

MAJOR SCIENTIFIC MILESTONES

ISOLATION OF INSULIN

DISCOVERY OF PENICILLIN

FIRST ELECTRON MICROSCOPE

HELICAL STRUCTURE OF DNA DISCOVERED

NATIONAL HEALTH SERVICE AND WELFARE STATE ESTABLISHED

Moon Landing

First complete DNA sequence of an organism

Ozone hole discovered

Popularisation of the Internet

Mapping of Human Genome

GENERAL THEORY OF RELATIVITY

1910s

1920s

1930s

1940-50s

1960s

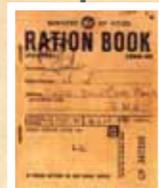
1970s

1980s

1990s

2000s

ROWETT MILESTONES



• John Boyd Orr appointed as the first Director of the Institute. First laboratory built at Craibstone, College of Agriculture

• First building completed on Institute's own Bucksburn site. Funded by £10,000 from Quiller Rowett and matched by UK Government. Opened by Queen Mary

• Demonstrated effect of milk on growth of children, leading to introduction of school milk in Scotland and eventually England

• Results of Carnegie Survey rushed through to underpin the formulation of the food rationing system for the UK during the Second World War

• Boyd Orr receives Knighthood and Nobel Prize for Peace

• Dr R L Syngé awarded the Nobel prize for chemistry, jointly with Dr A Martin, for the development of partition chromatography

• Determined factors responsible for the development of copper deficiency in sheep and cattle

• Developed Rowett barley beef system for feeding cattle

• Launch of metabolisable energy system of ration formulation for livestock - an industry standard

• Systems developed for commercial farming of red deer

• The nature of toxicity of plant lectins found in pulses e.g. raw kidney beans

• Identification of metallothionein - a protein which binds copper and zinc

• Development of techniques to induce multiple ovulation and embryo transfer in sheep

• Characterisation of copper-molybdenum interactions as source of many disease problems in UK livestock

• Demonstrated importance of selenium in human & animal nutrition

• Mapping site of action of obesity hormone leptin in the brain

• Key role in establishment of Food Standards Agency and authorship of 'Scottish Diet Action Plan'

• Developed biochemical markers for clinical assessment of bone diseases such as osteoporosis

• Role of protein as satiating nutrient and development of most effective weight loss diets leading to M&S launch of 'Simply Fuller Longer Range'

• 6 spin-out companies in last 12 years

• Intervention trials show whole-grain foods significantly reduce blood pressure and risk of cardiovascular disease

ROWETT INSTITUTE OF NUTRITION AND HEALTH

www.abdn.ac.uk/rowett



ANIMAL HEALTH

HUMAN HEALTH

FOOD INDUSTRY

1913-2013: Celebrating our Centenary

The Rowett has a long and proud history of achievements which have benefited human health and the agricultural industry. The Institute has shown itself to be a flexible organisation, capable of responding to the needs of Scotland and the UK throughout its 100 years of operation.



PAST



Sir John Boyd Orr, the founding Director of the Rowett, led several landmark studies which changed our understanding of the relationship between diet and health. He was the first scientist to show that there was a link between poverty, poor diet and ill-health. His research demonstrated the nutritional value of milk for children, and also underpinned the World War II UK food rationing system.

John Boyd Orr retired from the Institute in 1945 to become the first Director-General of the Food & Agriculture Organisation (FAO).

Post WWII, the Institute was at the forefront of research which led to major improvements in the efficiency of animal production, and it established a global reputation for work in this area. During the late 1970s, the realisation that all was not well with the health of Scotland's people turned the focus of the Institute's research back towards human health. The role of diet in chronic diseases such as heart disease and cancer, began to be investigated by Rowett scientists.

The quality of the science is underlined by the two Rowett scientists who have received Nobel Prizes: Sir John Boyd Orr, who was the recipient of the Nobel Prize for Peace in 1949 and Richard Syge, in 1952, jointly with John Porter Martin for the discovery of partition chromatography.

PRESENT



The Rowett plays a major role in the UK research capability in nutrition and human health.

The research spans 'molecules to man', with expertise in both molecular nutrition and public health nutrition, and arguably one of the best facilities for undertaking studies with human volunteers in the UK.

Much of the current research is sponsored by the Scottish Government and aims to address the big issues of our time, including inequalities, food security and obesity, as well as the sustainable development of Scotland's food industry. Major programmes of food-related research at the Rowett are also funded by the EU.

In 2008 the Institute merged with the University of Aberdeen to secure the future of nutrition research in Aberdeen, creating new opportunities and a world-class facility with the advent of a new building on the medical school campus in 2014.

What we do:

- Provide evidence for policy development - at both national (Scotland) and UK level.
- Support industry to gain market edge by creation of new products - especially the pharmaceutical and food industry.
- Contribute to education in nutrition and health at both school, University and community levels.

FUTURE



Nutrition is at the heart of some of today's major global challenges which include obesity, ageing and food security.

Tackling these issues requires multidisciplinary approaches and

being part of the University of Aberdeen has given the Rowett Institute access to a broader expertise and skill base. The Institute is now better positioned to continue helping Government address its policy issues, and provide research support towards the economic development of the vital food and drink industry sector.

The priority research issues for the Institute include:

- maximising lifelong health and well-being through diet
- improving energy balance and metabolic health through diet
- improving and maintaining gut health through diet
- development of healthy and sustainable diets
- overcoming the behavioural and socioeconomic barriers to better diets

Specific issues of future research interest include:

- tailoring diets more appropriately to individual health requirements
- resolving the trade-offs involved in healthy food production
- helping the food and drink industry to produce healthier foods through innovation