

THE COALITION | FOR PLANT AND LIFE SCIENCES

St. Louis Ingredients for Success

- Strong Biomedical Sciences
- Strong Plant Sciences (a niche)
- Common Vision

Road Map

- Battelle Report
 - Sponsored by RCGA with Support from Danforth Foundation and Civic Progress

Coalition Members

Bill Danforth

Chairman

Dick Fleming

John McDonnell

Henry Shannon

Donn Rubin

Executive Director

Don Frail

Marcia Mellitz

Sam Stanley

Jane Arnold

Robb Fraley

Walter Metcalfe, Jr.

Frank Stokes

John Bachmann

Thomas George

Richard Meyers

Greg Sullivan

Roger Beachy

Henry Givens, Jr .

Phil Needleman

Ken Teasdale

Larry Biondi, SJ

Tom Irwin

Bill Peck

Bob Virgil

Bob Calcaterra

Ken Janoski

Peter Raven

Virginia Weldon

Jack Danforth

David Kemper

Nick Reding

Vaughn Vandegrift

Arnold Donald

John Klein

Richard Roloff

Mark Wrighton

John Dubinsky

Lewis Levey

Joe Schlafly

Current Areas of Focus

- Strengthening Research Capacity
- Technology Transfer/Commercialization
- Capital Formation
- Facilities and Infrastructure
- Missouri Statewide Strategy
- Federal Support for Research

Research Capacity

St. Louis' Existing Life Sciences Assets

- Washington University and Saint Louis U. Medical Schools
- Missouri Botanical Garden
- Donald Danforth Plant Science Center
- Agricultural Colleges
- Incubators: Nidus and Center for Emerging Tech.
- Strong Corporate Research Programs at Monsanto, Sigma-Aldrich, Pfizer

St. Louis' Existing Life Sciences Research Capacity

As Measured by NIH Support (FY 2005)

- Washington University School of Medicine Ranks 4th Among Medical Schools with \$378M
- Washington University Ranks 5th Among U.S. Institutions with \$433M
- St. Louis Ranks 12th Among U.S. Cities

Technology Transfer and Commercialization



The BioGenerator

Creating New Enterprises

Powering ventures into reality

Bridging the Gap

Discovery

Plant & Life Science Technologies

- Universities
- Research Institutions
- Independent



Translation

Application

Viable Companies

- Incorporate
- Bus. Plan
- VCs
- Angels
- SBIR/STTR
- Incubators



Organization

- Independent; Not-for-profit Corporation; Founded Oct. 2003
- \$6 Million Funding From:
 - The Danforth Foundation
 - James S. McDonnell Foundation
 - Monsanto Fund
 - Bunge North America
- Work Closely With University Technology Transfer Offices; Researchers; Entrepreneurs; & Investment Community

Major Activities



Sourcing

**Investment
Decisions**

Client Support

Increase Deal Flow from
Research Institutions

Increase Efficiency &
Effectiveness of
Decision-Making

Ensure Success of
Client Companies

Educate

Inform

Train

Mentor

Guide

Advise



Investor Advisory Board

- Prolog (St. Louis)
- RiverVest (St. Louis)
- Triathlon Medical Ventures (OH)
- CID Capital (IN)
- Charter Life Science Ventures (CA)
- Mason Wells BioMedical Fund (WI)
- Arch Development Partners (IL)
- Arboretum Ventures (MI)
- RCT Ventures (AZ)
- HIG Ventures (FL)
- Arch Angels (St. Louis)



Investment Process (Rigorous)



Thru 18.Jul.06



Investments (Graduates)

Akermin Incorporated

- Biofuel Cells (St. Louis University)
- Founders: Nick Akers & Shelley Minter, Ph.D.
- BioGenerator \$400,000; St. Louis University \$250,000
- **Status: Graduated(12/05); Raised \$3 Million VC And Angel round**



Nick Akers &
Shelley Minter

ISW Group

- Dermatological products (Independent)
- Founders: Monique Spann-Wade & Essien Ita
- BioGenerator \$400,000; angels \$500,000
- **Status: \$2.1 million DOD award; IND submitted; corporate partner discussions initiated; VC due diligence**



Monique
Spann-Wade



Investments (Current)



Chuck Niblett
& Ana Bailey

Venganza Incorporated

- Gene silencing of fungal pathogens (Independent)
- Founders: Chuck Niblett, Ph.D. & Ana Bailey, Ph.D.
- BioGenerator \$500,000; Co-Founders \$100,000
- **Status: Corporate partner negotiations underway**



