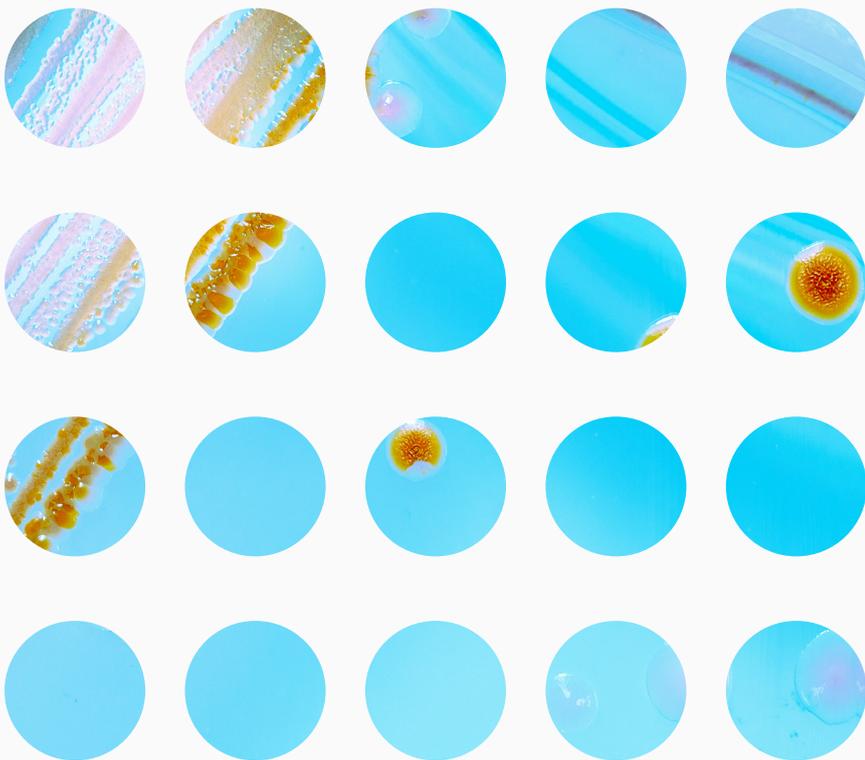


Young Scientists

The Young Scientists Community at the
Annual Meeting of the New Champions 2019



20
19

The World Economic Forum's Young Scientists Community brings together the most forward-thinking and celebrated scientific minds in the world.

Each year the World Economic Forum selects a group of extraordinary scientists under the age of 40 for their contributions to advancing the frontiers of science and passion for integrating scientific knowledge into society for the public good.

Trusted to be the next-generation of science leaders from across academic disciplines and continents, they are joining a community and a two-year journey of growth and impact, committed to promoting a healthier, more sustainable, inclusive and equitable future.

MEET THE 2019 YOUNG SCIENTISTS COMMUNITY



Adriana De Palma

*Co-Investigator
Researcher, The Natural
History Museum*

Adriana uses big data to investigate how land management and climate change impact biodiversity today and in the future.

[#ecology](#)
[#biodiversity](#)



Ashley King

*Senior Postdoctoral
Research Assistant, The
Natural History Museum*

Ashley aims to understand the origins of solar systems to answer society's big questions, including the origins and future of the Earth and life on it and the impacts of a changing environment.

[#universesciences](#)
[#Earthorigins](#)



Benjamin C.K. Tee

*President's Assistant
Professor, National
University of Singapore*

Benjamin designs artificial skin sensor systems with self-repairable and degradable properties, with applications from biomedical robotics to electronic waste reduction.

[#syntheticmaterials](#)
[#sustainabletech](#)



Camilla Colombo

*Associate Professor,
Politecnico di Milano*

Camilla employs novel techniques for spacecraft orbit manoeuvring with the potential to significantly reduce high space mission costs and mitigate space debris for a more sustainable use of space.

[#spaceengineering](#)
[#spaceexploration](#)



Christine Cheung

*Provost's Chair in Medicine
and Nanyang Assistant
Professor, Nanyang
Technological University*

Christine studies the genetics of blood vessel ageing with vascular cells created from human stem cells to help prevent stroke and cardiovascular diseases.

[#cellularbiology](#)
[#vascularisease](#)



Denise Morais da Fonseca

*Assistant Professor,
University of São Paulo*

Denise aims to understand how the immune system recovers from infections and the long-term effects on the body to prevent them, particularly in low- to middle-income countries.

