

# Talent search winners

**Texas math scholar wins the top prize for a theory on the origin of the universe**

by Ivan Kaye

Build a better mousetrap, the proverb says, and the world will beat a path to your door. Forty high school seniors from all over the nation did even more than that, and Westinghouse Educational Foundation and Science Service not only found their doors, but unrolled a red carpet that led them to Washington, D.C., last week.

In the capital, the forty winners of the 28th Annual Science Talent Search were whirled through five days of intellectual, social and financial rewards, culminating in the presentation of the first prize—a \$10,000 college scholarship—to 17-year-old Lane Palmer Hughston of Dallas, Texas.

In fashioning their projects, the winners looked from the origins of the celestial universe to the workings of that other universe locked within the nucleus of a single cell. In the process, they earned the admiration of numerous distinguished scientists, including Dr. Glenn T. Seaborg, President of Science Service, Chairman of the U.S. Atomic Energy Commission and Nobel Laureate in Chemistry. "These young people are the pride and hope of us all," Seaborg told an audience of more than 800 at the banquet honoring the scholarship winners.

From the same rostrum they were welcomed into the scientific fraternity by the President-elect of the National



*Jackson: eight months with the eggs.*



*Wright: a published lepidopterist.*



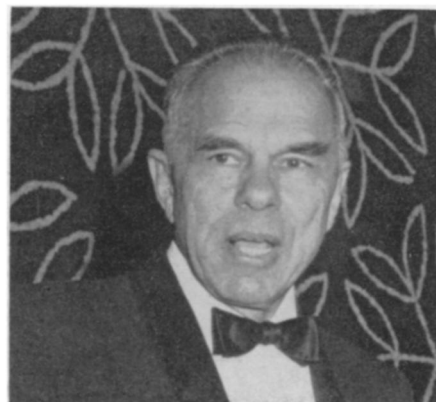
*Dr. Handler: sacred integrity.*

Academy of Sciences, Dr. Philip Handler of Duke University, who offered them Emerson's admonition that "Nothing is sacred but the integrity of your own mind."

Surveying the finalists as they arrived in the city, Science Service Director Edward G. Sherburne Jr. observed: "These young people have a quality that cannot be measured simply by I.Q. tests. Of course, they are all bright, curious and interested in science, but they have an extra dimension. When they needed some kind of scientific equipment and their schools didn't have it, they went out and got it or made it. They do the extra thing. They are not



*Hughston: just a paper and pencil.*



*Dr. Seaborg: all of them winners.*



*Director Sherburne: entrepreneurs.*

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bound by the curriculum. They are all entrepreneurs."

The winners, the pick of more than 21,000 high school seniors who entered the contest, were guided around the capital by Science Service Assistant Director Dorothy Schriver, who has been shepherdess to embryo scientists ever since talent search winners first gathered in the hot summer of 1942.

**She led this year's** final contenders up Capitol Hill, where they were received by a group of proud Congressmen and Senators from their states.

The next day, the Federal scientific establishment was the target as the winners zeroed-in on the National Institutes of Health, the National Aeronautics and Space Administration, the Goddard Space Flight Center, the National Bureau of Standards and the Naval Research Laboratory.

Such private institutions as the Johns Hopkins University Medical School, the University of Maryland and George Washington University were also on the itinerary. At all the centers, the students had a chance to talk shop with researchers who are working in areas similar to their own.

Nearly half of the students have spent time in such laboratories during their summer vacations under a program sponsored by the National Science Foundation. They have attended such

universities as California, Delaware, Southern Methodist and Syracuse.

The projects which carried the winners to Washington were put on public display the next afternoon, and despite a raw March 1 snowstorm, hundreds of curious—and sometimes awed—onlookers came to see and to listen.

Each student stood by his project, somewhat in the manner of a restrained carnival barker, and explained it thoughtfully.

As he inspected each exhibit carefully, Dr. Seaborg was asked which field he would enter if he were young again. The tall, grey-haired chemist, who won his Nobel Prize for co-discovery of the trans-uranium elements, thought for a moment and then replied: "I'd go into some branch of the biological sciences. It's in that area that the most exciting new discoveries will be made."

