



## Original Research

### Lobe Gene Frequency Identification Clinging and Eyebrows Connecting

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#### Article Info

##### Article history:

Received 14 December 2023

Accepted 1 September 2024

Available online 30 November 2024

##### Keywords:

Genes , Lobes Attached , Eyebrows Connect

##### How to cite:

Petriana, F., Apriyani, N.D., and Syamsuriza, S. 2024. Lobe Gene Frequency Identification Clinging and Eyebrows Connecting. *Tropical Genetics* 4(2): 38-43.

#### Abstract

Study this done for know variety and frequency allele decider characteristics of the face and lobes, based on There is or not lobe attached and eyebrows continued, to students at SMAN 7 Sijunjung and SMAN 1 Sungai Limau. Study carried out on 500 samples probandus (250 people from students of SMAN 7 Sijunjung and 250 students of SMAN 1 Sungai Limau ) carried out observation in a way direct with fill in data forms, as well Analyzed probandus pedigree diagram. Research result show that as many as 71.2% of SMAN 7 Sijunjung students and SMAN 1 Sungai Limau students own characteristic lobe No attached, 28.8% have characteristic lobe attached, 64.6% have characteristic eyebrow No connect and 35.4% have characteristic eyebrow connect .

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## Introduction

In the human body, the face is one component that can be used as the identity of each individual. Every human individual has a different facial shape. This is caused by internal and external factors of the individual. Marriage is one of the factors causing human biological variation. In general, people marry people who are far from where they live or what is called an exogamous marriage. However, there are also those who choose partners who come from the same area (endogamous marriage). One population that adheres to endogamous marriage is the Tengger population (Maulana, 2019).

The growth of parts of the human body are related to each other and influence each other so that they will have a proportional ratio (Syamsurizal, 2021) . The individual or unique characteristics and characteristics of each living creature are obtained from parents who follow a certain pattern of inheritance (Ramandhani, 2013). Autosomal-related human traits can be caused by dominant or recessive genes. According to Aرسال (2012), inheritance determined by recessive genes is characterized by a generational jump in the emergence of a character in an individual, while dominant genes are characterized by a continuous decline or no generational jump in its appearance.

Autosomal genetic traits or characteristics can vary between ethnicities, especially in Indonesia which has various ethnicities, cultures, customs and languages (Ayunda, Syamsurizal, Rahmi, & Nursal, 2023). This causes the emergence of physical and cultural isolation which does not rule out the possibility of *inbreeding* and influences the genetic structure of the community. Based on this background, research was carried out on the frequency of variations in alleles that determine facial and lobe characteristics. Based on whether or not the characteristics of attached lobes and

connected eyebrows are inherited autosomally in students at SMAN 7 Sijunjung and students at SMAN 1 Sungai Limau.

Different races and ethnicities Of course own composition different genetics , because \_ individual grandma originating ancestors different populations own composition genetic original and have characteristic typical separately (Hinds, 2004).

According to Zlotogora (2003), penetration used For explain is There is or or not expression clinical genotype in individual . Penetration can appear caused by several factor that is mutation , variation in gene expression , changes epigenetics , the interaction of genes with environment , increasing age , influence type long ago in penetration , and influence amount allele (Shawky, 2014).

## Method

Data collection for this research was carried out at SMA N 7 Sijunjung and SMAN 1 Sungai Limau. A total of 250 students at SMA N 7 Sijunjung and 250 students at SMAN 1 Sungai Limau were used as probandus (sample) for this research. Sampling was carried out after the prospective proband was given an explanation of the aims and objectives of the research and the sampling procedure. Probandus candidates who are willing are then directed to fill in the biodata form and probandus' informed consent. The material in this research is individuals with attached lobes and connected eyebrows.

## Results and Discussion

Pedigree analysis shows lobe attached determined by an autosomal recessive gene, Analysis the supported by research by Lata and Sing (1996), which proves decline characteristic lobe attached influenced by an autosomal recessive gene. Likewise, pedigree analysis shows eyebrow connect determined by an autosomal recessive gene, however Not yet There is supporting research analysis the. Molly et al. (2010), supports that pattern recessive gene inheritance involve two install characters ( alleles ) that will control One trait ( allele ), where will expressed form homogeneous.



