Development of Long-Acting/Extended Release (LA/ER) Small Molecule Antiretroviral (ARV) Medications/Regimens for the Treatment of HIV

March 2, 2014 12:30 to 5:30 pm

Boston, MA

Questions for the Breakout Sessions

Clinical Studies Needed to Develop a LA/ER ARV

Priority Questions:

- Discuss whether there will be a need for an oral lead in phase for studies with LA ARVs. If so, how much safety data will be needed from the oral lead in before one could recommend initiating LA ARVs
- When during development for the treatment of HIV do you need to demonstrate that your drug penetrates target tissues/compartments at pharmacologically relevant concentrations (e.g. genital tract, CNS, GALT, lymph nodes, etc.).

Bonus Question:

- Are studies to define strategies for stopping LA ARV therapy required? Particularly for combinations with different LA half-lives. Should the stopping of LA ARV therapy be managed as a treatment interruption or a change in ART. What considerations are important to be considered?

Other questions proposed during planning, to be discussed at subsequent meetings

- How drug-drug interactions be managed? Will DDIs for injectable LA agents be the same as with oral agents given that we are bypassing the gut?

Regulatory and Strategic Issues in Developing LA ARV Combinations

Priority Questions:

- How would strategies be different for novel versus established APIs (IP issues; academic/pharmaceutical partnerships)
- What are the considerations for individual drug development vs regimen development programs?

Bonus Question:

- What does a LA/ER ARV regimen look like: how many agents are required, do the regimens have to be all small molecules; all biologics or can they be a combination of small molecules and biologics?

Other questions proposed during planning, to be discussed at subsequent meetings

- Multiple pulse release vs sustained release products – effects on safety, efficacy and resistance?
- What are the regulatory implications for the reformulation of existing APIs versus entirely new API? What are the additional considerations if novel nanocarriers are loaded with new or existing API(s)?
- For the above what are the different considerations for the various delivery routes (IV versus IM/SC vs implantable)?

New Technologies:

Priority Questions:

- Is it possible to define which drugs and drug/technology combinations have the best chance of success? If so, what are the best models for predicting a successful candidate?
- How can access ARV drug candidates that were safe but failed oral bioavailability studies be arranged? How is this different for drugs protected versus not protected by IP?

Bonus Question:

- What are the preferred technologies for "stoppable" or "tunable" therapies?

Other questions proposed during planning, to be discussed at subsequent meetings

- What frameworks for IP and confidentiality are needed to stimulate partnering and collaborations?
- How do we incorporate a framework for balancing likely COGS versus delivery of benefits?
- Does the management of a multi-partner collaboration require independent leadership and/or monitoring?
- How can IP protection issues be balanced against the need to publish? What is the best way to engage patient groups to get feedback on and establish acceptability?
- What are the optimal timescales for technology delivery both to the clinic (how long to reach patients) and in the patient (period between repeated administration)?
- At what point should provision of pediatric options become a priority?