* Sante publique; Sciences medicales; Sciences medicales; Virologie; Maladies infectieuses; Sciences medicales; Virose; Infection

**Localisation :** INIST, Shelf number 4317, INIST No. 354000146764730070

**Origine de la notice :** INIST

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## The molecular basis of the pathogenicity of the dutch highly pathogenic human influenza a H7N7 viruses

**Titre :** The molecular basis of the pathogenicity of the dutch highly pathogenic human influenza a H7N7 viruses

**Auteur(s) :** MUNSTER Vincent J; DE WIT Emmie; VAN RIEL Debby; BEYER Walter E P; RIMMELZWAAN Guus F; OSTERHAUS Albert D M E; KUIKEN Thijs; FOUCHIER Ron A M

**Affiliation(s) :** Department of Virology and National Influenza Center, Erasmus Medical Center, Rotterdam, Netherlands

**Source :** The Journal of infectious diseases. 2007; 196 (2) : 258-265

**ISSN :** 0022-1899

**CODEN :** JIDIAQ

**Date de publication :** 2007

**Pays de publication :** United States

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 27 ref.

**Résumé :** During the highly pathogenic avian influenza (HPAI) H7N7 virus outbreak in The Netherlands in 2003, 88 infected persons suffered from mild illnesses, and 1 died of pneumonia. Here, we studied which of the 14 amino acid substitutions observed between the fatal case (FC) virus and a conjunctivitis case (CC) virus determined the differences in virus pathogenicity. In virus-attachment experiments, the CC and FC viruses revealed marked differences in binding to the lower respiratory tract of humans. In a mouse model, the hemagglutinin (HA) gene of the FC virus was a determinant of virus tissue distribution. The lysine at position 627 of basic polymerase 2 (PB2) of the FC virus was the major determinant of pathogenicity and tissue distribution. Thus, remarkable similarities were revealed between recent HPAI H5N1 and H7N7 viruses. We conclude that the influenza virus HA and PB2 genes should be the prime targets for molecular surveillance during outbreaks of zoonotic HPAI viruses.

**Code(s) de classement :** 002A05C04

### Descripteur(s) anglais

*Descripteur(s) :* Human; Influenza A virus; Pathogenicity; Severity score; Animal model; Influenza A

*Desc. génériques :* Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Viral disease; Infection

### Descripteur(s) français

*Descripteur(s) :* Homme; Virus grippal A; Pouvoir pathogene; Indice gravite; Modele animal; Grippe A

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

**Localisation :** INIST, Shelf number 2052, INIST No. 354000162386450100

**Origine de la notice :** INIST

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## John F. Enders lecture 2006 : Antivirals for influenza

**Titre :** John F. Enders lecture 2006 : Antivirals for influenza

**Auteur(s) :** ONG Adrian K; HAYDEN Frederick G

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**Source :** The Journal of infectious diseases. 2007; 196 (2) : 181-190

**ISSN :** 0022-1899

**CODEN :** JIDIAQ

**Date de publication :** 2007

**Pays de publication :** United States

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 118 ref.

**Résumé :** The long history of influenza drug development has both contributed practical advances in antiviral chemotherapy and improved the understanding of influenza pathogenesis and epidemiology. The role played by these antivirals continues to grow with the dual threats of seasonal and pandemic influenza. The neuraminidase inhibitors are proven effective for the chemoprophylaxis and treatment of influenza A and B, although early therapy is essential for disease mitigation. Studies of topically applied zanamivir have demonstrated the importance of viral replication in the lower respiratory tract, even in uncomplicated influenza. Antiviral resistance, especially to the M2 ion channel inhibitors, sometimes limits clinical utility. Oseltamivir-resistant variants may emerge during treatment but have not yet circulated widely and are usually less fit than wild-type virus; most retain susceptibility to zanamivir. The transmission fitness cost of these resistant variants is drug-, neuraminidase subtype-, and mutation-specific. Continued vigilance in drug resistance surveillance is imperative, as is research into the development of new agents that will provide the potential for alternative and combination antiviral therapy.

**Code(s) de classement :** 002B02S05

### **Descripteur(s) anglais**

*Descripteur(s) :* Antiviral; Sensitivity resistance; Review; Influenza

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

### **Descripteur(s) français**

*Descripteur(s) :* Antiviral; Sensibilite resistance; Article synthese; Grippe

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

**Localisation :** INIST, Shelf number 2052, INIST No. 354000162386450010

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## Current research on drugs and vaccines for fighting bird flu

**Titre :** Current research on drugs and vaccines for fighting bird flu

**Auteur(s) :** WIWANITKIT Viroj

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**Source :** Transactions of the Royal Society of Tropical Medicine and Hygiene. 2007; 101 (12) : 1171-1172

**ISSN :** 0035-9203

**CODEN :** TRSTAZ

**Date de publication :** 2007

**Pays de publication :** United Kingdom

**Langue(s) :** English

**Type de document :** Serial

**Nombre de références :** 1/4 p.

**Résumé :** Bird flu, or avian flu, caused by the H5N1 virus, is of concern worldwide. The antiviral drugs oseltamivir and zanamivir have been used to treat human cases, and resistance has been reported. Studies on the molecular mechanisms of antiviral resistance are needed to understand the problem and to aid future drug development. Control of a major outbreak would require a vaccine, but current manufacturing technology is not adequate to support influenza vaccine production in the event of an avian influenza outbreak.

