

## **Abstract**

**In recent ten years, the outbreaks of cryptosporidiosis and cyclosporiasis have been occurred all over the world. As a consequence, *Cryptosporidium parvum* and *Cyclospora cayetnensis* have become important emerging pathogens. The two protozoan parasites cause acute diarrhea in immunocompetent individuals, and result in very severe disease in immunocompromised patients. Human beings are infected by having drinking water and foods contaminated with the two pathogens. It has thus been an important problem for human health. This project was designed to establish an effective method for diagnosing the parasite infections in order to monitor and control the emerging diseases. To improve the sensitivity and specificity of diagnosis, real-time polymerase chain reaction (real-time PCR) was utilized. Samples of river water and stool were tested. A few of them showed a positive response for *Cyclospora cayetnensis*. Further study is being performed to check the result. Real-time PCR can detect trace parasites present in the water, foods, and clinical samples. It permits a rapid and reliable diagnosis, and offers a better alternative for monitoring the emerging infectious diseases.**

**Keywords : *Cryptosporidium* ; *Cyclospora* ; Acid-fast stain ; Real-time PCR**