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History

Girls 4 Science was founded from the heart of a mom committed to helping her daughter achieve her dreams. In 2008, Jackie Lomax's daughter expressed an interest in a career in science. In an effort to fulfill her daughter's interest, Jackie began to search for science programs geared toward educating and preparing girls for study and employment in the field of science. Jackie was unable to find community-based science programs so she ambitiously set out to make science a reality for her daughter and other daughters of the city of Chicago. After surveying the community Jackie created a plan of action to develop a science academy exclusively for girls ages 10 to 18. She founded Girls 4 Science in 2008 to provide hands-on experience and professional mentorship in STEM to girls in order to develop academic skills, self-esteem, awareness, and relationships to help girls overcome barriers that may prevent them from achieving greater success in STEM fields and professions.

Mission Statement

The Girls 4 Science mission is to increase science literacy for girls ages 10-18 through scientific discovery and collaboration with external partnerships.

Vision Statement

The Girls 4 Science vision is to build a corps of women to mold the future of Science, Technology, Engineering, and Math.

Scientific Method

A body of techniques for investigating phenomena, acquiring new knowledge, or correcting and integrating previous knowledge.

Founder/Executive Director



As a mother of two daughters I understand the cost associated with a “dream”. I also realize how sometimes limited resources due to one’s race, gender or economic background can challenge the progression of such success.

Girls 4 Science is Chicago’s only all girls science initiative for girls 10-18. The program is offered each quarter for six weeks on Saturdays for free. The objective of the program is to offer quality STEM programming in a non-competitive environment, which supports the female experience and influence through mentorships, themed field trips, science inquiry, and post high school scholarships.

Most recently G4S has expanded operations from one City College of Chicago (CCC), Olive Harvey, to a second site, Malcolm X Chicago City College. G4S has maintained partnerships and support from a number of reputable companies and organizations and is led by a dynamic and committed leadership team.

Since its inception in 2008 G4S has conducted eight (8) six week sessions serving approximately 300 girls. Students were asked “how did we help in improving your grades in science and math?”, and over 75% of the respondents selected good or excellent and are interested in continuing the study of STEM.

This year has served as a milestone for the program with a feature on Heart & Soul ABC 7. Women in Bio hosted a panel discussion about the significance of female leadership in STEM at Willis Tower. G4S hosted its 1st annual Women’s History Month Reception at the Union League Club in Chicago.

Over 200 guests celebrated the students active participation in G4S at the Museum of Science and Industry during our 4th annual Summer Science Recognition Reception. We are also very pleased with the support garnered from our 1st annual Garden Fundraiser this past summer.

I am honored to be an Ambassador for girls in science, technology, engineering and math. We are proud to provide a solution to the needs of female students in Chicago and look forward to continued partnerships with the community.

Sincerely,

Jackie Lomax
Founder
Executive Director

President, Board of Directors

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We are pleased to report significant progress with Girls 4 Science throughout 2012. Our mission continues to grow and improve as we reach out to girls and introduce them to the wonders of science, technology, engineering and math. As the country's only African American female chemical manufacturing company we're thrilled with the progress of the program and even more excited about the possibilities of more young women exposed to STEM.

2012 saw our first annual Women in Science day. Our speakers included Ilene Gordon, CEO of Ingredion Incorporated, Kawtar Hafidi, Nuclear Physicist at Argonne National Laboratory and others. The event yielded significant support financially and extended our reach into the community with educators represented from various City and private colleges. Girls 4 Science had their first public awareness opportunity when ABC7 Chicago featured our girls on their Heart & Soul program.

Girls 4 Science completed an entire year of programming and are proud of our extension to a second City college. Our data continues to support our mission. The girls continue to expand their knowledge of science, improve grades, and express more interest in science as a career. Parents are excited about the program and are our biggest advocates for new students and increasing participation in the program.

Jackie Lomax, Executive Director and Founder has graciously accepted the full-time responsibility for the program and clearly demonstrates a knowledge and passion to propel G4S in an upward trajectory. Program outreach to the community has generated additional financial support. G4S Board of Directors is pleased to announce support from Baxter Healthcare Corporation, Ingredion and ITW.

We recognize that growth in these economic times is difficult but not impossible and G4S stands out as a differentiator. We've managed to continue our mission with support and purpose.

Girls 4 Science seeks to empower young women in STEM, ultimately improving their lives and the lives and environment of those around us. With continued support, strategic planning and committed individuals, G4S hopes to stand out as the "go-to" organization for extended STEM education.

