

Priority Topic 9: Learning from Mechanisms of Resistance, Resilience and Recovery to Develop Therapeutic Treatments for Environmental Disease

Convener: Ed Levin

Discussion Participants: Palmer Taylor and Ed Levin

Subtopic Report Numbers from Days One and Two:

26 Developing interventions for environmental disease

56 Mechanisms of resistance, resilience, and recovery: learning from success in dealing with environmental stressors

Recommended Strategic Goal:

Develop therapeutic treatments for impairments and injuries caused or aggravated by environmental exposure. Good approaches for this effort can be gained by learning about the mechanisms of resistance, resilience and recovery that normally occur in individuals that do not show adverse effects in the face of environmental exposure.

Potential Beneficiaries of this Strategic Goal: Those people who suffer from the adverse effects of environmental exposure. It is an excellent outcome to discover the threshold for adverse effects of toxicants to prevent future exposure but we should not abandon those already exposed.

NIEHS Capabilities and Partnerships Needed to Achieve this Goal: Ally with therapeutics development underway by other NIH institutes, pharmaceutical companies and academic labs to develop effective treatments for environmentally induced disease. Attend to the physiological processes of adaptation and resilience and recovery that provide protection against toxic effects in those not showing adverse effects of toxicant exposures