

# COMPANY PRESENTATION

NASDAQ & TASE: KMDA

April 2016



# Forward Looking Statement

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This presentation is not intended to provide investment or medical advice. It should be noted that some products under development described herein have not been found safe or effective by any regulatory agency and are not approved for any use outside of clinical trials.

This presentation contains forward-looking statements, which express the current beliefs and expectations of Kamada's management. Such statements involve a number of known and unknown risks and uncertainties that could cause Kamada's future results, performance or achievements to differ significantly from the results, performance or achievements expressed or implied by such forward-looking statements. Important factors that could cause or contribute to such differences include risks relating to Kamada's ability to successfully develop and commercialize its pharmaceutical products, the progress and results of any clinical trials, the introduction of competing products, the impact of any changes in regulation and legislation that could affect the pharmaceutical industry, the difficulty of predicting U.S. Food and Drug Administration, European Medicines Agency and other regulatory authority approvals, the regulatory environment and changes in the health policies and structures of various countries, environmental risks, changes in the worldwide pharmaceutical industry and other factors that are discussed in Kamada's prospectus related to this offering.

This presentation includes certain non-GAAP financial information, which is not intended to be considered in isolation or as a substitute for, or superior to, the financial information prepared and presented in accordance with GAAP. The non-GAAP financial measures may be calculated differently from, and therefore may not be comparable to, similarly titled measures used by other companies. A reconciliation of these non-GAAP financial measures to the comparable GAAP measures is included in an appendix to this presentation. Management uses these non-GAAP financial measures for financial and operational decision-making and as a means to evaluate period-to-period comparisons. Management believes that these non-GAAP financial measures provide meaningful supplemental information regarding Kamada's performance and liquidity.

Forward-looking statements speak only as of the date they are made, and Kamada undertakes no obligation to update any forward-looking statement to reflect the impact of circumstances or events that arise after the date the forward-looking statement was made. You should not place undue reliance on any forward-looking statement and should consider the uncertainties and risks noted above, as well as the risks and uncertainties more fully discussed under the heading "Risk Factors" of Kamada's 2015 Annual Report on Form 20-F filed with the U.S. Securities and Exchange Commission on February 25, 2016.

# Kamada Overview

## 1. Rapidly Growing, Globally Positioned Biopharmaceutical Company Focused on Orphan Diseases and Plasma-Derived Protein Therapeutics

- Revenue and profitability with 10 proprietary products marketed
- \$100M of revenues expected by 2017

## 2. Leader in the Development of Alpha-1 Antitrypsin (“AAT”) Products Globally and Specific Immunoglobulin

- Developed and obtained FDA Approval for the first and only liquid, ready-to-use intravenous AAT product, Glassia<sup>®</sup>, for AAT deficiency
- Selling Glassia<sup>®</sup> in selected emerging markets globally and through Baxalta (formerly Baxter) collaboration in the U.S.
- KamRAB for rabies prophylaxis (BLA submission mid-2016) to be launched in U.S. through collaboration with Kedrion

## 3. Attractive Pipeline for 5 Orphan Indications including

- AAT to treat type-1 diabetes (Phase II)
- AAT to treat Graft-vs-Host Disease (GVHD) (Phase I/II)
- AAT to prevent lung transplant rejection (Phase I/II)
- Novel Inhaled AAT for AATD (EU Phase III completed)
  - Pursuing approval in EU, MAA submitted March 2016
  - Completed Phase II in the U.S.; pathway to be discussed with FDA

## 4. Fully Integrated Manufacturing and Distribution

Notes: 1. As of December 31, 2015 2. Market data as of April 4, 2016

### Key Statistics

- Founded in 1990. Based in Weizmann Science Park, Israel
- Employees: ~320 <sup>(1)</sup>
- Listed on NASDAQ since 2013 & TASE since 2005 (KMDA)
- Current market capitalization: ~\$144MM <sup>(2)</sup>
- Net cash, cash equivalents and ST investments: \$28.3MM<sup>(1)</sup>
- 2015 revenues \$70M



# Diversified Product Portfolio with Extended Global Reach


## Diverse Portfolio of Predominantly Plasma-Derived Protein Therapeutics


Proprietary Products Segment  2015 Revenue: \$43MM	<b>Respiratory</b>	<b>Glassia®</b>	Alpha-1 Antitrypsin (human)
	<b>Immunoglobulin</b>	<b>KamRAB™</b>	Anti-rabies immunoglobulin (human)
		<b>KamRho (D) IM</b>	Rho(D) immunoglobulin (human)
<b>KamRho (D) IV</b>		Rho(D) immunoglobulin (human)	
<b>Snake Antiserum</b>		Anti-snake venom	
<b>Other Products</b>	<b>Heparin Lock Flush</b>	Heparin sodium	
	<b>Kamacaine 0.5%</b>	Bupivacaine HCl	
	<b>Human Transferrin</b>	Transferrin (Diagnostic grade)	

Distribution Segment  2015 Revenue: \$27MM	<b>Respiratory</b>	<b>Bramitob Foster</b>	Tobramycin Beclomethasone+Formoterol
	<b>Immunoglobulins</b>	<b>IVIG 5%</b>	Gamma globulins (IgG) (human)
		<b>Varitect</b>	Varicella zoster immunoglobulin (human)
		<b>Hepatect CP</b>	Hepatitis B immunoglobulin (human)
<b>Megalotect</b>		CMV immunoglobulin (human)	
<b>Zutectra</b>		Hepatitis B Immunoglobulins S.C	
<b>Critical Care</b>	<b>Heparin sodium Injection</b>	Heparin sodium	
	<b>Albumin</b>	Human serum Albumin	
<b>Other</b>	<b>Factor VIII</b>	Coagulation Factor VIII (human)	
	<b>Factor IX</b>	Coagulation Factor IX (human)	

## Global Presence with Exposure to Emerging Markets



 Countries where Kamada has received regulatory approvals for certain of its Proprietary Products

 Countries where Kamada currently sells certain of its Proprietary Products through strategic or distributor partnerships

\*Kamada distributes products directly in Israel through its own sales force

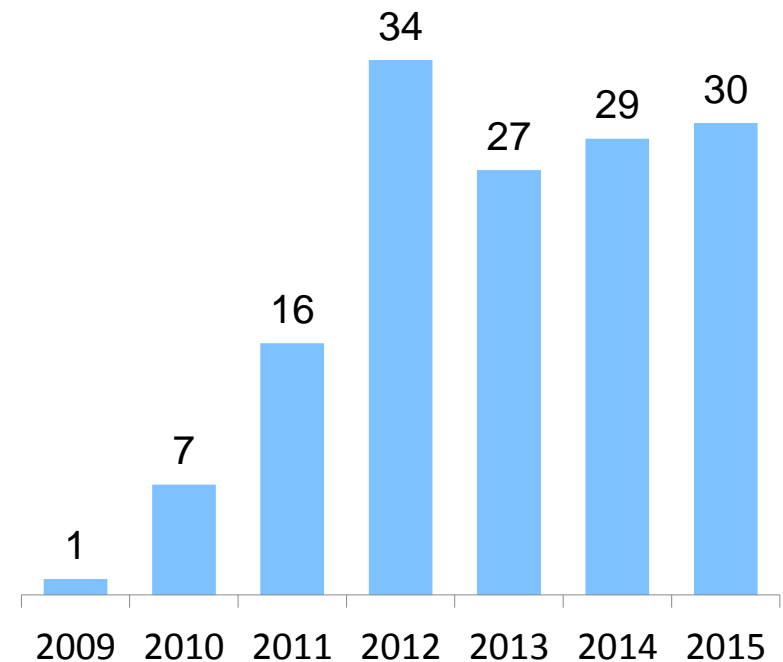
## Growing Proprietary Products Segment Through Glassia®

# Glassia® is a Differentiated Product

## Key Product Advantages

- Glassia® is the first and only liquid, ready-to-use, IV plasma-derived AAT product
- No reconstitution required, reducing risk of contamination and infection and reducing treatment time
- Potentially reduced risk for adverse event and/or allergic reaction due to the absence of preservatives and stabilizing agent(s)
- Glassia® is sold in the U.S. by Baxalta (formerly Baxter), a leading plasma therapeutics company
- Significantly faster infusion rate was approved by the U.S. FDA (2014)

AATD (IV) Product Sales  
W/O Milestone Revenues ( in MM\$)



Glassia® is sold in 8 countries,  
with majority of sales in the U.S.

