# The 15th Korea-Japan-China Bioinformatics Symposium 2017

**June 21-22, 2017** The 15th KJC Bioinformatics Symposium, Seoul, Korea

# **Genomic History of modern humans in East Eurasia**

# **SAITOU Naruya**

**National Institute of Genetics** 

Mishima, Japan

June 21st, A.S. 0017

Koreana Hotel, Seoul, Korea

# Discerning the origins of the Negritos, First Sundaland Peoples: deep divergence and archaic admixture (submitted)

#### Timothy A. Jinam,<sup>1</sup> Maude E. Phipps,<sup>2</sup> Farhang Aghakhanian,<sup>2</sup> Partha P. Majumder,<sup>3</sup> Francisco Datar,<sup>4</sup> Mark Stoneking,<sup>5</sup> Hiromi Sawai,<sup>6</sup> Nao Nishida, <sup>6,7</sup> Katsushi Tokunaga,<sup>6</sup> Shoji Kawamura,<sup>8</sup> Keiichi Omoto,<sup>9</sup> Naruya Saitou<sup>1</sup>

1) Division of Population Genetics, National Institute of Genetics, Mishima, 411-8540, Japan

2) Jeffrey Cheah School of Medicine and Health Sciences, Monash University Malaysia,

Sunway City, 46150 Selangor, Malaysia

3) National Institute of Biomedical Genomics, Kalyani 741251, West-Bengal, India

4) Department of Anthropology, University of the Philippines, Diliman, Quezon City 1101, the Phili

5) Department of Evolutionary Genetics, Max Planck Institute for Evolutionary Anthropology, Deu

6) Department of Human Genetics, Graduate School of Medicine, The University of Tokyo, Tokyo 1

7) Department of Hepatic Disease, Research Center for Hepatitis and Immunology, National Center for Global Health and Medicine, Chiba 272-8516, Japan

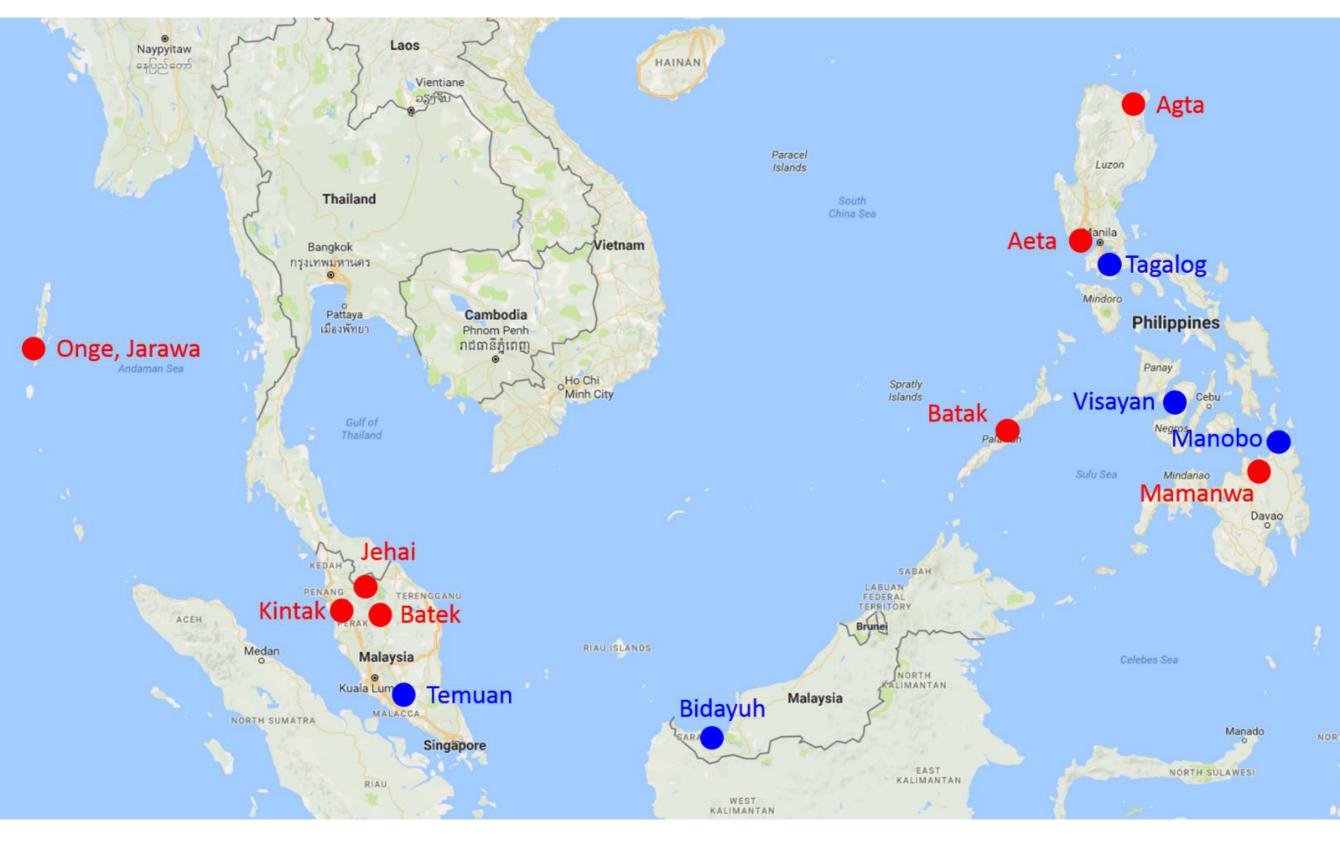
8) Department of Integrated Biosciences, Graduate School of Frontier Sciences, The University of T

9) Department of Anthropology, Faculty of Science, The University of Tokyo, Tokyo 113-0033, Japa



