

# 1940s



#### Babraham

1948 – The Institute of Animal Physiology is founded at Babraham

#### Science

1945 – Dorothy Hodgkin discovered the threedimensional structure of penicillin 1948 – Erwin Chargaff showed that DNA has a 1:1 ratio of purine and pyrimidine bases

#### Equality

1945 – Kathleen Yardley Lonsdale and Marjory Stephenson jointly become the first female fellows of the Royal Society

1948 – Women are admitted to formal membership at the University of Cambridge





#### Babraham

1952 – The Institute staff had doubled in size from 22 people when it was founded to 45 people in just four years

1956 – The Experimental Pathology Department improved techniques to ensure sterility and compatibility for blood transfusions

#### Science

1953 – Rosalind Franklin's X-ray photograph of DNA formed the basis for the discovery of the DNA double helix

1956 – Margaret Bastock published the first evidence that a single gene could change behaviour

#### Equality

1956 – British legal reforms say that female teachers and civil servants should receive equal pay 1958 – The Life Peerages Act entitled women to sit in the House of Lords for the first time





#### Babraham

1965 – Discovery and development of liposomes by Alex Bangham

1967 – Roy Calne developed a technique for liver transplantation in pigs at Babraham and then went on to perform Europe's first successful human liver transplant at Addenbrooke's in 1968

#### Science

1962 – Osamu Shimomura discovers the green fluorescent protein in the jellyfish *Aequorea victoria* 1968 – The first fluorescence-based flow cytometry device (ICP 11) was developed by Wolfgang Göhde

#### Equality

1964 – Dorothy Hodgkin is the first (and only) British female scientist to have won the Nobel Prize for Chemistry for her advances in the field of X-ray crystallography

1967 – Abortion becomes legal in England, Wales and Scotland

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#### Babraham

1975 – Michael Berridge studies the connection between cyclic AMP and calcium in the control of cell division

1977 – Geoff Butcher and Jon Howard collaborate with César Milstein on developing the first 'useful' monoclonal antibodies

#### Science

1975 – Edwin Southern published the method for the Southern blot

1978 – Frederick Sanger presented the 5,386 base sequence for the virus PhiX174, the first sequencing of an entire genome

#### Equality

1970 – The Equal Pay Act makes it illegal to pay women lower rates than men for the same work 1975 – The Sex Discrimination Act makes it illegal to discriminate against women in work, education and training

1979 – Margaret Thatcher became the first female Prime Minister

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#### Babraham

1983 – IP3 is shown to be an active chemical signal in cells
1987 – DNA methylation described as the mechanism for genomic imprinting

#### Science

1981 – The first transgenic animals are produced by transferring genes from other animals into mice 1983 – Kary Mullis invents polymerase chain reaction

#### Equality

1988 – Julie Hayward is the first woman to win a case under the amended Equal Pay Act 1988 – Magdalene was the last Cambridge college to admit women

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#### Bahraham

1990 – The Institute and the MRC are together awarded a patent for the production of MAb from transgenic mice

1993 – The Institute of Animal Physiology is renamed the Babraham Institute

#### Science

1992 – Low-level peptide analysis using mass spectrometry techniques became possible 1999 – Human Epigenome Project started

#### Equality

1990 – Women are taxed separately from their husbands for the first time
1999 – It becomes illegal for employers to discriminate on the basis of gender reassignment





#### Babraham

2002 – Gene activity can be controlled via longrange interactions with regulatory regions in distant parts of the genome 2009 – The Biological Support Unit opens as a world-leading small animal facility

#### Science

2001 – DNA recombineering first described 2004 – GCaMP, a genetically coded calcium indicator, first expressed in transgenic mice

#### Equality

2003 – It becomes illegal for employers to discriminate on the basis of sexual orientation 2005 – The first civil registrations of same-sex couples takes place as a result of the long campaigned for Civil Partnerships Act





#### Babraham

2013 – The Institute unites with 35 other organisations to produce a comprehensive map of human metabolism

2017 – Study of cell cannibalism by entosis reveals a new mechanism linked to cell division that may help to prevent cancer

#### Science

2010 – The first autologous cell-based cancer vaccine, PROVENGE, is approved by the FDA 2014 – Gene editing in human cell cultures using CRISPR-Cas9 demonstrated for the first time

#### Equality

2010 – The Equality Act makes it unlawful to discriminate against anyone on the grounds of 'protected characteristics', which include sex, marriage and pregnancy

2014 – Shared parental leave is introduced

2018 – Companies larger than 250 people must publish their pay gaps

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Science

Equality





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Science

Equality





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Equality