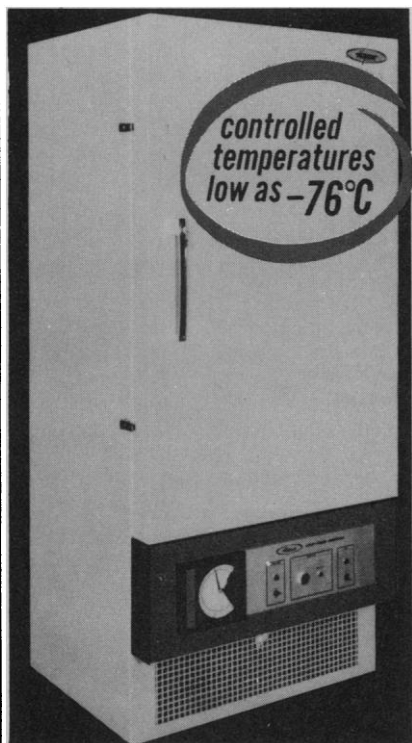


BRR-R-R

**cold storage you
can count on**



**HOTPACK MODEL 913100
ULTRA LOW TEMP FREEZER**

the frigid facts:

- 13 cu ft storage capacity
- occupies only 6.8 sq ft of floor space
- high-limit audible and visual alarm
- five adjustable stainless steel shelves on 1/2" centers
- galvaneal interior (stainless steel optional)
- safety door keylock and dual wheel casters

You can depend on Hotpack to maintain low temperatures down to -76°C for your biological storage. A large scale indicating-controlling instrument maintains the desired operating temperature for your most perishable specimens.

MORE DETAILS? WRITE



HOTPACK CORPORATION

(215) 333-1700. TWX 710-670-1694
COTTMAN AVE. AT MELROSE ST., PHILA., PA. 19135
IN CANADA: HOTPACK (CAN.) LTD., WATERLOO, ONT.

**SEE OUR NEW 13 CU FT
LOW TEMP FREEZER AT THE
FASEB AND ASM SHOWS**

LETTERS

(Continued from page 100)

Inefficient Medical Care

The computers at Yale-New Haven and New York hospitals have not looked in the right place if, as Deborah Shapley reports (News and Comment, 28 Feb., p. 30), they have found no evidence of waste and inefficiency.

The place to start looking is in the information flow of daily medical care. Every doctor in practice wastes hours looking for information that ought to be handed to him as he needs it. Patients sit around in waiting rooms while someone tries to find their medical records. Medical care suffers, not in the glamor fields like open heart surgery, but in the thousands of times information is passed from one person to another.

In the clinical laboratory alone, which accounts for nearly one-quarter of the nation's hospital bill, 50 percent of laboratory results are unused medically (1); 40 percent of patients' records are incomplete (2); 30 percent of test requests are not properly processed (3); 20 percent of laboratory reports are lost (2); and 10 percent of laboratory specimens are never received (2).

SAMUEL RAYMOND

*William Pepper Laboratory,
University of Pennsylvania Medical
School, Philadelphia 19104*

References

1. P. F. Griner and B. Liptzin, *Ann. Intern. Med.* **75**, 157 (1971).
2. S. Raymond, unpublished data.
3. F. Matthews, *Med. Lab. Observ.* (August 1974), p. 74; S. Raymond, L. Chalmers, W. Steuber, in *Proceedings of the Spring Joint Computer Conference* (Aflips, Montvale, N.J., 1971).

Honeybee Controversy

Regarding the correspondence (Letters, 6 Sept. 1974, p. 814; 13 Dec. 1974, p. 975) about the von Frisch versus Wenner controversy over the language of bees, it has been suggested that von Frisch's hypothesis alone applies (1); that Wenner's hypothesis alone applies (2, 3); and that they are not mutually exclusive and may peacefully coexist (4). Now Davenport (Letters, 13 Dec. 1974, p. 975) offers us the vision of a compromise.

As a firm supporter of Wenner's hypothesis, I believe, however, that the controversy will not be resolved until it is generally understood that it reflects a much wider, basic, theoretical con-

troversy between Lorenz's school of animal behavior and Schneirla's school (5).

The behavior suggested by Wenner's hypothesis will only make sense when viewed as a detail within the context of the continuous, dynamic process of the ontogenetic development of foraging behavior in the honeybee. It is exactly the need for this kind of study, while bearing in mind the low psychic level of insects in general, which is urged by Schneirla's theory.

Davenport might have explained to his students that the problem is somewhat more complicated than he seems to suggest. Firm supporters of von Frisch's hypothesis are well aware, for instance, that one of the Wenner groups' major experiments (3, 6), is based by the group on the assumption that the accumulation of odor in the hive facilitates recruitment of new bees to an outside food source scented with this odor, on the following day (3). This assumption has, however, been summarily disproven by Lindauer (7). No wonder supporters of von Frisch refuse to budge.

Wenner's group made a major breakthrough when they found that the mere introduction of odor into the hive will cause foragers, at the phase in which they cease to forage at an outside food source scented with this odor (after depletion of the source), to resume flights to the source (3, 8). However, the mere accumulation of odor in the hive does not have the effect Wenner's group believes it has. The effective factor in that case is the accumulation in the hive of bees who have experienced the exchange of tactual stimuli with a dancing forager carrying this particular odor, and have received food from her that is scented with this odor. This situation involves bees at a very different phase, that is, one of the dance-attending phases. One can dispense with dances, or even with the mediation of a returning forager carrying the odor into the hive, in the first situation, but not in the second (unless, of course, one uses a very sophisticated dummy which will not only dance, but also distribute food).

This small example accentuates the need for a detailed study of the ontogenetic development of foraging behavior in the honeybee, similar to the one carried out by Schneirla for the army ants (9). Such a study would remove all sort of hurdles which Wenner's hypothesis constantly runs into. Wenner has mainly extended his studies