# Growth of Glassia® Driven by Strategic Partnership with Baxalta (formerly Baxter)

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- **Commencement:** Sales to Baxalta commenced in September 2010
- **Agreements:** distribution, technology license and fraction IV supply
- **Product:** AAT IV (Glassia®), including all future AAT IV indications in the territories
- **Territories:** U.S., Canada, Australia and New Zealand
- **Milestone and upfront revenues:** \$45MM (\$34.5MM received)
  
- **Agreement recently extended:**
  - Baxalta to distribute Glassia® produced by Kamada through 2018
  - Minimum revenues of \$240MM through 2018 (remaining minimum commitment for 2016-2018 of \$97M)
  - Latest amendment, announced October 2015, extends the agreement to include 2018 supply and a minimum revenue increase of \$50M through 2018
  - Royalties from sales of Glassia® produced by Baxalta expected from 2019

**Baxalta**



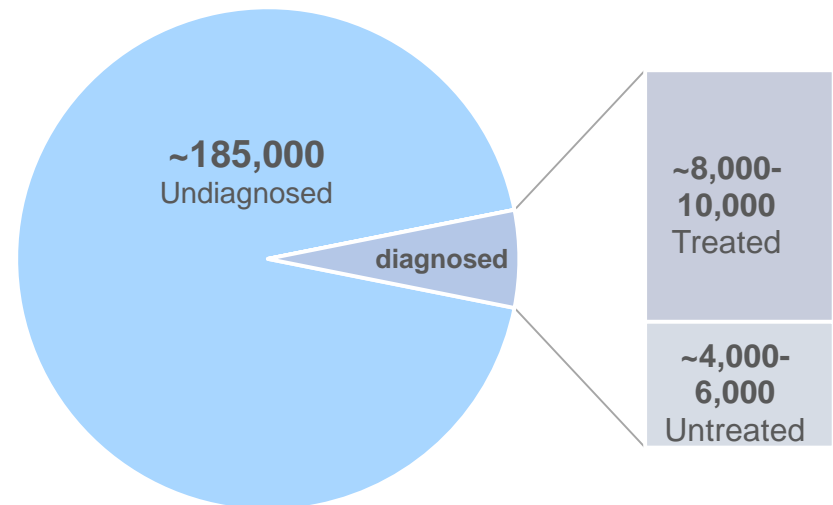


# Significant Opportunity to Expand the AATD Market

## Sustainable Market with Strong Growth Potential

- Patients suffering from AAT Deficiency (“AATD”) remain under-identified and under-treated
- Only ~6% of cases treated in the U.S. and ~2% in EU
- Simple blood test for diagnosis expected to impact demand
- Greater AAT use in Europe and other geographies could further accelerate market growth
- Chronic therapy creates sustainable product opportunity
- Average annual cost of treatment estimated at ~\$80-\$100K per patient

**AATD Prevalence: ~200,000  
Yet Fewer than 5% of Potential Patients in  
the U.S. and Europe are Treated**



Source : Alpha 1 Foundation, MRB and Company estimates

# KamRAB: Human Rabies Immune Globulin

Kamada's human rabies immune globulin is a post-exposure prophylaxis (PEP) for rabies.

## U. S. Opportunity

- Strategic agreement with Kedrion S.p.A for the clinical development and marketing of KamRAB in the U.S.
  - U.S. pivotal Phase II/III clinical trial met primary endpoint of non-inferiority when measured against an IgG reference product.
  - Expect to file Biological License Application with the FDA by mid-2016
  - U.S. launch expected by 2017
- In the U.S., there are ~40,000 post-exposure prophylaxis treatments administered each year, **representing an ~\$100 million market** opportunity
- Currently, only one significant provider of anti-rabies immunoglobulin exists

## Out of U.S.: Product marketed by Kamada in 10 countries

- The product has been marketed since 2003, over 1 million vials sold to date
- WHO estimates ~10 million people worldwide require medical treatment against rabies each year after being exposed to an animal suspected of rabies infection