Dr. Timothy A. Jinam at Kanazawa in 2015

## Negritos Non-Negritos



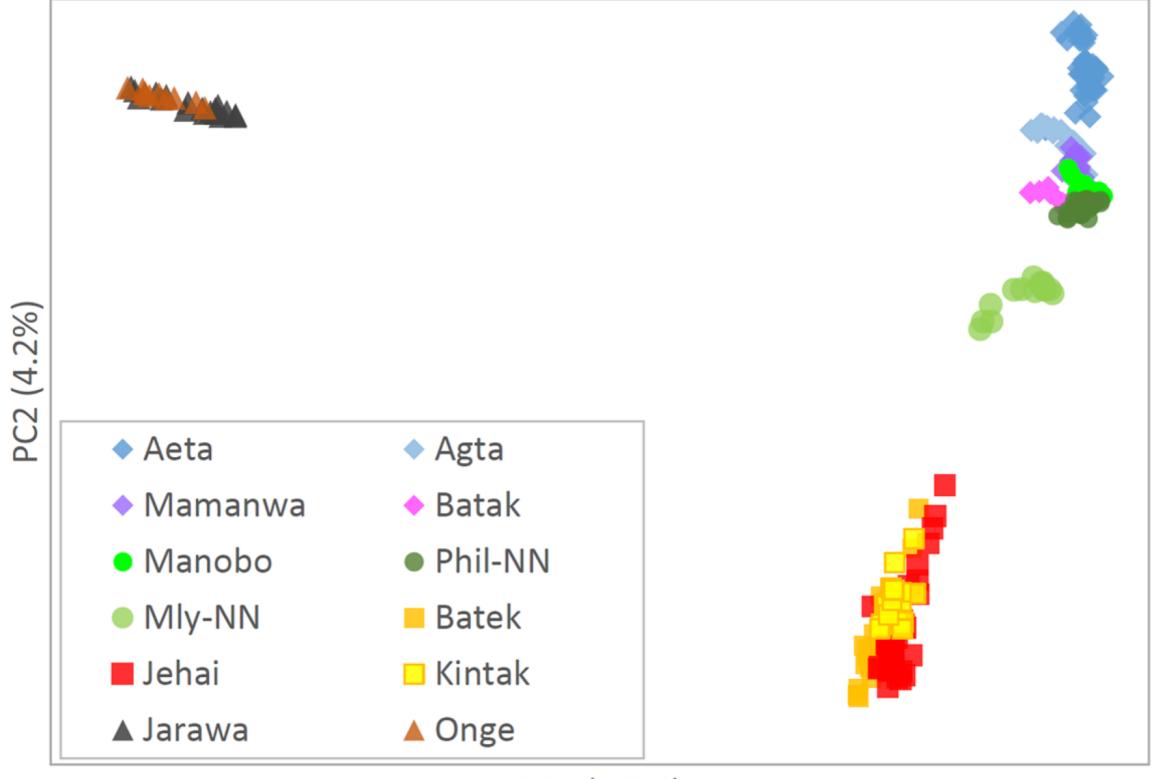
January, 1982; Palawan Island

February, 1982; Tappa, Pamplona



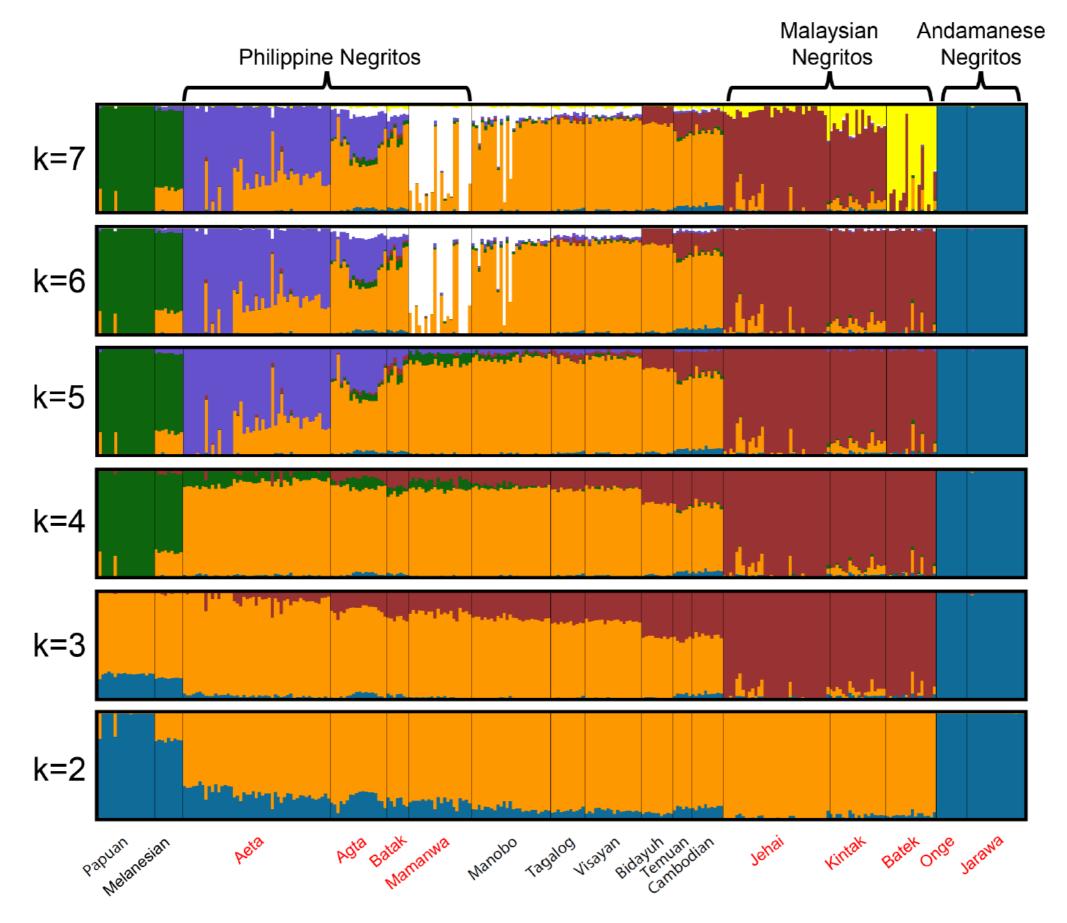
February, 1982; Palaui Island

### **PCA of All Negritos**

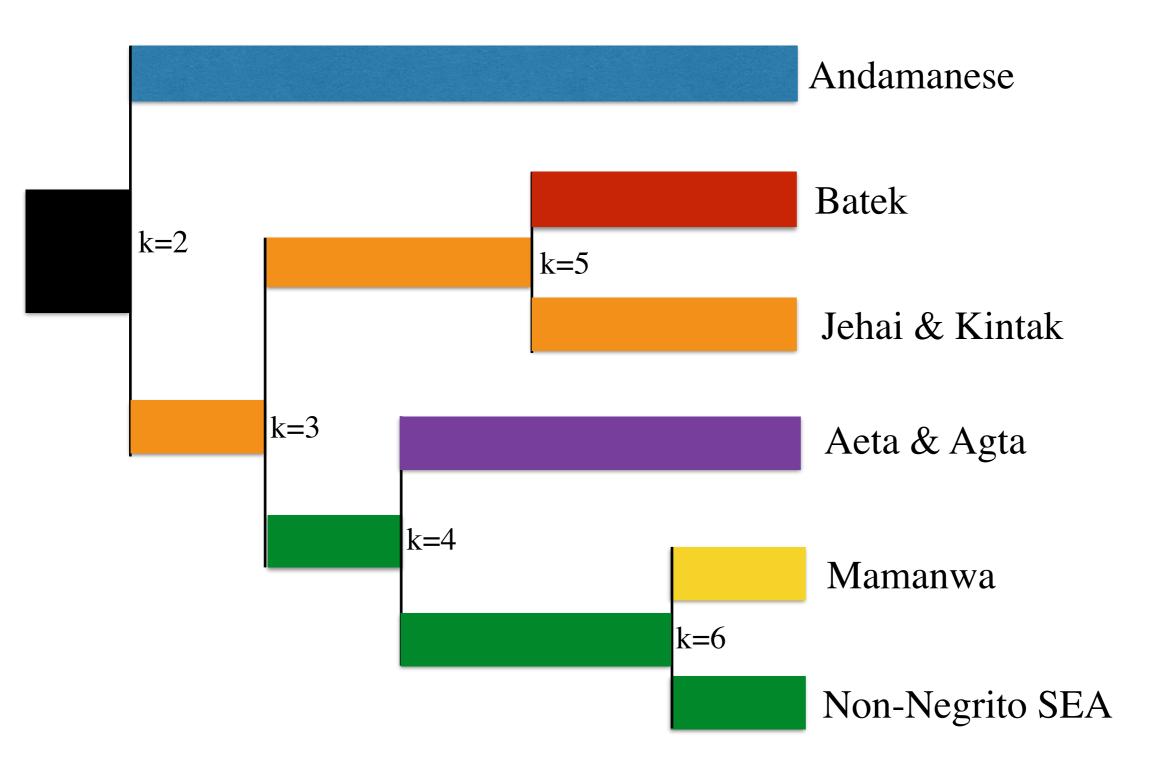


PC1 (4.7%)

