



**NEW JERSEY SECTION
AMERICAN INSTITUTE OF CHEMICAL ENGINEERS
FEBRUARY MEETING**

**Fluidized Bed Granulation Technology: A Case Study for High
Quality Pharmaceutical Granules**

Professor Ecevit Bilgili

Department of Chemical, Biological, and Pharmaceutical Engineering
New Jersey Institute of Technology, Newark, NJ

Date:	Tuesday, February 9, 2010	
Time:	Registration	6:00 PM
	Dinner	6:30 PM
	Program	7:00 PM
Place:	Snuffy's Steak House US Highway No. 22 Scotch Plains, New Jersey	
Price:	Members and Guests	\$ 25.00
	Unemployed or Retired Members	\$ 15.00
	Students	No Charge
	Free coffee and dessert for members attending the program only.	
Reservations:	Call A. Soos (908) 604-2693 at or email rsvp@njaiche.org before 12 Noon Friday, February 5, 2010, for reservations. If you make a reservation and include a contact email/phone number, and the meeting is moved/postponed because of weather, we will notify you. Although we appreciate reservations in order to set up the tables, walk-ins are always accommodated. If you are undecided, please feel free to just drop in.	

Topic:

Fluidized Bed Granulation Technology: A Case Study for High Quality Pharmaceutical Granules

Speaker: Ecevit Bilgili

Ecevit Bilgili is currently an assistant professor in the Department of Chemical, Biological, and Pharmaceutical Engineering, NJIT. His research centers on the analysis, design, characterization, and modeling of particulate materials as applied to high-value added product industries.

He received a B.S. degree from Bogazici University, Istanbul, Turkey in 1996 and a Ph.D. degree from Illinois Institute of Technology, Chicago in 2001, both in chemical engineering. From 2001 to late 2004, Dr. Bilgili worked as a post-doctoral research associate at the Particle Engineering Research Center, University of Florida. Then, prior to his move to NJIT, he worked for Merck & Co., Inc as a Senior/Principal Development Engineer within the Pharmaceutical Commercialization Technology Department. As a technical leader, he played a major role in the development, filing, and commercialization of JANUMET, a recently approved diabetes drug. He led various technology and engineering science initiatives within Merck, and received a Special Achievement Award, Fluidized Bed Technology Mastery Award, and many Awards of Excellence.

Dr. Bilgili is an elected Executive Committee Member of the Particle Technology Forum and Vice-Chair of Area3a Programming, both in AIChE. He has published 25 journal articles, delivered more than 40 national/international presentations and 8 invited talks, and contributed to 2 U.S. patents. He is the recipient of Best PhD Thesis Award by the Particle Technology Forum of AIChE, Who's Who in Science and Engineering, Who's Who of Emerging Leaders, and Professor Turgut Noyan Award among many others.

Abstract:

Fluidized bed granulation (FBG) is a widely used wet granulation process in the pharmaceutical industry. The ability to produce narrowly sized, highly compactable, fast-dissolving granules as well as the use of single equipment for both granulation and drying steps offer significant advantages. This presentation focuses on our recent efforts toward the development and scale-up of a fluidized bed process for co-granulation of two highly water-soluble active pharmaceutical ingredients (APIs) with a polymeric binder. The granulations were produced at three scales using Glatt GPCG3 (small), GPCG15 (pilot), and GPCG120 (commercial) columns. The granulations were subjected to various analyses: particle size distribution, SEM imaging, sieve assay of the APIs, bulk and tap

density, compactability, and dissolution. The presentation will highlight the practical issues faced during the development and the validation of the proposed scaling rules as well as the population balance modeling of the process. .

Executive Committee Meeting

February Executive Committee Meeting – Tuesday, February 2 2010, at 6:30 PM. The meeting will be held at Paisano's Pizza

Speakers: We are always looking for speakers. Contact csnair@verizon.net to become one.

Web site: Our web site is at <http://www.njaiche.org>. If you have a link under favorites, make sure you use the "www" prefix.

Dues: If you've paid your 2010 Section Dues, we thank you. If not, please consider doing so. We know the economic situation has affected some of our members but we can use your support. In return, we promise to entertain you with interesting programs, support for our local students and provide a forum for meeting other chemical engineers who have similar interests and may help if you are looking for a new situation.

Contact info: Every time I mail a notice I get a few bounces. I know it's hard to remember updating your contact info but I suggest everyone have a permanent email address as a backup to their work contact. In case the prime email doesn't work, I can use the backup to contact you and prompt you for an update. Send it to me at davidg14@optonline.net. (You might also want to update your national AIChE address.

Directions to [Snuffy's Steakhouse](#) :

Route 22 East : (Scotch Plains, Berkeley Heights, Fanwood, New Providence Exit) - Make a right turn at the exit (under overpass) and then go straight on Park Avenue for about 100 yards. Snuffy's will be on the right.

Route 22 West : (Scotch Plains, Berkeley Heights, Fanwood, New Providence Exit) - At the exit, make a right turn traffic light, make a left turn and take the overpass over Route 22. At the end of the overpass, make a right onto Park Avenue. Snuffy's will be on the right.

Garden State Parkway: (North and South) - Take Exit 140 from the Garden State Parkway and follow the signs for Route 22 West. Once on Route 22 West, follow the directions above.

Route 78: (East and West) - Take Exit 41 from Route 78. Follow the signs to Scotch Plains. This will put you onto Plainfield Avenue. Follow Plainfield Avenue straight through the traffic light, where it becomes Bonnie Burn Road. Follow Bonnie Burn Road to the next traffic light and make a right turn. Follow the overpass over Route 22. At the end of the overpass, make a right onto Park Avenue. Snuffy's will be on the right.

New Jersey Turnpike: (North and South) - Take Exit 14 from the New Jersey Turnpike and follow the signs to Route 78 West. Once on Route 78 West, follow the directions above.