Thank you to all of our supporters and individuals that seek to assist us in continuing and improving our mission and vision of more young lives improved by STEM education.

Sincerely,

Linda Boasmond
President
Board of Directors



Why should you care about STEM?

“There has been a discrepancy with girls who have entered into the STEM fields in a community college and transferring into the fields at a four year university. According to a study done on STEM majors in community college but not after transferring into a four-year university, some girls didn’t feel that they had enough support in the field because of their race and ethnicity. The negative preconceived notions of their ability as minority women discouraged them from continuing in the field”. (M-E. Reyes, Harvard Educational Review, June 2011). It is important to teach girls early on about opportunities in STEM fields in order to build positive ideas about the field and its benefits. By introducing STEM research early, the walls of preconceived notions can be torn down and the numbers of minority women in the field can increase. Expanding and developing the STEM workforce is a critical issue for government, industry leaders, and educators. The addition of women to the STEM workforce will help ensure that scientific and technological products, services, and solutions represent the needs of all users.

Why should you care about Girls in STEM?

While women in STEM study and professions have grown, men continue to outnumber women in STEM professions. According to the National Science Foundation website, women comprised 46% of the overall workforce in 2006; however, only 26% of the science and engineering workforce was female”. With a more diverse workforce, scientific and technological products, services, and solutions are likely to be better designed and more likely to represent all users. The opportunity to pursue a career in STEM is also a matter of pay equity. Workers in science and engineering fields tend to be well paid and enjoy better job security than do other workers. Workforce projections for 2018 by the U.S. Department of Labor show that nine of the 10 fastest-growing occupations that require at least a bachelor’s degree will require significant scientific or mathematical training.

Why Girls 4 Science?

Girls 4 Science has designed an innovative program model, Saturday Science Academy, to address the lack of accessible, quality science programs for female youth ages 10-18 in the Chicagoland area. Our program model is based on the notion that science exposure and increased science literacy will equip youth with the knowledge needed to confidently pursue study in the sciences and careers in STEM. Increasing the opportunities for science exposure for youth will affect change in multiple areas including overall self-esteem, post-secondary study, increased employment opportunities, and long-term financial stability.

Saturday Science Academy

Saturday Science Academy operates for six weeks at a time for 2 hours each Saturday every quarter. Each Saturday Academy serves up to 40 girls. The Science Academy includes small group science exploration, themed field trips that allow participants to experience STEM “live and in action” and mentorship.



Intended Impact

Short Term Impact

- More girls become interested in STEM
- More girls have access to professional women in STEM as mentors
- Local communities are more aware and engaged in STEM
- Increase in grades in STEM subject matter

Long Term Impact

- Increase in grades in STEM subject matter
- Increase in selection of STEM area careers
- Increase community members engagement with women in STEM

Strategy- How do we accomplish our mission?

Collaboration

G4S values collaboration and partnerships with organizations, companies and individuals committed to the success of young women in the areas of STEM and youth development. Collaborations allow G4S to access premier space and resources to provide participants with the greatest technology, quality instruction and operational support. Meaningful long-term partnerships and collaborations are cost effective and sustainable. Collaborations are necessary to provide participants with exposure to STEM.

Scientific Discovery

G4S believes that hands-on science exploration and discovery is crucial to increased science literacy and interest in science overall. We recognize that merely talking about science in a laboratory setting is not enough to spark persistent interest. Instead girls benefit from activities that augment the laboratory experience.

Accessibility

G4S operates as a free Saturday Science Academy. There are many after school programs that offer various enrichment programs, but there are few activities that offer youth programming on the weekend. According to the "Before –and-After School Programs Summary Report FY2005", 50% of the before and after school programs in Illinois served students 6-12 years old. There is a demand for programs in Chicago that serve students between the ages of 10-18 and on weekends. Girls 4 Science is not only accessible but it is affordable. During these unpredictable economic times it is paramount to offer activities to our most vulnerable, and in need regardless of their financial circumstances.

Mentorship

G4S promotes on-going mentorship opportunities that increase young women's access to information and responsible adults that will help participants prepare for the future. Much of our programming is done in small groups, but we recognize the importance of individualized support and guidance in and out of the Academy. The AAUW report recommends "exposing girls to successful female role models in STEM careers to cultivate girls achievement and interest in science; exposing girls to successful female role models can help counter negative stereotypes because girls see that people like them can be successful and stereotype threat can be managed and overcome."

