Bringing bird flu data into the global open

A group of avian influenza researchers has recently officially announced that they are lifting the curtain and sharing data in a move to help international efforts to understand the spread and evolution of the bird flu virus. In a letter to ‘Nature’ published 24 August, 70 scientists and health officials announced the Global Initiative on Sharing Avian Influenza Data (GISAID), designed to stimulate worldwide sharing of avian flu data.

The move comes less than one month after bird flu experts from the World Organization for Animal Health (OIE) and the Food and Agriculture Organization (FAO) agreed to share information on avian influenza virus sequences and make this available to the entire scientific community. Under that initiative, genetic information on virus strains would be posted on the joint OIE/FAO OFFLU website (www.offlu.net), sent to the U.S. National Institutes of Health for sequencing, and deposited in the free-access database, GenBank.

The GISAID move also comes hard on the heels of other decisions to more openly share avian flu sequence data. Earlier in August, the Indonesian government announced that it would share its genomic data with scientists worldwide, and just one week ago the Centers for Disease Control (CDC) in Atlanta said it had released the genetic sequence of 650 flu virus genes into an open database.

GISAID, which has been officially endorsed by OFFLU, is the brainchild of veterinary virologist Ilaria Capua of the Istituto Zooprofilattico Sperimentale delle Venezie in Padova and secretary of the OFFLU scientific committee, and Peter Bogner of the Santa Monica-based Bogner Organisation, who rustled up international support for the idea from scientists and policy-makers.

Other prominent signatures on the ‘Nature’ letter are those of Nancy Cox, head of the influenza division at the Centers for Disease Control and Prevention (CDC) in Atlanta and David Lipman, director of the National Center for Biotechnology Information in Bethesda. (A full list of signatories can be consulted at http://www.nature.com/nature/journal/v442/n7106/).

Many of the scientists signing the letter come from the countries worst hit by bird flu, including China, Indonesia, Thailand and Vietnam.

The letter points to the extensive damage already caused to economies worldwide and to food safety in many developing countries, and to the increased risk that avian flu viruses may be the progenitors of the next human pandemic virus. For these reasons, it argues, it is necessary that scientists with different fields of expertise have full access to comprehensive genetic-sequence, clinical and epidemiological data from both animal and human virus isolates.

Scientists participating in the GISAID consortium from the fields of animal and human virology, epidemiology and bioinformatics, agree to share sequence data, and jointly analyse and publish findings. Their data will be placed in three publicly available databases – the EMBL Nucleotide Sequence Database, the DNA Database of Japan and the GenBank – as soon as possible after analysis and validation.

The founders of GISAID hope that the initiative will encourage valuable collaboration among researchers in industrialized countries and in those developing countries hardest hit by avian flu, and attract international attention to the need for increased funding and technical assistance to help affected countries build comprehensive and sustained disease surveillance programmes.