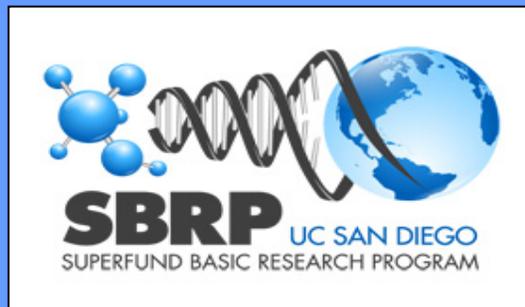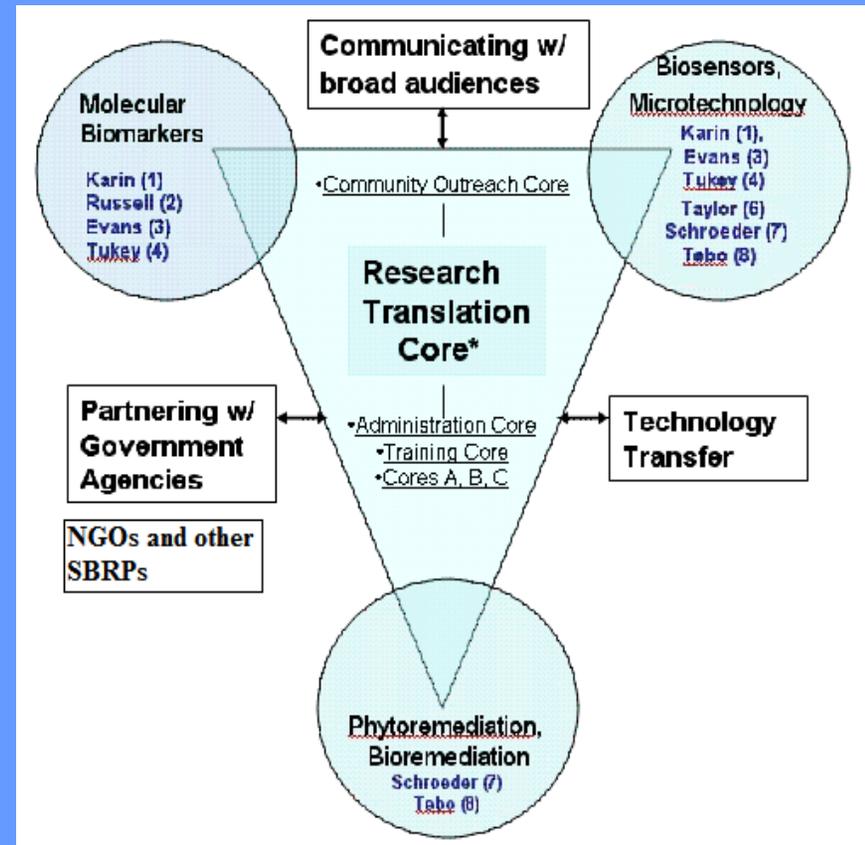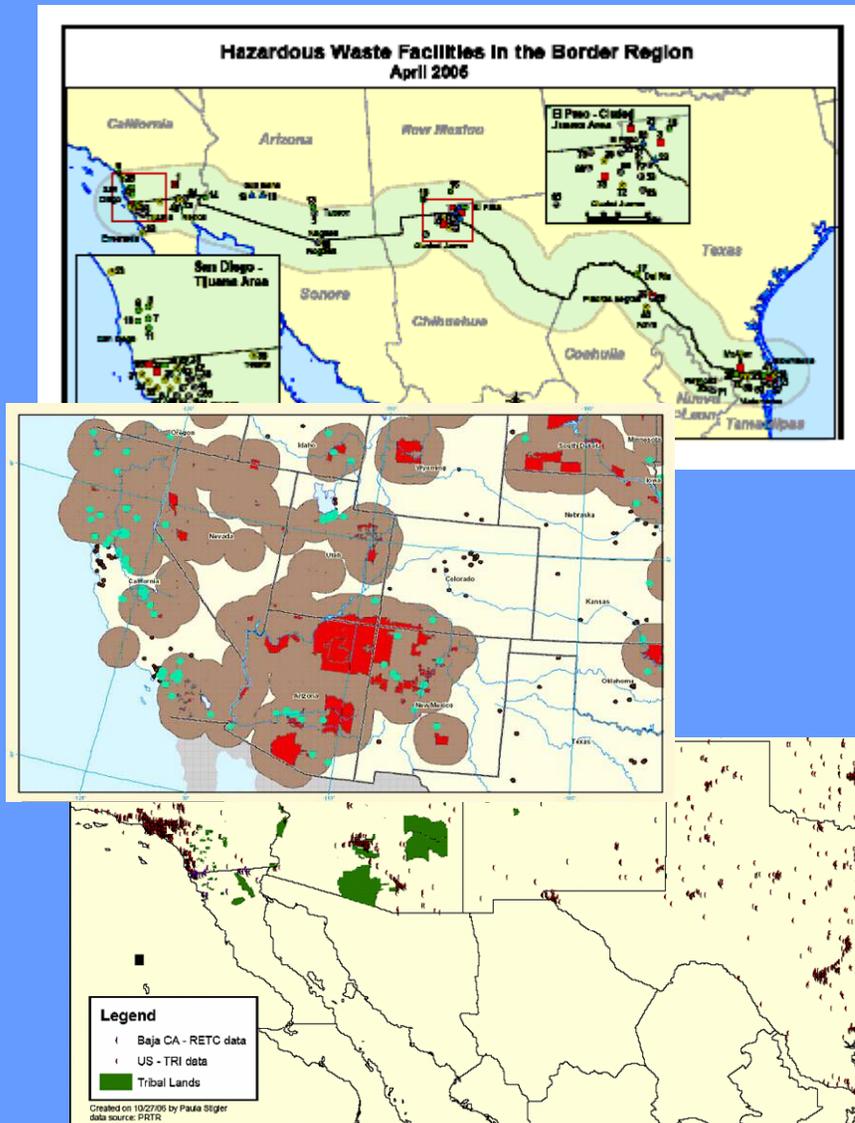# NIEHS SBRP Web Seminar
By Dr. Keith Pezzoli and Hiram Sarabia

