

Technology  
Commercialization  
at the University  
of New Mexico:  
**STC.UNNM**

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# Outline

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- ❑ STC.UNM Commercialization Process
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- ❑ STC.UNM Outreach
- ❑ STC.UNM Lobo VentureLab
- ❑ How STC Is Different

# STC.UNNM Mission, Activities and Organization

# STC.UNNM

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- ❑ Formed in 1995
- ❑ The primary commercialization entity at UNM
- ❑ Separate corporation, 501(c)(3) governed by a board of directors, internal to UNM and members of scientific, business and legal community

# Mission

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To support UNM and its partners as the source for innovation management and commercial development

# Mission

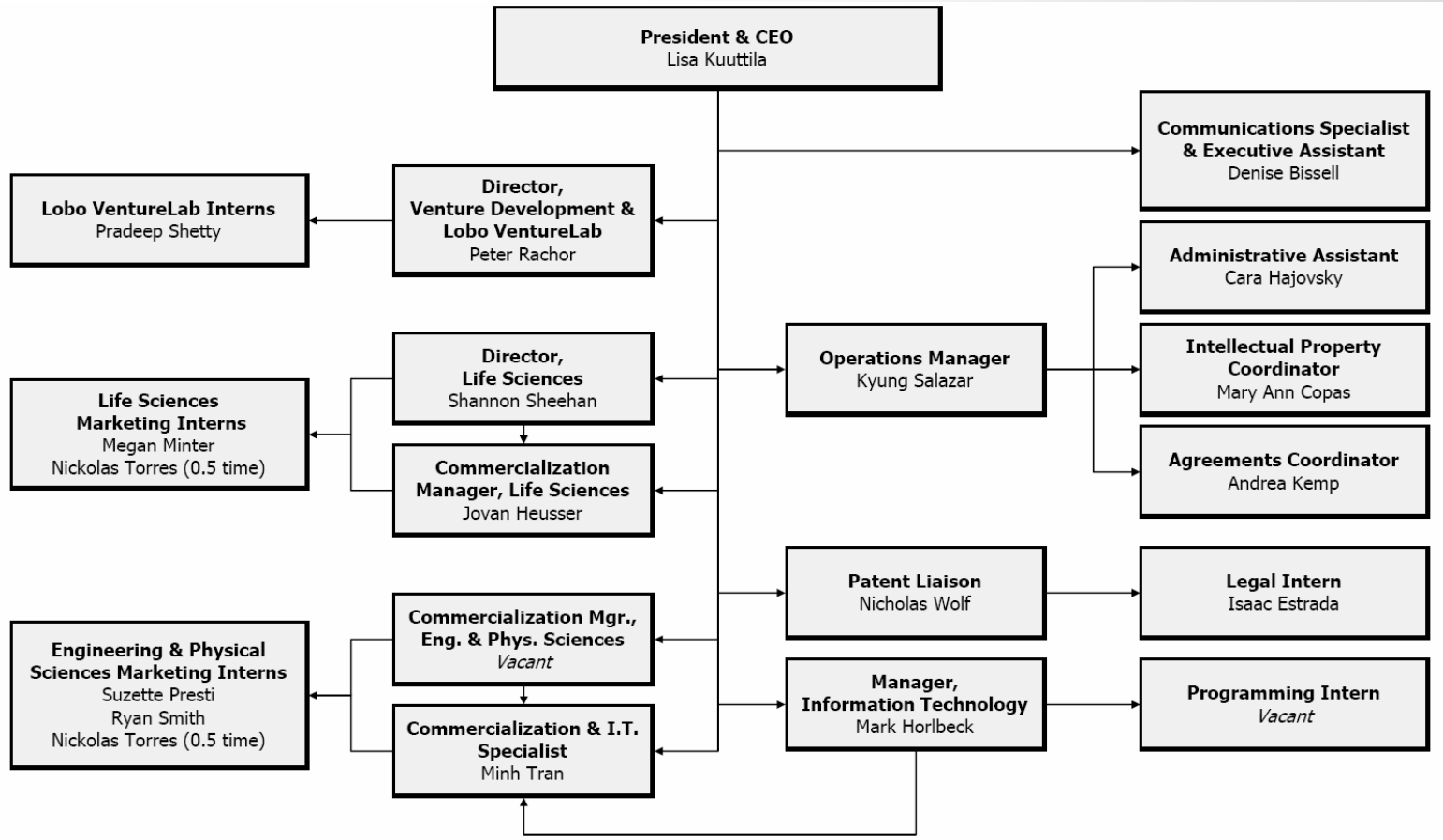
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- ❑ Supports UNM by assisting with these activities:
  - Reward, retain and recruit faculty
  - Promote closer ties with industry
  - Promote economic growth
  - Commercialize research for public benefit
  - Generate income for research and education

