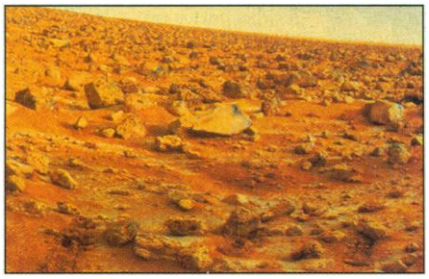
SCIENCESCOPE

edited by JOCELYN KAISER

Europe Approves Mission to Mars

When a launcher carrying the Russian-led Mars '96 spacecraft exploded a year ago over the Pacific Ocean, it wiped out all plans for planetary exploration at the European Space Agency (ESA). Now, ESA's Science Program Committee is trying to make up the loss: Last week, ESA approved a fast-track plan to launch a new Mars mission, Mars Express, in mid-2003.



NATIONAL AIR AND SPACE MUSEUM

Treasure hunt. Europe plans to probe Mars' surface for signs of life.

The spacecraft will consist of an orbiter and several landers, one of which will search for traces of past or present life on Mars. ESA will provide about $175 million for the orbiter and launch; participating countries will pay for the landers and instruments. France, for example, has already promised funds to its space agency for exploring Mars.

"The mission is devised to recover ... Mars '96 science," says Marcello Coradini, ESA's coordinator of solar-system missions. And it may do more. In addition to instruments developed for Mars '96, he says, Mars Express will carry "a little jewel"—a subsurface-penetrating radar that can look for signs of conditions that might support life, such as evidence of water. This "is in itself sufficient to justify a mission to Mars," says Coradini.

Some astronomers, however, see the Mars mission as competing for funds with other ambitious space projects at the budget-strapped ESA (*Science*, 5 September, p. 1427). The agency will have to "make very considerable savings on other missions," worries astronomer Michael Rowan-Robinson of Imperial College in London. But he agrees that ESA can't be blamed for wanting to catch up with NASA's "string of missions to Mars."

Coradini notes that the Mars Express scientific program has wide support. It was hammered out by a working group with members from most of the world's major space agencies, and he says it is "not duplicated by any other missions" in other countries. Proposals to build landers for the new Mars trip are due by next March.

NIH Panel Urges Methadone Therapy

The use of methadone to treat heroin addicts may gain greater acceptance, if public officials heed the advice of an expert panel organized by the National Institutes of Health last week. The group said heroin addiction should be viewed as a chronic disease, not a failure of will. And it recommended that physicians be given greater freedom to provide addicts with methadone—a slow-acting drug that competes with opiates in the body and reduces the craving for an illicit fix.

Yale pyschiatrist Eric Nestler, a panel organizer, sums it up: "The scientific data are substantial" in showing that methadone therapy, used for 30 years, helps control illicit drug use and associated diseases like AIDS. However, he notes, "somehow the system hasn't been able to get over objections" to methadone's use, mainly because people don't appreciate that the drug may not work unless given in large doses over a long time.

Methadone has been available only under strict federal and state laws and licensing procedures that control dosage. The NIH consensus development panel, chaired by psychiatrist Lewis Judd of the University of California School of Medicine, San Diego, urged officials to relax these controls and encourage more physicians to become involved in treating the nation's estimated 600,000 opiate addicts.

The panel's statement has no official status, but it may have an impact, says staff scientist Roy Pickens of the National Institute on Drug Abuse, adding, "I hope federal agencies ... are listening."

White House Simplifies R&D Oversight

In a tacit admission that more isn't always better, the White House is streamlining the minibureaucracy it created to oversee the $75 billion federal R&D portfolio. The move will telescope nine panels of the president's National Science and Technology Council (NSTC), comprised of some 24 agency heads, into five. The four R&D orphans—education and training; information and communications; health, food, and safety; and transportation—will be folded into the Committee on Science (previously Fundamental Science) and a new Technology Committee. Panels on international S&T, national security, and the environment and natural resources will remain intact.

"The same people were coming to meetings of different committees," explains Holly Gwin, chief of staff to science adviser Jack Gibbons, who notes the full council has met only once in 4 years. Most of NSTC's work, she says, will continue to be done by myriad subcommittees and work groups populated by lower-level managers. Agency officials admit this setup has been unwieldy, but say NSTC has helped build broad support for specific programs.

Bangkok Study Adds Fuel to AIDS Ethics Debate

The AIDS community is abuzz with reports that a small clinical trial in Thailand shows why it can be important to include a placebo when studying therapy with the drug AZT. According to several AIDS experts, unpublished data discussed at a scientific meeting in Manila last month suggest that without placebos, researchers might have mistakenly concluded that a 2-week course of AZT can help prevent transmission of HIV from a mother to her infant. "This is potentially a very important study," says Rod Hoff of the National Institute of Allergy and Infectious Diseases (NIAID).

It's unusual that an unpublished study whose results are, at best, sketchy would make such an impact. But the reason is a debate raging in recent months over the ethics of trials in developing countries comparing a placebo to inexpensive, short-term AZT therapy to protect babies. Critics such as Public Citizen Health Research Group in Washington, D.C., brand placebo use as unethical. But advocates of these trials think they have found fresh support in data cited in a memo by Johns Hopkins University's (JHU's) Kenrad Nelson.

Nelson's memo, which has been faxed to many AIDS researchers, describes data from a talk in Manila by Praphan Phanuphak, director of the Thai Red Cross AIDS program. In the recent study at Chulalongkorn Hospital, 90 HIV-infected women were given AZT after 38 weeks of pregnancy. About 15% of the women passed the virus to their babies, as did 16% of 92 other women given placebos. Two previous studies in Bangkok had found background transmission rates of 24% and 33%. So, if not for the placebo, "you would have falsely concluded that [the treatment] was producing significant benefits," says JHU's Neal Halsey. (Phanuphak did not respond to a fax from *Science*.)

Public Citizen's Sidney Wolfe, after seeing the data in the memo, argues that the trial doesn't prove anything because it was "extremely poorly designed." Even researchers who favor using placebos note that the statistical power of the trial was low, and they say transmission rates are already known to vary over time. Still, Hoff says, NIAID is interested and has made several "inquiries" to learn more details about the study.