Study Protocol No.: ST3073-ST3074 DM040010 Phase 111 in Asia (Revised Final Protocol v3.00 incorporating Amendments N° 1,2,3,4 &5 dated 27th Dec 2006)

σ sigma-tau

Industrie Farmaceutiche Riunite S.p.A.

Sede Legale: Roma, V.le Shakespeare 47
Cap. Sociale: 30.500.000.000 inter. versato

Cod. Fiscale: P. IVA no: 00410650584 00885531004

Canc. Comm. Trib. di Roma nº 1468/57 Iscriz. Sch. Naz. Ric. Cod. G0120YKG

c.c.i.a.a.: Roma n° 205785

MEDICAL DEPARTMENT - Research & Development Department

Artekin

Study Protocol No.: ST3073-ST3074 DM040010

(Revised Final Protocol v3.00 incorporating Amendments No 1,2, 3, 4 &5 dated 27th Dec 2006)

A Phase III, randomized, non-inferiority trial, to assess the efficacy and safety of Dihydroartemisinin+Piperaquine (DHA+PPQ, Artekin) in comparison with Artesunate+Mefloquine (AS+MQ) in patients affected by acute, uncomplicated Plasmodium falciparum malaria.

- MULTICENTRE STUDY IN ASIA-

Co-ordinating Investigator Professor Nicholas J White

Wellcome Trust Southeast Asian Tropical Medicine Research Units Faculty of Tropical Medicine Mahidol University 420/6 Rajvithi Rd, Phayathai 10400 Bangkok, THAILAND

1

Study Protocol No.: ST3073-ST3074 DM040010 Phase lll in Asia (Revised Final Protocol v3.00 incorporating Amendments N° 1,2,3,4 &5 dated 27th Dec 2006)

Approval	Signature	Date	
Prof./Dr	Investigator	//2006	
Prof. Nick White	Co-ordinating investigator	//2006	SP2/24 Seorghed
Dr. Marco Corsi _	Sigma-Tau - Medical Department Director	//2006	
Dr. Antonella Bacchieri _	Sigma-Tau - Medical Department Head of Biostatistics and Data Management	//2006	

Signing this document I declare to have read the paragraph relevant to study acknowledgement and confidentiality and authorise Sigma-Tau i.f.r. S.p.A., Pomezia (Rome) - Italy to record my data on a computerised archive containing all the data pertinent to the study.

Confidential

4

Study Protocol No.: ST3073-ST3074 DM040010 Phase 111 in Asia (Revised Final Protocol v3.00 incorporating Amendments N° 1,2,3,4 &5 dated 27th Dec 2006)

Study Protocol No.: ST3073-ST3074 DM040010 Phase Ill in Asia (Revised Final Protocol v3.00 incorporating Amendments N° 1,2,3,4 &5 dated 27th Dec 2006)

Approval	Signature	Date
Prof./Dr	Investigator	//2006
Prof. Nick White	Co-ordinating Investigator	//2006
Dr. Marco Corsi	Sigma-Tayl - Medical Department Director	<u>277(2</u> /2006
Dr. Antonella Bacchieri	A Southo Becchic Sigma-Tau - Medical Department Head of Biostatistics and Data Management	<u>27 / 12 /</u> 2006

Signing this document I declare to have read the paragraph relevant to study acknowledgement and confidentiality and authorise Sigma-Tau i.f.r. S.p.A., Pomezia (Rome) - Italy to record my data on a computerised archive containing all the data pertinent to the study.

ST3073-ST3074 DM040010 Phase III in Asia incorporating Amendments N° 1, 2, 3, B, 4 & 5 dated 27 December 2006)

Amendment No:

5

Protocol No:

ST3073-ST3074 DM040010

Title:

A Phase III, randomized, non-inferiority trial, to assess the efficacy and safety of comparison with Artekin) in Dihydroartemisinin+Piperaquine (DHA+PPQ, Artesunate+Mefloquine (AS+MQ) in patients affected by acute, uncomplicated Plasmodium falciparum malaria.

-MULTICENTRE STUDY IN ASIA -

Final protocol dated:

10 January 2005

Revised protocol incorporating

Amendment No 1 & 2 dated:

14 April 2005

Revised protocol incorporating

Amendment No 1, 2 & 3 dated:

24 November 2005

Amendment N° 3B (Indian Sites only) dated 21 April 2006

13 September 2006

Amendment No 4 (Indian Sites only) dated

Amendment No 5 dated

27 December 2006

PURPOSE:

The main goal of this amendment is that the number of patients to be recruited in India to be increased to 150 which would exceed the total sample size of 1050. This is to ensure the minimum representative sample size from the country.

ST3073-ST3074 DM040010 Phase III in Asia incorporating Amendments No 1, 2, 3, B, 4 & 5 dated 27 December 2006)

MODIFICATION:

Page 5 - Synopsis

Reason for modification: In order to ensure that there is sufficient representative sample size from India, the total number of patients to be recruited by the Indian sites is 150.

Therefore:

Number of Subjects	1050 patients (700 DHA+PPQ; 350 AS+MQ).

is modified as follows:

Number of Subjects	1150 patients (767 DHA+PPQ; 383 AS+MQ).

Page 17 - Section 3.1 Study Design

Reason for modification: In order to ensure that there is sufficient representative sample size from India, the total number of patients to be recruited by the Indian sites is 150.

Therefore:

This is a phase III, randomized, open label, two arms study.

Investigational centres will be involved in the enrolment of 1050 patients (700 DHA+PPO; 350 AS+MQ).

is modified as follows:

This is a phase III, randomized, open label, two arms study.

Investigational centres will be involved in the enrolment of 1150 patients (767DHA+PPQ; 383 AS+MQ).

Page 19 - Section 3.4 Sample Size

Reason for modification: In order to ensure that there is sufficient representative sample size from India, the total number of patients to be recruited by the Indian sites is 150.

Therefore:

With these assumptions, the sample size of 1050 patients (700 in the Artekin group and 350 in the AS+MQ group) provides a power of approximately 80% for the lower bound of a 97.5 one-sided confidence interval for the treatment difference being above -0.05 in the modified ITT and 84% for the same analysis in the Per Protocol population (for the power calculation both continuity correction and inequality of variances under the null hypotheses have been considered).

ST3073-ST3074 DM040010 Phase III in Asia incorporating Amendments N° 1, 2, 3, B, 4 & 5 dated 27 December 2006)

is modified as follows:

With these assumptions, the sample size of 1150 patients (767 in the Artekin group and 383 in the AS+MQ group) provides a power of approximately 80% for the lower bound of a 97.5 one-sided confidence interval for the treatment difference being above -0.05 in the modified ITT and 84% for the same analysis in the Per Protocol population (for the power calculation both continuity correction and inequality of variances under the null hypotheses have been considered).

Investigational centres will be involved in the enrolment of 1150 patients (767 DHA+PPQ; 383 AS+MQ).