

University of Maryland medical school, Baltimore schools partner to bring love of science to advanced students

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Da'Kuawn Johnson's third-grade teacher knew the boy was special.

She bought him advanced textbooks with her own money, challenging Johnson to keep learning after he whipped through his normal classwork at Calvin M. Rodwell Elementary School in Northwest Baltimore.

The teacher's attention fueled Johnson's desire for more, and fed his thirst for scientific knowledge.

"That's what started it all," said Johnson, now a [student](#) in the University of Maryland School of Medicine.

Johnson, 23, has returned to Calvin M. Rodwell to help teach and inspire children who are at the same pivotal point he was when one teacher shifted the course of his life. Through a partnership between the [medical school](#) and the Baltimore public school system, Johnson and other future doctors and scientists mentor [elementary school students](#), teaching them about the field through interactive experiments.

Every week, [medical students](#) volunteer with a small group of third-graders identified as gifted and advanced learners. It's part of the district's broader effort to identify more of these bright students and expand the opportunities available to them.

The Talent Mentoring Program grew from 14 schools last year to 20 schools this year, many of them serving high-poverty populations. About 50 medical students, who stroll the schools' halls in their white coats, signed up to participate.

"It gives the children an idea of where they can go in this world, that they aren't limited to just the environment around them," said Joyce Jackson, a Baltimore district education specialist. "The children love that experience of just seeing their mentors with their lab coats on. They may not all become doctors, but they will all be exposed to something."

On a recent Tuesday, Johnson and two other med students joined three third-graders at Calvin M. Rodwell. As soon as the children walked through the door, they rushed to hug their mentors.

The three children are already dreaming of futures in the field—two want to be eye doctors, another "a doctor, but for animals."

"I'm thinking I want to be one of them," said 8-year-old Aaron Franks, pointing at the group of med students who were setting up the day's experiment.

The group started the session by going over a list of rules written on the white board: no messing with chemicals unless a grown-up is around, always wash your hands and wear goggles.

The day's lesson focused on genetics. Johnson began by asking the students, "What do you already know about DNA?"

At the start of the hour, their answers were halting. Jazmin Askew posited that DNA had something to do with a person's fingertips. The other children shrugged.

But by the time the day's lesson had ended, answers to that same question spilled out of them. The group had done a simple experiment that involved swishing a salt water solution around in their mouths to extract some cells from their cheeks. After collecting a sample and mixing some other ingredients, the students' genetic material became visible in their test tubes. The children came to understand that whether their eyes were brown or blue, their skin black or white came back to those strings of DNA.

"I feel so science-y," said Jazmin, pumping her arm in the air.

Baltimore school officials hope to provide that kind of experiences to a broader population of students. That's what's driving their efforts to identify more students in the city as "gifted." Children of color across the nation are underrepresented in special programs for advanced learners.

Black students are less likely to be assigned to gifted services in math and reading, a 2016 study found, a "pattern that persists when controlling for other background factors, such as health and socioeconomic status, and characteristics of classrooms and schools."

In Baltimore City Public Schools, 50 percent of students in the gifted and talented program were black, according a ProPublica analysis of the latest available federal data. African-American students make up nearly 80 percent of city students.

"Historically, kids of color and kids coming from poverty are not included in conversations about gifted students," said Dennis Jutras, coordinator for the district's gifted learning program. "We're been pretty aggressive in trying to help identify more."

The district has been universally screening all kindergarten students, Jutras said, and working to ensure that schools with access to the Talent Mentoring Program and similar programs for [gifted students](#) are in diverse neighborhoods. From January to June last year, 55 Title I schools in the city were given resources to do gifted programming. Most of the gifted and advanced learning sites are now Title I schools, a designation that means a large percentage of their students come from poverty.

As of Oct. 1, the city had identified 4,200 students as either gifted, advanced or on the "talent development" track. One-third of those students are "economically disadvantaged," according to district data.

Pushing to identify more kids is vital, Jutras said. It can change the course of a child's life.

Johnson, a first-generation college student, said it would've meant the world to him when he was a child to see someone from his school, his neighborhood, go on to pursue a medical degree.

Back when he was in third-grade at Calvin M. Rodwell, his mother had to fight him not to wear a tie to school each day.

Now, during each visit to the [school](#), he walks the halls in slacks, a tie—and a lab coat.

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