US-Mexico Border Region | Strategy

Source(s): U.S.EPA, UCSD SBRP and Paula Stigler

Superfund Basic Research Program

UCSD

Basic Research | Research Translation

| SBRP Projects	New Biological Models and Technologies	Applications
biomedical and non-biomedical Projects	*Aimed at understanding the impact of Superfund hazardous substances on cellular signaling mechanisms, toxicity, metabolism, endocrine function and overall physiology.*	*New and improved biological models and technologies for hazardous substance detection, assessment, evaluation, and remediation.*

Source(s): NIEHS and UCSD SBRP

Research Translation in Region | National and Trans-border Efforts

Molecular Biomarkers

Evans (3) Tukey (4)	• Genetically modified mice that are highly sensitive to oxidative stress as well as non-genotoxic and genotoxic hepatocarcinogens. • Transgenic mice sensitive to PXR and CAR receptor ligands. • New cell lines that can detect xenobiotic receptor activators, Ah-receptor ligands, and arsenic.	• Model transgenic and genetically altered organisms and cell-based systems useful for risk assessment. • New biological methods for detecting/testing toxicants in water/soil/sediment samples. • New methods to assess the risk associated with exposure to mixtures of toxicants
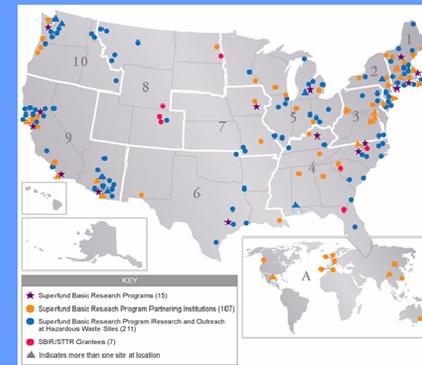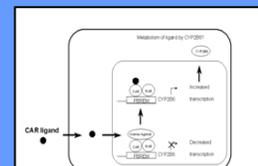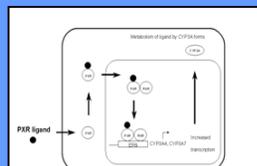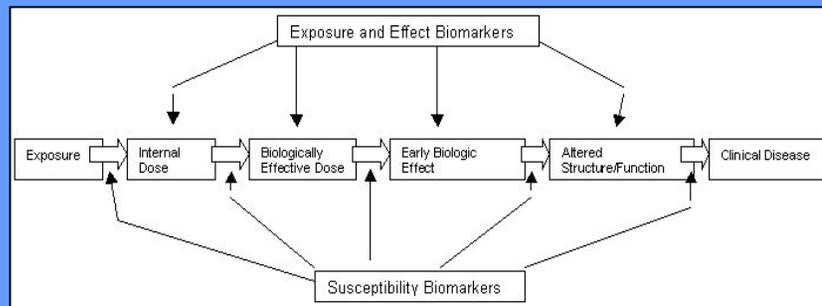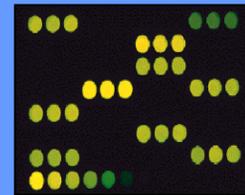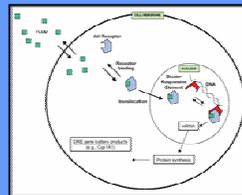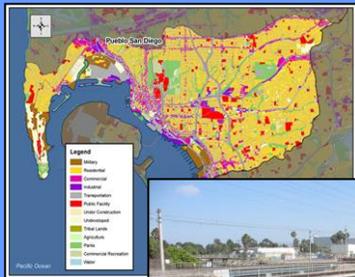
Source(s): NIEHS, UCSD SBRP,

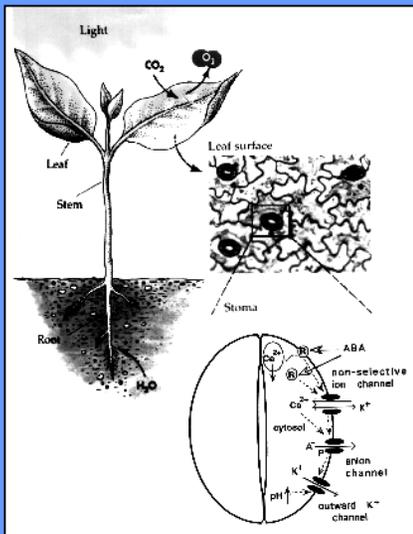City of San Diego, County of San Diego

Bioremediation | Sustainability

Phytoremediaton

Schroeder (6)	• Transgenic plant technology for phytoremediation	• Phytoremediation of heavy metal contaminated soils.

Source(s): UCSD SBRP and Paula Stigler