Ridong Chen

APT Therapeutics

- Anti-platelet therapy for the treatment of acute thrombosis (Independent)
- Founders: Ridong Chen, Ph.D (Serial Entrepreneur)
- Side-by-side investment with Prolog
- **Status: Awarded \$790k SBIR grant**



Investments (Latest)



Tom Baranski



Ross Cagan

MEDROS, Inc. (Washington University)

MEDROS = Medicines From Drosophila (Fruit Flies)

Founders: Tom Baranski, MD & Ross Cagan, PhD
(Washington University)

Whole Organism Approach To Drug Screening

Targets: Cancer & Diabetes

Location: Center for Emerging Technologies

BioGenerator \$500,000 (Convertible Debt)

Status: Closed July 2006

Capital Formation

Stages of Venture Capital

Commercialization	\$25K to \$250K	<p>The BioGenerator (Goal: \$6M)</p> <p>Angel Networks</p> <p>Prolog I&II (Raised \$100M)</p> <p>RiverVest (Raised: \$89M)</p> <p>Oakwood I, II, III & IV (Raised: \$78M)</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><u>OTHERS:</u></p> <p>Vectis Life Sciences Fund of Funds</p> <p>Triathlon Medical Ventures</p> <p>Advantage Capital</p> <p>Ascension Health Ventures</p> <p>Augury Capital Management</p> </div>
Pre-Seed	\$50K to \$500K	
Seed	\$200K to \$2M	
Start-up and Early-Stage	\$1 to \$5M	
Expansion-Stage	Up to \$10M	
Mezzanine or Pre-IPO	Up to \$20M	
IPO		

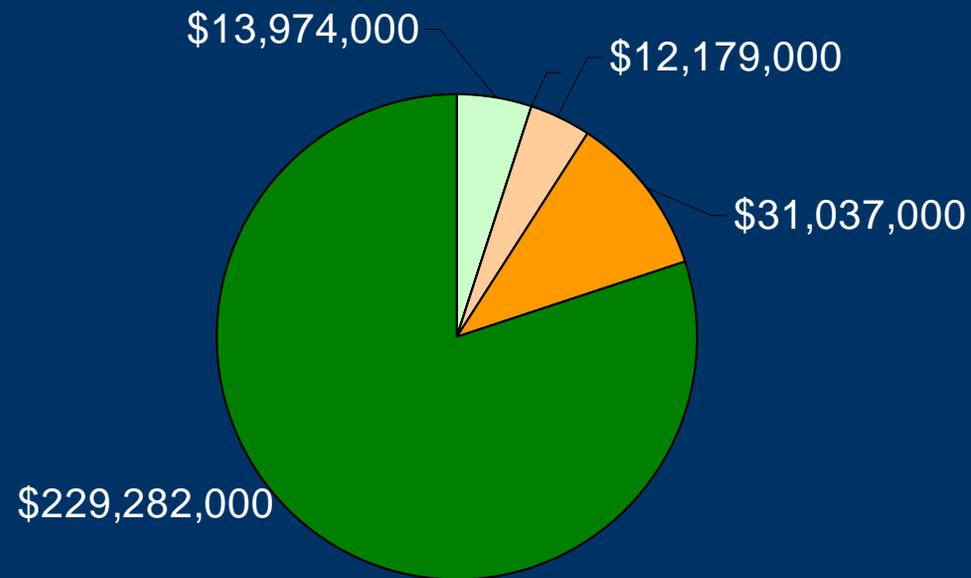
Sources of Capital

CET Client Companies

(Figures are estimates for the aggregate of 14 companies)

Nidus Client Companies

(Figures are estimates for the aggregate of 9 companies)



- VC -- St. Louis Based
- Angels -- St. Louis Based
- VC -- Outside St. Louis
- Angels -- Outside St. Louis

Vectis Life Sciences Fund of Funds

- Address Later Stage Capital Gap
- Diversification: Lower Risk than Direct VC Investments
- Attract Capital from New Institutional Investors
- Local and National Fund Managers
- Strategic Collaborations to Take Advantage of Local Research Assets