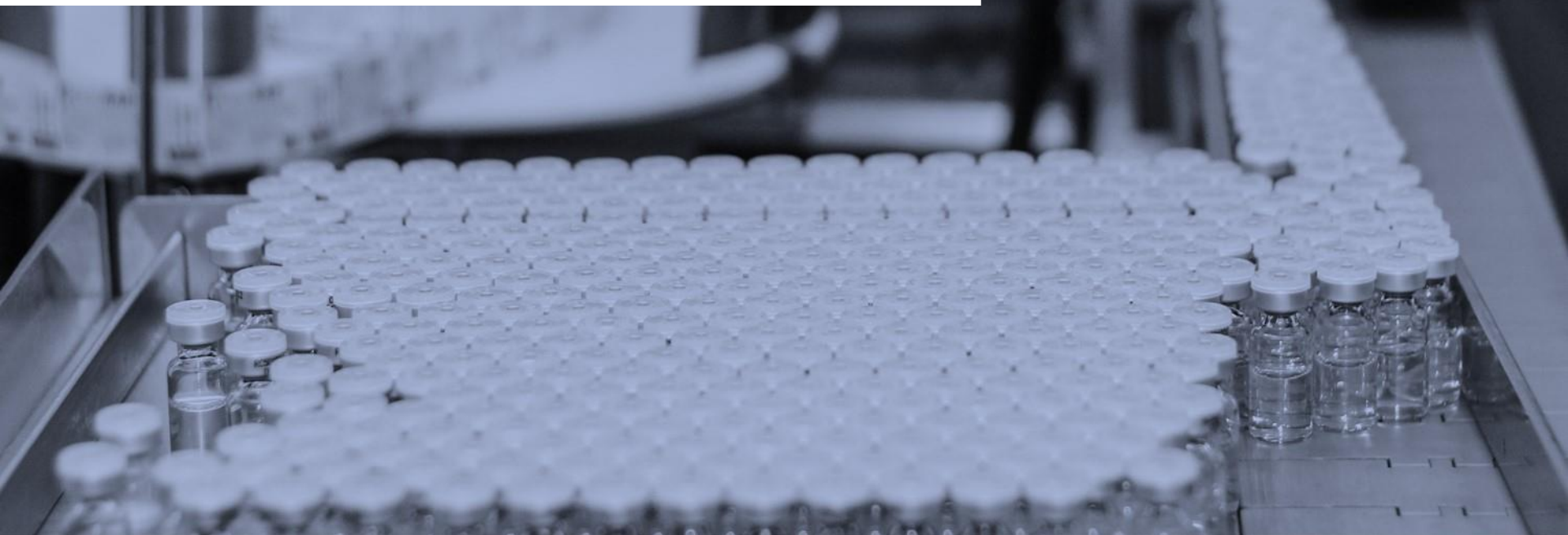


# High Value Pipeline Focused on Orphan Indications

Product	Indication	Phase I	Phase II	Phase III	Market	Partners
Intravenous AAT	AAT Deficiency	FDA Approved (2010)				U.S.: <b>Baxalta</b>
D1-AAT (IV)	Type 1 Diabetes*	Completed	Ph II In Process			U.S.: <b>Baxalta</b>
G1-AAT (IV)	GVHD*	Ph I/II In Process				U.S.: <b>Baxalta</b>
L1-AAT (IV)	Lung Transplant		Ph II In Process			U.S.: <b>Baxalta</b>
Inhaled AAT	AAT Deficiency*	EU: Completed, MAA Submitted				EU: <b>Chiesi</b>
			U.S.: Ph II In Process			
B1-AAT (IH)	Bronchiectasis*	Completed				
C1-AAT (IH)	Cystic Fibrosis*	Completed				
			U.S.: IND Approved			
KamRAB (IM)	Prophylaxis for Rabies	US : Completed				U.S.: <b>KEDRION BIOPHARMA</b>

\* Orphan drug designation

## Inhaled AAT to Treat AATD



# Inhaled AAT Phase II/III Trial: Summary of the Results

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## Results demonstrate:

1. Primary and secondary endpoints did not demonstrate statistical significant difference.
2. **Efficacy in lung function** (statistically significant)
3. **Change in the nature of exacerbations** (reduction in number of Type 1-exacerbations (trend) and reduction in dyspnea score (statistically significant) for first exacerbation)
4. **Safe and tolerable** drug

## MAA submitted in March 2016 on the basis of:

1. **Orphan** designated drug
2. Demonstrated **efficacy** in lung function
3. **Unmet patient need** - Clinical primacy in efficacy data for IH AAT and AATD in general
4. EMA confirmed review of **post-hoc analysis** and **totality of the data** irrespective of not meeting primary endpoint
5. **Pre-existing cases of approved drugs** of similar nature (ODD, post hoc analyses and existing patient unmet medical need)

# Inhaled AAT Phase II/III Trial Results\*: Spirometry Measures (MMRM\*\*)

Lung Function	Least Squares Means (SEM) (Changes at Week 50 from Baseline)		P-Value** (Changes at Week 50)	Least Squares Means (SEM) (overall treatment effect)		P-Value** (Overall Effect)
	AAT (N= 84)	Placebo (N= 81)		AAT (N= 84)	Placebo (N= 81)	
FEV <sub>1</sub> (L)	-12mL -0.01183 (0.02196)	-62mL -0.06216 (0.02036)	0.0956	+15mL 0.01503 (0.01338)	-27mL -0.02718 (0.01322)	<b>0.0268</b>
FEV <sub>1</sub> (% of predicted)	-0.1323 (0.6649)	-1.6205 (0.6140)	0.1032	0.5404 (0.4451)	-0.6273 (0.4425)	0.0658
FEV <sub>1</sub> /SVC (%)	0.6183 (0.5015)	-1.0723 (0.4455)	<b>0.0132</b>	0.6230 (0.3931)	-0.8715 (0.3804)	<b>0.0074</b>

\*Safety population

\*\*MMRM = Mixed Model Repeated Measure, SE in brackets

# In the Words of the Key Opinion Leaders

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“ **The study results demonstrated primarily that the overall treatment effect on lung functions, is of significant clinical value. This study is the first study ever that is indicative of inhaled AAT’s ability to potentially reduce lung inflammation as expressed by its preservation of lung function and the changes shown in symptoms.**”

Prof. Jan Stolk, MD, Department of Pulmonology, Leiden University Medical Center, Principal Investigator of the Phase 2/3 clinical trial and acting Chairman of the Alpha 1 International Registry (AIR)

“**These new analyses confirm the clinically-meaningful lung function improvement seen with inhaled AAT patients in this study. These results are impressive and underscore the initial findings from this study. In my opinion, inhaled AAT has shown to be an efficacious treatment for this orphan disease.**”

Prof. Kenneth Chapman, M.D., Director of the Canadian Registry for the Alpha-1 Antitrypsin Deficiency (Asthma and Airway Centre in Toronto Western Hospital, University of Toronto) and an investigator in the Phase 2/3 clinical trial.

“**The study analysis suggests exciting results that may lead to wider acceptance of the inhaled route of administration of alpha-1 antitrypsin augmentation therapy, which could be a real breakthrough for AATD patients.**”

Robert A. Sandhaus, Ph.D., M.D., FCCP, Founder and Director of the Alpha1-Antitrypsin Deficiency Program at National Jewish Health in Denver, Colorado, and the Clinical Director of the Alpha-1 Foundation



# Inhaled AAT: Moving Forward

## EMA: EU Front

- MAA submitted (centralized procedure) March 2016
- Expecting mid 2017 approval



EUROPEAN MEDICINES AGENCY

## FDA: U.S. Front

- Approach U.S.-FDA with results in 1H 2016 to obtain guidance on the clinical/ regulatory pathway for licensing the IH AAT by Kamada in the U.S.
- AATD is among 16 diseases in focus for patient-focused drug development in FY2013-15 <sup>(1)</sup>



## Alpha-1 Foundation Survey Confirms Inhaled-AAT as a Preferred Treatment Approach<sup>(2)</sup>

Kamada is committed to the AATD patient community to bring the IH AAT into the market place and provide an adequate, safe and efficacious answer to current unmet medical need of these orphan patients

Notes: 1. <http://www.fda.gov/BiologicsBloodVaccines/NewsEvents/WorkshopsMeetingsConferences/ucm435242.htm>

2. <http://www.ncbi.nlm.nih.gov/pubmed/23537112>



A person wearing a white lab coat, a white surgical mask, and a white hairnet is working in a laboratory or pharmaceutical setting. They are focused on adjusting a piece of machinery, which appears to be a pump or flow controller. The machinery is made of stainless steel and has several components labeled 'Saunders Opti-SET' and 'V-1-V'. The person is wearing white gloves and is holding a white container. The background is a clean, industrial environment with various pipes and equipment.

## AAT to Treat Type 1 Diabetes



# AAT Serves as An Exciting Potential Therapy for Multiple Indications

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*AAT is a safe plasma-derived protein with known & newly discovered therapeutic roles*



