

# The Biotech Industry: New Opportunities for Pharmacists

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## Panelists

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OPA Annual Conference & Trade Show  
*Reimagining Pharmacy*

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# Disclosure Statement

- Name(s) of Speaker(s), name of the ineligible company(ies) with which the individual has a relevant financial relationship(s), and the nature of the relationship(s)
  - *Marc Sweeney, Consultant for Cardinal Health*
  - *Chris Antypas, Owner, Asti's Pharmacy and Perigon Pharmacy*
  - *Harry Benson, Employee of CAI*
  - *Scott Roberts, Consultant for ADC Therapeutics, Astra Zeneca, Acadia Therapeutics, Verna Pharmacia, Milestone Therapeutics*
- All of the relevant financial relationships listed for these individuals have been mitigated.  
*and*
- None of the planners for this activity have relevant financial relationships with ineligible companies to disclose.

# Learning Objectives

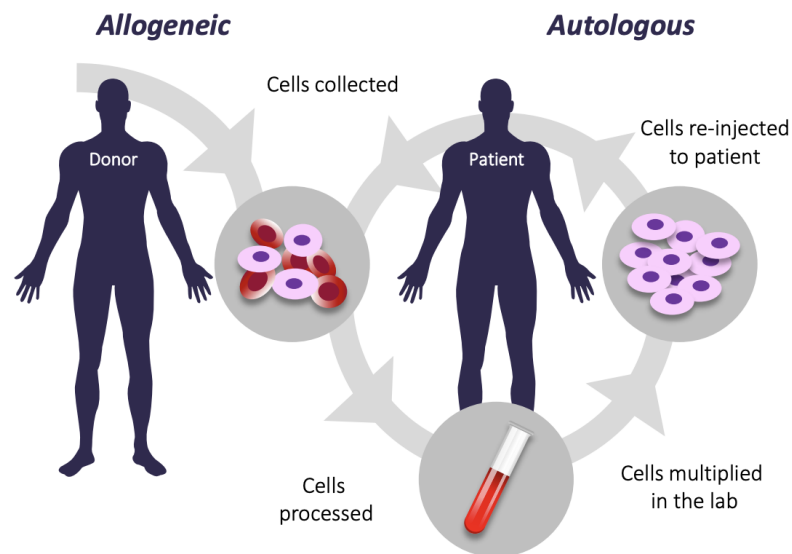
At the completion of this activity, the participant will be able to:

1. describe the biotech industry's history and evolution;
2. discuss opportunities for pharmacists and pharmacy technicians within the biotech industry; and
3. list specific skills needed to meet the evolving needs of the biotech industry.

