

SCIENCE CLUB FOR GIRLS

ANNUAL REPORT 2003

Cambridge, MA

Aiming to incorporate science as a form of personal expression among girls and young women!

*A note from Beth O'Sullivan and Mary McGowan, Founders,
Science Club for Girls, Cambridge, MA*

We are pleased to announce that this year the Science Club for Girls has seen some of our greatest changes since our inception: The clubs have incorporated into an independent non-profit, thanks to the support of Bingham McCutchen! With our incorporation, we have been able to expand our program to a new school site and are now serving four different schools at three different sites. This expansion has opened up the potential to serve a whole new population of girls, as well as the potential to continue to expand the Clubs to even more sites!

We are particularly excited about expanding our programs to the local Spanish-speaking communities in Cambridge. Our primary site has just expanded to include the bilingual, multicultural Amigos Schools. In addition, our new bilingual staff member has allowed for this relationship to blossom. We feel a particular urgency in mentoring Hispanic girls following a report by the Massachusetts Department of Education, which found in December 2003 that Hispanic students lag behind other minority groups in English and Mathematics (Boston Globe, Dec.5th 2003).

This year the success of our program has become even more evident when four of our recently graduated Junior Assistants have shown interest in starting Science Club of their own in their college towns. Although their aim is to begin with one or two clubs, we want to be able to provide them with the necessary support to make this a reality. One of these clubs will start as soon as the Fall of 2004, where a Science Clubs is scheduled to begin at yet another Cambridge elementary school, the Baldwin School! Our Dissemination Project is an effort to utilize the years of institutional history that lies within the Science Clubs for Girls.

It is time to ensure that we can provide the necessary support to successfully run our current clubs, in addition to providing the essential assistance to the myriad of requests for clubs at new sites. It has now become critical for us to secure

permanent and full time leadership positions to enable us to reach more girls within our inner-city community and to continue to build the program for much larger future dissemination.

We want to thank all the individuals and organizations that have allowed for the expansion of our program to become a reality. We are dedicated to continuing to search for partnerships that will allow us to further develop the mentoring and training opportunities for our girls. We can not continue to provide these successful mentoring opportunities without continued community support. With your partnership, we look forward to being able to fulfill the requests for club dissemination and to continue to watch our success grow!

Sincerely,

Beth O'Sullivan & Mary McGowan

WHAT WE DO

WE AIM to keep girls engaged, confident and successful in science from kindergarten through college. We are especially committed to the participation and success of girls who will be the first in their families to attend college and/or from ethnic groups that are under-represented in the fields of science, technology, engineering and mathematics. Our goals include:

- To increase the number of girls who feel comfortable doing science and to change their perception of science in an effort to help them succeed in science.
- To create an environment where it is assumed that our girls will go to college. We achieve this by providing adult mentors who encourage girls to enroll in college preparatory and advanced placement science and mathematics courses, and to apply for college scholarships.
- To increase leadership opportunities for girls and women in science with a special commitment to increasing participation and visibility of ethnic groups who are underrepresented in technical and scientific fields.
- To continue to sponsor Community Forums on Mentoring Minority Girls.

GENERAL CLUB INFORMATION

- Clubs are **FREE** for girls in K-7th; Girls in 8th- 12th grade can work as Junior Assistants and receive a small stipend.
- Clubs run for 9 weeks, one hour each week during the Fall and Spring semesters. In addition, we strive to offer our Junior Assistants with continued job training and employment during the summer months.
- Program Locations: Science Clubs currently run clubs at four different Cambridge Public Schools.
 - King Open School at 850 Cambridge St. on Tuesdays
 - King and Amigos Schools at 100 Putnam Ave on Fridays
 - Cambridgeport School at 89 Elm St on Thursday

OUR APPROACH

Our Approach combines:

- Mentorship of girls by girls and women in science who provide positive role models.
- Hands-on science every week through free after-school science clubs for girls in kindergarten through grade seven.
- Science leadership, job training and team-building skills through our unique Junior Assistant program for girls in grades eight through twelve.
- A continuous program, year-after-year, that creates a sense of belonging, continuity and growth, where our girls move in stages from being club members to Junior Assistants-in-training, to Junior Assistants.
- Integral involvement of parents as volunteers and staff in the clubs.
- Community support and involvement providing a sense of belonging and meaningfulness.
- A support network for girls in need.
- Partnerships between local corporations, nonprofits, community organizations and public schools.