*Immune-modulatory*



*Anti-Inflammatory*

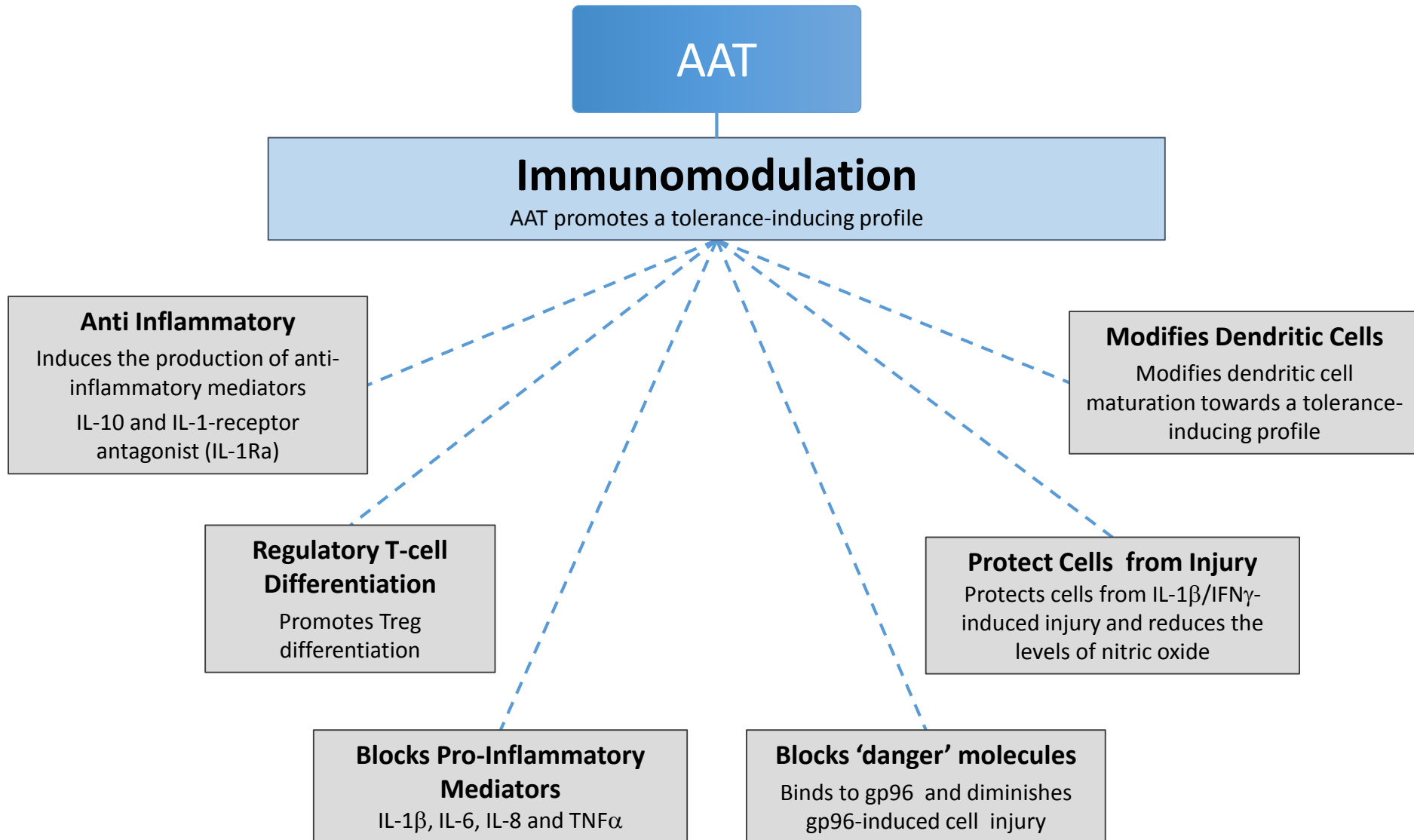


*Tissue Protective*



*Antimicrobial*

# Mechanistic Evidence - Alpha1-Antitrypsin, a Therapeutic Approach



# AAT (IV) is a Promising Potential Treatment for Newly Diagnosed Type -1 Diabetes Patients

## Type-1 Diabetes

occurs when the immune system attacks and destroys beta cells in the pancreas

- More than 10 million suffer from T1D globally
- 100,000 new patients diagnosed annually
- In the U.S. alone: 3 million patients, with 30,000 new patients diagnosed annually

## Studies have shown That AAT protects beta cell islets

- Delays the onset of autoimmune diabetes
- Reduces the incidence of diabetes
- Inhibits insulinitis and beta-cell apoptosis
- Decreases beta-cell inflammation

## Preservation of beta cells correlates with reduced risk of long term complications

- DCCT\* indicated that patients with C-peptide on MMTT  $\geq 0.2$  pmol/mL were less likely to complicate of retinopathy and hypoglycemia (Greenbaum et al 2012)
- Higher / sustained levels of C-peptide correlate with reduced incidences of the microvascular complications (Steffes et al 2013)



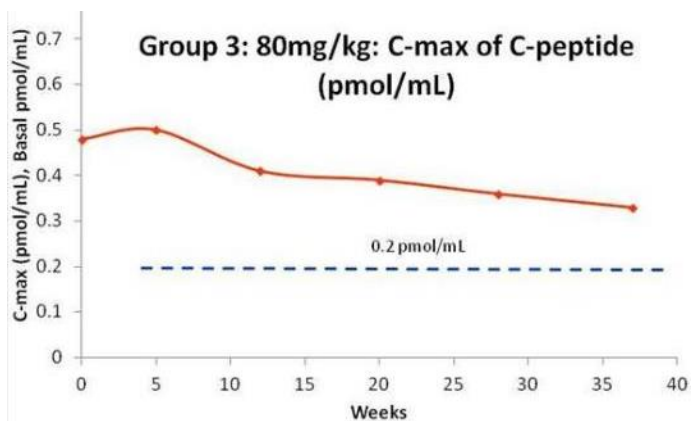
**FDA Guidance:** “We acknowledge the evidence from the DCCT and other studies that have demonstrated clinical benefits in patients who achieve better glucose control, in terms of delaying the chronic complications of diabetes”\*\*

\*Diabetes Control and Complications Trial    \*\*FDA Guidance, 2008

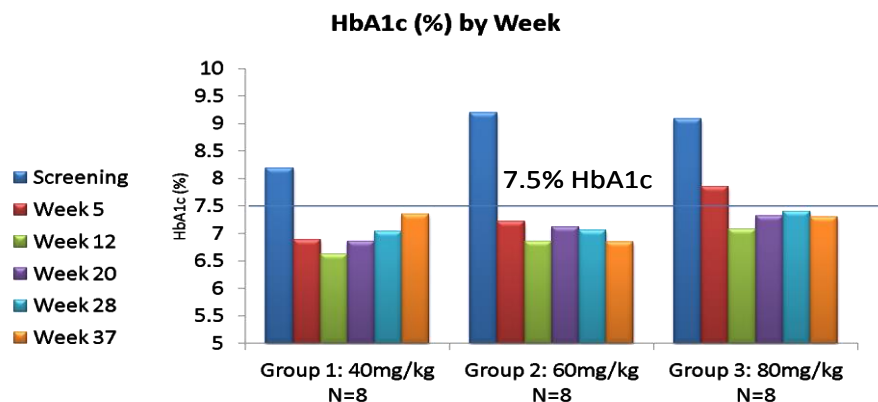
# Clinical Development for Newly Diagnosed Type-1 Diabetes: New Exciting Prospects

*Phase I/II Open Label Study to evaluate the safety, tolerability and efficacy of AAT on beta cell preservation and glycemic control on newly diagnosed T1D pediatric patients*

End-of-study slope analysis of C-peptide[max] and C-peptide[AUC] revealed no significant changes from baseline



HbA1C data indicated that almost all patients reached glycemic control



- AUC% for C-peptide decreased 23% from baseline vs. ~40-50% expected decrease after 12-15M from diagnosis (1)
- Specific diabetes antibody levels decreased in all groups from baseline to study completion, a decrease that may indicate an immune modulatory effect.
- At end-of-study, 38% of patients decreased insulin dose.
- All subjects completed the study. No Serious AEs occurred. AEs were mild and mostly infusion-related (fatigue, headache)

1. Greenbaum et al 2012

# Diabetes Extension Clinical Study: Interim Report #2

*19 subjects enrolled : the treatment arm (n=10), follow-up arm (n=9)*

*Data is presented 26 months (avg) post T1D diagnosis- following 6 additional AAT infusions*

