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## The Genetic Basis of High-Altitude Pulmonary Hypertension

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### Message from the Guest Editor

Pulmonary arterial hypertension (PAH) is a rare disease characterized by an abnormal increase in the mean pressure of the pulmonary artery ( $\geq 25$  mm Hg at rest), leading to a progressive increase in pulmonary vascular resistance and, ultimately, at death due to right ventricular failure. More than 80% of inheritable PAH cases are caused by mutations in the BMPR2 gene. In contrast, high altitude pulmonary hypertension (HAPH) only develops acutely at high altitude, affecting individuals residing at altitudes equal to or greater than 2,500 meters. Numerous pathogenic variables may be involved in the development of the disease, but since HAPH affects only some people who live at high altitudes, genetic factors may play an important role in its pathogenesis. Unlike HAP, mutations have not yet been identified in individuals with HAPH, although recent studies have identified potential protective genetic variants in non-HAPH subjects. Besides genetic variants, other mechanisms could also play a role in HAPH susceptibility.

This Special Issue will focus on current knowledge and the latest developments regarding the genetic underpinnings of high altitude pulmonary hypertension.



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**Special** Issue



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## Message from the Editor-in-Chief

Genes are central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fastmoving field. There is a need for good quality, open access journals in this area, and the *Genes* team aims to provide expert manuscript handling, serious peer review, and rapid publication across the whole discipline of genetics. Starting in 2010, the journal is now well established and recognised.

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