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Patrizia Gentile
President, XLPDR International Association

Dear Patrizia:

I am thrilled to announce that we have discovered the cause of XLPDR – a change in a single DNA letter of a gene called POLA1. This gene functions in copying DNA in dividing cells. The XLPDR mutation reveals that POLA1 has a second job helping cells regulate inflammation.

The XLPDR mutation reduces the amount of POLA1 in cells. This reduction does not hinder cells' ability to divide, but it does make them act like they are infected by a virus. Understanding how cellular defect in turn causes recurrent lung infections, skin pigment changes, and other manifestations of XLPDR will require further research.

Every individual with XLPDR appears to have the exact same mutation. This makes it very easy to diagnose males with XLPDR and female carriers by genetic testing. The ease of diagnosis will likely lead to more XLPDR patients being identified. In fact, we already know about additional cases in China, Israel, Spain, and the United States.

The full report of the discovery will appear in the journal Nature Immunology, a very widely read scientific journal. Many clinicians and researchers will now become aware of XLPDR. It may still take many years to develop new treatments, but finding the XLPDR gene is a vital first step.

On behalf of the many colleagues who contributed to the research, I wish to thank all of the individuals with XLPDR and their families and the XLPDR International Association for making this discovery possible.

Sincerely yours,

Andrew R. Zinn, MD, PhD

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