



PlantForm Corporation®

Lowest-cost, patented  
drug-production  
platform targeting  
opportunities exceeding  
\$35 billion



[plantformcorp.com](http://plantformcorp.com)



# PlantForm Value Proposition

## Award winning tobacco-plant system cuts biologic drug manufacturing cost by up to 90%

- Disrupts current cell-based and plasma drug manufacturing methods
- Best-in-class plant-based system
- Significantly reduced facility costs





# The Corporate Group

## PlantForm Corporation, Canada

### Parent Corporation

- Focus on biosimilars/biobetters & innovative indications for EU and NA
- 25 people
- Revenue-generating



## PlantPraxis, Brazil

Joint venture with PharmaPraxis, (a subsidiary of Axis Biotec, Brasil)

- Pilot Plant in Rio de Janeiro
- Revenues in 2022
- Creating biosimilars/biobetters for Brazil and South American markets



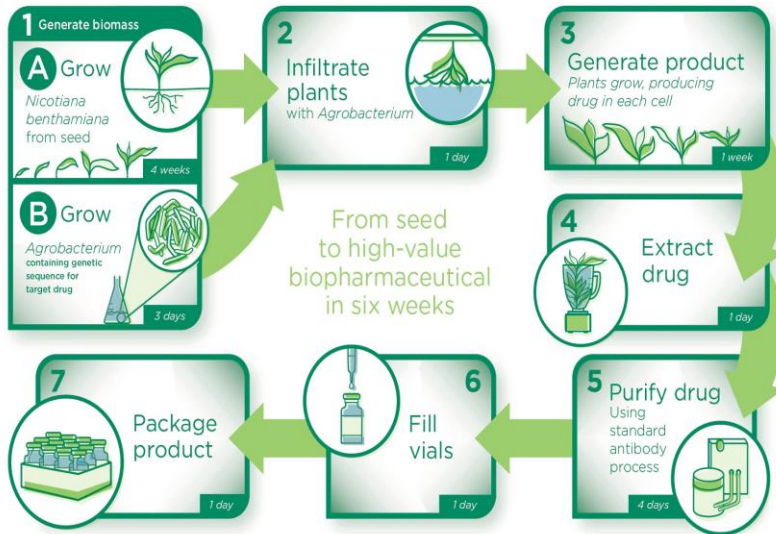
## Antoxa Corporation, Canada

Wholly owned Canadian subsidiary

- Revenue-generating
- Focus on innovative medical countermeasures global markets
- Military clientele and contracts



# High-Yield Production System



## vivoXPRESS® platform

- Very high yield
- Patent protected
- Versatile, scalable and fast
- Unique, best-in-class capability
- Differentiated from competitors by low cost and unique capability

## GravityFlow™ Growth System

- Scalable to commercial production
- Multi-layers of plants with vertical lift system
- Individually adjustable LED lighting
- Fully controlled hydroponic nutrient system
- Controlled temperature, humidity, carbon dioxide





# Scope of the Versatile Platform

**Therapeutic drugs,  
proteins, and  
antibodies**

*In-house and  
contract products.  
Innovative and  
biosimilar projects*

**(PlantForm's primary  
focus)**

**Veterinary  
vaccines**

*Contract projects.  
Production of  
vaccine in leaves  
for edible  
administration*

**Specialty protein  
production**

*Contract project.  
Low-cost  
production of high-  
value-added  
products*

**Food industry,  
enzymes**

*Contract projects.  
Production of high-  
quality enzymes  
and other proteins*

**vivoXPRESS<sup>®</sup> platform**



# Intellectual Property

## Protection of the platform and manufacturing methods

Patent	Expiry	Status
		19 issued or in review 2 new families in preparation
<b>Platform technology</b>		
Plug-and-play cloning	2028	7 issued patent, others in review
Very high yield production system	2031	Patents in review
Improved host plant	2036	Patents in review
Enhanced expression system	2037	Patents in review
<b>Products</b>		
Snake bite antidote	2029	2 issued patent, 1 in review
Plant Herceptin® manufacturing process	2031	Patents in review
Anti-Ricin manufacturing process	2031	1 patent issued, other in review
Anti-Ricin manufacturing process	2036	Patents in review