# Board of Directors

- ❑ **Ms. Elizabeth (Lisa) J. Kuuttila**  
Elizabeth J. (Lisa) Kuuttila  
President and CEO, STC.UNM
- ❑ **Sandra Begay-Campbell**  
Principal Member, Technical Staff, Sandia National  
Laboratories
- ❑ **Dr. Joseph L. Cecchi**  
Chairman of the Board  
Dean, School of Engineering, University of New Mexico  
Professor, Chemical and Nuclear Engineering,  
University of New Mexico
- ❑ **Mr. Don Chalmers**  
President, Don Chalmers Ford  
Regent, University of New Mexico
- ❑ **Ms. Terri L. Cole**  
Vice Chairman of the Board  
President & CEO, Greater Albuquerque Chamber of  
Commerce
- ❑ **Dr. James D. Cramer**
- ❑ **Dr. Viola E. Florez**  
Interim Provost and Executive Vice President for  
Academic Affairs
- ❑ **Dr. Robert H. Fisher**
- ❑ **Mr. David W. Harris**  
Executive Vice President for Administration  
University of New Mexico
- ❑ **Dr. Gabriel P. Lopez**  
Director, Center for Biomedical Engineering  
Professor and Regents' Lecturer, Chemical Engineering  
and Chemistry University of New Mexico
- ❑ **Ms. Diana MacArthur**  
Chair and Chief Executive Office, Dynamac Corporation
- ❑ **Mr. Gregg L. Mayer**  
President, Gregg L. Mayer & Co., Inc.
- ❑ **Ms. Cindy McGill**  
Vice President of Corporate Strategy and Development  
PNM Resources
- ❑ **Dr. Pope L. Moseley**  
Chairman, Internal Medicine, UNM Health Sciences Center
- ❑ **Dr. John A. Pieper**  
Vice President For Research, UNM Health Sciences Center  
Dean, College of Pharmacy, UNM Health Sciences Center
- ❑ **Dr. Paul B. Roth**  
Executive Vice President, UNM Health Sciences Center  
Dean, School of Medicine, University of New Mexico
- ❑ **Ms. Suellyn Scarnecchia**  
Dean and Professor of Law, University of New Mexico  
Chair, Judicial Nominating Commissions, State of New  
Mexico
- ❑ **Mr. David J. Schmidly**  
President, University of New Mexico
- ❑ **Mr. Charles I. Wellborn**  
Secretary and Treasurer
- ❑ **Dr. Albert R.C. Westwood**  
Vice President Emeritus, Sandia National Laboratories
- ❑ **Ms. Teri F. Willey**  
Director, Cambridge Enterprise, Cambridge University
- ❑ **Dr. Terry L. Yates**  
Vice President for Research and Economic Development,  
University of New Mexico

