



Sharing and Networking Core Facilities: Michigan's Core Technology Alliance

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Michigan Core Technology Alliance (CTA) Corporation

- CTA Corp. is a collaborative network of technologically sophisticated, fee for service core facilities located within the state of Michigan.
- Mission
 - Serve as a catalyst for biotechnology research and business development
 - Provide advanced technology and specialized research services to scientists

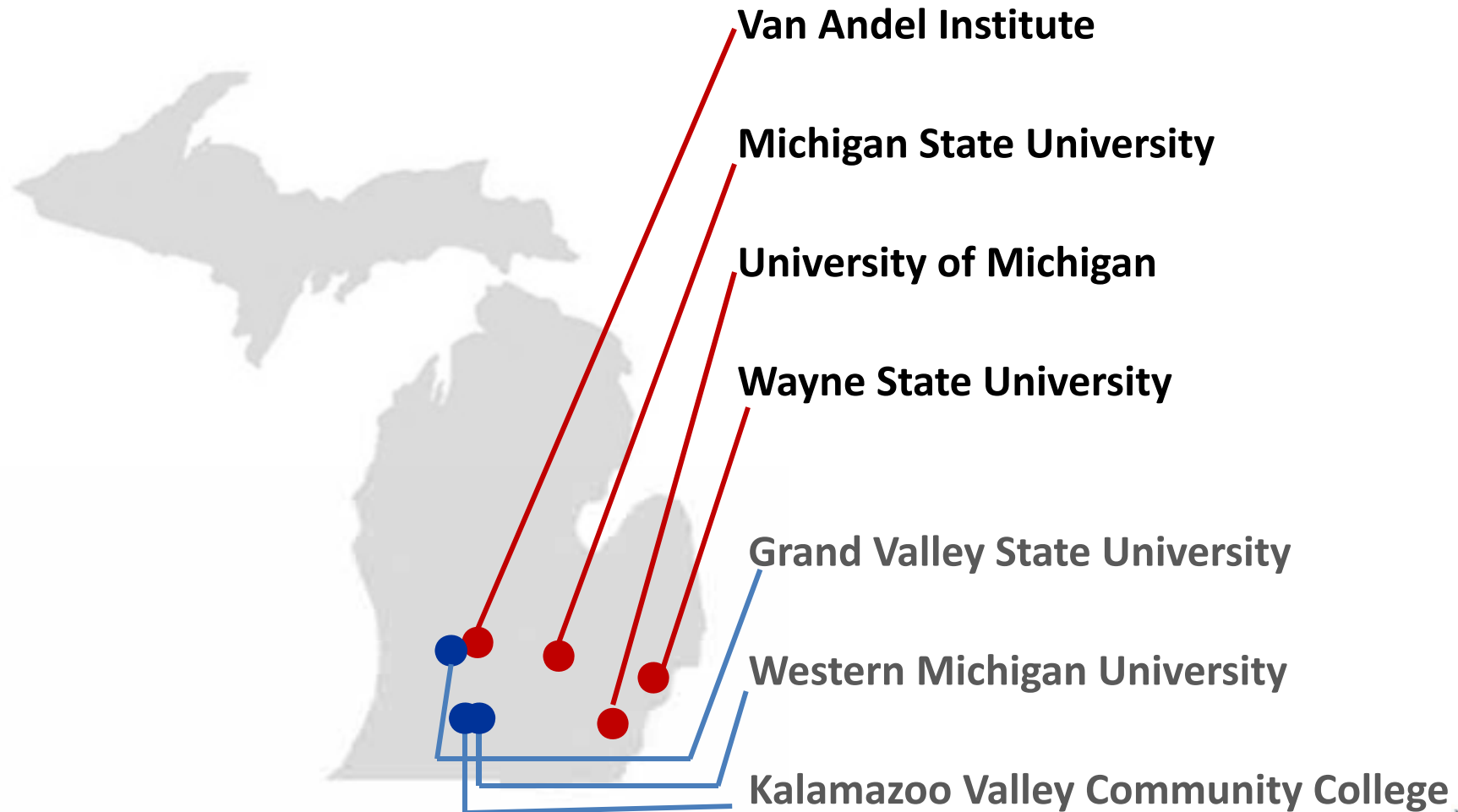


Early History of the CTA

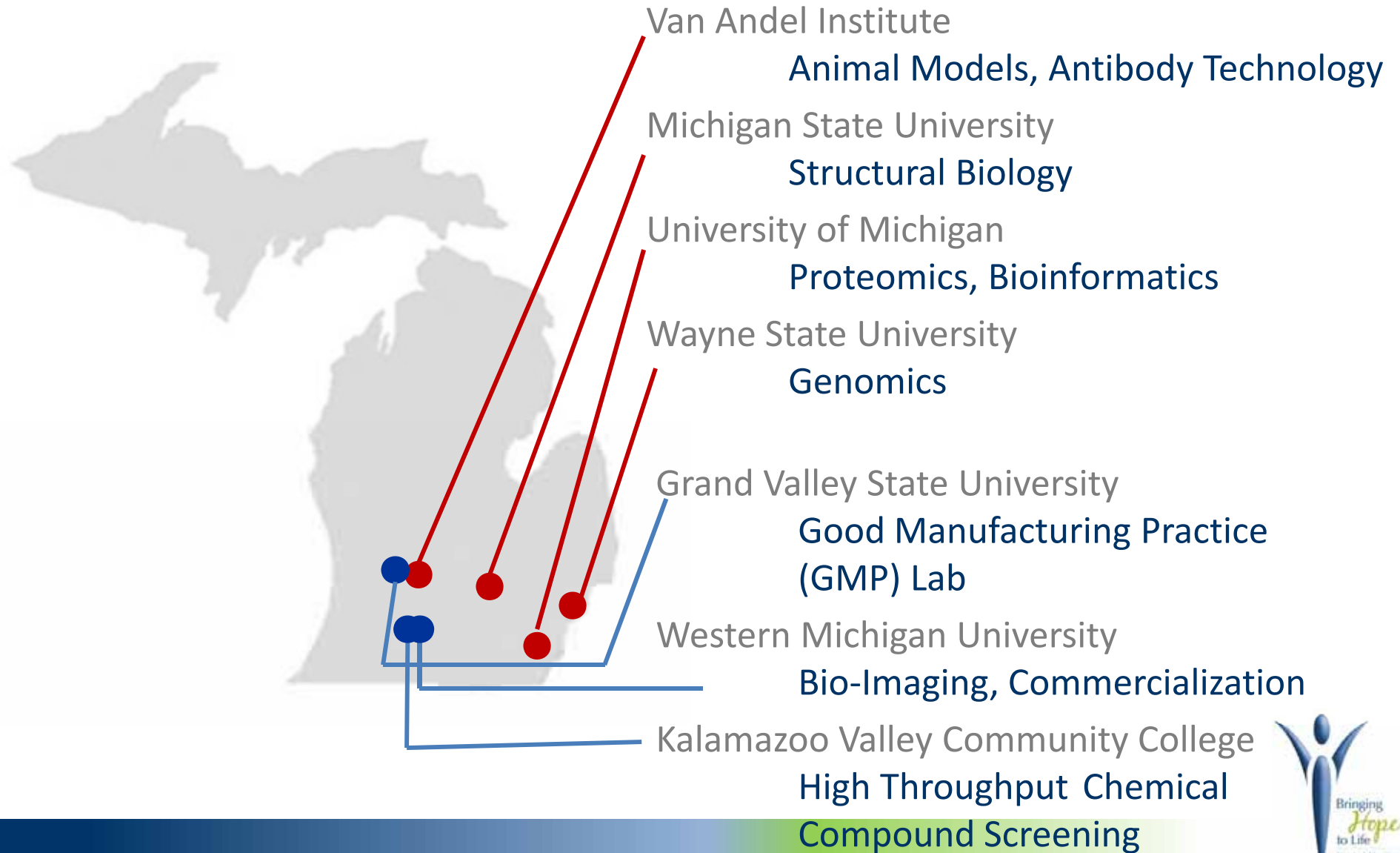
- 1998: Michigan receives tobacco settlement money
- 1999: Legislation allocates a portion of tobacco money to create the Michigan Life Science Corridor (MLSC)
- 2000: MLSC awards \$100M in life science funding
 - Basic Research (40%)
 - Collaborative Research (50%)
 - Commercial Development (10%)
- 2001-2006: \$65M awarded for infrastructure core facility grants
- 2006 – 2008: \$3M awarded for targeted CTA initiatives



