



2010 ANNUAL REPORT





Dear Friends,

STEM stands for Science Technology Engineering and Math. From medicine to agriculture, communication to physics, the integrated disciplines of STEM are the very foundation of today's global economy.

The Ingenuity Project® trains gifted young people to take their places as leaders in STEM fields as wide ranging as astrophysics and patent law. In the eighteen years since Ingenuity's inception, STEM's importance has continued to grow. The computer revolution of the 80's led the economy out of the last major recession. A STEM breakthrough will almost certainly fuel the next economic recovery...and Ingenuity students will be there.

The continued success of The Ingenuity Project is due to the efforts of its many supporters. In particular we would like to thank the Baltimore City Public School

System, The Abell Foundation, Lockhart Vaughan Foundation, and the Baltimore scientific community. We want to express our appreciation to Ingenuity parents who make it possible for their children to succeed in Ingenuity's rigorous curriculum. I want to express my personal gratitude to Ingenuity's Board of Directors and teachers for their unwavering commitment.

Please take a moment to enjoy the Annual Report. I hope you will be inspired by our students' dedication and accomplishment.

Sincerely,

A handwritten signature in black ink that reads "Gary R. Pasternack". The signature is stylized and cursive.

Gary Pasternack, M.D., Ph.D.
Chair, Board of Directors

STRATEGY FOR SUCCESS

The Ingenuity Project was initiated in 1993 to give talented Baltimore City Public School System students advanced training in Science, Technology, Engineering and Mathematics (STEM).

Because U.S. students lag behind their international counterparts in STEM education, The Ingenuity Project has designed a world-class STEM curriculum. The approach is both strategic and innovative. Top teachers are hired. Students are given the tools they need to excel in a challenging environment. The curriculum draws on the experience of master teachers and internationally-recognized STEM education methodologies. Ingenuity students and alumni are stellar examples of the program's success.

The Ingenuity Project's impact is far reaching. In 2009, 465 students enrolled in the middle school and high school programs. Ingenuity students have the satisfaction of working hard and achieving outstanding results. The families and neighborhoods share in their pride of achievement. The schools that are home to The Ingenuity Project also benefit. Teachers

and students beyond the program are inspired to raise the bar for their academic accomplishments.

Students are recruited city-wide. Selection is based on standardized test scores in reading comprehension and in mathematics equaling the national percentile of at least 80%, and an academic average of at least 80%. Applicants meeting the minimum requirements are invited to take a test prepared by the Center for Talented Youth (CTY) at The Johns Hopkins University. To continue in Ingenuity at any level, students must maintain an 80% grade average, have near-perfect school attendance, and treat fellow students with respect.

Successful applicants for high school Ingenuity enroll in Baltimore Polytechnic Institute. Middle schoolers enroll in one of three schools that host The Ingenuity Project: Hamilton, Mount Royal, and Roland Park Elementary/Middle Schools.



TRAINING TO BE THE BEST

STEM training at Ingenuity is one of the strongest programs in the United States; every year we strive to make it better. Strengthening the instruction for the 2009-2010 AP Chemistry exam exemplifies our commitment to student success.

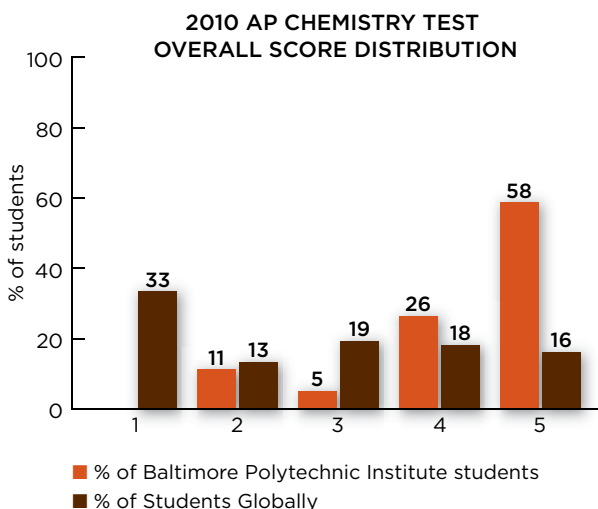
In past years, Ingenuity AP Chemistry test scores have reflected the national average. We believed that investing in student preparation would result in higher scores. In 2009, with assistance from the Poly Foundation, the chemistry lab was upgraded and a lab assistant hired. A new teaching position was added to work with the AP chemistry students. The students welcomed the increased challenge. In 2009-2010 Ingenuity AP Chemistry scores significantly exceeded the national average, an increase of 70% over prior years.

