



Mississippi
Alberta
North Portland

Vancouver
East County
Beaverton

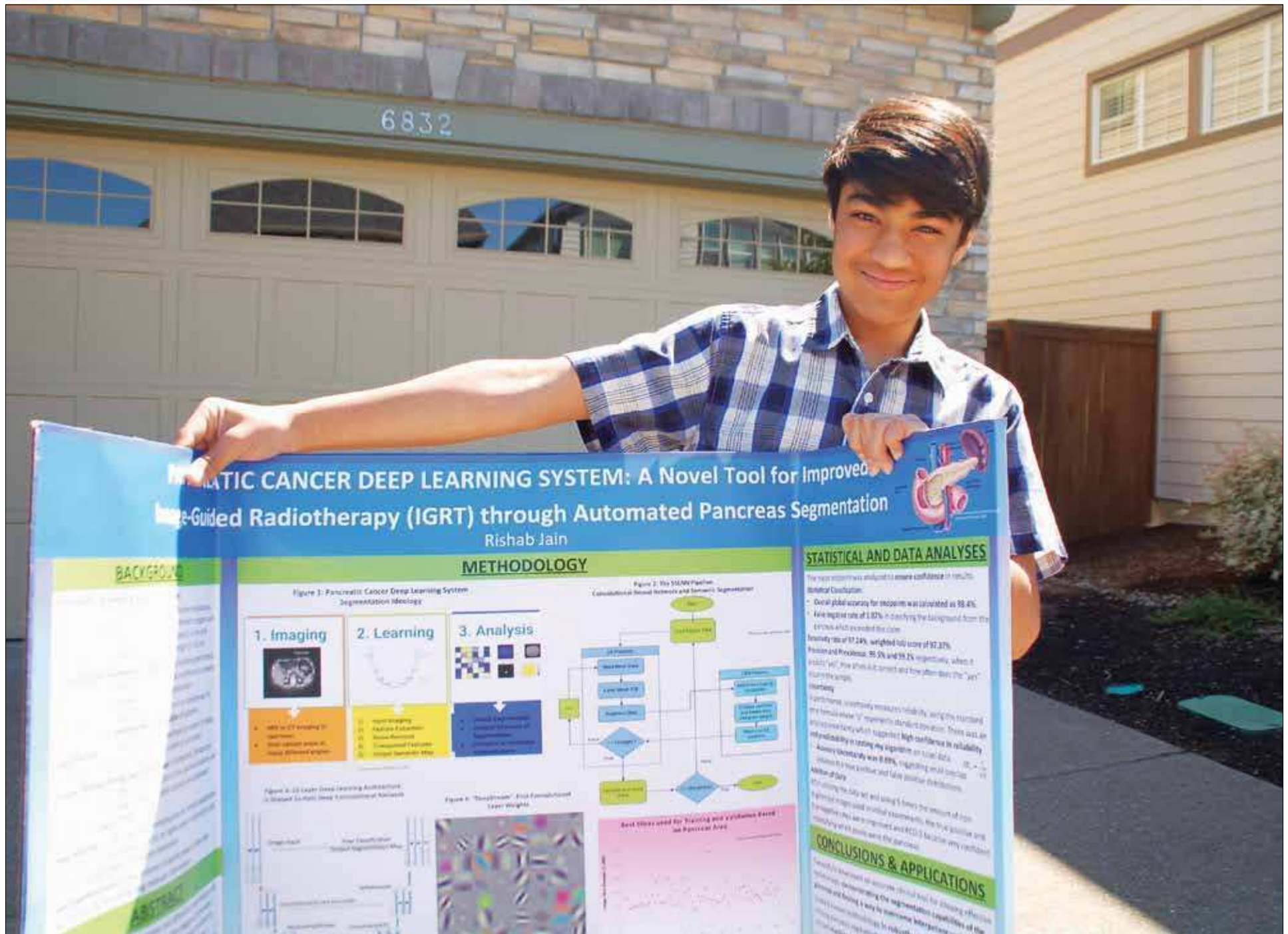


PHOTO BY DANNY PETERSON/THE PORTLAND OBSERVER

Rishab Jain, a student from Stoller Middle School in Beaverton, uses a reader board to help visualize his invention of using artificial intelligence software to potentially improve the effectiveness of pancreatic cancer treatment. He is one of 10 finalists chosen across the nation to compete for the title of "America's Top Young Scientist" and a prize of \$25,000.

BY DANNY PETERSON
THE PORTLAND OBSERVER

A local middle school student is poised to fight for the title of "America's Top Young Scientist" for his innovative system of using artificial intelligence software to potentially improve the effectiveness of pancreatic cancer treatment.

Rishab Jain, a soon-to-be eighth grader at Stoller Middle School in Beaverton, was one of 10 finalists chosen throughout the nation for 3M and Discovery Education's Young Scientist Challenge, it was announced last month. The annual competition challenges students grades 5-8 across the nation to

Inspired ^{by} Science

Young inventor competes for top prize

use scientific thinking to create innovations that improve their communities locally and abroad. In October, he and nine others will compete for a \$25,000 grand prize in St. Paul, Minn. He's also mentoring with a 3M scientist over the summer to help bring his vision to life.

The competition involved contestants submitting a YouTube

video of their proposals, which Jain said immediately drew him in, since making technology-based videos for the web is one of his many hobbies.

Last summer Jain familiarized himself with artificial intelligence programs like Python and MATLAB. When he learned about the low survival rate of pancreatic cancer patients over that same

summer, he wondered if there was a way to combine the two interests.

"Currently to treat the disease, doctors use MRI-guided radiotherapy. This is where radiation is directly targeted onto a tumor to help reduce the size and kill it off," Jain explained.

But due to differences in patients' body structures, and bodi-

ly movements like breathing, the pancreas can move mid-treatment. "And then the radiation can have negative effects on the body. So that's a major problem. I wanted to try to solve that," he added.

If this new tool is used, the radio therapy can follow the pancreas as it moves, in real time. Not only could this make the treatment of the cancer more effective, it also avoids accidentally pumping healthy organs with radiation, which should increase a patients' overall chances of surviving.

Jain's mother, Manisha Jain, who is a realtor and originally

CONTINUED ON PAGE 16