

# Promoting a Transdisciplinary Educational Environment



THE UNIVERSITY  
OF ARIZONA

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# Promoting a Transdisciplinary Educational Environment

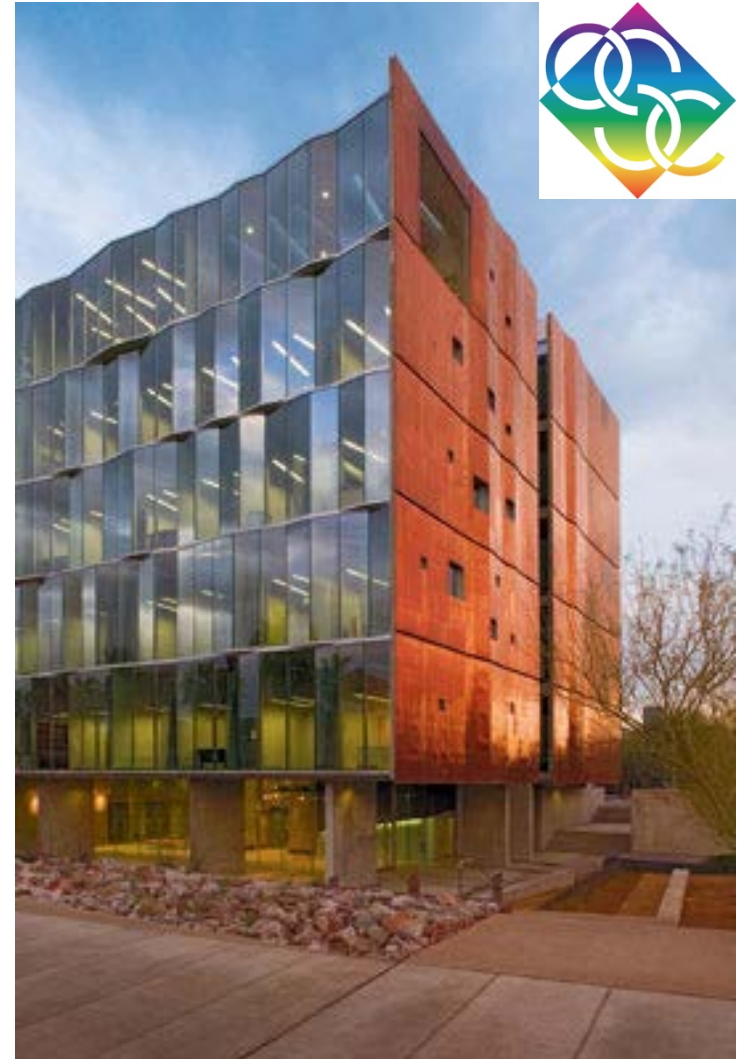
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- UA has long been a leader in interdisciplinary and multi-disciplinary research and education
- **Transdisciplinary**: problem-oriented, involve all relevant parties, improve ability to solve challenges facing society
  - **Interdisciplinary**: combining disciplines → new field
- How to provide a University environment that nurtures and supports transdisciplinary thinking in its faculty and students?
- Thoughts from the UA experience

# UA's Interdisciplinary Tradition



- Not just sciences, social sciences & stakeholders too
  - Non-academics
  - Citizen science

