

EDUCATION COMMITTEE MEETING
Tuesday, June 13th 2006

In Attendance: Meina Liang, Terry Riss, Doug Auld, Lisa Minor, Ralph Garippa, Kat Harrison, Christine Giordano, Christian Parker

Absent: Richard Eglon, John Dunlop

Agenda:

1. Inquiry from Wiley
2. Feedback on Courses

Inquiry from Wiley

Chris Giordano will be speaking with Wiley with regard to the CD or Book version of the course.

Feedback on Courses

Go over the discussion on the course, HTS101, to determine what modules the committee is thinking about.

- Introduction to HTS – Assay Design, examples from research papers, Assay Validation, QC Reagents – someone from Vendor arena, Term Definitions
- Compound Handling – Chris Lipinski
- Liquid Handling – Robotic Handling, microtiter plates, etc. Rose Hughes, measuring accuracy and precision, and how you do that.
- Data Management – Type of artifacts you find in HTS, how you identify false positives, false negatives. NIH participation is a plus.

Compound storage and handling and compound libraries and library design, equipment like robotic arms, physical tracking and natural products, keeping these items general as they may be of interest to the intro class. Perhaps starting module one by defining HTS first.

QC Reagents, Promega may be able to help, but they need to know where our interest may lie. Looking more towards the process, the experiments that go on before a screen is run. A possible fifth module was suggested that could cover case studies.

Module 1 has an awful lot to cover, with just the term definitions, perhaps taking some of that numerical analysis out of 1 and saving it for later when people understand the significance of what they have been reporting.

Perhaps discussions on the common issues of HTS and solutions to those problems could be included in a module. It is also a consideration to have an entire module on artifacts.

Module 3 concerns – how to you validate your instruments and how you make sure they stay validated. Routine maintenance, protocols and readers should be included in this discussion as well. Some companies have engineers that go around and check the instruments, but some do not. It would be nice to know that it actually needs to be recalibrated to maintain a sense of quality control.

Module 1, Assay design, should we go through the major types – absorbance, fluorescence intensity, luminescence, fluorescence polarization, HTRF, TRF and newer assay formats, maybe a FLEM(?) or a BRET(?) – might be helpful to everyone if they have an example of each, or is it something that they could just pull out of literature on the subject? Should a slide on each one of those be included? Should also include the difference between plate densities, and microfluidic systems. Covering the microplate standards would be ideal, especially as SBS worked to bring

the standardization to the forefront. Carol Homon or Amer El-Hage could work on the standardization option. Miniaturization of assays would help to bring everyone into higher density formats. Assay flow design is a necessity to the course as well.

Would technology comparisons be addressed? Agnostically presented, yes, just need to be careful to not be assay endorsement. Pete Wood would be interested in presenting on assay detection, as long as all the other assays are covered and there is no commercialization.

How many modules? 4 outlined at the moment. If items become too large, then move them into another course so that they aren't extremely heavy. Perhaps HTS202. What would this course accomplish for those who attend? HTS 101: Introduction to Designing and Running Assays, it could be handled in the title. With a clear title that explains the accomplishments of the course, then we can more easily market it to the right groups. The material is to bring them to a level where they can begin to step into screening labs. If we include a "Learning from example: Success and Failures" would be great to include a fifth module. It's important to call attention to these minefields that you run into when doing HTS.

How are we viewing the target audience? Anyone who is interested in learning about HTS and academia that do not have programs like Harvard or UMISS and include those large pharmas that will have new hires. How do I get started? These questions should be answered by our course.

Action Item: Doug to include these thoughts in an outline to be circulated to the group. Please add names to the list for those the committee can target.

Next meeting to be held, Tuesday July 11th, 11am EDT. If you cannot make this meeting please notify Kat Harrison, kharrison@sbsonline.org.

Feedback on Module 4 from Kinase Course

Very positive comments were given on Kapil's course from attendees. Streaming access will be provided to the committee to review the past course so as to provide feedback to presenters so that it can run again, in Late October/Early November.

Ion Channels Course

Wei Zheng and Doug Auld are working on moving forward the Ion Channels course. Wei may be willing to chair the faculty for the course. If we can get these together, we can include these all together on advertising items.