Vectis Fund Managers

Prospect Venture Partners

Palo Alto, CA

CMEA Ventures

San Francisco, CA

ProLog Ventures LLC

St. Louis, MO

Oakwood Medical Investors

HLM Venture Partners*

Boston, MA

Sherbrooke Capital*

Newton, MA

Advent International

Boston, MA

HealthPoint, LLC

New York, NY

**Accuitive Medical
Ventures, LLC**

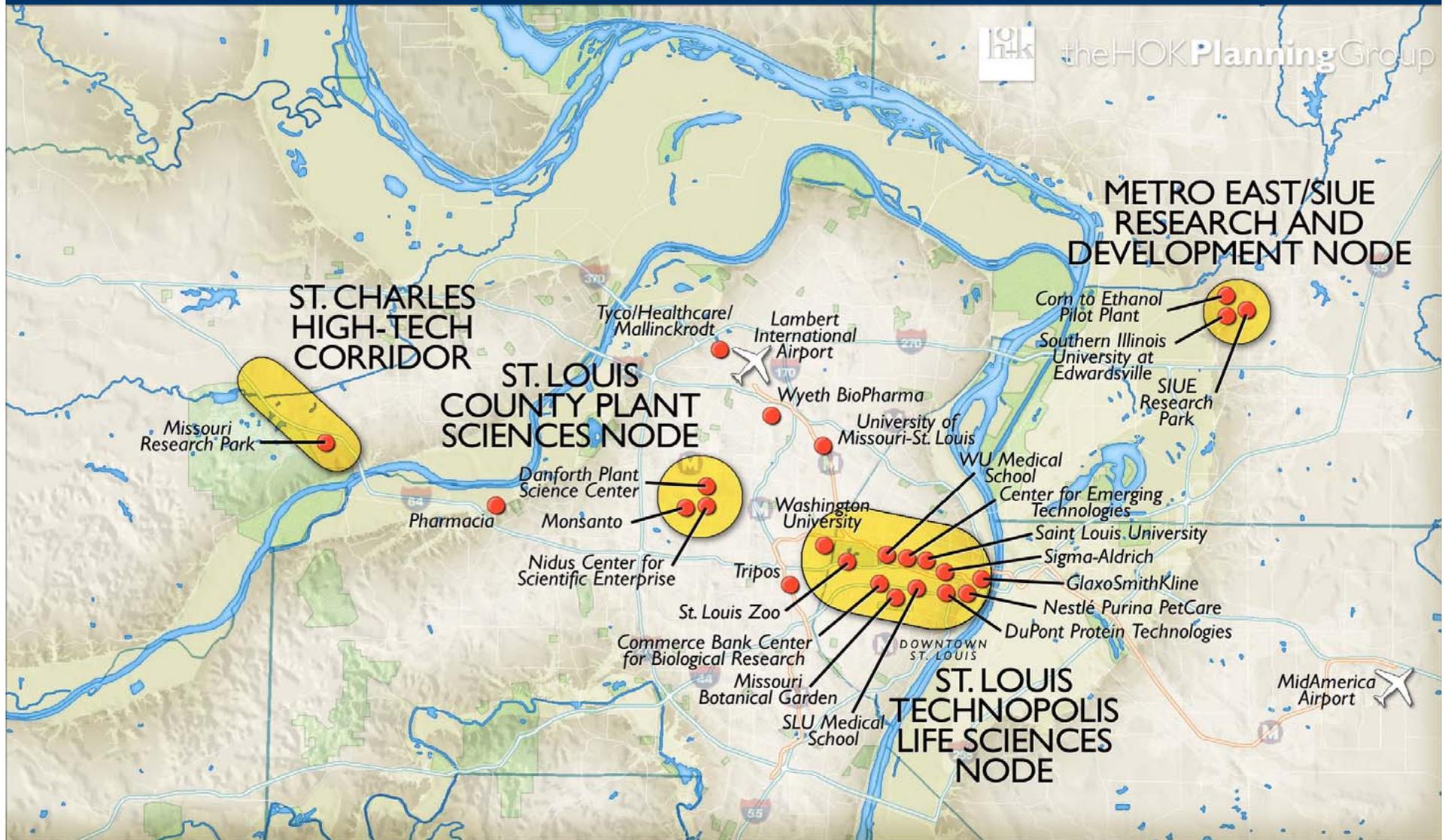
Atlanta, GA

