

stanford medical youth science program

Promoting the representation of ethnic minority and low-income groups in the health professions



ANNUAL REPORT 2005

SMYSP Mission

Our mission is to increase knowledge about the sciences and health professions, and offer guidance about the college admissions process to low-income and underrepresented ethnic minority students in the communities we serve.

SMYSP Vision

Our vision is to be a national model for increasing diversity in scientific and health professions. We will be distinguished by our commitment to students who have faced adversity, our dedication to social justice, and our enduring partnerships between our programs and local communities.

SMYSP History

The Stanford Medical Youth Science Program (SMYSP) began in 1988 as a student-directed program with strong faculty and Stanford support. It has grown into a complementary set of university- and school-based programs that offer exposure to the biomedical sciences, academic enrichment, college guidance, and long-term mentoring to low-income and ethnic minority high school students. Now in its 19th year, SMYSP is a national model for programs that seek to enrich and diversify the scientific and health professions, train future leaders who reflect America's increasingly diverse communities, and address the health needs of medically underserved populations.



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WELCOME

Dear SMYSP students, alumni, and supporters:

It has been a year of new opportunities and growth at SMYSP. We have reached more students, created new partnerships with schools, and expanded our work at the national level. Our students and alumni have continued to excel with the support of Stanford's resources and its faculty, staff, and students. Two long-time mentors from the Veterans Affairs Palo Alto Health Care System received our first annual Volunteer Service Award, acknowledging the tremendous contributions of our volunteers. We continue to be supported financially by the National Institutes of Health, the Department of Education, several foundations, and generous donors. With their collective backing, an increasing number of talented students have successfully transitioned from high school to college, with many entering the health and scientific professions.

It has also been a year of sobering news about higher education. As income inequalities have increased, education has become less accessible and less affordable to many. Families in the top one percent earn more than all families in the bottom forty percent combined. This makes the dreams of college and professional careers more remote to students, even those who excel academically.

We are committed to ensuring that all students are given the opportunity to recognize their full potential. We agree with other educators that no child should be left behind. Equally important, children, regardless of their backgrounds or the schools they attend, should be given the opportunity to succeed. We at SMYSP will continue to work towards these goals that create new leaders for the next generation.

We are optimistic and confident about the direction of SMYSP as we enter our new year. We are unique in our evaluation of alumni for up to 18 years—an evaluation that shows the incredible success of students when they are given assistance and support. We look forward to a year of providing guidance to schools and universities throughout the United States as they adopt best practices from our programs. With your continued support we pledge to work toward increasing educational opportunities for all, and diversifying the health and other professions.



A handwritten signature in black ink that reads "Judith Ned".

Judith Ned, M.A.
SMYSP Executive Director



A handwritten signature in black ink that reads "Marilyn Winkleby".

Marilyn Winkleby, Ph.D., MPH
Associate Professor of Medicine
SMYSP Faculty Advisor

SMYSP Outreach

University-Based Program

There are 405 graduates of the SMYSP Summer Residential Program. They are part of the 24 low-income and ethnic minority students who are recruited each year from over 250 Northern and Central California high schools to participate in the five-week Summer Residential Program held on the Stanford campus. Ten Stanford undergraduate students, who live with the 24 participants in a residential house, lead the program. The residential environment fosters a stimulating academic setting marked by enthusiasm, creativity, openness, and scientific dialogue. Participants divide their time between classroom instruction, anatomy and pathology practicums, hospital field-placements, and college admissions advising.

The program continues to exert a strong influence on participants after they graduate. Workshops and reunions provide channels through which program staff, physicians, and other health professionals mentor participants. Students are surveyed annually to evaluate their educational and career status. During this survey, alumni often reflect on the powerful influence that SMYSP has on their lives. One SMYSP alumna, now a dental student, reflected about faculty lectures 10 years after her participation in the

program: “Then the lectures, man those were some great lectures. I felt like I was in heaven, sitting in front of college professors and doctors. It was like a dream come true.”

The Summer Residential Program has become a model of “best practices” in the United States. It is one of the few high school pipeline programs that has evaluated the college and career choices of its alumni over a sufficient amount of time to show long-term effects. The outstanding achievements of SMYSP alumni are shown later in this report. (See SMYSP 18-Year Evaluation.)