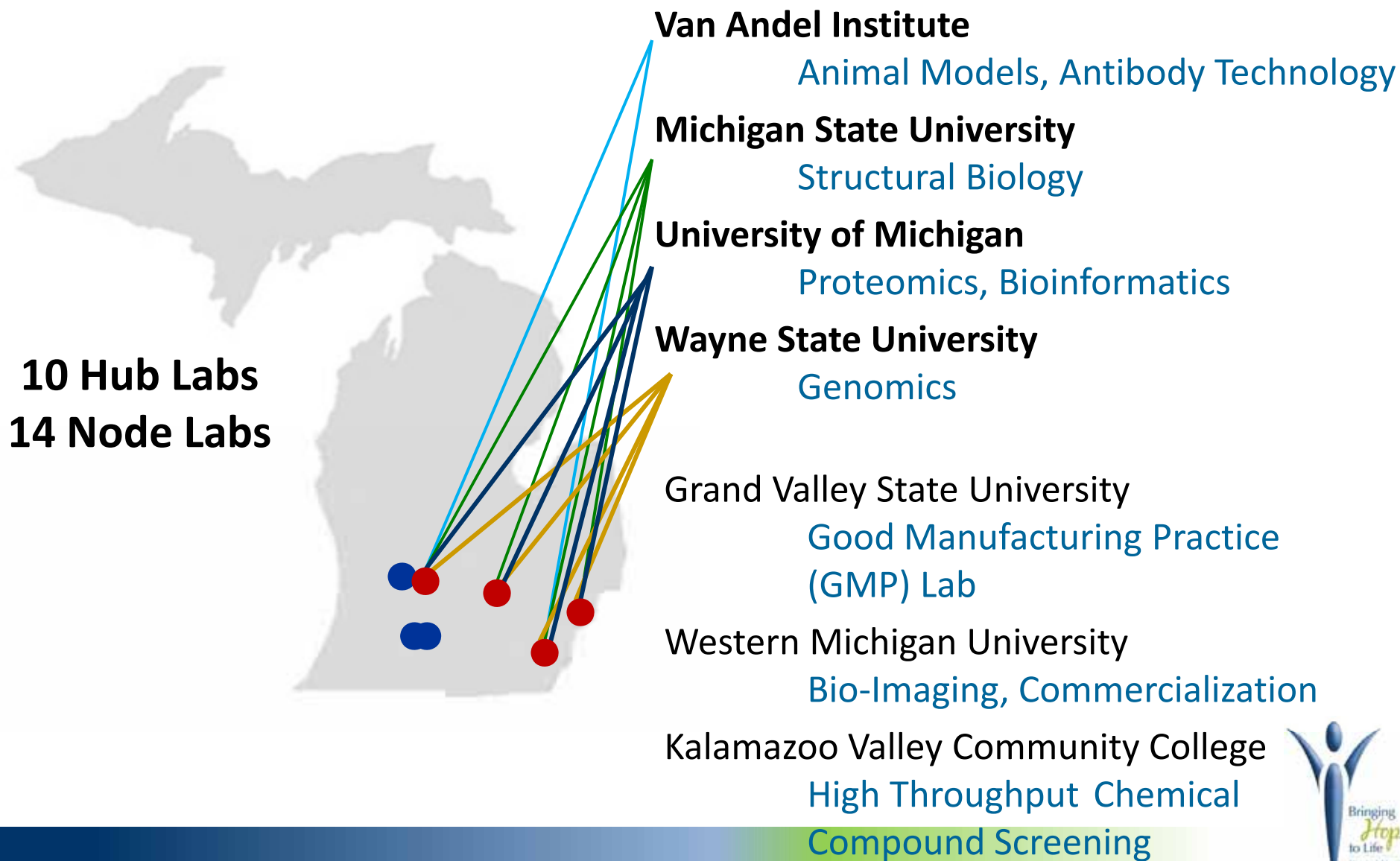
Location: CTA Member Institutions



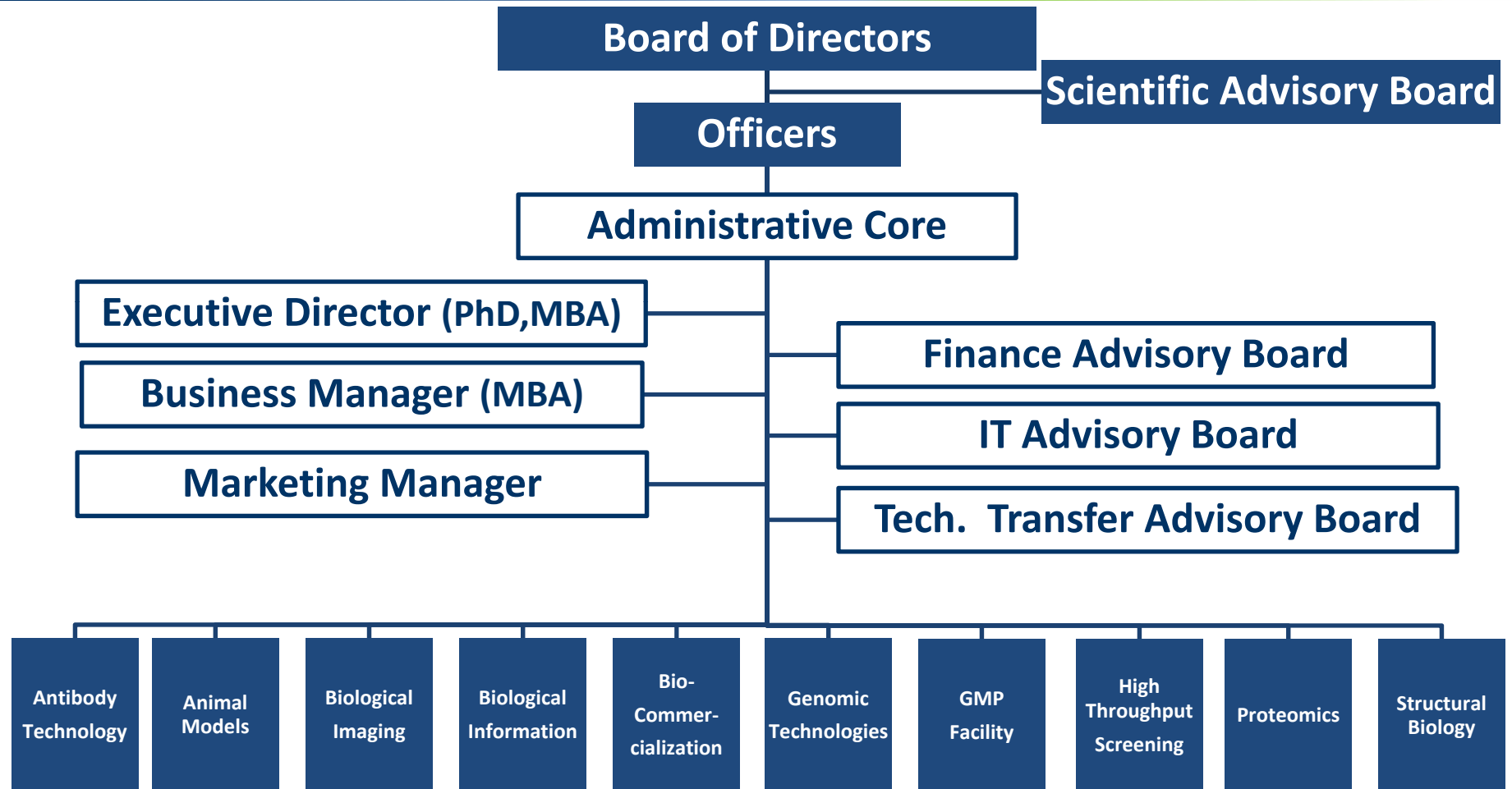
Location: CTA Core Facilities



Collaboration: Hub and Node Structure



CTA Organization



CTA Incorporation

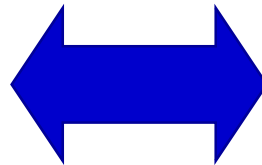
- AAAS site visit panel recommended the creation of a separate CTA business entity
 - Streamline strategic planning and decision making
 - Reduce complexity of contract negotiations
 - Coordinate marketing core services
 - Ensure long-term sustainability
- CTA is a 501(c) (3), non-stock membership organization owned equally by founding and non-founding members.
- Each member institution owns the assets and employs the personnel of its own core facilities.



CTA Corporation

CTA Corporation

- Marketing
- Management
- Strategic planning
- Communication
- Business Development



Core Technology Alliance

- Genomics
- Bioinformatics
- Proteomics
- Structural Biology
- Animal Models
- High T-put screening
- Antibody Technology
- Biological Imaging
- Commercialization
- GMP Facility



CTA Oversight

- State technology steering committee
- Board of scientific advisors
- Site visits of core facilities
 - 2000: Washington Advisory Group
 - 2002: Michigan Economic Development Corp.
 - 2003,2004: American Association for the Advancement of Science (AAAS)
- Reporting
 - 8 - Biannual progress reports to Michigan Economic Development Corp.
- Core scientific advisory committees
- Core user committees



Metrics Tracked in Reports

- Progress toward annual milestones
- Clients
