May 20th, 11:15 AM

**Advancing Translational Research at the UMass Amherst Center for Personalized Health Monitoring**

Patty S. Freedson  
*University of Massachusetts Amherst*

---

**Let us know how access to this document benefits you.**

Follow this and additional works at: [https://escholarship.umassmed.edu/cts_retreat](https://escholarship.umassmed.edu/cts_retreat)

Part of the Translational Medical Research Commons

---

**Repository Citation**


---

**Creative Commons License**

This work is licensed under a Creative Commons Attribution-Noncommercial-Share Alike 3.0 License. This material is brought to you by eScholarship@UMMS. It has been accepted for inclusion in UMass Center for Clinical and Translational Science Research Retreat by an authorized administrator of eScholarship@UMMS. For more information, please contact Lisa.Palmer@umassmed.edu.
Advancing Translational Research at the UMass, Amherst Center for Personalized Health Monitoring

Patty S. Freedson, PhD, Moderator
Department of Kinesiology

UMMC Research Retreat
May 20, 2016
Institute of Applied Life Sciences

Models to Medicine

Bioactive Delivery

Center for Personalized Health Monitoring
IALS was seeded with Capital Investments

- New Building (LSL, >$50M)
- Building fit-out (>$30M)
- Core Facility Equipment (>50 M)
- Faculty hires and startups (~12 new positions)

Research programs from more than 100
UMass faculty within the three Centers

Leverage existing organizational infrastructure

- Tech Transfer / IP – Bob McWright & team
- UMII – Jim Capistran & team
- Research Development – Loren Walker & team
- Development efforts – Jeff Aron, Will Melton, Chelsea Gwyther
- Med School and Center for Clinical & Translational Science – Katherine Luzuriaga
- Berthiaume Center for Entrepreneurship – Bill Wooldridge
IALS is a new type of academic/industry institute

Its mission is to accelerate translational life science projects, with the goal of delivering products to benefit human health and well-being

This vision will be achieved by:

• Establish translational collaborations across UMass Amherst and the UMass Medical Center
• Prioritize a pipeline of translational projects
• Create relationships and collaborations with industry partners
• Develop new products and technologies by utilizing existing and combined strengths at UMass
• Train a workforce skilled in translational science
New Technology Evaluation and Applications

- Sensor Development
- Low Cost & Additive Manufacturing
- Medical Robotics
- Medical Device

Computer Science and Mathematics and Statistics
- Software Engineering
- Big Data

Analytics

Evaluation and Applications

Engineering, Polymer Science, and Computer Science
- Sensor Performance
- Health Outcomes
- Healthcare Engineering

Kinesiology, Engineering, Psychological and Brain Sciences, Nursing & Public Health

UMassAmherst
Evaluation and Applications

- Muscle function, aging and exercise – Mark Miller, PhD, UMass Department of Kinesiology
- Detecting and monitoring objective signs of cancer-related fatigue – Rachel Walker, PhD, UMass Amherst School of Nursing
- Community and environmental determinants of sleep in children – Carolina Campenella, PhD, UMass Amherst Department of Psychological and Brain Sciences
- Effects of fluid flow on vascular disease and development – Juan Jimenez, PhD, UMass Amherst Department of Mechanical and Industrial Engineering