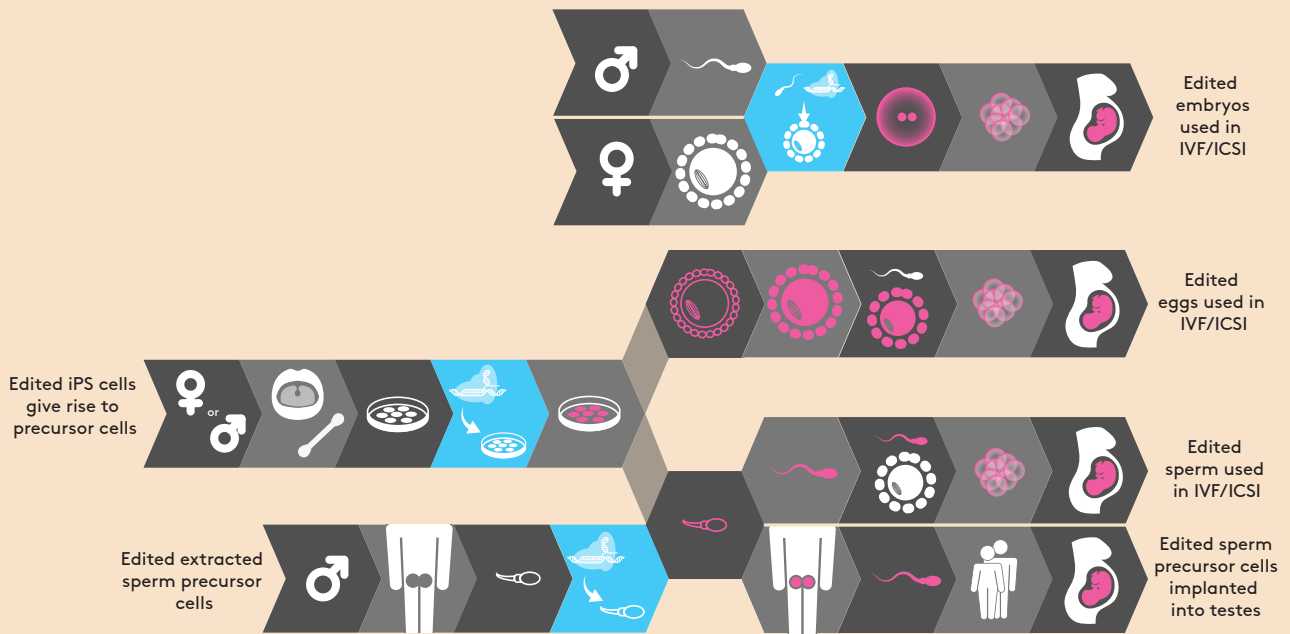
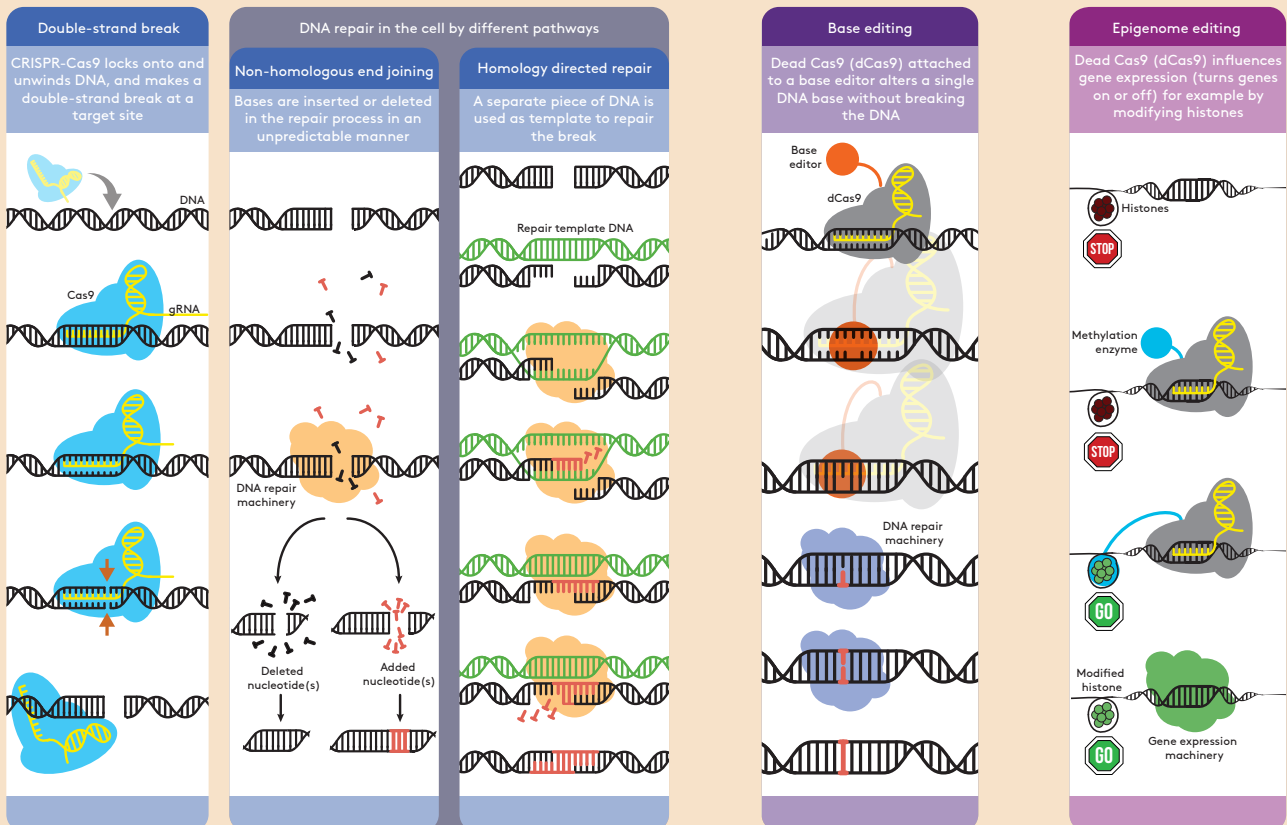
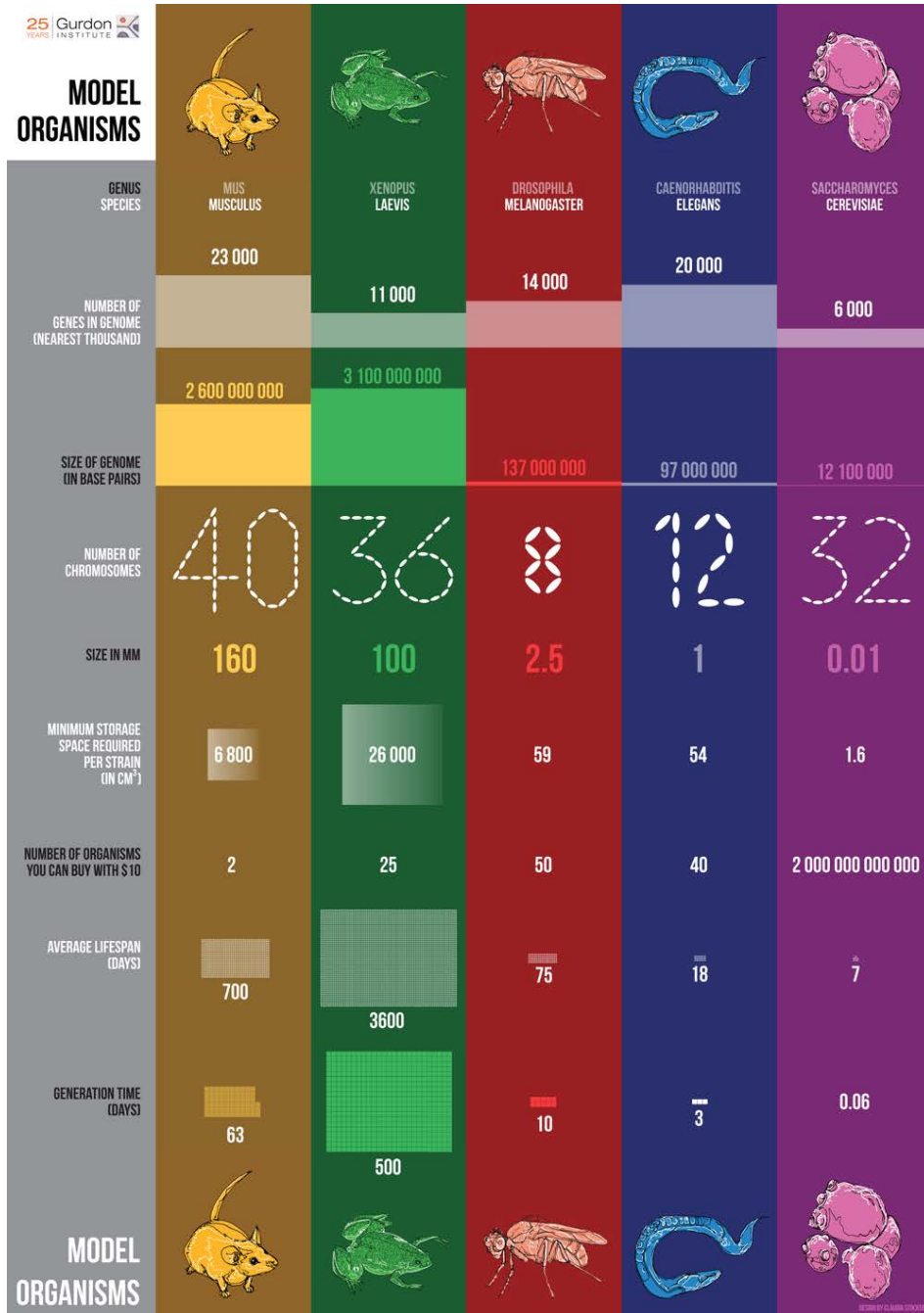