## C- Peptide

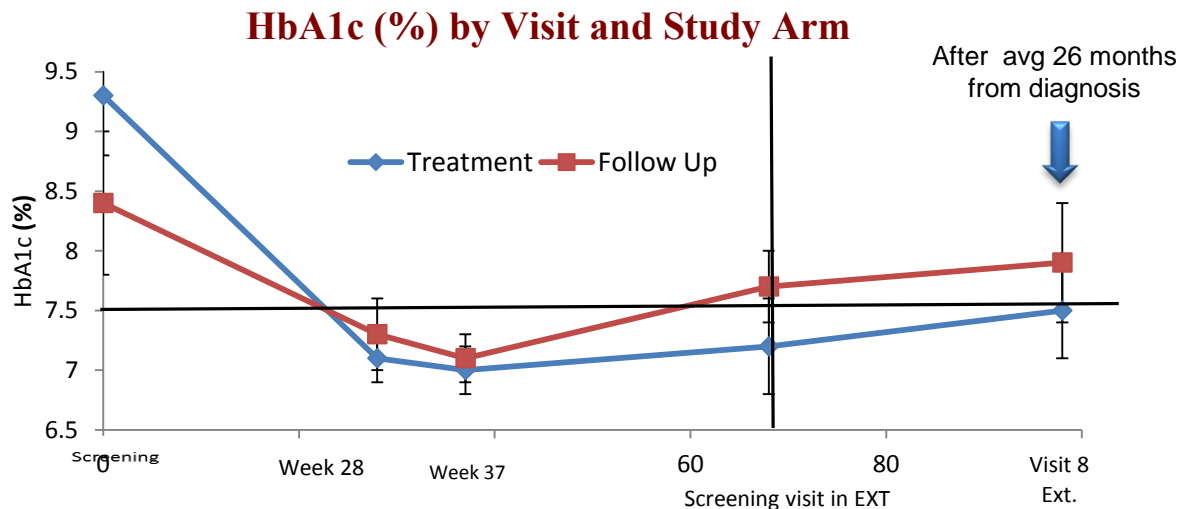
- Mean peak C-peptide level, was 0.40 pmol/ml in the treatment group
- 60% of treated patients had a level  $\geq 0.2$  pmol/ml.
- C- peptide not collected for follow-up patients

## HbA1c

- Treated patients had an avg HbA1C of 7.5%, vs 7.9% for the follow-up patients
- 60% of treated patients had HbA1C levels lower or equal to 7.5% vs. 44% of follow-up patients
- Differences are not statistically significant - study was not powered for efficacy

## External Insulin Consumption and Safety

- Median insulin intake- treated patients 0.6 IU/kg/d vs to 1.00 IU/kg/d for follow-up patients ( $p = 0.025$ )
- No safety issues were reported during this interim review of trial data





# Newly Diagnosed Type-1 Diabetes Currently Ongoing Clinical Trial

## *Phase II, Double-Blind, Randomized, Placebo-Controlled, Multicenter Study*

**Study objective:** To evaluate the efficacy and safety of human, Alpha-1 Antitrypsin (AAT) in the treatment of new onset Type 1 Diabetes

**Design:** Two doses, placebo controlled, randomized with ~70 pediatric and young adult patients

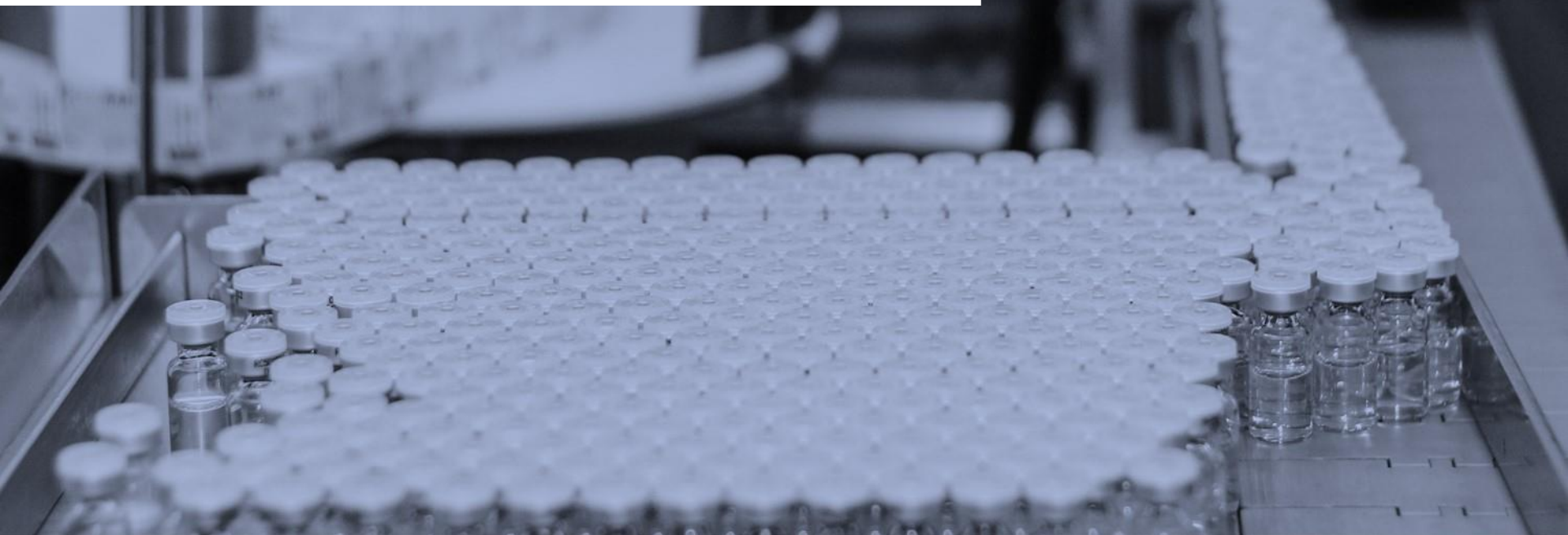
**Expected Duration:** One year, LPO expected Dec 16

**Endpoints:** In accordance with FDA / EMA guidance for clinical trials evaluating beta-cell preservation [c peptide parameters, HbA1C, hypoglycemic events and insulin daily dose]

**Planned Extension:** Patient that completed the study will be eligible to enter into an Investigator Initiated study for an additional one year treatment



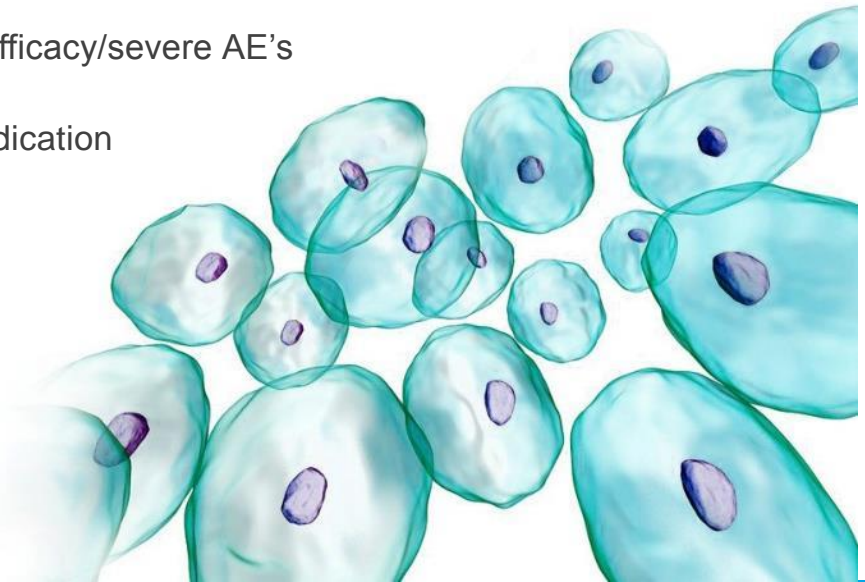
# AAT to Treat Graft versus Host Disease



# Graft versus Host Disease (GVHD): The Major Issue in Stem Cell Transplantation

Donor's immune cells (the graft) recognize the recipient (the host) as "Non-self". The transplanted immune cells attack the host's body cells.

