

Unique Program In Pittsburgh Puts Students To Work Doing Original Laboratory Research

By ALICIA HART
 Newspaper Enterprise Assn.
 PITTSBURGH (NEA)—Thomas Schick snapped shut his laboratory notebook. His preliminary work was done; the tumors in the laboratory rats had grown to full size. Tomorrow we would begin testing the effects of two drugs on them.

Today, however, he had to rush to attend a lecture at a nearby university. Doffing his white laboratory coat and slipping into a sports jacket, he departed.

A typical slice-of-life in the day of a scientist? Not really.

Tom Schick is 16, and the institution where he carries out his investigations is a high school.

Tom is one of more than 150 ninth to 12th grade Pittsburgh area students participating in a unique program that puts high school students to work in their own laboratories doing original research on major scientific and medical problems.

Under the program, the high school labs have become, in effect, extensions of the Addison H. Gibson Laboratory in the University of Pittsburgh's School of Medicine and students a part of the Addison H. Gibson research staff.

Although Tom Schick probably won't discover a cure for cancer, he and his fellow students in the program do not just repeat classic "cookbook" experiments out of a chemistry textbook; they actually contribute to the store of new knowledge in scientific and medical fields.

Their work is equivalent to that done by the Pitt scientists themselves or by such highly trained assistants as Ph.D. degree candidates.

The idea for the program came about by accident six years ago when a local high school boy tried to give away some rats he had been breeding to the Bigson lab, a unit within Pitt's medical

school devoted to research on the metabolic aspects of heart and blood vessel diseases.

The student ran into plant expert John R. Jablonski, a man with an affection for eager youngsters. Jablonski persuaded the lad to keep the rats, breed a specific strain and try an experiment related to some research Jablonski himself was doing.

The first high school student did the work with a partner. Both reported findings to the high school science class of Mrs. Carolyn Gibson. The idea burgeoned into a full-scale summer program with nine area schools, over 175 students and 25 teachers. Support from the National Science Foundation now runs to \$38,500.

Pitt faculty men have reported the students' research at national scientific meetings and have used student results as the basis for further experiments of their own.

"There's a good deal of this work that's within the range of the average high school student's capability," Jablonski explained. "It generally falls into the category of projects that the scientist has been meaning to get to for years but keeps putting off to tackle tougher things, or projects he would do if he had the time,

but he never seems to find the time."

The Pitt scientist estimates that about 50 per cent of the student research is immediately useful to him or his associates in the Gibson lab, but that "all of it could be useful to some scientist in some laboratory at some time."

One of the most intriguing of the student findings was made by a 16-year-old 11th grade boy from suburban North Hills High School three years ago. The student observed that white rats, when offered a choice of diets, would switch from their preferred food to another kind when they were injected with beneath-the-skin tumors.

The second type of diet proved unable to support tumor growth. The tumors then disappeared gradually and the rats reverted to their original choice of food.

Students get ideas for their research projects during a series of eight seminars held each winter at Pitt. The three-hour-long meetings, held on Saturday mornings, are attended by both the students and their science teachers.

In these sessions, researchers from the university discuss their work, explain how they prepare experiments, demonstrate methods used to carry them out, and present unanswered questions in their field of science.

Then, between midwinter and the time that laboratory sessions start in late June, the students, according to Jablonski, "must read and read and read until they know as much about their one small area of study as possible."

The students take this latter admonition seriously. One 15-year-old girl in the program listed 58 sources of reference for her experiment.

The only real problems he has had with the program, Jablonski says, have to do with students wanting to take on work that's too complicated or dangerous.

"We can't very well give them live polio or cancer viruses to play around with," he says, although he doesn't doubt their ability to handle them correctly.

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 WEDNESDAY, SEPTEMBER 25, 1963
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PLANT LIFE — Ed Kruse, 15, examines a plant he is growing to determine the reaction of tumors to a certain acid.



RESEARCHER — Carol Becker, 17, notes the weight of a laboratory rat, part of an experiment to breed pure strain of blue furred animal.

Nuclear Test Ban Pact Has Double Significance

By PHIL NEWSOM
 UPI Foreign News Analyst

Incomplete and unsatisfactory though it may be, the partial nuclear test ban treaty approved by the United States Senate today has double significance.

It is part of a general thaw in the cold war.

And it is by far the most important single achievement to come out of 17 years of disarmament talks with the Russians.

In fact, through all these talks involving hundreds of meetings and millions of words, agreement previously had been reached on only two points.

Hot Line Agreement

One was the June 20 agreement signed in Geneva establishing a "hot line" communications link between Moscow and Washington to reduce the risk of accidental war.

In 1959, the nuclear powers agreed to a ban on nuclear explosions in the antarctic.

The treaty, covering test shots in the atmosphere, in space and under water and automatically abrogated in the event of cheating, represents a sharp switch in previous Soviet thinking.