School-Based Program

Two years ago, SMYSP expanded and intensified our university-based model to a school-based model which partners with four under-resourced high schools in order to reach a larger number of students, build resource capacity in these schools, and ensure a broader educational and social impact. These schools are located in East San Jose, Stockton, Oakland, and Covelo (located adjacent to the Round Valley Native American Reservation). Through this academic-year program, SMYSP partners with biology teachers to deliver a curriculum we have developed. The curriculum



is distinguished by community-based research projects, technology training, interactions with health professionals, individualized college and career guidance, and long-term student and institutional support. At the completion of the first year, students reported a significant increase in their knowledge about the college admissions process, and how to write scientific questions, design health surveys, analyze and interpret data, and create scientific posters. The curriculum will be disseminated to other schools within the next two years to enhance an interest in science and public health among students who are often underrepresented in higher education and health professions.

National Dissemination Committee

The growth and expansion of SMYSP has also allowed our organization to have a local, statewide, and national presence. At the national level, SMYSP has created a partnership through our National Dissemination Committee, comprised of ten leading Schools of Medicine, Education and Public Health. SMYSP is engaged in active discussions with these and other schools about how to best adopt and/or adapt both the university- and school-based models. We are also actively involved in presenting our programs to local and state philanthropic, community, and education leaders who wish to support and replicate successful pipeline programs. The long-term goal of this work is to disseminate our model to other schools in the United States and adapt it to other disciplines such as education, law, and/or business.

Alumni Association

Under the leadership of SMYSP alumna Destinee Cooper, the Alumni Association has continued to prosper. This year we created the first SMYSP Staff Directory that consists of the talented young women and men who, when they were Stanford students, helped direct the Summer Residential Program. We have contacted a large majority of the 126 former staff, many of whom are now receiving advanced training in medicine, public health, and education or are already working as health professionals. For further updates about the Alumni Association and current events, visit our website.

Annual SMYSP Volunteer Service Award

This year we established our first Volunteer Service Award that will be awarded annually in recognition of an outstanding volunteer who gives his/her time and talents to support the SMYSP Summer Residential Program. The first recipients were Dr. Salah Ahmed and Mr. Russell Sanchez from the Veterans Affairs Palo Alto Health Care System who have enthusiastically mentored our students for over ten years.

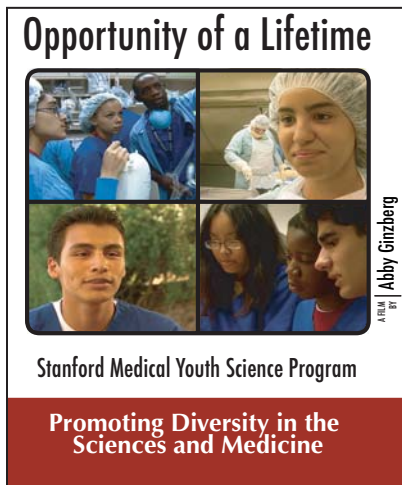


“I count months of waiting for them to come here. I want to pass to these students some of my experience and teach them what they will face in the future.”

DR. AHMED

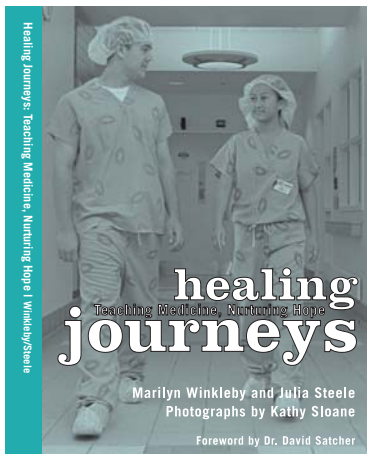


SMYSP Resources



SMYSP Documentary Film

Our film, *Opportunity of a Lifetime*, received widespread media attention this year and was aired on KQED public television and KMPT 32 in October. It was also distributed free to 800 Northern and Central California high schools as an illustration of low-income students' interests and talents in the sciences. This 30-minute film captures the energy of the SMYSP Summer Residential Program. From SAT prep classes to working in the morgue to salsa lessons, the film documents life-changing experiences for the 24 high school students from the 2004 program and their families. As noted at the end of the film by SMYSP alumna Jacqueline Bonds, "I am more than an SAT score, more than a GPA. I have something to offer. I can take that anywhere and I can do anything." She is now a student at the University of San Diego. A DVD of the film can be ordered at: <http://hprc.stanford.edu/pages/store>.



