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UofL's renewable energy prize awarded to University of Oxford's Henry Snaith for improved solar cells

Nominations for 2023 Leigh Ann Conn Prize due by Dec. 31, 2022

EDITOR'S NOTE: Download a photo of Snaith here.

LOUISVILLE, Ky. — Henry Snaith, professor of physics at the University of Oxford and co-founder and chief scientific officer of Oxford PV, has won the 2021 Leigh Ann Conn Prize for Renewable Energy from the University of Louisville. The prize recognizes outstanding renewable energy ideas and achievements with proven global impact.

Snaith is recognized for his work on the development of perovskite solar cell technology. This technology enables more electricity to be generated from sunlight, increasing the adoption of sustainable solar energy worldwide.

Snaith was one of the first people in the world to recognize the potential of metal halide perovskite, a crystalline semiconductor material, as a solar absorber and charge conductor in 2012. In the decade since, he has led the research community in advancing fundamental understanding of perovskite materials and making them practically useful by improving device efficiencies, long-term stability and cost effectiveness. His ongoing research at the University of Oxford aims to increase the efficiency and durability of perovskite solar cells further with the goal of reducing the overall cost of electricity production.

"We applaud Professor Snaith's focus on developing economical, durable solar technology, one that efficiently utilizes energy as a highly visible, popularized idea moving beyond purely academic contexts to address emerging grand challenges in renewable energy," comments Andrew Marsh, Program Officer for the Leigh Ann Conn Prize for Renewable Energy at the University of Louisville. "Professor Snaith's research is credited for high originality, creativity, and scientific merit while also possessing the promise of global economic impact on energy consumption and demand reduction. As indicated by peer review, his concepts have centered on transforming the mechanisms of solar cell material functionality while providing a basis of intellectual stimulation for young people by fostering scientific participation and inspiring future generations to undertake STEM initiative-based research."

A great honor

"Receiving this award is a great honor since it recognizes both our scientific endeavors and efforts towards realizing real benefit to society and the environment though our industrial activities with Oxford PV," comments Professor Snaith. "A sustainable future is only possible if we transition to close to 100% renewable power generation over the next few decades. Winning this award will help to build the momentum by raising awareness, and encourage others to focus efforts upon tackling this key global challenge."

"This is a wonderful achievement and richly deserved," said Ian Shipsey, professor and head of the Department of Physics at Oxford. "Henry's work is indeed ground-breaking; photovoltaic research is vital if we are to address the impact of energy use on the Earth's climate and Henry's group is leading the way."

Snaith's work on perovskite materials has contributed to Oxford PV's commercial plans for a perovskite-on-silicon tandem cell. These solar cells, which combine a layer of perovskite on top of conventional silicon, are poised to increase solar power's practical conversion efficiency beyond 30% in the next decade.

"Professor Snaith's research is not only at the forefront of science but, as this award recognizes, his practical, commercial approach means that it stands to enormously benefit society in very real terms," said Laura Herz, professor and associate head for research for the Maths, Physics and Life Sciences division at Oxford. "It is a fantastic example of our research portfolio here at Oxford and I congratulate professor Snaith on this achievement."

In March, Snaith will give a public lecture in Louisville about his winning work and achievements, trials and tribulations. He will receive the Conn Prize medal and \$50,000 award at a formal ceremony.

"The University of Louisville celebrates professor Snaith's research and clear efforts toward improving our world through technology," said UofL Interim President Lori Stewart Gonzalez, who will confer the award. "Energy generation from renewables is a defining global challenge. Dr. Snaith's work renders renewable energy more competitive, reliable and accessible."

The UofL prize is named for the late daughter of Hank and Rebecca Conn, who are university alumni, supporters and the prize benefactors.

"Henry Snaith is transforming the field of solar energy generation," Hank Conn said. "It is exciting to celebrate a scientist with the fortitude, patience and resiliency to endure technology commercialization into the marketplace, where impact occurs. That recognition is Leigh Ann's lasting legacy through the prize."

Nominations for the 2023 Leigh Ann Conn Prize competition close Dec. 31. Criteria and instructions are found at http://leighannconnprize.org/. For more information, contact Andrew Marsh at 502-852-8597 or LeighAnnConnPrize@louisville.edu.



Henry Snaith, professor of physics at the University of Oxford and co-founder and chief scientific officer of Oxford PV, is the winner of the 2021 Leigh Ann Conn Prize for Renewable Energy from the University of Louisville.