Transdisciplinary Research Initiative (TRI)

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**Complex Systems**
- **Focus**
  - computationally-based studies of complex scientific and real-world problems; emphasis on Big Data and socio-technical systems

**Food Systems**
- **Focus**
  - research into the resilience and future of sustainable regional food systems

**Neuroscience, Behavior & Health**
- **Focus**
  - the connections between behavior and human health - from molecular studies to human psychology

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**Shared Common Goals**
- Increase recognition of UVM transdisciplinary scholarship locally, nationally, and internationally
- Develop transdisciplinary leadership in professional, graduate, and undergraduate communities
**TRI Chronology**

**FY10**
- Conceptualized
  - UVM Deans choose eight potential TRI topics in August 2009
  - UVM faculty Working Groups nominated & charged to develop proposals
  - UVM holds Town Hall Meetings + internal & external proposal reviews
  - Final Review Committee meets and three “TRIs” announced in April 2010

**FY11**
- Initialized
  - 18 tenure-track hires aligned with TRI
  - TRI Advisory Committee (TRIAC) approves metrics
  - Campus TRI events launched (lecture series, student events)

**FY12**
- Year 1
  - 20 tenure-track hires aligned with TRI
  - Successful NBH Core Faculty Hire
  - TRI competitive grants developed and submitted
  - Annual TRI education/outreach events established
  - State-UVM report on future collaborations and economic development cites importance of TRI

**FY13**
- Year 2
  - 11 tenure-track hires aligned with TRI
  - Successful Complex Systems Core Faculty Hire
  - Formal appointment of TRI Directors
  - State-TRI connections continue to develop

**FY14**
- Year 3
  - 12 tenure-track hires in queue for FY14 to be aligned with TRI
  - Food Systems Core Faculty Hire search in progress
  - TRI strategic external partnerships continue to develop
  - New research, education, and outreach events in queue for all three TRIs in FY14
TRI Investments

TRI-Core and -Aligned Faculty Recruitments Since FY11 50+

Three New Tenure-Track “TRI-Core” Faculty
• Compensation $390,000 annually
• Start-Up $600,000 one-time

Annual Program Commitments for Three TRIs $326,000 annually
• Operations
• Director Support
• Grant Writing
• Outreach
Impacts & Achievements: Complex Systems

• Since FY11, over $38M in awarded grants have been identified as related to Complex Systems by UVM faculty

• CSYS leaders receiving international recognition and awards, including NSF CAREER grants & Presidential Early Career Award for Scientists and Engineers (PECASE)

• Global media visibility for CSYS leaders’ research in New York Times, CNN, Today Show, BBC, Wired, and more

• External partnerships developing with State of Vermont, IBM, MITRE

• CSYS listserv includes over 350 faculty and staff
Impacts & Achievements: Food Systems

• Since FY11, over $36M in awarded grants have been identified as related to Food Systems by UVM faculty

• UVM Food Systems leading co-sponsorship of national Journal of Agriculture, Food Systems, and Community Development

• UVM part of Governor’s Higher Education Food Systems Council to establish Vermont as a food systems education destination

• Annual UVM Food Systems Symposium and Breakthrough Leaders Summit brings Food System “luminaries” and student fellows to UVM from around the world

• Food Systems listserv includes over 290 participants
Impacts & Achievements: Neuroscience, Behavior & Health

• Since FY11, over $85M in awarded grants have been identified as related to NBH by UVM faculty

• Over $34M in additional grants recently secured by UVM Center for Behavior and Health

• NBH Initiative successfully secured $250K NSF Research Experience for Undergraduates (REU) grant in 2013

• 2013 UVM NBH Research Forum attended by over 180 participants, from academics to local business leaders

• NBH listserv includes 175 UVM faculty
TRI Future

- Continue to invest in areas of TRI success that have brought new state, national, and international visibility to UVM scholarship

- Continue development of TRI efforts to inform State of Vermont policies and support economic development

- Increase emphasis on the creation of strategic external partnerships and collaborations for TRI in addition to competitive grants

- Consider development of additional initiative areas over time