On Saturday, December 12, the Governor’s STEM Scholars held its conference on academia at Kean University. The conference introduced 60 of New Jersey’s best and brightest high school and college students to some of the state’s top STEM academics.

The day began with a panel discussion among three professors from different universities. The purpose of the panel was to bring down the barrier between students and teachers so that the scholars could get a glimpse of what it is like on the other side of the lectern. The professors talked about their own professional journeys and the challenges and opportunities of working at a research university. The panelists included Dr. Keith Bostian of Kean, Dr. Wilma Olson of Rutgers, and Dr. Robert Prezant of Montclair State University. Following the panel, many of the scholars spoke individually with the professors about their own ambitions.

After the panel discussion, the scholars were treated to tours of the 3D Immersive CAVE at Kean. The CAVE, funded by the National Science Foundation, produces 3D simulation research in fields as varied as biochemistry, meteorology, and computer science. For many of the scholars, it was their first time being in a comprehensively virtual environment, and the experience was inspiring. Following the discussion, the scholars broke out into their individual groups where they continued their year-long STEM research project. Among the research the groups are pursuing are investigations into the genetic expression, stress environment, and biomechanical engineering. At the end of the program, the projects will be judged by...
a team of STEM professionals, and the winning team will be invited to the 37th Annual Edison Patent Awards, New Jersey’s premiere event celebrating its inventors.

At lunch, the scholars were treated to a very special presentation Dr. David Sleat of Rutgers University. Dr. Sleat told the story of his journey from the United Kingdom and imparted lessons about following one’s passion. Dr. Sleat then gave an overview of his work at Rutgers, where he works on treating a deadly childhood disease. For many of the scholars, Dr. Sleat’s lecture was a highlight of the program.

In Other News…

Follow the keynote, the scholars were treated to three “STEM classes.” In these 30 minute sessions, the scholars got an overview of different STEM areas, participated in research experiments, and learned about the importance of seeking mentors. In Dr. Diana Thomas’s (Montclair) class, she spoke about her work using mathematics to fight obesity. In Dr. John Pace’s (Kean) class, the students learned about his work in the biopharmaceutical industry. In Dr. Tara Alvarez’s (NJIT) class, she spoke about her work restoring sight to the blind and conducted her own research with the group.

GSS FACTS

- 17 out of 21 counties represented
- Nearly 60 percent of students are either women or minorities
- Colleges include Princeton, Rutgers, Stevens, and NJIT
- Student research projects involves bioengineering, education policy, and genetic expression

Through the generosity of the United States Golf Association, a group of past and present STEM Scholars visited the national testing center, where they learned about the physics behind golf.

At the 36th Annual Edison Patent Awards, a select group of STEM Scholars were honored. In this picture, two of the students pose with Dr. Robert Wilson, winner of the Nobel Prize.

Through our sponsor PSEG, nearly thirty students visited the Energy & Environmental Resource Center, where they learned about nuclear power and even got to visit a cooling tower.

www.govstemscholars.com