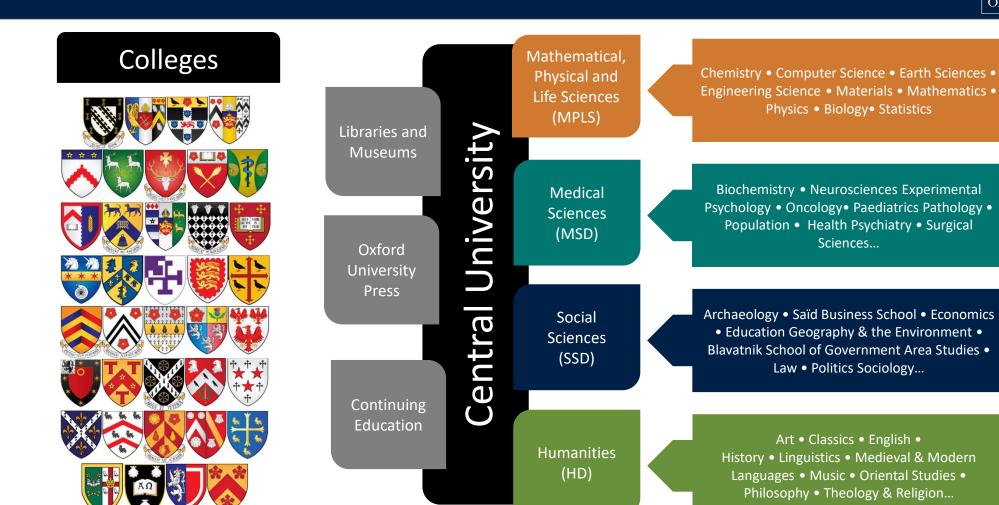




# **Research & Innovation**

#### Structure





#### Research & Innovation



#### Oxford's institutional commitments for research & innovation

- 1. To promote and enable ambitious research of exceptional quality
- 2. To invest in people, to support them and their research environment
- 3. To change the world for the better
- 4. To create a world-class regional innovation ecosystem

University of Oxford Strategic Plan 2018–2024

#### Over 800 years of research





Robert Boyle and Robert Hooke identify living cells through microscopy

Dorothy Hodgkin, pioneer in X-ray crystallography, wins Nobel Prize for Chemistry



Jenner Institute develops COVID-19 vaccine based on ChAdOx platform

1964

2020

1200

1400

1600

1650s

1800

2000

1266



Roger Bacon's *Opus Maius* espouses the importance of experimentation in scientific study

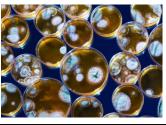


Edmond Halley successfully predicts the return of a comet

1703

1941

Howard Florey and others treat first human patients with penicillin



1979

John Goodenough and others discover the Li ion battery



#### Research and innovation





7,000 academic & research staff and7,300 postgraduate research students



of **£778m** in 2023/24; £195m higher than any UK university



The **highest volume** of world-leading research in REF 2021



Ranked 1st overall and 1st for research for last 9 years



Permanent
overseas research
institutes and
centres in 10
countries



spinout companies in the UK; more than 300 new companies



Oxford research and knowledge exchange activities estimated to have contributed almost **£10bn** to the UK economy in 2021/22

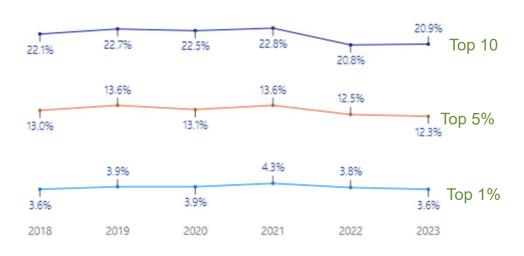


Oxford-AstraZeneca COVID-19 vaccine estimated to have saved more than **7 million lives** around the world