OUR HISTORY

Founded in 1994 by parents at the Martin Luther King Jr. Open School interested in equity issues in education, the *Science Clubs For Girls* teaches girls to develop leadership skills while sustaining an active interest in science. The first clubs were simply an after-school activity designed to capture the interest of girls who might otherwise be at risk for failure in science. The program has a commitment to increasing participation of ethnic groups who are underrepresented in technical and scientific fields.

This positive trend among girls in Cambridge began when a group of parents formed a Gender Issues in Education Committee at the King Open School in 1994. The committee was formed to look at discrepancies in the education of girls and boys.

It was the decision of the Committee that one way to begin changing this trend was to provide extra support in science in the earliest grades. The expectation was that one small group of girls from kindergarten through the second grade could be found to participate in an all-girls science club after school. Nearly 60% of all girls in grades K to 2 wanted to join! Since then, *Science Clubs for Girls* has expanded to offer free clubs to all girls from grades K to 7 at the Martin Luther King Jr., King Open, Amigos and the Cambridgeport Schools. Last year 210 girls participated in this project. Our unique Junior Assistant Program gives girls in grades 8 to 12 the opportunity to be mentored while learning to mentor other girls.

In Science Clubs, girls get the chance to think and act as scientists as they:

- Build circuits and wire buzzers.
- Dissect cows hearts.
- Map the human body.
- Engage in forensic analysis of a crime scene.
- Build websites.
- Design and plan their own experiments.
- Engage in dialog and debate where their voices are heard.
- Teach other girls in the practice of science.

Ten years later, the *Science Clubs for Girls* project has positioned itself to become a model in other cities for girls' science mentorship projects.

2003 ACCOMPLISHMENTS

- In 2003, **Science Club for Girls** has successfully met several major challenges and has reached a number of critical accomplishments:
- We incorporated as a non-profit organization thanks to the generous support of Bingham McCutchen.
- We expanded our program to a second major location. This followed the split of our primary program into two sites as mandated by the reorganization of Cambridge Public Schools.
- We started a publishing project under the direction of our Media Team leader Racheal Adriko, who was named an Eleanor Roosevelt Fellow by the American Association of University Women. This honor included a grant to create books written by girls in Science Club. High school young women in our program are publishing these books, which will be given for free to other children in our communities and beyond.
- We have started an oral history project. Our media team is interviewing women scientists and important women in our community to create oral histories, which will be placed on our web site and published as a book for younger children. Some of the women interviewed include Dr. Mae Jamison, the first African American woman in space; Dr. Katherine Hall, a researcher from Millennium; Dr. Lydia Villa-Komaroff, Vice President for Research and Chief Operating Officer at the Whitehead Institute; Gail Snowden, Head of the Community Investment Group (CIG) within Fleet Boston Financial; Shannon O'Brien, former Massachusetts gubernatorial candidate and journalist.
- We have expanded our Rocket Team to include young women from the Math Club at Cambridge Rindge and Latin High School as well as Science Club members. Under the supervision of Dr. Peter Young of MIT and NASA, the Rocket Team will work again this year on the Team America Rocketry Challenge.
- We have initiated a series of leadership seminars for the Junior Assistants developed by Doryen Bubeck, a PHD candidate in Biophysics at Harvard University. This series included a workshop in mentoring and teaching by a leader from the Derek Bok Center for Teaching and Learning, presentations by Shannon O'Brien and Judy Ozburn, Manager Corporate Community Relations at Genzyme, and other leadership trainings.
- We are beginning a leadership collaborative with Genzyme Corporation, which will involve our high school young women managing a project to recycle returnable bottles from Genzyme's new Cambridge office. The program will teach organizational skills to our students and will bring in a welcome revenue stream to the Science Club.

- We incorporated website production training into our Junior Assistant program. Our Junior Assistants work to create the content of our website while learning HTML programming.

