

Study of Culinary Sayings in Traditional Lebanese Recipes by Means of Molecular Gastronomy

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Molecular gastronomy was first introduced in 2011 in Lebanon through a series of lectures addressed to various publics. Since then, actions followed to assure the perpetuity of this initiative, including the creation of a Lebanese group of molecular gastronomy. A project funded by the Agence Universitaire de la Francophonie (AUF) is currently undertaken by an academic team in Lebanon under the theme “Preservation and development of Lebanese culinary heritage through molecular gastronomy”, in order to better understand scientifically the particularity of Lebanon’s traditional recipes.

Actions undertaken for this project include the organization of monthly seminars of molecular gastronomy. At these monthly meetings, cooks, scientists, teachers, engineers, food writers are considering open questions on culinary transformations. Results of these monthly seminars will be shown. Among the famous Lebanese dishes, differences between home-made and industrial *hommos* were analyzed by the study of the emulsion formed after dissolution with *tahine*. Microscopic, viscosity and texture measurements were done in order to better explain the relation between the microstructure and the macrostructure of formulations. Analytical exploration of elementary steps in *hommos* production is thus highlighted.

Another part of this project included visits to different rural regions in Lebanon in order to work with women’s associations on traditional recipes. Scientific exploration followed in order to study the scientific validity of culinary sayings in traditional recipes in Lebanon.

In particular, collaboration took place with women's associations as part of agricultural cooperatives in Tannourine and Deir El-Ahmar regions. Traditional recipes from the regions of Tannourine and Deir El-Ahmar were explored in the same way. Some culinary sayings were justified by analytical measurements while others were not validated.

A specific Unit of Molecular Gastronomy is built in Lebanon with major scientific findings shared in the scope of this communication, with a main academic core interacting with main partners in the field: universities, cooks, school students, industries, restaurants and research centers. In order to innovate, one must better learn about culinary traditions and precisions. A balance is sought through this project between the meaning of traditional cooking and innovation through the knowledge gained by food science.