

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 Tippecanoe 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