SMYSP Book

Healing Journeys: Teaching Medicine, Nurturing Hope, our SMYSP book, was also distributed to 800 Northern and Central California high schools this fall. This book, written by Dr. Winkleby and Julia Steele, presents the compelling life stories of 16 SMYSP alumni whose lives have been affected by hardship. Complementing their life stories are vignettes that allow readers to follow students as they gain hands-on experience in the anatomy lab, don hospital scrubs, hear lectures by Stanford faculty, and learn to live together in preparation for college. In his foreword, Dr. David Satcher, former U.S. Surgeon General, tells of his own childhood and commitment to higher education. The book is available at: <http://hprc.stanford.edu/pages/store>.

SMYSP Web Site

Hundreds of students, parents, teachers, and counselors nationwide use the SMYSP web site located at: <http://smysp.stanford.edu>. As one of the few websites in the United States that is tailored to low-income and first-generation college students, it offers detailed information about college admissions, financial aid, and health and scientific careers. The Academic Toolbox provides tips about preparing and applying for college, writing admissions essays, and paying for college. It describes how to find a mentor, build study skills, and find summer jobs. The web site profiles students like Erik Cabral, now attending Stanford School of Medicine, who noted: "Going to any college seemed like an impossibility for me because high school was so difficult.... No one ever mentioned anything about college until I got to SMYSP."



SMYSP Future

College Clusters

Beginning in 2006, SMYSP will begin its College Clusters initiative that will provide regional on-going activities for alumni attending California colleges and universities. The College Clusters will serve as an opportunity for SMYSP alumni in the regional areas to network, identify university and community resources, inspire other students, and build leadership skills. The clusters will serve as a resource for SMYSP alumni who are just beginning college and will lay the foundation for future Alumni Association initiatives. The initial College Clusters will be located in four regions; North/East Bay, South Bay, Davis/Sacramento, and Southern California. We anticipate that the College Clusters will expand nationally after our pilot years, as the number of SMYSP alumni increases throughout the United States.

Access to Achievement Education Foundation

In 2005, Dr. Winkleby and SMYSP Executive Director, Judith Ned, established the Access to Achievement Education Foundation. This non-profit foundation will allow SMYSP to initiate new support for our alumni and create new programs. It will augment the activities of SMYSP and aid in our long-term sustainability by:

- Providing support to SMYSP alumni as they continue their education
- Supporting new SMYSP initiatives
- Providing funding to other programs with similar missions of reaching low-income students

In the long term, the Foundation will work to support, promote, and disseminate model programs that enhance educational achievement for low-income students interested in science and health.

20-Year Leadership Summit and Colloquium

SMYSP will celebrate its 20th year in 2007, at which time over 450 students will have graduated from the Summer Residential Program and 150 Stanford undergraduate students will have served as staff. These 600 young adults, who share a strong common bond, will be invited to a Leadership Summit and Colloquium on August 17-19, 2007. The Summit will mark a milestone in our history and is a testament to the success of SMYSP and the dedication of countless students, faculty, staff, and supporters. The Summit will develop a leadership structure and communication system for a new professional network of young people who have overcome adversity and are dedicated to furthering the mission of SMYSP. Speakers, professional development workshops, and networking activities will be highlights of the Summit.

*“It struck me
that beyond the
structure of being
a ‘medical and
science program’
lies a deeper and
more meaningful
social construct
of humanity
blossoming in all
the individuals from
this seemingly
‘scientific
exploration’
and in this short
amount of time
at Stanford.”*

TOM LE

SMYSP Participant Profiles

Figure 1: Ethnicity of Summer Residential Program Participants, 1988–2005 (405 students)

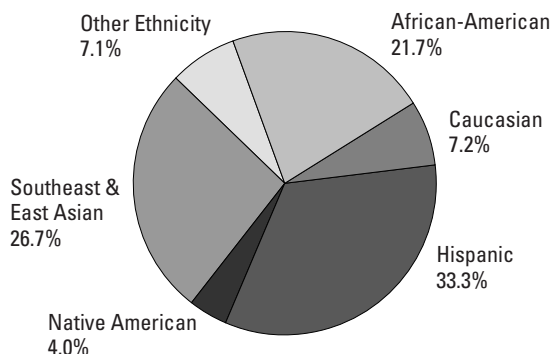
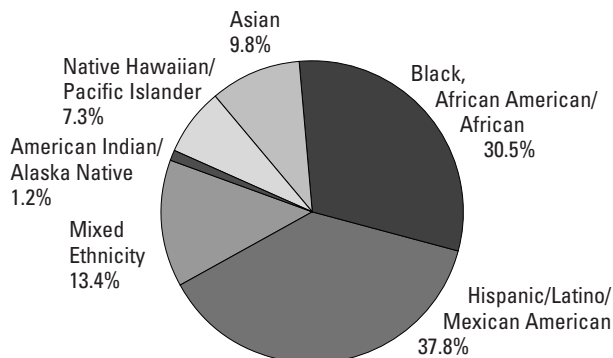