# ATMP: Cell & Gene Therapies

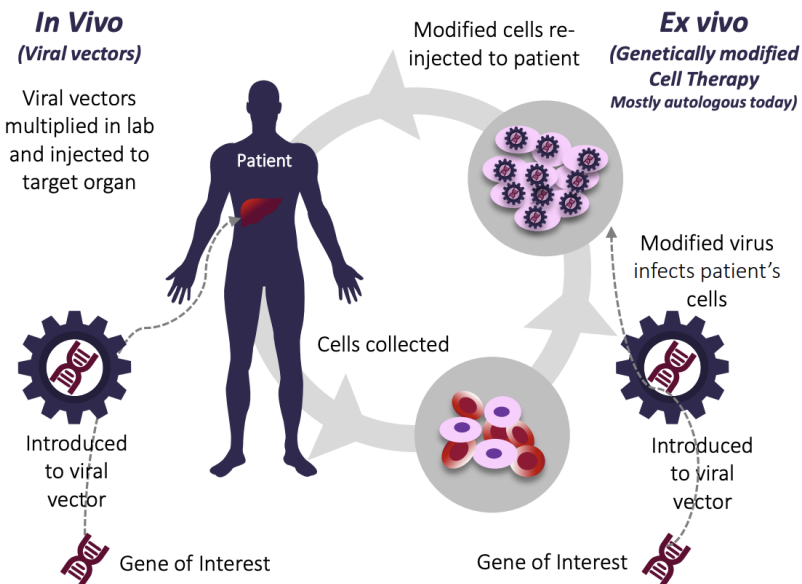
## Cell Therapy

Product = Cell



## Gene Therapy

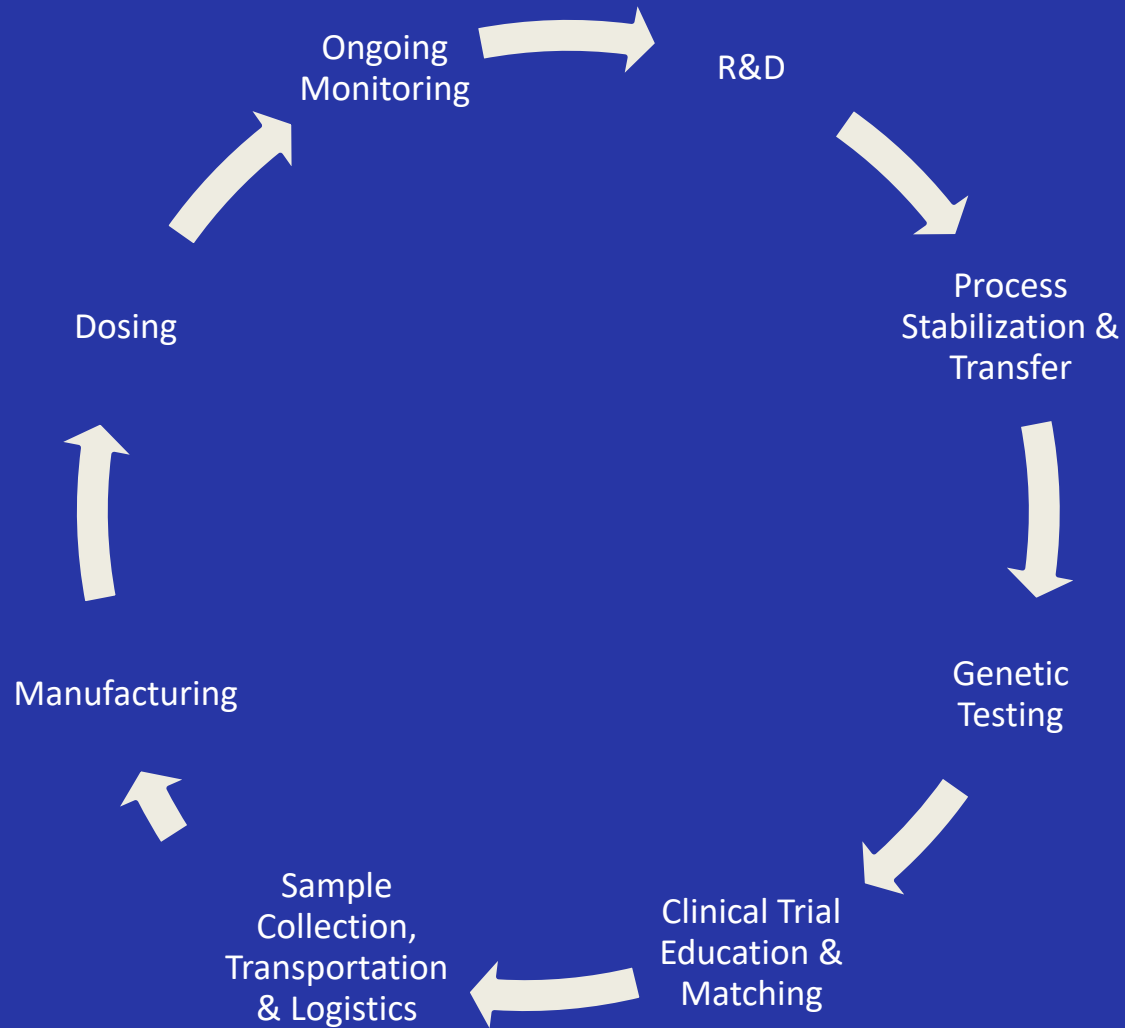
Product = Virus or Gene Modified Cell to fix/replace faulty genes