Strategies for genome editing in human reproduction



Genome editing mechanisms





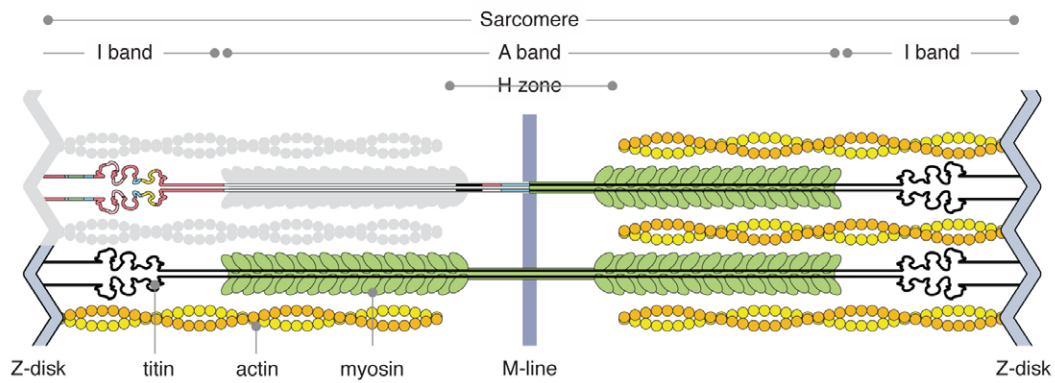
Infographic created to illustrate the difference between different model organisms commonly used in Genetics.

The original infographic was shortlisted in the infographics category of the International Science and Technology visualisation challenge 2013.