 - Academic, government, non-profit, biotech, pharma
 - In state, out of state, international
- Revenues to cores
- Extramural grants to clients
- New service/training initiatives
- Jobs created
- Publications
- Patents and licenses



Marketing

- Facility seminars at
 - Professional meetings/scientific retreats/department meetings
 - Town hall meetings
 - Legislative workshops/symposia
 - Business development roundtables
- Core brochures/advertising packets/posters/websites
- Media/press releases
- Representation at tradeshow, technology meetings
- Key customer contacts
- DVD's of CTA events/forums/core service offerings



Co-Marketing



CTA Funding

- Grant funding to cores
 - Federal
 - State Life Science Corridor grants
 - CTA catalytic funding of marketable core initiatives
- Service Fees
- Institutional funding
- CTA institutional membership fees
 - Administrative Core personnel
 - Marketing costs
 - Business office and accounting costs and legal fees
 - Travel (promotional events, site visitors, advisory board members)



Core Networking/Communication

- Retreats
- Monthly teleconferences
- Informal at marketing events
- Hub and node meetings
- SharePoint website



Intellectual Property

- CTA services create, facilitate, and enhance technology transfer by providing quality data that ensures patent enforceability
- Clients and core personnel follow their institution's collaboration and IP policies
- One shared service agreement document



Benefits of the CTA

- Economic efficiency
 - Decrease core redundancy
 - Decrease equipment redundancy
