

September 2021



100 Years of Insulin

Insulin is a life-changing, even life-saving, medicine for between 150–200 million people worldwide.

It is a hormone (the body's messengers) that allows your cells to use glucose from your food for energy.

Diabetes is a disease caused by the body not being able to make insulin, or not being able to use the insulin that is made.

There are 2 types of diabetes:

Type 1 – An autoimmune disease. The exact causes are not fully understood; it appears to be genetic (passed down in families).

Type 2 – The body becomes resistant to insulin. Caused by lifestyle, especially obesity and a lack of exercise.

Type 1 Diabetes Explained

Insulin Timeline

The Discovery of insulin

The future of diabetes treatment



Many diabetics use automated insulin pumps.



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Insulin was discovered in 1921 by Sir Frederick G Banting, Charles H Best and JJR Macleod at the University of Toronto.

It was initially purified from dogs and then cattle and pigs.

Banting and Macleod won the 1923 Nobel prize for their work.

Topical Science Shorts

Are beavers coming back?



Following their successful reintroduction in Scotland discussions are ongoing about reintroducing them across England.

Have a read and then discuss what you think.

Bringing beavers back

Beaver Trust

Rewilding the UK

CubeSat Swarms

CubeSats are tiny, cheap and easy to launch into space. Now it looks like they might be the future of space exploration.

Are they a good thing though? Have a read and make up your own mind.



CubeSats

CubeSat Swarms

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SmartSTEMs

Online School STEM Workshops

SmartSTEMs is a small, Glasgow based charity and our aim is to inspire the next generation about Science, Technology, Engineering and Maths (STEM).

Normally, we achieve this by running interactive, inspiring events bringing together schools, further education establishments and employers together under the one roof. However, the arrival of Covid-19 has unfortunately interrupted our normal engagement plans but the team here at SmartSTEMs have been hard at work creating a new plan to ensure we can continue our work, inspiring young people but via a very different method.

We would love to work with your school and provide a fun, engaging, FREE online workshop to help deliver your STEM curriculum in a new, exciting format. We work with a wide range of partners spanning all four pillars of STEM whose workshops promote interdisciplinary learning and cover various experiences and outcomes. If you or your colleagues would like a workshop on a specific topic please let us know and we can match you with one of our amazing partner organisations.

A little food for thought - we can arrange anything from coding and online security, bridge building and renewable energy, to medicine and even science in fashion.

If you and your colleagues are interested, please give the team here at SmartSTEMs a shout:

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