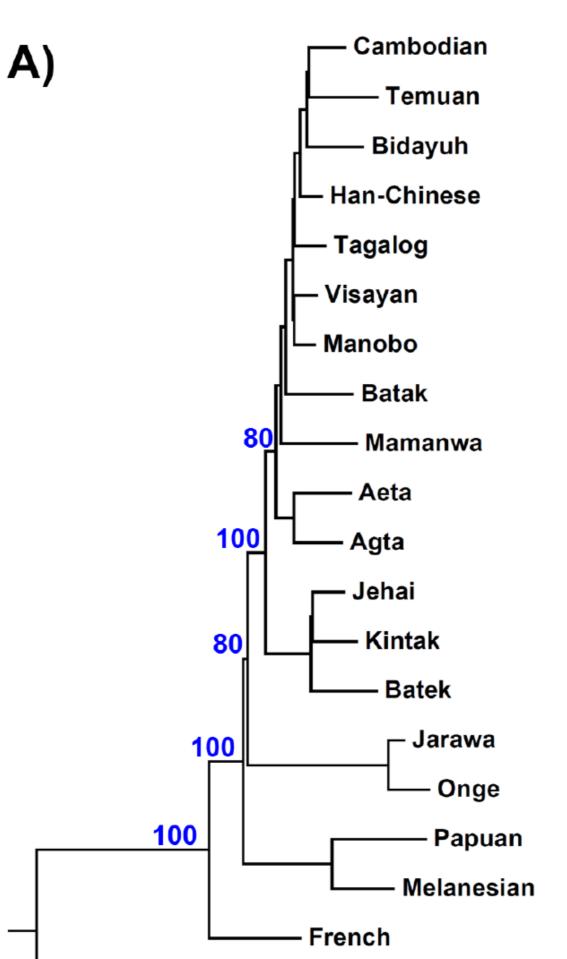
#### **Admixture Analysis**



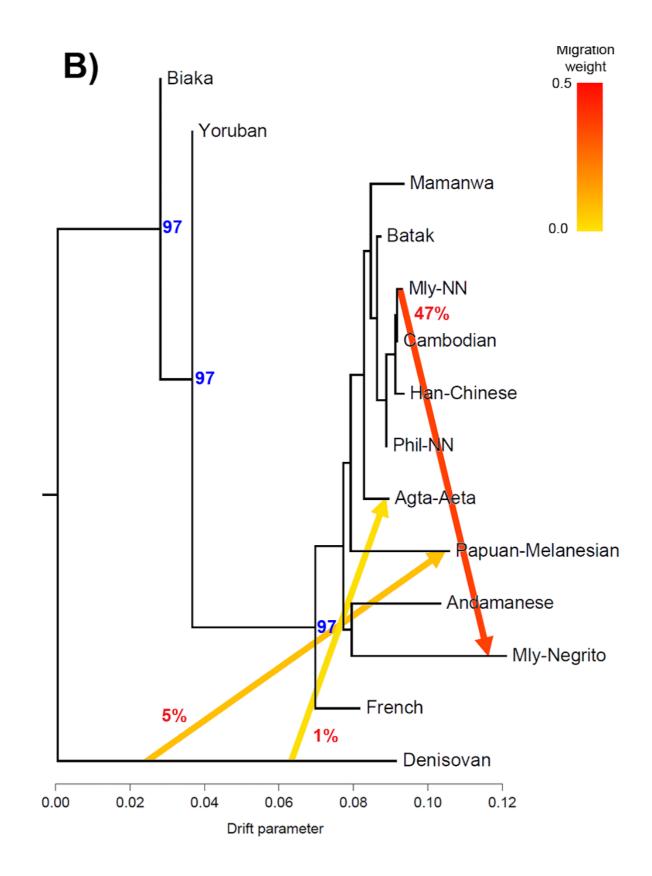
#### **Phylogenetic interpretation of admixture analysis results**



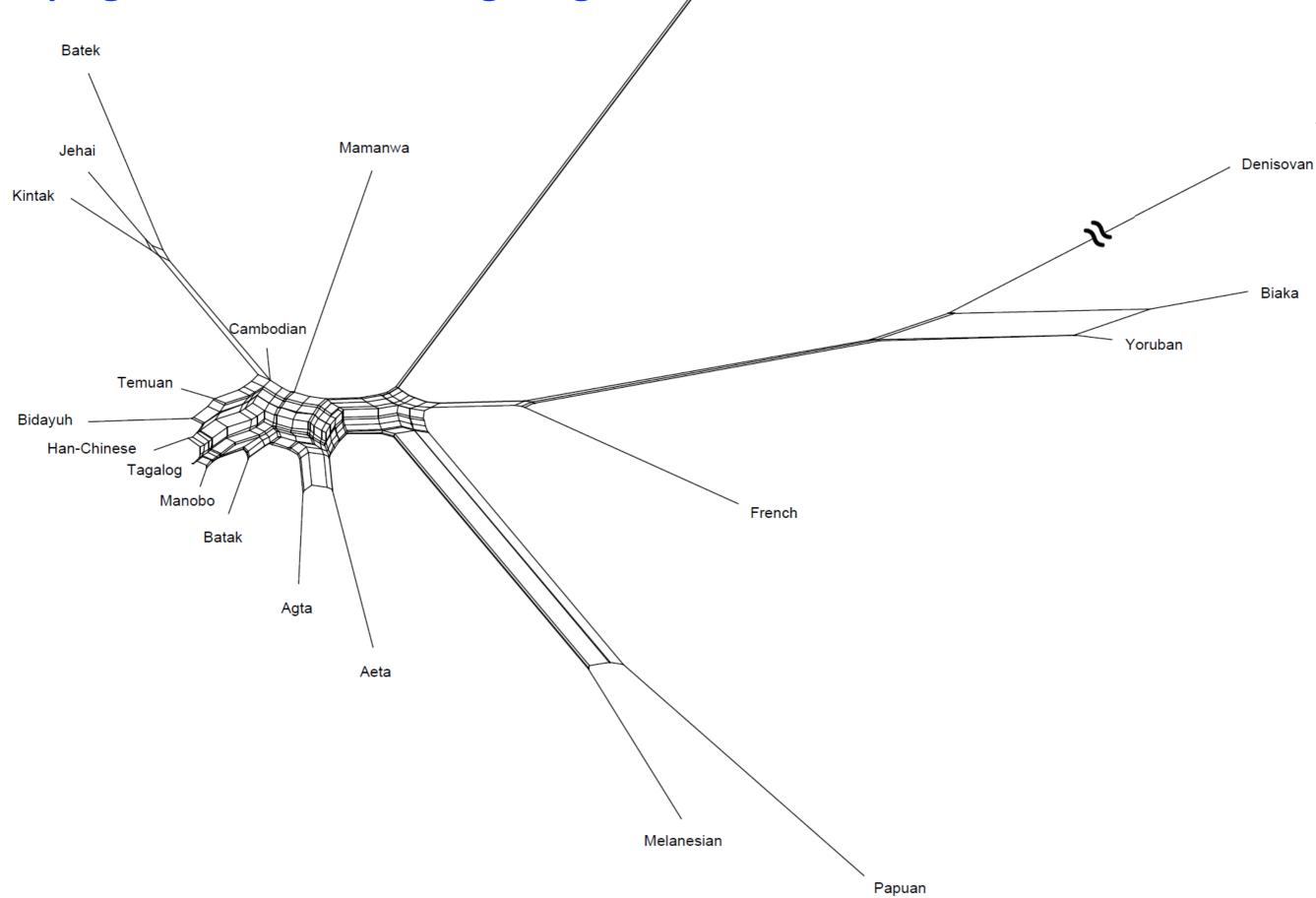
#### **Phylogenetic tree using Neighbor-Joining method**