2009-2010 was an impressive year for other test scores as well. Eight juniors and seniors scored a perfect 800 on SATs: Lawrence Wang, Andrew Clemens, Carly Wais and Rebekah Wheatley earned a perfect 800

on Math SAT. Dan Borgnia received an 800 score in Physics, Carly Wais in Writing, Caryn Carson, Dana Katzenelson and Saul Wilson in Reading. Dana Katzenelson received a perfect composite score on ACT.

More Class of 2010 Awards and Scholarships include: Maryland Distinguished Scholars (2); National Merit Scholar (2); University of Maryland Banneker/Key Scholar; UMBC Meyerhoff Scholars (2), Siemens Competition Semi-Finalist, and Intel Science Talent Search Semi-Finalist.

Every year Ingenuity students showcase their training and talent through national, state and local competitions. Below are some highlights. To see the complete list of Ingenuity student accomplishments, past and present, visit www.ingenuityproject.org



Class of 2010 Megan Reid is named Gates Millennium Scholar



For the second year in a row an Ingenuity student has become a Gates Millennium Scholar. The goal of the prestigious Gates Millennium Scholars Program is to promote academic excellence and provide opportunity for outstanding minority students with financial need to reach their highest potential. Megan will attend Bucknell University.

“AP Chemistry was the most challenging course I had [in 2009- 2010]. Getting a 5 on the Chemistry exam greatly boosted my confidence in what I could handle in terms of a course load...and what my potential really is. Now I see I don’t have much to be afraid of anymore.”

—ILENNA JONES, CLASS OF 2011.



from left: Wujiong Fan and the Ingenuity Project Board of Directors; Roland Park students, Josiah Bedford, Thomas Heck and Rob Friehman (background) at the Maryland Science Center.

Class of 2010 Wujiong Fan— Siemens and Intel Science Talent Search Semi-finalist

Wujiong is the fifth Ingenuity student in recent years to be named an Intel semi-finalist. His research entitled, “Gene Expression Signature-based Chemical Genomics Identifies Drug Candidates in Mouse Rheumatoid Arthritis Cell Model,” was conducted at Bayview Medical Center under the guidance of Dr. Chris Cheadle.

National K-12 Chess Championship

A Poly team won the K-12 Unrated Division of the Championship competing against 141 players and 32 teams from 21 states across the nation. In addition, four Poly students took top-10 individual honors. The team brought home five trophies, five plaques, and seven medals. Ingenuity senior William Griffin finished sixth in the nation with 6-0-1 record (with the same number of points as third place).

MIDDLE SCHOOL

Middle School Ingenuity gives students a model that prepares them for setting and reaching future educational goals, whether or not they continue with Ingenuity in high school. They have the confidence to pursue higher education with an instinct for self-guidance. Academically, they complete Algebra I, and have studied Earth & Space, Biology, and Physical Science (Physics & Chemistry). Science labs in middle school provide valuable hands-on experience.

Ingenuity middle school students also participate in science and mathematics competitions.

2010 Maryland MATHCOUNTS

Ingenuity at Roland Park Math Team won 1st place in Baltimore City in a Chapter competition. All team members—Raphael Kargon, Dara Wais, Jack Mountain and Beatrix Edelenbos—were on the list of top 16 scorers. Ingenuity’s team placed 9th (with 23 teams participating) statewide.

