



RECOMMENDED LIFE SCIENCE STRATEGY SESSION
APRIL 27, 2011
KEY POINTS

- Life and medical sciences research and patient care are data intensive, and becoming more so.
 - Informatics makes biomedical researcher more competitive for grant/contract dollars
 - Informatics has a tremendous potential to control medical costs and improve care
- New IP and companies will emerge from discoveries made with bioinformatics, and not be bioinformatics companies, per se. There is more potential value from products created with Bioinformatics than the Bioinformatics tools themselves. A sampling includes:
 - Cancer and Carcinogen/Mutagen Exposure Biomarker and Drug Target Discovery
 - Universal Biodefense Detection and Forensics Technologies
 - Ligand Discovery and Optimization Engine for Peptide Drug Development
 - Text Data Mining Driven Drug Discovery
 - New Therapeutic Targets for Infectious Diseases
 - Nutraceuticals for Blood Glucose Lowering and Anti-inflammatories
- **Virginia universities are poised to make major contributions, for we have experts and infrastructure to address the overwhelming increase in basic and medical diagnostic data to make fundamental discoveries and translate those discoveries into new processes, products, and new Virginia companies.**

- Significant opportunities for non-State matching with leading companies, foundations, government
 - e.g., UVA's Coulter Foundation program, AstraZeneca partnership
- New Virginia ventures and jobs creation (e.g., Hemo Shear: seed funding totaling \$50-\$100K->\$8M private capital->15 new, high value jobs which are difficult to off-shore)
- **Vibrant and highly capable Virginia universities' research base in point of care diagnostics**
 - Track record: significant IP creation, and a number of start-ups

- Synthesized small molecule drugs and biologicals are growing in their use to treat a variety of human diseases.
- Using them in combination with patient molecular (genes and proteins) information allows a powerfully effective approach to treating disease commonly referred to as personalized medicine.
- Virginia's universities are well equipped to drive basic science, clinical science, and commercialization in this field; exceptional infrastructure and high impact research talent.

RECOMMENDED LIFE SCIENCE STRATEGY

- Review strategy with Lieutenant Governor Bolling for acceptance. ✓
- Review strategy with applicable Cabinet Secretaries. ✓
- VEDP arranges meetings with university team leaders and Lieutenant Governor Bolling to gain enhanced fluency in the three life science focus areas. ✓
- Engage Regional and local ED groups and work force development stakeholders.
- VEDP coordinates the development of corporate target lists across the three core sectors, as well as healthcare system providers (e.g. Inova, Carilion, HCA, Bon Secours), for collaboration discussions.
- “Test drive” with corporate capture teams in each of the three strategic areas. \$\$\$.
- VEDP coordinates metrics/milestones development and funding requirements.