**The Brookhaven National Laboratory**

The Brookhaven National Laboratory (BNL) is a science laboratory located in Long Island. The BNL was created in Camp Upton, a former U.S. army base. BNL is owned by the United States Department of Energy. The BNF offers many services which include the nuclear and high-energy physics, physics and chemistry of materials, environmental and energy research, Nonproliferon, neuroscience and medical imaging, structural biology. Also, some of the scientists working at the BNF won the science Nobel price. The BNF is sometimes opens to public, and always open to academics and students who come from to visit, or do researches in the BNL laboratories.

On Friday, May 24 2013, I had the chance to participate to a field trip organized by my college (the New York City College of Technology) to visit some departments of the BNL. The first thing that brought my attention was the nice and welcoming place where the BNL laboratory is implanted. Also, staffs and professors working there were nice and encouraged us to ask questions. We visited three departments at the BNL that are: the National Synchrotron Light Source, the Center of Functional Nanomaterial, and the Relativistic Heavy Ion Collider Overview.

The first department we visited was the National Synchronous Light Source. The tour was assured by Dr. Lars Ehm. Basically he told us that their main concern at this department was about working with light for researches in biology, physics, chimistry, and geophysics. Dr. Lars Ehm who is a geophysist told us that this technique was widely used to study phenomenal events such as earthquakes, tsunami, and volcano eruptions. Synchrotron light is produced by electrons when they are forced to move in a curved path at nearly the speed of light. At the NSLS, beams of light in the x-ray, ultraviolet, and infrared wavelengths are produced by two synchrotrons for use in experiments. This department welcomes 2,400 researchers from more than 400 universities every year.

Then we visited the Center of Functional Nanomaterial. Dr. Aason Stein welcomes us in this department. To repeat what Dr. Stein said, the goal of their department was to apply physical, mathematical, and chemistry laws in an object of 1 nanometer long. He also explained us that to achieve their goals, scientists in this department use two different methods: the up-to-down method, which consists of starting from a big objet and going smaller, and the down-to-up method, which starts from a small size and grows big. The Center of Functional Nanomaterial was far the one I liked. I was able to see rooms where scientist was actually working. This was a great experience foe all of us.

The last department we visited was the Relativistic Heavy Ion Collider Overview. Dr. Vincent Schoefer, who welcomes us at this department, explained that their goal in this department is to study how the universe works. How our World was created. To do so, they try to recreate everything that happened in the universe in their laboratories. As he told us, they were able to go up to 10s before the Big Bang happened. They still do researches to go even farer.

As I said, visiting the BNL was a good experience. I asked how I could get an internship at the BNL and they tell me that they are very selective. They only accept students with FPA of 3.5 and up. Right now my GPA is 2.9, but now I know that I have to work better since I really want to apply for an internship at the BNL