Israelis and Palestinians collaborate over health care

Judy Siegel-Itzkovich *Jerusalem*

After hopes for an Israeli-Palestinian reconciliation at Camp David receded yet again last month, evidence of quiet cooperation between the two sides in health care brought some grounds for optimism.

Whereas Palestinian and Israeli political leaders may not yet be able to agree about sovereignty, territory, and security, health professionals are collaborating effectively to prevent and treat disease on both sides of the border, a study has shown.

The report, produced by experts at Al-Quds University, a Palestinian institution of higher education based in east

Jerusalem, and at the JDC-Brookdale and JDC-Israel institutes in west Jerusalem, reviewed a range of collaborative projects in the 1990s.

Over two years the Israeli and Palestinian researchers studied 148 cooperative projects that brought together 67 mostly non-governmental organisations and some 4000 Palestinians and Israelis in the field of health care and disease prevention. Most participants in these health programmes—Jews, Muslims, and Christians with secular and religious backgrounds and left wing and right wing personal views—declared that they were

very satisfied with the outcome and wanted to continue working together.

The study began after researchers realised that despite the formal separation between the two health systems in 1994, cooperation between professionals continued. The research was sponsored by the US Institute of Peace, the Rich Foundation in Switzerland, and the Andrea and Charles Bronfman Philanthropies.

Health policy researcher Tamara Barnea of the JDC-Brookdale Institute and joint head of the research team said that both sides benefited from cooperation on health projects. Professor Ziad Abdeen, dean of research at Al-Quds University and also joint head of the team, commented: "We Palestinians and Israelis are destined to live together: it will either be face to

face or back to back," said Professor Abdeen. Israeli and Palestinian participants said they benefited personally and wanted to contribute to the building of a new post-conflict era.

The many successful joint projects listed in the report included a survey of the health behaviour of school age children in both populations; efforts to prevent the spread of leishmaniasis; a health education project for Palestinian schoolchildren; programmes to detect hearing problems and to perform oral and cardiac surgery on Palestinian youngsters; the development of a "call-in" psychological first aid service; and workshops for AIDS education. □

Copies of *Israeli-Palestinian Cooperation in the Health Field 1994-98* are available by email from barnea@jdc.org.il

Persistence of tuberculosis explained

Abi Berger *BMJ*

A critical biochemical pathway explains how bacteria that cause tuberculosis are able to lie dormant for years before causing active infection. American scientists have identified the secret that allows *Mycobacterium tuberculosis* to persist subclinically, without causing overt infection. This discovery shows new targets for anti-tuberculosis drug treatment and may dramatically shorten the length of time required for treatment (*Nature* 2000;406:735-8).

According to Dr Bill Jacobs, one of the collaborating scientists who is based at the Albert Einstein College of Medicine in New York, more people will die of tuberculosis this year than ever before. Most of these people will have an underlying HIV infection, but their death will be caused by tuberculosis. "*Mycobacterium tuberculosis* has the amazing ability to persist," said Dr Jacobs. "T lymphocytes can keep the bacteria in check, but they don't sterilise."

To investigate why tuberculosis can persist subclinically in a dormant state despite the availability of treatment and the BCG vaccine, Dr John McKinney and

Chest x ray showing tuberculosis: isocitrate lyase may be a new target in combating the disease

his team acted on an observation made in previous research that *M tuberculosis* bacteria in persistently infected mice survive by eating lipids. The researchers took tissue from lung tubercles from mice and found that the bacteria isolated from these tubercles had fed well on lipids but not on sugars or amino acids. The metabolic pathway critical for lipid metabolism in bacteria (but one not found in humans) and involves two specific enzymes.

This suggested to Dr McKinney that these enzymes might be important in the ability of the bacteria to persist. Without the presence of these enzymes to metabolise lipids, bacterial persistence might disappear. To test their hypothesis, the researchers

created a knockout (genetically modified) mouse in which production of one of the enzymes, isocitrate lyase, was blocked.

They then infected mice with the isocitrate lyase mutant and discovered that during the first three weeks (before the immune response kicked in), the bacteria grew unabated. After this time, however, activated macrophages seemed to be able to clear the bacteria completely from the lungs. The team confirmed this with an in vitro model that showed that isocitrate lyase is required for growth of the bacteria in activated macrophages.

"This makes isocitrate lyase an excellent target for anti-tuberculosis therapy," said Dr Jacobs. □

Risk of vCJD lower than expected

Judy Jones *London*

The threat of a major epidemic of variant Creutzfeldt-Jakob disease (vCJD) in Great Britain seems to be receding. Deaths from the disease in Britain are likely to be much fewer in number than the hundreds of thousands originally estimated, scientists at the University of Oxford have calculated.

Current mortality data suggest a final total below 136 000 cases, they believe. The disease is thought to be caused by eating beef infected with bovine spongiform encephalopathy (BSE). Last year the European Union's Scientific Steering Committee suggested that up to 500 000 people could have been exposed to BSE from a single infected cow. This led to fears that millions could die from vCJD.

Modelling the latest data, the researchers show that no more than two cases of vCJD could arise from the consumption of a single infected cow (*Nature* 2000;406:583-4). "This suggests a substantial species barrier, given that thousands of people might eat material from a single animal," the authors said. □