

Understanding Genetic Molecular Mechanism in Flies


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One of the Taiwanese academicians who is a Professor Assistant from Department of Life Sciences, National Central University, Taiwan, Dr. Shu-Dan Yeh attended the General Lecture which was held by Faculty of Biology UGM. Dr. Yeh conducted several research projects regarding genetic molecular mechanism in flies that underlies the biodiversity. This general lecture was held on Tuesday (7/11) and officially opened by Vice Dean of Research, Community Service, and Cooperation of Faculty of Biology UGM, Dr. Eko Agus Suyono, M.App.Sc.

Moderated by Drs. Ignatius Sudaryadi, M.Kes., Dr. Shu-Dan Yeh presented some of his research. According to Dr. Shu-Dan Yeh, biodiversity in the Earth comes from an evolution of biological characteristics at various levels, including genetic level. In the research on the genetic sector, the utilization of fruit flies as the organism model is very common. The flies with the scientific name of *Drosophila melanogaster* is commonly used to study the genetic evolution due to its short lifecycle which is around two weeks for one generation, its small size thus it does not require a huge space, and it has been researched by many experts.

Furthermore, the genetic evolution expert from Taiwan also conducted research regarding the mechanism of co-option evolution from the spots on the fruit fly's wings towards the behavior of male against female flies. In addition, Dr. Yeh also conducted research regarding evolution and the functions of microRNA (miR) expression during the metamorphosis process of fruit flies. The result



of his research shows microRNA is preserved among the generations and it plays an important role in various biological functions.

“At the expression level of microRNA, it is very dynamic evolutionarily and it experiences different selection pressure during its development transition,” said Dr. Yeh.

In the occasion, Dr. Yeh presented his research plan in the future. He plans to do research regarding the origin and development of the light-emitting organ on fireflies. In the end of his presentation, he also presented his academic life and research facilities that can be accessed in National Central University, Taiwan.

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