

# Red River Valley Local Section American Chemical Society

## Next Meeting

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**Thursday, 15 October 2009 in Fargo**

Speaker : Dr. Michael Tunick , USDA

Location: Stokers Basement, HoDo, 101 Broadway, Fargo.

▲ 17:30 Dinner :  
5:30 PM *Executive Committee meeting .*

▲ 19:00 - 20:35 Presentation:  
7:00 - 8:35 PM

### Speaker's presentation:

#### ● Molecules to Mozzarella: The Chemistry of Cheese.

Coagulation of milk, removal of whey, and ripening are all required when making cheese, and chemistry is involved every step of the way. This non-technical talk describes the procedure from raw milk to final product, and illustrates the differences between cheese types, including the development of the many flavors in cheese.

#### ● **Biographical Sketch.** Michael H. Tunick received a B.S. in Chemistry from Drexel



University in 1977. He was a student trainee at the Eastern Regional Research Center of the U.S. Department of Agriculture in Wyndmoor, PA, and was hired as a chemist upon graduation. He performed research on treatment of tannery waste with the Hides and Leather Laboratory until 1983, when he was transferred to what is now the Dairy Processing & Products Research Unit. He pursued a Ph.D. in Physical-Analytical Chemistry on a part-time basis during this period, receiving the degree from Temple University in 1985. He also became a research chemist in that year and was involved in a number of projects, including detection of mislabeled cheese and development of low-fat Mozzarella for the National School Lunch Program. He currently relates the effects of processing to changes in composition, texture, and microstructure of cheese and extruded whey proteins. He is the Secretary and a Past Chair of the ACS

Division of Agricultural and Food Chemistry, and is Councilor and Past President of the Thermal Analysis Forum of Delaware Valley.