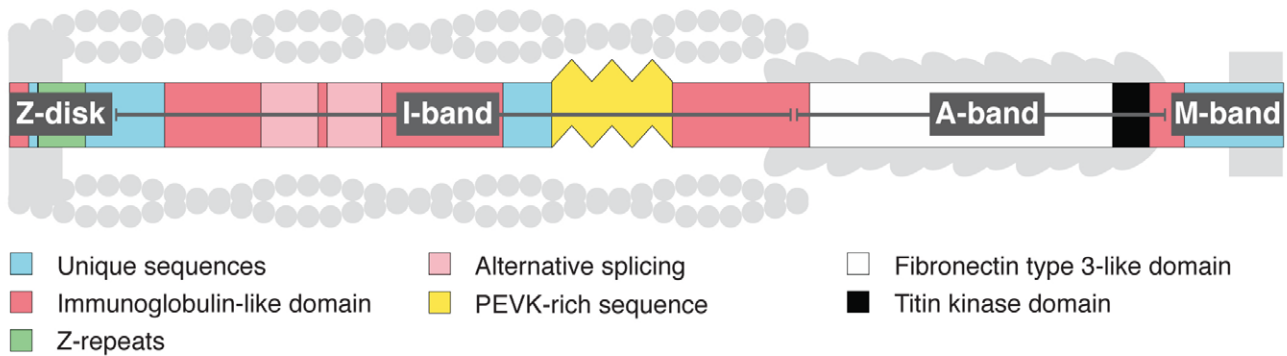
The infographic was subsequently reworked for a series of nine different mugs featuring infographics on the back and an image of the organism on the front.