# Organizational Chart





# Activities

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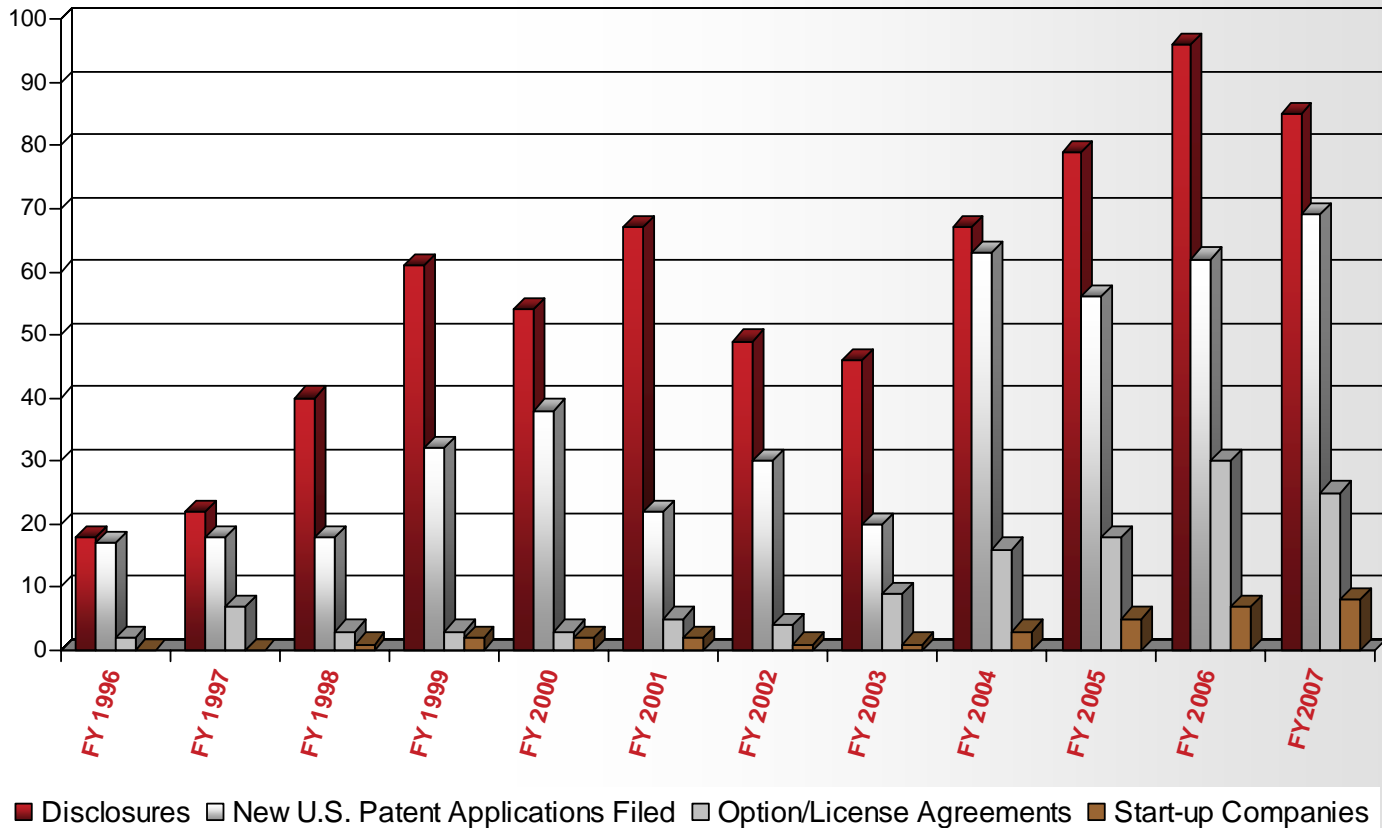
- ❑ Education of UNM faculty, students and staff through ongoing seminars
- ❑ Evaluation of new potential ideas/technologies
- ❑ Intellectual property protection
- ❑ Commercialization strategy development
- ❑ Market research and marketing
- ❑ Start-up assessment (Lobo VentureLab)
- ❑ Negotiations and license agreements
- ❑ Sponsored research support to UNM
- ❑ Facilitation of industry introductions to UNM
- ❑ Recognition of UNM faculty inventors

