Cohosted by
Washington University in St. Louis
and
Tsinghua University
Co-hosted by Washington University in St. Louis and Tsinghua University in Beijing, China, the 7th McDonnell International Scholars Academy Symposium brings together experts from partner universities to explore collaborative efforts and opportunities to address complex global challenges in three thematic areas:

- **HEALTH**;
- **ENERGY AND ENVIRONMENT**; AND
- **AGRICULTURE**

**INNOVATION FOR THE FUTURE**

Research universities have long been engines of research and innovation. In 1810, the father of the modern research university, Wilhelm von Humboldt, wrote, “The course of science is evidently quicker and more lively at a university, where it is continuously mulled over in a large number of strong, robust, and youthful minds.” However, today’s disciplinary specialization and isolation can impede the coordinated interdisciplinary efforts needed to address complex global challenges.

The Symposium will consider how research and how institutions of higher learning can foster these kinds of collaborative initiatives. The future of research universities will require collaboration not only within institutions, but among premier research universities around the globe. By bringing together its partner universities, the McDonnell Academy hopes to further this ambitious mission.

**Opening Keynote Speaker**

**DR. JOHN P. HOLDREN**
Science Advisor to U.S. President Obama
Teresa and John Heinz Professor of Environmental Policy, and Professor of Environmental Science and Policy
Harvard University

The Symposium will also feature thematic keynote addresses from industry and academic leaders.

**3MT® Student Competition**

The Three Minute Thesis (3MT®) Competition was developed at The University of Queensland in 2008. Today competitions are held by more than 170 universities in more than 18 countries worldwide. The competition cultivates students’ academic, presentation, and research communication skills. It supports their capacity to effectively explain their research in three minutes for a nonspecialist audience.

Doctoral and professional degree students from partner institutions attending the 2018 McDonnell Academy Symposium are invited to participate in a 3MT® competition. Finalists will be selected through online heats prior to the event. Finalists will present at the Symposium during morning and afternoon theme sessions on Day 3. Three winners will be chosen from each of the three themes. Winners will be announced at the closing dinner on October 13th.

**Poster Presentations**

A poster session will feature research currently underway in the Symposium’s theme areas by partner universities and other collaborators.

**Networking Opportunities**

Building and fostering relationships is a key goal of the McDonnell International Scholars Academy. The Symposium provides multiple opportunities throughout each day to gather with faculty, students, researchers, corporate colleagues, and government and community partners.

**SESSIONS**

**October 11**

Opening Session and Keynote Address

**October 12**

Thematic Plenary Sessions
Keynotes
Panel Discussions
Audience Q&A

**October 13**

Interdisciplinary Sessions
Expert Presentations
Panel Discussions
Audience Q&A

President’s Forum
Chair: Mark S. Wrighton, Chancellor, Washington University in St. Louis

“These challenges go beyond what any country, let alone any university, can tackle. They require new models for research and education, many of which demand global cooperation,” says Washington University Chancellor Mark S. Wrighton.

Presidents and leaders of the McDonnell Academy partner universities come together to address how their universities will continue to respond to these obstacles in the present and the future, and reflect on how the Symposium has changed their perspective.

**October 14**

Workshops

Faculty, administrators, and students from Washington University in St. Louis, Tsinghua University, and McDonnell Academy partners participate in workshops to continue discussion of the global challenges discussed during the Symposium. Sessions focus on the thematic areas while working to strengthen network connections and discover new opportunities for research projects and collaborations.

For more detailed information, please visit mcdonnellsymposium.wustl.edu
Co-hosted by Washington University in St. Louis and Tsinghua University in Beijing, China, the Symposium will bring together the McDonnell Academy’s global partner universities to explore collaborative efforts and opportunities to address complex global challenges in three topical areas.

Each global challenge will be considered in its own right, but it will also be examined in tandem with others (e.g., How does providing affordable clean energy affect the supply of food and water for the world’s growing, as well as aging, population?).

**THEMES**

**HEALTH**
The scale of change in global health in the last twenty years is unprecedented in human history. Improvements in global population health reflect increased access to education and healthcare, stable food, water, and energy supplies, and economic development. Non-communicable diseases (e.g., cardiovascular disease, cancer, diabetes) now contribute a greater burden of premature death and disability across the world, and presents a challenge for all nations now and in the future.

**ENERGY AND ENVIRONMENT**
Modern energy services have been one of the critical enablers of prosperity in the developed world. Such energy services are essential for the production of food, clean water and clean air, the provision of health care and in driving economic growth. However almost three billion of the world’s inhabitants lack access to modern energy services such as clean cooking fuels and electricity. Many of these people remain in poverty and the disparity in living standards is set to rise as a result of population growth.

