



International

Human Frontier Science Program

Organization

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Life Sciences Frontiers in the XXI Century

Professor Pavel Kabat
Secretary-General

Analytical Studies
G7/8 Summits - G7 Venice Summit

Venezia Economic Declaration

Venice, June 10, 1987



Prime Minister Nakasone of Japan proposed the Human Frontier Science Program at the Venice Economic Summit in June. The economic Summit partners and the Chairman of the European Community welcomed the initiative and activities aimed at implementing it as soon as possible started.



HFSP's Unique Niche & Value Proposition

- Currently only known (publicly funded) international Program (in Life Sciences) where international funders put their resources in one single pot with no (political, economical, reputational, administrative...) “strings attached”
- Fully curiosity-, science- and scientists driven
- Cross-Disciplinarity
- High-risk/High-gain; expected to shine, but allowed to fail...
- Flexibility/agility/minimum administrative load
- “Science without Borders”, (unrestricted) international collaboration; Science Diplomacy

...a story of unprecedented international success, a true-life science frontier...

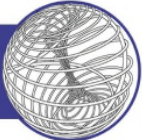
1212 Research Grants To 4387 Scientists	3425 Postdoctoral Fellowships	204 Research Grants - Early Career	3252 Long-Term Fellowships
173 Cross-Disciplinary Fellowships	50 Countries hosting HFSP Research Grants	71 Nationalities of HFSP Fellows	584 Early Career Grant Team Members

Since 1990 HFSP research grants and fellowships have supported more than 7500 scientists throughout the world

~1,000 articles per year published in leading scientific journals
HFSP papers cited twice as often as the world average

28 Nobel Prize 

24 Canada Gairdner Awards 

16 Kavli Prizes 

16 Breakthrough Prizes 

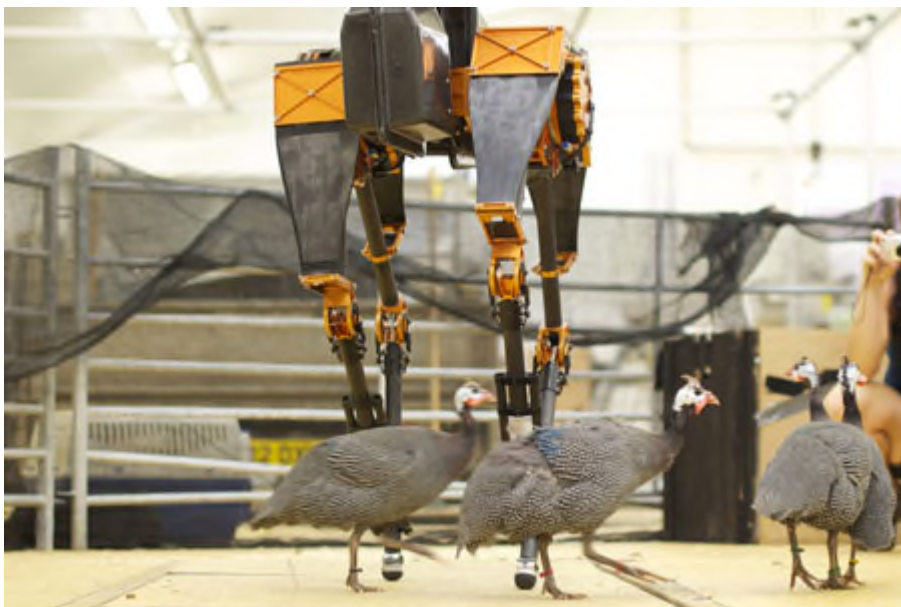
13 Lasker Research Awards 

7 L'Oreal UNESCO Women in Science Awards 



High Risk-High Gain Research as engine of innovation

Innovation driver: 9.6% of HFSP papers cited by patents 2009–2011, compared to world's papers at 3.6%



HFSP research about the brain in flies leads to new cancer treatment



<http://www.hfsp.org/frontier-science/awardees-articles/teaching-robots-run-birds-comparative-biomechanics-inspire-novel->

