

As 2022 draws to a close, it is a pleasure to share with you a few highlights from Wales Gene Park, demonstrating the breadth of our activities and inviting you to contribute to future highlights.

Contact Us

We would love to share your news with others interested in genetics and genomics. Please do get in touch.
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@WalesGenePark

Genomics for Research

Since April, the **genomics facility** lab continues to be busy, having supported circa 30 projects. **The bioinformatics team** remains understaffed, with new appointments starting in the new year in both Cardiff University and Swansea University. Despite this the team have worked on 12 projects requiring bespoke analysis of data.

Genome Editing for Pre-clinical Research

Using human induced pluripotent stem cells (iPSCs), we have generated new pre-clinical models of disease to investigate the function of 4 genes associate with the risk of developing dementia and other neurodegenerative diseases.

Cancer TRE project

WGP hosts and leads on the Wales Cancer TRE Project, a two-year project to develop Trusted Research Environment (TRE) services for cancer research in Wales. This is a collaborative venture working with the SAIL Databank, and our sister Health and Care Research Wales funded organisations, Wales Cancer Research Centre (WCRC) and Wales Cancer Bank (WCB). This project has been adopted by the Cancer Research Strategy for Wales, CReST, to help deliver on the cross-cutting theme of data integration and working to develop a truly coordinated response to data sharing and data linkage for clinical, academic, and industrial research.

Working with Genomics Partnership Wales

Wales Gene Park forms an integral part of Genomics Partnership Wales (GPW), contributing to development of plans for a new Genomic Centre for Wales at the Cardiff Edge Life Science Park, as detailed in the Genomic Delivery Plan for Wales.

<https://gov.wales/genomics-delivery-plan-2022-2025>

The newly established facility will see partner organisations co-located to further precipitate collaborative working.



Education and Engagement (E&E)

The E&E team now offer a mix of in person, online and hybrid events, that promote genetic and genomic research and aim to inspire others to learn more. Since April 2022, over **2700** participants have attended **54** organised events, and many more have visited the WGP interactive stand at several events.

A unique public engagement project has produced a bilingual genetics-themed podcast drama called *Tremolo*. The project focuses on a diagnosis of early-onset Familial Alzheimer's Disease and has been produced in collaboration with Illumine Theatre and Theatr Genedlaethol Cymru, with external funding from Theatr Genedlaethol, The Adelphi Forum and The Genetics Society. You can listen to the drama in English:

<https://open.spotify.com/show/0Fei2rpywn9EuvGZXytMfr?si=a5b96a0596264ef5>

or in Welsh:

<https://open.spotify.com/show/7LFpgzJVhEYUOcNyWldTYA?si=487626cb38894e31>



Enabling research in rare disease

Rare disease research supported by WGP has been included in 2 publications. The one publication in the American Journal of Human Genetics describes a new multi-tumour syndrome (Am J Hum Genet. 2022 May 5;109(5):953-960. [doi: 10.1016/j.ajhg.2022.03.018](https://doi.org/10.1016/j.ajhg.2022.03.018)). The research has helped provide patients with a diagnosis and establishment of improved management plans for the patients affected by the specific and unique features of this condition.

Looking ahead

Look out for WGP and our interactive stand at events across Wales in 2023, as we mark our 20th anniversary.