Columbine Profile

Columbine Venture Funds

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COLUMBINE PROFILE

- 2 FUNDS: 1984 - $34 MILLION
  1989 - $44 MILLION

- 4 GENERAL PARTNERS

- 44 LIMITED PARTNERS

- 3 OFFICES:
  DENVER (2)
  PHOENIX (1)
  HOUSTON (1)

- PORTFOLIO OF 37 INVESTMENTS

- INVESTMENT STRATEGY:
  - SEED AND START-UP
  - TECHNOLOGY-DRIVEN
  - WEST/SOUTHWEST BASED
<table>
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<tr>
<th>COMPANY</th>
<th>UNIVERSITY</th>
<th>BUSINESS</th>
<th>OUTCOME</th>
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<td>UTAH</td>
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<td>BIEX</td>
<td>CALIFORNIA-DAVIS</td>
<td>HORMONE DETECTION</td>
<td>ACTIVE</td>
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<td>SUNY</td>
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<td>ARGONNE NAT'L. LABS</td>
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<td>BONE &amp; TISSUE HEALING</td>
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<td>PARADIGM</td>
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<td>CALTECH</td>
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<td>TSA</td>
<td>UTAH STATE</td>
<td>DRUG ANALYSIS</td>
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CONCLUSIONS FROM COLUMBINE'S UNIV. SOURCED TECHNOLOGY

• MOST ARE MEDICAL RELATED:
  - MEDICAL - 10
  - AGRICULTURAL - 2
  - INSTRUMENTS - 2
  - ELECTRONICS - 2
  - MATERIALS - 1

• SOURCES ARE DIVERSE
  - 14 DIFFERENT INSTITUTIONS
  - VERY FEW OPPORTUNITIES MERIT START-UPS

• SUCCESS RATE
  - 3 PUBLIC
  - 2 ACQUIRED
  - 10 ACTIVE
  - 2 FAILED

COLUMBINE VENTURE FUNDS
IS IT A PRODUCT OR A BUSINESS?

• MOST OPPORTUNITIES ARE PRODUCTS WHICH SHOULD BE LICENSED TO EXISTING COMPANIES

• SOME SIMPLE TESTS FOR A TECHNOLOGY WHICH COULD BE BASIS FOR A START-UP:

1. MARKET SIZE
   - AT LEAST $100 MILLION/YR
   - BASIS FOR $30 MILLION/YR REVENUES IN 5 YEARS

2. STRONG PROPRIETARY POSITION

3. A BASIC TECHNOLOGY CAPABLE OF DEVELOPING A PIPELINE OF PRODUCTS

4. KNOWLEDGEABLE FOUNDERS - REASONABLE TO DEAL WITH

5. INVESTMENT/LICENSE AVAILABLE ON REASONABLE TERMS
VENTURE CAPITALIST OBJECTIVES

- TO CREATE A SUCCESSFUL COMPANY IN 5-7 YEARS
- TO MAKE AN OUTSTANDING RETURN ON INVESTMENT AND OF MEANINGFUL SIZE TO THE FUND
- TO STRONGLY INFLUENCE THE COMPANY THROUGH THE BOARD:
  - MANAGEMENT HIRING
  - STRATEGY
  - FINANCING
- TO KEEP EQUITY INVESTMENT LOW ($5-10M) AND TO EFFICIENTLY USE CAPITAL
- INVEST IN STAGES TO HANDLE RISK
UNIVERSITY OBJECTIVES

• TO CREATE VALUE FROM TECHNOLOGY
• TO STIMULATE STUDENT INTEREST
• TO SATISFY AND RETAIN FACULTY
• TO GENERATE RESEARCH SUPPORT
• TO AVOID CONFLICTS
• TO FOSTER LOCAL ECONOMIC DEVELOPMENT
LESSONS LEARNED - 1

1. PROTECT THE PATENT POSITION
   - PRIOR PUBLICATIONS CAN DESTROY IT

2. DO NOT SELECT A CEO
   - LET THE VENTURE CAPITALIST BUILD MANAGEMENT

3. BE CAREFUL WHO YOU DEAL WITH
LESSONS LEARNED - 2

- FEW OPPORTUNITIES HAVE START-UP POTENTIAL
- FACULTY DOES NOT HAVE TO QUIT
- THERE IS GOOD SCIENCE AT ALL UNIVERSITIES
- MICROANALYZE THE PATENT POSITION
- INVOLVE THE UNIVERSITY - STOCK, RESEARCH, ETC.
- GET A FOUNDING CEO INVOLVED EARLY
- MARKET ISSUES ARE MOST COMMON REASONS FOR FAILURE
- SET UP OFF-CAMPUS COMPANY OFFICES IMMEDIATELY
- AVOID COMPLEX STRUCTURES
- RETREAT GRACEFULLY
BENEFITS TO UNIVERSITY/FACULTY