A. Sarcomere structure



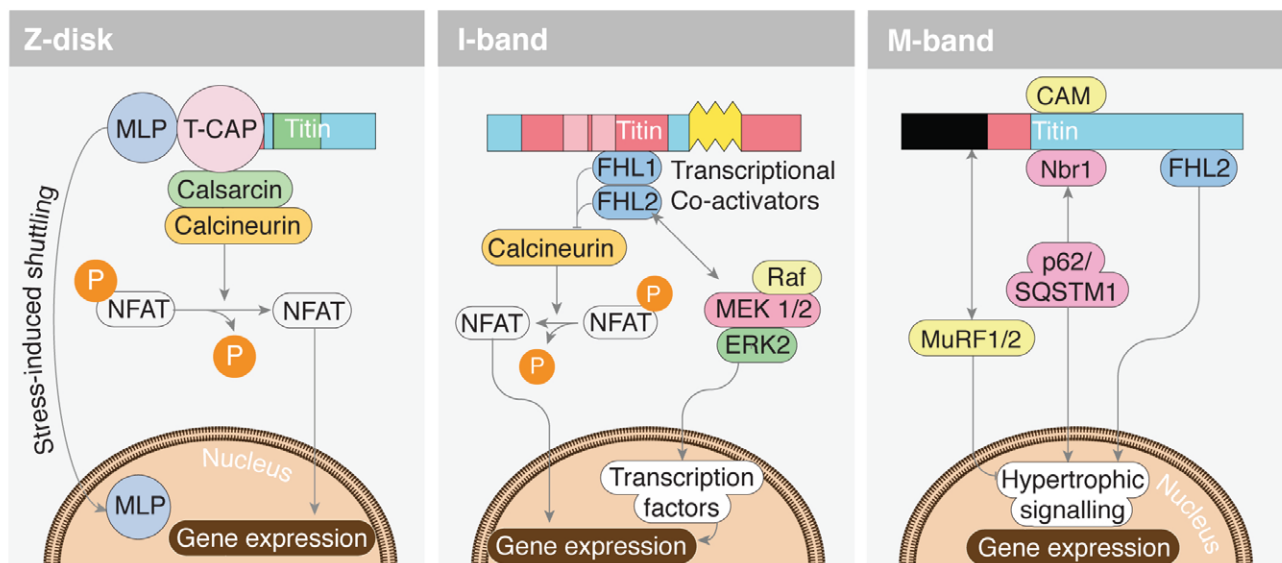
B. Domains within titin protein



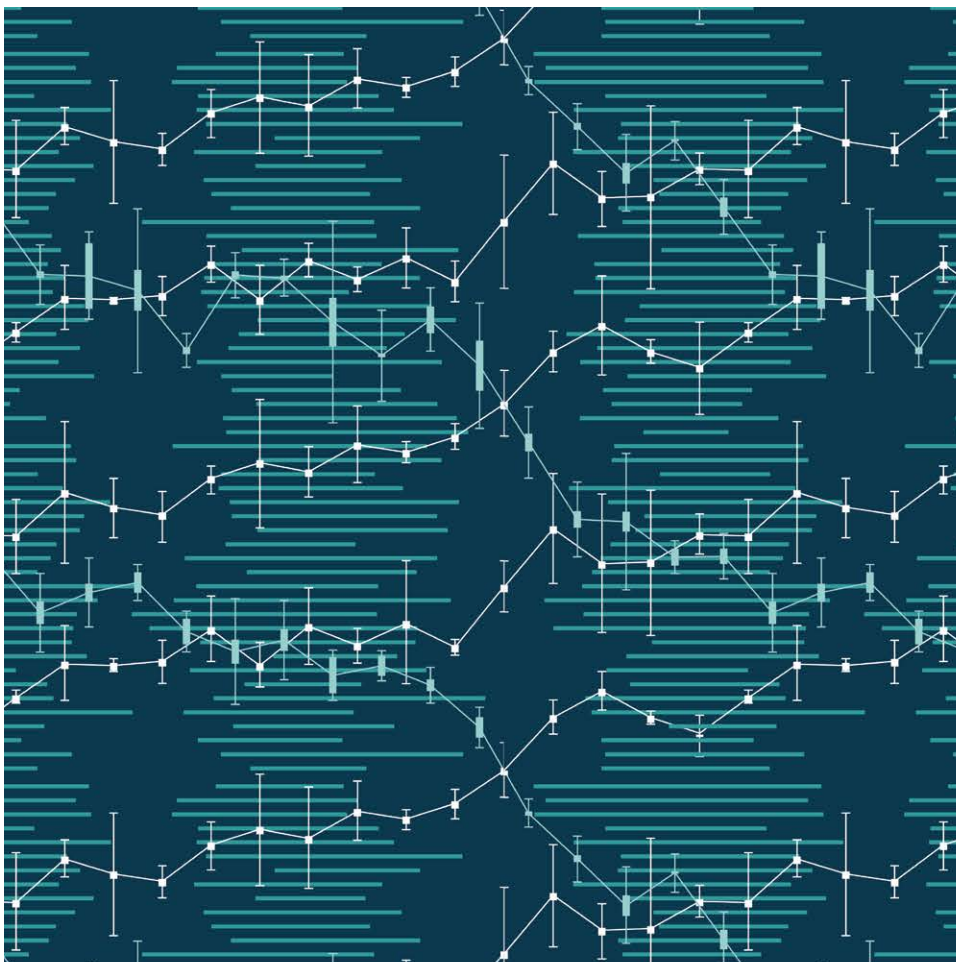
C. Ligands to Titin protein domains

Z-disk	I-band	A-band	M-band
Telethonin Small Ankyrin-1 γ-Filamin Nebulin α-Actinin Obscurin	Actin Calpain-1 MARPs (CARP, DARP, Ankrd2) Calpain-3	MyHC MyBP-C	MURFs (MURF1, MURF2) Calmcdulin Nbr1 FHL2 Myomesin Bin1 Calpain-3 Obscurin

D. Interactions between Titin protein domains



Graphics created for researchers at the Karolinska institute to accompany a review paper on the protein titin, found in the sarcomere.



Graphics created for the Faculty of Pharmaceutical Medicine for their 2020 conference.

You are electric

Spinal cord
Upper motor neuron
Lower motor neuron

Muscle fibre

Synapse
neurotransmitter
axon
muscle fibre

Action Potential
+40
0
-70

muscle contraction

THE FRANCIS CRICK INSTITUTE

Image adapted from **BACKYARD BRAINS**

Sir Bernard Katz, Ulf von Euler and Julius Axelrod (Nobel Prize 1970) Discovered 'quantal release' – the release of neurotransmitters in small packages

Sir Henry Hallett Dale & Otto Loewi (Nobel Prize 1936) Discovered neurotransmitters

Sir Charles Scott Sherrington & Edgar Douglas Adrian (Nobel Prize 1932) Discovered rate coding and that the action potential is all-or-none (binary signal)

Sir Alan Hodgkin & Sir Andrew Huxley (Nobel Prize, 1963) Showed the first recording of an action potential

Graphics created for the Francis Crick Institute For their inaugural Crick Late event. The graphics were created for specific research labs to sit behind activities they were running and explain some of the science underlying them.

