



HARLEM CHILDREN SOCIETY  
*The purpose of souls is to Assist each other.*



Sigma Xi  
The Scientific Research Society  
Rockefeller University Chapter

## **Annual International Conference and Meeting of the Sigma Xi Scientific Research Society**

**The Detroit Marriot Renaissance Center, Detroit, Michigan**

**November 2<sup>nd</sup> to November 5<sup>th</sup> 2006.**

A total of 47 Harlem Children Society Students, - 25 young women and 22 young men from the 2006 HCS internship program were selected and invited to present their research at the Annual International Conference of the Sigma Xi Scientific Research Society in Detroit, Michigan from November 2<sup>nd</sup> to the 5<sup>th</sup>, 2006. Three adult HCS staff interns accompanied them during the trip. Two high school teachers – one from New York and the other from Detroit were invited by HCS to attend the convention as well.

For an overwhelming number of students this was their first trip away from home. They got a chance to mingle with other HCS students at a personal level, and stay at a five star hotel. It gave the students time to talk and discuss commonalities – and this is where they began to feel more comfortable and be at ease.

The travel was arranged on a deluxe comfortable coach bus to and from Detroit and New York City. The journey, though long and arduous, was delightful in many ways – it gave a chance for the students to socialize with each other and they got to know more people. As one of the students exclaimed – ‘A plane would have been a quick trip, but the bus was a lot of fun. .... I boarded the bus before the trip, knowing just two or three people, but left, three days later knowing all fifty!’ another commented: “I commenced the trip with a chilling feeling that do not know lot of people representing Harlem Children Society at the conference...but, left with the names of everyone on the bus – their email addresses, phone numbers, among other things.” “It was a eye opening experience for me.”

The Hotel – Detroit Marriot Center was the venue for the conference and stay for all the students for the Sigma Xi Society. All students presented their research posters for which they were evaluated and commented upon by leading researchers in the field. The judges and other experts in the field were thoroughly impressed at the caliber and quality of research by the HCS students so early on in their careers. Many got “good presentation” ribbons for their research presentations.

The students also got to attend lectures and workshops by leading scientific experts and interact with them at the lectures, workshops, breakfasts and lunches. They befriend numerous scientists, engineers and doctors and got a chance to network with other students from all over, including representatives from leading universities and colleges.

The students realized that their research was only a microcosm of what science actually is. As a young researcher that was a good learning experience for all students! As one remarked: “I became more confident at sharing my research with professional scientists asking me challenging questions...and learnt to be more independent and responsible ... and officially it seemed that I entered into the ‘real world of science’ and many doors opened for me’. “I was treated like royalty,” remarked another. In general, this experience was a heartwarming and life-changing experience for all – the students, as well as all the leading scientists, engineers and doctors. Many felt that these students are ideal candidates for their laboratories and campuses. Ever since arriving from the conference, we have received several phone calls emails and other messages, commenting on our wonderful students.

Dr. Sat Bhattacharya presented a poster showcasing the outreach efforts by the Harlem Children Society and the Rockefeller University Chapter of the Sigma Xi Society. He is the President of the Rockefeller University Chapter. He, along with Sha Sha Feng presented a headed a workshop titled – “Taking Science to the Streets” – which showcased to the scientific community our experiments at bringing science fairs on to the neighborhood streets not only in New York, but also across the nation and internationally.

One of the main highlights of the trip was attending the sit-down banquet at the spectacular ‘Henry Ford Museum’. They got to see and admire a whole lot of aircrafts and automobiles spanning across a hundred years of travel. The evening included a gala dinner and a festive atmosphere of live music and dance (many of our students doing the electric slide!). Our students got a chance to showcase not only their research work, but also expressing their fun side – lightening up the whole evening!

Some of the students got to catch up on school studies, or even to catch up on sleep in their comfortable hotel rooms, between the lectures and presentations.

For all it is perhaps an invaluable and one of the fondest memories for many years to come.

**Some representative Projects presented by HCS Students at the Conference:**

1. Gene Mapping Analysis of Sickle Cell Anemia Through Bioinformatics
2. Radioactive antibody treatment of *C. neoformans* Infection
3. Screening of Peptides for Neuro protection against Alzheimer's Disease
4. Visual Artificial Tongue: Quantitative Water Analysis by an Off-the-Shelf Dye Array
5. Journey to Mars: Hybrid Rocketry, Plasma, Interstellar Orbits, and the Red Planet
6. Gene Expression profiling in Patients with Antibody Mediated Rejection
7. Construction of Rigid DNA Nanostructures
8. Data Network Testing
9. Determining the Stability of an Electrolyte Solution (PDH)
10. Age-Related Macular Degeneration
11. Journey to Mars: Hybrid Rocketry, Plasma, Interstellar Orbits, and the Red Planet
12. Alzheimer's Disease
13. Oyster Reef Project

14. The BioCybernetics Initiative
15. Analysis of 6-Azidonucleosides by AMES Assays
16. Determine the role of potassium channel on hypoglycemia seizures
17. Hybrid Rocketry: Launch of Ever clear One
18. Determining the Stability of a Leucovorin Ophthalmic Solution
19. Immunology of Celiac Disease II
20. Marine Sponges as a Model for Cellular Recognition
21. Do patients really require a SE test for them to know for certain if they have Coronary Heart Disease?
22. Mitochondrial Deletions Induced By UVB Irradiation Of Human Epithelial Cells IN VITRO
23. Familial Risk and Pathological Outcomes Of Colorectal Cancer in an Asymptomatic General Population Cohort
24. Detection of Amnionless Protein in Kidney Sections
25. The Process of Molecular Cytology: Embedding and Sectioning
26. Immunology of Celiac Disease II
27. Characterization of an Immune Response in Melanoma