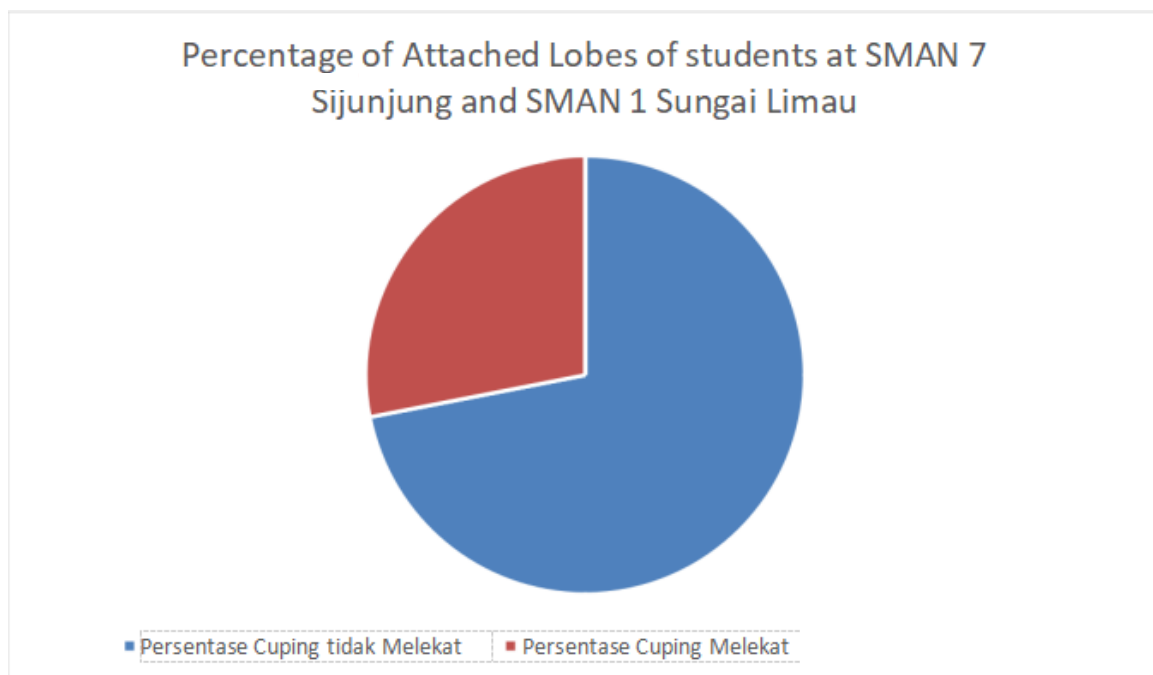
**Figure 2.** The of attached lobe and connected eyebrow

In this research, the gene frequency of each propandus was obtained by comparing the number of individuals in a population with the total number of individuals. The frequency of attached lobe and connected eyebrow genes. Table 1.