*Pending Investments



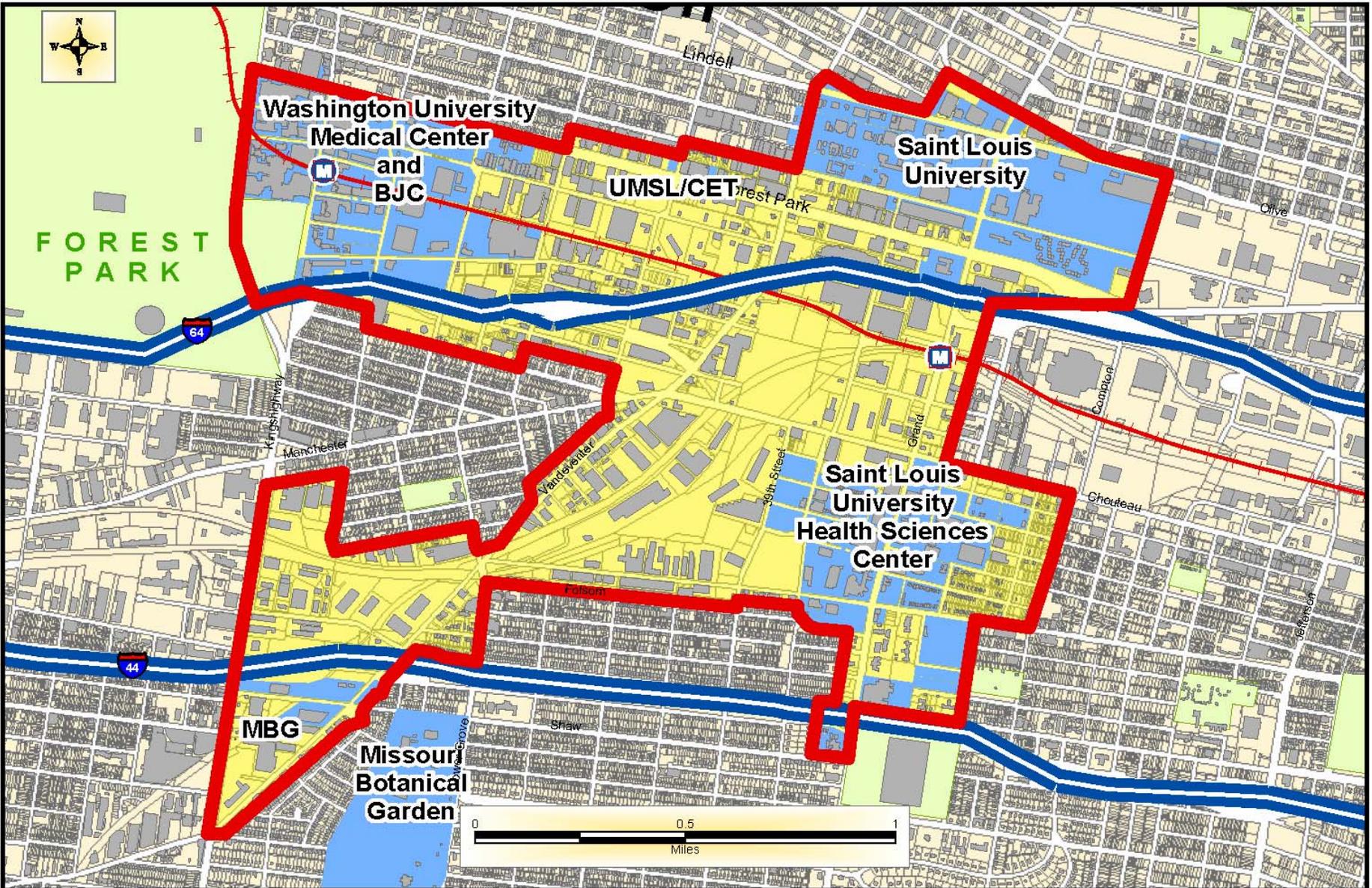
Facilities and Infrastructure

Research Nodes



Biosciences Facilities Continuum of Needs

	Approx. Square Footage per User
Pre-Incubator/ Translational Space	500 – 1,500
Incubator Space	500 – 5,000
Accelerator/"Graduate" Space	3,000 – 15,000
Multi-Tenant Space	5,000 – 50,000
Full-Scale Manufacturing Space	35,000 and up



