

# EDITOR'S NOTE



**COMPUTATIONAL FLUID DYNAMICS** has been adopted by many industries to provide a better understanding of countless applications. New and unusual uses for the technology continue to appear, as evidenced by our cover story on archaeological analysis (page 5). While the extent of an ancient municipal water system in Syria was unearthed by excavation, the cleverness of the hydraulic engineers at the time of construction wasn't truly appreciated until engineers simulated the water flow through the pipes and connections of this historical resource.

Other unique applications of CFD can also be found in this issue of *Fluent News*. For example, the buildup of dust particles on a filter is described on page 10; the cooling of cables to be used in a large-scale fusion reactor currently being planned

appears on page 12; and the issues surrounding the chemical processing of explosive material are reviewed on page 26.

The supplement focuses on the biomedical industry, and features stories that directly relate to processes within the human body. Here again, there are some intriguing new application areas, such as the flow of irrigant during a root canal procedure (page S13); comparative methods for delivering drugs to the eye (page S8); and novel attempts to generate cartilage tissue for joint repair.

Whether your line of work is at the forefront of CFD application or has helped lay the foundation for others through numerous simulations and validations, we are always eager to learn about it. ■

Liz

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**ON THE SUPPLEMENT COVER:**  
Heat flux through the nasal mucosal sections of a healthy nose  
Courtesy of CIIT Centers for Health Research

**ON THE COVER:**  
Water flow through excavated piping in Syria is simulated using FLUENT  
Courtesy of the Université Libre de Bruxelles, Belgium.  
Photo courtesy of David Kucera

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