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学位の種類	博士（公衆衛生学）		
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論文題名 Title of Dissertation	Comprehensive assessment of early reporting of emerging infectious diseases		
審査委員 Reviewers		所属・職位 Institution/Department/Title	氏名 Full Name
	主査 Chair	Graduate School of Public Health, Professor	Osamu Takahashi
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### 博士論文審査結果 Summary of Evaluation Results

This study aimed to assess the early reporting of the basic reproduction number (RO) of COVID-19 and the efficacy of the Global Health Security Index (GHSI) scores in predicting pandemic preparedness. The research was based on a systematic review and meta-analysis of articles published between December 1st, 2019 and September 30th, 2020, estimating the basic reproduction number. The study also conducted a subgroup analysis by country, continent, study duration, and method.

The conclusion of the study highlighted the weaknesses in the global understanding of infectious disease outbreaks and the need for further work to be done before we can adequately understand the dynamics of emerging infectious diseases. RO was shown to be a highly variable and unreliable measure of pandemic risk, subject to much uncertainty and vulnerable to the influence of modeling assumptions, data quality, and data timeliness. We cannot hope to prepare for the next pandemic until we have a clearer understanding of and consensus on how to use infectious disease models for the pandemic response.

The dissertation presentation was well-organized and clear, making it easy to follow and understand the content. The student effectively communicated the main points and results of the research and demonstrated a strong understanding of the subject matter. Systematic review and meta-analysis of the COVID-19 basic reproduction number (RO) and Global Health Security Index (GHSI) scores were rigorous, and these findings were clearly presented. Statistical methodologies to assess the association of GHSI scores with case rate, death rate, and immunization coverage provided depth to these analyses. The thesis was well-written and provided valuable insights into the preparedness for pandemics caused by new infections. The study provided valuable insights into the preparedness for pandemics caused by new infections and will be of interest to professionals in the public health and epidemiology fields.

Based on the foregoing, the dissertation is worthy of the award of the degree of Doctor of Public Health as stipulated in Article 6 of the Academic Degree Regulations of the University, and the applicant is recognized as possessing the advanced research abilities and abundant knowledge necessary to independently conduct research activities in public health, and is judged to have passed the dissertation examination and the final examination.