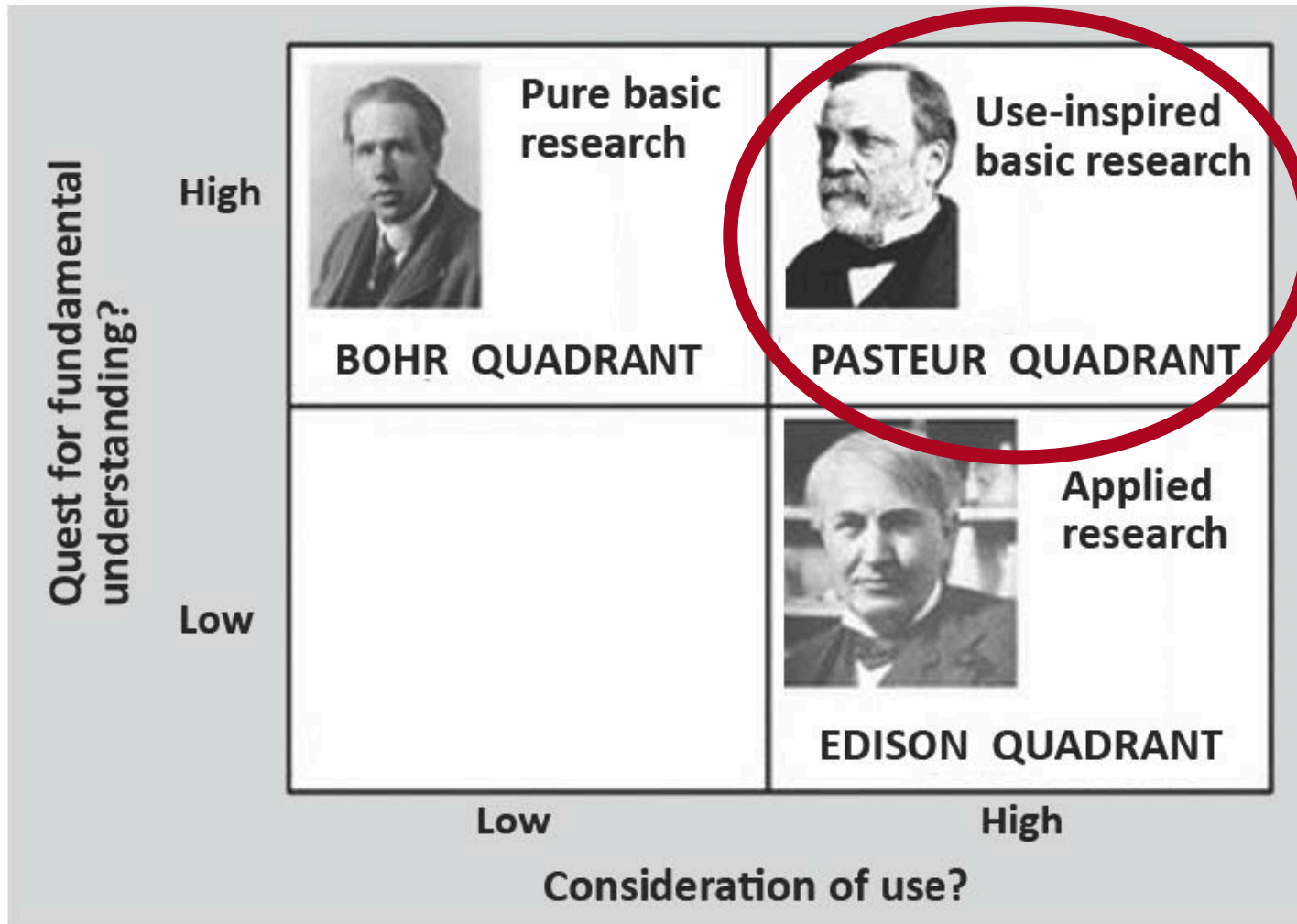


# Pasteur's Quadrant

- *Stokes, 1997*

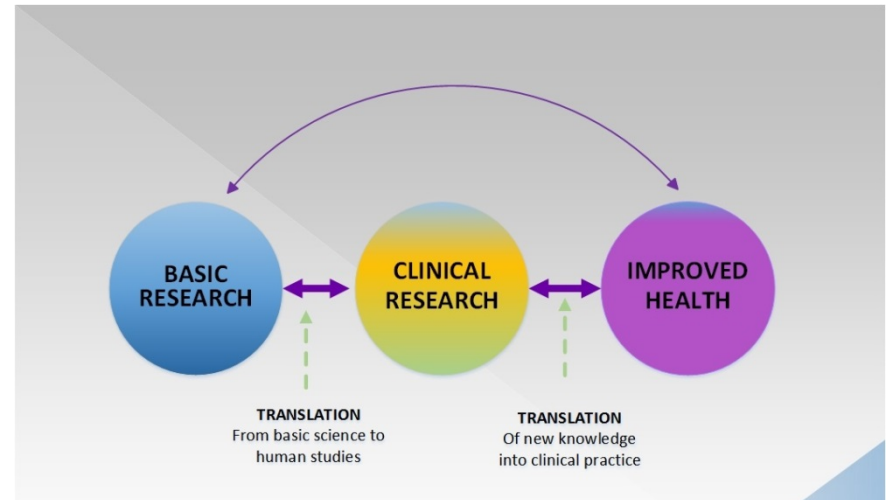


# Pasteur's Quadrant



# Also known as...

- Translational science (from health sciences)
- Stakeholder-driven science
- Use-inspired science, etc.



