

## **Biostatistics Review Certificate**

11 December,2022

To whom it may concern,

Title of study: Early Warning Management of Pain in Patients with Hepatocellular Carcinoma after Transcatheter Arterial Chemoembolization: a retrospective study of integrated modeling based on machine learning algorithm

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This letter is to confirm that I have read the ethical 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.

Yours sincerely,

Yawei Fan