How to make a mini-gut

take some intestine

cut it open

scrape off the villi

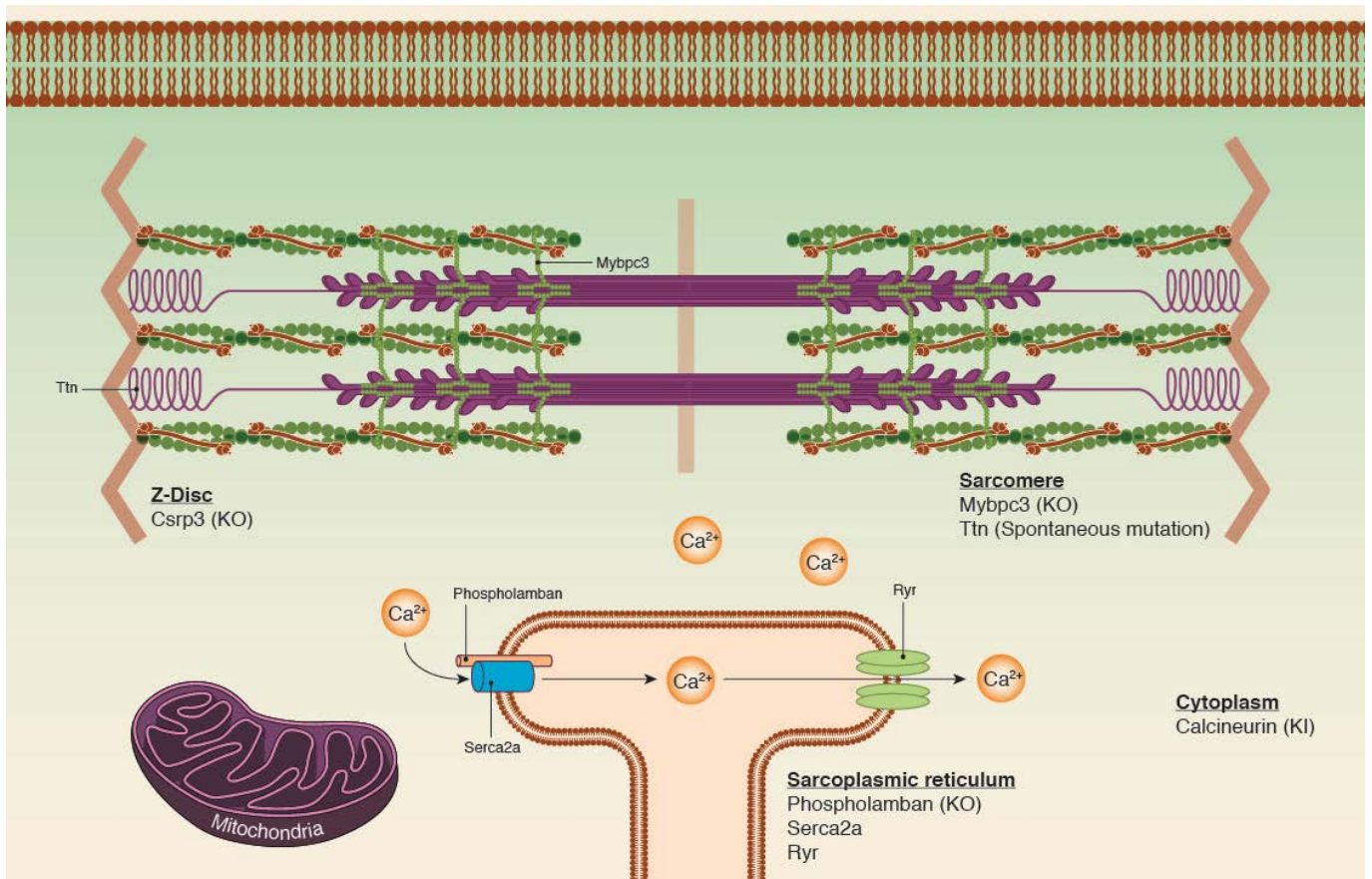
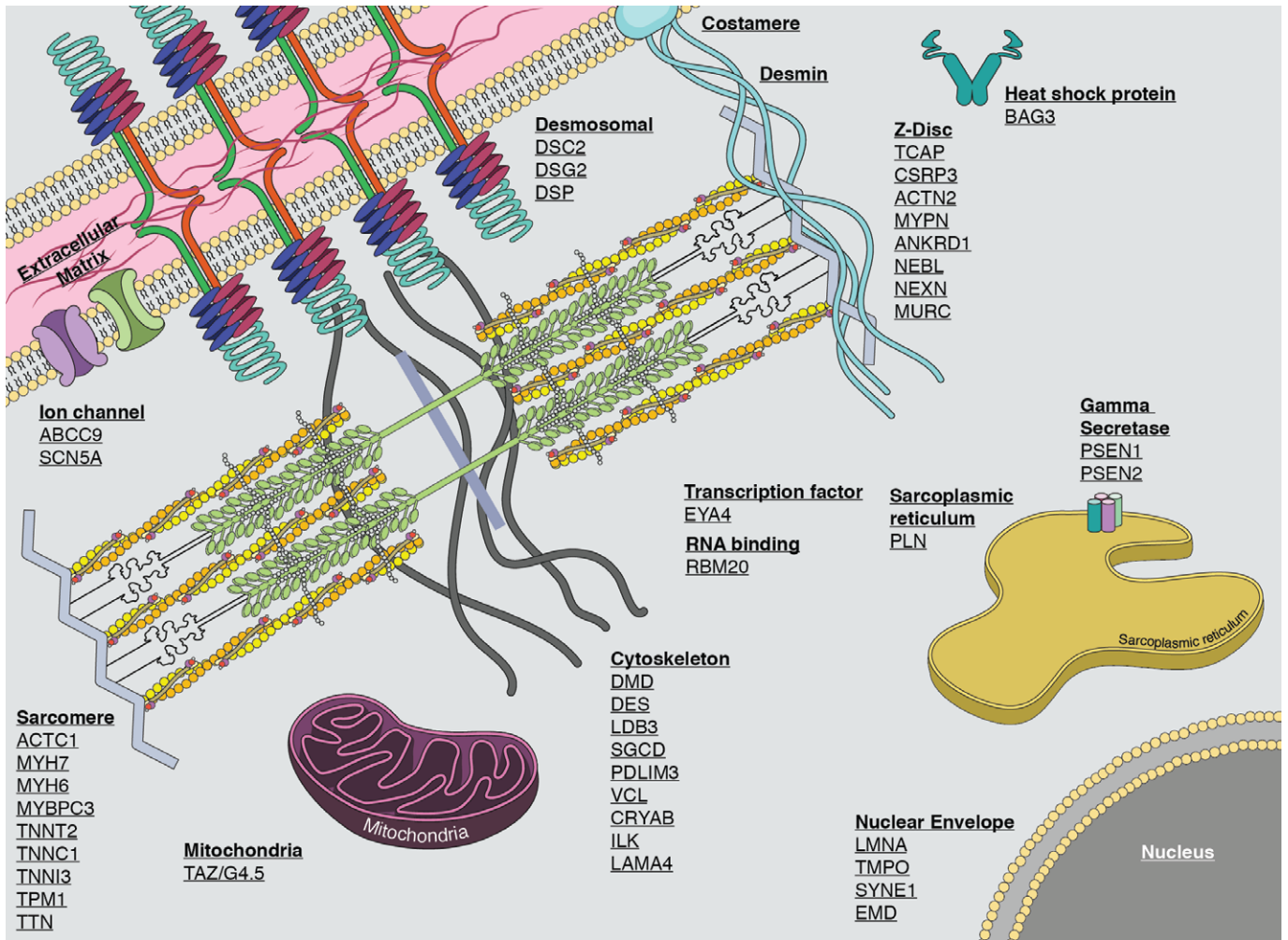
chop it up

