Importance of human DNA polymorphism studies

Singh Rajender
CSIR Central Drug Research Institute, Lucknow, India
E-mail: rajender_singh@cdri.res.in

Genetic investigations on humans are highly valuable and generate information directly relevant to human health. While single/familial case studies often identify the causative mutations, polymorphism studies on large sample size generate correlation data with high confidence. The two types of studies have their values and are published depending upon the novelty or importance of the findings. The most common type of studies that are conducted use moderate sample size, which may fail to attract a quick publication.

A large number of investigations carried across the globe cannot make it to publication due to the lack of novelty in the analysis, inadequate sample size to attract reviewers or the inability to undertake functional analysis to prove the causative relationship. Such data often round about journals for publication and may stale in the files enclosed in your computer, which in due course of time may become insignificant due to other reports. Therefore, timely publication of such data is crucial for bringing up the information in the scholarly domain.

While a plethora of data generated using animal models and cell lines may attract reviewers’ attention and make it to high impact journals, polymorphism data for humans fails to do so due to unclear immediate importance. Human DNA polymorphism data, irrespective of the journal they are published in have a higher translational value in comparison to data generated on cell lines or animal models. In turn, such data compliment the data generated by cutting-edge research undertaken on animal models and cell lines targeting various human disorders. Therefore, DNA polymorphism data deserves attention and timely publication.

Polymorphism data for various populations, irrespective of the sample size, offers the opportunity to pool data for meta-analysis. Some of the genetic risk factors are common across various populations, while others act in an ethnic-specific manner. Data generated on diverse populations gives an opportunity to compare and generate consensus about risk factors and identify genetic disparities that offer an explanation to the varying incidence of various diseases and response to therapeutic measures. Similarity and diversity in polymorphism data promise the path to personalized medicine.

Citation: Rajender S (2017). Importance of human DNA polymorphism studies. Polymorphism;1:1