biological defence laboratories of Britain's Ministry of Defence.

Brian Mahy at the US Centers for Disease Control and Prevention says the threat is "extraordinary" considering the institute's value. The Ivanovsky Institute holds important collections of arthropod-borne viruses, he says, some of which have been collected from remote parts of the former Soviet Union and will be impossible to replace.

Particularly important, he says, is the institute's collection of the mosquito-borne West Nile virus. West Nile disease broke out in Russia a couple of years ago and reached the United States for the first time last year, causing five deaths in New York. The institute also has the world's best collection of tick-borne encephalitis viruses, says Mahy.

Despite facing the same difficulties as all Russian public research institutes, the institute has remained active. For example, it is a reference centre for monitoring influenza and other viral diseases for the World Health Organization.

The institute's director Dmitry Lvov, says that the collection "is one of Russia's real treasures and the country is going to lose it. It is a real tragedy." Lvov has asked various government departments for help. But he says the only response was from the Russian sanitary office, which sent a letter of protest to Mosenergo. ■

Researchers practise martian living in the Canadian Arctic

Steve Nadis

To prepare for life on Mars, a group of US researchers is exploring the next best thing — Devon Island, a barren, windswept outpost high in the Canadian Arctic.

Last month, investigators used a simulated martian habitat as a base for exploring the region. The aim is "to learn how to operate on Mars", explains Robert Zubrin, president of the Mars Society, a private organization funding the project.

So far, \$300,000 has been spent, and additional money has been raised to support operations up to the end of next year. A five-year, \$1 million research programme is planned to complement a NASA programme begun on Devon Island four years ago.

Things got off to a shaky start in July, when one of five payloads dropped onto the island by parachute crashed to the ground, destroying floor panels for the habitat, a crane and a trailer.

The team recovered by bringing plywood from the nearest town and using pulleys and winches instead of a crane. "When we get to Mars, we'll have to be prepared to improvise," says Zubrin. "Ultimately, human ingenuity rather than technology will carry us through." ■

The six-person habitat, a 7.2-metre-high cylinder with a domed roof, was finished in late July, two weeks behind schedule, allowing for a shortened occupancy period of less than a week. Next summer, researchers will spend two months at the base.

The crew, which included NASA scientists, simulated operations on Mars, spending 20 minutes in an airlock and wearing spacesuits. They used all-terrain vehicles and communicated daily with 'mission control' centres in Houston and Denver. ■

Californian centre will test medical uses of cannabis

Rex Dalton, San Diego

Marijuana is about to come under close scientific scrutiny in California. The Center for Medicinal Cannabis Research is being set up by the University of California to study the drug's efficacy and safety.

Announced last week, the centre will study the effects of cannabis on a number of diseases, including AIDS, muscle spasticity and nausea caused by cancer treatment. Some biochemistry might also be funded.

California's state assembly has provided US\$3 million for the first year of research, and plans to fund two more years at \$3 million each. Any research institution in California can apply for funds from the centre, which will be a venture between the university's San Diego and San Francisco campuses. Research proposals will be reviewed by a national panel of experts and approved by the National Institute on Drug Abuse, which will also supply the cannabis.

The plan is to start enrolling patients and conducting studies in January, according to Igor Grant, a physician at the University of

Munchies: a disabled man buys marijuana muffins at a cooperative in Oakland, California.

California at San Diego and co-director of the centre. He says that clinical trials and studies should provide reliable evidence on whether any medicinal benefits can be derived from smoking marijuana or ingesting marinol, a synthetic version of marijuana's most active ingredient, THC (delta-9-tetrahydrocannabinol).

Although there are surveys and

retrospective studies on the purported positive medicinal effects of cannabis, there are few prospective, blinded studies on the drug. US federal authorities have balked at funding such studies, concerned that they might encourage abuse of marijuana.

But in recent years, several prestigious scientific groups have called for a comprehensive cannabis study. Earlier this year, the National Academy of Sciences' National Research Council issued a report recommending research on cannabis.

California has voted to make cannabis legal for medicinal use, and 'cannabis clubs' provide marijuana for various purported health needs. This has prompted legal battles between state authorities and federal prosecutors, who fear that medicinal use will be used as a cover for criminal activity.

As these disputes went on, California state Senator John Vasconcellos, a Democrat from Santa Clara, successfully pushed the bill to fund the cannabis research centre through the state assembly. ■

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