

رتبه دوم خارجی
Foreign Second Winner

Project Title:
A Novel Recombinant Antigen-Based
Rapid Dipstick Test for the Specific
and Sensitive Detection of *Brugia*
Malayi Infection

Researcher:
Rahmah Noordin (Ph.D.)

Country:
Malaysia

University:
University Sains Malaysia



عنوان طرح:
آنتی ژن ترکیبی جدید

محقق:
دکتر رحمہ نوردین

کشور:
مالزی

دانشگاه:
دانشگاه سنس مالزی

Abstract:

Brugian filariasis affects 13 million people in underdeveloped areas of Southeast Asia, India and South China. Currently there is an urgent need for a good test to detect Brugia malayi infection for diagnosis of patients and for control/elimination programmes. To solve this problem, immunological and molecular biological studies were conducted using techniques such as lambda cDNA library construction & screening, cloning, PCR, recombinant protein expression, affinity purification, Western blotting, ELISA and immunochromatography rapid test technology. The final product is a rapid dipstick test (Brugia Rapid) which employed a novel recombinant antigen (patent pending) that is highly specific and sensitive for detection of B. malayi infection. The advantages over the traditional test include high sensitivity, ease of use, no requirement for night blood sampling, and as a good follow-up test to ensure complete treatment. It is also superior to PCR-based assays with regards to ease of performance, cost, field-applicability and detection of microfilaraemic infections. Therefore Brugia Rapid dipstick test will be very useful as a routine diagnostic test and in assisting the global effort to eliminate brugia filariasis as a public health problem.