Community Engagement/Awareness

G4S recognizes the importance of engaging the community in our mission. Raising awareness about women in STEM is key to increasing community interest in girls in science. Research suggest that there are damaging stereotypes that say men are better than women in STEM areas, which negatively impacts a girl's performance and aspirations for science. To combat this negative stereotype at a community level G4S intentionally spreads the word about girls and women's achievements in math and science.

2011-2012: Mission Accomplished

Collaborations for Scientific Discovery

- Benedictine University Dancing Raisins Lab
- Chicago Botanical Garden
- Ingredion Incorporated
- Garfield Park Conservatory
- Museum of Science and Industry Forensics Lab
- RobotCity Workshops
- Smart Smiles Dental
- The Kids Table
- University of St. Francis Animal Behavior Lab
- Urban Worm Girls
- 312 Aquaponics

Accessibility

G4S participants are primarily from single parent households, 90% of the participants are African American and all of the participants attend Chicago Public Schools. The median age of the G4S participant is 12. Participants rated all field trips excellent or good as well as the overall mentor experience. Students were also asked “how did we help in improving your grades in science and math?”, and over 75% of the respondents selected good or excellent and are interested in continuing the study of STEM. Students from historically disadvantaged groups such as African American and Hispanic students, both female and male, are less likely to have access to advanced courses in math and science in high school, which negatively affects their ability to enter and successfully complete STEM majors in college (May & Chubin, 2003; Frizell & Nave, 2008; Tyson et al., 2007;Perna et al., 2009). The expansion of Girls 4 Science to additional Chicago City Colleges will increase accessibility to STEM opportunities for girls in Chicago.

Mentorship

G4S has been fortunate to recruit women from Women in Bio to serve as mentors to program participants.

Community Engagement/Awareness

- 2012 4th Annual Summer Science
- Recognition Reception at the Museum of Science & Industry
- 2012 Featured on Heart & Soul ABC Channel 7
- 2012 1st Annual Women’s History Month Reception at Union League Club
- 2012 Professional Women Panel Professional Day w/ Women in Bio
- 2012 1st Annual Garden Fundraiser
- 2011 Community Spotlight Award, Events by Eve



G4S In Review



G4S Participant- Anyah Akanni



G4S Participant- Sairyia Jemison



G4S Founder & Executive Director
J.Lomax awarding Robin L. Brown
(Ingredion Incorporated)

Participant Spotlights

2011 G4S participant awarded a \$150,000 Daniel Murphy Foundation Scholarship

2011 G4S participant created an experiment that was tested at the 2011 NASA Final Mission 2011 G4S participant wins second place in Hazel Crest, IL School District Science Fair

Program Highlights

2011 Community Spotlight Award, Events by Eve

2012 Expansion to Malcolm X Community College

2012 4th Annual Summer Science Recognition Reception at the Museum of Science & Industry

2012 Featured on Heart & Soul ABC Channel 7

2012 1st Annual Women's History Month Reception at Union League Club

2012 Professional Women Panel Professional Day with Women in Bio

2012 1st Annual Garden Fundraiser

The future of Girls 4 Science

Collaboration

- Partner with local colleges/universities to create a robust volunteer model that allows for training, retention and fidelity to program model
- Partner with STEM companies and individuals willing and able to offer participants exposure to STEM
- Maintain ongoing support of the current President of City Colleges of Chicago (CCC)

Scientific Discovery

- Expand Saturday Science Academy curriculum to include aviation, health and nutrition, and nontraditional STEM careers
- Expand Saturday Science Academy curriculum to appreciate age appropriate science exploration and discovery

