



## IP Strategies by Research Institutes to Maximize M&A Value

William Rosenberg, Ph.D.  
Executive Director, CVIP  
UMass, President's Office

UMass High Tech Executive Council  
December 14, 2006



## UMass Background

- 5 Campus System (engineering, basic sciences, medical school)
- Areas of excellence include:
  - **Polymers & plastics engineering (UMA, UML)**
  - **Life sciences (UMW, UMA, UML)**
  - **Marine science (UMB, UMD)**
  - **Computer science (UMA, UMB, UML)**
  - **Textiles (UMD)**
  - **Nanotechnology (UMA, UML)**
- Total sponsored research nearly \$400M



## Academic Institution Strategies for Max. Value

- Invest in developing technologies (gap funding)
- Invest in Institution's IP
- Facilitate company formation
- Invest in companies (seed round player)
- Participate actively in company success

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## Gap Funding

- Many universities dedicate funds to increase value of early stage technologies (e.g. UMASS Tech. Dev Fund, BU, MTTC Grants, MIT's Deshpande Fund, Harvard Accelerator Fund, other examples)
- UMass for 07 will invest in 8-10 promising technologies, 30K each, directly-4<sup>th</sup> year
- Between \$10-50K; some institutions \$100Ks
- Grant fund
- Use is proof of principle, prototype development, market validation
- Increases value of technology for start-up or license to existing company

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## Invest in IP

- Most institutions invest in their promising technologies without a partner or prospects
- UMass patent budget is 7 figures
- Use provisional route and triage early as best we can
- Will file PCT but rarely beyond that without licensee
- Use outside IP attorneys
- Bundling technology within & outside institution (MTTC portal (<http://www.masstechportal.org>))

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## Facilitate Company Formation

- Institutions actively promote startups
- UMass has hired P-T VC to work directly with faculty
- Partners has hired VC with staff to create startups
- Build relationships with Seed Round VCs and Angel groups
- Work with serial entrepreneurs to take out companies
- MTTC through their Platform and I-V programs assist all MA research institutions
- University incubators

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## Institution Investment

- UMass will invest in its companies
- Formed Spring 06, UMass formed Equity Co-Investment Fund (BU has community fund)
- Will do 2 investments in our startups in 06
- Others raising funds
- Work closely w. MA Technology Development Corporation (MTDC)
- Participate in MTTC Technology showcases for pre-funded research institution derived companies

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## Several UMass Examples

- Konarka-('01): Flexible solar cells from nanotech. significant investment in technology while at UMass; CEO (serial entrepreneur) was working for University p-t and spun it out; initially resided in incubator; raised \$81M; participant at MTTC Clean Energy Conference; no sales
- Polnox- ('04) Polymeric Antioxidants Considerable UMass technology investment and development; President and CTO spun out from UMass; housed at UMass; UMass & MTDC among series A investor (\$2M); Morgan Stanley i-banker; no sales

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## Several UMass Examples cont'd

- Encapsulation-(06) Nanotech for delivering cosmetics and drugs; UMass founders and serial entrepreneur; continued development at UMass; UMass reviewing Series A investment (\$7M); Presentation at MTTC Life Science Technology Conference; Likely trade sale pre-product sales