

3rd International Conference on Clinical Microbiology & Microbial Genomics

September 24-26, 2014 Valencia Convention Centre, Spain

Can mice legated ilea loop (MLIL) model replace rabbit ilea loop (RIL) model for bacterial diarrhea?

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Shigellosis is a diarrheal disease and still a big problem in developing country. The best prevention is by using a vaccine but so far there is no suitable vaccine. Molecule adhesion of bacteria can serve as a basic component of vaccine. Protein sub-unit pili which has MW 7.9 and 48.9 kDa in *S. dysenteriae* is used as a molecule adhesive. Rabbit Ileal Loop (RIL) model can evaluate bacterial diarrhea. With the same purpose Mice Legated Ilea Loop (MLIL) model can be used. The aim of the study is to clarify protein sub-unit pili (MW 7.9 and 48.9 kDa) in *S. dysenteriae* as a molecule adhesion, which can protect against diarrhea by MLIL model. The study was conducted by post control study design. The method of study is MLIL. The first group was without immunization as control and the second groups were immunized with protein sub-unit pili which has MW 7.9 kDa in *S. dysenteriae*. Third group was immunized with protein sub-unit pili which has MW 48.9 kDa in *S. dysenteriae*. The last group was immunized with protein sub-unit pili which have MW 7.9 and 48.9 kDa in *S. dysenteriae*. The choice of adjuvant's immunogenic was ISCOM. Data analisis use ANOVA and Tuckey test. The result shows preventing the moving solution from intestine to lumen was found in fourth group when compared with the control and was the best followed by second and third group. The second and third group was not different. The MLIL test can be used for studying bacterial diarrhea in animal.

Biography

Sumarno Reto Prawiro has completed his PhD from Airlangga University Surabaya Indonesia. He got Diploma Medical Microbiology at International Medical Research Kualalumpur Malaysia in 1983. In 1989 he worked as a research student at Institute of Tropical Diseases at Nagasaki University Japan. He is the Head of Magister Biomedicine Program at Medical Faculty of University Brawijaya Malang East Java Indonesia. He has published more than 20 papers in local and international journals.

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