Accessibility

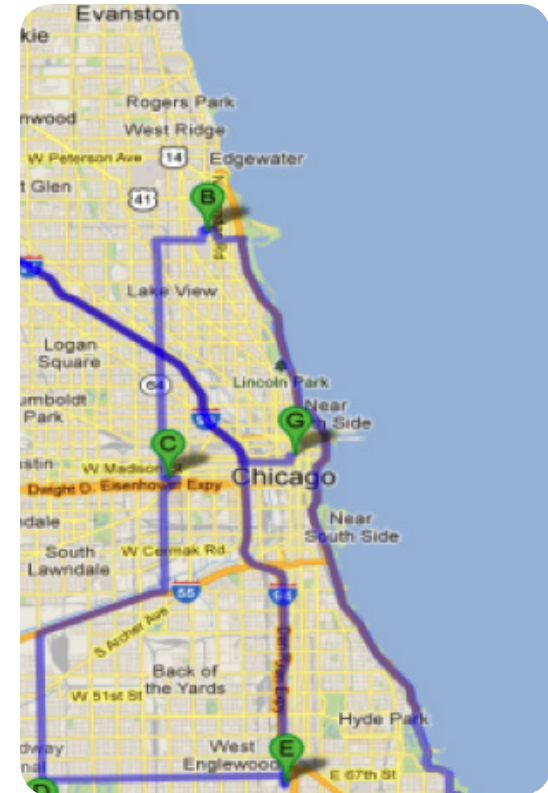
- Implement intentional programming to attract teens including college tour and volunteer/work opportunities
- Create a partnership with transportation services to ensure accessibility

Mentorship

- Encourage mentors to accompany participants on college tours to guide questions and experience
- Offer teen participants internships through mentors in STEM

Community Engagement/Awareness

- Host “Get Fit with G4S 5K Walk/Run”
- Host “Shadow a Mentor in STEM Day” Essay Contest
- Host Annual Summer Science Recognition Reception at the Museum of Science & Industry
- Host Annual Women ‘s History Month Reception





Leadership-Who is conducting our experiment?

Girls 4 Science is led by Founder and Executive Director, Jackie Lomax, and a dynamic Board of Directors. Our Board of Directors encompasses a wealth of knowledge, skill and experience in the sciences, education, business management, and leadership. At this stage of the organization the Board of Directors is very active in decision-making and strategic planning for growth. This leadership is committed to providing female youth access and exposure to STEM, so that youth can be well prepared to pursue study and careers in STEM, which can change the trajectories of their lives.

Jackie Lomax***Founder and Executive Director***

Jackie Lomax graduated from the University of St. Francis in Joliet, IL. in 1998 with a Bachelor of Arts Degree in Communications. In 2005 she completed accreditation for Early Childhood Education. In 1999, Jackie launched Lomax Leisure Tours and worked to promote African-America themed itineraries for Chicago Public School students. In the past she has worked with the indigenous people of Mexico and Bolivia to help build roads, schools and water filtration systems with the Archdiocese of Joliet, IL. Jackie continues to be committed to under served communities in the city of Chicago. In 2013 Jackie was recognized by Allstate as a “Give Back Hero” in honor of Dr. Martin Luther King Jr. Salute to Greatness tribute. She also received the 2013 Women’s History Month “Women Inspiring Innovation Through Imagination: Celebrating women in Science, Technology, Engineering and Mathematics” award from the state of Illinois Circuit Court of Cook County Juvenile Justice and Child Protection Department.

Linda McGill Boasmond***Chairperson and Founding Board of Directors Member.***

Linda McGill Boasmond is owner and president of Chicago-based Cedar Concepts Corporation. Cedar Concepts processes raw materials for use in a wide variety of personal-care, household, industrial, and agricultural products marketed under many brand names familiar to both consumers and businesses. Linda’s first professional position was as a chemist in quality control for the construction division of a prestigious global chemical corporation. She progressed through a succession of positions, including managing production of a \$100M, 80-employee union plant and conducting corporate-wide process-improvement analysis and implementation. In 1998, Linda left the corporate environment for the relatively small Cedar Concepts. Several years following, she acquired the company from one of the surviving founders in 2004, thus becoming the sole owner of an International Standards Organization Enterprise that manufactures surfactants, lubricants and chemical intermediates. Today, Linda has guided Cedar Concepts to nearly 40 employees and ships more than 60 million pounds of product annually, worldwide to many Fortune 500 companies. She runs the country’s first and only African American, woman-owned chemical manufacturing plant.

Onome Alabi, M.A.**Board of Directors Member**

Onome Alabi has eighteen years of progressive experience in instructional, administrative and management duties in Secondary Education. Onome has served as the Chairperson of the Science Department at Carver Military Academy in Illinois since 2003. In her position as Chairperson she coordinates Science Department staff activities; represents the Department at professional functions; works with other members of the faculty in preparing annual reports, plans and delivers science fairs, recruits sponsors, and identifies and recruits students for participation in science fairs. Onome has had a number of professional achievements including being awarded National Teacher-Leader in Biotechnology by the Biotechnology Institute, and being an active team member of the Task Force on writing the School Improvement Plan for Academic Achievement in 2006.

