

UMass LSTF Advanced Therapeutics Cluster Working Group

Co-Chairs

Terry Flotte, UMass Worcester

Steve Goodwin, UMass Amherst

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University of Massachusetts

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ATC Working Group Members

- Sam Black (Amherst)
- Tony Carruthers (Worcester)
- Brendan Chisholm (Worcester)
- Terry Flotte (Worcester)
- Andrew Grosovsky (Boston)
- Steve Goodwin (Amherst)
- Jim McNamara (Worcester)
- Melissa Moore (Worcester)
- Tariq Rana (Worcester)
- Bal Ram Singh (Dartmouth)
- Gary Stein (Worcester)
- John Sullivan (Worcester)
- Xingwei Wang (Lowell)

University Focus on Advanced Therapeutics Initiatives

- Timely and of direct consequence to patient outcomes and future vitality of Commonwealth's life sciences economy
- Responsive to the Governor's Life Sciences Initiative
 - Promotes development of therapeutic drugs to impact positively patient outcomes and to contribute to the economy of the Commonwealth
- Responsive to the NIH Roadmap for Medical Research
 - Supports application of knowledge to patient care and promotes innovative approaches, through collaborations, to solve complex medical problems
 - Connection to CTSA application

Identified Areas within ATC Pillar

- Stem Cell Biology
 - Research cores and programs in human and animal stem cells
- RNAi
 - Translation of RNAi into a therapeutic
- Gene Therapy
 - Viral and non-viral vectors
 - Delivery mechanisms
 - Interface with stem cells and RNAi

Activities To Date

- Conference Call with co-chairs and staff person on 1/8/08 to develop an agenda for first working group meeting and to develop tentative work plan
 - Identified need to solicit information from the campuses on advanced therapeutics-related research activities occurring within the University (inventory)
 - Campus representatives from within the working group were asked to disseminate the information request to appropriate groups of colleagues on their respective campuses
 - Data collection still in progress
- Working Group meeting on 1/31/08
- Parallel Process to advocate for facilities for UMATC: 1/31/08
Public hearing of the Joint Senate/House Committee

Highlights from Meeting

- Pillar defined around methodologies as opposed to concepts
- UMass needs to sell its existing technologies
- Discovery vs. application
 - UMass should excel at both
- Need to embrace emerging therapeutic approaches
 - small molecules high input screening
- Numerous targets are being identified on the campuses, need facilities and libraries to screen against
 - role for animal models (e.g. humanized mice)
 - peptide and poly peptide therapies
 - systems biology approaches
 - combinatorial biology
 - *in vivo* evolution
- 2Need to look at how campuses interact
 - seed grants focused on collaborative projects from multiple campuses
 - post-doctoral support / graduate fellowships

Inter-Campus Models for Collaboration

- Amherst/Worcester collaboration around stem cell research emanating from the Stem Cell Working Group
- Lowell/Worcester collaboration around medical devices (Mass Medical Device Development Center – M2D2)

Looming Questions

- How does the working group ensure that each campus is adequately represented in an aspirant plan?
- How does the working group discuss advanced therapeutics without discussing nanotechnology?
- What impediments exist that deter inter-campus collaborations?
- Can we establish a basis for a 5-campus collaborative element for the CTSA application by the October 2008 deadline?

Next Steps

- Schedule next meeting
- Renew effort to collect campus information on ATC-related research efforts
- Joint meeting with nanotech working group