Creating a Transdisciplinary Team

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* Slides 2-4 have been added since the webcast

Continuum Ranging from Disciplinary to Cross-Disciplinary Forms of Collaboration

- **Unidisciplinary** - researchers from a single discipline work together to address a common problem

- **Multidisciplinary** - researchers from different disciplines *work independently* or sequentially, each from his or her own disciplinary-specific perspective, to address a common problem

- **Interdisciplinary** - researchers from different disciplines *work jointly* to address a common problem and although some integration of their diverse perspectives occurs, participants remain anchored in their own fields

- **Transdisciplinary** - researchers from different disciplines *work jointly to create a shared conceptual framework* that integrates and moves beyond discipline-specific theories, concepts, and approaches, to address a common problem

(Rosenfield, 1992)

Presumed Benefits of Transdisciplinary Scientific Collaboration

- Greater Explanatory Power

- Methodological Pluralism

- Broad-Gauged Public Policies

- Advantages of Generalist Training Programs

Challenges to Cross-Disciplinary Collaboration

- Labor Intensive

- Conflict Prone

- Require preparation, practice, and trust

- Impact of contextual factors on collaboration readiness (e.g. institutional, technological constraints)

- Scientific and translational outcomes are often uncertain, as are the metrics and timeframes for measuring them

- Not all researchers are well suited to CD collaboration– one size does not fit all – match researchers and research arrangements more effectively in order to do "smarter science"

Collaboration Readiness Factors

- Team members' history of collaboration on prior projects

- Institutional support for cross-disciplinary collaboration

- Leaders with collaborative orientation and experience

- Members share a strong commitment CD collaboration

- Spatial proximity of investigators' offices and laboratories

- Similarity of researchers' scientific worldviews

- Overlapping departmental identities of team members