## Manchester merger to spawn research giant

## David Adam, London

Two of Britain's major research universities are planning to merge in a bid to create an institution that is better able to compete for funds and staff on the international stage.

The University of Manchester and its neighbour, the University of Manchester Institute of Science and Technology (UMIST), announced the proposal on 4 March.

The move would create a university with 28,000 full-time students and a research income of £130 million (US\$185 million) this year—the fifth largest in the United Kingdom behind University College London (UCL), Imperial College in London, and the universities of Oxford and Cambridge (see figure).

UMIST was once formally part of the University of Manchester, but has always had independent governance and financial systems, and the merger plan came as a surprise to researchers at both universities. The plan emerged from a six-month review by a committee of academics at the two institutions into how they could collaborate more closely.

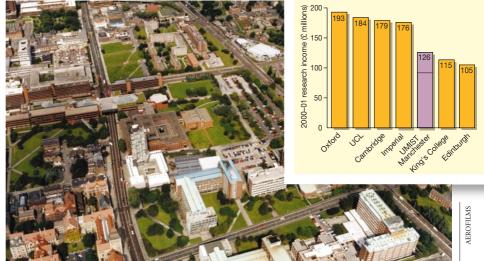
In a joint statement, the respective vicechancellors of UMIST and the University of Manchester, John Garside and Martin Harris, said: "The proposal to create a new university is a bold and imaginative step. There will now be a full consultation process to discuss the proposal in detail."

The plan could presage more consolidation in UK universities, observers say, although few prospective partners will fit as well as the two Manchester institutions. Their city-centre campuses are barely a mile apart, they share student sports and careers facilities and already have two combined departments, in materials science and civil engineering. If the merger is agreed, it could be implemented by September 2004, university officials say.

A decade of expansion in student numbers — without a matching growth in funding — has left Britain with 114 universities, most of them relatively small. Several universities have recently swallowed up neighbouring colleges, and some — such as Birmingham and Aston — have discussed merging. "I would be surprised if there were not mergers in the next five to ten years," says Andrew Miller, former vice-chancellor of the University of Stirling. But he predicts that most universities will seek to strengthen their positions through alliances, rather than full mergers.

The universities of Glasgow and Strathclyde, for example, formed a 'strategic alliance' in 1998, through which researchers share equipment, lab space and teaching resources. Looking abroad, Cambridge set up a joint institute with the Massachusetts Institute of Technology in 2000, and Oxford and Princeton announced an alliance last year.

Some university heads, such as Richard Sykes of Imperial College, argue that efforts



Neighbours make nice: Manchester campuses may join to form one of the UK's top research universities.

to compete internationally should be focused on just a handful of UK research universities.

The two Manchester universities stress that their aim is to claim a place at this international high table. But some observers point to devolution in UK domestic politics as a factor. "It could be that Manchester and UMIST are launching a pre-emptive strike in order to be the dominant partner in a future northwest regional grouping," says John Ashworth, a former director of the London School of Economics.

## Physicists set sights on exotic prey

## Sally Goodman, Paris

A facility for probing the fleeting existence of highly unstable atomic nuclei began operating at the GANIL heavy-ion accelerator in Caen, northwest France, last week. Researchers say that the device, known as SPIRAL, could help to overthrow existing models of nuclear structure.



Mystery machine: researchers hope that SPIRAL will reveal the secrets of short-lived exotic nuclei.

SPIRAL will produce a beam of 'exotic ions' — charged atoms with an unusual balance of protons and neutrons in their nuclei. Most decay into more stable nuclei in fractions of a second. Exotic nuclei are created in extreme environments such as supernovae, and do not occur naturally on Earth.

SPIRAL fires a beam of stable ions at a carbon target held at temperatures of around 2,000 °C. The nuclei of the stable ions fragment on impact, creating a beam of exotic ions. These ions are sorted and then captured by detectors which can, for example, identify them by their decay products.

In most nuclei, protons and neutrons are packed into a ball. But the nucleus of one lithium isotope, for example, seems to consist of a dense centre surrounded by a cloud of neutrons. SPIRAL will aid the search for other such 'halo' nuclei. "We will probably need two or three of this type of facility in Europe to satisfy the demand," says William Gelletly, of GANIL's advisory committee.

Marek Lewitowicz, GANIL's deputy director, says the lab is already seeking to supplement SPIRAL's construction budget of 18 million euros (US\$15.7 million), to boost the range and intensity of its beams.

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