

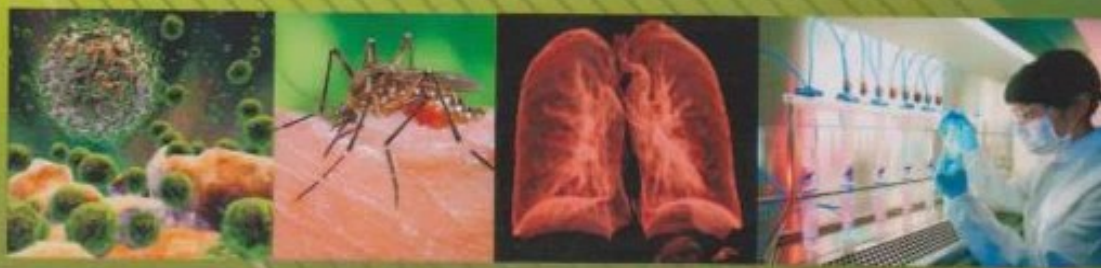


ICMCA **_ATM**

2nd INTERNATIONAL CONFERENCE AND WORKSHOP FROM MOLECULAR TO CLINICAL ASPECTS
OF HIV/AIDS, TUBERCULOSIS AND MALARIA

*“The Threat of New and Re-emerging Disease
in Immunocompromised persons”*

23 - 25 June 2011, Malang, Indonesia





ICMCA ATM

2nd INTERNATIONAL CONFERENCE AND WORKSHOP
FROM MOLECULAR TO CLINICAL ASPECTS
OF HIV/AIDS, TUBERCULOSIS AND MALARIA

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**Welcome Speech from Rector of Brawijaya University
at The 2nd International Congress and Workshop from Molecular
to Clinical Aspects of HIV/AIDS Tuberculosis and Malaria (the 2nd ICMCA_ATM)
Malang, 23 - 25 June 2011**

**Professor Dr. Ir. Yogi Sugito
Rector, Brawijaya University
Malang, Indonesia**

Assalamu'alaykumwaRahmatullohiwaBarakatuh

Excellencies, Distinguished guests, respected colleagues, ladies and gentlemen.

I am delighted to welcome all of you here today. The Brawijaya University and the Faculty of Medicine are indeed honoured and privileged to host this important Conference focusing on Molecular and Clinical Aspects of the big three infection diseases: HIV-AIDS, Tuberculosis and Malaria. We sincerely value and appreciate the presence and support of all Indonesian and international delegates who have travelled from afar to deliberate on the perspectives and challenges of the big three infectious diseases. In this occasion we will share and discuss science with representatives academia from renowned universities and research institutes as well as the practice of patient care from professionals clinicians and public health organizations, local and international. The conclusions elaborated during the coming two days shall constitute a major input to overcome problems in HIV-AIDS, Tuberculosis and Malaria. Generating knowledge and applying its results to fight such infectious diseases is a central pillar to improve health care. I strongly believe that we can achieve our aims, be it in education, research and development in any area, by collaborating in tackling the current problems and challenges ahead.

Excellencies Distinguished guests, ladies and gentlemen.

Today's conference is a very meaningful event for us in Brawijaya University. We at Brawijaya University to pursue a world-class research university and now boldly improves our system to become a leader in higher education and Research and Development. In addition to education of talented individuals and the academic research, the two goals unique to universities, Brawijaya University has been faithful also to its role as a transmitter of knowledge that extends the fruits of its creative research and development to all sectors of society. Thus, our Conference today is also an expression of our vision to leap further as an innovative pathfinder and to contribute directly to science and society. Furthermore, I am confident, today's event will serve as a catalyst for developing and strengthening international cooperation on the transfer of knowledge among us. Through collaboration, Brawijaya University and, all of us would be able to contribute even more to the promotion of science and its relevant applications both at our home-country and worldwide. Finally I perceive this Conference would be held bi-annually here and HIV-AIDS, Tuberculosis and Malaria serve as research focuses in the Faculty of Medicine, Brawijaya University.

Excellencies, distinguished guests, ladies and gentlemen

Once again, I am most grateful for your participation and support. And wish you all, a fruitful meeting.

Thank you.

WaSalamu'alaykumwaRahmatullohiwaBarakatuh

**Welcome Speech from Dean of Faculty of Medicine Brawijaya University
at The 2nd International Congress and Workshop from Molecular
to Clinical Aspects of HIV/AIDS Tuberculosis and Malaria (the 2nd ICMCA_ATM)
Malang, 23 - 25 June 2011**

**Dr. dr. Karyono Mintaroem SpPA(K)
Dean, Faculty of Medicine Brawijaya University
Malang, Indonesia**

Assalamu'alaykumwaRahmatullohiwaBarakatuh

Ladies and gentlemen.

First announcement in 2009, this two-year conference aims to provide a comprehensive meeting to share knowledge and enhanced greater collaboration of the Big Three of Infectious Diseases HIV/AIDS, Tuberculosis and Malaria. As infectious diseases is one of our research focuses in the Faculty of Medicine-Brawijaya University, we have a strong commitment to develop molecular, epidemiological and clinical research to find a new solution in preventing the enhancement of infectious diseases especially in new emerging and re-emerging diseases. I have no doubt that this year's conference will further strengthen in

This conference is remarked by the active participant of scientist, clinicians, lecturers, students, also government officials and public health practitioners from almost all area from Indonesia with some experts from several countries. I believe all the participants has presented their excellent work, interacted each other to exchange experiences and did brainstorming to result a new idea in preventing and treating emerging infectious disease. I also believe many collaboration has been achieved by this conference.