# STC.UNNM

## 10-Year Metrics

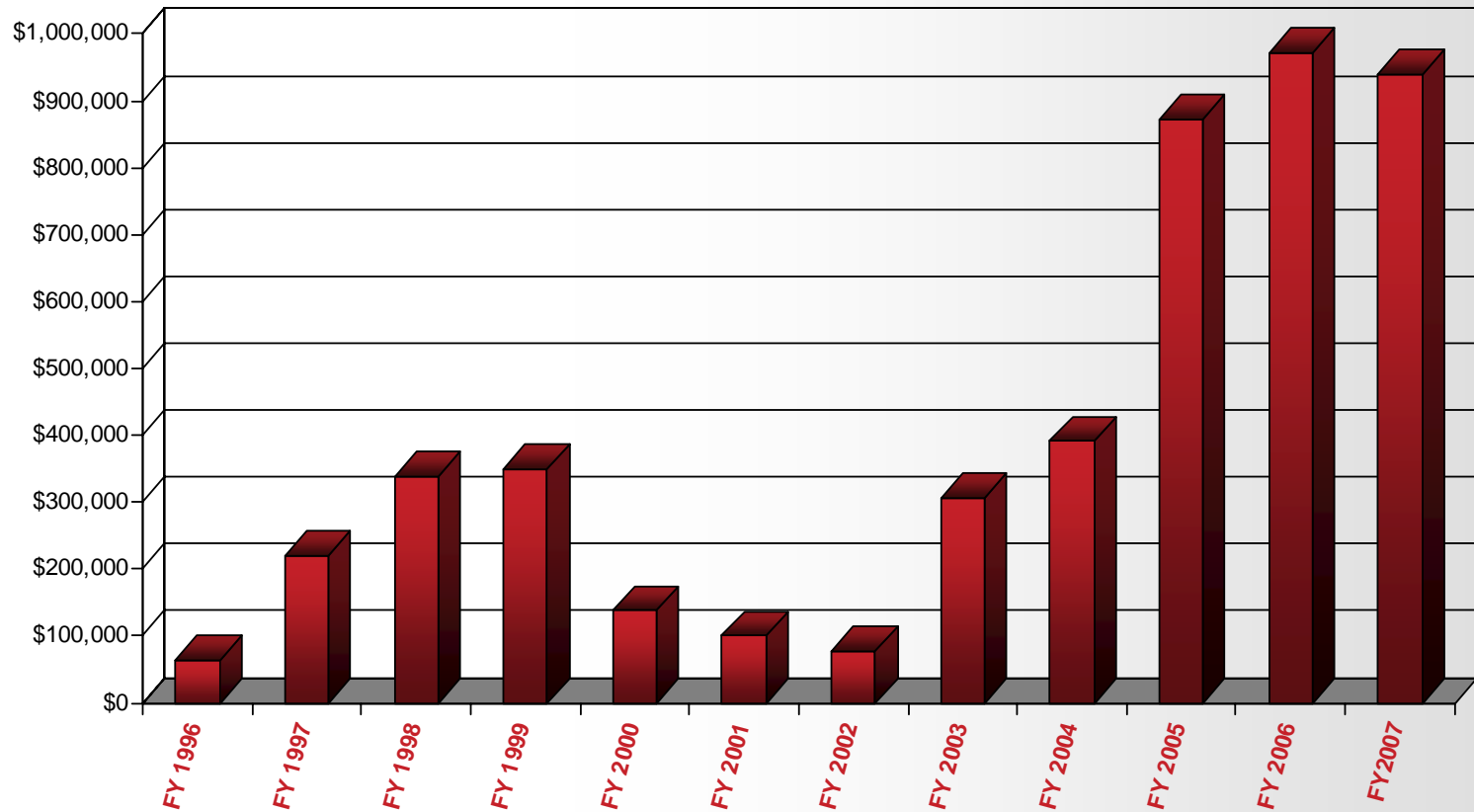
# 10-Year Metrics

*Disclosures, New Patent Applications, Option/License Agreements & Start-Up Companies*



