Washington University in St. Louis is committed to continuing to forge ties to conduct research and educate leaders to solve tomorrow’s problems, today.

- Through the strategic partnerships of the McDonnell International Scholars Academy, we pursue collaborative efforts with four leading institutions in India and 30 others around the world to jointly address complex global challenges.
- In partnership with the Indian Institute of Technology Bombay, we offer a world-class Executive MBA program, the only one in the world to confer a degree from both an Indian and a U.S. university.
- From assessing the impact of cook stove emissions to developing therapeutic foods for malnourished children, our research is making a tangible impact in advancing health and development in India. In the areas of energy and environment, we have 35 research projects in India exceeding $30 million.

PARTNERING WITH PREMIER UNIVERSITIES

MCDONNELL INTERNATIONAL SCHOLARS ACADEMY

Founded in 2005, the McDonnell International Scholars Academy seeks to prepare the next generation of global leaders and to foster collaboration among a network of 35 premier research universities, four of which are based in India: IIT Bombay, IIT Delhi, Jawaharlal Nehru University and Tata Institute of Social Sciences.

The Academy recruits and mentors talented students from these institutions to pursue graduate and professional degrees at Washington University on a full scholarship and prepares them to become the next generation of global leaders.

The Academy also advances academic commerce among these universities. Faculty from the partner universities work together to address far-reaching global problems in energy and sustainability, global public health, agriculture, food and water, and climate change.
MAGEEP is a consortium of 35 universities and corporate partners that collaboratively develop innovative ideas and advance research activities in the areas of energy and the environment. Through coordinated workshops, seminars and course work, it has fostered initiatives on solar energy, advanced coal combustion research, and aerosols and air quality. Its projects include brown carbon and climate research, nanoparticle aerosol science and technology, satellite mapping of air quality, CO$_2$ capture and conversion, arsenic removal from drinking water, air pollutant capture in ox-coal combustors, solar energy and energy storage.

MAGEEP utilizes the Academy’s partnership network to run an undergraduate summer research internship program and has developed a framework for co-advising PhD students across partner institutions.

Through the MAGEEP Aerosol Network, we are connected to three partner institutions in India and 17 others worldwide. An IIT Bombay–Washington University Aerosol and Air Quality Initiative has been launched with a 1,000-square-foot, state-of-the-art aerosol research facility established on IIT Bombay’s campus.

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**EDUCATING LEADERS OF BUSINESS AND GOVERNMENT**

**IIT BOMBAY–WASHINGTON UNIVERSITY EMBA PROGRAM IN MUMBAI**

A partnership between Shailesh J. Mehta School of Management at the Indian Institute of Technology in Bombay and Washington University in St. Louis, our Executive MBA program is the only one in the world to confer a degree from both an Indian and a U.S. university.

This is a sister program to Washington University's internationally recognized programs in the United States and China. It is one of the few programs in India designed for executives to earn a degree while they continue to work. Taught by world-class professors, in English, the curriculum builds knowledge, global perspective and tools you can apply immediately to your business challenges. Cohorts are composed of leaders from multiple sectors from across India and the region. The program is currently recruiting its fourth batch.

**1st MONTHS IN INDIA Joint Degree MBA Program
18 MONTHS PROGRAM
4 CONSECUTIVE CONTACT DAYS PER MONTH
17 MODULES IN MUMBAI
3 MODULES IN ST. LOUIS
INTERNATIONAL IMMERSION AT Washington University in St. Louis

For more information, visit www.iitb-wustl.org**
NEGLECTED TROPICAL DISEASES

Gary Weil, MD, leads a major global health research project to improve chances for global elimination of lymphatic filariasis, a disabling disease also known as “elephantiasis” that is a major public health problem in 73 countries. With more than 400 million people at risk for the infection, India is very heavily impacted by this disease. The project, funded by the Gates Foundation, supports field studies and clinical trials in 11 countries, including India.