[#immunology](#)
[#infections](#)



Gaëlle Offranc Piret

Researcher, Inserm

Gaëlle is developing flexible, thin and nanostructured brain implants for therapeutic applications such as restoring function for disabled people.

[#physics](#)
[#nanomaterials](#)



Loh Huanqian

*President's Assistant
Professor, National
University of Singapore*

Huanqian seeks to use ultracold molecules as quantum building blocks to model materials at the microscopic level for next-generation electronics and renewable energy systems.

[#quantumtech](#)
[#novelmaterials](#)



Ilana Brito

*Assistant Professor,
Cornell University*

Ilana is pioneering new technologies to understand how the gut's microbiome impacts human health and the spread of antibiotic resistance.

[#systemsbiology](#)
[#microbiome](#)



Nicholas Pyenson

*Curator of Fossil
Marine Mammals,
Smithsonian Institution*

Nick travels through geologic time to uncover the evolutionary origins of whales and other marine animals to understand their past and present, and their co-existent future with humanity.

[#evolution](#)
[#oceans](#)



Nripan Mathews

*Associate Professor; Provost's
Chair in Materials Science
and Engineering, Nanyang
Technological University*

Nripan is designing cheap and efficient solar cells that can be easily printed and that are accessible to a wide range of communities.

[#novelmaterials](#)
[#energyefficiency](#)



Olga Fink

*Professor of Intelligent
Maintenance Systems,
ETH Zurich*

Olga develops intelligent algorithms to improve the performance, reliability and safety of complex industrial assets and to make their maintenance more cost efficient.

[#artificialintelligence](#)
[#maintenancesystems](#)



Huang Rongqin

*Deputy Director, Dept of
Pharmaceutics, School
of Pharmacy; Professor,
Fudan University*

Rongqin is designing and assessing the in vivo behaviour and biosafety of new nanomaterials for biomedical applications such as tumour imaging and targeted drug delivery.

[#nanomaterials](#)
[#cancer](#)



Ruth Morgan

*Professor of Crime
and Forensic Science,
University College
London*

Ruth researches the interpretation of forensic evidence and intelligence to understand decision-making in crime investigation and detection.

[#forensicscience](#)
[#justice](#)



Sabrina Sholts

*Curator of Biological
Anthropology, National
Museum of Natural History,
Smithsonian Institution*

Sabrina uses museum collections of biological remains to study environmental factors on animal health in the past and present.

[#biologicalanthropology](#)
[#humanhealth](#)



Kim Sung-Yon

*Assistant Professor,
Seoul National
University*

Sung-Yon studies precisely how neural circuits interconnect and signal to each other to control basic emotional and need states, such as anxiety and appetite.

[#neuroscience](#)
[#obesity](#)



Thomas Hermans

*Full Professor in
Chemistry,
University of Strasbourg*

Thomas is developing self-healing and self-replicating lifelike materials that can respond to their surroundings and improve performance in various applications, from sensors to biomaterials.

[#materialchemistry](#)
[#novelmaterials](#)



Wang Yihua

*Professor,
Fudan University*

Yihua is researching how the quantum physical properties of materials can be harnessed for the next generation of computing.

[#quantumcomputing](#)
[#nextgencomputing](#)



Liu Ying

*Assistant Professor,
Peking University*

Ying is decoding how cells respond to stress and nutrient levels, with therapeutic potential for the treatment of diseases such as neurodegeneration, metabolic disorders and cancer.

[#molecularcellbiology](#)
[#diseases](#)



Shin Yongdae

*Assistant Professor,
Seoul National
University*

Yongdae is studying the physical principles underlying complex biological phenomena and developing novel technologies that enable the control of cellular processes.

[#biophysics](#)
[#cellengineering](#)



Kim Young-Min

*Assistant Professor,
Seoul National
University*

Young-Min seeks to understand the 3D world by using 3D sensors for more effective augmented reality, robotic and ambient intelligence applications.

[#computerscience](#)
[#3Dsensors](#)



COMMITTED TO
IMPROVING THE STATE
OF THE WORLD

The World Economic Forum, committed to improving the state of the world, is the International Organization for Public-Private Cooperation.

The Forum engages the foremost political, business and other leaders of society to shape global, regional and industry agendas.

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