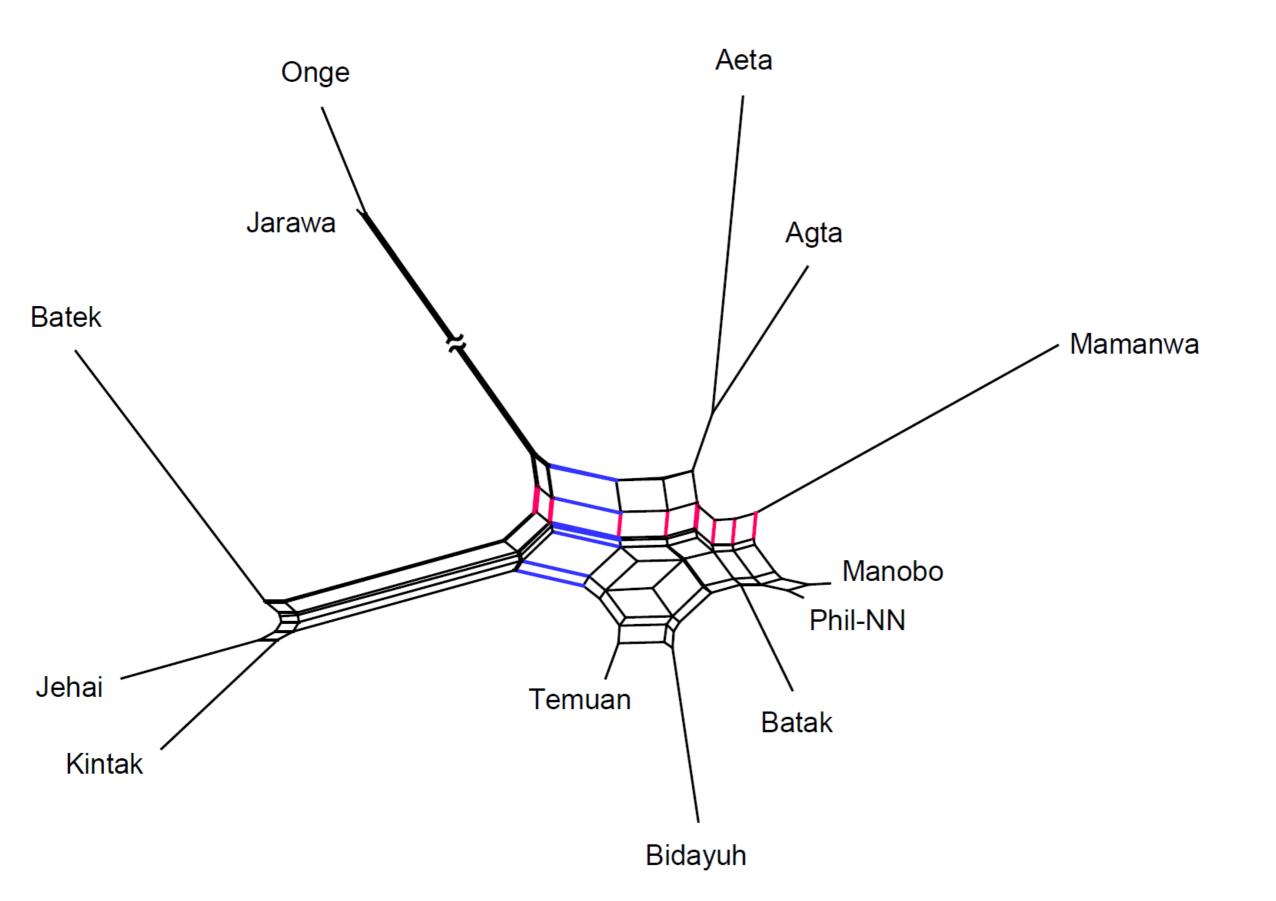
#### **Phylogenetic tree using TreeMix method**



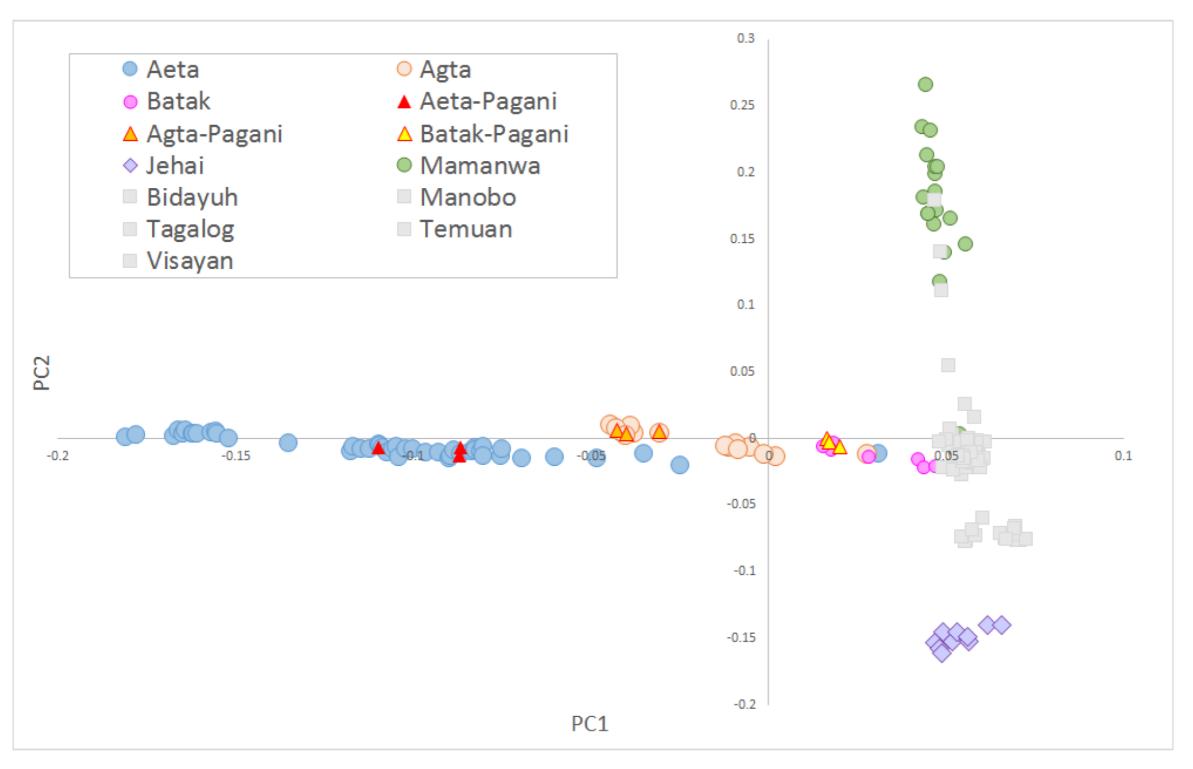
# Phylogenetic Network using Neighbor Vet



