

MEDICINE

Cesium Isotope Machine For Cancer Treatment

► **ADVANTAGES** over cobalt and X-ray treatment equipment for malignant cancers are seen in a new type of radiation therapy machine using the isotope cesium.

The machine was described by Dr. D. J. Wright at the Canadian Association of Radiologists meeting in St. John, N. B., Canada. It was constructed in the work shop of the physics division of the Ontario Cancer Institute and is installed in the Toronto General Hospital.

The basis for advantage over other machines, Dr. Wright said, lies in the use of cesium (a silver white, easily hammered metal with several isotopes) for short- and long-distance treatment procedures for malignancy.

"It is possible to utilize a smaller head for cesium-137 and yet obtain a depth dose similar to that of cobalt-60 for the shorter of these treatment distances (15 and 35 centimeters)," the scientist said.

For the longer treatment distance, he explained, cesium-137 is comparable to doses obtained at 50 centimeters with conventional X-ray machines while avoiding the bone absorption tendencies of such machines.

Pointing out that the new machine has "twin treatment ports" allowing therapy at either 15 centimeters, or alternatively 35 or 50 centimeters, he said such a unit would be ideal for a small department.

Coauthors of the report were Drs. H. E. Johns and C. L. Ash. All three scientists are associated with the Ontario Cancer Institute in Toronto.

• Science News Letter, 79:70 February 4, 1961

GENERAL SCIENCE

Arizona Twins Win Talent Search Honors

► **A SET OF TWINS**, 17-year-old boys, who attend the same Phoenix, Ariz., high school are among the 399 nationally selected seniors who won honors in the 20th annual Science Talent Search announced by SCIENCE SERVICE.

They are George Carl Farnbach and John Sevier Farnbach, 536 E. Cheery Lynn St., students of North High School, Phoenix.

George did a project using Grignard reagents, which are used in the preparation of organic compounds, and John worked on paper chromatographic analysis of five principal sugars of wood.

Twins in the honors list of the Science Talent Search are a rarity, although in 1950 two girls of a set of triplets not only won honors, but were among the 40 top winners of trips to Washington. The other triplet did not compete, being more interested in music than science. The multiple birth winners that year were Patricia and Cynthia Jackson, then 17 and living in Forest Hills, N. Y. Patricia attended Hunter College High School and Cynthia, High School of Music and Art, both in New York City.

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GENERAL SCIENCE

Washington Trip Winners

(See p. 74)

