Table 42: Validation of Research Test Kits for QC Lot Release

FACILITATOR: Ken Miller, MedImmune, A member of the AstraZeneca Group

SCRIBE: Maura Kibbey, U.S. Pharmacopeia

SCOPE:
Commercial test kits and reagents that are developed and labeled for Research Use Only (RUO) by the supplier are frequently used in the early stages of development of a licensed product. Issues associated with the use of test kits and reagents in a regulated environment, for example, QC lot release of a licensed product, can be managed if certain principles are followed and if critical items are addressed. Participants at this roundtable discussion will share experiences and ideas related to the use of commercial test kits and reagents in a regulated environment.

QUESTIONS FOR DISCUSSION:
1. How are ‘research test kits’ being used in a regulated environment at your company?
2. How is this being supported in quality systems at your company?
3. What challenges have you had with using ‘research test kits’ in a regulated environment?
4. What would you find helpful to include in a guidance document from a pharmacopeial organization, such as the USP?

NOTES:
Participants are using kits or kit components for characterization more than release but they are sometimes used for release. Characterization of critical reagents as well as any kit standards is critical and can’t rely on the manufacturers’ certificates of analyses. Characterization of reagents should include suitable orthogonal methods. Specificity runs during validation focus on other molecules that may be present in the manufacturing environment (i.e., for an immunoassay you would not need to test against every protein with a high level of homology to the therapeutic protein of interest; rather only those molecules that might contaminate the material). Kit stability is also studied. Typically, manufacturers start with the stability claims of the kit manufacturer but then verify themselves. It is debatable if it is appropriate to extend the dating. Robustness experiments can be especially difficult since critical reagents are already often diluted to working concentrations and it may be difficult to procure more than one lot at any one time. The decision to go with a sole source of a kit should be carefully considered. The risks may be high, particularly for certain parts of the country with severe weather events, so the supplier audit and their risk plan is important to study before committing to a sole source that might impact product release. The definition of critical reagents defines the amount of bridging that must be done when replacing a reagent. Understanding the kit manufacturer’s definition of a lot is very important since this is not done consistently. Participants stated that it is important to establish in-house positive controls to use for performance trending over time.