# Strong, Diverse PlantForm Pipeline

## Market Entry Post patent expiry

### World Markets

### Potential Market Size

**Biosimilar  
Lucentis®**

15% of \$11.0 billion by 2026

2021

**Biobetter Alpha 1  
Antitrypsin**

50% of \$0.5 billion by 2026

2022-2024

**Niche plasma  
replacement drugs**

15% of \$0.5 billion each by 2028

### Latin American Markets (JV with PharmaPraxis, Brazil)

**Biosimilar  
Humira®**

20% of \$0.5 billion by 2023  
(Latin American markets)

2022

**Undisclosed  
biobetters**

30% of \$0.5 billion by 2025 each  
(Latin American markets)

2022-26



# AntoXa Innovative Programs

## Drug Candidate

## Potential Market Size

## Exit

**Anti-ricin antibody**

100% of \$0.5 billion per annum  
(Governments)

Product sales  
2021

**BuChE  
(nerve gas antidote)**

100% of \$0.5 billion per annum  
(Governments)

Product sales  
2022

**Herceptin® new  
indication for nerve  
regeneration**

100% of \$2.5 billion for Trauma  
and Carpal Tunnel Syndrome :  
\$2.5 billion (Governments and  
Hospitals)

2021, sell  
asset at  
Phase 2  
Clinical trial





# Sustaining Revenue to date >\$2M p.a.

## Contract Project

## Organization

## Stage

Innovative drug candidates  
(2 projects)

Not disclosed, major biotech  
North American

Proof of concept

Medical countermeasure  
drugs (2 projects, AntoXa)