EXCELLENCE IN BALTIMORE

RESEARCH CURRICULUM

Working with Mentors from the Scientific Community. The Research Curriculum is an incubator for future scientists, engineers and mathematicians. Beginning in 10th grade and during summers, students are mentored by Baltimore-based scientists from local colleges, universities and other research institutions. They develop independent research projects, which contribute to the body of research, and in some cases, have their work acknowledged in scientific papers. Below is a sampling of Research Curriculum Projects:



“Measurement of Aerodynamic Drag Forces on Planar Fractal Models in a Wind Tunnel”

Student: Duane Dennis

Mentors: Dr. Charles Meneveau,

Dr. Hyung-Suk Kang

Institution: Department of Mechanical Engineering, Johns Hopkins University

“Development of a Method to Optimize Cell Culture for Use in Reversing the Effects of Osteoarthritis”

Student: Corrine Gasiorowski

Mentor: Dr. Jennifer Elisseeff

Institution: Department of Biomedical Engineering, Johns Hopkins University

“Language Functioning in Individuals with Smith-Lemli-Opitz Syndrome”

Student: Chasidy Lowe

Mentor: Dr. Elaine Tierney

Institution: Kennedy Krieger Institute

“In Vitro Evolution of Escherichia Coli Growth Temperature through Random Mutagenesis with Ultra Violet Light”

Student: Brea Parrish

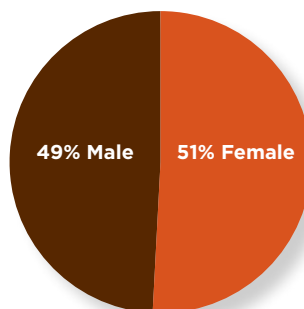
Mentor: Dr. Edwin Pozharski

Institution: School of Pharmacy, University of Maryland

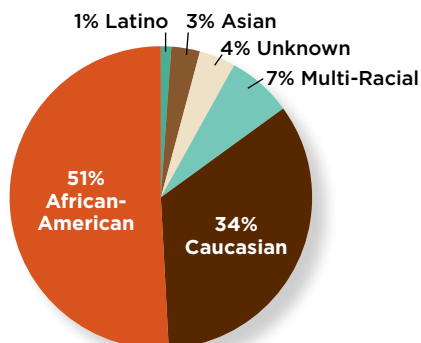
BALTIMORE SCHOLARS

Training in Baltimore, Staying in Baltimore. Baltimore has one of the strongest and most sophisticated STEM-based economies in the United States. Ingenuity-trained graduates are highly desirable in this environment. The Johns Hopkins University Baltimore Scholars program gives talented Baltimore City students full-tuition scholarships, which enable them to stay in the area while attending one of the most respected universities in the world. This year eight Ingenuity seniors qualified for the Baltimore Scholars program: Christopher Harris, Wuqiong Fan, Michelle Lampart, Richard McKinnon, Ndubisi Okeke, Megan Reid, Carly Wais, Rebekah Wheatley.

INGENUITY STUDENT DEMOGRAPHICS BY GENDER



INGENUITY STUDENT DEMOGRAPHICS BY ETHNICITY



CLASS OF 2010 COLLEGE ACCEPTANCES

29 students received \$2,260,000 in total scholarship awards

American University
Boston College
Boston University
Bristol University
Bucknell University
Carnegie Mellon University
Drexel University
Duke University
Florida A & M University
George Washington University
Georgia Tech
Goshen College
Johns Hopkins University
King's College London
Massachusetts Institute of Technology (MIT)
Morehouse College
Morgan State University

NYU Polytechnic
Northeastern University
Oxford University, UK
Pennsylvania State University
St. Mary's College of Maryland
Stanford University
Sussex University
Susquehanna University
University College London
University of Baltimore
University of Edinburgh
University of Maryland, Baltimore County
University of Maryland, College Park
University of Pittsburgh
University of Wisconsin, Madison
Washington College
Washington University in St. Louis

