

Thomas F. Garrity, of the Department of Behavioral Science at the University of Kentucky College of Medicine, conducted an epidemiologic study of the health benefits of pets to the elderly—one of the more intuitively obvious areas of the value of pets. Garrity had a study sample of 1232 households with at least one resident 65 years old or older from 45 states and the District of Columbia. He looked for evidence that pets exert some kind of protective effect against illness or depression but came up with largely negative data. The presence of a pet has no discernible effect on anyone who also has the companionship of other people. However, among the elderly bereaved who were without other friends, a pet apparently helped stave off depression, but not other illness.

Said Garrity in a summary statement of his own work that seems to apply to the entire field, "data suggest that among the elderly any health benefit that derives from pet attachment may occur only under certain circumstances rather than generally."

A number of papers demonstrated the value of pets to the handicapped. Dogs can be vital in both a practical and psychological way for the deaf, the blind, and those confined to a wheelchair or to bed. In dealing with severely withdrawn psychiatric patients, particularly children, pets can help elicit a response. They are also good for latchkey children who would otherwise come home to an empty house after school, and for children who tend to be picked on by their classmates.

Hubert Montagner, a psychophysicologist in Besancon, France, studies "child-pet dog systems" and reported that a child can "redirect on his pet dog the aggression he has undergone from his social environment." Presumably the dog does not mind.

But in other cases, the role of pets remains to be demonstrated. Rather convincing data indicated that the presence of pets in nursing homes, which is now permitted in all 50 states, poses no problem. However, evidence that pets make a positive difference in residents' psychological health appears to be anecdotal at best.

Robert K. Anderson, a veterinarian and public health specialist at the University of Minnesota, surveyed 284 nursing homes in the state monthly for 12 months. He found no evidence that anyone contracted infections or allergies from pets—"zero"—but documented numerous cases of infections spreading from resident to resident. Likewise, he found substantial numbers of injuries to patients falling out of bed or slipping in the bathroom, but statewide only 19 cases of injury traceable to pets. Two people broke bones when they fell while walking a

dog. A resident in one home suffered an "unprovoked chicken peck" that did not break the skin, and in another case a resident was bitten while cleaning a rabbit cage. Altogether, Anderson concluded that people are more dangerous than pets.

Like all scientific conferences, this one ended with heartfelt calls for more research. According to Leo K. Bustad, director of the "people pet partnership program" at Washington State University College of Veterinary Medicine, most existing studies in pet therapy have been funded through private sources. One of the founders of the Delta Society, which is pet therapy's professional organization, Bustad says that the society has about \$100,000 from the pet food industry and receives contributions from individuals and small organizations on the order of \$5,000 to \$50,000.

Federal funding has been conspicuous by its absence, although conference participants left NIH suffused with the hope that NIH funding might be forthcoming. This was encouraged by the fact that three NIH

institutes (heart, aging, and child health), the Centers for Disease Control, and the Food and Drug Administration all agreed to be listed as sponsors of the conference. What was not apparent was that none had put up any money—the \$60,000 cost was borne by the NIH's central fund for assessment and consensus development conferences—and none has made any firm commitment to support work in this field.

Conference participants' enthusiasm quite naturally tended to feed on itself as people saw ways of designing new studies that would expand and improve on existing work. But, as one NIH official put it, "I wouldn't blame them for going home thinking they should start writing grants, but I'm afraid most of them will be wasting their time." Nevertheless, it is likely that NIH will begin receiving applications for grants to study the health benefits of pets from a corps of researchers who seem determined to win legitimacy for their field and who give every sign of having the commitment to stick with it. ■ **BARBARA J. CULLITON**

Ariane Success Boosts Europe's Hopes

Paris

The successful launch of two telecommunications satellites by an Ariane 3 rocket from Kourou, French Guiana, last week may have brightened the prospects that Europe will reach agreement on an ambitious 15-year space program when top government representatives meet in November.

Ariane launches had been delayed since May 1986, when the previous mission—the 18th launch overall—had to be abandoned after the third stage of the rocket failed to ignite, apparently because of problems with the mixing of the liquid hydrogen and oxygen fuels. Investigations into the cause of the failure led to a complete redesign of the ignition system, which required 68 test firings over the past 16 months.

The success of the latest mission means that Ariane is now "the only launcher available in the free world," according to the director general of Arianespace, Charles Bigo. Company officials argue that, as a result of the Challenger accident, Europe currently has two clear years to establish its position in the launcher market before U.S. commercial launchers are likely to be able to offer a comparable launch service. Europe already has a full order book up to 1991, worth a total of \$2.5 billion.

Frédéric d'Allest, president of Arianespace and director general of France's National Center for Space Studies (CNES) said that the success of the launch should encourage

Europe to think in terms not only of building an enlarged version of the launcher, Ariane 5, but also in the longer term of a possible Ariane 6 and 7. Both of these, he said, should have the capacity both to launch and to retrieve satellites.

Reimar Lüst, the head of the European Space Agency, said he hoped that the launch would help persuade the West German government to commit itself to a substantial increase in the funding of the European space program at the November meeting.

In Britain, a number of leading aerospace and electronics companies, including British Aerospace, Logica, and Westland Helicopters, have announced the creation of a new body, the U.K. Industrial Space Committee, one of whose main tasks will be to try to persuade the British government to back such an expansion. Their move comes shortly after British Prime Minister Margaret Thatcher announced that, in the short term, there will be no significant increase in Britain's \$160-million-a-year space program.

The prospects for agreement on a substantial package in November were further clouded last week when it was reported that negotiators for the European Space Agency and the National Aeronautics and Space Administration had apparently failed to make any progress in overcoming the differences between them over the terms of European participation in the U.S. space station. ■ **DAVID DICKSON**