wash the pieces

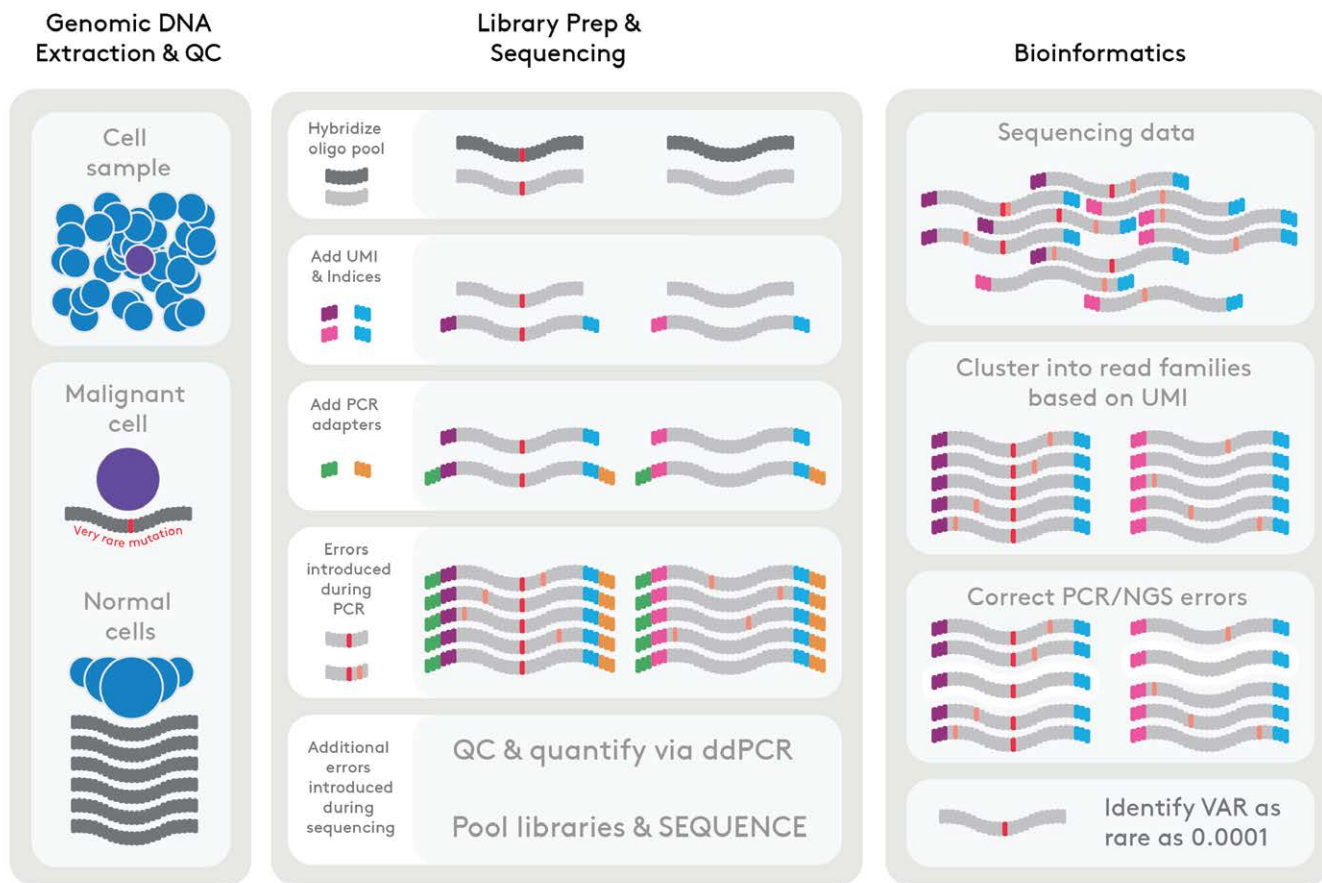
break them up

Filter the pieces

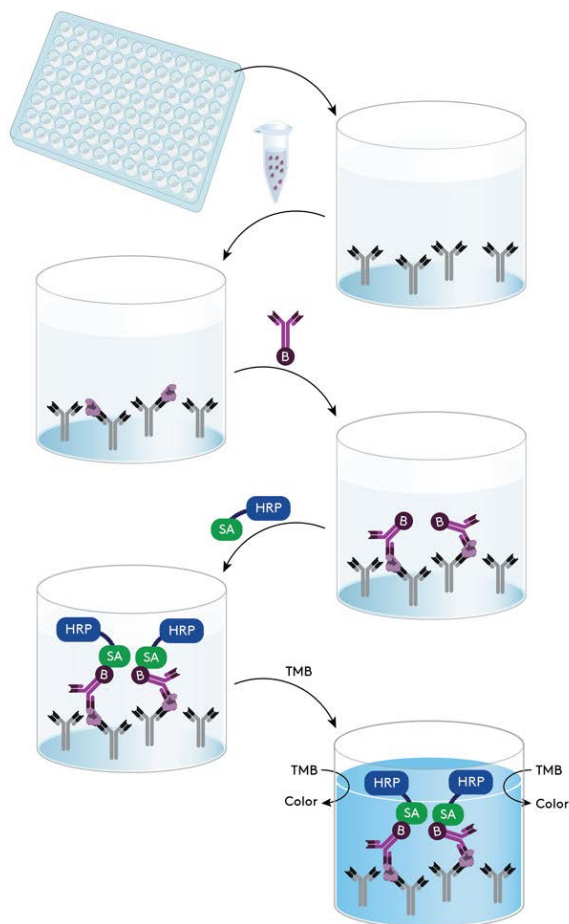
Plate



Graphics created for researchers at the Karolinska institute to accompany research papers in Cardiomyopathy.



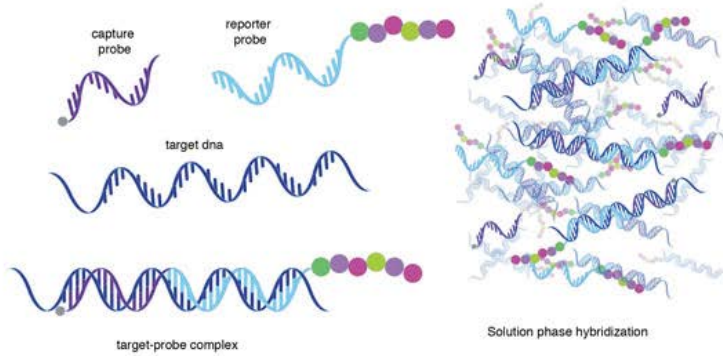
Graphic created for Canopy Biosciences to illustrate their Nanoseq technology. This technology allows for ultra-rare mutations to be detected in a sample of cells, and contains verification steps to ensure that any mutations flagged are genuine rather than the results of noisy sequencing.