# Educational Environment

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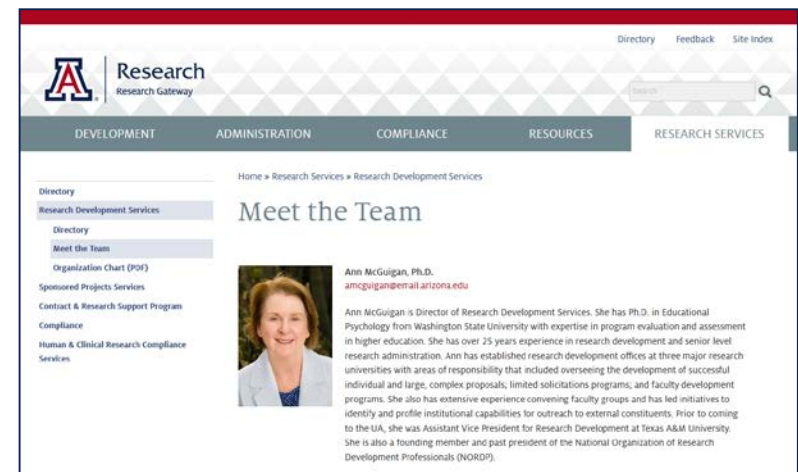
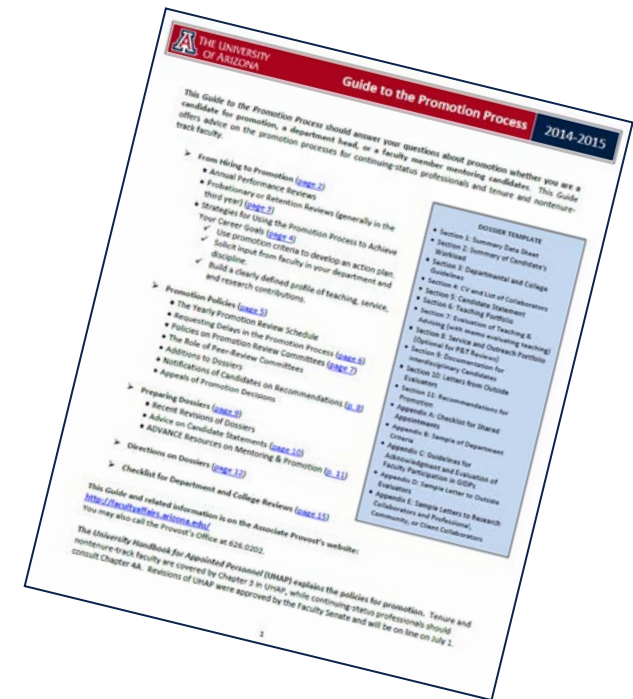
Graduate Interdisciplinary  
Programs

- GIDPs
- All graduate dissertation committees w/ minor members
- Inter/trans-disciplinary seminar courses
- Common thread: inter/trans-disciplinary problem-solving
- Undergraduate: recent advances in active & problem-based learning, collaborative classrooms, gamification



# Faculty Institutional Environment

- Changes to promotion and tenure guidelines
  - Example: patents, licenses
  - A tough challenge: local department culture change
- Central Research Office (ORD) support for large and multi-PI/institution projects
  - Research Development Services





# Challenges to Overcome



- Disciplinary superiority complexes
  - *"My work is more important than your work"*
- Time
  - To learn and develop a common language and understand what drives the other discipline/paradigm

# A possible model?

**IPEP**  Interprofessional  
Education & Practice



- IPEP: from the health sciences
  - Doctors, nurses, technicians etc. work together in practice
  - Why not educate and train them in an integrated way
- **What would Environmental IPEP look like?**



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Thank you

Your thoughts & comments?