Governments, USA & Canada

Production for  
efficacy testing

Ebola drug candidates

University of New Mexico

Production for  
early testing

Innovative HIV drug  
candidates

Bill and Melinda Gates  
Foundation

Production for  
preclinical testing

Bulk commodity protein

Not disclosed, Asian  
conglomerate

COG evaluation



# Projected Future Contract Revenue

## Projects

Industry  
contracts

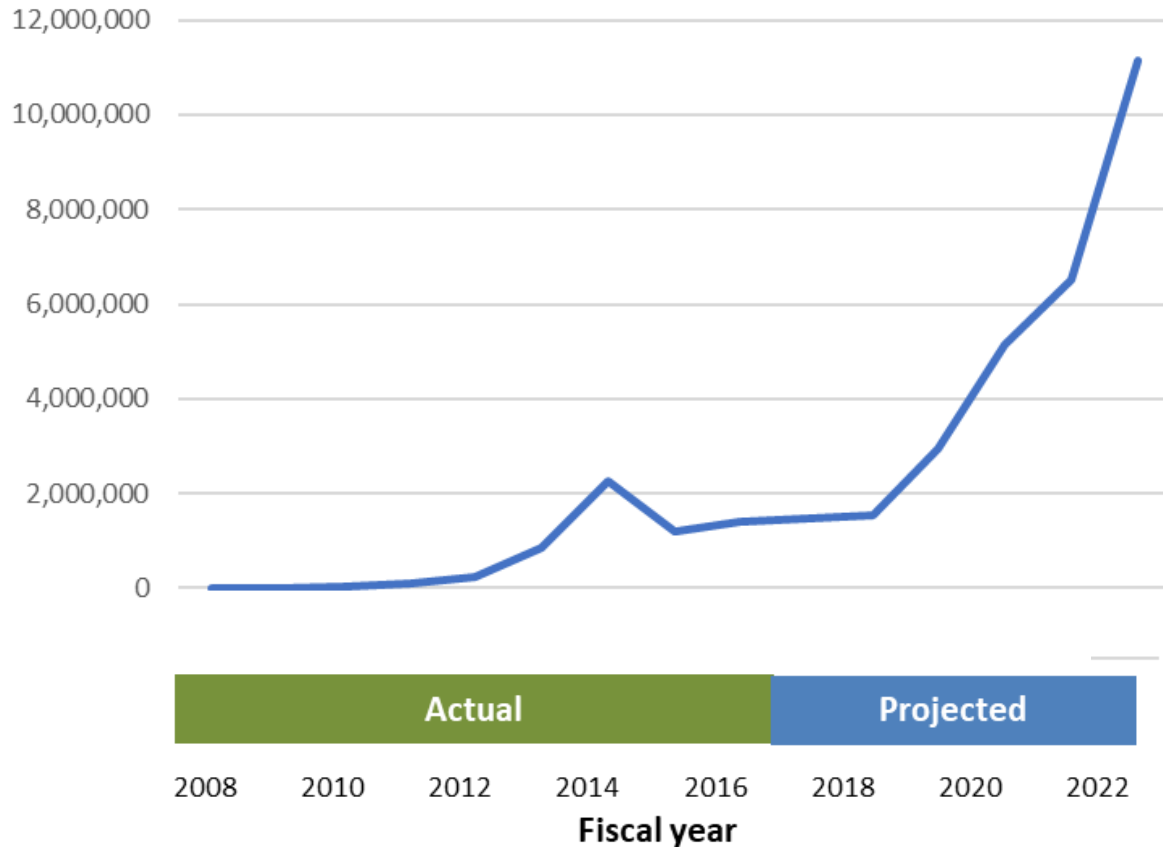
Government  
contracts

Royalties on AntoXa  
product sales

Contracts and  
Royalties from  
PlantPraxis, Brazil

## Actual and projected contracts etc. (2008-2022)

CAN\$

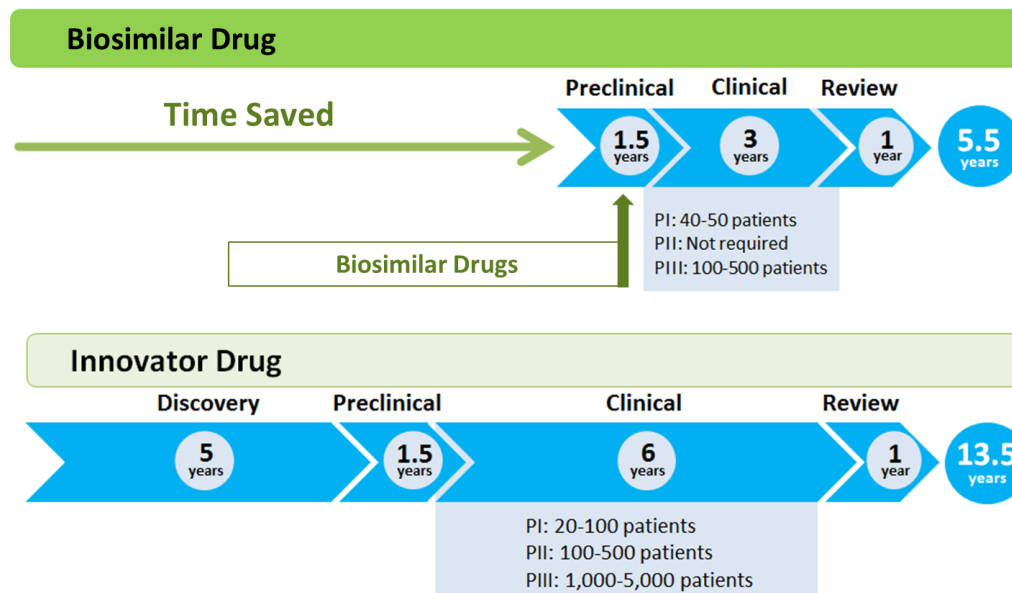




# Advantages of a Biosimilar Program

## Why biosimilars

- Shortened time to market
- Reduced development costs
- Regulatory approval process established world wide
- Large market share for low cost production products
- Management experience with biosimilar drug approvals by FDA