Lastly, I would like to thank to the organizing committee who have worked very hard to make this conference and workshop a success. For all the participants I hope your visit and stay here in Malang, Indonesia is memorable and your deliberations are purposeful.
Thank you.

WaSalamu'alaykumwaRahmatullohiwaBarakatuh

**Welcome Speech from Chairman of the Committee
at The 2nd International Congress and Workshop from Molecular
to Clinical Aspects of HIV/AIDS Tuberculosis and Malaria (the 2nd ICMCA_ATM)
Malang, 23 - 25 June 2011**

Prof Dr dr Teguh Wahyu Sardjono, DTMH, MSc, SpParK
Chairman of the Committee, the 2nd ICMCA_ATM

Bismillahirrohmanirrohim

Assalaamu 'alaykum wa Rahmatullaahi wa Barakatuh

Honourable Guests, Professors, Speakers , Colleagues, ladies and gentlemen,

It is my great honour and privilege, on behalf of the committee of the 2nd International Congress and Workshop from Molecular to Clinical Aspects of HIV/AIDS Tuberculosis and Malaria (the 2nd ICMCA_ATM) to welcome all of you, from abroad and from all parts of Indonesia, to come and participate in this event.

The ATM (HIV/AIDS, Tuberculosis and Malaria) which are also known as the Big Three of Infectious Diseases are still major health problems in the world, especially in tropical and developing countries, including Indonesia. UNAIDS has mentioned that HIV/AIDS in Indonesia is one of Asia's fastest growing epidemics, especially within the last 15 years. In 2010, it was expected that five million Indonesians would contract HIV/AIDS. Tuberculosis is also known as a major health problem, not only due to its high prevalence, but also due to the increasing number of the multidrug-resistant TB (MDR-TB) cases. Indonesia is notorious for having the third highest TB burden in the world. In this country, MDR-TB is estimated to account for 2.2% of total national TB cases. The number means that there are 12.209 MDR-TB cases emerging every year. Malaria, as one of the re-emerging diseases, according to the World Malaria Report, is prevalent in 108 countries of the tropical and semitropical world that are home to more than half of the world's population. The re-emergence of malaria, the increase of anti malarial drug resistance, finding of new-emerging malaria cases in human which is caused by Plasmodium knowlesi in some regions, as well as the increase of incidence of other vector borne diseases like Dengue Hemorrhagic Fever, Japanese B Encephalitis and Chikungunya as the impact of the climate change, had made the problem become more complicated.

On the other hand, there is a group of diseases which is called the Neglected Tropical Diseases (NTDs). Although they are generally non-fatal, they can cause enormous chronic disability while enhancing one's susceptibility to other diseases. Co-infection with one or more NTD(s), including some opportunistic parasites like Cryptosporidium, Isospora and some kinds of fungi, will affect the risk and worsen the host susceptibility, prognosis and outcome of treatment of ATM.

The ICMCA_ATM was conducted since 2009. We dream that the event can be routinely conducted every two years as an icon of the Faculty of Medicine, University of Brawijaya. Currently, the 2nd ICMCA_ATM is joined with the 3rd National Congress of The Indonesian Society for Medical Specialist in Clinical Parasitology (KONAS III PDS PARKI) and the 12th National Congress of The Indonesian Parasitic Disease Control Association (KONAS P4I - XII). By joining those three events, many aspects of the ATM and NTD(s) will be covered. We estimate that approximately 150 participants are attending the wet and dry workshops, while 200 doctors and scientists will participate the two-days conference. Apart from 11 scientific topics, which will be given by experts from Germany, the Netherlands, Malaysia, Singapore, Indonesia and Australia in the plenary lecture, 48 topics will be presented by scientists from many parts of Indonesia in the free paper and poster presentation. Finally, I would like to express great gratitude and congratulate to the Faculty of Medicine, Brawijaya University, pharmaceutical and laboratory equipment, molecular and biotech companies and all opponents for support and collaboration for making this Conference possible. I hope that this event will foster better scientific communication and collaboration between all of the participants. Once again, I would like to bid you a very warm welcome, and finally, have a pleasant stay.

Wassalamu' alaykum wa Rahmatullohi wa Barakatuh

ABSTRACT NUMBER : MO6

Detection Deoxyribonucleic Acid Malaria in Urine Samples by Polymerase Chain Reaction Technique

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Malaria is an infectious disease causing public health problems in many tropical and subtropical countries. In Indonesia there are many endemic areas with high malarial prevalence. The diagnosis of malaria can be done with clinical examination and parasite finding at microscopic examination of blood sample. Although microscopic examination is still used as a gold standard in malaria diagnosis, this technique is less sensitive in detecting low parasitemia. In addition, most people are reluctant in giving their blood samples. Therefore, alternative samples and methods in detecting malaria cases need to be developed for malaria elimination program in the future. A total of 58 individuals living in malaria endemic areas, Bitung City, North Sulawesi, participated in urine collection. Blood sample of each participant was also taken for microscopic examination, thin and thick blood smear. The presence of malarial parasites, *Plasmodium falciparum* and *Plasmodium vivax*, in the urine was detected by using PCR technique with ssu rRNA as the target. Forty two out of 58 samples were positive. Eighteen blood samples were positive for *P. falciparum* which matched with PCR result in the urine. The statistical analysis showed that the sensitivity was 94% sensitivity and the specificity was 94% as well. The positive samples for *P. vivax* is slightly high, 25 samples with 96% sensitivity and 94% specificity. This study showed that PCR method is able to detect the presence of malarial parasite in the urine with high sensitivity and specificity, which are above 90 %.

Keywords : DNA detection, *Plasmodium falciparum*, *Plasmodium vivax*, PCR, Urine