External Advisory Panel
January 19, 2009
Meeting Overview

• Monday
  – Welcome
  – SBRP Program Staff Presentation
  – Stakeholder Discussions
• Tuesday
  – Federal Partners Discussions
  – Closed Session
• Wednesday
  – Closed Session
  – Wrap-up & Next Steps
Goal

The goal of convening the Superfund Basic Research Program External Advisory Panel is to provide the SBRP staff input for the development of a framework for the future direction of the Program.
Rationale

We are seeking insights on how to:

Balance current research needs and anticipate emerging issues pertaining to hazardous substances in the environment

Target best scientists, best approaches

Move research from “lab” into practical use
Charge

To provide the SBRP with independent analyses and recommendations to:

1. What are the key, fundamental scientific issues that should frame the SBRP research enterprise?
2. What are the emerging issues that the SBRP should anticipate and incorporate into future initiatives?
3. How can the SBRP best support the acceleration of the basic science into application?
4. What activities and relationships would suit the objectives stated in the rationale?
Work Plan

• Interactive discussions with SBRP staff, stakeholders and federal partners

• Work session Tuesday afternoon: Panel discussion – agree on major conclusions, develop report sections and content, refine writing assignments

• Work session Wednesday morning: presentation of report sections by authors, finalize report organization, prepare draft chapters

• Layout next steps
Post-Meeting

• Chair to compile chapters; request additional material/clarification as needed from Panel; complete draft EAP Report
• Panel review of draft EAP Report
• Chair review Panel comments, revise EAP Report
• SBRP Director and Panel review second draft EAP Report
• Chair to finalize EAP Report and submit to NIEHS
• Chair and Council Representative to present findings to May 2009 NAEHS Council
Presentation Overview

• Historical perspective
• Snapshot of the science
• Management strategies
• Vision for the future
Overarching Program Goals

- Elucidate relationship between exposure and disease
- Improve public health
- Reduce the risk of exposure
- Develop efficient and cost-effective cleanup strategies
- Contribute to the decision-making process
Historical Perspective

• SARA 1986
• Multi/Interdisciplinary
• Multi-project
• Development of science capacity
• 4 programs and $3M → 18 programs and $30M

http://www.niehs.nih.gov/sbrp
Historical Perspective

- Develop partnerships
- Enhance communication
- Incorporate new grant mechanisms
Historical Perspective

- Emphasized Translation
- Re-defined Community Outreach
- Initiated Annual Competitions
- Initiated Individual Research Project Program (R01s)
SBRP Funding History
Number of Research Projects: 2005-2008

http://www.niehs.nih.gov/sbrp
The Current Program: Multi-Project Program (P42s)
The Current Program:
P42s + Collaborating Institutions
The Current Program: P42s + SBIR/STTR
The Current Program:
P42s + SBIR/STTR + R01s
The Current Program:
Breakdown by Hazardous Substance
The Current Program: Breakdown by Disease / Dysfunction

- Neurological Toxicity
- Cancer
- Pulmonary/Cardiovascular Function
- Reproductive Toxicity
- Hepatotoxicity
- Dermal Toxicity
- Developmental Toxicity
- Immune Function

http://www.niehs.nih.gov/sbrp
The Current Program: Breakdown of Non-Biomedical Research

- Bioremediation
- Other Remediation
- Fate & Transport
- Bioavailability
- Ecotoxicology
- Monitoring and Sensors
- Site Assessment

http://www.niehs.nih.gov/sbrp
Critical Components of SBRP

- Technology Transfer
- Research
- Application of the Research
- Communication
- Training
- Community Outreach
- Conferences
- Research Translation

http://www.niehs.nih.gov/sbrp
Management Strategies

1. Build partnerships
2. Coordinate with other federal agencies
3. Facilitate inter-laboratory projects
4. Provide seed funds for tech transfer
5. Support conferences
6. Communicate research findings
Management Strategies

1. Build partnerships
   - EPA
   - ATSDR
   - Department of Defense
   - Bridges to be built
     • States
     • Tribes
     • NGOs
     • Others?
2. Coordinate with other federal agencies
   – EPA
     • SBRP RFA development & review process
     • Joint funding of conferences
     • Program staff & Grantee participation at EPA conferences
     • Risk-e-Learning web seminars
     • Targeted web seminars for EPA Regional staff
Management Strategies

2. Coordinate with other federal agencies
   - ATSDR
     • SBRP RFA development & review process
     • Joint funding of conferences
     • Grantee seminars for ATSDR staff

http://www.niehs.nih.gov/sbrp
Management Strategies

2. Coordinate with other federal programs
   – NIEHS Worker Education & Training Program
   – NIOSH
   – Department of Defense (SERDP/ESTCP)
   – Asbestos Working Group
   – Partnerships for Environmental Public Health
   – NIEHS Nanotechnology (NNI)
Management Strategies

3. Facilitate inter-laboratory projects

- Bioassay Network
  TAMU, Duke U, MSU, UC-San Diego, UC-Davis, U Washington, EPA R10, EPA ORD

- Bayesian Models for Decision Making
  EPA ORD, Duke U, Dartmouth

- Environmental Fate and Exposures to TCC
  UC-Davis & Arizona State U, Cal EPA

- Arsenic Bearing Solid Residuals
  U Arizona, Dartmouth, Columbia
Management Strategies

4. Provide seed funds for tech transfer
   - Milt Gordon – Phytoremediation
   - Cass Miller – DNAPL Source Zone Remediation
   - Kent Udell – Steam Extraction
   - Wendell Ela – Stabilization of Arsenic Residuals
   - David Ozonoff – Software Development
   - Eric Suuberg – Vapor Intrusion Modeling
   - Mike Hooper – Biological Monitoring
Management Strategies

5. Support conferences

- Dioxin Toxicity: Mechanisms, Models, and Potential Health Risks
- Vapor Intrusion In Commercial and Industrial Buildings: Assessment & Mitigation
- Green Technology Entrepreneurship Academy
- The Central and Eastern Europe Conference on Health and the Environment
- Mine Tailings Stabilization in Arid and Semi-Arid Environments: Assessment, Problems, and Solutions
- Fifth PCB Workshop: New Knowledge Gained From Old Pollutants

http://www.niehs.nih.gov/sbrp
Management Strategies

6. Communicate research findings
   – Research Briefs
   – Risk-e-Learning Web Seminars
   – Conference Participation
   – Meetings with EPA and ATSDR Regional and Headquarter staff
   – Dynamic web page
   – Articles in the NIEHS monthly newsletter
“…I can tell you that I regularly forward SBRP research findings (your Research Briefs) to several fairly large listserves, reaching many different NGOs and individuals. This kind of summary is very useful and is much appreciated.

I am entirely convinced that reaching community groups/diverse NGOs is essential for helping to develop sound public policy.”

Ted Schettler, MD, MPH
Science Director
Science & Environmental Health Network
SBRP: A Vision for the Future

• Preserve positive aspects
  – Long term funding – allows researchers to take risks
  – Not prescriptive – provides flexibility

• Support full spectrum of research
  – Continued support for basic research
  – Application of research: impacts on policy, decision makers, public health

• Address emerging issues
SBRP’s Hopes/Expectations for Panel Input

• Look forward, not back
• Think outside of the box
• The SKY is the limit
  (SBRP will do reality checks later)
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