

第22回エコヘルス研究会

22th RIHN Ecohealth Seminar

主催:地球研「熱帯アジアの環境変化と感染症」プロジェクト
(通称:エコヘルス・プロジェクト 代表:門司和彦)

<http://www.chikyu.ac.jp/ecohealth/>

日時:2009年3月27日(金) 10:00~12:00

会場:総合地球環境学研究所・研究室11

10:00~11:00

1) "Positive diversifying selection on *Plasmodium falciparum* SURFIN4.1"

Dr. Phonphadit Xangsayalath (NIOPH, Lao PDR/Nagasaki University Institute of Tropical Medicine)

11:00~12:40

2) "Health Insurance in Lao PDR"

Dr.Laddavanh Sengdara (MOH, Lao PDR)

- ・研究会終了後、地球研周辺にて懇親会を予定しております。
- ・どなたでもご参加いただけます。
- ・研究棟内(要ID)でおこないますので、所外のかたは事前に連絡いただくか、職員用入口にて手続き願います。

交通案内:

・車・タクシーでお越しの方は
国際会館より府道40号線で二軒茶屋方面へ。

・JR京都駅より

地下鉄烏丸線で「国際会館」下車。
国際会館駅3番又は4-1番出口より国際会館駅前
バス乗り場「2」から京都バス40系統(京都産業大
学前ゆき)に乗車(所要6分)し、「地球研」下車。

・京阪沿線より

出町柳で叡山電鉄鞍馬線に乗換え、「二軒茶屋」
下車。徒歩10分。



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abstracts

1) Dr. Phonphadit Xangsayalath, "Positive diversifying selection on Plasmodium falciparum SURFIN4.1"

Plasmodium falciparum SURFIN4.1 is a type I transmembrane protein localized on the surface of the merozoite. Analysis of the DNA sequence of the gene that encodes this protein in three laboratory-line parasites suggested that the N-terminal extracellular region was more polymorphic than the intracellular region. In order to investigate the level of polymorphism of the extracellular region of SURFIN4.1, and to assess whether this region is under positive selection, I evaluated the 2304 bp nucleotide (nt) sequence from 20 P. falciparum isolates collected in Thailand in 1988 and 1989. A total of 358 polymorphic sites were observed with an average nucleotide diversity of 0.064. Based on the predicted protein structure and the level of polymorphism, I divided the extracellular region into three parts; a Cysteine-rich domain (nt 1-558), variable region 1 (nt 559-1512) and variable region 2 (nt 1513-2310). The majority of polymorphic sites were clustered in variable region 2. A significant excess of nonsynonymous substitutions over synonymous substitutions was detected in variable regions 1 and 2, suggesting that positive selection is acting on the variable region. Tajima's D test and Fu & Li's D* and F* tests all detected the signature of positive selection on variable regions 1 and 2 at the 98% confidence level. Thus, the variable regions 1 and 2 of SURFIN4.1 appear to have evolved under positive diversifying selection, possibly mediated by host immune pressure.

2) Dr. Laddavanh Sengdara, "Health Insurance in Lao PDR"

To be sent soon.