Graphic courtesy of

**Lonza**  
Pharma & Biotech

# Patient Value Chain



# OPA Member Potential Opportunities:

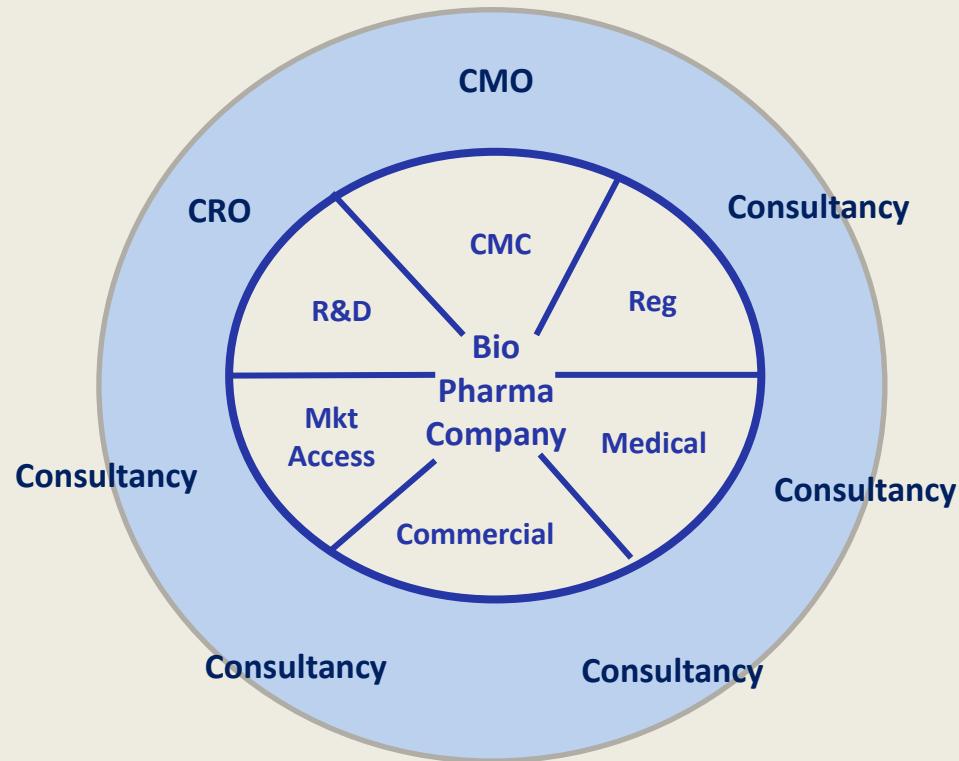
## Patient Value Contribution

- Patient Engagement & Education
- Genetic Testing
- Clinical Trial Connections
- Sample Collection
- Infusion / Dosing

## Career Options

- Biotech Research
- Market Viability Research / Validation
- Production / Operations
- Quality Specialist / Consultant
- Logistics

# Organizational models for Biopharma



# Pharmaceutical drug channel trends

Major Public Companies Operating in U.S. Drug Channels and Primary Roles

Company	Stock ticker	Primary U.S. channel role(s)						
		Insurer	Pharmacy benefit manager	Community pharmacy	Mail and/or specialty pharmacy	Healthcare provider	Discount card provider	Pharmaceutical wholesaler
Amazon	AMZN				✓		✓	
AmerisourceBergen	ABC							✓
Cardinal Health	CAH							✓
Centene	CNC	✓	✓		✓	✓		
Cigna	CI	✓	✓		✓	✓	✓	✓
CVS Health	CVS	✓	✓	✓	✓	✓	✓	
Elevance Health	ELV	✓	✓		✓	✓		
GoodRx	GDRX						✓	
Humana	HUM	✓	✓		✓	✓		
Kroger	KR		✓	✓	✓	✓	✓	
McKesson Corporation	MCK				✓		✓	✓
Rite Aid Corporation	RAD		✓	✓	✓		✓	
UnitedHealth Group	UNH	✓	✓	✓	✓	✓	✓	
Walgreens Boots Alliance	WBA			✓	✓	✓	✓	
Walmart	WMT			✓	✓	✓	✓	

Source: Drug Channels Institute research

## Key Trends

- \$550 billion (retail, mail, SP, LTC)
- Specialty Rx 40% revenue
- High OOP for patients on Specialty Rx
- Vertical Integration continues
- IRA to lower drug prices in government channels
- 340B continues to grow in OP channels

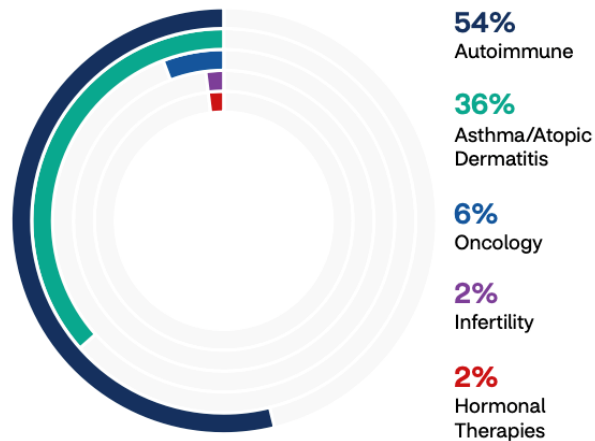
Source: Drug Channels 2022 Trend Report

Generics: channel revenue confounding; Mark Cuban, GoodRx/Amazon, copay cards, etc