Figure 2: Ethnicity of School-Based Outreach Program Participants, 2004–2005 (90 students)

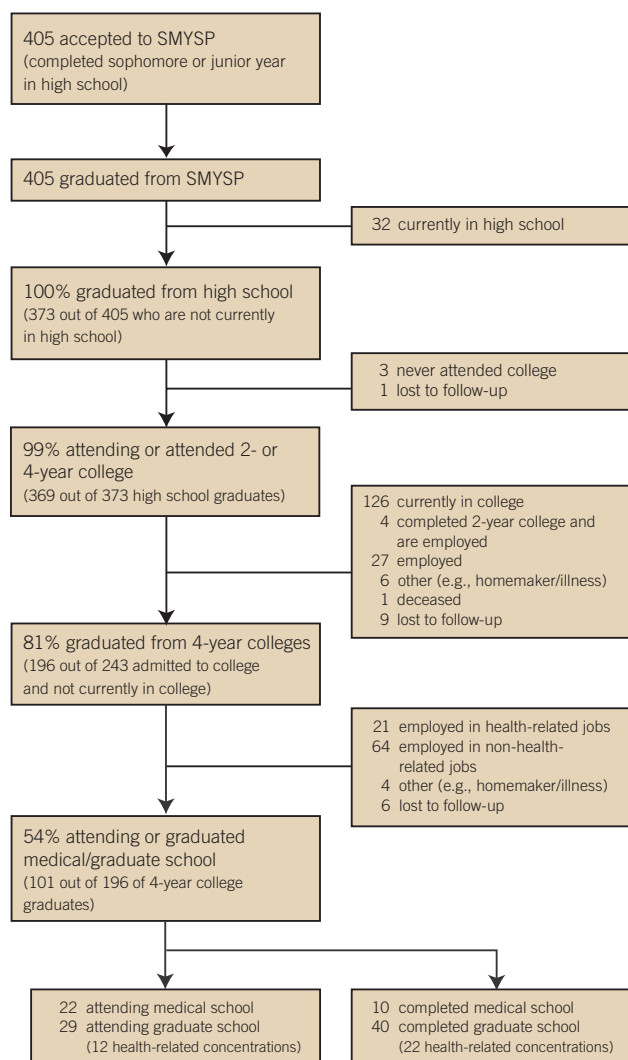


SMYSP 18-Year Evaluation

Figure 3 shows the progress of the 405 students who have completed the SMYSP Summer Residential Program from 1988-2005. All have been from low-income families with the majority from under-represented minority groups. Sixteen students have been lost to follow-up at different time points and one student is deceased. All students accepted to SMYSP have completed the program and 100% have graduated from high school (among those not currently in high school). Among high school graduates, 99% have been admitted to college. Eighty-one percent of students admitted to college and not currently in college, have graduated from 4-year colleges. Among 4-year college graduates, 54% are attending or have graduated from medical or graduate school.

These results show that pipeline programs can be highly successful in increasing college graduation rates among students historically underrepresented in colleges and universities and preparing them for medical and other professional careers. The results also highlight the need to follow students for as long as 10-15 years after high school graduation to accurately assess college graduation rates and acceptance to medical and graduate school.

Figure 3: Educational and Career Status of Summer Residential Program Alumni, 1988–2005



