

**For Immediate Release**

**Winners of 2017 Blavatnik Regional Awards for Young Scientists Include Pioneering Molecular Biologist, Physical Chemist and Mathematician; Six Additional Researchers Named Finalists**

**NEW YORK – October 12, 2017** – The Blavatnik Family Foundation and the [New York Academy of Sciences](#) today announced the three Winners and six Finalists of the 2017 [Blavatnik Regional Awards for Young Scientists](#). Established in 2007, the Awards are given annually by the Blavatnik Family Foundation and administered by the New York Academy of Sciences to honor the excellence of outstanding postdoctoral scientists from institutions across New York, New Jersey and Connecticut. Three regional Winners and six Finalists are chosen from the fields of Life Sciences, Chemistry, and Physical Sciences and Engineering. Each Winner is awarded \$30,000, and each Finalist receives a \$10,000 prize.

In 2017, 161 outstanding nominations for the Blavatnik Regional Awards were received from 28 academic institutions in the New York tri-state area. Winners and Finalists were selected by a distinguished jury of senior scientists and engineers. This year's Blavatnik Regional Awards Winners are:

- [Chao Lu, PhD](#), The Rockefeller University. *A molecular and cellular biologist, Dr. Lu is being recognized for identifying chemical modifications to our chromosomes that lead to uncontrolled growth and proliferation of cells, and subsequently, to the formation of tumors.*
- [Andrew Ilott, PhD](#), New York University. *Dr. Ilott, a physical chemist who is being honored for developing novel MRI techniques to scan electrochemical devices, improving understanding of battery failure mechanisms.*
- [June Huh, PhD](#), Institute for Advanced Study. *Dr. Huh, a mathematician, is being celebrated for solving longstanding problems in mathematics using innovative approaches.*

"We are delighted to honor and support this year's outstanding Winners and Finalists as they pursue their remarkable scientific careers," said Len Blavatnik, Founder and Chairman of Access Industries and head of the Blavatnik Family Foundation. "Their ongoing discoveries will have an enormous positive impact on the global scientific community for years to come."

"While we have expanded our Awards program to recognize outstanding young scientists from across the nation and around the world, we began in the New York area because the region has one of the world's highest concentrations of top-level research universities," said Ellis Rubinstein, President and CEO of the Academy and Chair of the Awards' Scientific Advisory Council. "Many of the most talented young researchers seek out these leading institutions to begin their journeys of scientific discovery. With such a plethora of talent in the region, our esteemed judges have had to make difficult decisions in order to select our honorees. We congratulate our outstanding Blavatnik Regional Award Winners and Finalists on being selected, and thank our judges for their diligence."

## **2017 Blavatnik Regional Award Finalists**

The following postdoctoral researchers have been named Finalists in their respective categories:

### **Life Sciences**

- [\*\*Ataman Sendoel, MD, PhD\*\*](#), The Rockefeller University. *Dr. Sendoel, a molecular and cellular biologist, is being recognized for discovering a novel switch in the cell's protein synthesis machinery that promotes the synthesis of proteins that lead to tumor formation.*
- [\*\*Eunyoung Park, PhD\*\*](#), The Rockefeller University. *Also a molecular and cellular biologist, Dr. Park is being feted for resolving a longstanding question about the structure and function of the CLC family of proteins, a group of channels that transport chloride ions across the cell membrane.*

### **Chemistry**

- [\*\*Alan Healy, PhD\*\*](#), Yale University. *A chemical biologist, Dr. Healy is being recognized for developing the first synthetic route to producing colibactins—bacterial compounds linked to colorectal cancers— previously only available in unstable quantities too small to study.*
- [\*\*Wilhelm Palm, PhD\*\*](#), Memorial Sloan Kettering Cancer Center. *Dr. Palm, a biochemist and structural biologist, is being honored for discovering a novel pathway that enables tumor cells to obtain nutrition and grow.*

### **Physical Sciences & Engineering**

- [\*\*Douglas Stanford, PhD\*\*](#), Institute for Advanced Study. *A theoretical physicist, Dr. Stanford is being saluted for advancing our understanding of quantum gravity and chaos, through study of these phenomena in the context of black holes.*
- [\*\*Chia Wei \(Wade\) Hsu, PhD\*\*](#), Yale University. *A condensed matter physicist, Dr. Hsu is being celebrated for his work in controlling light in fundamental and applied optical physics.*

