SUMMARY OF NEW CONCLUSIONS OF DHD THESIS

Title: **The association of genes and some environmental factors with dyslipidemia in 6-11 year-old children in Hanoi**

Speciality: Human and animal physiology

Classification: 62.42.01.04

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Advisors: 1. Prof. Dr. Le Thi Hop
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Institutional: Hanoi National University of Education

New conclusion

The thesis has found the association of *APOE*-rs429358, *APOA5*-rs662799, *APOC3*-rs2854116 polymorphism, ε4 allele, genetic risk score with dyslipidemia and it's components in 6-11 year-old children in Hanoi. This association was independent after adjusted for environmental risk factors. This is the scientific basis for the long-term studies of the role of genes for disease to develop predictive models of dyslipidemia early based on DNA sequences from the neonatal period to make early dietary and physical activity recommendations to help prevent and treatment disease effectively.

Combining Bayesian Model Average and logistic regression, this study has shown optimal predictive models of dyslipidemia and it's components in 6-11 year-old children in Hanoi from some environmental factors. This result contributed to making recommendations to help change the lifestyle to prevent disease actively, positively, improve the quality of Vietnamese life and longevity.

This study has built a dyslipidemia predictive model from genetic and some environmental factors in 6-11 year-old children in Hanoi include: *APOE*-rs429358, *APOA5*-rs662799, *APOC3*-rs2854116 polymorphism, BMI, liking eating egg habit, caesarean method and eating before sleeping.

The research results can be applied in nations overweight and obesity and non-communicable chronic diseases prevention programs.

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