 - Negotiated purchase agreements
 - Administrative core management and marketing
- Enhancing capability and capacity
 - Fund personnel
 - Retain and recruit outstanding core directors
 - Capital equipment purchases
- Increase cross-institutional collaboration and learning



Benefits of the CTA

- Recruit and retain high quality research professionals
- Elevated awareness of advanced technology services
 - Increased business development
 - Increased client base
- Accountability through reporting and transparency
 - Progress toward milestones
 - Facility metrics
- Continuous quality improvement
 - Oversight and advisory committees
 - User surveys



CTA Weaknesses

- Lack of long term funding for personnel and equipment
 - State funding ended in 2008, change of funding objectives
 - Administrative core required funding
 - Services need to be competitively priced
 - Advanced technologies require expensive upgrades and qualified personnel
- Lack of external funding sources
 - Grants
 - Commercial memberships
 - Marketing fees
 - Training programs
 - IP was owned by clients and their institutions



CTA Weaknesses

- Reporting/oversight burden of institutions high, indirect rate low (20%)
- Hub and node structure had some service redundancies
- Core director motivations directly proportional to funding level



Conclusion

- The benefits from the state investment in a core networking infrastructure are still being realized in Michigan.
- However, effective growth and maintenance of the network requires a dependable, long term funding source.