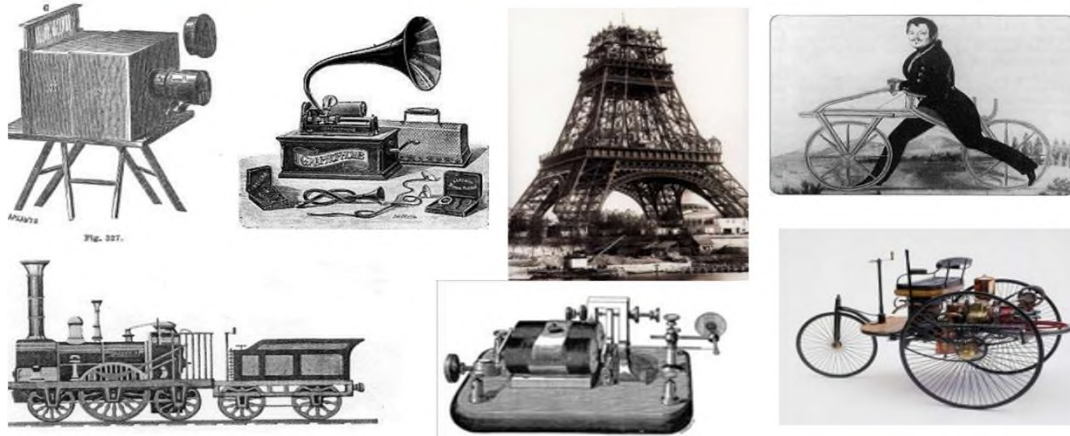
Drug Approved for USA in 2012 (*Erivedge*)

Drug Approved for EU in 2015 (*Odomzo*)

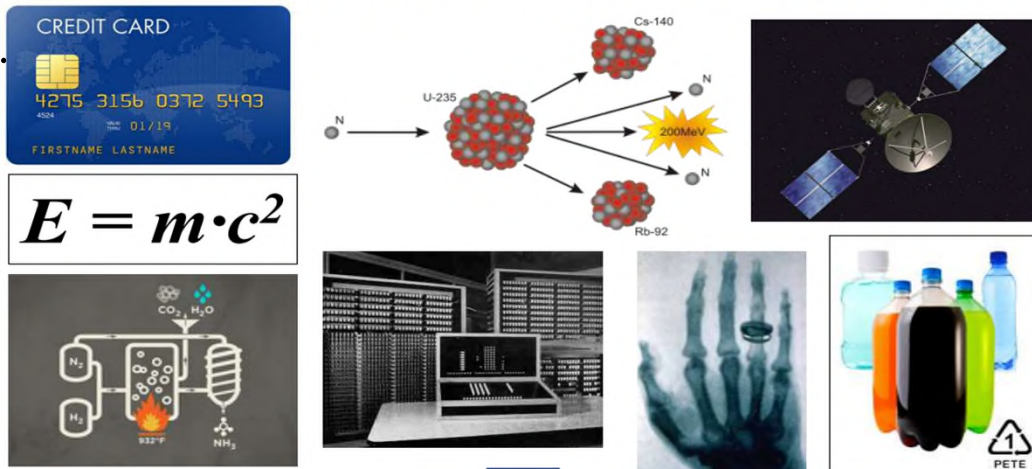
Frontier Life Science in “The Age of Biology”

...21st Century framing...

