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## CD-adapco Joins Leading Pharma Research Group



**New York and London. March 6, 2013**

Today, CD-adapco, the world's largest independent CFD focused CAE provider, officially announces that it joined the Center for Structured Organic Particulate Systems (C-SOPS), the world's largest academically-based research organization dedicated to modernizing pharmaceutical manufacturing and dosage forms. The Center brings together leading researchers from four major universities to work closely with industry leaders and the FDA to achieve these goals. Headquartered at Rutgers University, C-SOPS partners include the New Jersey Institute of Technology, Purdue University, and the University of Puerto Rico at Mayaguez.

As a member of the Center's Industrial Advisory Board, which includes more than 40 companies and the FDA, CD-adapco will have the opportunity provide guidance in the field of computational modeling. STAR-CCM+ is an ideal analysis environment for a wide range of pharmaceutical applications such as mixing, solids handling, separation, and manufacturing. The complex flow-fields associated with these applications can be addressed with ease by using the high-end physics models delivered by STAR-CCM+, including the powerful DEM and multi-phase flow technologies. Using STAR-CCM+ will open the door to explore innovative ways to reduce cost and shorten time-to-market which is vitally important to the success of continuous manufacturing applied to APIs.

"The team members are specifically interested in STAR-CCM+'s DEM technology, and the coupling between a fluid and particles," said CD-adapco's Life Science Director, Kristian

Debus. DEM (Discrete Element Modeling) simulates the motion of a large number of interacting discrete particles (such as tablets and capsules) and tracks the interaction between every particle in a numerically efficient manner, modeling contact forces and energy transfer due to collision and heat transfer between particles. STAR-CCM+ leads to solids handling solutions, whether you need to analyze the chaotic movement of particles in fluidized beds, improve tablet coating uniformity, or find a cost-effective solution for equipment corrosion.

"We are very excited to have CD-adapco joining as an industrial partner," said Dr. Doug Hausner, Associate Director for Industrial Relations and Business Development, ERC for Structured Organic Particulate Systems (<http://ercforsops.org/><sup>[1]</sup>). "Their combination of dry and hydrated modeling techniques will allow us to further explore manufacturing processes such as wet granulation. This unique member will also bolster our theoretical understanding of developing dosage forms based on film casting and solution deposition technology."

The agreement has been set-up to enable all academic CSOPS partners to get access to software, training and support through the CD-adapco Global Academic Program. It combines the expertise from leading academics and industrial partners in the development of methodologies in the use of simulation that can be deployed to all industrial partners.

**About ERC for Structured Organic Particulate Systems**  
**The Engineering Research Center for Structured Organic Particulate Systems (C-SOPS)** (<http://ercforsops.org/><sup>[1]</sup>) **brings together a cross-disciplinary team of engineers and scientists as well as industry leaders to improve the way pharmaceuticals, foods and agriculture products are manufactured. C-SOPS will focus on advancing the scientific foundation for the optimal design of SOPS with advanced functionality while developing the methodologies for their active control and manufacturing.**

#### **Industries:**

Life Sciences<sup>[2]</sup>

#### **About CD-adapco**

CD-adapco ([www.cd-adapco.com](http://www.cd-adapco.com)<sup>[3]</sup>) is the world's largest independent CFD focused CAE provider. Our core products are the technology-leading simulation packages, STAR-CCM+ and STAR-CD. The scope of our activities, however, extends well beyond CFD software development to encompass a wide range of CAE engineering services in fluid dynamics, heat transfer and structural engineering. Our ongoing mission is to "inspire innovation and reduce costs through the application of engineering simulation software and services."

A privately owned company, CD-adapco has maintained 17% organic year-on-year growth over the last 5 years. CD-adapco employs 700 talented individuals, working at 30 different offices across the globe.

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CD-adapco is the world's largest independent CFD focused provider of engineering simulation

software, support and services. We have over 30 years of experience in delivering industrial strength engineering simulation.

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**Links:**

[1] <http://ercforsops.org/>

[2] <http://www.cd-adapco.com/industries/life-sciences>

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