



Prof. PAUL NURSE

(Sir Paul Maxime Nurse¹)

- English geneticist and cell biologist, Professor of Microbiology
- currently working as the Director of The Francis Crick Institute, since 2010
- in 2001 awarded Nobel Prize in Physiology or Medicine for discoveries of key regulators of the cell cycle (together with Leland H. Hartwell and Tim Hunt, share 1/3)²

Life and work^{3,4}

- born on 25. 1. 1949 in Norwich, Norfolk county in England
- raised in London where he attended Harrow County Grammar School
- **1970**: graduated from Birmingham University (B.Sc in Biological sciences)
- **1973**: finished his Ph.D. studies from University of East Anglia (Ph.D. in Cell Biology and Biochemistry – the research of “amino acid pools in *Candida utilis*”)
- **1973**: finished his post-doc studies in University of Bern
- **1979**: finished his post-doc studies in the field of cell cycles in Murdoch Mitchison Laboratory of University of Edinburg
- **1979**: set up his own laboratory of the University of Sussex (to develop techniques that allowed him to clone the cdc2 gene from fission yeast and to show that it encoded a protein kinase)
- **1984**: finished his post-doc studies in University of Sussex
- **1984**: joined the Imperial Cancer Research Fund (ICRF, which became Cancer Research UK in 2002) as a head of laboratory where he in 1987 identified the human cdc2 homologous gene with codes for the cyclin dependent kinase CDK1)
- **1987, resp. 1988**: became a head of department and Professor of Microbiology at University of Oxford (where he continued his work on the cell cycle and also initiated new research areas to study cell form and genomics)
- **1993**: returned back to ICRF as Director of Research for cell research
- **1996**: became Director General of the ICRF and since 2002 the Chief Executive of Cancer Research UK (until 2003)
- **2001**: awarded Nobel Prize in Physiology or Medicine
- **2003**: became President of Rockefeller University in New York City and Professor and President Emeritus (until 2011)
- **2020 – 2015**: became President of the Royal Society (Fellow since 1989)
- **2010**: became the first Director and Chief Executive of the Francis Crick Institute in London where he is in charge of Cell Cycle Laboratory
- He has received over 70 honorary degrees and fellowships that include those from universities where he was trained or worked - Birmingham, East Anglia, Edinburgh, Sussex, Oxford, Cambridge.

¹ Knighted in 1999, <https://www.crick.ac.uk/research/find-a-researcher/paul-nurse>

² <https://www.nobelprize.org/prizes/medicine/2001/summary/>

³ https://cs.wikipedia.org/wiki/Paul_Nurse

⁴ <https://www.crick.ac.uk/research/find-a-researcher/paul-nurse>

- He is a fellow of the Academy of Medical Sciences and is an Honorary Fellow of the Royal Academy of Engineering and of the British Academy).
- Other fields of interest: a pilot, biker, innovator, experimenter⁵

Publication activities

- **Web of Science** records 387 publications and *h*-index 101, the most cited areas of professional interest are **Cell Biology** (185 publications), **Biochemistry and Molecular Biology** (147 publications) and **Multidisciplinary Sciences** (68 publications). Further publication activities fall into the field of Genetics Heredity, Biology, Oncology and Microbiology⁶.
- **Highly cited paper on WoS** that received enough citations to place it in the top 1% of the academic field of **Biology and Biochemistry** based on a highly cited threshold for the field and publication year 2019:
 - Nurse, P. et al. Analysis of a genome-wide set of gene deletions in the fission yeast *Schizosaccharomyces pombe*. *Nat Biotechnol.* 28(6), 617-623 (2010)⁷
- Three most cited papers on WoS:⁸
 - Moreno, S., Klar, A., Nurse, P. Molecular Genetic analysis of fission Yeast *Schizosaccharomyces-pombe*. *Methods in enzymology* 194, 795-823 (1991).
 - Nurse, P. Universal control mechanism regulation onset of m-phase. *Nature* 344(6266), 503-508 (1990).
 - Norbury, C., Nurse, P. Animal-cell cycles and their control. *Annual Review of Biochemistry* 61, 441-470 (1992).
- **Scopus** records total of 333 publications and *h*-index 96.⁹
- **Selected publications as shown on web page of Rockefeller University in New York City:**¹⁰
 - Kawashima S.A. et al. Potent, reversible, and specific chemical inhibitors of eukaryotic ribosome biogenesis. *Cell* 167, 512–524 (2016).
 - Swaffer M.P. et al. CDK substrate phosphorylation and ordering the cell cycle. *Cell* 167, 1750–1761 (2016).
 - Takemoto A. et al. Nuclear envelope expansion is crucial for proper chromosomal segregation during a closed mitosis. *J. Cell. Sci.* 129, 1250–1259 (2016).
 - Kawashima, S.A. et al. A chemical biology strategy to analyze rheostat-like protein kinase-dependent regulation. *Chem. Biol.* 20, 262–271 (2013).
 - Coudreuse, D. and Nurse, P. Driving the cell cycle with a minimal CDK control network. *Nature* 468, 1074–1079 (2010).

Contact Info:¹¹

- Cell Cycle Laboratory – The Francis Crick Institute:
 - paul.nurse@crick.ac.uk, tel: +44 (0) 20 3796 2495

⁵ <https://www.ceskatelevize.cz/porady/10441294653-hyde-park-civilizace/215411058091128/>

⁶ http://wcs.webofknowledge.com/RA/analyze.do?product=WOS&SID=C5bAo72y3NUJbHhMLNN&field=TASCA_JRCategories_JRCategories_en&yearSort=false

http://wcs.webofknowledge.com/RA/analyze.do?product=WOS&SID=C5bAo72y3NUJbHhMLNN&field=TASCA_JRCategories_JRCategories_en&yearSort=false

⁷ more than 10 authors, the full author record and paper full text at <http://europepmc.org/backend/ptpmcrender.fcgi?accid=PMC3962850&blobtype=pdf>,

⁸

http://apps.webofknowledge.com/summary.do?product=WOS&parentProduct=WOS&search_mode=DaisyOneClickSearch&qid=8&SID=E6cuivWINXWDFsjAEJ4&colName=WOS&page=1&action=sort&sortBy=LC.D;PY.D;AU.A.en;SO.A.en;VL.D;PG.A&showFirstPage=1&isCRHidden=false

⁹ <https://www.scopus.com/authid/detail.uri?authorId=7101733795>

¹⁰ <https://www.rockefeller.edu/our-scientists/heads-of-laboratories/953-paul-nurse/>

¹¹ <https://www.crick.ac.uk/research/find-a-researcher/paul-nurse>