SMYSP Undergraduate and Graduate School Listings

Undergraduate Colleges and Universities Attended by our Alumni

American River College
 Bradley University
 Brown University
 Cal Poly San Luis Obispo
 Carleton College
 Chabot Community College
 Chaminade University
 Clark University
 College of Alameda
 College of San Mateo
 Contra Costa Community College
 Cornell University
 CSU Chico
 CSU East Bay (Hayward)
 CSU Fresno
 CSU Fullerton
 CSU Monterey Bay
 CSU Northridge
 CSU Sacramento
 CSU Stanislaus
 DeAnza Community College
 DePaul University
 DeVry University
 Diablo Valley College
 Dominican University
 Evergreen Junior College
 Fisk University
 Fresno City College
 Fresno Pacific University
 Gavilan Junior College
 George Washington University
 Glendale Community College
 Grinnell College
 Hampton University
 Harvard University
 Heald College
 Holy Names University
 Howard University
 Laney Community College
 Linfield College
 Los Medanos College
 Maric Vocational College
 Mendocino Community College
 Menlo College
 Merced Community College
 Michigan State University
 Mills College
 Modesto Junior College
 Monterey Peninsula College
 Morehouse College
 Morris Brown College
 Napa Valley Junior College
 National Hispanic University
 New York University
 Northeastern University
 Northwestern University
 Notre Dame de Namur University
 Pepperdine University
 Pomona College
 Princeton University
 San Diego State University
 San Francisco City College
 San Francisco State University
 San Jose Community College
 San Jose State University
 Santa Clara University
 Santa Monica Junior College
 Santa Rosa Junior College
 Skyline Junior College
 Solano Community College
 Sonoma State University
 Southwestern Junior College
 St. Louis University
 St. Mary's College
 Stanford University
 Syracuse University
 T. Edison State College
 Tuskegee University
 UC Berkeley
 UC Davis
 UC Irvine
 UC Los Angeles
 UC Riverside
 UC San Diego
 UC Santa Barbara
 UC Santa Cruz
 Universidad Michoacana de San Nicholas de Hidalgo
 University of Southern California
 University of Arizona
 University of Iowa
 University of Pennsylvania
 University of Redlands
 University of San Diego
 University of San Francisco
 University of the Pacific
 University of Washington at Seattle
 Washington University
 Wellesley College
 Whittier College
 Williams College
 Xavier University of Louisiana
 Yale University

Graduate Schools and Programs Attended by our Alumni

Boston University School of Medicine
 California School of Professional Psychology, Organizational Psychology Master's Degree Program
 Columbia University Teacher's College, Program in Instructional Technology & Media
 Columbia University, Master's in Social Work Program
 Cornell University, Ph.D. Program in English
 CSU Bakersfield, Master's Program in Science and Administration
 CSU East Bay (Hayward), MBA Program
 CSU East Bay (Hayward), Master in Health Care Administration Program
 CSU Fresno, School of Public Health
 CSU Northridge, Master's in Secondary Education Program
 CSU Sacramento, Master's in Social Work Program
 Dominguez Hills Business School, MBA Program
 Fresno Pacific University, Administrator Credential Master's Program
 Georgetown University, School of Medicine
 Harvard Medical School
 Harvard University, MPH Program
 Harvard-Kennedy School of Government, Public Policy Program
 Howard University, College of Dentistry
 Howard University, College of Medicine
 Indiana University, Purdue School of Public Health
 J.F. Kennedy University, School of Law
 Keller School of Management, MBA Program
 Kirksville College of Osteopathic Medicine
 Loma Linda University, School of Dentistry
 Michigan State University, College of Human Medicine
 Monterey College of Law
 Morehouse School of Medicine
 National University, Masters in Education Program
 Northeastern University, Master's in Counseling Psychology Program
 Nova SE University, Master's in Mental Health Counseling & Clinical Psychology Program
 Oregon College of Oriental Medicine, Master's Program in Acupuncture and Oriental Medicine
 Pacific College of Oriental Medicine
 Rutgers Law School
 Saba Medical School
 San Diego State University, MSW/MPH Program in Health Services Administration
 San Francisco State, MPH in Community Health Program
 San Francisco State University, Master's in Biochemistry Program
 San Francisco State University, MBA Program
 San Joaquin Junior College Surgical Technician Program
 San Jose State University, MBA Program
 San Jose State University, Master's in Education Administration Program
 Santa Clara University, School of Law
 Southern Illinois University, Dental School
 St. George's University, School of Medicine
 St. Mary's College, (Ed.D.) Program in Educational Leadership
 Stanford University, School of Medicine
 Touro University, College of Osteopathic Medicine
 UC Berkeley, Boalt Hall School of Law
 UC Berkeley, Master's in Financial Engineering Program
 UC Berkeley, MSW Program
 UC Berkeley, Ph.D. Program in African Diaspora Studies
 UC Berkeley, School of Public Health Dr.P.H. Program
 UC Davis, MBA Program
 UC Davis, School of Law
 UC Davis, School of Medicine
 UC Davis, Master's in Nutrition Program
 UC Hastings Law School
 UC San Diego, School of Medicine
 UC Santa Cruz, Ph.D. Program in Organic Chemistry Program
 UC Santa Cruz, Ph.D. Program in Molecular Biology Program
 UCLA, Graduate School of Public Policy & Social Research
 UCLA, Master's Program in Social Work
 UCLA, School of Law
 UCLA, School of Medicine
 UCLA, School of Public Health
 UCLA/Drew Medical School
 UCSD, School of Medicine
 UCSF, School of Dentistry
 UCSF, School of Medicine
 Universidad Michoacana de San Nicholas de Hidalgo (Medical School in Mexico)
 University of Calgary, MBA Program
 University of Colorado, Boulder Graduate Program in Genetics
 University of Iowa, College of Medicine
 University of Minnesota, College of Pharmacy
 University of Phoenix, Master's Program in Computer Science Information Systems
 University of Phoenix, MBA Program
 University of San Francisco, MBA Program
 University of San Francisco, Master's in Nonprofit Administration/Health Services
 University of San Francisco, Public Health Policy Ph.D. Program
 University of Southern California, Medical School
 University of St. Francis, Master's in Physician's Assistant Studies Program
 University of the Pacific, School of Pharmacy
 University of Washington, Medical School
 USC Medical School
 Washburn School of Law
 West-Med College Vocational School

