Rutgers iJOBS Tour of Bristol Myers Squibb

Pharmaceutical Development

Drug Product Science and Technology

November 29, 2016

9:00   Arrival of iJobs Students (Rutgers)/Introductions - Orientation

9:30   Tour of laboratories and pilot area (four groups ~11/unit)
Xiaodong Chen, Wei Chen, Brian Breza, Vish Nesarikar, Robert Wethman, Ming Huang, Nobel Vale
Automation: Peter Soler and Jaquan Levons
Pilot Area: Brian Zacour, Jasmine Rowe, Keirnan LaMarche
Analytical Lab: Scott Jennings and John Fiske
PAT lab: Tim Stevens, John Bobiak, Kevin Macias

11:45   Lunch all participants and volunteers (Building 50 Auditorium)

12:30   Overview of Pharmaceutical Development (Robert Jerzewski)
        Modeling Overview (Howard Stamato)

1:45   Depart - iJOBS (Rutgers) students
        Begin Tour - JHU/UMBC (four groups ~9/unit)

Contacts
Stamato, Howard Associate Director howard.stamato@bms.com
Breza, Brian Senior Operations Engineer brian.breza@bms.com
Rowe, Jasmine Senior Research Investigator jasmine.rowe@bms.com
LaMarche, Keirnan keirnan.lamarche@bms.com
Stevens, Tim Senior Principal Scientist tim.stevens@bms.com
Nesarikar, Vishwas Principal Scientist vishwas.nesarikar@bms.com
Chen(NBR), Wei Senior Research Investigator II wei.chen1@bms.com
Chen, Xiaodong Senior Research Investigator Xiaodong.Chen@bms.com
Jerzewski, Robert Director robert.jerzewski@bms.com
Soler, Peter Research Investigator II Peter.Soler@bms.com
Zacour, Brian Senior Research Investigator I Brian.Zacour@bms.com
Levons, Jaquan Senior Research Scientist jaquan.levons@bms.com
Jennings, Scott Senior Principal Scientist scott.jennings@bms.com

Fiske, John Senior Research Scientist I john.fiske@bms.com
Zieminski, Joyce Executive Associate joyce.zieminski@bms.com
Bobiak, John Senior Research Investigator john.bobiak@bms.com
Wethman, Robert Senior Research Scientist robert.wethman@bms.com
Huang, Ming Programmer ming.huang@bms.com
Vale, Nobel Research Scientist Nobel.Vale@bms.com
Macias, Kevin Senior Research Investigator II kevin.macias@bms.com
Fish, William Analytical Project Team Leader william.fish@bms.com
Buckley, David david.buckley@bms.com
Lane, Gregory Senior Research Investigator gregory.lane@bms.com
Jayawickrama, Dimuthu Researcher dimuthu.jayawickrama@bms.com
Ogunyankin, Maria Olu mariaolu.ogunyankin@bms.com
Goldman, Johnathan Johnathan.Goldman@bms.com
Corredor, Claudia Analytical Chemistry claudia.corredor@bms.com
Dibenedetto, Arthur Senior Lab Technician arthur.dibenedetto@bms.com

Tour Schedule

Morning Schedule iJOBS group via Rutgers

Action	Time	Group 1	Group 2	Group 3	Group 4
shift	9:30-9:40				
Activity 1	9:40-10:05	Pilot Area	Automation	Analytical Lab	PAT Lab
shift	10:05-10:10				
Activity 2	10:10-10:35	PAT Lab	Pilot Area	Automation	Analytical Lab
shift	10:35-10:40				
Activity 3	10:40-11:05	Analytical Lab	PAT Lab	Pilot Area	Automation
shift	11:05-11:10				
Activity 4	11:10-11:35	Automation	Analytical Lab	PAT Lab	Pilot Area
shift	11:35-11:40				

Activity Descriptions:

Pilot Area - Building 109 -
> The building 109 process area contains lab and small pilot scale equipment for solid dosage processing. Blenders, mills, high shear and fluid bed granulators, tableting machines and pan coaters. There is a unit which simulates the punch movement in any commercial tablet machine.

PAT techniques - Building 109 -
> Process Analytical Technology are mainly spectroscopic techniques to determine composition, particle size, or other properties in real time so that we can make process decisions or even provide feedback control. This lab specializes in developing these technologies for drug product manufacture.

Automation Laboratory - Building 105
> The use of robots and 96 well plates accelerates the development of the right formulation using a minimal amount of material.

Overview of Pharmaceutical Development - Building 50 Auditorium -
> A brief explanation of drug development.

Modeling - Building 50 Auditorium
> Pharmaceutical development is a resource intensive activity where resources and time can be significantly reduced by the ability to model, simulate and predict outcomes. In recent years this effort has grown significantly modeling everything from the molecular scale, unit operations, and patient response.