# 10-Year Metrics

## Total Income (Licensing & Patent Cost Reimbursement)



# STC.UNNM

## Commercialization Process

# The Commercialization Process

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- ❑ Disclosure
- ❑ Evaluation
- ❑ Intellectual Property Protection
- ❑ Marketing
- ❑ Licensing
- ❑ Ongoing Follow-up

# Disclosure

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Through a number of outreach mechanisms (personal visits with faculty, seminars, website interaction, and ongoing interaction with existing inventors), STC.UNM expects to receive approximately 100 new disclosures from UNM inventors each year.

# Evaluation

STC.UNM evaluates each disclosure for its patentability and commercial potential. STC.UNM staff and a UNM law-school intern conduct preliminary patent searches. Marketing staff and student interns conduct preliminary market assessments using proprietary and purchased software and database tools. This work can be done before or after a provisional patent application is filed, depending on the status of the public disclosure.



# Intellectual Property Protection

STC.UNM uses outside counsel to file its utility patent applications. In general, a provisional patent application is filed internally first. Within one year, a decision must be made whether to convert to a regular patent application. This decision is based on the market potential, patentability and enforceability of our technology.

# Marketing

- ❑ STC.UNM invests in its technology infrastructure (internal software tools, external services and databases) as well as human infrastructure to support its technology marketing efforts. STC.UNM identifies applications for its technologies and contacts established companies to generate interest in its technology portfolio.
- ❑ For those technologies suitable for a start-up, STC works to link business entrepreneurs, venture capitalists, and UNM faculty, to support the development of a start-up company. STC.UNM started eight spin-off companies in FY2007.
- ❑ STC.UNM has a preference, whenever possible, to commercialize its technologies within New Mexico.

# Licensing

- ❑ STC.UNM negotiates agreements with established or start-up companies. Terms of these agreements depend on a number of factors, such as the size of the market opportunity, contribution of the technology, and the approach to commercializing the technology (degree of exclusivity, territory, field of use, etc.).
- ❑ STC.UNM completed 25 option and license agreements for technologies in FY2007.

# Ongoing Follow-Up

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- ❑ STC.UNNM stays in contact with its licensees to provide support (particularly to its start-up companies based in New Mexico), to foster compliance in payment and reporting as well as to look for additional licensing opportunities.

# Research Funding to UNM Related to STC Disclosures

## Example License to a New Start-Up Company and Sponsored Research

- ❑ License agreement for intellectual property and sponsored research signed
- ❑ Technology to be developed: medical diagnostic
- ❑ Professor at UNM is inventor and PI under sponsored research agreement
- ❑ New company formed by investors and will fund \$750,000 of research at UNM

**The technology will be developed under funding from the company. STC.UNM supports the research agenda at UNM in the commercialization process.**

# Sponsored Industry Funding Commitments to UNM Assisted by STC

FY2004

\$1,142,342

FY2005

\$1,615,237

FY2006

\$2,150,668

FY2007 (estimated)

&gt;\$2,000,000

# STC Technology-to-Market Gap Fund

- ❑ Established in 2006 with funds from UNM and McCune Foundation
- ❑ Available to faculty at UNM with STC disclosures to mature early-stage technologies
- ❑ Helps to “bridge the gap”
- ❑ Two awards of \$25,000 each made in fall of 2006 (expect an annual call for proposals)
- ❑ Actively seeking donations to create a \$5,000,000 endowment