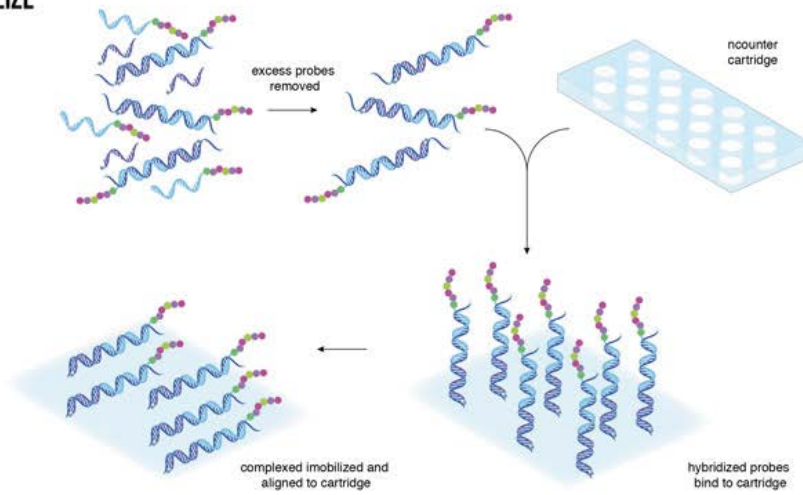
Graphic created for Canopy Biosciences to illustrate their host cell protein assay.

The technology tests samples of human proteins created by host cells for impurities. It does this by using antibodies that target proteins present in host cells that should not be present in final samples. Kits are available for various types of host cells.