HOME ADDRESS follows name of school

	ARIZONA	
<i>Phoenix</i>	Fox, Donald Jensen 17	West H.S. 2314 W. Pinchot St.
	COLORADO	
<i>Denver</i>	Chessen, Douglas Howell 17	East H.S. 6301 E. 22nd Ave. 7
	DISTRICT OF COLUMBIA	
<i>Washington</i>	Newlon, Michael Clarke 17	Western H.S. 3714 Massachusetts Ave. 16
	FLORIDA	
<i>Coral Gables</i>	Melson, Eloise Ann 17	Coral Gables Sr. H.S. 1507 S.W. 19th Terrace, Miami 45
<i>Melbourne</i>	Adkins, William Milton III 17	Melbourne H.S. 67 Lund Circle
	GEORGIA	
<i>Atlanta</i>	Kane, Daniel Frederick Jr. 17	Joseph E. Brown H.S. 1626 Rogers Ave., S.W. 10
	Hosford, James Michael 17	Northside H.S. 1080 Northcliffe Dr., N.W. 18
	IDAHO	
<i>Idaho Falls</i>	Wheeler, John Craig 17	Idaho Falls H.S. 239 11th St.
	ILLINOIS	
<i>Chicago</i>	Dworkin, Barry Ronald 16	Amundsen Sr. H.S. 2630 W. Rascher St. 25
<i>Evanston</i>	Axelrod, Robert Marshall 17	Evanston Twp. H.S. 8835 Monticello Ave., Skokie
<i>Highland Park</i>	McGivern, Thomas John 17	Highland Park H.S. 347 Elm Pl.
<i>LaGrange</i>	Phillips, Roger Morgan 16	Lyons Twp. H.S. 5434 Grand Ave., Western Springs
	INDIANA	
<i>South Bend</i>	Peters, Roger Paul Jr. 17	Central H.S. 557 Edgewater Dr.
	Raymond, Robert Lee 17	Central H.S. 1205 N. Kaley 28
	IOWA	
<i>Cedar Falls</i>	Wilson, Mary Sue 17	Malcolm Price Laboratory School 1203 W. 23rd St.
	KENTUCKY	
<i>Louisville</i>	Kleinman, Daniel Ellis 17	Atherton H.S. 1414 Goddard Ave. 4
	MARYLAND	
<i>Bladensburg</i>	Andrews, Thomas Gaylord Jr. 17	Bladensburg Sr. H.S. 5903 Euclid St., Cheverly
	Kottke, Margaret Ellen 17	Bladensburg Sr. H.S. 3209 Tremont Ave., Cheverly
	MASSACHUSETTS	
<i>Quincy</i>	Hoffman, Donald Richard 17	North Quincy H.S. 80 Forbes Hill Rd., Wollaston 70
<i>Revere</i>	Cecere, Mary Ann 17	Revere H.S. 300 Malden St. 51
	MISSOURI	
<i>Kansas City</i>	Barisas, Bernard George Jr. 15	Southeast H.S. 6319 S. Benton St. 32
	NEBRASKA	
<i>Omaha</i>	Josephson, Paul Douglas 17	Omaha Central H.S. 1507 N. 54th St. 4
	NEW YORK	
<i>Brooklyn</i>	Alben, Richard Samuel 16	Erasmus Hall H.S. 213 Albemarle Rd. 18
	Kaufman, Laura Sue 16	Erasmus Hall H.S. 45 Hawthorne St. 25
	Lesk, Michael Edward 15	Erasmus Hall H.S. 225 Marlborough Rd. 26
	Rothman, William David 16	Erasmus Hall H.S. 297 Lenox Rd. 26
	Bernstein, Herbert Jacob 16	New Utrecht H.S. 1342 51st St. 19
	Gordon, Robert Jay 16	Yeshiva of Flatbush H.S. 2480 84th St. 14
<i>Jamaica</i>	Fell, Harriet Jane 16	Jamaica H.S. 75-32 179th St. Flushing 66
<i>New York</i>	Wallman, Joshua 17	Bronx H.S. of Science 23 E. 69th St. 21
	Lepowsky, James Ivan 16	Stuyvesant H.S. 143-11 Barclay Ave., Flushing 55
<i>Penfield</i>	Tate, William Charles 17	Penfield Central H.S. 11 Dogwood Glen, Rochester 25
<i>Staten Island</i>	Rappaport, Bernard Sandor 17	New Dorp H.S. 72 Tenth St. 6
	OHIO	
<i>Cleveland</i>	Manak, Rita Carol 16	Lourdes Academy 2217 Montclair Ave. 9
<i>Fairborn</i>	Mayer, Ann 17	Fairborn H.S. 572 Wayne Dr.
<i>Tipp City</i>	Smith, Dale Thorpe Jr. 18	Tippicanoe H.S. 7276 S. Dixie Dr.
	OREGON	
<i>Beaverton</i>	Hubbell, Wayne Lester 17	Beaverton H.S. 4450 S.W. 96th St.
	TEXAS	
<i>Austin</i>	Matsen, Frederick Albert III 16	Stephen F. Austin H.S. 1800 San Gabriel St. 1
<i>Fort Worth</i>	Harkins, Anna Marie 17	Arlington Heights H.S. 4010 W. Fourth St. 7
	VIRGINIA	
<i>Arlington</i>	Jones, Edward Charles 17	Wakefield H.S. 6807 N. 29th St. 13