# STC.UNNM Inreach

# Seminars (FY2007)

- ❑ **Resources for UNM Start-Up Companies: From Wet Lab to Product Launch**  
9/13/06, Connie Vance (Manager, UNM Science & Technology Park) & Peter Rachor (Director of Development, STC.UNM)
- ❑ **From Creative Idea to Commercial Success: You Can Get There from Here**  
10/5/06, Chuck Valauskas, Esq. (Valauskas & Pine LLC)
- ❑ **Venture Capital: The Deal**  
10/11/06, Francine Sommer, Special General Partner (Village Ventures)
- ❑ **Opportunities for Pathologists to Participate in Realization of In-Vitro Diagnostic Devices: From the Inside and Outside Perspectives**  
11/8/06, Dr. Tom Williams (VP, R&D and CTO, Exagen Diagnostics)
- ❑ **Ready, Set, Go: Clinical Trials Industry**  
1/17/07, Marion S. Karvas (Business Development Manager, Lovelace Scientific Resources)
- ❑ **SBIR—A Goldmine for Tech Start-Ups**  
1/25/07, Barbara Stoller (Director, SBIR/STTR Outreach Center, Technology Ventures Corporation)
- ❑ **Working with Lawyers**  
2/1/07, Erik F. Gerding, Esq. (Assistant Professor of Law, UNM School of Law)
- ❑ **Drug Repurposing**  
2/7/07, Dr. Stuart S. Winter (Associate Professor of Pediatrics, Hematology & Oncology, UNM Health Sciences Center)
- ❑ **Recent Trends in the Patent Office—Why the Patent Office Has Made Broad Protection More Difficult to Obtain and Steps That Can Be Made to Enhance Portfolio Value**  
3/21/07, Henry D. Coleman, Esq. (Coleman Sudol Sapone, P.C.)
- ❑ **Top Ten Reasons to File a Provisional Patent Application**  
3/22/07, Alberto A. Leon, Esq. (Bauman, Dow & Leon, P.C.)

# Inventor/Creator Initiatives

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- ❑ Personal Visits with Inventors
- ❑ Inventor's Portal
- ❑ Online Disclosure Form
- ❑ Faculty Entrepreneurs Network
- ❑ UNM Creative Awards Event
- ❑ UNM Business Plan Competition/Mentoring
- ❑ UNM Student Intern Program

# STC.UNNM Outreach



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## *E-Commerce for Technology Transfer*

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### ❑ WolfWare

- Introduced in 2005, is UNM's specific storefront for on-line, transaction-based, end-user licensing

### ❑ foliodirect

- Introduced in 2006 to broader university community
- Separate university storefronts
- University members of foliodirect include the University of Washington, Arizona State University, University of Colorado and Purdue University
- To date, 40 products offered have generated over 2,800 transactions
- Materials include software, music, courseware, DVDs, copyright materials, and course access

# Business Community Connections

- ❑ NMBBA Board of Directors
- ❑ NM Angels Board of Directors
- ❑ Lobo VentureLab Accelerator
- ❑ Technology Ventures Corporation
- ❑ Greater Albuquerque Chamber of Commerce
- ❑ Albuquerque Economic Development
- ❑ Coronado Venture Forum
- ❑ WESSTCorp Operations Advisory Committee
- ❑ NM EDD Business Incubation Advisory Committee
- ❑ New Mexico venture firms

**In addition, STC.UNM maintains many additional relationships with investment, business, and governmental entities.**



Lobo Venture  
LAB  
Accelerating new ventures @ UNM



## ❑ Operation

- A connection point for faculty, students, investors, and entrepreneurs
- A physical place for the development of companies from UNM technology
- A resource center for faculty interested in commercialization via start-up
- Approach first stage of UNM's development and volume of opportunities
- Integrated with other available resources



## ▣ Services to Potential New Companies

- Review of venture opportunity
- Assist in preparation of business concept presentation
- Matchmaking between scientists, industry entrepreneurs and capital sources
- Access STC.UNM market research capability
- Internet and telephone
- Student intern support
- Linkage with service providers

## Venture Community Activity

	FY2005	FY2006	FY2007
Venture capital firm visits	52	73	93
Entrepreneur visits	46	47	20
Outside inventor visits	27	16	23

## Technology Accelerator

- Focus on those companies which can be “accelerated,” (for example, expedited proof of principle, increased investment, and hit market)
- Provide support services (copying, phones, internet connection, etc.).
- Mentoring and management assistance
- Entrepreneur/management matching services
- Move to investment pipeline!

