

## Certificate of Biostatistics

13 April 2019

To whom it may concern

**Title of Study:** Is total laparoscopic pancreaticoduodenectomy superior to the open procedure? A meta-analysis

**Authors:** Hua Zhang, Xiang Lan, Bing Peng, Bo Li

This letter is to confirm that i have read the ethics application prepared for this 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,

*Ping Yuan*

Ping Yuan, PhD, Department of Epidemiology and Statistics, West China School of Public Health, Sichuan University, Chengdu 610041, Sichuan Province, China  
yuanping1117@126.com.