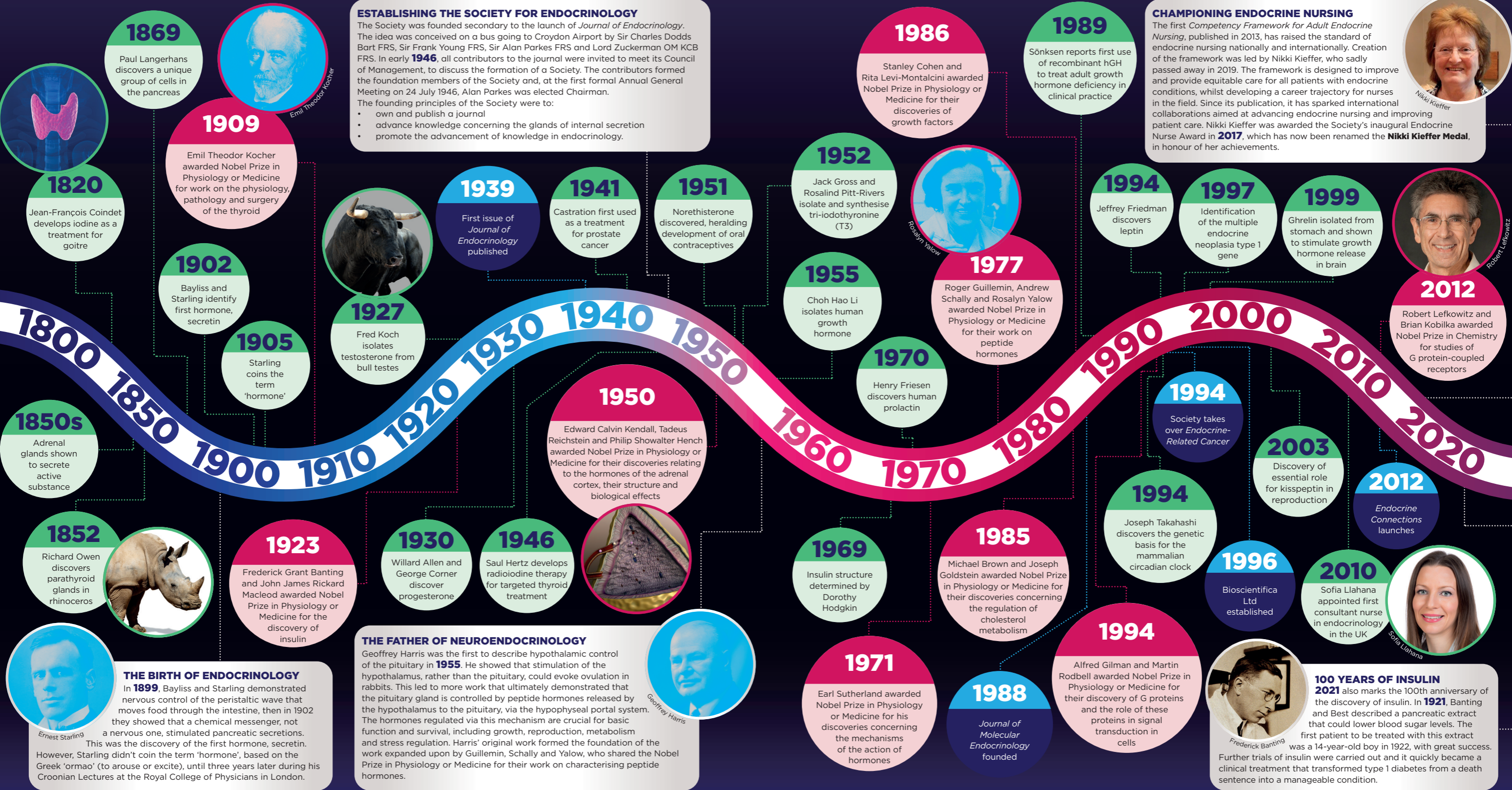
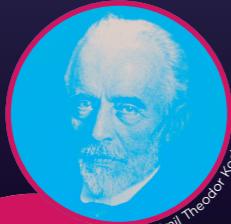


MILESTONES IN ENDOCRINOLOGY



1869

Paul Langerhans discovers a unique group of cells in the pancreas



Emil Theodor Kocher

1909

Emil Theodor Kocher awarded Nobel Prize in Physiology or Medicine for work on the physiology, pathology and surgery of the thyroid

1820

Jean-François Coindet develops iodine as a treatment for goitre

1902

Bayliss and Starling identify first hormone, secretin

1905

Starling coins the term 'hormone'

1927

Fred Koch isolates testosterone from bull testes



1939

First issue of *Journal of Endocrinology* published

1941

Castration first used as a treatment for prostate cancer

1951

Norethisterone discovered, heralding development of oral contraceptives

1952

Jack Gross and Rosalind Pitt-Rivers isolate and synthesise tri-iodothyronine (T3)



Rosalyn Yalow

1955

Choh Hao Li isolates human growth hormone

1970

Henry Friesen discovers human prolactin

1977

Roger Guillemin, Andrew Schally and Rosalyn Yalow awarded Nobel Prize in Physiology or Medicine for their work on peptide hormones

