

## A tale of one world

Celebrating science on the solstice.

It was the best of times, it was the worst of times. Thus wrote Charles Dickens at the start of *A Tale of Two Cities*, before running through a sequence of superlatives and concluding it to be “a time like any other”. Its salient feature was that it was the day on which Dickens wanted to begin his tale.

The same could be said of our decision to publish, in this week's *Nature*, a moment-by-moment account of one day in the world of science (see page 1040; or for greater detail our website). The day is 21 June, the summer solstice. It is the longest day; it is the shortest day. It is the most ancient day (marked by humankind with its earliest megaliths) and the most recent day (give or take the subsequent seven). But it is, in the end, a day like any other.

And therein lies the wonder. It is an ordinary day filled with extraordinary goings-on. It is easy for scientists working on their own projects to forget the breadth, complexity and intricacy of the overarching project of which they are part, the project of understanding the world and its contents. Concentrating on one day, from the seas off Singapore and Svalbard to the mountains of Madagascar and the ice-cap of Antarctica, from glimpses of the farthest galaxies to the afterglow of a strangely close gamma-ray burst, is a way of celebrating that quest for knowledge in a day's worth of arbitrary details.

And in every detail there is a human story. People finish projects

and begin them (although most are in the middle, as most things are, most of the time). People receive good news — that a vaccine has been approved — and bad — in the unexpected shortcomings of a diagnostic test. Children learn ancient knowledge (how to measure the circumference of the Earth) and modern know-how (how to race a toy car powered by a fuel cell). People offer small kindnesses and share global enthusiasms.

But what we are celebrating here is not just on an individual scale. It is on the scale of the planet. By taking the whole world as its subject, science pulls the world together, whether by cloning rare forest oxen or assessing the vulnerability of arctic algae to ultraviolet light, by mapping undersea currents or comparing infinitesimally precise measurements made continents apart to sense the expansion and contraction of space.

Science, perhaps more than any other human endeavour, stretches around and through the Earth. It reaches places where commercial activity is banned, such as the South Pole, and where politics are meaningless, such as the night sky, aglow with the faint passage of cosmic rays. It penetrates into minds deciding between breakfast cereals on supermarket shelves and pools the whole world's exhalations — animal, vegetable and internally combusted mineral — into a single measurement of the state of the atmosphere on a mid-ocean mountaintop.

While nature never fails to inspire, the process of understanding it can sometimes efface itself. Yet the process is wonderful and remarkable, and last Wednesday, many of you played a part in it. It was a day, like any other — and thus worthy of celebration. ■

## Action stations

The time for sitting on flu data is over.

Concern about the accessibility of data on flu strains remains an acute issue, which research administrators and political leaders should step forward and address.

Indonesia has become the hot spot of avian flu, with the virus spreading quickly in animal populations, and human cases occurring more often there than elsewhere. Yet from 51 reported human cases so far — 39 of them fatal — the genetic sequence of only one flu virus strain has been deposited in GenBank, the publicly accessible database for such information.

And last week in China, researchers belatedly published details of a case that tested positive for the virulent H5N1 strain in 2003 — contradicting the government's official line that none had occurred before November 2005. The unnecessary delay reaffirms the critical importance of better dissemination of flu data.

Back in Indonesia, the World Health Organization (WHO) has just confirmed that a cluster of eight cases in an extended family in northern Sumatra was the first unequivocal occurrence of limited human-to-human transmission of the virus. Whereas the WHO initially stated that the virus in the cluster showed “no significant” mutations, it now says that genetic changes in the virus account for

the appearance of human-to-human transmission. In the Sumatra event, the transmission did not spread beyond the family.

Yet scientists outside the WHO networks have no access to these data. The problem last year spurred the US National Institutes of

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Health (NIH) to create a consortium to sequence and make public thousands of flu strains from humans and birds. Very quickly, this more open approach led to the useful discovery that viruses swap genes with each other more

frequently than had been previously thought.

Some political leaders are drawing the appropriate conclusions. Dennis Kucinich (Democrat, Ohio) and Wayne Gilchrest (Republican, Maryland) are circulating a letter in the House of Representatives that calls on Michael Levitt, the US health secretary, to require H5N1 sequences and other publicly funded research data “to be promptly deposited in a publicly accessible database, such as GenBank”.

An appropriate model for better data access is at hand. Earlier this month, the Paris-based World Organisation for Animal Health and the United Nations Food and Agriculture Organization said that they would work with the NIH to sequence H5N1 samples from birds and deposit them in GenBank. The WHO and its member states urgently need to establish a similar mechanism to ensure that data on human cases are immediately put in the public domain. ■