



DEPARTMENT OF STATISTICS  
UNIVERSITY OF KARACHI  
KARACHI

**Mudassir Uddin**

M.Sc (Karachi); M.Phil (Karachi); M.Sc (Oxford); Ph.D (Aberdeen)

***Adjunct Professor & Former Chairman***

**Dated: 25.03.2022**

**Certificate of Biostatistics**

**To whom it may concern**

**Title of the study: Overexpression of GATA-4 and MEF2C in human-umbilical cord mesenchymal stem cells increase their differentiation into cardiac-like cells**

**Chief Investigator:** Kanwal Haneef

Dr. Panjwani Center for Molecular Medicine and Drug Research, International Center for Chemical and Biological Sciences, University of Karachi, Karachi-75270, Pakistan.

This letter is to confirm that I have read the ethics application prepared for the study, and that in my opinion the statistical methods and techniques mentioned are appropriate for the research.

Please contact me if you have any queries.

Sincerely,

**Prof. Dr Mudassir Uddin**  
**(Former *Chairman*)**

**cc to:**

- 1) file concern