



The Public Health Research Institute Summer High School Research Internship Program



The Summer High School Research Internship Program serves minority students who attend high schools, or live in, Newark, NJ and their science teachers. Its goal is to nurture, through hands-on laboratory research experiences, the students' interest in science. Mr. Yaakov Saturen, a science teacher with more than fifteen years' experience in inner city high schools, directs the program. Students begin with a two-week workshop that introduces them to the vocabulary of molecular biology and biochemistry and basic laboratory skills, tools and techniques. They meet PHRI Principal Investigators, who give a series of lectures. After the workshop, each student is assigned to a PI's lab, paired with a scientist/mentor and assigned his or her own research project. Over the course of the summer, they meet weekly to discuss their projects. Each one writes a short research paper on his or her project. They also take field trips to various sites where they can see how research is being applied for the benefit of society. Support for the Summer 2009 program has been provided by the Victoria Foundation, PSE&G, American Chemical Society - Project SEED, PHRI and an NIH training grant awarded to Dr. I Smith at PHRI.



Front: Keren, Sidra, Sharon, Christine, Ms. Grant
Back: Mr. Saturen, Shannon, Jose, Omobukola. Eno, Wendy

"The program interested me more in science and now I'm trying to pursue that as my focus...now I'm looking into Public health" – Gisel Nunez, Summer '07

Summer 2009 Research Internship Participants Program Director: Yaakov Saturen, Jane Addams HS, Bronx, NY Teaching Assistant: Wendy Orellana, Rutgers University, Newark, NJ Newark Schools: West Side High School, Science Park High School Saint Vincent Academy			
Student	Principal Investigator	Mentor	Research Topic
Eno Totoh	Barry Kreiswirth PHRI ¹	J. Mediavilla PHRI	Spa typing of MRSA strains...
Omobukola Solebo	Issar Smith PHRI	P. Fontan PHRI	Analysis of Rel BE Toxin - Antitoxin System expression, during <i>M. tuberculosis</i> infection of mouse lungs.
Sidra Siraj	David Perlin PHRI	S. Park & PHRI	Improved real-time NASBA detection of <i>Aspergillus fumigates</i> using pre-amplified RNA.
Shannon Brown	M. Neiditch DMMG ²	V. Parashar DMMG ²	Expression and purification of recombinant <i>Bacillus subtilis</i> proteins for x-ray crystallography.
Keren Joi Walcott	David Kaback DMMG ²	A. Barton DMMG ²	Visualizing chromosomes during meiosis in the yeast, <i>Sacharomyces cerevisiae</i>
Sharon Clark	Issar Smith PHRI	M. Rodriguez PHRI	Identification of <i>Mycobacterium tuberculosis</i> gene/ proteins needed for using Heme as an iron source
Christine McIntyre	Abraham Pinter PHRI	W. Honnen PHRI	Synthesis, purification and characterization of multi-clade HIV1 recombinant GP120 proteins.
Jose Morel	Karl Drlica PHRI	M. Malik PHRI	Fluoroquinolone crosslinking of DNA gyrase in <i>Mycobacterium smegmatis</i>
Teacher	Principal Investigator	Mentor	Research Topic
Kay Dean Grant	Issar Smith PHRI	E. Dubnau PHRI	Regulation of Mycolic Acid biosynthesis in <i>M. tuberculosis</i> .

¹ PHRI = Public Health Research Institute Center of the UMDNJ ² DMMG = Department of Microbiology and Molecular Genetics of the UMDNJ
"Students who complete the program leave with much more than research experience. They develop analytical, critical thinking and leadership skills that they can use in all areas of learning and throughout their lives." - Yaakov Saturen