Negotiations for a similar ban on underground tests are dead-

Information To Be Given On Sessions

VATICAN CITY (UPI) — Pope Paul VI has ordered that "greater liberty" be used in giving out information on the secret sessions of the Ecumenical Council, it was announced today.

The second session of the council starts Sunday. Msgr. Fausto Vallaine, head of the council's press office, said that because of the order "we will be able to give all the substance of what the fathers say" in debate. The meetings will remain closed to the public, however.

During the first session of the council the press office gave out a minimum of information on what was going on inside the council hall in St. Peter's Basilica.

The 2,500 prelates from around the world were under threat of excommunication if they revealed what was said and done inside the hall. Despite this, almost everything that went on during the first council session was learned, although it did not come from any "official" Vatican source.

The announcement of information came as favorable worldwide response to the pontiff's plans to modernize the Roman Curia appeared to add new strength to liberal prelates at the council.

The pontiff's announcement last Saturday that he planned to reform the conservative Curia, making it more international in recruiting and more modern in outlook, appears to have set the tone for the debate even before it starts.

The Curia, or central church administration in the Vatican, drew some sharp criticism last fall from council liberals. They felt the Curia was too stiff toward modern realities.

Pope Paul, in a speech to Curia members, said he planned to change outdated structures in the Curia and give it a more "ecumenical" spirit. In other words, as one source put it, a friendlier attitude toward non-Catholics.

Pope Paul also indicated he was considering taking away some of the Curia's powers to leave decisions on some matters up to individual bishops.

In Warsaw, Stefan Cardinal Wyszynski of Poland said some Polish bishops failed to receive passports to attend the second session of the council.

"This decision of the authorities is unjust. . . . It is a restriction of human rights and will leave the impression abroad that Poland is a sealed prison," he said Monday.

Union Requests Vote At Mine

KELLOGG, Idaho (UPI)—The Mine, Mill and Smelter Workers' Union local here has filed a petition with the National Labor Relations Board in Seattle requesting a representative election at the Bunker Hill Mine.

The announcement came Monday from Robert Carroll, chairman of the union's organizing committee at the lead-zinc mine.

Bunker Hill's present bargaining contract is with the Northwest Metals Union, an independent which gained control at the conclusion of the nine month mine-mill strike at the giant works in 1960.

Kennedy Speech Open To Public

OLYMPIA, Wash. (UPI)—President Kennedy's speech Friday in Tacoma will be open to the public and there will be no admission charge, Gov. Albert D. Rosellini's office said Monday.

A spokesman for the governor said sponsors of the event have been delayed with requests for tickets. There are no tickets except for a limited number of official guests, he said, and seating will be on a first-come, first-served basis.

The program at the Cheney Stadium is scheduled to begin at 10:30 a.m. The President is scheduled to arrive at 11:50 a.m.

locked over United States insistence on at least seven on-site inspections annually and Soviet refusal to permit more than three.

However, it is a start and a long step forward from the earlier Soviet stand which first linked nuclear agreement with general and complete disarmament and then demanded a total ban on nuclear tests without any inspection system.

First Break Comes

The signs of a Soviet change of attitude first became apparent during the summer as the ideological quarrel between the Soviet Union and Red China moved toward a peak.

The first break came on June 10 when, after a series of exchanges among President Kennedy, Premier Khrushchev and British Prime Minister Macmillan, simultaneously disclosed a meeting to seek a test ban agreement which would be held in Moscow in July.

In a speech at the American University in Washington, Kennedy declared:

"No government or social system is so evil that its people must be considered as lacking in virtue. . . among the many traits the peoples of our two countries have in common, none is stronger than our mutual abhorrence of war. . . In short, both the United States and its allies, and the Soviet Union and its allies, have a mutually deep interest in a just and genuine peace and in halting the arms race."

The break came on July 2.

In East Berlin, Khrushchev swung to the Western position and called for the signing of a nuclear test ban agreement, banning nuclear tests in space, under water and in the atmosphere.

He linked a nuclear agreement with a simultaneous non-aggression pact between the NATO powers and the Warsaw treaty states. But in the showdown, he did not force the issue, which would have implied international recognition of Communist East Germany.

Not Welcomed Everywhere

Not all major powers welcomed the agreement. West Germany feared it still might lead to a recognition of East Germany and mean permanent partition.

The French, seeking their own nuclear deterrent, ignored it.

The Red Chinese accused the Soviets of selling out the Communist camp to the West.

In Washington, the government assured worried senators and some scientists that there would be no let-up in U. S. determination to assure its own security.

In the end, the Senate agreed with Kennedy's warning of last May.

He said that if agreement were not reached with the Soviet Union this year, then "perhaps the genie is out of the bottle and we will never get it back in."

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