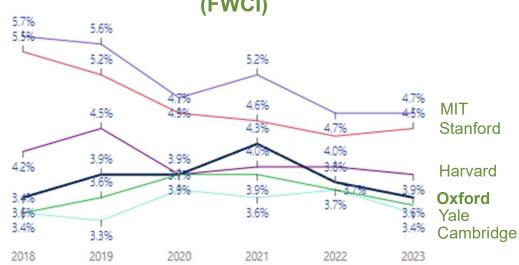
## Research ouputs



# Oxford outputs in the top citation percentiles (FWCI)

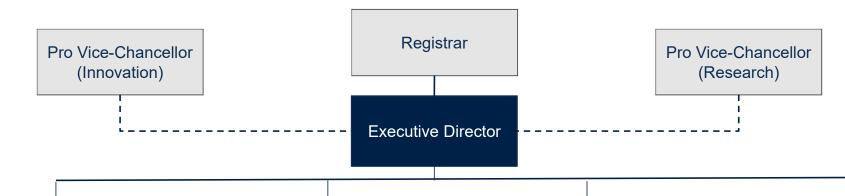


# Selected institutions Top 1% citation percentiles (FWCI)



#### Research services





# Innovation & Engagement Team

- Regional Engagement & Knowledge Exchange
- IP Rights Management
- Public & Community Engagement with Research
- EnSpire Entrepreneurship Hub

## Research Strategy & Policy Unit

- Research evaluation, insight and information
- REF
- Strategy and Policies
- Research integrity and practice
- Researcher Hub

## Research Funding & Contracts Team

- Research Funding
- Strategic Research Development
- Research Contracts
- Trusted Research
- Research Management Systems

# Research Governance, Ethics & Assurance Team

- Regulatory & QA
- Research Sponsorship & Governance
- Research Ethics
- Human Tissue Governance
- Risk & Insurance

## Delivering impact around the world





#### Investing in world-leading research facilities





Li Ka Shing Centre, 2017

Including Big Data Institute and Target Discovery Institute applying biomedical data to development of treatments for diseases worldwide



**Beecroft Building**, 2019

State of the art facilities for theoretical and experimental physics, enabling ground breaking research and attracting world-leading talent (e.g. Prof. Shivaji Sondhi, Wykeham Chair, 2021, ex-Princeton)



Life & Mind Building, 2024

A transformational research building for psychological and biological science at Oxford, to house over 1,000 researchers and support staff – the largest building project the University has ever undertaken



Institute of Developmental and Regenerative Medicine, 2022

World-leading facilities to support the development of new drugs and therapeutic strategies to tackle these chronic illnesses



Kavli Institute for Nanoscience Discovery, 2021

A new centre for interdisciplinary, collaborative research on nanoscience, bringing physical sciences into the cell



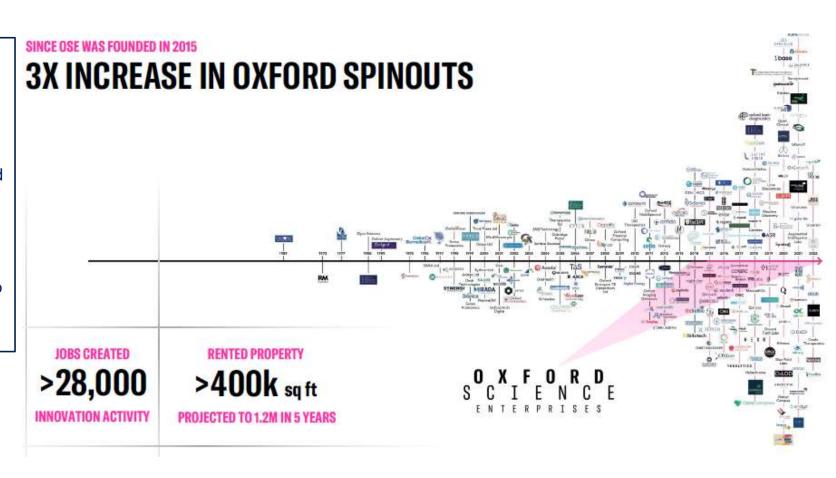
Stephen A. Schwarzman Centre for the Humanities, 2025

To house Oxford's humanities faculties, a new institute for ethics in AI, and performing arts and exhibition venues