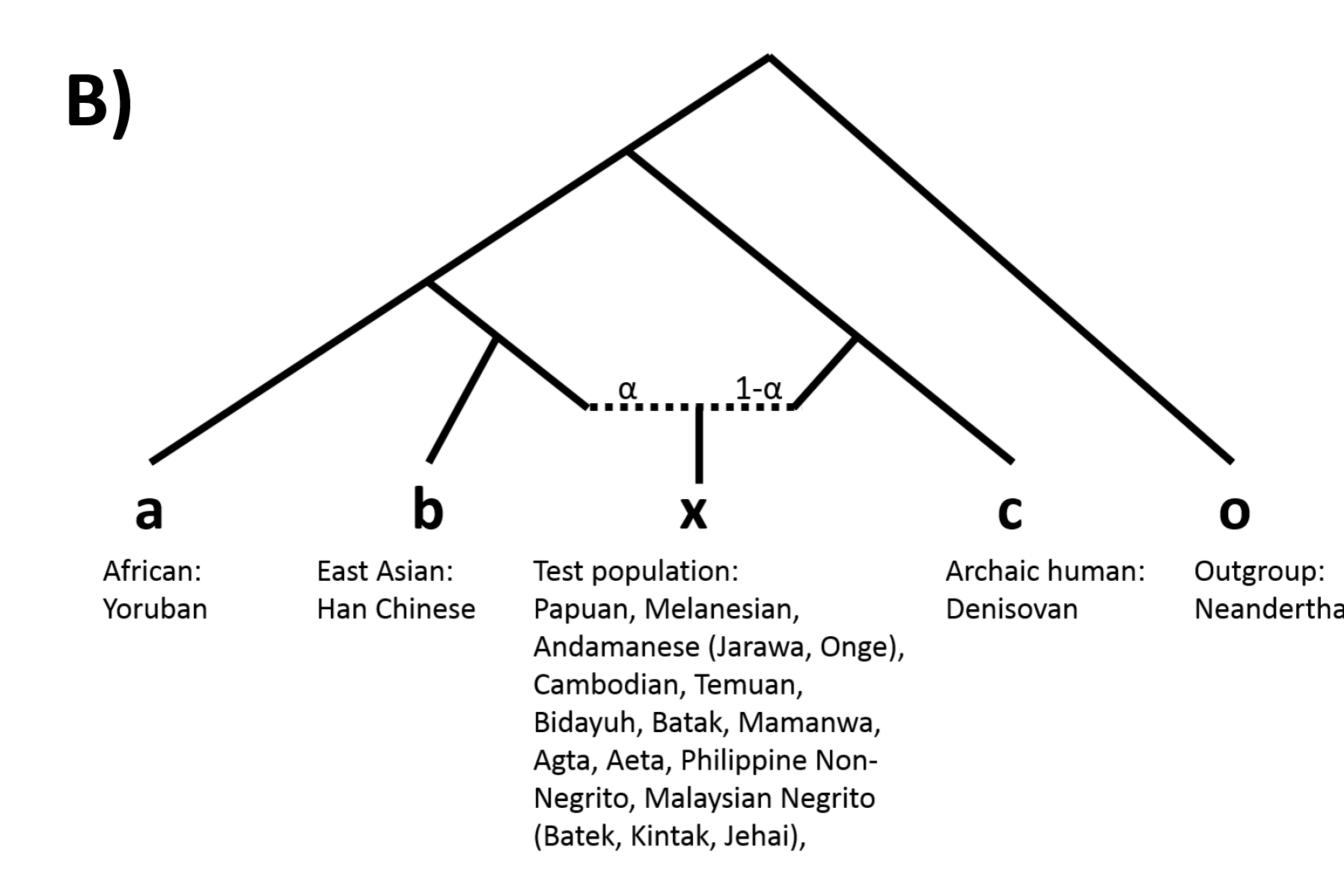
### **Phylogenetic Network using NeighborNet**

