



Turkish Society  
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V. INTERNATIONAL CONGRESS OF

# Molecular

[www.molecular2015.org](http://www.molecular2015.org)

Medicine 20-22 May 2015

FROM CELL TO BEDSIDE



Dokuz Eylül University, Izmir / Turkey

19th May 2015

Applied Workshop

Bioinformatic Tools for Exome Sequencing Data Analysis

## CONGRESS ABSTRACT BOOK

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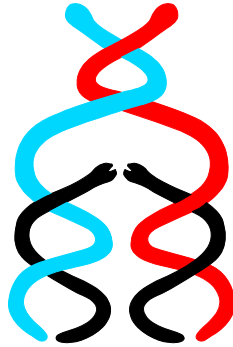
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# 5th International Congress of Molecular Medicine

**Dokuz Eylül University**

**May 20- 22, 2015**

**Izmir, Turkey**



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## PP-089

### Explorative analysis of complex trait interactions determining health status in the Turkish population

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**Background/Aim:** Several studies have demonstrated that individual health status is attributed to interactive mechanisms among lifestyle, diet, and other environmental factors. In the present study, we investigated life-style habits (i.e., physical activity, smoking habits, and metropolitan residency), personal information (i.e., age, sex, body mass index, body fat ratio, and waist to hip ratio), diet habits (i.e., daily intakes of vitamins, lipids, and other nutrients), and drug use (i.e., aspirin) in relation to health status and biochemical parameters pertaining to cardiovascular and metabolic traits.

**Materials and Methods:** A clustering analysis was performed based on Pearson's correlations to investigate non-genetic factors in determining biochemical parameters and health status.

**Results:** We observed significant clustering within dietary habits, biochemical parameters, and health status. For dietary habits, we observed two large clusters: one related to the intake of different lipid classes and another related to the intake of different vitamin classes. For the health-related biochemical parameters, we observed several small clusters related to lipid levels, insulin levels, blood pressure, and glucose levels. Regarding health status, we observed small clusters that include hypercholesterolemia and hyperglyceridemia.

**Conclusion:** Our data provide an explorative analysis about complex trait interactions in the Turkish population with interesting findings about the co-occurrence of diet habits, biochemical parameters, and health status.

**Key Words:** interactive mechanisms, lifestyle and diet factors, population, Turkey