Dear Editor,

Geographical modulations, especially in terms of climate change and population cause an increase in the infection rates of different mosquito-borne viral diseases including Zika, West Nile, Yellow Fever, Dengue, and Chikungunya [1]. The vector-borne viral infections are emerging global public health concern because of their easy and rapid spread across the continents. It has been reported that vector-borne diseases are responsible for more than 17% of all infectious diseases resulting in more than 700,000 deaths per year [2]. Until 60 years ago, Zika virus infections were not so remarkable as different outbreaks of disease occurred, including influenza, EBOLA, Severe Acute Respiratory Syndrome (SARS) and the Middle East Respiratory Syndrome (MERS). However, Zika virus (ZIKV) has recently become a global concern, due to its rapid pandemic potential [3]. Zika virus was first identified from a rhesus monkey in Zika Forest in Uganda in 1947 and following the first human isolation occurred in Uganda and Tanzania in 1952 [2]. The first Zika outbreak was reported from the Island of Yap, Federal Republic of Micronesia, in 2007 [4]. Since 2013 to 2015, ZIKV was becoming an emerging public health alert and has been reported from different countries including French Polynesia, some countries of Pacific and Brazil [5]. Since a large outbreak of Brazil in 2015, ZIKV spread across America, Africa and many regions of all over the world leading to the 2015-2016 ZIKV epidemic which has resulted in declaration of “Public Health Emergency of International Concern” in 2016 [2].

ZIKV is now regarded as a great as well a significant danger and threat to general public health around the world, here we report the first study on evaluation of the prevalence of ZIKV infection in people in Northern Cyprus. We retrospectively analyzed a total of 91 serum samples of Turkish Republic of Northern Cyprus citizens that were randomly collected from blood bank of Near East University, Nicosia in 2019. Zika virus Ig G antibody against ZIKV was investigated by using enzyme linked immunosorbent assay (ELISA) technique in clinical samples. The commercially available human anti-Zika virus Ig G ELISA (R&D Systems, USA) kit was performed on the samples collected according to the manufacturer’s protocol. The optical density (OD) of each sample was obtained by microplate reader (VERSA max microplate reader, USA) within 15 minutes after preparation of the plates at 450 nm with a correction wavelength at 540 nm. According to the human anti Zika Ig G ELISA results, limit of detection level is given as >0.200. The OD results obtained higher than 0.200 are accepted as positive against for Zika virus Ig G antibody, while the OD results below 0.100 and between 0.100-0.200 are assessed as negative and equivocal results respectively for ZIKV Ig G antibodies. The ethical approval of the study was taken from Health Sciences Institute Committee of Near East University with the decision no NEU/2019/73-914.
Our study is quite important, as it presents the first epidemiological data on Zika virus infections in Northern Cyprus. Although, we have no available date in the literature on Aedes mosquitoes in Northern part of the island, we still believe that there may be asymptomatic ZIKV infections in the North side due to the presence of mosquitoes in Southern part and possible transmission of the infection apart from vectors. Our study stated that there is no ZIKV infection in Northern Cyprus up to now. However, as human migration to Cyprus continues, further research involving larger study groups with different citizens, especially those from the ZIKV endemic regions, is needed to determine ZIKV infections in Northern Cyprus.

References

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**Conflict of interests:** No conflict of interests is declared.