#### Innovation and commercialisation - OSE

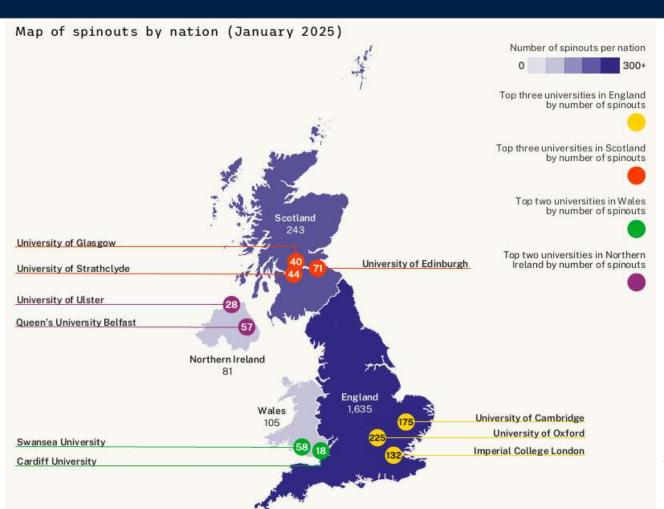


- Oxford spinouts increased from an average of 4-5 companies per year in 2015 to over 20 per year in 2021
- Catalysed by Oxford Sciences Enterprise, \$1billion venture fund dedicated to investing in Oxford spin-outs
- Investment in Oxford spinouts increased from an average of £125m per year (2011-2015) to >£600m per year (2016–2021) and over £1bn since



## **UK** competitiveness





Spotlight on Spinouts 2025, Royal Academy of Engineering

## Academic founder equity model

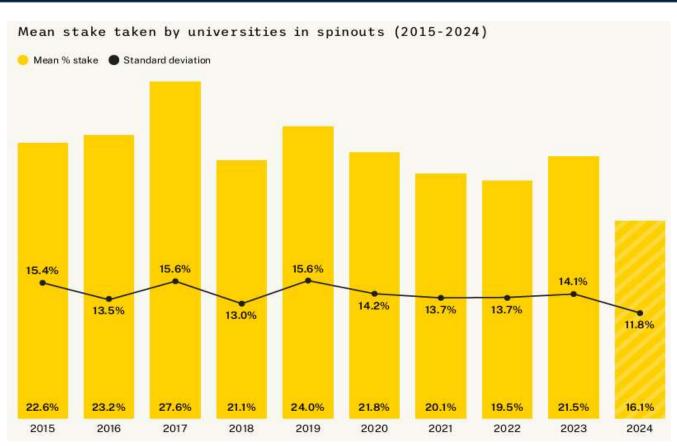
- 80% for founder researchers, 20% (dilutable) for the University in nearly all cases
  - Some exceptions, 90% for founder researchers and 10% for the University
- Rationale: support of the University's aim to foster innovation and entrepreneurship in order to maximise the global impact of the University's research and expertise
  - Gives clarity
  - Enables the spinout to incentivise founder researchers and attract experienced management teams and investors.
  - Faster, easier and more transparent no need for case-by-case negotiation

#### Innovation and commercialisation



Top	IPOs	by	spinouts	by	market
cap	itilis	ati	on (2015 -	202	4)

*	Oxford Nanopore Technologies	£3.38b
	Exscientia	£2.38b
	Darktrace*	£1.72b
	Orchard Therapeutics	£950m
*	Immunocore	£806m
*	Adaptimmune	£772m
	Achilles Therapeutics	£529m
	Autolus	£498m
	Freeline Therapeutics	£476m
*	Vaccitech	£415m
*	Nightstar	£353m



Spotlight on Spinouts 2025, Royal Academy of Engineering

#### 2025 acquisitions





Oxford University spinout
OrganOx to be acquired by Terumo
for a record \$1.5bn



Oxford Ionics has been acquired by US quantum leader IonQ in a \$1.1bn agreement. Oxford Ionics was founded in 2019 by physicist Dr Chris Ballance from the Department of Physics, based on trapped-ion quantum technologies

#### **Impact**





Measuring multi-dimensional poverty to give actionable insights in 30 countries

Social venture, licence

#### **Impact**





# Student startup Onfido bought by Entrust

**Incubator student startup** 

#### **Impact**





Malaria vaccine scaling to 200 million doses per year

Licence to patented IP



## Nearly 4k student entrepreneurial community

Enspire.ox.ac.uk

22% of students see entrepreneurship as a career path 3800+
Community

400 Students trained















#### Re-investing returns from innovation in research



- Proportion of revenues from IP licensing and spin-out equity realisation allocated to Strategic Research Fund
- Established in 2020 to make major transformative investments in researchers and future research leadership
- Position the University for global preeminence in a significant research area
- Financially de-risk first 1 to 4 years of department(s) co-investment in long-term, permanent increase in new research capacity



- Oxford Net Zero
- ZERO Energy Institute
- Quantum Institute
- Global Health
- Digital Scholarship
- Oxford Research Software Engineers
- Sustainable Chemistry







#### Research and innovation – summary

- Strong research and innovation performance
- Attracting and retaining the best people are critical
- Renewing our infrastructure and processes
- Diversify funders, donors and practices for global competitiveness
- Playing an international role in understanding and solving significant problems
- Engaging local and regional stakeholders to share our assets

