

## **Communicating with Faculty**

- Understanding and respecting the pressures that faculty members are under (from tenure and colleagues) will engage them in a more holistic way
- Provide message to faculty that broader impacts are a key to successful research proposals and that diversification of workforce is key
- Focus on the assistance that you can provide to make faculty more successful in research
- Give faculty members choices
  - Students, k-12, museums, science centers, media
  - Network with NRCEN for ideas and connections
- Have communicators and intermediaries that understand both the learning and research
- In hiring - be sure to be clear as to what level you must be familiar with discipline of center research
- Have somebody in a leadership role in center that has credibility with faculty and is dedicated to education and outreach
- Create a mechanism for sharing of ongoing outreach and educational activities

## **Engaging Faculty**

- Young faculty members seem more amenable to this kind of work
  - While keeping their eye on the tenure clock (especially important for under-represented faculty)
- Mentor young faculty members (best practices)
- Make it easy as possible for them (limited time, defined event...) – set the hook...
  - But, give them follow up - debrief on the outcomes of the contact
- Survey faculty for ongoing activities that you can link to
  - Draw on your faculty with young kids
- Get to know the faculty and become more familiar with their research
  - Informal setting - immersion
  - Attend their seminars/workshops/conferences
- Assist faculty in becoming conversant with broader audiences

## **•Incentives for Faculty**

- Maintenance of statistics for reporting out by researchers
- Awards for educational contributions at many levels
- Quality students/interns
- Funding for stipends as well as supplies, fees...(For return interns, ask faculty to pay for part)
- Their increased ability to get more funding can incentivize other faculty (assistance with broader impacts aspects of proposals – resulting in grants)
  - What role can neosphere play with this?
  - Bring in additional research resources and dissemination capabilities through collaborations

## Session 2B

### Challenges

- Engineering faculty prefer more mature students than scientific faculty
- Community college students often less attractive to faculty
- Faculty have no time - need to be creative (minimize effort – offer choices)
  - Work with willing faculty and seek spread with time
- Raise awareness of intrinsic incentives to this work – need for cultural change within institutions – seeing this with younger faculty – need support from upper level administration to this end**
  - Important to listen to what your partners (teachers, faculty, etc...) need

### Student issues -

- Begin this process as students
- Students in more controlled research setting feel more empowered to carry out research
- Industry partnerships may provide student opportunities
- Engagement of graduate students key to propagation of culture

### Teacher issues –

- SLC's are in schools and involved b/c trying to understand how people learn
- Tours of partner institutions helpful
- HS Teachers
  - Programs for training teachers
  - Bring key teachers to retreats to immerse them in scientific culture
  - Research opportunity awards for teachers
  - Be aware of how your center fits into science education standards
  - Respect expertise of teachers as well as faculty

### General Comments

- Centers may have different challenges
- Funds for collaborators to work with center - broadens impact to other institutions
- Development of shared agendas
- How to interact with faculty at other research institutions inside center?
  - Local partners are fairly easy
  - National labs are typically eager to engage in education
  - Retreat - annual meeting useful
    - Work to raise visibility of educational programs in annual meetings... (awards ceremony good way to do this)
- Recruit new partners both scientifically and educationally**