

# Institute delves into research on genes

By **JIM BOYD**  
Emerald Staff Writer

One year ago, the Institute of Molecular Biology was just an idea and a patch of lawn behind the science building. Today, the modest structure houses research that delves into some of the most fundamental riddles of biology.

It was nearly noon when a hurried Emerald reporter interviewed Aaron Novick, the Institute's director. The windowless office was ordinary except for a vivid crayon drawing taped next to a blackboard crammed with biologic diagrams.

### Son sees wrinkles

"See what my son thinks of me. Look at the wrinkles," Novick said, pointing to the sketch. Son David had drawn his father with a red, ear-to-ear smile and black forehead creases.

Turning serious, Novick explained that the work of the Institute is concerned primarily with the nature and function of the material of which genes are made.

He drew a cell diagram on the already-crowded board and explained that the gene has long been accepted as the unit of inheritance. However, the mechanism (in chemical terms) by which a given inheritable characteristic is determined has only recently begun to be understood.

### Enzymes are a mystery

Apparently a gene provides for the manufacturing of a specific enzyme or protein molecule. These enzymes, produced within each cell, control the chemical reactions characteristic of that cell, he said.

If a gene is analogous to a blue print, then the enzymes become the masons, carpenters and plumbers that build the organism. Just how the protein is made is Novick's major interest.

### Genes made of DNA

It has been found, he explained that the gene is made of a substance labeled DNA (deoxy-ribonucleic acid). Four small chemical units (A, G, T and C) are strung bead-like together along these DNA chains.

Novick said that DNA might actually be called a four letter code. The arrangement of the A, G, T and C units direct the formation of the enzyme. His personal research—protein synthesis—is aimed at finding the way that this four symbol DNA code is changed into the 20 symbol language of enzymes.

Lanky (6'5") Frank Stahl, who jokingly insisted that the Emerald should mention his handsomeness if it mentioned his height, has his arsenal of problems too.

### Stahl has troubles, too

It was well into the lunch hour in the adjoining office when Stahl, Novick's associate, looked up from the assortment of sandwiches, avocados and other luncheon paraphernalia scattered across his desk.

DNA does not make only enzymes. It makes more DNA, Stahl explained. This ability to duplicate characteristics is the reason that a blond woman may have a blond child.

He said that DNA is actually composed of paired chains. When the chains separate and duplicate, it is possible for an A, G, T or C unit to be stuffed into the wrong slot. This causes a different code, a new enzyme and perhaps a new characteristic or mutation.

Stahl said the Institute is one of about 20 majors groups that are working in this field. When fully staffed, it will have five permanent members in addition to graduate researchers.

No undergraduate classes are conducted, but graduate students may receive research instruction. In addition to this, each of the Institute's members also teaches in one of the science departments.

A Public Health Service training grant of \$300,000 will be used over the next five-year period for the Institute's training and research. Funds are available for fellowships in addition to Novick's and Stahl's grants.

## Film Society..

(Continued from page 5)

stories are utilized in the unique mode of the film."

Two of the season's films will be shown at the Mayflower Theatre: "Aparajito," the Indian sequel to "Panther Panchali," and Charlie Chaplin's classic, "The Gold Rush." All other showings will be in the UT, and are scheduled for approximately every second Sunday.

Admission to the film society showings may be gained by membership only; transferable season tickets (\$5) and term memberships (\$2) are now on sale, in limited number, at the UT box office.

# WELCOME HOME GRADS!

and while you are in town dash in to your nearby Irish-Swartz Markets for some of these money saving specials.

**COFFEE HILLS** lb. 59c

WITH TURKEY LACING KIT

**CRISCO** 3 lb. can 69c

**BISQUICK** large pkg. 29c

HEINZ 14 oz. BOTTLE

**KETCHUP** 4 for 89c

**PUMPKIN**

HUDSON HOUSE

4 No. 2 1/2 tins 49c

**TOMATOES**

HUNTS SOLID PACK

4 No. 2 1/2 tins 89c

**PEACHES**

HUNTS NO. 2 1/2

4 for \$1.00

**PIES** SIMPLE SIMON Apple, Cherry, Berry, Pumpkin or Mince ea. 39c  
Fresh Frozen

DELICIOUS SNO BOY

**APPLES** 3 lb. bag 49c

NO. 1 QUALITY

**Yams** or Sweet potatoes 3 lbs. 29c

**TOMATO JUICE**

HUNTS 32 OZ.

5 for \$1.00

**SHRIMP**

HARBOR BELL

4 1/2 OZ. CLEANED

3 for \$1.00

**BABY FOOD**

HEINZ STRAINED

10 for 89c

ARDEN QUALITY

**MARGARINE** 5 lbs. 79c

GIANT PACKAGE SOAP

**WHITE KING** pkg. 49c

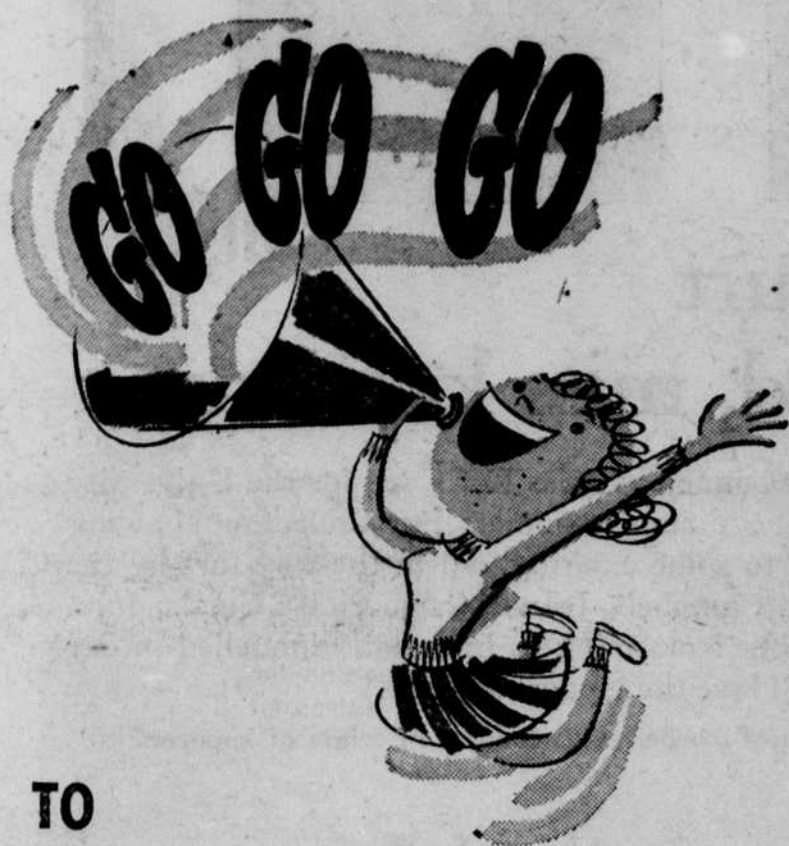
PILLSBURY

**PANCAKE** Flour 8 lbs. 79c

**FLOUR** Pillsbury 10 lbs. 89c

# Irish-Swartz

FOUR FRIENDLY MARKETS TO SERVE YOU



TO

**HUTCH'S BIKE SHOP**

960 Charnelton

DI 5-7521