SMYSP Financials

(September 1, 2004 – August 31, 2005)

INCOME

GRANTS

Howard Hughes Medical Foundation	25,000
National Institutes of Health*	275,000
U.S. Department of Education*	152,971
The J.W. & H.M. Goodman Family Charitable Foundation	3,500
TOTAL Grants	\$456,471

RESERVE ACCOUNT

SMYSP Alumni Fund	150,894
Edmund R. Littlefield Foundation	30,000
Endowment Interest	29,923
TOTAL Reserve	\$210,817

TOTAL INCOME **\$667,288**

ENDOWMENT PRINCIPAL **\$794,720**

EXPENSES

PROFESSIONAL SALARIES

(3 full-time, 2 part-time, and 2 hourly staff) \$ 218,436

UNIVERSITY-BASED SUMMER RESIDENTIAL PROGRAM

Stanford Student Counselors and Chef Stipends	38,300
Conference Services/Housing	31,607
Transportation	8,300
Field Trips	2,244
Food	9,120
Education Supplies	2,132
College Advising/Standardized Test Preparation	12,393
Student Staff Trainings/Mentoring Events	1,154
Facilities	362
Student Health Insurance	346
Communication Services	475
Office Supplies	818
Photocopying/Postage	3,508
TOTAL Summer Residential Program	\$110,759

SCHOOL-BASED ACADEMIC YEAR PROGRAM

Teacher Stipends	6,000
Teacher Institute	521
College and Career Advising	12,409
Education Supplies	441
Travel (Schools and Meetings)	1,931
Transportation (Campus Tours and Shadowing)	3,631
Field Trips	277
Food	696
Developmental Assets	1,050
Equipment	644
Photocopying/Postage/Reports	208
TOTAL School-Based Program	\$27,808

TOTAL EXPENSES **\$357,003**

* Allows a 25% carryover when appropriate that permits up to an additional year of funding on the grant.

SMYSP Supporters

Acknowledgements

The work done by SMYSP would not be possible without the generous support of the following individuals, foundations, and organizations. Their support ensures that SMYSP will continue working towards addressing health disparities in underserved communities by helping to diversify the health and medical professions.

Individual Donors

Leo Hindery, Jr.
John Malone
John Doerr
David Perry

Grants and Other Funding

The California Endowment
The California Wellness Foundation
Edmund W. Littlefield Foundation
The J.W. & H.M. Goodman Family Charitable Foundation
The HealthTrust
Howard Hughes Medical Institute
The James Irvine Foundation
National Institutes of Health (National Heart, Lung, and Blood Institute)
SMYSP Alumni Fund
U.S. Department of Education

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Stanford Hospital and Clinics
Lucile Packard Children's Hospital
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R.T. Fisher and Associates

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Program Coordinator, Nell Curran
Faculty Advisor, Marilyn Winkleby, Ph.D., MPH
Alumni Tracking Coordinator, Alana Koehler
Alumni Association Coordinator, Destinee Cooper
Evaluation Coordinator, Kathy Fagliano
Medical Student Researcher, Jaya Santhan
Student Assistant, Oluyemi Ajitotutu
High School Summer Intern, Diana Ramos

2005 Summer Directors

Dionesia Adraktas
Aparna Chhibber

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Violeta Gutierrez
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Credits

Photographs by Steve Fisch Photography,
Kathy Sloane, Alma Hernandez, Jennifer Brito, and
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