AVERAGE SAT SCORES

Math: 680 Reading: 620 Writing: 623

Ingenuity Recognized for Excellence in Gifted & Talented Education

The Maryland State Advisory Council on Gifted and Talented Education awarded citations of excellence to three members of the Ingenuity community in 2010:

Outstanding Educator-Program Coordinator

Dolores Costello, Ingenuity Project Director

Teachers as Leaders

Mikhail Goldenberg, Ph.D., Ingenuity Mathematics Department Head

Student Achievement in Gifted and Talented Education

Saul Wilson, Class of 2010



from left: Award winners: Dolores Costello, Saul Wilson, and Mikhail Goldenberg; Math teachers: Dr. Cathy VanNetta, Dr. Mikhail Goldenberg and Chris Guinoo.

MAKING A DIFFERENCE

The Ingenuity Project prepares students to make a difference in whatever field they pursue. Alumni are already making their mark in a wide range of academic and professional arenas. The four students profiled here are a small sampling of the diverse paths and aspirations of our graduates.



Cristal Cooper (Class of 2002) graduated from UMBC in three years and earned her graduate degree from the University of New England. In April 2010 Cristal became a Board Certified Doctor of Physical

Therapy and now works with geriatric patients in Denver. A trainer dancer, she continues to take classes with the Colorado Ballet.



Alexi Pappas (Class of 2006). Following graduation from The Ingenuity Project, Alexi enrolled in Harvard University where he studied Political Science, with extensive coursework

in Spanish. Post-college, he lived in Venezuela before returning home to work in Baltimore City and Maryland state governments, most recently doing policy work in the Governor's Office. Wanting to combine his interests in science and public service, Alexi plans to pursue a career in medicine. He is currently enrolled in the Goucher College Pre-medical Post-baccalaureate program.



“I wouldn’t have made this choice without my time in Ingenuity, which gave me not only a top-level academic foundation in math, science and beyond, but also has encouraged me to go about the next phases of my academic and professional career with creativity and confidence.”

