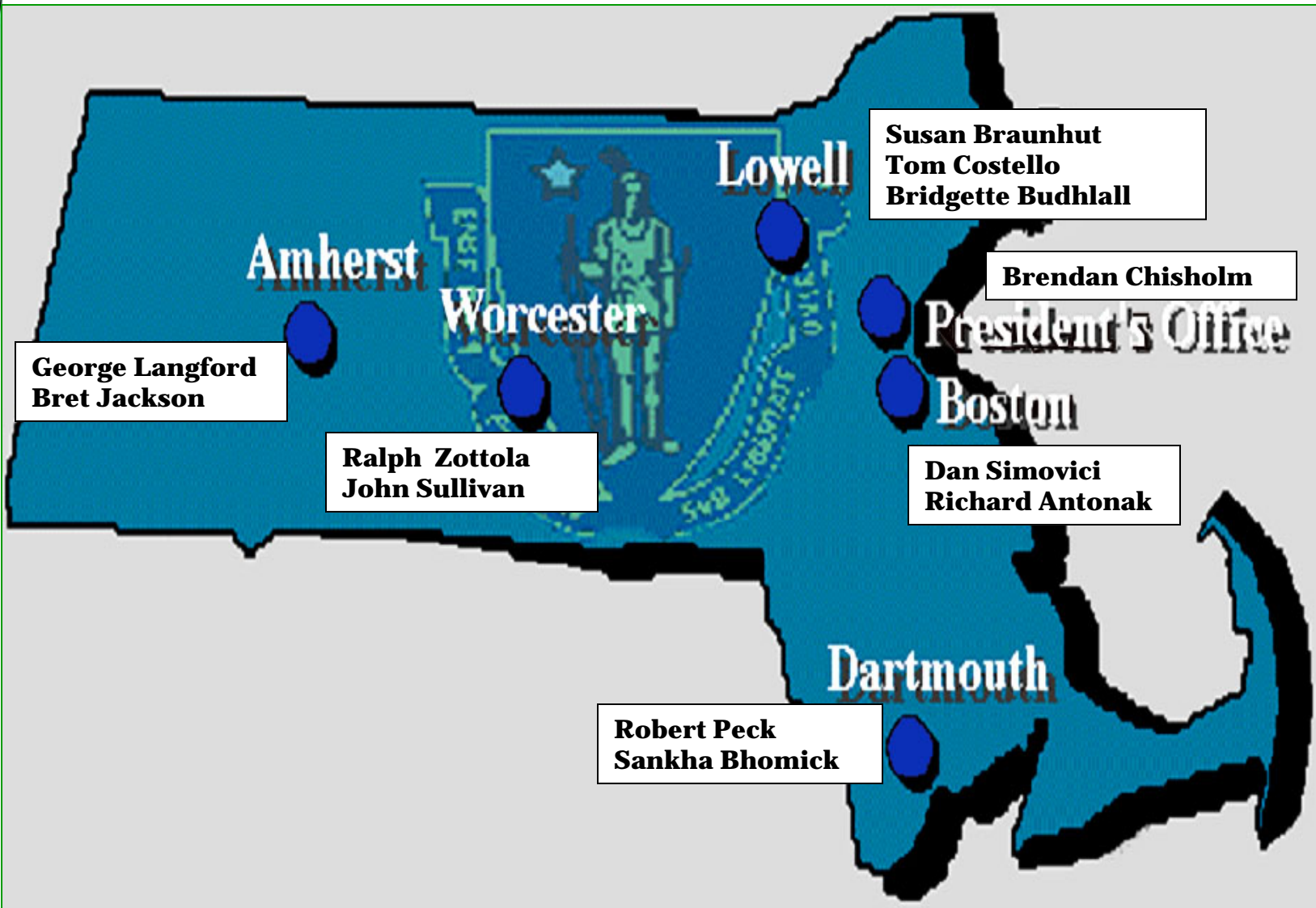


Shared Infrastructure & Additional R & D Working Group

Working Group Members:



MASS Stem Cell
Initiative

- hESC Bank
- hESC Registry

Bioinformatics Cores

Tissue Engineering

Diagnostics

Biomaterials

Computational
Sciences

Charge to working group and Overview of work plan.

