

Dissertation Evaluation Report

Report No.	Diploma Number: D-BIO1468	Applicant's Name	DONG THI THU TRANG
Evaluators	Print name		Signature or Seal
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Evaluation Report of Dissertation			
<p>1. Evaluation of the research purpose Investigation of sporadic Creutzfeldt-Jakob disease (sCJD) is performed by neuroimmunological histopathological analysis of brain tissues. Until now, it was considered difficult to perform neuroimmunological histopathological analysis of formalin-fixed and formic acid-treated brain tissue. To compensate for these difficulties, this study aimed to test whether real-time quaking-induced conversion (RT-QuIC) can detect prion-seeding activity from formalin-fixed and formic acid-treated brain samples. The goal of this study appears to be of great importance for future investigations of sCJD.</p> <p>2. Evaluation of the research methods Formalin-fixed and formic acid-treated samples of six different brain regions (frontal, temporal, parietal, occipital, thalamus, cerebellum) from patients with each subtype of sCJD were analyzed with RT-QuIC, which was used to measure prion-seeding activity. These experimental methods were well-designed and were judged to be ethically appropriate with sufficient consideration given to the safety of researchers,</p> <p>3. Evaluation of the analysis, interpretation, and discussion The measured prion-seeding activity was analyzed separately for each subtype of sCJD and each brain region. The prion-seeding activity was described to show a pattern consistent with neuropathological findings in most brain regions examined. The discussion showed that RT-QuIC could be used to study formalin-fixed and formic acid-treated brain tissues from sCJD patients, which was previously unsuitable for analysis. As mentioned above, it is considered that the analysis, interpretation, and discussion have been conducted appropriately.</p> <p>As stated above, the dissertation will greatly contribute to investigate Creutzfeldt-Jakob disease, and the evaluators uniformly agree that the dissertation is worthy of being approved for a Doctor of Philosophy in Medical Science.</p>			