## Approved Biosimilars

- USA = 10
- Europe = 41



# PlantForm Approach to Biosimilar Portfolio

## General strategy

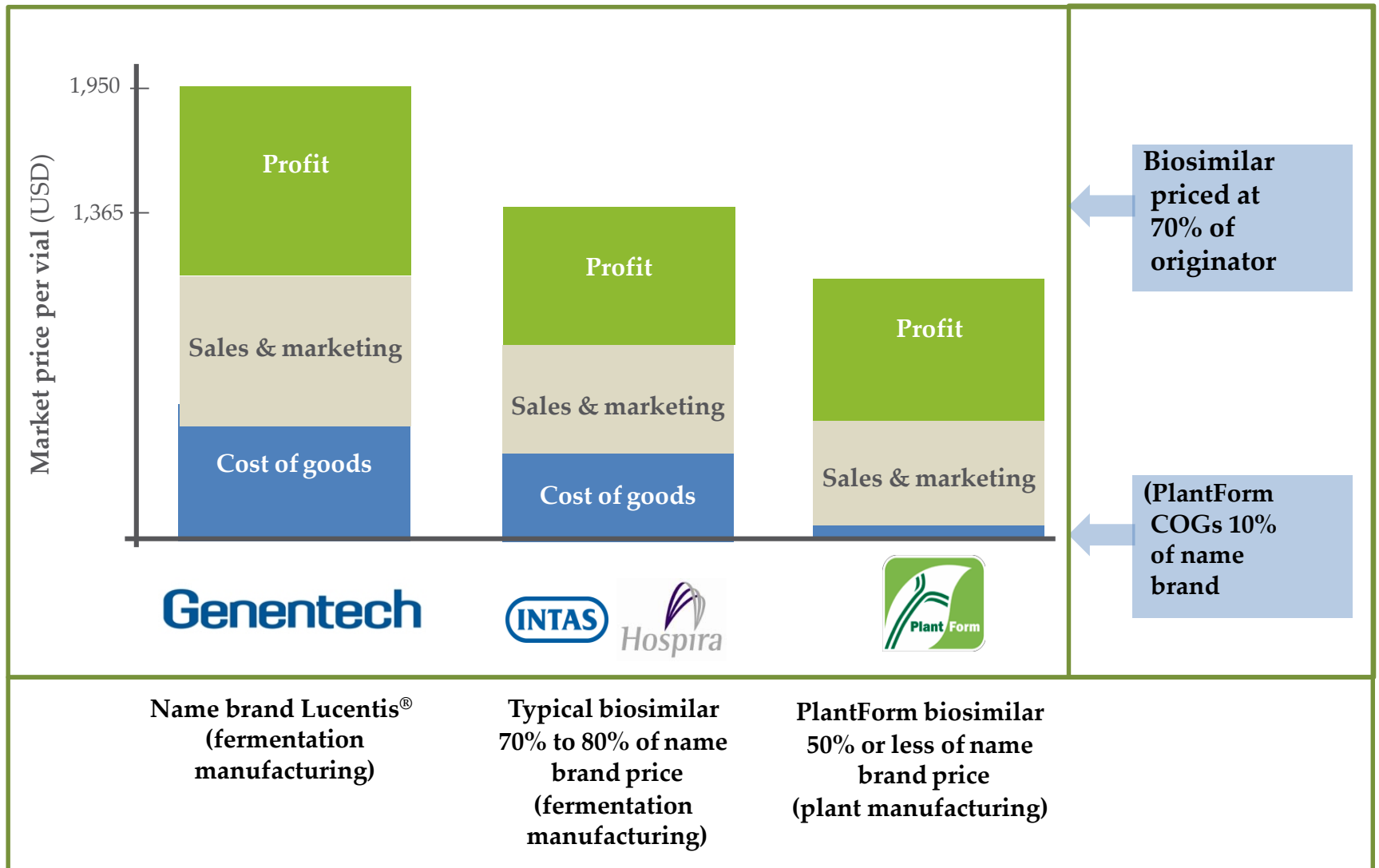
- Develop drugs to completion of Phase 1 clinical trials
- Partner at Phase 1 with Big Pharma or International Generic
- Partner assumes Phase 3 clinical trial costs
- Partner will be sales and marketing partner/PlantForm will be manufacturing partner
- PlantForm revenue from manufacturing and product royalties

## PlantForm key biosimilar pipeline

- Biosimilar Lucentis<sup>®</sup>
- Biosimilar Humira<sup>®</sup> (Brazil)



