

Return-Path: <kary@karymullis.com>
X-Flags: 1101
Delivered-To: GMX delivery to maria07@gmx.net
Received: (qmail invoked by alias); 31 Jul 2007 03:40:21 -0000
Received: from mta16.mail.adelphia.net (EHLO mta16.adelphia.net) [68.168.78.211]
by mx0.gmx.net (mx105) with SMTP; 31 Jul 2007 05:40:21 +0200
Received: from karypc ([76.174.52.228]) by mta16.adelphia.net
(InterMail vM.6.01.05.04 201-2131-123-105-20051025) with ESMTP
id <20070731034018.QHBT7001.mta16.adelphia.net@karypc>
for <maria07@gmx.net>; Mon, 30 Jul 2007 23:40:18 -0400
Reply-To: <kary@karymullis.com>
From: "Kary Mullis" <kary@karymullis.com>
To: "'Eva-Maria Oeser'" <maria07@gmx.net>
Subject: avian (bird) flu
Date: Mon, 30 Jul 2007 20:40:13 -0700
Message-ID: <04e401c7d324\$840ce730\$0602a8c0@karypc>
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="-----_NextPart_000_04E5_01C7D2E9.D7AE0F30"
X-Mailer: Microsoft Office Outlook 11
X-MimeOLE: Produced By Microsoft MimeOLE V6.00.2900.3138
thread-index: AcfTJIC1V3MI20htRLOOs118CP6nPg==
X-GMX-Antivirus: -1 (not scanned, may not use virus scanner)
X-GMX-Antispam: 0 (Mail was not recognized as spam)
X-GMX-UID: FJmbdy9tbUko0OMoiGknKcZkZ2hlN8ov

This is a multi-part message in MIME format.

-----=_NextPart_000_04E5_01C7D2E9.D7AE0F30
Content-Type: text/plain;
charset="us-ascii"
Content-Transfer-Encoding: 7bit

Dear Frau Oeser,

I am alarmed to hear that health authorities chose to enter your house, or your neighbor's houses, in the middle of the night. I am sorry that they killed many prized chickens. It sounds suspicious that they would come at night.

It is not however true that the H5N1 strain (the bird flu) of influenza, does not represent a potentially terrible threat to mankind, similar if not worse to the influenza epidemic caused by another strain, H1N1, which in eighteen months during 1917-18 killed over a hundred million people. H5N1 in many ways is similar to H1N1 and many virologists that I know and trust are certain that there is a serious threat. There is good evidence that H5N1 is carried by migrating ducks, and that it can infect local chickens or turkeys kept outside, especially

if the chickens are near ponds which are visited by migrating ducks.

You stated that PCR cannot be used to prove the existence of a virus, and

that is correct. But the existence of this virus, influenza H5N1, has already been proven by other means. It has been isolated as a viral particle and shown to live and reproduce in chicken eggs, which is typical of flu viruses. From these cultures it can be introduced through the nose into mice, the airways of chickens, and a number of other animals where it is quickly lethal. Having been isolated, it's RNA (influenza viruses use RNA rather than DNA) can be sequenced, and it has been sequenced many times. Once this process has been performed, the PCR reaction becomes a valuable tool for quickly recognizing the presence of the same nucleic acid sequence. PCR, properly done, has great diagnostic powers - once a particular DNA or RNA sequence has been associated with a particular disease. In this case it has. It is not a scare tactic dreamed up by the WHO.

I don't like Rumsfeld either. Not many Americans do. But he has nothing to do with bird flu. Bird flu is way down on his list of important things.

Although I do not know all the details of the midnight raid by your local health authorities, it sounds very unprofessional, and if you will excuse the term, which we use rather loosely now in the States, not unlike the Gestapo. I thought this had disappeared from Germany.

The killing of valuable breeding stock without very careful testing of individuals, especially in the absence of clinical evidence, that they were infected by H5N1, seems callous and unnecessary.

It however is very expensive and difficult to isolate potentially infected individuals and test them separately before killing them. Most mass killings of birds have been readily replaceable animals.

I am sorry for your situation. The birds you lost are apparently not replaceable. Health authorities are not always the smartest or most compassionate people in any country, however they have a job to do. They are supposedly there to protect humans. This time they seemed to have done it ruthlessly, and perhaps without good reason. I don't have enough facts to make a real opinion. I know that a lot of birds have been slaughtered all over the world, birds that were not clearly sick, but which had been potentially exposed to this virus. This is usually understood to be for a good reason, an attempt to see that H5N1 does not turn into a human epidemic.

This situation, tragic though it is, does not turn on the use of PCR to diagnose H5N1. PCR is a good way to diagnose any particular form of influenza. What you are possibly confusing in terms of my statements about PCR and the diagnosis of HIV, is that in the case of HIV, no virus has been ever isolated, cultured, re-infected into susceptible experimental animals, and proven thereby, using Koch's principles to be responsible for a disease. This is far from the situation with influenza, which has definitely been identified as the primary causal factor for many millions of human deaths.

I am very sorry for you and your chickens. I would be willing to submit an opinion officially that the armed midnight storming of citizens who had not

been properly warned, or reasonably convinced by scientific or legal evidence, that their livestock constituted a significant threat to their neighborhood, is not in keeping with normal health department routines in civilized countries, with the unfortunate caveat that my own country is not always considered as civilized by most Europeans.

Cordially yours,

Dr. Kary B. Mullis