- Deadly side effects:
  - ~20% of transplanted patients' deaths are caused by GvHD complications
  - ~50% of patients are non responsive to steroids
  - ~70% mortality in patients with grade III/IV GvHD
- Searching for an effective treatment
  - Standard of care prophylaxis exhibits poor efficacy/severe AE's (Glucocorticoids)
  - No FDA approved specific drug for GvHD indication
- Estimated market size: ~ \$700 million



# Proof-of-Concept Study with AAT (IV) for Graft-Versus-Host Disease (GVHD)

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*Phase I/II study open label of  
24 patients with steroid-  
resistant GVHD following  
allogeneic bone-marrow stem  
cell transplant*

**Dose:** 4 dose groups - 15 day regimen. Doses given on days: 1,3,5,7, 9, 11, 13 and 15

**Primary End Points:** % of patients at each dosing cohort who experience no toxicity and in whom GVHD is stable or improved

**Secondary End Points** - AAT levels, cytokine levels, infection rate, progression of GVHD, SAEs.

*In cooperation with Baxalta; conducted at the Fred Hutchinson Cancer Research Center in Seattle, Washington*

This proof-of-concept study may serve as a potential platform, to expand the use of AAT beyond GVHD, to other transplantations, based on a similar mechanism of action

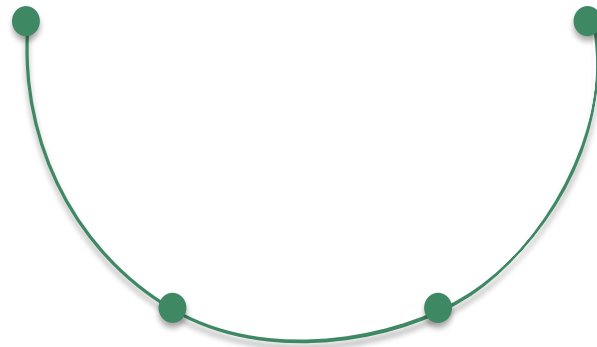
# First Two Cohort Results Show that AAT May Potentially Exert a Protective Effect on the Bowel Mucosa in Gut GVHD

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*Study results have indicated that AAT may potentially exert healing of the bowel mucosa in gut GVHD slowing/stopping the disease progression and re-modulation of the immune attack.*

Continuous administration of AAT as salvage therapy for steroid resistant gut GVHD is feasible approach **without clinically toxicity**

Stool AAT levels showed a **decrease in intestinal AAT loss**, as measured by AAT clearance and endoscopic evaluation suggesting healing of the bowel mucosa



**Preliminary results are encouraging**, and further exploration of AAT therapy in extended phase II and randomized trials as therapy of steroid refractory acute GVHD or as first line therapy are warranted

AAT administration during HCT **suppresses serum levels of pro-inflammatory cytokines**, interferes with GVHD manifestation



# Phase I/II Clinical Study Interim Report

## Before

Duodenitis Suspect severe upper and lower GvHD

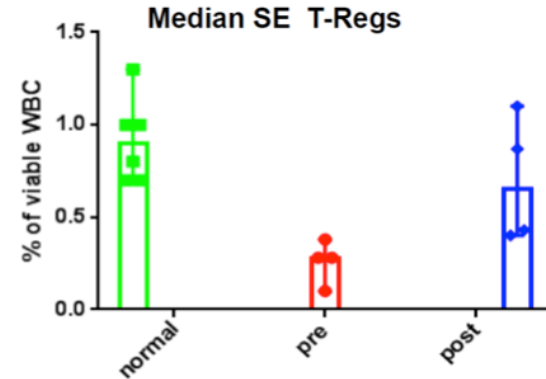


## After 8 doses of AAT

Moderate mucosal denudement and edema noted throughout the duodenum.

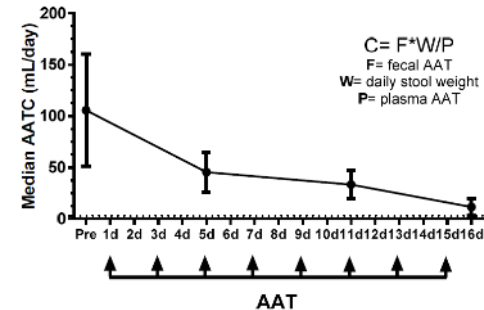


## FACS Analysis pre and post AAT therapy



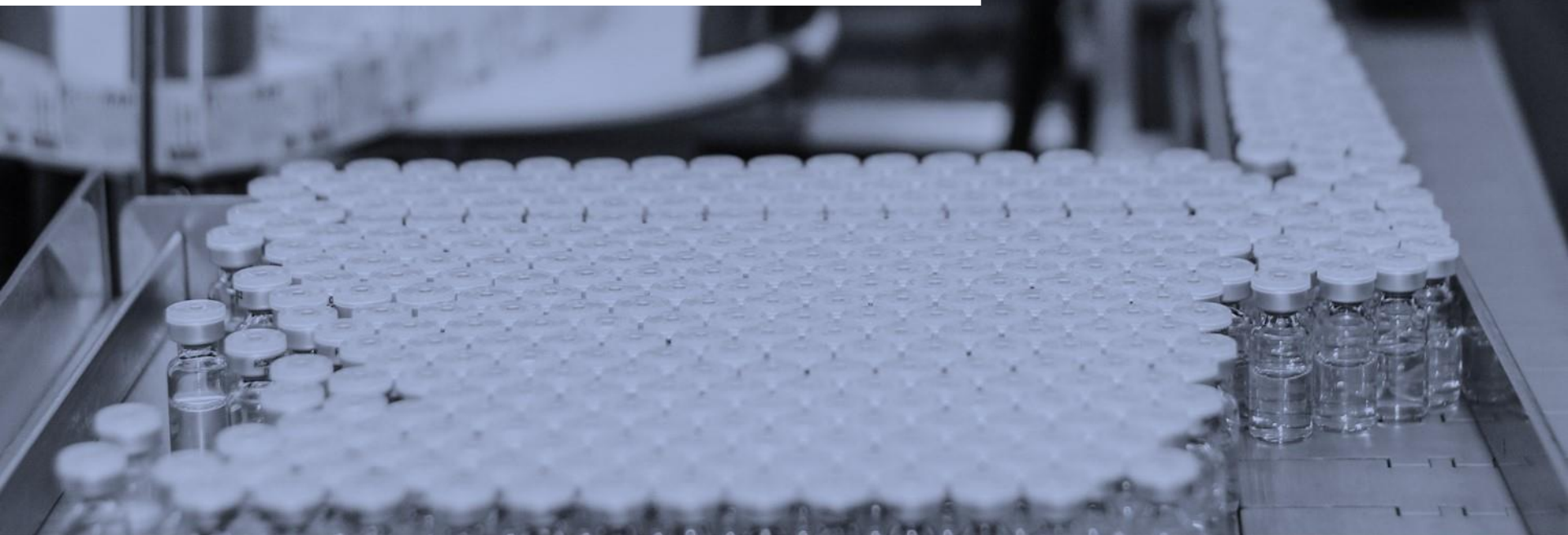
Loss of AAT in stool is an expression of intestinal injury.