The 19th Century: The Age of Engineering

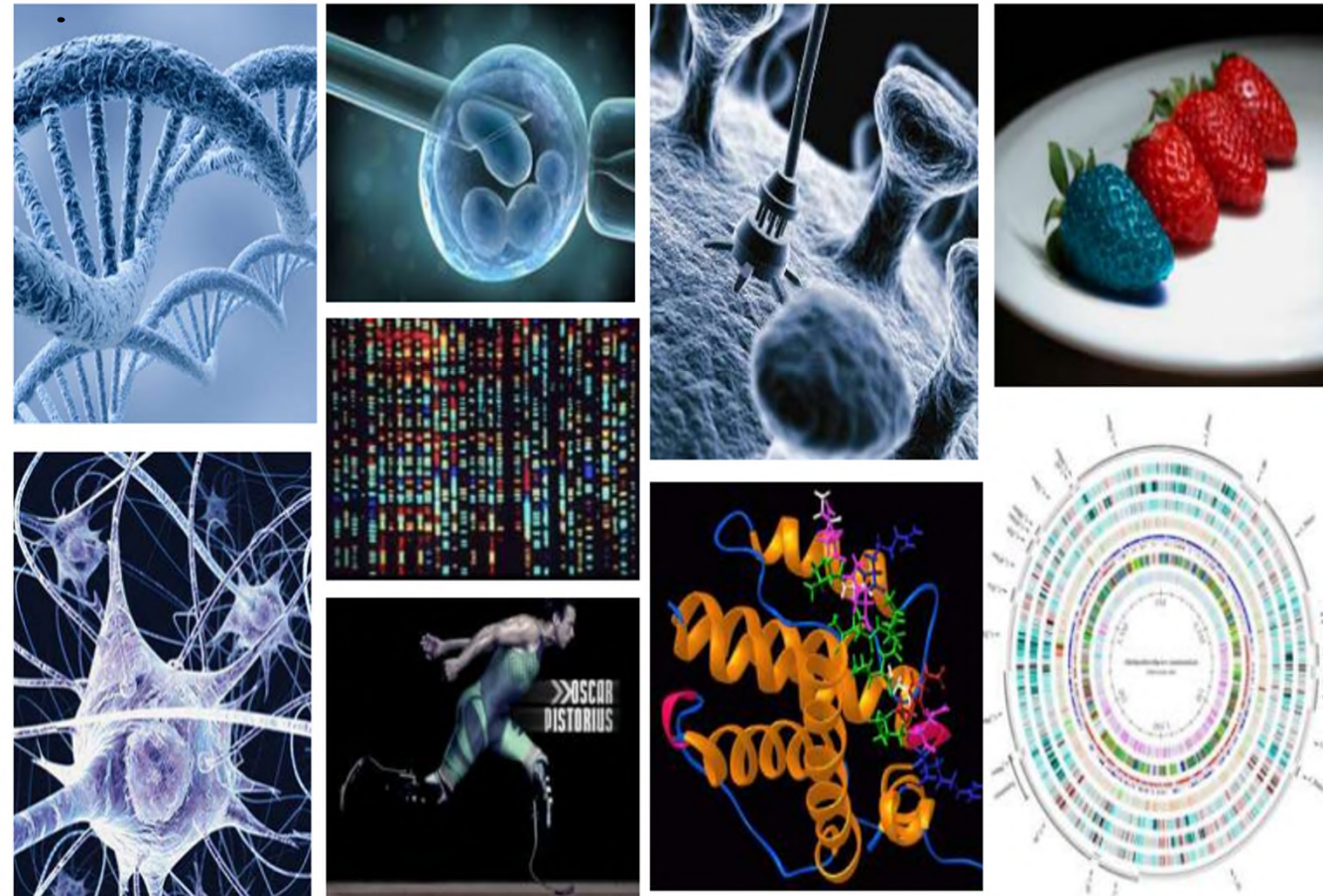


The 20th Century: The Age of Chemistry and Physics



$$E = m \cdot c^2$$

The 21st Century: The Age of Biology



Frontier Life Science for Sustainability



**Life sciences play a key role
in tackling global challenges**





International

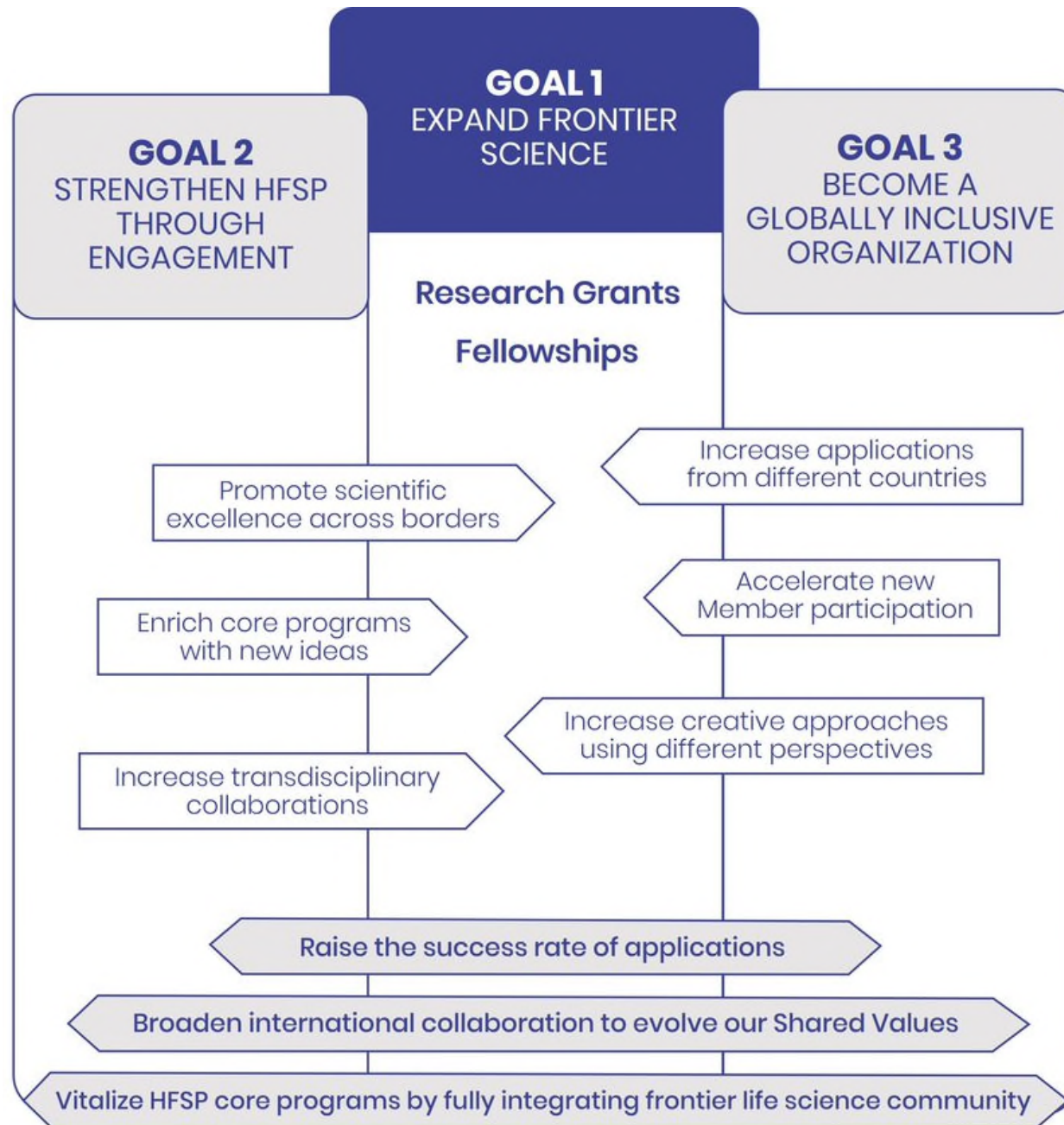
**Human Frontier
Science Program**

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Safeguarding Frontier Life Science in a Time of Change

HSPO Strategic Plan
2024–2032





HFSP Science Summit Basic Life Science for Sustainability **27 June 2023**

La grande salle des séances ; Académies des Sciences, 23 Quai Conti, Paris
Under the distinguished patronage of President Emmanuel Macron

HFSP Scientific Symposium: Basic Life Science as an Accelerator for Global Sustainability Transitions **28 –29 June, 2023**

Auditorium André et Liliane Bettencourt, Paris, France