



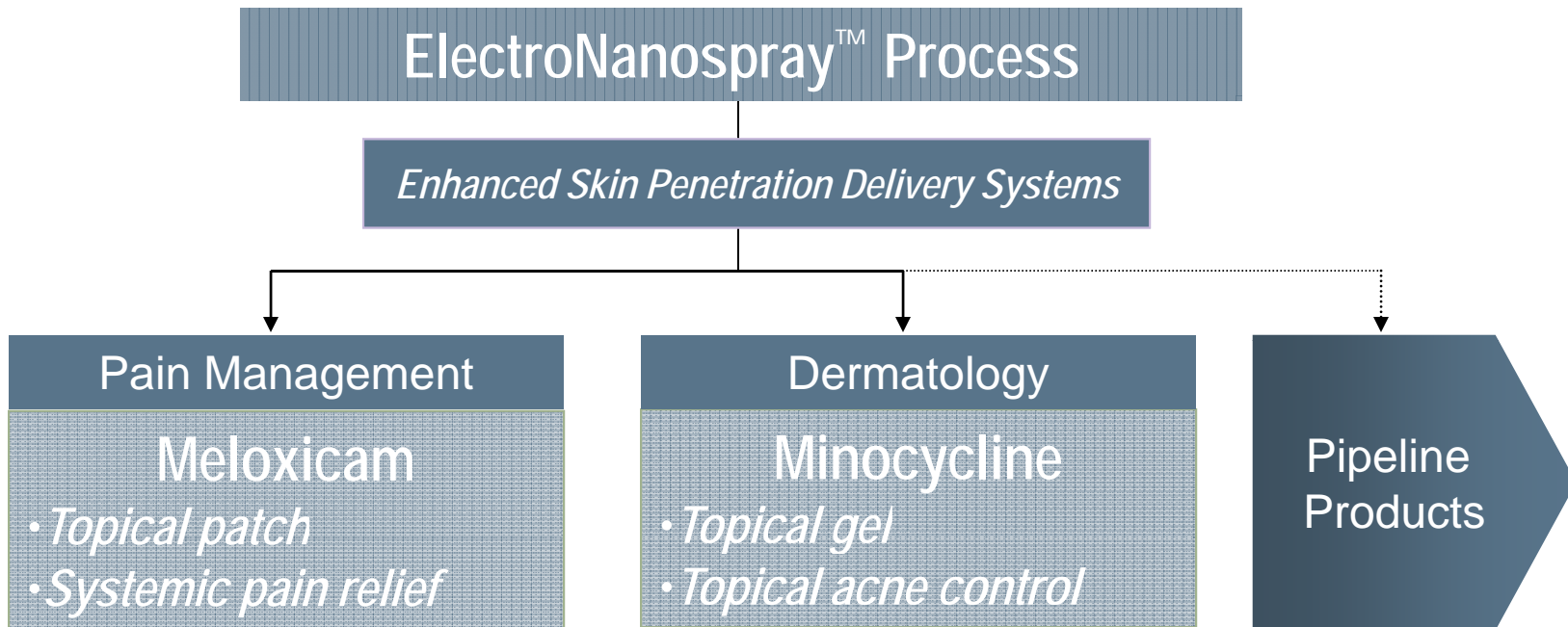
Series A Investor Presentation
Fall 2009

Who we are

- Nanocopoeia is a *drug delivery company* developing a *nanotechnology-enabled* portfolio of therapeutic products.
- ElectroNanospray™ creates *new proprietary products* by enhancing the value and performance of off-patent, already proven drugs; taking advantage of the efficient 505(b)(2) regulatory pathway for minimizing time to market.
- ElectroNanospray™ enables novel nanoformulations of those drugs optimized for *delivery to and through the skin*.



Our Product Development Focus



- Improved performance, faster/sustained delivery, new topical delivery route
- Novel formulations address substantial unmet treatment needs
- Efficient path to market using the 505(b)(2) regulatory approval process

Market Drivers for Drug Reformulation

- Falling sales of blockbuster drugs
 - Of those on the market in 2000, 80% had lost patent protection by 2007
 - \$67 billion exposure to generic competition
- Big pharma acquisition of drug portfolios from small companies at the stage of Phase II clinical trials and beyond is a common business development strategy
- Over 60% of drugs approved by the FDA in the past 3 years were reformulations of existing approved drugs
 - Many of these products were approved using the FDA 505(b)(2) regulatory pathway
- The total market for nanotechnology-enabled drug delivery is growing rapidly

Sources: Business Insights "Pharmaceutical Market Outlook"
Cientifica 2007



Addressing Serious Unmet Market Needs

Delivery	Sector	Benefits
Transdermal (Systemic)	Pain Management (non-opiate)	Engineered drug release: fast onset; sustained systemic delivery
	Prescription NSAID market:	Topical delivery bypasses GI tract first- pass, potential local GI irritation
	<i>\$5.7 billion</i>	Works when GI tract is not functioning
		Establishes new value in off-patent drug
Dermal (Local)	Acne (chronic, poorly controlled)	Rapid release, local delivery
	Global acne therapy sales:	Topical delivery minimizes body exposure
	<i>\$5.0 billion</i>	Non-skin side effects reduced
		Establishes new value in off-patent drug

