## **PlantForm Corporation**



#### Annual General Meeting September 21, 2010

Dr. Don Stewart President and CEO +1 (416) 452 7242 don.stewart@plantformcorp.com



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## The Opportunity





The introduction of more affordable, biosimilar versions of already approved treatments is a priority for health care providers to reduce costs and increase the availability of life-saving medicines.

## The Opportunity





- PlantForm uses its proprietary platform to produce drugs at ultra-low cost in plants.
- PlantForm's current and future products are manufactured at only 5% to 10% of the cost of name-brand equivalents.
- PlantForm's first product is biosimilar Herceptin, a \$5.0 billion/year breast cancer drug.

### Use of Funds



Туре	Investors	Amount (Millions)	Milestones	Time	Value (Millions)
Round 1	Angels Early-stage VC Government	\$1.5 (\$1M raised to date)	Demonstrate Cost of Goods Efficacy study	Year 1	\$4-6
Round 2	Institutional investors Government	\$5.0	Manufacturing for Phase I IND package IND submission Phase I clinical trial	Year 2	\$50 Exit 1
Round 3	Institutional investors	\$27.0	Manufacturing for Phase III GMP process validation	Year 4	\$250
	Partner	\$45.0	Phase III clinical trial License submission		Exit 2

IND = Investigational New Drug application

### **Innovation Award**



2010 Innovator of the Year Award

<sup>from</sup> Guelph Partnership for Innovation



Guelph, Ontario, Canada





### **Current Status**

#### • Biosimilar Herceptin product

- Laboratory production process established:
  - Produced in tobacco plants
  - Purified from tobacco plants
- Equivalency of PlantForm biosimilar to name-brand drug established:
  - Identity
  - Activity in vitro
  - Molecular size
  - Molecular forms
  - Binding to HER2 receptor target
  - Amino acid sequence (amino terminus)

# **Current Technical Objectives**



#### • Primary

- Manufacturing gram quantities of biosimilar Herceptin
- Conduct animal efficacy study in mice (*in vivo* comparison of PlantForm biosimilar to Herceptin)

#### • Secondary

- Develop transgenic plants for improved performance
- Develop modified glycosylation host plants



### **Recent Advances**

- Manufacturing gram quantities of biosimilar Herceptin
  - Preclinical manufacturing strategy defined
    - Upstream (greenhouse) and downstream (GMP) manufacturing CMO
      - Contract in place with KBP (Kentucky, USA)
      - Work initiated in Q3, 2010
    - Fill/Finish manufacturing CMO
      - $\circ~$  Scope of work being defined



### **Recent Advances**

#### • Platform development

- Evaluating novel Protein A capture technology
- Increased expression rates x4
- Cloned improved expression vector system (anticipated 5-10 fold increase in product)
- o Developed modified glycosylated tobacco plants



### Patent Status

#### • Core platform technology

- "Methods of Improving the Therapeutic Efficacy and Utility of Antibody Fragments"
- PCT Search and Opinion, "all claims novel and inventive" (Feb. 2010)
- o International Application published No. WO 2010/051635 A1 (May 2010)

#### • Innovative drug candidate

- o "Anti-Cobra Toxin Antibody Fragments"
- PCT Application No. PCT/CA2009/001760 (December, 2009)
- PCT Search and Opinion (April, 2010)

#### Biosimilar Herceptin manufacturing process

- "Production of HER Receptor Antibodies in Plant"
- o US Provisional Application No. 61/355,300 (June 2010)

## **Financing Advances**



- **Finance** (\$1M raised to date towards \$1.5M target)
  - Angel financing
    - \$800,000 raised
  - Government
    - \$200,000 committed from the Syndicated Investment Fund

#### Institutional

- Ongoing positive discussions
- PlantForm information being exchanged

## Scientific Advisory Board



**Chris Hall, PhD** (Chair) University of Guelph & CSO PlantForm

**Doug Cossar, PhD** Structural Genomics Consortium

Malcolm Devine, PhD bioQED Strategic Consultants

**John Hassel, PhD** McMaster University

Ken Hughes, PhD Microbix Biosystems, Toronto

**Steve Narod, MD** Woman's College Hospital, Toronto

#### Steven Rothstein, PhD

Elastin Specialties & University of Guelph

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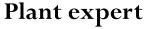


#### Scientific founder



**Process expert** 

Plant







**Process expert** 



**Clinical expert** 



Plant expert

## **Board of Directors**



#### Mark Goldberg, PhD, Board Chair, Director R&D, MTE

- PlantForm Founder, Founder of GlobalTox international consulting
- Many years of success in drug approval processes

#### Jim Rae, CEO, Viron Therapeutics

- Extensive public and private board experience
- Turnaround CEO for small to large biotech enterprises

#### Warren Whitehead, former CFO Arius Research

- Experienced adding and realizing value in biotechs
- Sold Arius Research at preclinical stage for \$200 million

#### Chris Hall, PhD, PlantForm Founder & Chief Scientific Officer

 Canada Research Chair in Recombinant Antibody Technology at the University of Guelph

#### Don Stewart, PhD, President & CEO

- PlantForm Founder
- Founder and President of Alba Biologics Group









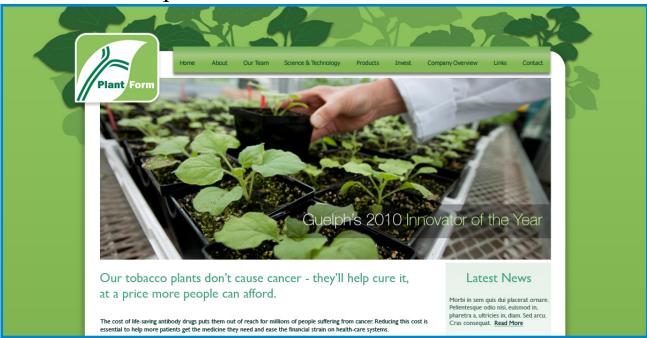






## **Communications Advances**

- Quarterly Update investor reports
- Investor brochure
- New website
  - Launched September 2010



## **Current Technical Objectives**





## **PlantForm Corporation**



## For more information, please contact:

Dr. Don Stewart President and CEO don.stewart@plantformcorp.com (416) 452-7242 www.plantformcorp.com

