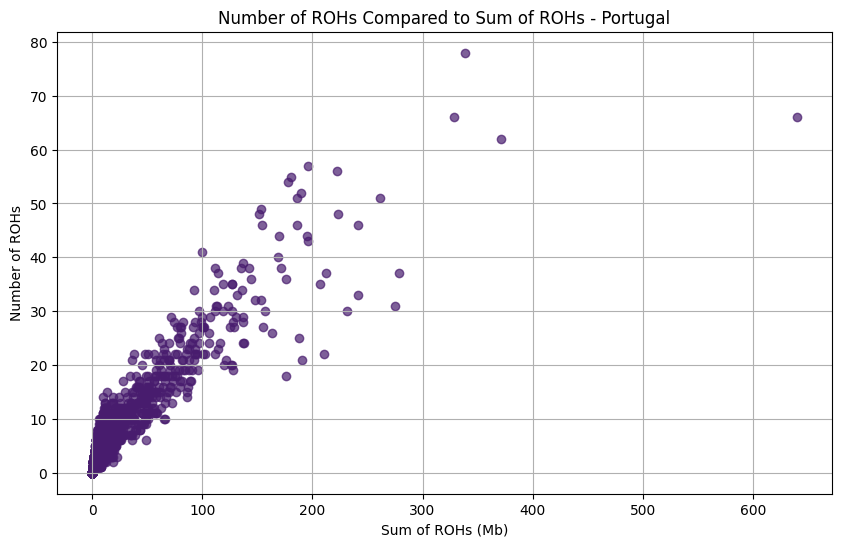
**Demographic origins of ROH in Portugal**

An article explored the demographic origins of ROH and the resulting patterns of the Number of ROHs versus Sum of ROHs [89]. To discern which patterns were prevalent in the Portuguese population, a graphical representation of Number of ROHs versus Sum of ROHs was constructed using a representative sample of 3,941 patients, as depicted in Figure S4-1. This visualization revealed distinct patterns of admixed and consanguineous behavior.



**Figure S4-1.** Plot of the Number of ROHs per sample and respective total sum of ROHs in Mb.

The admixed pattern is characterized by a reduced number of ROHs of small size, visually represented by numerous points clustered near the lower-left corner of the plot. Conversely, the consanguinity pattern is distinguished by a small number of longer ROHs, often resulting from cousin marriages, leading to an increase in the sum of ROHs. This pattern is visually discerned by a rightward shift in the plot [89].