

PHENOTYPIC SWITCHING

THE VIRULENCE FACTOR OF CANDIDA KRUSEI

Candida spp. inhabits various parts of the human system including the epidermis, vagina, gastro-intestinal tract, nails and oral cavity (Williams et al., 2011). The disease caused by *Candida* spp. has become a common disease in the late 19th and 20th century and its prevalence is still increasing worldwide as a result of multiple factors which can facilitate the conversion of its commensal level to the parasitic level (Samaranayake et al., 2009). According to Scardina et al. (2007), the risk factors that enhance the severity of a candidal infection can be found widely in patient with impaired salivary gland, drug abusers, immunocompromised, high carbohydrate diet, smoking habits and Cushing's syndrome. Candidal infection can occur in almost all human organs. However, it is the systemic infection that can be much more severe and may lead to mortality. According to Leroy et al. (2009), the mortality rate due to systemic infection of *Candida* spp. was up to 60% and still increasing. The treatment of candidal infection can be difficult and most of the diagnosis can only be achieved by autopsy. With the current incidence in Europe, there has been increasing reports in candidemia of 5-folds in the next ten years (Bassetti et al., 2009). In a most recent study, candidal infection was also associated with oral cancer, burning mouth syndrome, endodontic disease and taste disorder (Williams et al., 2011).

MOHD HAFIZ ARZMI is a very passionate muslim Microbiologist and immunologist. He is the microbiology and immunology expert that based at Kulliyah of Dentistry, IIUM. He is one of the Malaysian Microbiologist and Immunologist who is the expert in the field of polymicrobial interactions, biofilms and oral carcinogenesis.

Since 2008, he has been working on *Candida* species which has been reported to have a role in the development of carcinogenesis at the Faculty of Dentistry, University of Malaya under the supervision of Assoc. Prof. Dr Wan Himratul Aznita and Assoc. Prof. Dr. Fathilah. During his MSc., he has discovered the important role of phenotypic switching in the pathogenicity of *Candida* spp. His study has been presented at both local and international conferences including International Association Dental Research (IADR) conference. Mohd Hafiz Arzmi is an Assistant Professor at the Kulliyah of Dentistry of International Islamic University Malaysia. He completed his Master of Dental Science from Universiti Malaya (UM) and Ph.D in Medicine, Dentistry & Health Sciences from University of Melbourne.

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