## **About the 2017 Blavatnik Regional Award Winners**



**Chao Lu, PhD**

**2017 Life Sciences Award Winner**

The Rockefeller University

Dr. Lu's goal is to apply his discoveries to advance diagnosis, classification and treatment of cancer and other human diseases. That is why, for most of his career, Dr. Lu has striven to understand the underlying causes of cancer. His work has primarily been in the field of epigenetics – the study of heritable changes to our cells that go beyond DNA mutations. Throughout his career, Dr. Lu has identified ways in which the proteins involved in genome regulation and packaging are frequently altered in human cancers. He demonstrated that these abnormal changes cause cancer by blocking cellular differentiation – the normal process of less specialized cells growing and dividing into specialized cells like neurons or kidney cells. When differentiation is blocked, these cells grow and divide rapidly, leading to tumor formation. Intriguingly, Dr. Lu found that by correcting this abnormal epigenetic state of cancer cells he could halt the growth of tumors, effectively “reprogramming” the cancer cell back to health. Cancer treatments that alter cancer cells rather than killing them would be less toxic for cancer patients.



**Andrew Ilott, PhD**  
**2017 Chemistry Award Winner**

New York University

Dr. Ilott's research has focused on the development of new magnetic resonance imaging (MRI) techniques that can scan electrochemical devices such as batteries and supercapacitors while they are functioning, revealing details of the operating conditions, critical failure mechanisms and chemical changes that occur inside these devices as they charge and discharge. He developed an MRI methodology that can pinpoint the location of dendrites growing inside lithium metal batteries. Dendrites are microscopic, tree-like structures that can grow between the electrodes in a cell and lead to short circuits and cause major safety concerns. Dendrite formation is one of the main barriers to implementing some of the most promising, next-generation battery technologies. By detecting precisely when and where the dendrites grow and correlating this information with the cycling conditions and the intrinsic properties of batteries, Dr. Ilott and colleagues can provide new insights into the conditions that lead to the formation of dendrites.

Dr. Ilott's recent breakthroughs have also allowed for the application of MRI to commercial, off-the-shelf batteries. This new technology has the potential to revolutionize and accelerate research into new battery materials, optimize quality control procedures in manufacturing, and enable profitable battery recycling projects to deal with the three billion batteries that are disposed of every year in North America alone.



**June Huh, PhD**  
**2017 Physical Sciences & Engineering Award Winner**

Institute for Advanced Study

Dr. Huh is now best known in the field of mathematics for his proof of the Rota conjecture: an underlying pattern in mathematical graphs that was always found to be true, but that had never been proven from first principles. The Rota conjecture was unexplained for more than 50 years until Dr. Huh, in collaboration with mathematicians Eric Katz and Karim Adiprasito, reinterpreted ideas from one area of math – singularity theory – to an entirely unrelated area: matroid theory. This notion of applying theory from one area of mathematics to an unrelated one has since been fruitful for Dr. Huh in proving other conjectures. He believes that there is an underlying unity between all the different ways of doing mathematics, be it algebraic, analytical, geometric, combinatorial, or another. His goal is to uncover this underlying unity as much as possible and build a framework that allows problems to be tackled with diverse methods.

### **Honoring the Blavatnik Regional Award Winners and Finalists**

2017 Blavatnik Regional Awards Winners and Finalists will be honored at the New York Academy of Science's 14<sup>th</sup> annual Gala at the Conrad Hotel in New York on November 6, 2017.

To follow the progress of the Blavatnik Awards, please visit the Awards [website](#) or follow us on [Facebook](#) and Twitter (@BlavatnikAwards). For media requests, please contact Dennis Tartaglia ([dtartaglia@tartagliacommunications.com](mailto:dtartaglia@tartagliacommunications.com); 732-545-1848) or Kamala Murthy ([kmurthy@nyas.org](mailto:kmurthy@nyas.org); 212-298-3740).

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**About the Blavatnik Family Foundation**

The Blavatnik Family Foundation is an active supporter of many leading educational, scientific, cultural, and charitable institutions in the United States, the United Kingdom, Israel, and throughout the world. Recipients of Foundation support include Oxford University, Harvard University, Yale University, Tel Aviv University, Stanford University, New York University, the New York Academy of Sciences, Tate, Carnegie Hall, the Royal Opera House, the Hermitage Museum, Lincoln Center, Jewish charitable organizations, and countless other philanthropic institutions. The Foundation is headed by Len Blavatnik, a major American and British entrepreneur and philanthropist. He is the founder and Chairman of Access Industries, a privately-held U.S. industrial group with global strategic interests in four key sectors: natural resources and chemicals, media and telecommunications, real estate, and venture capital. For more detailed information, please visit: [www.accessindustries.com](http://www.accessindustries.com).

**About the New York Academy of Sciences**

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