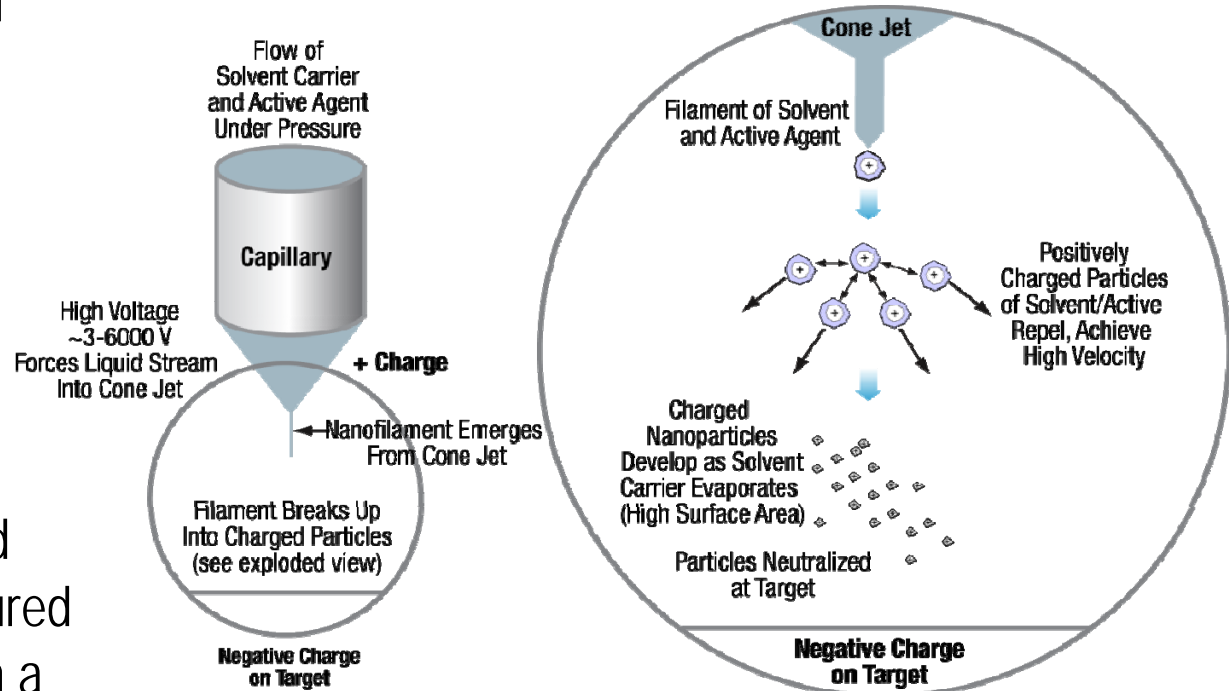
Corporate Background

- Founded in 2001
 - Bob Hoerr, Karen Arnold, David Pui (U of M), Da-Ren Chen (Wash U)
- Core technology licensed from U Minnesota in 2002
 - Exclusive, world-wide, all fields of use
 - Core IP expanded by multiple company filings and issued patents
 - Supplemental IP acquired to enable drug formulation success
- Investment to date \$5 million
 - Seed money leveraged by multiple SBIR grants
 - Technology risk minimized
 - Commercial-scale prototype process equipment is operational



ElectroNanospray™ Technology

- Drugs, polymer or other ingredient in solvent passed through microcapillary tubes
- High voltage generates spray of drug-loaded nanoparticles
- Solvent evaporates and nanoparticles are captured as drugs or coatings on a patch



Technology is ready for commercial use

Competitive Drug Nanoformulation Technologies

Technology (Production Techniques)	Representative Companies	Approx. Lower Size Limitation	Other Characteristics
ElectroNanospray™	Nanocopoeia, Inc	30 nm	Coated particles, uniformity, purity
Super Critical Fluid	CritiTech, Nektar, Aphios	100 nm	Requires secondary processing for sizing and coating
Wet Milling	Elan, Nektar, Acusphere	100 nm	Requires secondary processing for sizing and coating
Synthesis with Lipids/Liposomes	Azaya Therapeutics, Northern Lipids, Tekmira	60 nm	
Self Assembly	Intradigm, Starpharma, Insert Therapeutics	50 nm	Generally a multistep process to remove the organics
Carriers	pSivida, Keystone Nano	pS – Not reported KN – 5 nm	Silicon & calcium phosphate carriers
Solvent Precipitation	Baxter (Nanoedge)	300 nm	Multistep process; microprecipitation followed by homogenization to reduce size
Specialty	Bind Biosciences	50 nm	Has active and passive targeting
Inkjet Atomization	Picoliter, HP, Canon	1 µm	Large particle sizes



Competitive Advantages of ElectroNanospray Formulations

- Drugs can be formulated for multiple delivery routes
- Single step, flexible process
- Compatible with a wide range of compounds including small molecule drugs and biologics
 - Unlimited combinations of solvents, polymers, drugs
 - Combinations of traditionally incompatible elements
- Nanoscale encapsulation for stability and controlled release
- Process operates under normal pressure and temperature
 - Avoids mechanical and thermal stress and degradation
- Tight control over particle size at nanoscale



Development Milestones

Complete

- ✓ Intellectual property secured
- ✓ Process prototype operational
- ✓ Lead products selected and formulation/development started
- ✓ Regulatory strategy consultation in process

Series A - Enabled

- Final product formulation established
- Production scale up
- 1st regulatory filing
- Clinical trial planning & execution
- Business development/corporate partnering established
- Continued intellectual property development and protection

Series A Timelines, Milestones



Summary: Key Investment Considerations

- Using ElectroNanospray to create proprietary versions of existing drugs that are off-patent
 - Restoring market value and enhancing performance
 - Providing new alternatives to existing treatments
- Big markets; even modest penetration creates big opportunities/revenues/sales
- Prior investments have removed technology risk
- Superior enabling technology ready for market
- Regulatory path minimized by 505(b)(2) strategy: pharmaceutical company returns with medical device timelines
- Strong investment characteristics:
 - Relatively small capital outlay to achieve exit
 - Multiple mid-term investment exit options
- Proven management team with deep industry experience and contacts

