GENERAL SCIENCE

Pick Top STS Winners

Brett M. Nordgren of South Bend, Ind., received Science Talent Search $2,800 grand award. Jonathan D. Glogower of Brooklyn, N. Y., won the $2,000 scholarship.

See Front Cover

➤ RESEARCH WORK in the world of subatomic particles helped Brett Marcus Nordgren, a 17-year-old high school senior of South Bend, Ind., win top award in the Sixteenth Annual Science Talent Search. The teen-age physicist was awarded the $2,800 Westinghouse Grand Science Scholarship. He is shown on the right on the cover of this week's SCIENCE NEWS LETTER.

The second-place award, a $2,000 scholarship, went to 16-year-old Jonathan David Glogower of Brooklyn, N. Y., shown on the left on the cover of this week's SCIENCE NEWS LETTER. He has formulated a method for the physiochemical analysis of an ideal mixture of liquids to study its change as it vaporizes.

Ranking highest among eight $400 scholarship winners was 17-year-old Susan Iknayan of Charleston, Ill., who searched for direct causes of sterility in fruit flies, brought on by colchicine, a drug extracted from the autumn flowering crocus and used in cancer research.

First-award winner Nordgren, who was voted the top science student in Indiana in 1956, has developed an automatic Wilson cloud chamber. With the device, he is able to track the vapor trails formed by invisible subatomic particles. He is now adding to it an automatic counter that will do a good part of the painstaking tracking for him.

As he explains it, the nuclear trails along the path of the particle must be photographed quickly, "since within one second they will diffuse and vanish." To trap the trail, he has mounted a 35 mm camera on his chamber and is now working on a counter control. This will permit his device to take many pictures automatically before the trails disappear.

This system, he points out, is generally used to record the tracks of cosmic rays. The young scientist, who hopes to attend Purdue University, Lafayette, Ind., is now a senior at South Bend's Central High School. His future plans call for studies leading to a doctorate in nuclear physics.

The son of Mr. and Mrs. Arnold Nordgren of South Bend, he lists electronics, photography, and physical chemistry as his hobbies. He received an honorable mention award at his local Science Fair, was vice-president of the Indiana Junior Academy of Science, president of the Central High School Science Club and president of his church youth club.

Jonathan D. Glogower, second-place winner, points out that one advantage to his ideal mixture analytical method is that it is a "micro method." He explains that a very tiny amount of sample, on the order of one milligram, can yield results with simple equipment. The young chemist and mathematician thinks his work might be applied to studies of petroleum distillates.

Glogower, who hopes to go to Harvard, plans a career in theoretical physics with particular emphasis on the nuclear theory of protein chemistry.

A senior at Midwood High School, the teen-age scientist plays chess and the violin, is captain of his high school mathematics team and took first prize in the New York University Natural Science contest in 1956. He is the son of Mr. and Mrs. Jacob Glogower of Brooklyn, N. Y.

Susan K. Iknayan, runner-up and alternate to the $2,000 Grand Scholarship is a senior at Community Unit High School, Charleston, Ill. She says that her fruit fly experiments have led her into a detailed study of the effects of colchicine on cell development and on the induction of mutations in genes affecting the fertility in drosophila, or fruit flies.

She hopes to attend Washington University in St. Louis, Mo., and become a teacher or researcher in biology or chemistry. She is the daughter of Dr. and Mrs. H. A. Iknayan of Charleston, Ill.

The winners of the Science Talent Search, administered by SCIENCE SERVICE through Science Clubs of America, were announced at an awards banquet, following an address by R. Adm. H. G. Rickover, USN.

The banquet culminated a five-day competition among 40 young high school seniors from 21 states and the District of Columbia.
(For related stories, see p. 179 and 182, and SNL, March 16, p. 166 and 170.)

Science News Letter, March 23, 1957

EXHIBIT PROJECTS—Some of the projects of 40 top contestants for Westinghouse Science Scholarships are shown on the opposite page.

Left column, beginning at the top, are: John Curry with his "heat-to-light transformer"; Marjorie Simila with her display of tests on various kinds of detergents; Dean Luebrs showing the significance of molybdenum on crop fields; Dorothy Hollingshead demonstrating the effect of three chemicals on plant growth.

Center column are: Susan Iknayan showing her experiments with fruit flies and cell structure; Robert Adler showing how he separated the blood proteins by electrophoresis; Warren Brand demonstrating the effects of an electric spark on organic compounds.

Right hand column are: David Deamer Jr. showing his studies of why certain protozoa form into rings and clusters; Warren Rauscher showing uses of chromyl chloride for the synthesis of organic chemicals; Robert Goldstein showing how auxin affects plant growth and structure; and Eric Eikenberry demonstrating the effects of gibberellic acid on the growth of tomato root cultures.➤

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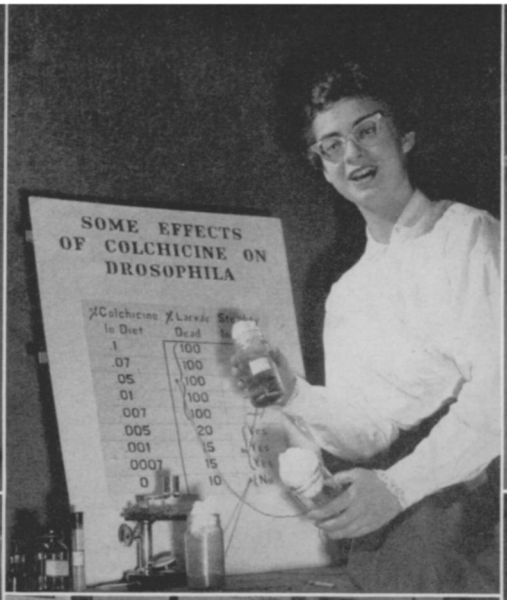
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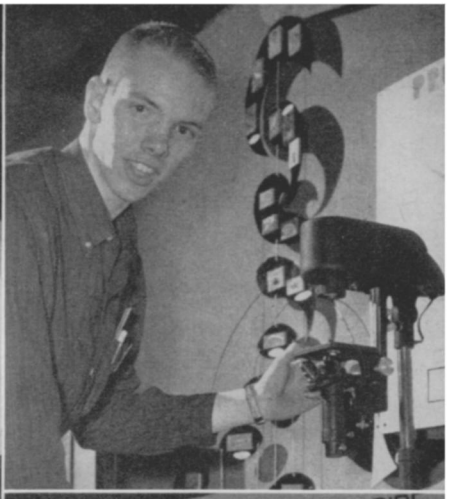


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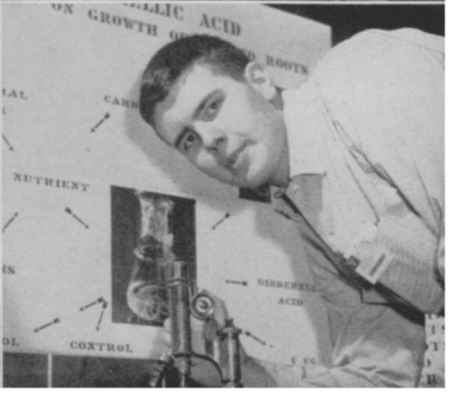
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