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기타소속:

강연제목: 의과학자를 위한 통계/Statistics for Medical Scientists

Abstract: The present tutorial will cover a variety of statistical analysis methodologies with real-world examples. Previously, statistics courses and books tended to focus on simple examples. Tthis tutorial uses examples from real-world papers to show how statistics and machine learning can be used. We'll start with an example of comparing mean differences between groups using a **t-test** and share visualization strategies, followed by an example of testing independence between categorical data using a chi-square test and deriving relationships between variables from various data, and present visualization strategies.

We will discuss the principles of analyzing differences between three or more groups with ANOVA and extend this to analyze detailed differences between groups with post hoc analysis, covering principles and visualization examples. We will cover how to model the relationship between continuous variables using **linear regression**, and techniques for describing categorical dependent variables using **logistic regression**. Further, we'll cover principles and visualization strategies for effectively analyzing complex data structures through **multivariate analysis**, which considers multiple independent variables at once. Finally, we'll cover **stratification analysis**, which is a helpful method for analyzing complex datasets by considering important differences between groups. We'll cover clustering techniques that share fundamental principles with stratification, and we'll cover visualization strategies for both stratification and clustering.

Brief Biosketch

2007 – 2013, Bachelor of Medicine at Yonsei University Wonju College of Medicine

2014 – 2017, Family Medicine Residency Program

2017 – 2021, Doctor of Philosophy in Biomedical Science and Engineering at GIST