

Podcast: Where did GMOs come from? The fascinating history of genetic engineering

As part of the Genetics Unzipped series exploring 100 Ideas in Genetics, biologist Kat Arney looks back over the history of genetic engineering, from the first [restriction enzymes](#), proteins used to cut DNA, to today's genetically modified organisms.

Thanks to all the misinformation swirling around the internet and in the wider media, there's a lot of confusion about what GMOs are, why they're created, and whether they're dangerous. But while misleading headlines about 'Frankenfoods' may grab attention, there's a much richer and more nuanced story about the history and uses of genetic engineering that deserves to be told.

<https://geneticliteracyproject.org/wp-content/uploads/2019/09/023-Mergers-and-Acquisitions-Genetics-Unzipped.mp3>

Arney also explores biologist Lynn Margulis' groundbreaking theory of endosymbiosis—the idea that life evolved by cells co-operating and engulfing one another. Rejected by the scientific establishment through the 1960s and 70s, Margulis' ideas finally came to be accepted as the explanation for the origins of complex life and revolutionized the field of cellular evolution.

Finally, there's the story of Dolly the Sheep – the first live-born adult mammal clone created by taking the DNA from an adult cell and putting it into an egg. Dolly's birth caused a media storm when it was announced in 1997, but the scientific story of cloning goes all the way back to the late 19th century when German embryologists started experimenting with sea urchins and salamanders to see what happened as embryonic cells matured.

[Full transcript, credits and show notes are available here.](#)

Genetics Unzipped is presented by award-winning science communicator and biologist [Kat Arney](#) and produced by [First Create the Media](#) for the UK [Genetics Society](#). Follow Kat on Twitter [@Kat_Arney](#) and Genetics Unzipped [@geneticsunzip](#)

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