



2 Correspondence

3 Avian flu virus H5N1: No proof for 4 existence, pathogenicity, or pandemic 5 potential; non-“H5N1” causation omitted 6

7 WHO, CDC, Robert Koch Institute (RKI), and Fried-
8 rich Loeffler Institute (FLI) claim that H5N1 (avian
9 flu virus) is “highly contagious”. Further, Reinhard
10 Kurth, president of RKI, says that H5N1 “threatens
11 potentially all six billion people on earth”.

12 We identified four fundamental questions under-
13 lying these claims and requested supporting studies
14 from FLI (which according to the German Govern-
15 ment “possesses virus isolates of H5N1”):

- 16 1. Does H5N1 exist?
- 17 2. Is it pathogenic to animals?
- 18 3. Is it transmissible and pathogenic to humans,
19 and does it have pandemic potential?
- 20 4. Have other causes for observed disease been
21 studied?

22
23 FLI responded with four papers: PNAS [1], Sci-
24 ence [2], J Virol [3] directed towards questions 1
25 and 2; EID [4] towards question 3; PNAS [1] towards
26 question 4.

27 Question 1 (existence). FLI responded with,
28 “H5N1/asia virus can be produced completely
29 in vitro by using reverse genetics. The virus gener-
30 ated this way, also called infectious clone, cannot
31 contain contaminants from sick animals” [trans-
32 lated from German]. However, PCR cannot be used
33 to identify viruses which have not been previously
34 sequenced [5].

35 The PNAS paper (as the others) does not show or
36 reference the composition of the stock virus – nor
37 does Subbarao et al. (referenced by the EID paper),
38 which claims first characterization of H5N1 disease
39 in a human in 1997 [6]. Though the EID study failed
40 to detect “H5N1” in several of the diseased or-
41 gans, this anomaly was labelled an “enigma”,
42 rather than a “contradiction”.

Robert Webster, corresponding author of the 43
PNAS paper and Director of WHO’s Collaborating 44
Center for Studies on the Ecology of Influenza in 45
Animals and Birds, informed us that stock viruses 46
“are classified as select agents” and “we are not 47
at liberty to release this information”. Without 48
verification, and without purification described in 49
any of these papers, we cannot accept that stock 50
virus is pure and fully characterized. Inquiries for 51
clarification to Webster, CDC Select Agents Pro- 52
gram, and FLI received no response. 53

Question 2 (animal pathogenicity). Papers de- 54
scribe the use of natural routes, but disease was 55
only achieved with extraordinary concentrations, 56
up to 10 million EID per animal. None of the 57
experiments used controls or blinding. The Sci- 58
ence paper is highly abstract molecular science, 59
employing elevated concentrations of chimeric 60
variants. 61

Question 3 (human pathogenicity and pandemic 62
potential). The EID paper is an anecdotal report 63
of a 6-year-old boy from Thailand with severe mul- 64
ti-organ disease. No evidence was given for trans- 65
missibility to humans. The scientists found 66
evidence of aspergillosis, and the boy was treated 67
with toxic agents (broad-spectrum antimicrobial 68
and antivirals) before he died. 69

Subbarao et al. (referenced by the EID paper), 70
describes a previously healthy 3-year-old Hong 71
Kong boy who developed flu-like symptoms in 72
May 9, 1997, and was treated with broad-spec- 73
trum antibiotics and salicylic acid, though this is 74
commonly contraindicated. He developed Reye’s 75
Syndrome and died eleven days later [7]. A search 76
commenced for causation within a limited range 77
of flu viruses. H5N1 was claimed causative, even 78
though coronaviruses, flaviviruses, enteroviruses, 79

80 other pathogens and chemicals can also cause flu
81 symptoms. There was no confirmation of prior
82 avian contact. Regardless, warnings of an "explo-
83 sive pandemic" appeared in this early document,
84 though FLI conceded: "There is no scientific fore-
85 casting method that can evaluate the possibility
86 that an influenza virus induces a new pandemic."

87 Question 4 (non-"H5N1" causation). Neither the
88 Subbarao et al study nor the FLI references con-
89 sider reasonable, competing theories for disease
90 causation, e.g., environmental and pharmaceutical
91 factors.

92 Our analysis shows the papers do not satisfy our
93 four basic questions. Claims of H5N1 pathogenicity
94 and pandemic potential need to be challenged
95 further.

96 References

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