

## Certificate of Biostatistics

1st. Nov. 2019

To whom it may concern

Title of Paper: Pre-hepatectomy type IV collagen 7S predicts post-hepatectomy liver failure and recovery

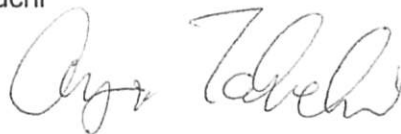
Authors: Masatsugu Ishii, Osamu Itano , Masahiro Shinoda, Minoru Kitago, Yuta Abe, Taizo Hibi, Hiroshi Yagi, Ayako Takeuchi, Hanako Tsujikawa, Tokiya Abe, ~~Michie Sakamoto~~, and Yuko Kitagawa

This letter is to confirm that I have consult and conduct biostatistical 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

Ayano Takeuchi



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