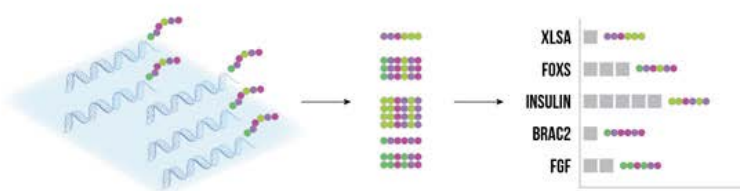
1. HYBRIDIZATION



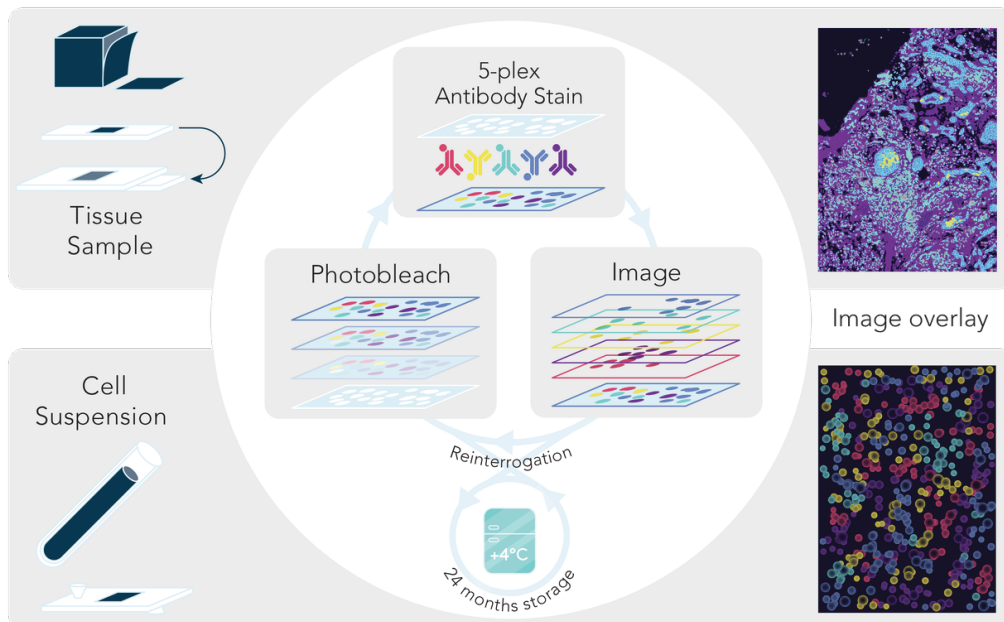
2. PURIFY AND IMMOBILIZE



3. COUNT



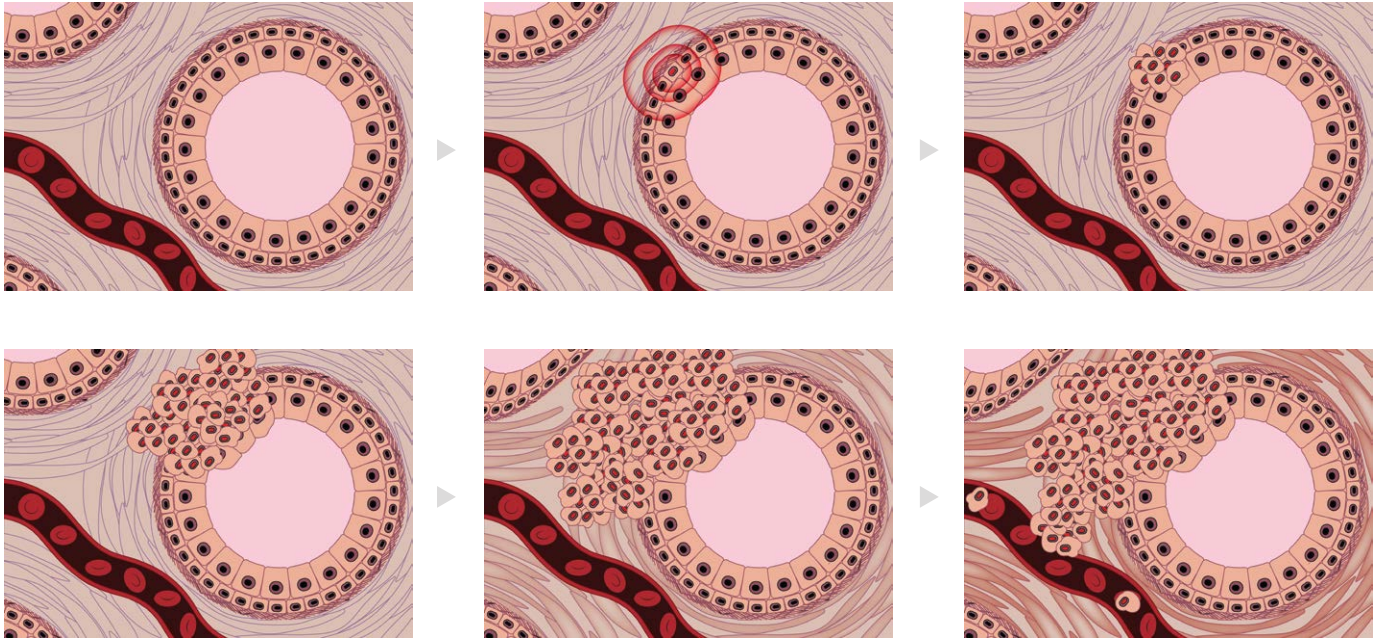
Graphic created for Canopy Biosciences to illustrate their Nanostrings DNA sequence quantification technology.



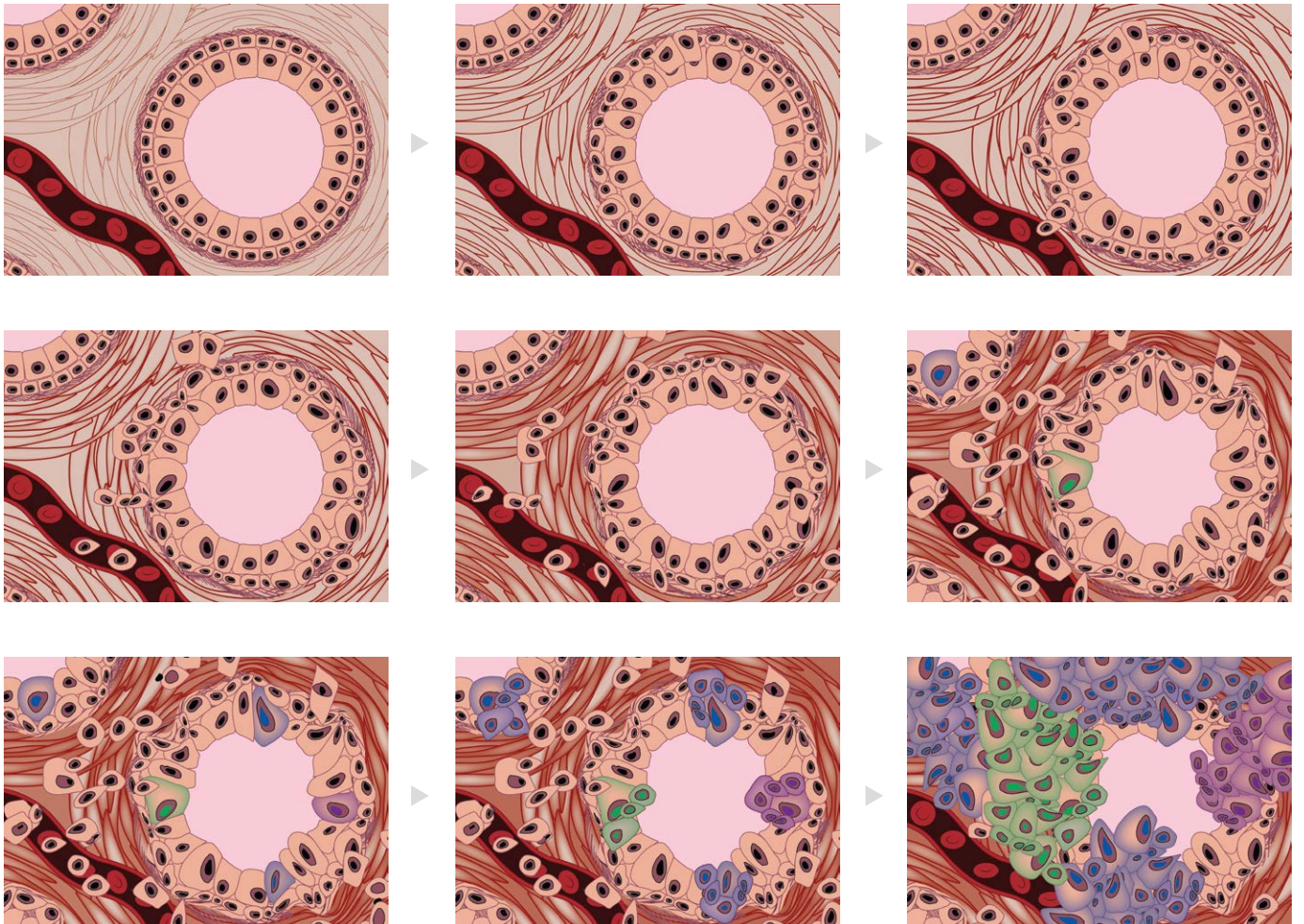
Graphic created for Canopy Biosciences to illustrate their Zellakrafwerk imaging technology.

The technology allows samples to be imaged multiple times with five different antibody fluorophores per image.

This allows cells to be finely sorted and counted according to staining pattern.



Traditional pathway of cancer development



Environmental pathway of cancer development

Series of slides created for Bernhard Strauss at the Gurdon Institute, Cambridge. The slides were designed to be shown in quick succession in powerpoint, and were also use to create GIF animations.