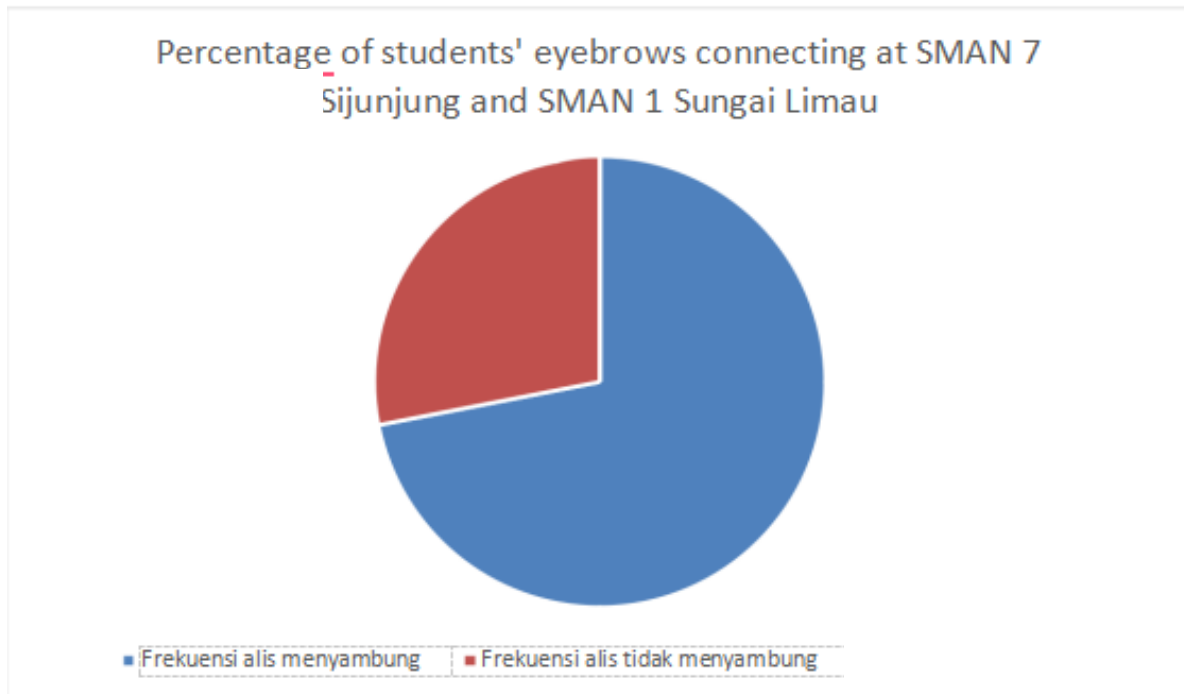
Table 1. The frequency of attached lobe and connected eyebrow genes

No	Properties of Propandus	Amount	Percentage
1	Percentage of Attached Lobe Students	144	28.8%
2	Percentage Student Lobe No Attached	356	71.2%
3	Percentage Student Eyebrow Connect	177	35.4%
4	Percentage Student Eyebrows Don't Connect	323	64.6%

The results of the attached lobe analysis showed that of the 500 probands with attached lobes, 144 probands had attached lobe traits, while 356 propandus people had non-attached lobe probands as presented in Figure 3.



The results of the analysis of attached eyebrows show that of the 500 probands, aka connected, 177 probands have connected eyebrows, while 323 propandus people have non-connected eyebrows, which is presented in Figure 4. Based on the results obtained, the connected eyebrows in men are relatively higher compared to in women.



Research result variation and frequency allele decider characteristics of the face and lobes , based on There is or not lobe attached and eyebrows continued , to students at SMAN 7 Sijunjung and SMAN 1 Sungai Limau . Study carried out on 500 samples probandus (250 people from students of SMAN 7 Sijunjung and 250 students of SMAN 1 Sungai Limau ) carried out observation in a way direct with fill in data forms , as well Analyzed probandus pedigree diagram. Research result show that as many as 71.2% of SMAN 7 Sijunjung students and SMAN 1 Sungai Limau students own characteristic lobe No attached , 28.8% have characteristic lobe attached, 64.6% have characteristic eyebrow No connect and 35.4% have characteristic eyebrow connect, difference influenced by differences race and ethnicity . Different races and ethnicities Of course own composition different genetics, because individual grandma originating ancestors different populations own composition genetic original and have characteristic typical separately ([Hinds, 2004](#)).

## Conclusion

Based on the mini research that has been carried out, it was found that in 500 samples probandus (250 people from students of SMAN 7 Sijunjung and 250 students of SMAN 1 Sungai Limau ) carried out observation in a way direct with fill in data forms , as well Analyzed probandus pedigree diagram . Research result show that as many as 71.2% of SMAN 7 Sijunjung students and SMAN 1 Sungai Limau students own characteristic lobe No attached , 28.8% have characteristic lobe attached , 64.6% have characteristic eyebrow No connect and 35.4% have characteristic eyebrow connect .

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