Dear Editors:

We would like to submit the enclosed manuscript entitled "MPDNet: Multimodal Pneumonia Detection Network Simulating Clinical Diagnosis Process", which we wish to be considered for publication in "IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING". No conflict of interest exists in the submission of this manuscript, and the manuscript is approved by all authors for publication. I would like to declare on behalf of my co-authors that the work described was original research that has not been published previously, and not under consideration for publication elsewhere, in whole or in part. All the authors listed have approved the manuscript that is enclosed.

In this work, we propose a novel Multimodal Pneumonia Detection Network, which combines CT visual features with patients' age, gender, and chief complaints to simulates clinical practice. MPDNet extracts visual features from three-channel images, semantic features from chief complaints, and fuses these features with priori information provided by age and gender. We analyze 1002 cases from the Radiology Department of The First Affiliated Hospital of Army Medical University. Experiments demonstrate that MPDNet achieves promising performance.

I hope this paper is suitable for "IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING". We deeply appreciate your consideration of our manuscript, and we look forward to receiving comments from the reviewers. If you have any queries, please don't hesitate to contact me at the address below.

Thank you and best regards.

Yours sincerely.

School of Big Data & Software Engineering, Chongqing University

Corresponding author: Xiaohong Zhang

E-mail: xhongz@cqu.edu.cn