



## ABIA SYNERGY SEMINAR

June 23, 2010  
5:00 p.m.—6:00 p.m.

**LOCATION:**  
Akron General Medical Center  
Conference Center Auditorium  
400 Wabash Ave.  
Akron OH 44307

**Parking:** Main Parking Deck  
across from the main entrance.  
Parking will be validated

### WHO SHOULD ATTEND

This seminar is perfect for graduates, medical students, residents, fellows, nursing students, medical professionals.

### CME Opportunity:

The Summa Health System designates this educational activity for a maximum of 1.0 *AMA PRA Category 1 Credit(s)*<sup>TM</sup>.

Physicians should only claim credit commensurate with the extent of their participation in the activity.

Summa Health System is accredited by the Ohio State Medical Association to sponsor continuing medical education for physicians.

### How to Register:

e-mail [tdonohue@abiakron.org](mailto:tdonohue@abiakron.org)  
telephone 330-572-7548  
FAX: 330-379-1192

# THE NEED FOR NOVEL DELIVERY SYSTEMS FOR ANTIBIOTICS AND THE CHALLENGES IN CYSTIC FIBROSIS

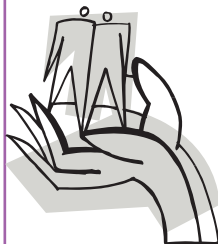
Kimberly McBennett, M.D., Ph.D.  
Titus Sheers, M.D.  
Yang Yun, Ph.D.

**EXTRA! EXTRA!** This seminar came about as a collaboration built in conjunction with our April Synergy Seminar.

The genetic defect in Cystic Fibrosis causes the airways in the lungs to be coated with highly viscous sputum, resulting in poor muco-ciliary clearance. This creates an ideal environment for chronic colonization with micro-organisms, leading to intermittent periods of pulmonary infection. These infections ultimately result in progressive pulmonary damage and respiratory failure. Treatment of these pulmonary infections is limited by the toxicity of the currently available antibiotics, the resistance patterns of the colonizing organisms, the biofilms produced by the organisms, and the physical obstruction of the airways by sputum and inflammation.

### In this seminar, we will:

- Describe the current role of antibiotics in Cystic Fibrosis, both therapeutically and prophylactically
- Describe the current aerosolized antibiotic therapies available
- Describe the barriers to effective antibiotic therapy at the level of the respiratory epithelium
- Describe the advantages of nanoparticle for lung drug delivery
- Describe the development of nanoparticles encapsulated with silver carbene complexes as a possible therapy for cystic fibrosis
- Explore the application of nonrival gene therapy for cystic fibrosis



Bringing together Problem Owners and Solution Owners to explore novel solutions and applications