CORTEX Boundaries

DEVELOPMENT STRATEGIES
CONSULTANTS IN REAL ESTATE, COMMUNITY, AND ECONOMIC DEVELOPMENT

June 2003

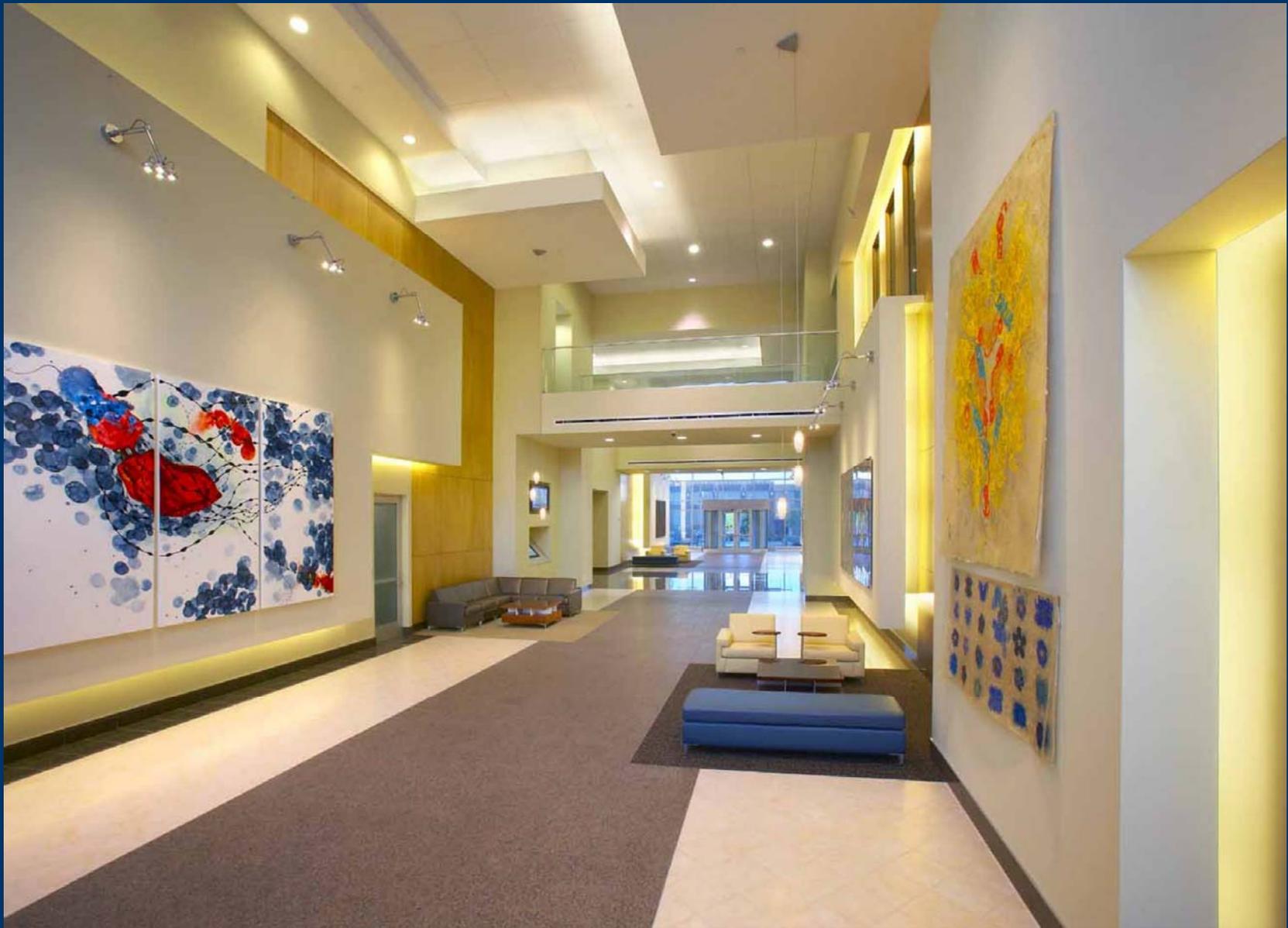
CORTEX Partners

- Washington University
- Saint Louis University
- BJC HealthCare/Barnes-Jewish Hospital
- University of Missouri-St. Louis
- Missouri Botanical Garden
- Mayor of the City of St. Louis
- Alderman of the 17th Ward
- Civic Progress
- St. Louis RCGA
- The Coalition for Plant and Life Sciences



Completed December 2005







Solae World Headquarters / CORTEX II
North View



Solae Aerial View

Edward A. Doisy Research Center Saint Louis University



Vision for the Future of St. Louis

- Strong Universities and Not-for-Profit Institutions Conduct Groundbreaking Research in Agriculture and Biomedicine and Attract Substantial Federal and Private Dollars from Outside the State to Support their Work
- Discoveries with Commercial Potential are Transformed into Companies that Retain the Economic Benefit of the Science in Missouri

Vision, Continued

- State-of-the-Art Facilities and Physical Infrastructure are Available for Firms as They Evolve from the Earliest Stage into Mature Companies
- Venture Capital Financing is Accessible to Emerging Life Sciences Companies so They Can Remain in St. Louis as They Expand
- Educational Institutions Train a Qualified, Professional Workforce to Fill Continuously Created High Paying Jobs; Individuals have the Opportunity to Pursue Fulfilling Careers in St. Louis

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