Robin L. Brown, M.B.A.**Board of Directors Member**

Robin Brown is the Vice President of Government Affairs and External Relations at Ingredion Incorporated. She has been employed with Ingredion for 28 years having held positions of increasing management responsibility for the sales, technical sales service and marketing communications functions within the food sales organization – ending with Vice President of Regional Sales U.S. In her most current role she directs the development of strategies and tactics that promote Ingredion's image and represent its interests with government officials. Ms. Brown is also responsible for leading the development and execution of plans that support the sustainability strategy for the company. Ms. Brown holds a Masters of Business Administration from Temple University and a Bachelors degree from Rutgers University.

Amy E. Wilson, Ph.D., J.D.**Board of Directors Member**

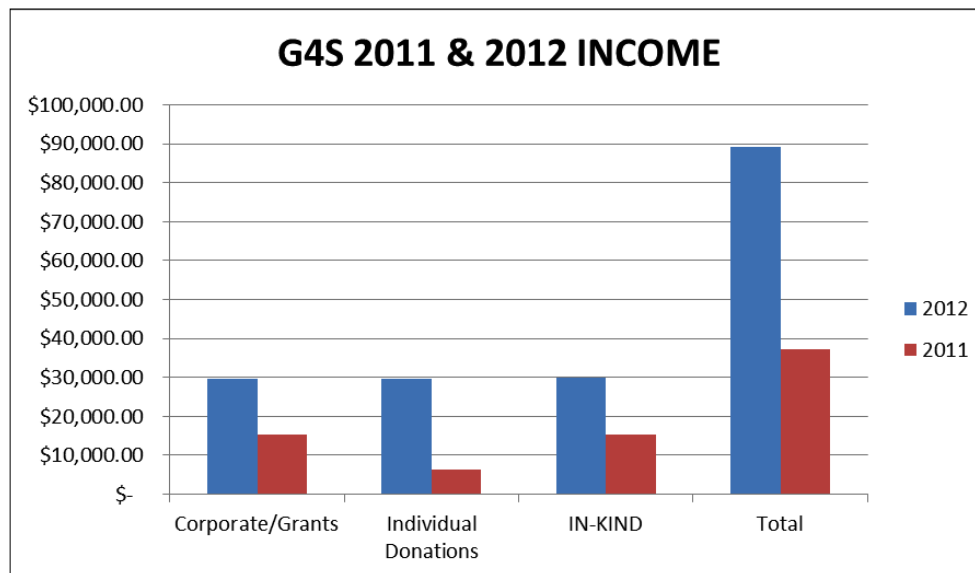
Amy Wilson received a Bachelor of Science degree (1988) and a Ph.D. in molecular biology (1994) from the University of Kentucky. Dr. Wilson was a post-doctoral fellow at Memorial Sloan Kettering Cancer Center and then went on to work as a scientist at Synaptic Pharmaceuticals in New Jersey. She began work at the law firm Stroock, Stroock and Lavan LLP in New York City, first as a technical consultant and then a patent agent. She attended Brooklyn Law School and in 2008 passed the New York and New Jersey bar exams. She continued to work at the firm as an associate. In 2009 she was recruited to Baxter Healthcare Corporation in Deerfield, IL as Patent Counsel where she remains. Dr. Wilson has published several scientific and legal articles and is a patent inventor. She is the Co-Chair of the Young Women in Bio committee for the Chicago chapter of Women in Bio and is on the leadership committee for BaxWISE (Baxter Women in Science and Engineering).

Financial Highlights

Between 2011 & 2012

- Corporate funding and In-Kind contributions almost doubled
- Individual contributions quadrupled