—ALEXI PAPPAS, CLASS OF 2006

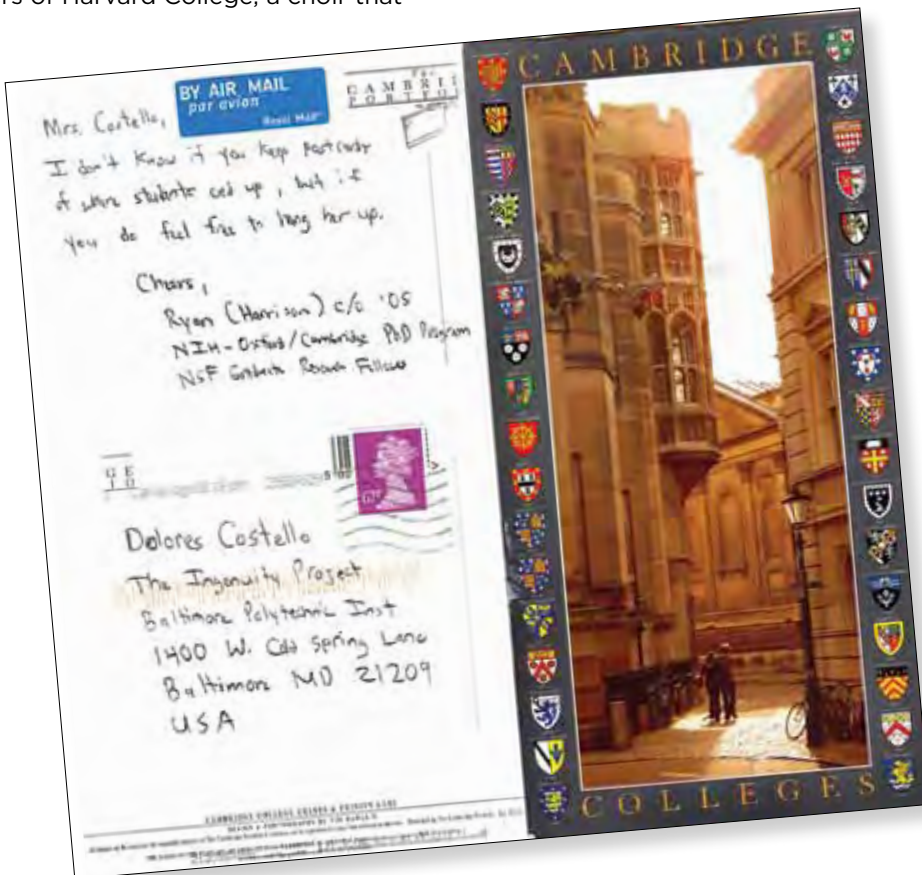


Jeremiah Cross (Class of 2007). In pre-med at Harvard University, Jeremiah is majoring in Social and Cognitive Neuroscience/ Psychology. His original research centers on

improving life expectancy for patients with glioblastoma brain cancer. In addition to school work and a part-time job, Jeremiah is a member and business manager of the 80 member Kuumba Singers of Harvard College, a choir that

celebrates black creativity and spirituality. He is also president of a high school mentoring program that helps low-income minority students gain admittance to the colleges of their choice.

Alumni **Ryan Harrison** (Class of 2005) is known to many in the Ingenuity community as the first City Schools student in many decades to become an Intel Science Talent Search Winner. He is currently starting his first year in a two-year NIH fellowship in Bio-medical Sciences at Oxford University (Wolfson College).





The Ingenuity Project honored Dr. Carol Greider, 2009 Nobel Laureate for Medicine and Ingenuity parent, at a reception celebrating achievements in mathematics and science on April 14, 2010 at the Frederick Douglas-Isaac Meyers Maritime Museum. The first time fundraiser included a new video presentation showing the powerful impact of Ingenuity's program on the lives of its current students and graduates.

photo: Dr. Carol Greider, Johns Hopkins School of Medicine, and Dr. Andrés Alonso, CEO, Baltimore City Public Schools.

The Ingenuity Project gratefully acknowledges the following contributions received in the 2009-2010 school year.

Baltimore City Public School System

- The Abell Foundation**
- Baltimore City Foundation**
- Baltimore Community Foundation**
- The Black & Decker Corporation**
- Jim & Anne Cantler Memorial Fund/Baltimore Community Foundation**
- Greater Baltimore Commttee**
- Zanvyl & Isabelle Krieger Fund**
- Lockhart Vaughan Foundation**
- Lois & Philip Macht Foundation**
- T. Rowe Price & Associates Foundation**
- Stegman & Company**
- Alvin and Fanny B. Thalheimer Foundation**

- Anne Albinak
- Cattie Ambrose
- David & Justina Apaw
- Kathy Bacon
- Jonathan Bagger
- Jerome & Ruth Balter
- Thomas & Cynthia Bands
- Marty & Carol Bishop
- Brenda Bodian
- Andrea Bowden, Ph.D.
- Tavon Brooks (Class of 2001)
- Albert Brzecko (Class of 2001)
- Ema Paglioroli & Jessica Campbell
- Ben Yuhas & Jen Carey
- Christine Carneal
- Scott & Sharon Carson
- Stratton & Sandra Clark
- Zoe & Andrew Clarkwest
- Paul & Karol Costa
- Dolores & Chris Costello
- Arlene Gioia
- Matthew Croson
- Lawrence Brody & Sonye Danoff
- Marianne DeBow
- Ekaterina Denisova
- Debra Dennis
- Judith Egertaon
- Melissa Ekey
- Christine Weston & Steven Farber
- Robert & Sandy Fink
- Gale Fletcher
- Karen Footner
- Carol Ford
- Kathy Frey-Balter
- Robert & Anne Fulwiler

