

Climax of a search

The 40 winners judged the nation's most scientifically talented seniors in the 29th annual Science Talent Search (SN: 1/31, p. 123) were entertained this week on a five-day trip to Washington. At an awards banquet, marking the close of the Science Talent Institute, a 17-year-old Pennsylvania youth was named the nation's most promising young scientist for his studies on interactions between two colliding proton beams.

The banquet climaxed the five-day institute during which the 40 winners visited their Congressmen on Capitol Hill and met with many of Washington's most prominent scientists on an individual basis. Main speaker at the banquet, Dr. Lee A. DuBridge, science adviser to President Nixon, hailed the winners as the "key to the future in unlocking the many unsolved scientific problems still confronting mankind."

Top scholarship winner Kirk A. Shinsky was presented the competition's top award—a \$10,000 Westinghouse Science Scholarship. Shinsky was selected from some 20,000 high school seniors throughout the 50 states and the District of Columbia. He attends Louis E. Dieruff High School in Allentown, Pa.

For his project, Shinsky studied the interactions between two colliding beams of protons. He built the experimental equipment used in his research, including the two particle accelerators.

Shinsky says that because of the low beam current used with his equipment the results were not clearly visible, but that a lot could be learned about protons when they scatter.

Shinsky hopes to attend Cornell University and prepare for a career in either nuclear physics or low-temperature physics. A member of the mathematics and science clubs he also serves as president of an explorer post of the Boy Scouts of America which specializes in engineering activities.

"If you try to cloister yourself away, you can go crazy," he said. "You have to be socially active. You can't lock yourself in the laboratory."

Runners-up who won \$8,000 scholarships were 17-year-old Eliot M. Gelwan of Rego Park, N.Y., and Mitchell C. Begelman, 16, of Bronx, N.Y. Selecting the field of mathematics, Gelwan, a student at Forest Hills High School, Forest Hills, N.Y., had as his project a study of four-sided figures in geometry called quadrilaterals. Gelwan says he hopes to attend Harvard University and major in mathematics. Hobbies include writing poetry and sports.

Mitchell Begelman selected the field

of physical chemistry for his project and studied the effects of solvents on molecular orientation in liquid crystals, chemicals that behave like liquids but have the optical properties of solid crystals (SN: 3/16/68, p. 268). Begelman plans to attend Harvard University and study astrophysics.

In addition to the three top winners, Westinghouse dispensed \$6,000 scholarships to Esther M. Hu of Bronx, N.Y., who chose physics, Douglas C. Rees of Lexington, Ky., for studies in biology, and Joseph J. Buff of Far Rockaway, N.Y., for studies in mathematics. Hu, designing her own equipment, constructed an electrical model of a mechanical system composed of two oscillating pendulums coupled together. Rees, who hopes to become a molecular biologist, studied the chemical and biological aspects of a common strain of bacteria found in food and water. Buff studied hypercomplex analysis, which deals with a calculus for functions of quaternions, variables in complex mathematics analogous to numbers.

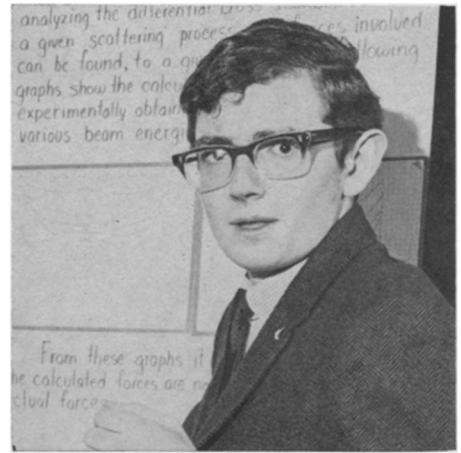
Winners of \$4,000 scholarships were Judith S. Rubin of Washington, D.C., Jeffrey Ng of New York, N.Y., Manoug Ansour of Forest Hills, N.Y., and Robert A. Levine of New York, N.Y.

Alternate winners to the \$4,000 scholarships were Christine A. Padesky of Marshalltown, Iowa, and Robert K. Zeman of Lincolnwood, Ill. Remaining finalists each received a single payment cash award of \$250.

Harry R. Gail, director of science information for the Westinghouse Electric Corp. which finances the talent search through its educational foundation, compared this year's winners to their predecessors. They are developing a social conscience, more so than ever before, he observed. Almost all the students agreed that scientists had an obligation to consider the consequences of their discoveries, and 8 of the 40 contestants had doubts about the cost of space exploration because the money could be better used to eliminate domestic problems such as poverty and pollution.

The 40 finalists had all taken a two-hour examination, submitted a science project, and were interviewed by a team of judges. Westinghouse scholarships and awards granted annually by the Science Talent Search total \$67,500.

The search is conducted annually by Science Service through its Science Clubs of America, and is financed by the Westinghouse Educational Foundation, which is supported by Westinghouse Electric Corp. □



Kirk Shinsky: Accelerators for colliding beams; no science in a cloister.



Eliot M. Gelwan



M. C. Begelman



Esther M. Hu



Douglas C. Rees



Joseph J. Buff



Judith S. Rubin



Jeffrey Ng



Manoug Ansour



R. A. Levine