# Low-Cost Production – Biosimilar Lucentis®

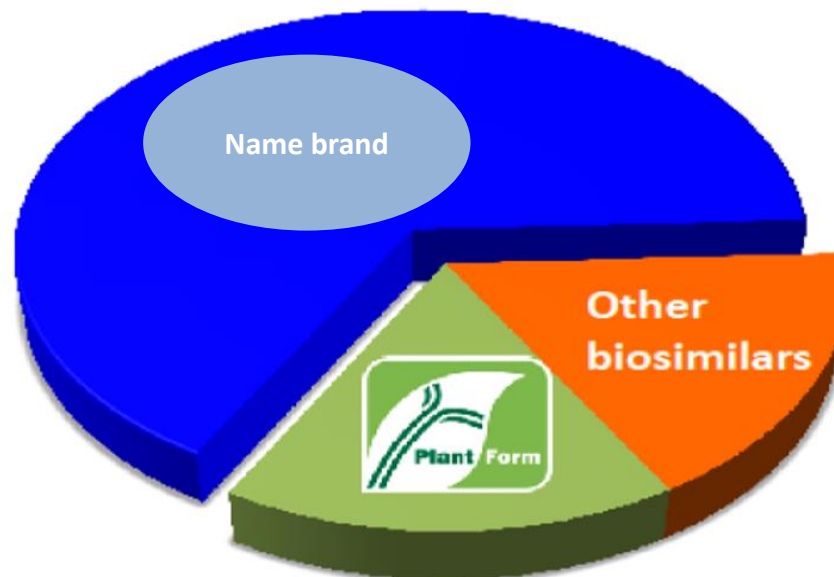




# Biosimilar Lucentis® market post-patent

## Patent expiry in 2022 trigger lower-cost producer entry:

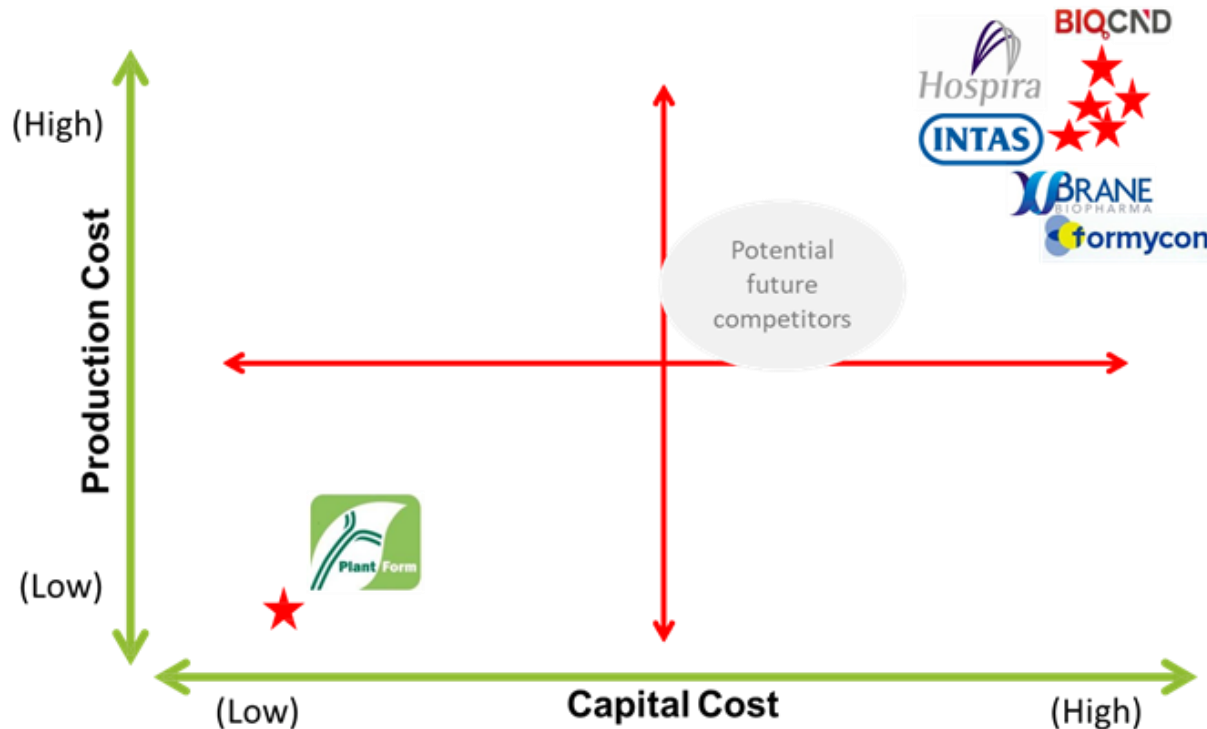
- Total \$11.0 billion (Lucentis & Eylea)
  - Name brands maintain \$7.7 billion
- Biosimilar entries
  - PlantForm \$1.65 billion
  - Others \$1.65 billion





# Cheapest production, lowest capital costs

## Lowest cost among all current market peers



### Biosimilar competition

- PlantForm uses lowest cost manufacturing system and cheap overhead
- Potential future competitors may employ cheap overhead but do not have low cost manufacturing system



