

Possible solution for coronavirus diagnosis and treatment, viral integration into human genomes

Abstract

Coronavirus epidemics and economic lost in the past is huge. Pathogenic and therapeutic pathways should be promoted and cost-effective ways. A lot of different types of technology and knowledge should be studied. These Editorial addresses possible mechanisms and knowledge for human diagnosis and treatments via pathways of human genome exploration.

Keywords: Viral infection, coronavirus, genome-wide associate study, human genome, CD4 T cells, COVID-19

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Introduction

Coronavirus epidemics and economic lost in the past is huge.¹⁻³ Pathogenic and therapeutic pathways should be promoted and cost-effective ways.⁴⁻⁶ A lot of different types of technology and knowledge should be studied. These Editorial addresses possible mechanisms and knowledge for human diagnosis and treatments via pathways of human genome exploration.

Past hypothesis

The fatal viral pathway for many deadly viruses might result from virus-integration of cell genomes.⁷ However, this hypothesis must experience test of time. Studying the coronavirus-integration of cell genomes of different animal or human cells/tissues is a modern challenge. This work proposes the possible ways to evaluate them.

Methods

The genome-wide techniques for virus-penetration undergo dramatic progress. Drafting human genomes is earliest very difficult. The cost was reduced from 3 billion US dollar for one genome in 1990-2000 to next generation sequencing (NGS) in 2010 (approximately 4000 US dollar one genome).⁸⁻¹⁰ How, it is much cheaper by entering 2020. This dramatic technical perfection can be used to test many associated pathways. New methods should be included for coronavirus studies.

New evaluative systems

New evaluative systems can be attempted in possible pathways like;

- In vitro or in vivo evaluate coronavirus in different T or B lymphocytes
- Explore different coronavirus in epithelial cells of respiratory tracts or lungs
- Evaluate the therapeutic options for human genomic data and drug response comparisons
- Others

Conclusion

After genomic evaluation, the treatments for coronavirus infection can be more effective and popularized.¹¹⁻¹³

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