**AGRICULTURE**
Providing safe, nutritious and abundant food is a goal for every nation. Meeting these goals rests on the global agricultural enterprise, an enterprise that will face increasing challenges in future decades. These challenges stem from demands for higher yields. They stem from the need for food with complete nutrition for the developing world. They stem from the need to reduce the environmental footprint of agriculture by reducing agrochemical use and soil loss. They stem from increased pest and pathogen pressures. And, in the face of a climate that is changing in ways that we don’t always precisely understand, they stem from the need for water.
The McDonnell International Scholars Academy at Washington University in St. Louis provides graduate and professional students from University Partners around the world with an extraordinary educational experience at Washington University.

To ensure the highest-quality program, the Academy is focused and small, involving a limited number of Scholars and University Partners. By creating an international network of research universities, Washington University in St. Louis intends to develop a cohort of future leaders in a global university system and promote global awareness and social responsibility.

The McDonnell Academy affirms the United States’s interest in attracting talented international and domestic students for advanced educational experiences and provides a means for the University to learn more about the global community.

Universities that become partners in the Academy are committed to excellence in education and research, and the importance of international collaboration. They promote the Academy and its programs to talented students who have an interest in pursuing graduate or professional education in the United States and assist them in learning how the Academy can enhance their education at Washington University in St. Louis.

In turn, Washington University is committed to having at least one Academy Scholar from each University Partner in residence at all times and provides opportunities, such as the McDonnell Academy Symposia and annual visits, to continue their engagement with their alma mater which further strengthens the Scholars’ network and the partnership.
With the motto of “self-discipline and social commitment” and the spirit of “actions speak louder than words”, Tsinghua University is dedicated to the well-being of Chinese society and to world development.

Since China opened up to the world in 1978, Tsinghua University has developed at a breathtaking pace into a comprehensive research university. At present, the university has 14 schools and 56 departments with faculties in science, engineering, humanities, law, medicine, history, philosophy, economics, management, education and art. The University has now over 25,900 students, including 13,100 undergraduates and 12,800 graduate students. As one of China's most renowned universities, Tsinghua has become an important institution for fostering talent and scientific research.

The educational philosophy of Tsinghua is to “train students with integrity.” Among over 120,000 students who have graduated from Tsinghua since its founding are many outstanding scholars, eminent entrepreneurs and great statesmen remembered and respected by their fellow Chinese citizens.

Since 1978, Tsinghua University has strengthened its teaching in sciences, economic management, humanities and law. In 1999, Tsinghua opened the School of Arts and Design by merging with the Central Academy of Arts and Design. In 2012, the Graduate School of the People's Bank of China (PBC) merged into Tsinghua University as Tsinghua University PBC School of Finance. Today, Tsinghua has become a leading university: while its teaching is focused on engineering, it concurrently offers degrees in other sciences, the liberal arts, management and law.

Tsinghua University has a long tradition of actively developing strategic partnerships and collaborations with prestigious universities, international organizations and enterprises throughout the world. The University sponsors high-level academic exchanges, joint programs, international conferences and other international activities. Student exchanges are encouraged to cultivate talented students with global vision. Tsinghua also plays an important role in global higher education organizations to promote multilateral cooperation and organizes many academic and cultural activities abroad to deepen mutual understanding between people from
Washington University was founded in 1853 in St. Louis, Missouri, located in the midwestern United States. Today it is counted among the world’s leaders in teaching, research, patient care, and service to society.

Twenty-four Nobel laureates have been faculty or graduates of Washington University. Our seven schools offer many nationally ranked programs, and the University ranks 32 in the US News Best Global Universities Rankings and 50 in the Times Higher Education World University Rankings.

Our faculty and students are encouraged to pursue interdisciplinary learning and research. Many of our undergraduate students earn degrees in more than one major or pursue multiple minors.

From decoding the human genome to investigating new sources of energy, we are committed to creating the knowledge necessary to achieve a bright and sustainable future.

OUR RESEARCH PRIORITIES:

- Pioneering medical research to translate basic science discoveries into solutions for the world’s most challenging and urgent health problems.
- Environmental and energy research to discover innovations that can reduce greenhouse emissions and slow global warming.
- Innovation and entrepreneurial research to create intellectual property and advance technology for the greatest public benefit.
- Plant science research, conducted in collaboration with the Donald Danforth Plant Science Center, to help the world feed its people.