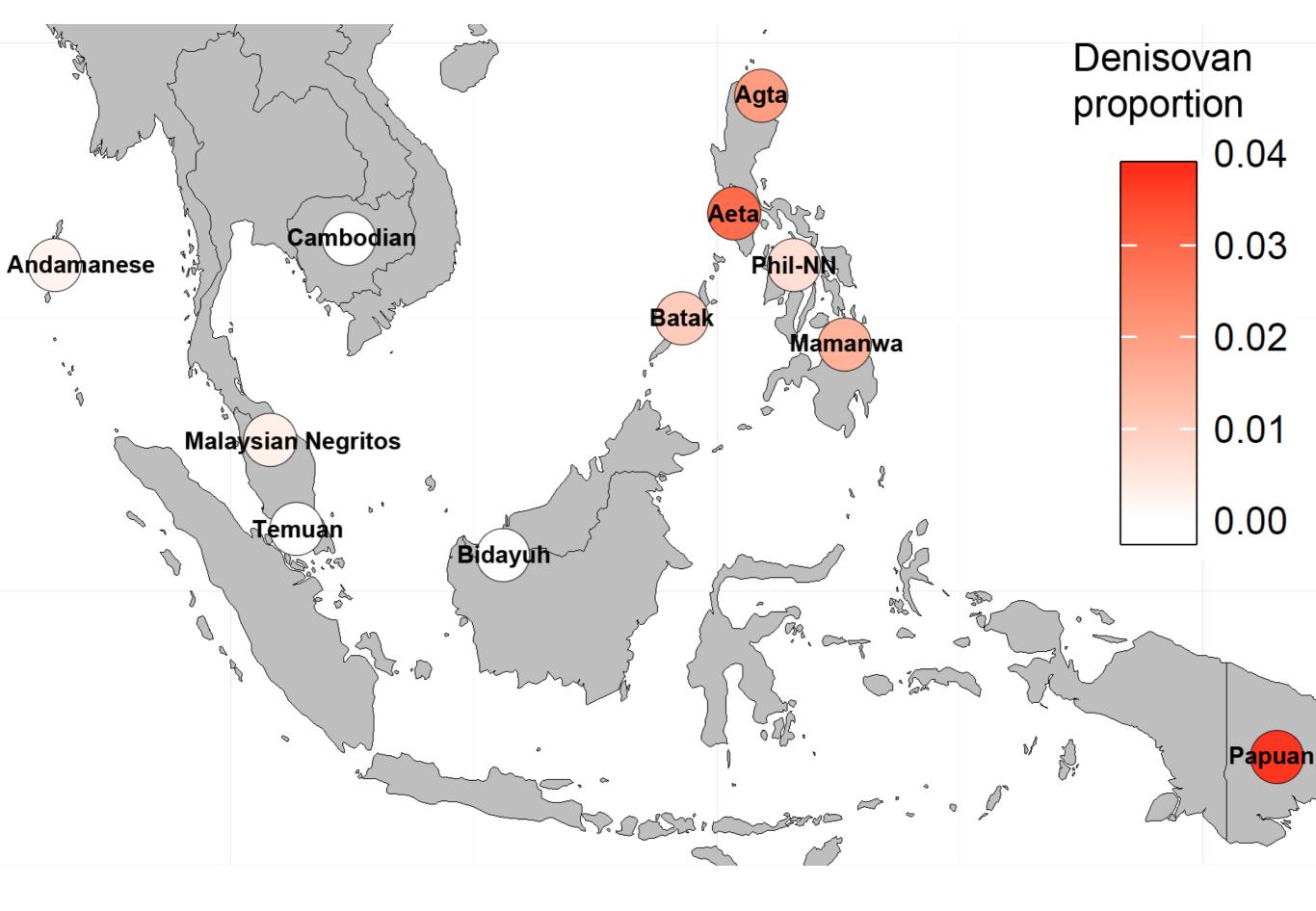


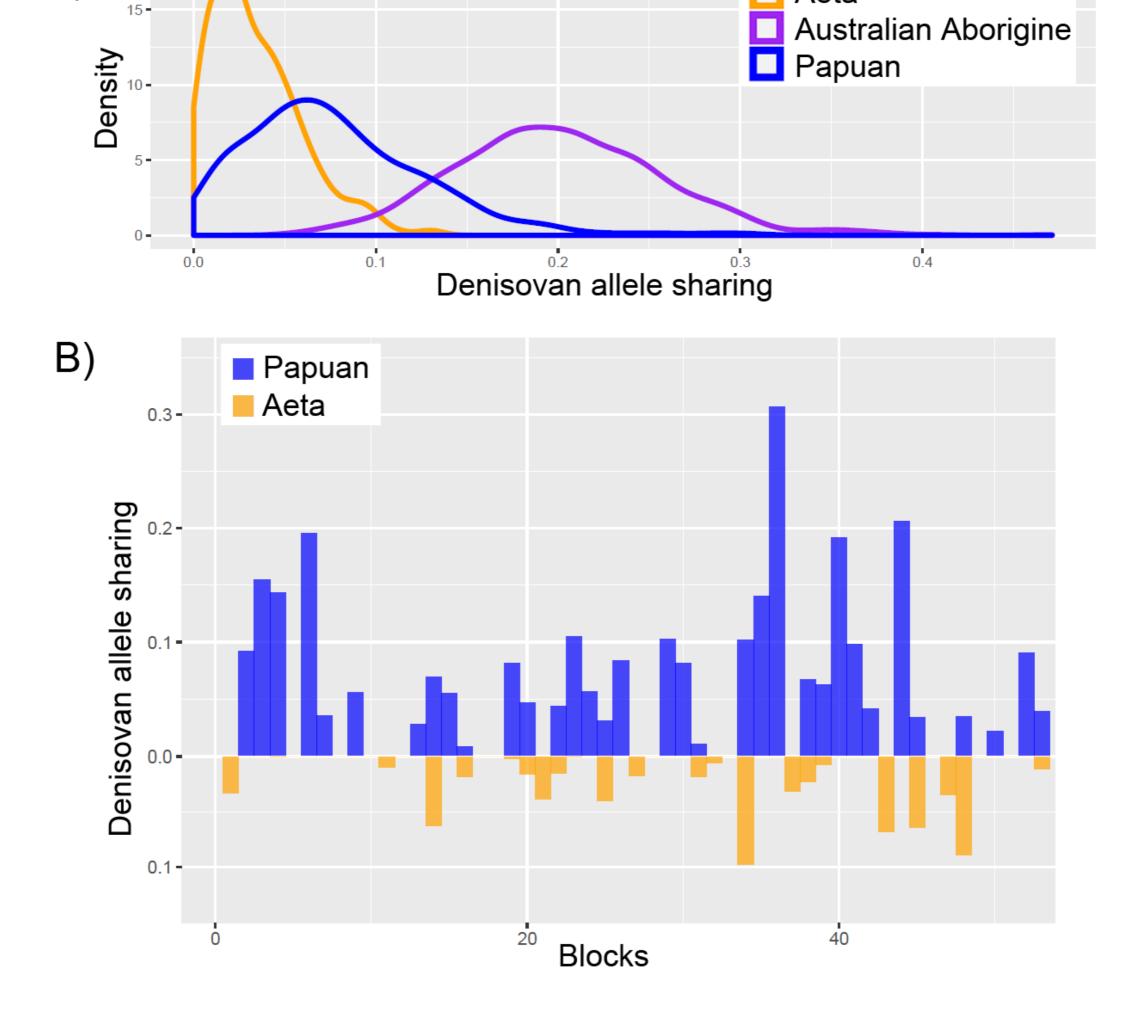
#### **Introgression of Denisovan DNAs to Papuans and Aeta Negritos**



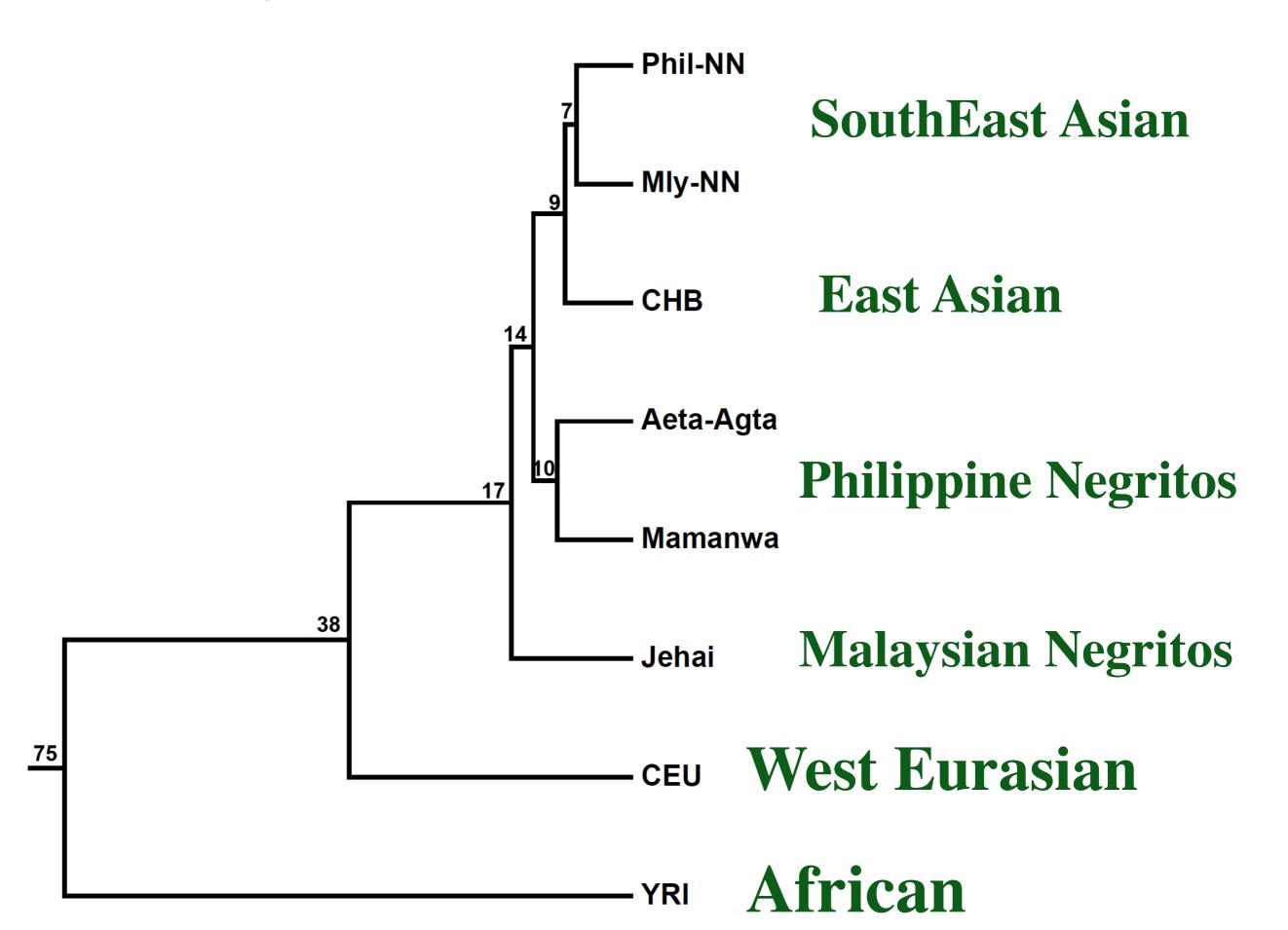
#### **Introgression test of Denisovan DNAs to Negritos**



