

1st Annual Inter-PEN Meeting
October 6-8, 2006
Washington University
Saint Louis, MO

Follow up discussion:

Progress made

Plans for next year

Opportunities for inter-PEN
collaborations in research, skills
development, dissemination/outreach
to the community

Administrative

- Quarterly/bi-annual newsletter
- Collection and posting of publications on PEN website (together with a summary/highlight statement for each)
- Distribution of publication lists from each PEN together with an executive summary
- Uploading of Inter-PEN Meeting slides onto secure website and also a version for public access, each linked from the PEN website
- 2nd Annual Inter-PEN Meeting—tentatively, Santa Barbara, CA, October 12-14 or 19-21, 2007

Skills Development/Dissemination

- Continue multi-PEN course teaching/enrolling activities
- Stellacci nanomaterials course will be offered at MIT in Spring 2007
- “Nature’s Nanosystems”—a new course that is being developed at UCSB, ca. Fall 2007/Spring 2008
- General course/workshop on the topic of general cardiology/biology of cardiac diseases and current imaging techniques with their
- ICMR 2-week workshop (Tony Cheetham) may be a mechanism by which to offer unique curriculum
- “Nanotechnology and the Life Sciences” 2nd Annual Meeting/Workshop, March 29-31, 2007, Washington University, School of Medicine, Saint Louis, MO
- PEN seminars captured digitally and viewable from PEN website—need to produce an agreement form for the speakers
- Establish a new Gordon Research Conference or Keystone Conference centered on the PEN research areas

Skills Development/Dissemination

- Establish/incorporate laboratory training opportunities during courses/workshops and identify when such practical training must be live vs. digitally transmitted
- Continue and enhance team exchanges between laboratories for periods of time that allow for direct experience and expertise transfer in different disciplines
- Develop protocols for successful techniques/procedures to disseminate broadly to transfer capabilities
- Scale-up procedures/facilities for successful materials—peptides, NIR probes, radiolabel chelators, nanoparticles, receptors, *etc.*—need to prioritize which first for scale-up and broad distribution

Research

- Multi-laboratory co-authorship (within PENs and between PENs) on publications/patents to demonstrate the impact of the interdisciplinary U01 funding
- When manuscripts are accepted for publication, forward to Eileen Cler for distribution onto the PEN website so that we can all benefit rapidly from PEN developments

Research

- Impressions from this Inter-PEN Meeting?
- What was learned?
- Where do we go next?
- What is needed?
 - Need more time for discussions
 - Need more general overview discussions of projects, general materials presented, and then fewer detailed projects presented orally—instead have more posters and more poster time to discuss details
 - Next time have a separate symposium for student/postdoc presentations of their projects in detail
 - Next time have students/postdocs arrive earlier for time to interact
 - Focus group video conferences could be organized once per year, in advance of the PEN meeting
 - Focus group/topic to be added as a special discussion time, e.g. toxicology, targeting, regulatory issues, bioD, translation into the clinic, etc. with an expert outside speaker(s)
 - PEN follow up discussions at the AHA meeting, which follows the Inter-PEN Meeting by ca. one month—an afternoon/evening/cocktail hour gathering
 - Need more emphasis upon delivery and *in vivo* studies

Research

- Inter-PEN collaborative opportunities and interactions:
 - Gang Bao and John Taylor mRNA targeting and molecular beacons
 - Jeff Smith and Craig Hawker/Carolyn Anderson/Karen Wooley— peptide-NP conjugate systems with different spacer lengths to investigate the resting or active states of platelets and avb3 binding affinity *in vitro* and *in vivo* in apoE $-/-$ knockout mice
 - Weissleder's CLIO materials available to the PEN members as a benchmark?
 - NIR probes Prosense are commercially available from Visen Corporation
 - At what stage would peptides identified by *in vivo* phage display be available to other PENs?
 - Establish benchmark systems for comparisons across the PENs- MION-47 and macrophage uptake for comparison with new nanoparticles; VCAM; others?

The following acknowledgement should be used as a standard for all presentations and publications that describe work supported by the NHLBI PEN:

“This material is based upon work supported by the National Heart Lung and Blood Institute of the National Institutes of Health as a Program of Excellence in Nanotechnology (U01 HL **your number here)”.**