- **Compile a list and the location of all core facilities** that support and foster life sciences research activities.
- **Evaluate current practices of core usage, fee structure, and access** for host and non-host U Mass investigators and non-U Mass investigators.
- **Evaluate overlap, unique resources and identify needs** across the five campus cores.
- **Develop strategies to improve awareness of cores, ease of use of cores and equitable fee structures.**
- **Our group reached consensus** by face-to-face meetings, teleconferences, email correspondence and participation by representatives from all five campuses.

MASS Stem Cell Initiative

- hESC Bank
- hESC Registry

Bioinformatics Cores

Tissue Engineering

Diagnostics

Biomaterials

Computational Sciences

Current assessment of core facilities and infrastructure.

Appendix 1 is a **database of cores and their fee structure** for services and appendix 2 is the U Mass Worcester list of cores as a model.

Each campus is different. The fee structure is either well described, not described, described for host institution users only, or for U Mass users only. No one has a universal “one service-one fee” structure.

Some cores **do not have staff assistance** available.

Forms for requesting a service are not standardized and some do not have web-based information about the core.

Provisions for shipping samples are often not described.

If samples are sent to a core facility, **the form results and analysis** will take are not always described.

Some highly desired capabilities are not found in any of the cores or campuses (we have placed these in a wish list).

The five campus system **lacks a common high performance computing** capability.

Common strengths in stem cell research, diagnostics, tissue regeneration, bioinformatics, neurosciences, material and biomaterial sciences (and others) suggests there would be more intercampus collaboration if opportunities allowed investigators to meet, in **joint retreats, symposium, conferences.**

MASS Stem Cell
Initiative

hESC Bank
 hESC Registry

Bioinformatics Cores

Tissue Engineering

Diagnostics

Biomaterials

Computational
Sciences

Recommendations

- 1. Centralize and link all the information about the cores** from the UMass Presidents office home page. The model is the proposed U Mass Center for Clinical and Translational Science (UMCCTS). The UMCCTS will have a tab from the Presidents office web page and will provide all UMass faculty and members access to all UMass Worcester core facilities at UMass Worcester faculty rates. Members of UMCCTS will be eligible for Pilot Project funds (they must have a U Mass W faculty collaborator) and UMass Worcester is planning to invest \$1 million during the 2009 fiscal year and will fund 5-7 projects.
- 2. Create a common format** for web-based service requests, instructions for shipping and processing of materials at cores.
- 3. Provide supplemental support for staffing** of cores to provide users with the option of staff assisted use.
4. Provide supplemental support to cores so that they can offer a **“one service-one fee” charge structure**, open to all.
- 5. Fund the planning and implementation of a five campus wide common high performance computing capability.** A robust and reliable communication network for an enriched human-human communication as well as data transmission and cycle sharing can initiate the creation of a silicon valley "neighborhood" sense of common, shared interests and natural/ normal ability to collaborate.

MASS Stem Cell
Initiative

hESC Bank
 hESC Registry

Bioinformatics Cores

Tissue Engineering

Diagnostics

Biomaterials

Computational
Sciences

Recommendations

6. **Providing a common portal to core facilities and the HPC environment could also benefit the MA industrial base companies** - existing, emerging (incubating) and yet to emerge. Most small, early stage and young stage companies do not have the financial flexibility to invest in the HPC environment. Yet, there are benefits to them in analytical work, data generation, collection and analysis and in accelerating time-to-market of their innovations and products.
7. **Other ?**
8. **Estimated costs?**
9. **Metric to measure outcome:** Monitor the increased usage of core facilities by host, non-host Univ. Mass. investigators, and non- Univ. Mass. users. Solicit satisfaction rating from users after one year. Monitor evidence of new intercampus collaboration and attendance at intercampus retreats, symposium and conferences.

MASS Stem Cell
Initiative

- hESC Bank
- hESC Registry

Bioinformatics Cores

Tissue Engineering

Diagnostics

Biomaterials

Computational
Sciences