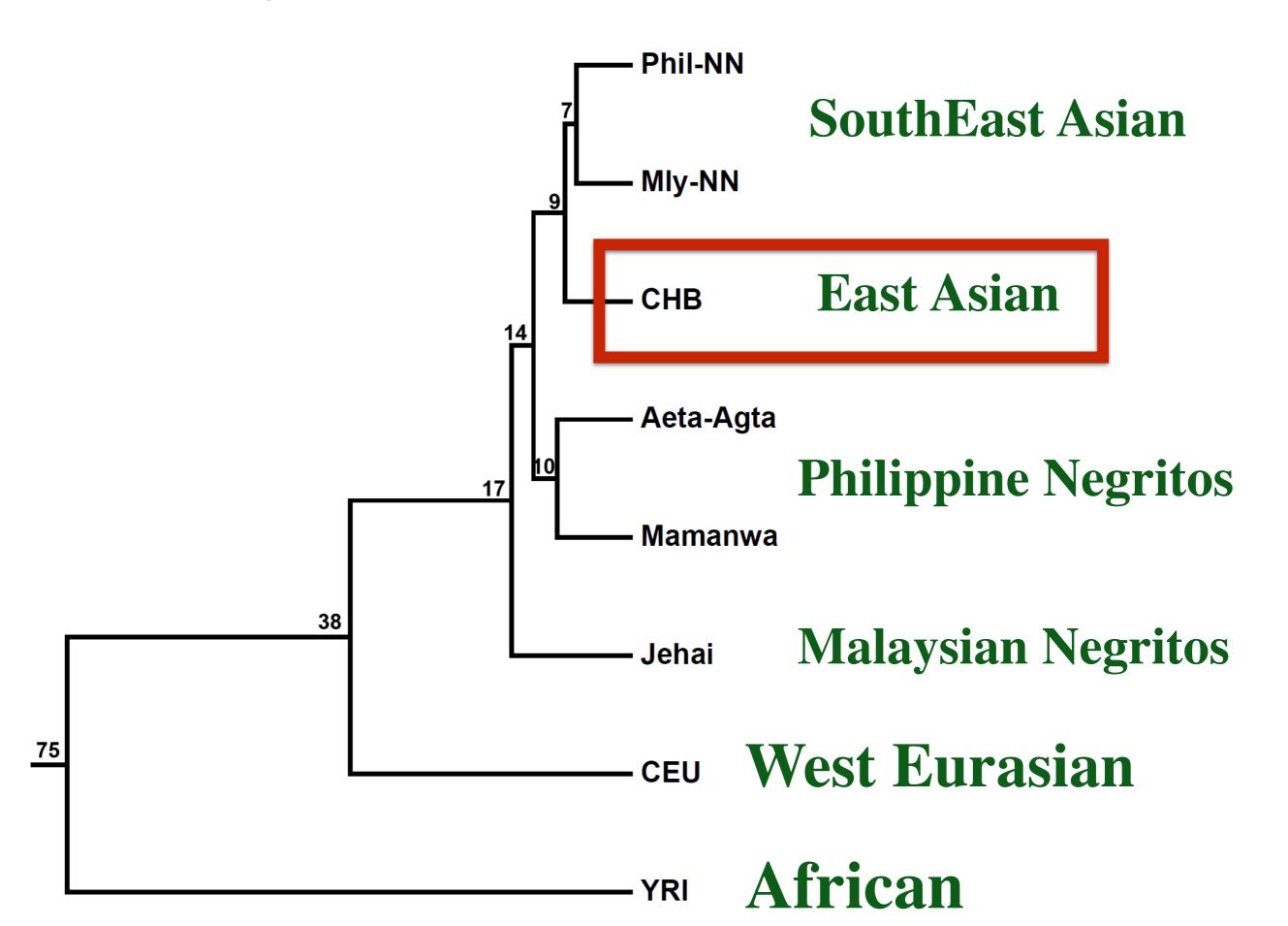




#### **Divergence time estimates based on SNP data**



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#### From Malaspinas et al. (2016)

