August 7, 2013

Margaret A. Hamburg, M.D.
Commissioner
Food and Drug Administration
c/o Division of Dockets Management
5630 Fishers Lane, Room 1061
Rockville, Maryland  20852

Re: FDA-2012-N-1037, Establishing a List of Qualifying Pathogens Under the Food and Drug Administration Safety and Innovation Act

Filed electronically at http://www.regulations.gov

Dear Dr. Hamburg:

The Cystic Fibrosis Foundation appreciates the opportunity to comment on the list of “qualifying pathogens” developed by the Food and Drug Administration (FDA) under the Generating Antibiotic Incentives Now Act (GAIN) title of the Food and Drug Administration Safety and Innovation Act (FDASIA). We commend the agency for undertaking a public process for establishing the list, in adherence with the provisions of GAIN, and for developing a solid list of pathogens that have the potential to pose a serious threat to public health.

We recommend the amendment of the list of qualifying pathogens to include Mycobacterium abscessus and the genus Pandoraea, pathogens that pose significant risk to individuals with cystic fibrosis (CF) and should be the target of the product development incentives included in GAIN. These pathogens, as evaluated according to the four factors defined in FDASIA, deserve inclusion on the list. The four factors are: 1) impact on the public health due to drug-resistant organisms in humans, 2) the rate of growth of drug-resistant organisms in humans, 3) the increase in resistance rates in humans, and 4) the morbidity and mortality in humans.

**Individuals with CF**

In individuals with CF, significant viscous respiratory secretions provide a “breeding ground for microorganisms.” 1 “The disease has a progressive microbiological history that begins with the acquisition of Staphylococcus aureus early in life, followed by chronic colonization with Pseudomonas aeruginosa and transient infection with other gram-negative organisms, such as Klebsiella spp. or

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*Citrobacter spp.* Infections lead to pulmonary exacerbations, which in turn affect lung function. Poor lung function is the direct result of infections and is the cause of most deaths in those with CF. Novel microorganisms, in addition to the organisms identified above that routinely affect those with CF, are often encountered by those with CF.

Two of these “novel organisms” are *Mycobacterium abscessus* and the genus *Pandoraea*.

**Mycobacterium abscessus**

*Mycobacterium abscessus* has been observed in individuals with chronic lung disease, including those with CF, and *M. abscessus* infection in those with CF has been linked to disease progression. A longitudinal study of CF patients found colonization with closely related strains of *M. abscessus* that are consistent with intra-familial transmission or a common infection reservoir.

Person-to-person transmission of *M. abscessus*, which causes progressive lung disease and poses great treatment challenges, has been observed. *M. abscessus* has been found to have high levels of drug resistance, in both CF patients and non-CF patients.

**Genus Pandoraea**

*Pandoraea* isolates have recently been recovered from CF patients; there appears to be patient-to-patient transmission of *Pandoraea*, and CF patients exhibited a loss of lung function after infection. In a 2003 study, researchers documented the spread of *Pandoraea apista* from an index patient to five other CF patients participating in a winter camp. All of the patients developed chronic infection, and four had a downhill course of lung disease.

Both *Mycobacterium abscessus* and the genus *Pandoraea* have a public health impact as a result of their effects on individuals with CF and have a significant impact on morbidity in those with CF. *M. abscessus* has also been observed to have high levels of resistance. Both pathogens should be included on the list of qualifying pathogens, as such listing and the development incentives that are triggered may serve the public health interest of development of new antibiotics to protect those with CF and others who are affected by these pathogens.

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2 Atkinson, LiPuma, Rosenbluth, and Dunne.
The CF Foundation appreciates the opportunity to comment on this proposal. We look forward to continued dialogue with FDA on this important issue.

Sincerely,

Robert J. Beall, Ph.D.
President and Chief Executive Officer