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EDITORIAL

Insulin, Nobel laureates and *The Journal of Physiology*

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The publication of the 600th volume of *The Journal of Physiology* coincides with the 100th anniversary of the discovery of insulin and offers the Editors an opportunity to highlight *The Journal's* important contribution in disseminating critical research findings. In 1921 the surgeon Frederick Grant Banting and the biochemist and physiologist John James Rickard Macleod, with assistance from Charles Best and E. Clark Noble, isolated the 'internal secretion' of the pancreatic islets of Langerhans – now known as insulin – with the goal of using it for treating diabetes (Jurdjevic & Tillman, 2004). In 1922, the first patient with diabetes received insulin therapy. Only a year later, in 1923, insulin became commercially available and F. G. Banting and J. J. R. Macleod received the Nobel Prize for Physiology or Medicine for their seminal discovery. The discovery of insulin not only changed the medical care and lives of patients with diabetes but also set off a highly prolific area of research that has remained as exciting today as it was 100 years ago. Many of the very first papers dealing with insulin appeared in *The Journal of Physiology* and included papers by the Nobel laureates and their team (Forrest *et al.* 1923; Macleod *et al.* 1923; Noble & Macleod, 1923; Burn & Dale, 1924; Bainbridge, 1925; Raper & Smith, 1925; King *et al.* 1928). In total, Macleod and colleagues published 37 of their papers in *The Journal of Physiology*. Researchers' interest in insulin has not waned and it is now well established that the effects of insulin reach well beyond its essential role in regulating blood glucose (James *et al.* 2017; Di Pino & DeFronzo, 2019; Vigneri *et al.* 2020). In addition, tremendous advances have been made in understanding the regulation of insulin production and secretion from beta-cells and its removal from plasma (Petersen & Shulman, 2018; Campbell & Newgard, 2021; Koh *et al.* 2022) and *The Journal of Physiology* has provided an avenue for the dissemination of this important research (e.g. Kosaka, 1933; Himsworth, 1934; Best *et al.* 1939; Goadby & Richardson, 1940; Best & Haist, 1941; Hinke *et al.* 2004; Eliasson *et al.* 2008; Salazar-Petres & Sferruzzi-Perri, 2021). To date, over 900 papers dealing with insulin have been published in *The Journal of Physiology*. Although, the focus of the research in this area has shifted, and now – driven by the ever expanding knowledge and new technologies – primarily centres on the molecular mechanisms of insulin metabolism and action. In addition, the changing population demographics and lifestyle during the last 100 years has driven the science, and much of today's research in the area is dedicated to understanding the alterations in insulin metabolism and action associated with ageing, obesity and inactivity. Moving forward, *The Journal of Physiology* remains committed to publish the most timely research results in this and all other areas of physiology and strives to remain prominent in the dissemination of data that shape the history of science and medicine.

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Additional information

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Sole author.

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Supporting information

Additional supporting information can be found online in the Supporting Information section at the end of the HTML view of the article. Supporting information files available:

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