1994

Jeffrey Friedman discovers leptin

1997

Identification of the multiple endocrine neoplasia type 1 gene

1999

Ghrelin isolated from stomach and shown to stimulate growth hormone release in brain



Robert Lefkowitz

2012

Robert Lefkowitz and Brian Kobilka awarded Nobel Prize in Chemistry for studies of G protein-coupled receptors

1850s

Adrenal glands shown to secrete active substance

1852

Richard Owen discovers parathyroid glands in rhinoceros



1923

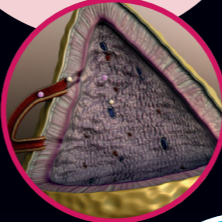
Frederick Grant Banting and John James Rickard Macleod awarded Nobel Prize in Physiology or Medicine for the discovery of insulin

1930

Willard Allen and George Corner discover progesterone

1946

Saul Hertz develops radioiodine therapy for targeted thyroid treatment



1950

Edward Calvin Kendall, Tadeus Reichstein and Philip Showalter Hench awarded Nobel Prize in Physiology or Medicine for their discoveries relating to the hormones of the adrenal cortex, their structure and biological effects



Geoffrey Harris

THE FATHER OF NEUROENDOCRINOLOGY

Geoffrey Harris was the first to describe hypothalamic control of the pituitary in **1955**. He showed that stimulation of the hypothalamus, rather than the pituitary, could evoke ovulation in rabbits. This led to more work that ultimately demonstrated that the pituitary gland is controlled by peptide hormones released by the hypothalamus to the pituitary, via the hypophyseal portal system. The hormones regulated via this mechanism are crucial for basic function and survival, including growth, reproduction, metabolism and stress regulation. Harris' original work formed the foundation of the work expanded upon by Guillemin, Schally and Yalow, who shared the Nobel Prize in Physiology or Medicine for their work on characterising peptide hormones.

THE BIRTH OF ENDOCRINOLOGY

In **1899**, Bayliss and Starling demonstrated nervous control of the peristaltic wave that moves food through the intestine, then in 1902 they showed that a chemical messenger, not a nervous one, stimulated pancreatic secretions. This was the discovery of the first hormone, secretin. However, Starling didn't coin the term 'hormone', based on the Greek 'ormao' (to arouse or excite), until three years later during his Croonian Lectures at the Royal College of Physicians in London.

ESTABLISHING THE SOCIETY FOR ENDOCRINOLOGY

The Society was founded secondary to the launch of *Journal of Endocrinology*. The idea was conceived on a bus going to Croydon Airport by Sir Charles Dodds Bart FRS, Sir Frank Young FRS, Sir Alan Parkes FRS and Lord Zuckerman OM KCB FRS. In early **1946**, all contributors to the journal were invited to meet its Council of Management, to discuss the formation of a Society. The contributors formed the foundation members of the Society and, at the first formal Annual General Meeting on 24 July 1946, Alan Parkes was elected Chairman. The founding principles of the Society were to:

- own and publish a journal
- advance knowledge concerning the glands of internal secretion
- promote the advancement of knowledge in endocrinology.

CHAMPIONING ENDOCRINE NURSING

The first *Competency Framework for Adult Endocrine Nursing*, published in 2013, has raised the standard of endocrine nursing nationally and internationally. Creation of the framework was led by Nikki Kieffer, who sadly passed away in 2019. The framework is designed to improve and provide equitable care for all patients with endocrine conditions, whilst developing a career trajectory for nurses in the field. Since its publication, it has sparked international collaborations aimed at advancing endocrine nursing and improving patient care. Nikki Kieffer was awarded the Society's inaugural Endocrine Nurse Award in **2017**, which has now been renamed the **Nikki Kieffer Medal**, in honour of her achievements.



Nikki Kieffer

1994

Society takes over *Endocrine-Related Cancer*

1994

Joseph Takahashi discovers the genetic basis for the mammalian circadian clock

2003

Discovery of essential role for kisspeptin in reproduction

2012

Endocrine Connections launches

1969

Insulin structure determined by Dorothy Hodgkin

1985

Michael Brown and Joseph Goldstein awarded Nobel Prize in Physiology or Medicine for their discoveries concerning the regulation of cholesterol metabolism

1971

Earl Sutherland awarded Nobel Prize in Physiology or Medicine for his discoveries concerning the mechanisms of the action of hormones

1988

Journal of Molecular Endocrinology founded

1994

Alfred Gilman and Martin Rodbell awarded Nobel Prize in Physiology or Medicine for their discovery of G proteins and the role of these proteins in signal transduction in cells



Frederick Banting

100 YEARS OF INSULIN

2021 also marks the 100th anniversary of the discovery of insulin. In **1921**, Banting and Best described a pancreatic extract that could lower blood sugar levels. The first patient to be treated with this extract was a 14-year-old boy in 1922, with great success. Further trials of insulin were carried out and it quickly became a clinical treatment that transformed type 1 diabetes from a death sentence into a manageable condition.

2010

Sofia Llahana appointed first consultant nurse in endocrinology in the UK



Sofia Llahana