• VALUE OF STOCK MUCH GREATER THAN ROYALTIES

• RESEARCH SUPPORT FROM START-UP

• KEEPS TECHNOLOGY IN-STATE, BOOSTS ECONOMIC DEVELOPMENT AND GENERATES LOCAL JOBS

• MORE SATISFYING TO FACULTY

• HELPS ATTRACT AND RETAIN FACULTY

• RETAINS MORE INFLUENCE ON TECHNOLOGY THAN IN A STRAIGHT LICENSE
SOME POTENTIAL PROBLEMS

- LOSS OF FACULTY
- CONFLICTS OF INTEREST
- UNIVERSITY/FACULTY DO NOT UNDERSTAND STOCK OWNERSHIP AND INVESTMENT
- LOSS OF CONTROL
- REQUIRES POSTPONEMENT OF CASH ROYALTY INCOME FOR LESS CERTAIN STOCK VALUE IN FUTURE
- CLASH OF BUSINESS AND ACADEMIC VALUES
CONFLICTS OF INTEREST

- USING PUBLIC FUNDS FOR PRIVATE GAIN
- RESEARCH CONTRACTS VS ACADEMIC FREEDOM
- FACULTY ALLOCATION OF TIME AND LOYALTY
- HOW DO YOU EXPLAIN IT TO THOSE WHO DON'T PARTICIPATE OR BENEFIT?
- HOW DOES THE UNIVERSITY SPLIT UP THE PIE?
- WHO NEGOTIATES THE AGREEMENT? WHAT ARE SOUND POLICIES?
- PECULIAR TO MEDICAL: CLINICAL TRIALS
VALUATION AND OWNERSHIP

HOW TO VALUE TECHNOLOGY:

- Research Funds Expended to Date
- Stage of Development
- Size of Ultimate Business
- Capital Needed to Develop Products
- Competitive Alternatives/Threats
- Proprietary Position
- Other Interested Parties, a Validation
SOME GUIDELINES

- STOCK OWNERSHIP SUBSTITUTES FOR LUMP SUM CASH PAYMENTS
- REASONABLE ROYALTY PAID WHEN SALES ARE MADE
- LICENSE MUST BE EXCLUSIVE
- MINIMUM ROYALTIES DUE WHEN SALES START
- TECHNOLOGY REVERTS IF NOT COMMERCIALIZED DILIGENTLY
- LOW OR NO OVERHEAD ON RESEARCH CONTRACTS

PRINCIPLE: UNIVERSITY, FOUNDERS, VENTURE CAPITALISTS ARE IN PARTNERSHIP WHERE VALUE IS CREATED THROUGH INCREASES IN THE STOCK PRICE. NO ONE PARTY SHOULD EXTRACT INCOME BEFORE THE OTHERS.
SOME MYTHS

• FACULTY MUST LEAVE UNIVERSITY TO START A COMPANY
• START-UP CAPITAL IS SCARCE
• ALL GOOD TECHNOLOGY IS ON THE COASTS
• VENTURE CAPITALISTS GIVE RESEARCH GRANTS
• THE BUSINESS PART IS EASY
• A PROFESSOR CAN BE A CEO
• STOCK IS OF NO VALUE
• ROYALTIES MAXIMIZE INCOME
A GENERIC MODEL

LICENSE TERMS:

• EXCLUSIVE
• NO LUMP SUM PAYMENTS
• 3% NET SALES ROYALTY
• $25K PER YEAR MINIMUM TO RETAIN EXCLUSIVITY COMMENCING ON SALES

INITITAL STOCK OWNERSHIP:

VENTURE CAPITALISTS - 50% - PREFERRED
RESERVED FOR MANAGEMENT - 30% - COMMON
UNIVERSITY - 5% - COMMON
FACULTY - 15% - COMMON
SEED FINANCING OF $100,000
VALUATION OF $1,000,000

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<th>OWNERSHIP</th>
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### First Round Financing of $1,500,000

Valuation of $3,500,000

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<tr>
<td>(First)</td>
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 PUBLIC FINANCING OF $12,500,000  
VALUATION OF $50,000,000  

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