# Start-Up Companies

## 2007

- ❑ Azano Health (New Mexico), medical therapeutics for lupus-related diseases
- ❑ EndoScreen, LLC (Massachusetts), women's health diagnostics
- ❑ NANOMR (New Mexico), medical device company
- ❑ Nanocrystal, LLC (New Mexico), semiconductor wafers
- ❑ CellPoint Diagnostics, Inc. (California), tools for screening, diagnosis & monitoring of cancer through the examination of bodily fluids
- ❑ MagnetoOrganics (New Mexico), electromagnetic stirrers and polymers
- ❑ \*COMPANY NAME NOT DISCLOSED\*, nanoscale semiconductor manufacturing
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## 2006

- ❑ TenthGate, Inc. (Virginia), melanoma imaging
- ❑ GPB Scientific, LLC (Massachusetts), medical diagnostics
- ❑ SUTI Holdings, LP (California), macular degeneration
- ❑ Applied Biophotonics (California), medical diagnostics
- ❑ Christmas Consortium (New York), medical therapeutic
- ❑ Sage Sciences (New Mexico), instrumentation for drug discovery
- ❑ Environmental Robots, Inc. (New Mexico), robotic elements

## 2005

- ❑ HealthConnectPro (New Mexico), safety net software for medical providers
- ❑ Capséda (New Mexico), antiviral drug discovery
- ❑ Feldmatech (New Mexico), electromagnetic field sensing and imaging
- ❑ InfraSUR, LLC (New Mexico), environmental engineering and critical infrastructure enhancement and protection
- ❑ K&A Wireless, LLC (New Mexico), advanced technology solutions for wireless video, data, and voice transmission

# Start-Up Companies (continued)

## 2004

- ❑ Attochron, LLC (California), advanced free space optical communications
- ❑ AVANCA Medical Devices, Inc. (New Mexico), advanced medical syringes and related devices
- ❑ Exagen Diagnostics, Inc. (New Mexico), discovery and development of prognostic genomic markers

## 2003

- ❑ CoMet Solutions, Inc. (New Mexico), computational modeling toolkit, an object-oriented framework for engineering projects

## 2002

- ❑ Novasite Pharmaceuticals, Inc. (California), expanded target drug discovery™

## 2001

- ❑ Qynergy Corporation (New Mexico), power solutions for microsystems, sensors and "power-on-a-chip"
- ❑ Concise Logic, Inc. (New Mexico), semiconductor design software
- ❑ Zia Laser, Inc. (New Mexico), quantum dot lasers

## 2000

- ❑ Global Haptics, Inc. (New Mexico), computer-mapping technology to shape and navigate in 3D
- ❑ MesoSystems Technology, Inc. (New Mexico), airborne biosafety and security products

## 1999

- ❑ Picodyne, Inc. (Maryland), custom integrated circuit design

## 1997

- ❑ Virtual Silicon Technology, Inc. (California), semiconductor standard cell libraries and related products

# How STC Is Different

# Technology Commercialization at U.S. Universities

## *Highlights: How We are Different*

- ❑ Separate corporation has greater degree of flexibility in working with industry
- ❑ Comprehensive technology commercialization program
- ❑ Proactive in seeking commercial partners
- ❑ Active outreach to UNM faculty
- ❑ Customer service orientation; business approach to deal making
- ❑ New Mexico focus whenever possible
  - Established companies
  - New start-up companies