## Clearance AAT Summary of 7 patients



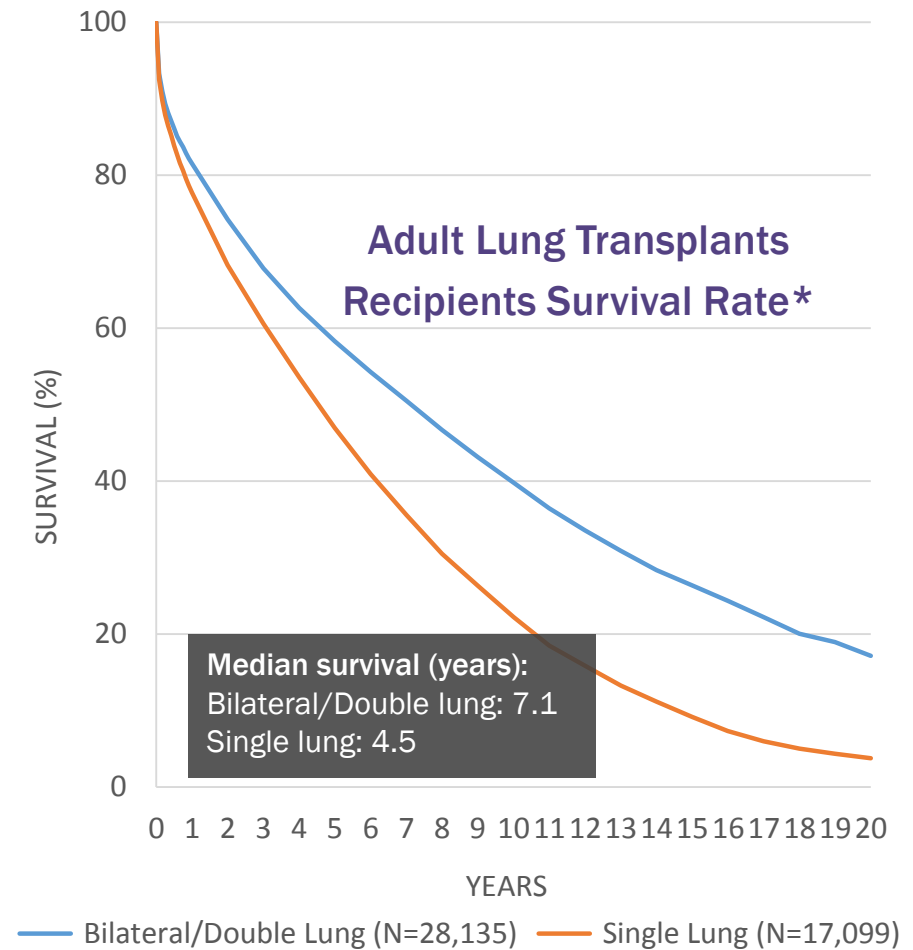


# AAT to Treat Lung Transplant Rejection



# Lung Transplant Rejection - Attractive Opportunity To Deliver A Differentiated Therapy

- The lungs have the highest rate of rejection among transplanted solid organs. 1/3 will experience acute rejection within the first year and 1/2 will develop chronic rejection within the first 5 years.
- No new treatment options have been made available for years. Physician feedback on need for improved post-transplant therapies over existing options (toxicity, immunosuppressive).
- Kamada initiates the first clinical trial designed to prevent lung transplant rejection. Potential market estimated at \$400-500M



\*JHLT. 2015 Oct; 34(10): 1264-1277

# Initiation Of Phase II Study With AAT IV For The Prevention Of Lung Transplant Rejection

*Phase II, prospective, Open label, standard of care (SOC) controlled, Randomized, parallel group Single center Study*

*In collaboration with Baxalta,  
Led by Prof. Mordechai Kramer,  
Rabin Medical Center*

**Study objective:** To assess the safety of AAT IV administration and the effect on rate and severity of acute and chronic lung rejection as well as pulmonary infections, in subjects undergoing first lung transplantation

**Design:** 30 lung transplant recipients randomized 2:1 to receive AAT IV on top of SOC or SOC alone, for 48 weeks plus 12 months of follow up period.

## **Primary Endpoints:**

**Safety** - Related adverse events (AEs)

**Efficacy** - Changes in FEV1 from baseline and overall effect, incidence and rate of acute lung rejection.



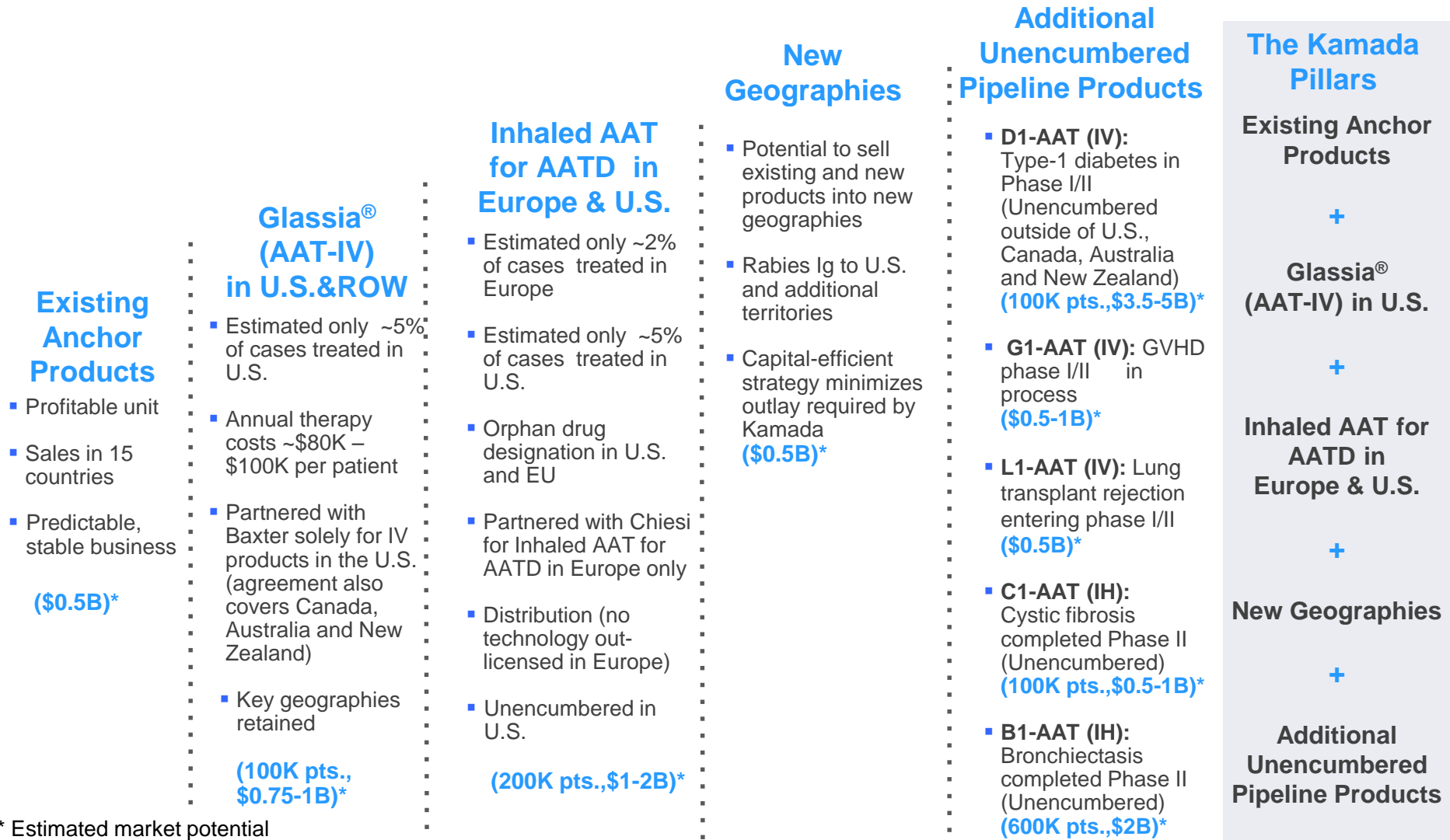
“Preclinical data published in *Blood* suggest that IV AAT has an immunomodulatory and anti-inflammatory mechanism of action that would support its efficacy in the prevention of lung transplant rejection”