RESEARCH THAT MAKES A DIFFERENCE

Many of our faculty are exploring topics related to India. A sample of their expertise is highlighted below.

AIR QUALITY

Many cities in India and around the world struggle with poor air quality and its impact on human health. Pratim Biswas leads one of the world’s top aerosol and air quality laboratories at Washington University’s School of Engineering & Applied Science. His team is developing next-generation wearable particulate matter (PM) sensors that give more accurate air quality readings than existing technology. These low-cost, portable devices could be linked to a smartphone, allowing the user to monitor individual exposure and receive air quality alerts in real time. Biswas, in partnership with a St. Louis startup, Applied Particle Technology, has already deployed this technology in the U.S. Embassy in New Delhi and several more sensors will be deployed in New Delhi through a project funded by the Government of Delhi, IIT Bombay and Mangalore University.

COOK STOVES

In a study funded by a $30 million grant from the National Institutes of Health and the Gates Foundation, Victor Davila-Roman, MD, and colleagues at the Washington University School of Medicine are evaluating if providing clean-fuel stoves in homes in India, Guatemala, Peru and Rwanda can reduce household air pollution and its adverse health effects on fetuses, children and women. At each of the four international sites, researchers are following 800 pregnant women for 30 months. Households are randomized to receive clean-fuel stoves or to rely on traditional cooking methods with biomass fuels.

THE HUMAN MICROBIOME

Jeffrey I. Gordon, MD, is a renowned researcher at the Washington University School of Medicine who is spearheading efforts to understand the human gut microbiome. Regarded as the father of this field, Gordon has collaborated with colleagues in Bangladesh, Malawi and India to study malnourished children’s microbiota, seeking to identify foods that harness the beneficial effects of the microbiome for healthy growth and development. With funding from the Gates Foundation, Gordon is trying to develop a therapeutic food prototype. He is testing it in India to see whether its use can restore normal development in severely malnourished children.

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BIOFUELS

As India's population is expected to reach 1.6 billion by 2050, consumer demand for fossil fuels will outpace what is available. “Biofuels are an essential solution to this demand challenge,” explains biochemist Himadri Pakrasi. With that in mind, the Indo-U.S. Advanced Bioenergy Consortium for Second Generation Biofuels (IUABC) program was launched in 2015. The consortium was developed by the government of India’s Department of Biotechnology, Indian corporate leaders and Washington University in St. Louis. Roughly $2.5 million has been invested into this collaboration supporting a joint binational center.

DISABILITY, MENTAL ILLNESS AND STIGMA

Jean-Francois Trani (Brown School) and Parul Bakhshi (Program in Occupational Therapy) are collaborators on several studies that explore the intersection of poverty, stigma, disability and mental health among vulnerable communities in Afghanistan, Pakistan and India. Recently completed research in India investigated the multidimensional factors that impact the education of children with disabilities in New Delhi. Another research project focused on stigma and mental illness in India.

GMO CROPS

Glenn Stone is an ecological anthropologist whose research focuses on the spread of genetically modified crops in developing countries. After completing a multi-year, multi-village field study of Andhra Pradesh farmers as GM cotton was being adopted, he is starting a project on indigenous knowledge and technology change among rice and cotton farmers in India and the Philippines.

RELIGION AND POLITICS

Cassie Adcock is a historian of modern South Asia with a focus on religion and politics in modern India. She researches how ways of talking about religion and the secular are shaping modern political culture. By exploring India’s distinctive controversies over religion and politics, her research considers how India is secular, differently.

WATER, SANITATION AND HYGIENE

Anthropologist Heather O'Leary investigates urban water, sanitation and hygiene issues in India. She has over a decade of engaged ethnographic fieldwork in Delhi, which included waiting with women on the roadside for water deliveries, fostering discussion in local community groups, and participating in the everyday family lives of the urban poor. Her work has been consulted by the U.S. Embassy of India, the Water Ministry of India, and the Municipal Corporation of Delhi.