- Catherine Gearhart
- Mikhail Goldenberg
- Luanne Goodson-Green
- Jeffrey Gray, Ph.D.
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- Anne Haddad & Chris Hart
- Michael Hill
- Joanne Huey
- Elizabeth Jeffee
- Corwin & Margaret Jennings
- Teresa Lee & Da'Kuawn Johnson (Class of 2013)
- Kenneth Jones
- Nicholas Jones
- Seth Kamen
- Peter Kannam
- Joseph & Shannon Katona
- Joanne Katz
- Mitch, Betty & Dana Katzenelson
- George Kell
- Miriam King
- Thomas & Angela Kinlin
- Mary Jo Kirshman
- Mary Porter & Doug Koshland
- Amy Krulak
- Caroline Laguerre-Brown
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- Glenna Lee
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- Rebecca Redett
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- Katie & Scott Riback
- Cornelia Rivers
- Gregory Rossman (Class of 2007)
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- Anthony Sartori
- John & Lois Saylor
- Eugene & Monika Schnell
- Yelena Schwartz
- Mary Pivawer & Eric Seaberg
- Pamela Seng
- Benjamin Shafer
- Dana, Terry & Arianna Shaw
- Susan Slattery
- Alison Moliterno & Adam Snyder
- Maya & Arnold Spicinitkiy
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- Lorisa Stewart
- David Stone
- Barbara Stricklin
- Loi & David Sullivan
- Sam, Ahlan, Sami & Charles Tannouri
- Dwight Taylor
- Paul & Mariln Timmel
- Valerie Trimarchi
- David & Gordana Utzschneider
- Stacey Van Horne
- David Vanko, Ph.D.
- Cathy VanNetta
- Jo Wais
- Michael Waller
- John & Catherine Walsh
- Chris Ward
- Roger Weber
- Marguerite Weber
- Joseph Whittaker
- W. Stephen Wilson
- Orla Wilson
- Jodie Kavanaugh & George Wright
- Scott Zeger

STATEMENT OF FINANCIAL POSITION, JUNE 30, 2010 AND 2009*

	<u>2010</u>	<u>2009</u>
ASSETS		
Cash	\$234,430	\$142,718
Certificate of Deposit	10,490	—
Cash restricted	—	15,000
Accounts receivable		
Grant receivable	15,888	73,397
Prepaid expenses	0	0
Net property and equipment	55,465	81,607
Total Current Assets	<u>\$316,273</u>	<u>\$312,722</u>
LIABILITIES		
Deferred Revenue	—	25,000
Accounts payable	4,558	11,782
Total Current Liabilities	<u>\$4,558</u>	<u>\$36,782</u>
NET ASSETS		
Unrestricted	\$311,715	\$275,940
Temporarily Restricted	0	0
Total Net Assets	<u>\$316,273</u>	<u>\$312,722</u>

STATEMENT OF ACTIVITIES, JUNE 30, 2010 AND 2009

	<u>2010</u>	<u>2009</u>
Revenues and Other Support		
Baltimore City Public School System	\$420,000	\$420,000
The Abell Foundation	400,000	390,000
Foundation and Corporate Grants	129,300	217,500
Other revenue	41,680	35,281
Total revenues and other support	<u>\$990,980</u>	<u>\$1,062,781</u>
Expenses		
Program services	\$742,587	\$867,292
Management and general	181,572	192,727
Fundraising	30,547	29,263
Total expenses	<u>\$954,706</u>	<u>\$1,089,282</u>
Change in Net Assets	35,775	(26,501)
Loss in Property Dispositions	(499)	—
Net Assets at Beginning of Year	\$275,940	\$302,441
Net Assets at End of Year	<u>\$311,715</u>	<u>\$275,940</u>

*Above are selected components from the 2009 audited financial report.

Total student enrollment: 465

Cost per student: \$2,053



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