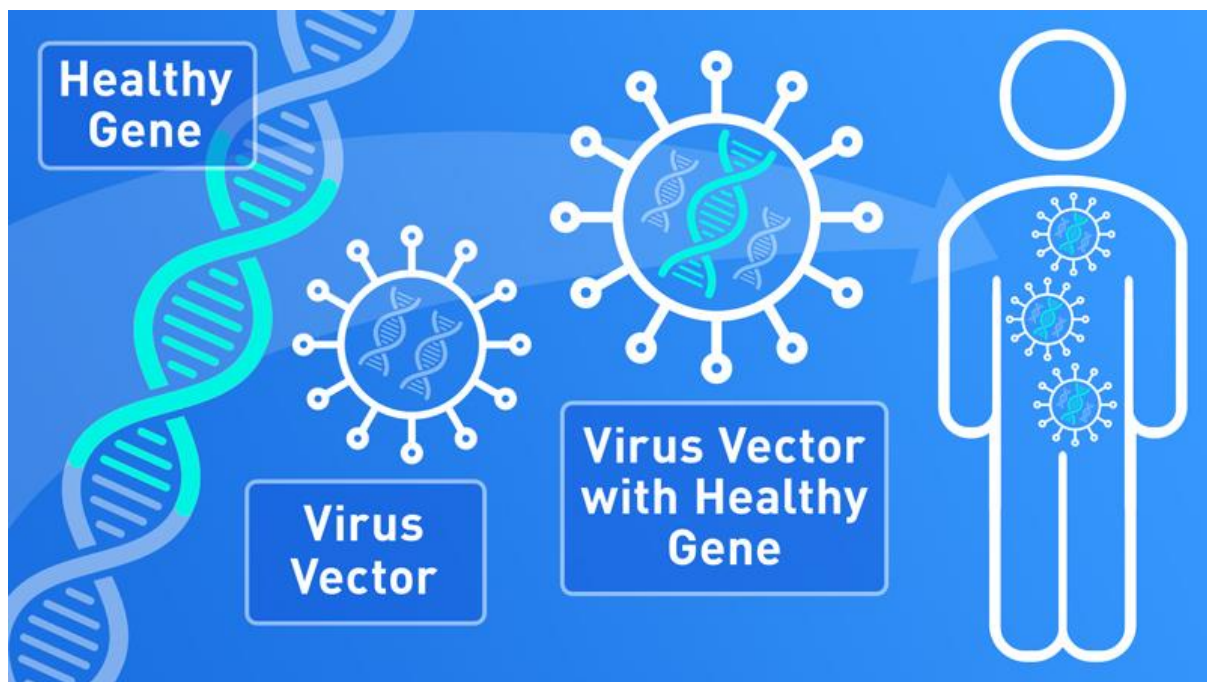


TASC Talk, 15 March 2018 – Gene Therapy

by Dr Simon Waddington – acting director of the Institute for Women’s Health at University College London

In March the Science Club had a very interesting which was presented by Dr Simon Waddington who is the joint acting director of the Institute for Women’s Health at University College London. He specialises in Gene Transfer Technology. His talk was, funnily enough, on “Gene Therapy”.

Dr Waddington’s talk introduced us to some of the latest techniques using genes to treat and prevent diseases. He began by explaining how a normal cell works and how DNA containing our Genes is used in the process of making proteins. He then went on to describe how mutations can occur and gave examples of some of the diseases that are caused by mutated proteins. How viruses hack our DNA and how these same viruses, or similar, can be used in the repair of diseased cells, was next on the agenda. He explained that, in the future, these techniques may allow doctors to treat various disorders by inserting a gene into patient’s cells instead of using drugs or surgery. He described how a mutated gene, which was causing a particular disease, could be replaced by a healthy copy, how it is possible to de-activate or ‘knock out’ a mutated gene and how a new gene can be introduced into the body to help fight a disease.



Dr Waddington gave examples of where some of these techniques were being used and what the success rate was. Lastly I think it fair to comment that most people are totally unaware of just how far the science of Gene Therapy has progressed in the last few years. In many cases science fiction, ‘Star Trek’ type medicine is at this moment being routinely used to cure patients who would not so long ago have suffered for the rest of their lives or in fact died.