FUND RAISING GOAL FOR 2004-2005: \$1XX,000

MULTI-YEAR PROGRAM BUDGET

\$137,000

Full-time, year-round Program Director

Staff support for two sites at three schools at full capacity with over 50 Volunteers a year

Full Leadership Programs employing over 40 Junior Assistants, including Web design team and leadership trainings

Curriculum Development, including Summer curriculum work with King Kid's Camp and Junior Assistants, mainstreaming of curriculum for dissemination project and creation of ecological curriculum

Parent Liaison and Community Outreach, including community outreach and fundraising events

Club dissemination support, including training of ex-Junior Assistants, volunteers and information dissemination

Continuous project evaluation and publication of evaluation results

Website maintenance, technical support and continued web design training for Junior Assistants

American Rocketry Competition Team support

FUNDS CURRENTLY COMMITTED

\$ xxxxxx

GRAND TOTAL OF REQUEST

\$xxxxxx

COMMUNITY OUTREACH AND CORPORATE PARTNERSHIPS

We are continuing a corporate outreach campaign to involve the corporate community in our mentorship of girls in science and especially in the mentorship of minority girls.

- We sponsored a forum with the Caswell Family Foundation titled: *Mentoring Minority Girls/ Corporate Community Partners*. Over a hundred representatives from corporations and the community discussed ways to collaborate to increase opportunities for minority girls.
- We worked with Genzyme to develop expanded corporate partnerships such as our collaboration on leadership training for our Junior Assistants. From this partnership, we will initiate a collaborative recycling project coordinated by one of our Junior Assistants.
- We are working with the Harvard Business School program, Community Action Partners. A team of seven Harvard Business School alumni is working closely with us to further develop our program.
- We are continuing to develop relationships with members of the biotechnology industry.
- We have maintained old and created new corporate support from CYTYC Corporation, BOSE Corporation, Verizon, Draper Labs, Stride Rite, Genzyme, and Omega Natural Sciences.

In addition, we continue working with our previous foundation funders such as Anna B. Stearns and the Ratschesky Foundation. We continue to work with our local community partners, such as the MIT Community Service Fund and the Cambridge Community Foundation. And, we have expanded to include new funders, such as the American Association of University Women, the United Way, the Caswell Family Foundation and Combined Jewish Philanthropies. As well, we continue and will always continue to seek new foundation support from organizations such as Newman's Own, the Boston Foundation and the Mellon Foundation.

CLUB LEADERSHIP

The **Science Club for Girls** is lead by a diverse and dedicated group of people compromised of volunteers, staff and Board members. Combined these people make the Science Clubs for Girls one of the most successful grassroots mentoring programs in the Cambridge.

VOLUNTEERS: Our volunteers come from a myriad of universities, colleges, and organizations. They are undergraduate, graduate and professional women dedicated to keeping the science spark alive in young girls.

The Colleges and Universities that are volunteers come from include:

Harvard College, Harvard School of Public Health, Harvard's Kennedy School of Government, Boston University, Tufts University, Tufts SWE, Tufts School of Medicine, MIT, Northeastern University (Hispanic Association), Wellesley College

The Organizations and companies were our volunteers work include:

IBM, Dana-Farber Cancer Institute, Mass General Hospital, Sycamore Networks, Harvard-Smithsonian Center for Astrophysics, Boeing/ MIT Leaders for Manufacturing Program, MIT, Cambridge Public Schools

BOARD: Our board is comprised of junior assistants, parents, business people and community leaders. We aim to include the voices of all in our decision-making process.

Beth O'Sullivan
Bruno D. Marino
Mary McGowan
Shirby Best
Uche Amaechi

SUPPORTERS

Community Partners

FRIENDS OF THE KING OPEN SCHOOL
HARVARD SOCIETY OF BLACK SCIENTISTS AND ENGINEERS
MIT PUBLIC SERVICE CENTER
KING COMMUNITY SCHOOL AND KIDS' CAMP
STAFF AND ADMINISTRATION OF THE MARTIN LUTHER KING SCHOOL
STAFF AND ADMINISTRATION OF THE KING OPEN SCHOOL
STAFF AND ADMINISTRATION OF THE AMIGOS SCHOOL
TUFTS SCHOOL OF ENGINEERING
DISCOVERY MUSEUM OF ACTON

Foundations

ANNA B. STEARNS CHARITABLE FOUNDATION
BOSTON WOMEN'S FUND
CASWELL FAMILY FOUNDATION
CAMBRIDGE COMMUNITY FOUNDATION
COMBINED JEWISH PHILANTHROPIES
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A.C. RATSHESKY FOUNDATION
CAROLINE AND SIGMUND SCHOTT FOUNDATION
VERIZON
VIRGINIA WELLINGTON CABOT TRUST
UNITED WAY "TODAYS GIRLS, TOMORROW'S LEADERS"

Corporations

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NEW ENGLAND BIOLABS FOUNDATION
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