**Top scholarship** winner Lane Hughston, who had already addressed the physics and mathematics scholars at the nearby University of Maryland, did not share Dr. Seaborg's fascination with the biological sciences.

"I want to be a physicist," he said. "I've already been accepted at M.I.T., the University of California at Berkeley and the University of Texas, but I haven't decided where to go yet."

"What I've tried to do in this project is to examine the previous cosmological models of the creation of the universe, and to evolve a different one. There are unanswered questions in the other models, and there are in mine too," he observed.

Hughston, a soft-spoken but self-possessed valedictorian from Dallas's Hillcrest High School, is already a prize-winning mathematician. He won top honors at the 1968 International Science Fair in Detroit. Last summer, he studied mathematics at Southern Methodist University under a program financed by the National Science Foundation.

"I was lucky in that our high school had a computer. For this kind of work you don't use a lot of laboratory ap-

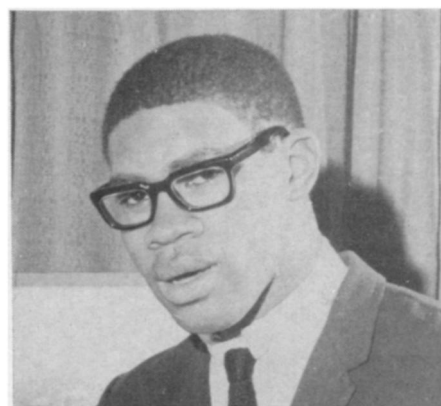




*Whittaker: extending the formulae.*



*Schaffert: plumbing Pascal's depths.*



*Wiley: probing the nucleic universe.*



*Orr: figuring most of the angles.*

paratus. Aside from the computer, all you need is a paper and a pencil," Hughston admitted with a shy grin and a wave of the hand at a page of calculations.

J. Edward Jackson III, a 16-year-old from El Cerrito, Calif., was a runner-up, along with David A. Wright, 17, of Woodcliff Lake, N.J. Each took home an \$8,000 scholarship.

**Wright, who** raised hybrid moths combining four different species, has already written an article for the Journal of the Lepidopterist's Society.

Jackson, a small, slight, cross-country runner with a rapid-fire speaking style peppered with bright asides, got the idea for his project when his teacher questioned the reason for the difference in taste between freshly-laid and store-bought eggs.

"I examined the cholesterol content, and it took eight months to find out that it rises during the first one to three days after the egg is laid," Jackson said. "But my real interest is neurochemistry, and I'd like to go to Harvard. They haven't let me know yet, though." He agreed that the award would not hurt his chances.

The closest the group came to choosing a leader of its own was its nomination of 17-year-old James O. Scamahorn of Pittsboro, Indiana, to present its gifts of a dozen red roses to Mrs. Schriver and a box of chocolates to Mr. Sherburne at the awards banquet.

In addition to the three top winners, Westinghouse dispensed \$6,000 scholarships to Willy C. Shih, 17, of Morton Grove, Ill., Claude A. Raifaizen, 17, of Bayside, N.Y., and William F. Ganong III, 17, of Albany, Calif. Winners of \$4,000 scholarships included: Jennie M. Orr, 16, of Coeur d'Alene, Idaho, the only girl among the top ten; Clarence L. Wiley, 18, of Muskogee, Okla.; Justin C. Schaffert, 17, of Silver Spring, Md.; and John D. Whittaker, 18, of Plantation, Fla.

**The forty** finalists had all taken a two-hour examination in addition to writing a report about their project and undergoing numerous interviews with the panel of judges in Washington. The thirty remaining finalists each received a cash award of \$250, underlining the view of Dr. Seaborg and Mr. Sherburne that "they are all winners."

Throughout their five days in the capital, the students were quartered in a hotel which was also playing host to the annual convention of the Veterans of Foreign Wars. As the final night's festivities wound to their conclusion, an interested witness chanced to reflect that if the young scientists succeed in building a better world as well as they have in building a better mousetrap, someday there might be no more foreign wars for anyone to be a veteran of. ◇

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