# PlantForm's<sup>®</sup> Partners-to-Market Strategy

## Global Pharma



Global sales and marketing reach.  
Financial resources and presence in biosimilar market

## Regional Pharma



Regional strength in key area(s).  
Strategic intent to enter biosimilar market





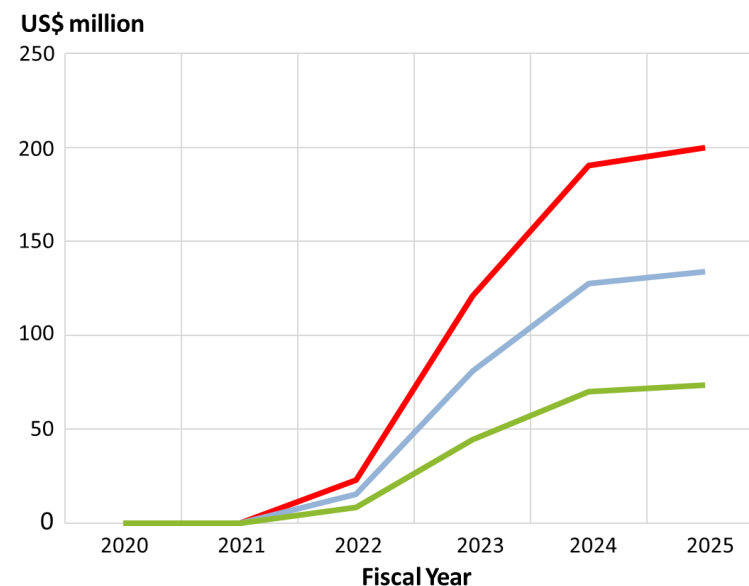
# Summary Biosimilar Growth Forecast

## Biosimilar Lucentis® and contract

Fiscal Year	2017/ 18	2018/ 19	2019/ 20	2020/ 21	2021/ 22	2022/ 23
<b>REVENUES</b>						
Lucentis Sales	-	-	-	-	8	44
Lucentis Royalties	-	-	-	-	15	81
Contract Revenue	1	2	4	5	4	2
COGS	-	-	-	-	(1)	(5)
<b>EXPENSES</b>						
Operations	4	7	9	12	12	10
Project	2	5	13	30	23	2
<b>NET INCOME</b>	(5)	(10)	(9)	(17)	17	92

Year end March 31, \$ million (estimate)

## Projected Biosimilar Lucentis® revenue



**PlantForm Lucentis gross revenue** (Royalties + transfer sales)

**PlantForm royalties**

**PlantForm transfer sales**



# Experienced Management Team

	<b>Don Stewart PhD</b> <i>President &amp; CEO</i>	<b>Craig Binnie PhD</b> <i>VP Drug Development</i>	<b>David Cayea, BA</b> <i>Chief Operating Officer</i>	<b>Doug Cossar, PhD</b> <i>VP Research</i>	<b>Ron Hosking</b> <i>Chief Financial Officer</i>
Pharma industry	✓	✓		✓	✓
Technology	✓	✓		✓	
Drug approvals	✓	✓			
Markets			✓		✓
Investment			✓		✓
Governance	✓		✓		✓
<b>Organizations</b>	 	  	 	  	  



# Investor Exits

## Exit option in short term, ~2 years

- On completion of first Phase 1 clinical trial
- Subsidiary sale or listing on public market
- **Potential value increase 5x**

## Exit option in mid term, ~4 years

- On completion of Phase 3 clinical trial
- Trade sale or listing on public market
- **Potential value increase >25 x**

## Exit option in long term +5 years

- Dividend payment from revenue generation
- Listing on a public market
- **Potential value increase >50 x**

## Exit option longest term 6-8 years

- Management buy-back
- **Potential value increase >100 x**





# Use of Funds

## Series A

- **\$10 million (may be tranching with a bridge of \$2 million)**
- Pre-money -\$15 million
- Use of funds
  - Biosimilar Lucentis® development to completion of Phase 1 clinical trial
  - Biobetter Alpha 1 Antitrypsin preclinical development

## Future round Series B (\$15 million)

- Use of funds
  - Biosimilar Lucentis® manufacturing and validation
  - Biobetter Alpha 1 Antitrypsin development to completion of Phase 1 clinical trial

## Future round Series C (\$10 million)

- Use of funds
  - Market entry manufacturing facility



Thank you

# Making life-saving medications accessible to all