**Code(s) de classement :** 002B05C02C

### **Descripteur(s) anglais**

*Descripteur(s) :* Immunoprophylaxis; Avian influenza; Scientific research; Drug; Prevention; Vaccine; Public health; Transmission; Tropical medicine

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

### **Descripteur(s) français**

*Descripteur(s) :* Immunoprophylaxie; Grippe aviaire; Recherche scientifique; Médicament; Prévention; Vaccin; Santé publique; Transmission; Médecine tropicale

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

**Localisation :** INIST, Shelf number 3084, INIST No. 354000162155930030

**Origine de la notice :** INIST

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## Rapport sur la politique vaccinale de la France

**Titre :** Rapport sur la politique vaccinale de la France

**Auteur(s) :** BLANC P

**Auteur(s) :** Assemblée Nationale Paris, France; Sénat Paris, France; Sénat Office Parlementaire d' Evaluation des Politiques de Santé OPEPS Paris, France

**Source :** 2007 10; 311 p.

**Éditeur :** Assemblée Nationale, Paris; Sénat, Paris

**Date de publication :** 2007

**Pays de publication :** France

**Langue(s) :** French

**Type de document :** Book

**Résumé :** La menace d' une pandémie de grippe aviaire, l' épidémie de chikungunya dans l' Océan indien, ont mis les vaccins au cœur des politiques de santé. Ce rapport rappelle les découvertes françaises en matière de vaccination, depuis la découverte du vaccin contre la variole en 1796 et contre la rage en 1885. Il fait l' état des lieux concernant la vaccination au début du XXIème siècle et estime nécessaire d' augmenter la couverture vaccinale des Français. Pour ce faire, le rapporteur propose de mobiliser les personnels de santé, redonner confiance à la population et assurer le respect de l' obligation vaccinale. Afin de répondre aux enjeux à venir, il souhaite développer la recherche au niveau scientifique et économique, accroître la production nationale et renouveler l' aide aux pays les plus défavorisés. Ce rapport s' appuie sur le travail de recherche et d' analyse mené par la société de consultants Alcimed, consultable en annexe

**Code(s) de classement :** 002B30A11

### **Descripteur(s) anglais**

*Descripteur(s) :* Vaccination; Policy; Medicine; Scientific research; Occupational role; Prevention; Health; Accessibility; Care; Proposition; Balance; Evaluation; Case history; France; Coverage

*Desc. génériques :* Public health; Medical sciences; Europe

### **Descripteur(s) français**

*Descripteur(s) :* Vaccination; Politique; Médecine; Recherche scientifique; Rôle professionnel; Prévention; Santé; Accessibilité; Soins; Proposition; Bilan; Évaluation; Historique; France; Couverture

*Desc. génériques :* Santé publique; Sciences médicales; Europe

**Localisation :** BDSP/IRDES, Shelf number B6248, CODBAR 0057211

**Origine de la notice :** BDSP

PASCAL

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## La société internationale et les grandes pandémies

**Titre :** La société internationale et les grandes pandémies

**Auteur(s) :** MALJEAN DUBOIS Sandrine; MEHDI Rostane

**Auteur(s) :** Institut d' Etudes Politiques IEP Aix en Provence, France

**Source :** 2007; 222 p.

**Informations congrès :** Quatorzième rencontre internationale d' Aix en Provence, France, 2006-12-08

**Éditeur :** Pedone, Paris

**Date de publication :** 2007

**Pays de publication :** France

**Langue(s) :** French

**Type de document :** Conference-Meeting

**Nombre de références :** dissem.

**Résumé :** Depuis la création de l'Organisation Mondiale de la Santé en 1948, les préoccupations sanitaires ont acquis une grande acuité : persistance de pandémies telles la tuberculose ou le paludisme, échec de certaines politiques et stratégies de développement, ravages du VIH/sida notamment en Afrique, apparition de nouveaux risques et grandes peurs (SRAS, grippe aviaire, attaques terroristes chimiques et bactériologiques). La lutte contre les grandes pandémies s'intensifie et est devenue un objectif majeur pour les Nations Unies. La santé est l'un des Objectifs du Millénaire pour le Développement, notamment le combat contre le VIH/sida, le paludisme et d'autres maladies. Le 10 janvier 2000, le Conseil de sécurité des Nations Unies a identifié la pandémie du sida comme une menace pour la paix et la sécurité mondiales. Toutes les organisations internationales sont concernées. Les programmes se multiplient, de même que les initiatives locales ou internationales. Sur de telles questions, la nécessité d'un partenariat entre les institutions internationales et les autres acteurs de la société internationale (gouvernements, entreprises, société civile) se fait particulièrement sentir. Mais la communauté internationale avance encore en ordre dispersé, et les résultats de ces multiples stratégies sont assez modestes. De récentes crises ont mis en lumière l'inadaptation d'un cadre institutionnel et normatif international en pleine recomposition. Les quatorzièmes rencontres internationales d'Aix-en-Provence ont réuni les 8-9 décembre 2006 des enseignants-chercheurs d'horizons disciplinaires différents et des praticiens (hauts fonctionnaires internationaux et nationaux, diplomates, représentants d'ONG et de grandes entreprises, médecins) pour en débattre.

**Code(s) de classement :** 002B30A01

**Descripteur(s) anglais**

*Descripteur(s) :* Epidemic; World; Prevention; Health; WHO; Human immunodeficiency virus; AIDS; Crisis; Accessibility; Care; Congress; Terrorism; Public health; Globalization; Antiviral; Chemotherapy

**Descripteur(s) français**

*Descripteur(s) :* Epidémie; Monde; Prévention; Santé; OMS; Virus immunodéficience humaine; SIDA; Crise; Accessibilité; Soins; Congrès; Terrorisme; Santé publique; Mondialisation; Antiviral; Chimiothérapie

*Desc. génériques :* Public health; Medical science