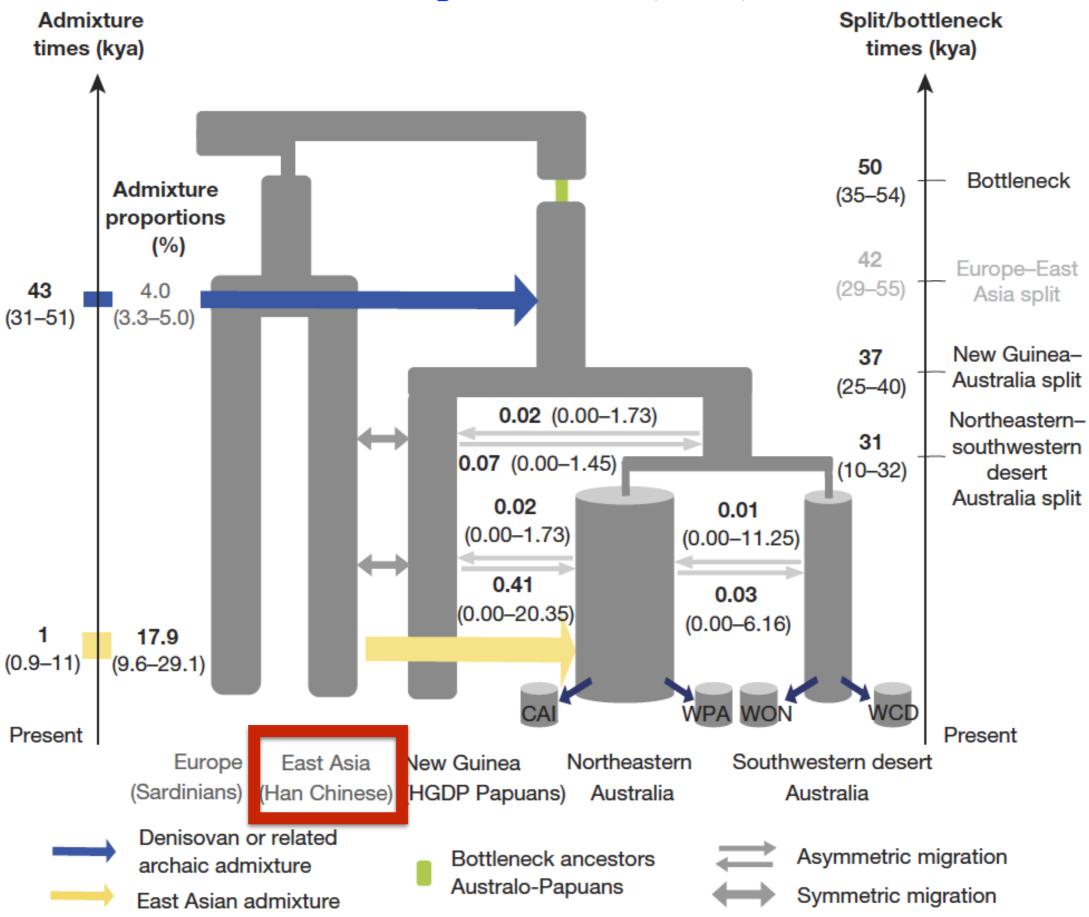
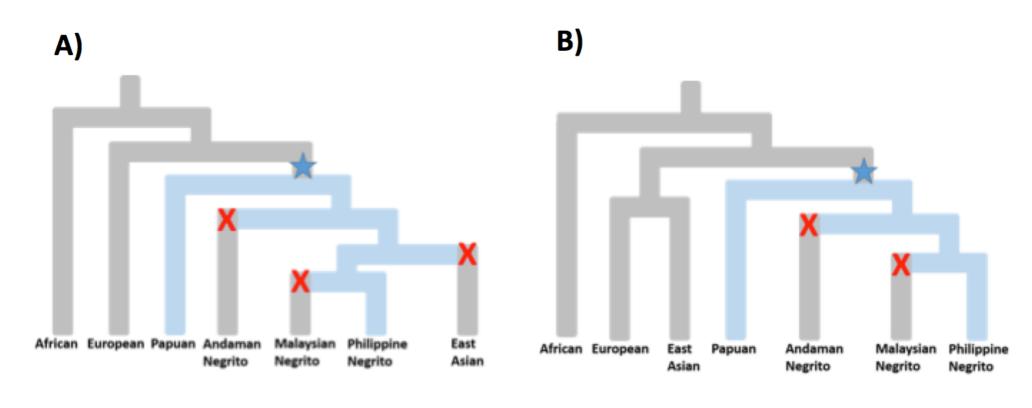
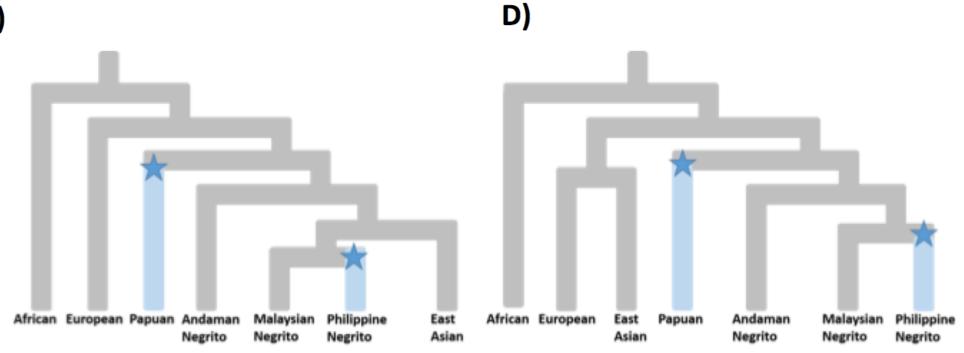


Figure 3 | Settlement of Australia. Best supported demographic model of

#### Four Possible Scenarios of Denisovan Introgression in Modern Humans



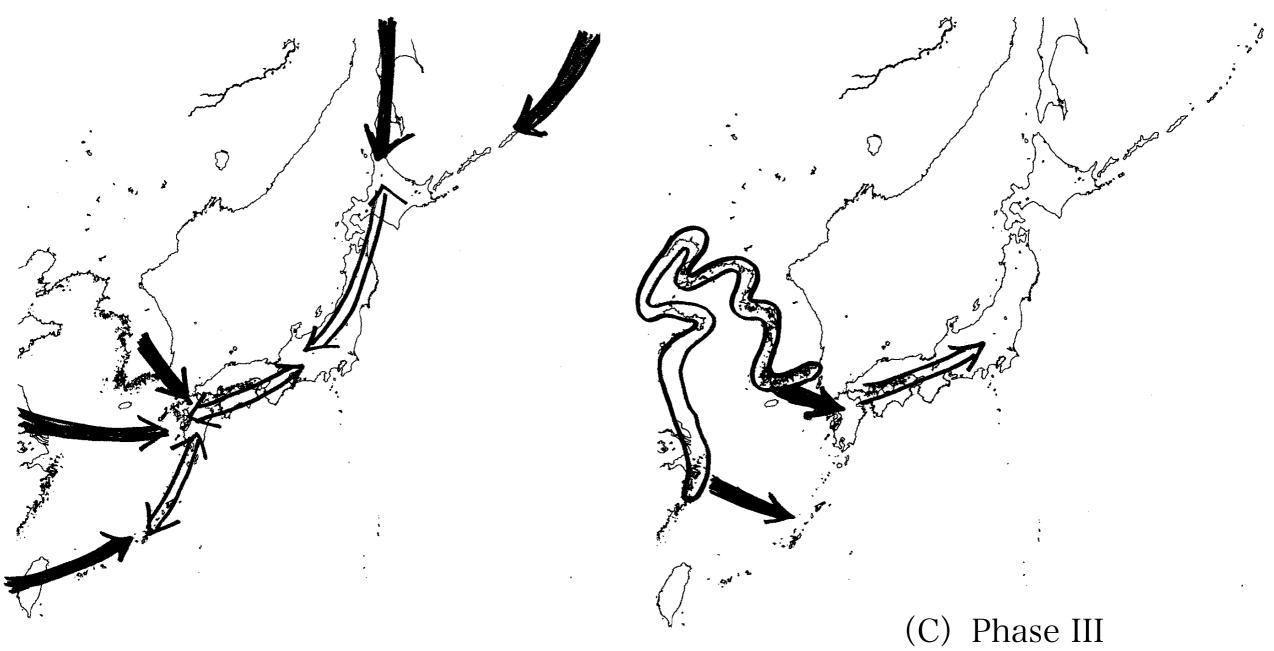
C)



#### **Three Phase migration model for formation of Japanese**

(A) Phase I(40,000∼4,000 years ago)

(B) Phase II(4000-3000 years ago)



From Saitou (in press)

(C) Phase III (3000 years ago $\sim$ )