Joseph Lagas, Doctoral Candidate in Molecular Biology (Washington University in St. Louis), generously agreed to provide a layman's summary of the following Alport-centric research paper published in August 2021

Modelling X-linked Alport Syndrome With Induced Pluripotent Stem Cell-Derived Podocytes
Lau, Ricky Wai Kiu et al.
***Kidney International Reports*, August 8, 2021.**

Alport syndrome is the result of mutations in a set of collagen genes that, on a molecular level, leads to the death of a unique type of kidney cell called podocytes. The first step to understanding any disease is accurately modelling it in another animal and modelling it in a dish. Thus far, Alport syndrome has only been accurately replicated in animals due to podocytes being difficult to grow for long periods of time in a dish. This group wished to amend this issue by utilizing what is known as induced pluripotent stem cells made from Alport syndrome patients. Induced pluripotent stem cells start as simple skin cells, are reprogrammed by researchers to become stem cells, and are then directed to become podocytes all in a dish. This new model was found to accurately model Alport syndrome and provides a method of endlessly generating podocytes for use in research. This is a major advancement within the community as it will allow researchers to directly study patient's cells and all that is needed is one simple skin sample.