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### Culinary evolution models for Indian cuisines

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#### Abstract

Culinary systems, the practice of preparing a refined combination of ingredients that is palatable as well as socially acceptable, are examples of complex dynamical systems. They evolve over time and are affected by a large number of factors. Modeling the dynamic nature of evolution of regional cuisines may provide us a quantitative basis and exhibit underlying processes that have driven them into the present day status. This is especially important given that the potential culinary space is practically infinite because of possible number of ingredient combinations as recipes. Such studies also provide a means to compare and contrast cuisines and to unearth their therapeutic value. Herein we provide rigorous analysis of modeling eight diverse Indian regional cuisines, while also highlighting their uniqueness, and a comparison among those models at the level of flavor compounds which opens up molecular level studies associating them especially with non-communicable diseases such as diabetes.

Keywords:

#### 1. Introduction

Culinary systems are examples of complex dynamical systems. Culinary practices and hence food preparation procedures (recipes) have evolved to the present day traditional cuisines by tuning them so as to suit human sensibilities.

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