# Specialty drugs continue to capture a growing and significant share of channel revenue

## Autoimmune Treatments Accounted for More Than Half of All Specialty Utilization Trend

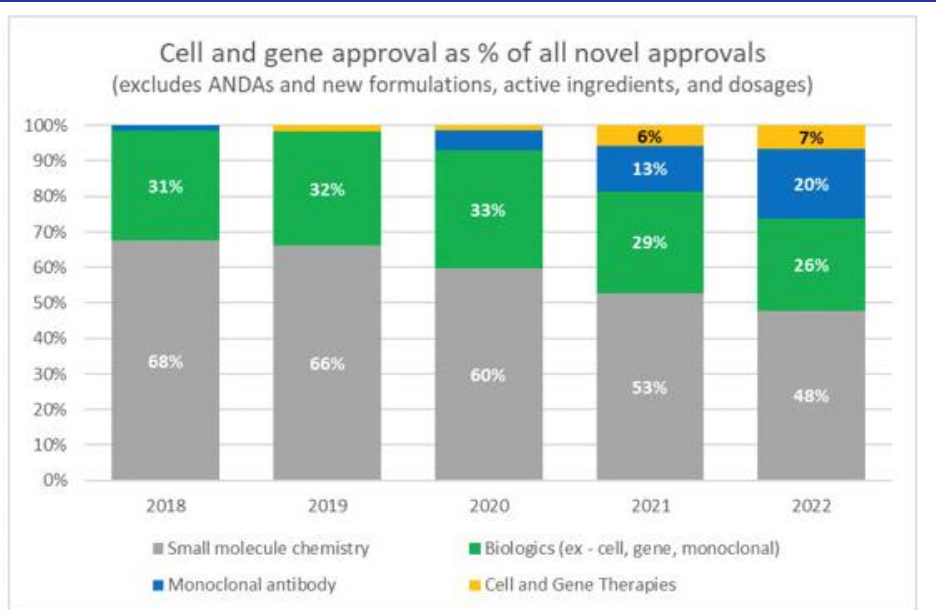


## Growth of the Autoimmune and Asthma/Atopic Dermatitis Classes Largely Stemmed from Increased Utilization, Not Higher Prices

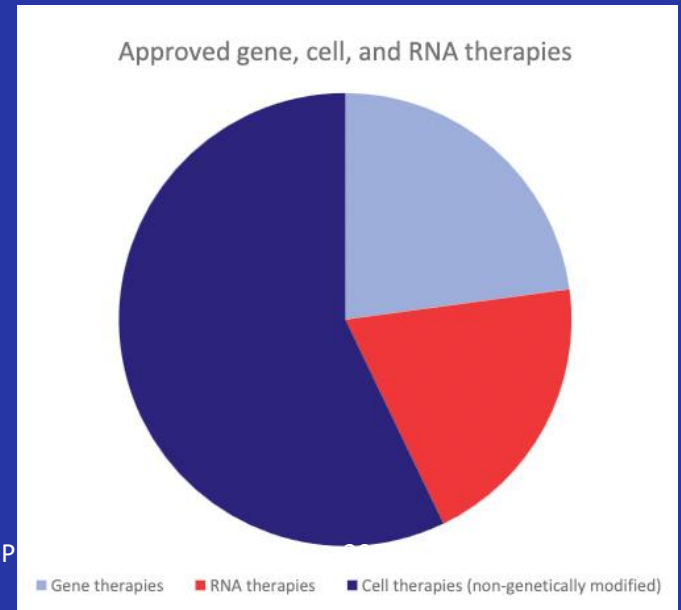
	Utilization Trend	Price Growth
Autoimmune	+8.8%	+0.9%
Asthma/Atopic Dermatitis	+34.6%	-3.8%

Source: CVS Caremark Trend Report - 2022

# Despite slow start, the era of gene and cell therapies is beginning to emerge











Source: FDA and Evaluate Pharma



Source: P

24 Gene  
21 RNA  
60 Cell

# 2022: Gene therapies for rare pediatric diseases with pricing near or above \$3.0 mill

Pediatric Rare Disease Gene Therapies		Pricing & Access		Epidemiology
		United States	Europe	
Upstaza AADC	 	Planning to file in US	<ul style="list-style-type: none"> <li>3.5 million per treatment</li> <li>Free / list pricing at this stage; reimbursement negotiations pending</li> </ul>	<ul style="list-style-type: none"> <li>Europe: 5-6 babies born per year in major markets; severe even fewer</li> <li>US: 21 babies per year; severe even fewer</li> </ul>
Roctavian HemA	 	Planning to file in US	<ul style="list-style-type: none"> <li>~ 1.5 million per treatment</li> <li>Reimbursement negotiations pending</li> </ul>	<ul style="list-style-type: none"> <li>Europe: severe Hema ~8,000 patients</li> </ul>
Hemgenix HemB	 	<ul style="list-style-type: none"> <li>\$3.5 million per treatment</li> </ul>	Currently under review by EMA	<ul style="list-style-type: none"> <li>US: 180 babies born per year; about 12,000 males living with HemB</li> <li>Approved for Adults</li> </ul>
Skysona cALD	 	<ul style="list-style-type: none"> <li>\$3.0 million per treatment</li> </ul>	BBB withdrew from European markets	<ul style="list-style-type: none"> <li>US: ~ 32 male babies born per year with cALD</li> </ul>

# Need More Information?

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