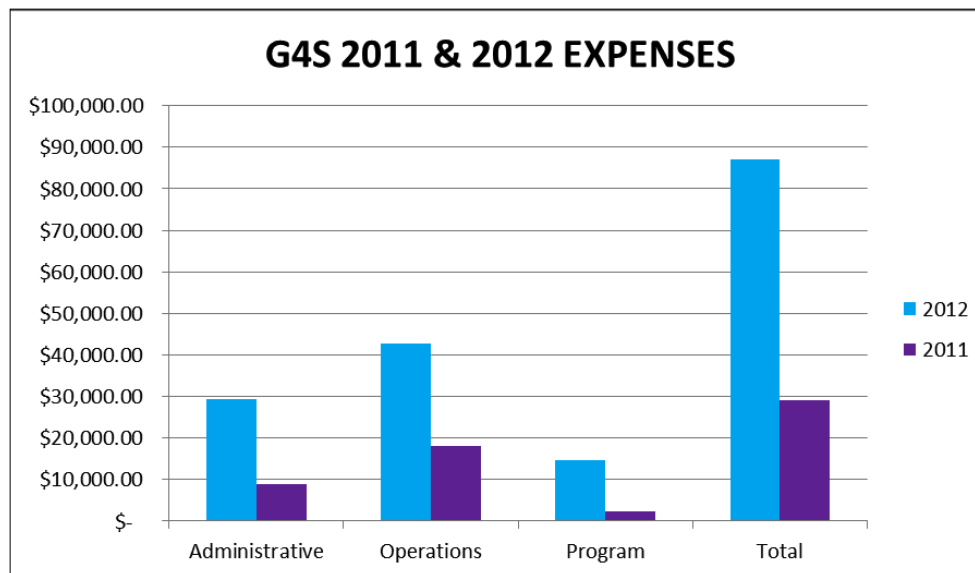
Overall funding has more than doubled for the G4S program in one year



Girls4Science Expenses		
	2012	2011
Administrative	\$ 29,458.46	\$ 8,825.00
Operations	\$ 42,822.67	\$ 18,134.23
Program	\$ 14,733.88	\$ 2,204.51
Total	\$ 87,015.01	\$ 29,163.74

Between 2011 & 2012

- G4S has redesigned financial processes to improve accounting for all expenses
- Expenses include programming for participants at an additional campus (i.e. supplies, instructors, transportation, etc.)



**Donor Honor Roll
Fiscal Year 2012**

The following list includes all gifts made to Girls 4 Science.

City Colleges of Chicago

Olive Harvey
Malcom X

Corporations

Allstate Foundation
Aramark
Baxter Healthcare Corporation
The BP Amoco
Cedar Concepts Corporation
Charter Oak Foundation
Chicago Foundation for Women
Custom Creations
Desserts by Toni
Events by Eve
Illinois Tool Works
Ingredion Incorporated
Kinder Morgan Foundation
Natures Perspective
The Nielsen Company
Park 52
Raleigh Cary Realty
Ralphs Grocery
Rhea Hope Foundation
Smart Circle International LLC
Susan Crown Exchange
Taylor Made Invites
The Tailor Shop
Uniquely Yours

Individuals

A. Ragan
Agnella Matic
Alicia Dayton
Amy Wilson
Angie Hankins
Arlene & Kristen Anderson
Aronberg Goldgehn
Audrey Smith
Bich Duong
Carolyn Hollands
Chavonne and Daniel Davis
Cheri & Norman Jr. Chapelle
Clare E. Myers
Debbi Morrison
Dianne Dobbeck
Edith Harris
Elanor Taylor
Eric & Linda Boasmond
Ericka Shavers
Felicia Williams
Frances Felice
Geraldine King
Heather Kissling
Heidi Adams
Ian DiBernado
Ira Frankelstein
Jackie Kunzler
James Neary
Jeanne & Leonard Gistover

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Jessica Jameison
John & Cecelia Cornell
Judy Evers
Kara Bonitatibus
Karen Hui
Kate O Malley
Kawtar Hafidi
Kirsten Anderson
Laura DeMoor
LeRoy Branch
Lisabeth Scharf
Lynn Janulis
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Maureen Gorman
Maureen Slavin
Natalie Stanton
Nicole Fornarotto
Patricia Saldana & Robert Natke
Patrick Antoine
Paul & Marilyn Dixon
Regina & George Block
Sarah Padgitt
Shanin Fuller
Sharon Sintich
Shirelle Magee
Stasia Ogden
Steven Pokotilow
Sujatha Karoor
Susan Mantel

Taffi Schurz
Ted Fields
Terry Newcomb
Tracy O Flaherty
Vernard Lomax
Yuan-Shih Hu

**Mentors/Instructors/
Volunteers**

Amy Lewis
Arina Kligman
Danette Smith
Deanna Wright
Deneen Robinson
Jamyia Clark
Jason Briski
Jenny Carson
Julia Ruemmele
Karen Yocky
Lauren Cocker
Natalie King
Onome Alabi
Pam Greyer
Patrice Vallot
Rose Mary Reddice
Tammy Buckley