*(Prof. Mordechai Kramer)*

# Financials



# Compelling Investment Driven by Multiple Pillars of Growth



\* Estimated market potential

# Strong Financial Profile with Revenue Growth and Expanding Profitability

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- **Stable, profit generating revenue stream from marketed products**
- **Strategic partnership model results in efficient operating expenses**
  - Baxalta purchase obligations provides stable revenue through 2018 and royalties thereafter
  - Kedrion partnership for Rabies Ig expected to increase revenues and profitability from late 2017 and beyond
- **Better product mix expected to improve gross margin**
- **Pipeline products expected to accelerate revenue growth**
  - Profits from marketed products to fund part of clinical development programs
- **Low capital expenditure to support infrastructure meeting future demand**
- **Preferred tax treatment under Israeli law**





# Sustained Revenues and Gross Profits are Funding R&D

\$MM	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
Proprietary Products	10	23	35	47	51	44	43
Distribution	4	11	24	26	20	27	27
<b>Total Revenues</b>	<b>14</b>	<b>34</b>	<b>59</b>	<b>73</b>	<b>71</b>	<b>71</b>	<b>70</b>
<b>Gross Profit</b>	<b>(3)</b>	<b>6</b>	<b>17</b>	<b>23</b>	<b>26</b>	<b>15</b>	<b>16</b>
R&D	(9)	(9)	(12)	(12)	(13)	(16)	(17)
S&M and G&A	(5)	(7)	(7)	(7)	(10) <sup>(2)</sup>	(10)	(11)
<b>Net Profit (Loss)</b>	<b>(21)</b>	<b>(14)</b>	<b>(4)</b>	<b>0.3</b>	<b>0.4</b>	<b>(13)</b>	<b>(11)</b>
<b>Adjusted EBITDA<sup>(1)</sup></b>	<b>(12)</b>	<b>(6)</b>	<b>1</b>	<b>9</b>	<b>9</b>	<b>(5)</b>	<b>(6)</b>

## Note

1. See 20F for a reconciliation of Adjusted EBITDA to IFRS Net Profit (Loss)
2. Includes one time IPO related expenses of \$1.4 M

# Consistent Track Record of Execution

U.S. FDA approval for Glassia®

Strategic agreement with Baxalta & First Glassia® sale in the U.S.

Strategic agreement for Rabies in the U.S. with Kedrion

Anti-Snake Venom launch

Strategic agreement with Chiesi for Inhaled AAT for AATD in EU

Newly diagnosed type-1 diabetes Phase II trial completed

Initiation of Phase II for type-1 diabetes

Initiation of U.S. Phase II for Inhaled AAT for AATD

Initiation of U.S. Phase I/II study of AAT IV in GVHD

Completion of EU Phase II/III Inhaled AAT for AATD trial

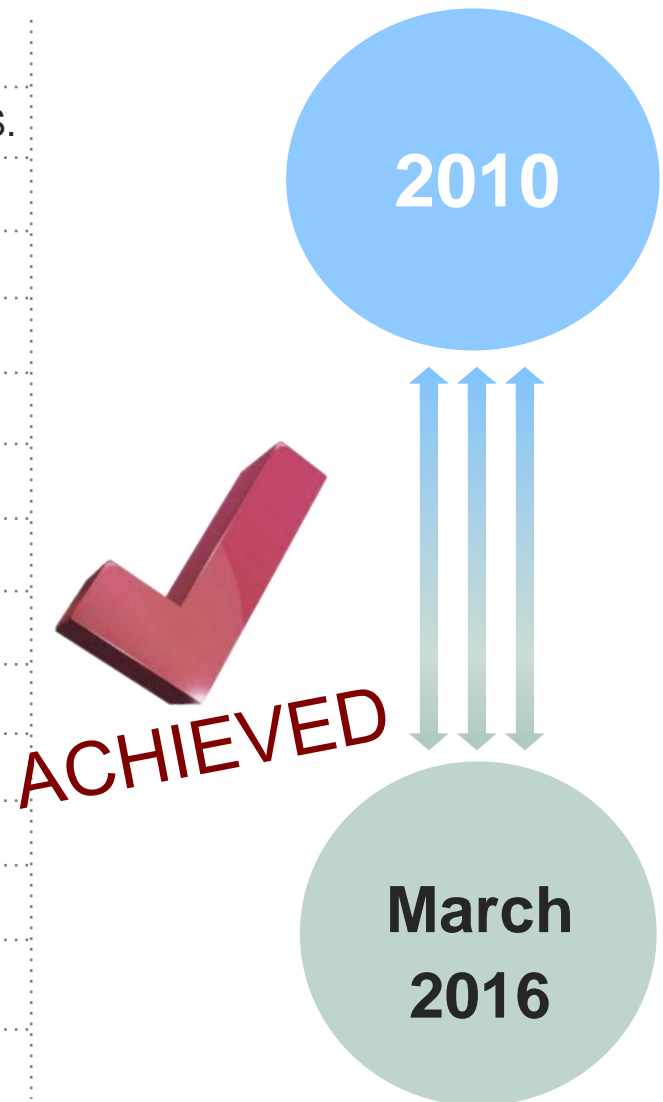
Completion of U.S. Phase III Rabies Ig

U.S. & EU Orphan Drug Designation for Glassia to treat GVHD

MAA submission for Inhaled AAT for AATD

Initiation of Phase II trial of AAT IV to Prevent Lung Transplant Rejection

Increased sales, profitability and production capacity



# Future Milestones and Value Creation

	Milestone Date	
<b>Report results from Phase II for Inhaled AAT for AATD trial (U.S.)</b>	3Q16	
Approach FDA to obtain guidance on the pathway for Inhaled AAT in the U.S.	2016	
Strategic agreements	2016	
<b>BLA submission for the Rabies Ig in the U.S.</b>	<b>2016</b>	
Initiation of Phase II or III GVHD trial	2016	
Final report for Phase II for type-1 diabetes trial	2017	
<b>Rabies product launch in the U.S. (if approved)</b>	<b>2017</b>	
<b>Inhaled AAT for AATD launch (EU) (if approved)</b>	<b>2017</b>	
<b>Reaching \$100 million of annual revenues</b>	<b>2017</b>	
<b>Double* the number of Glassia patients WW</b>	<b>2018</b>	

\* Compared to number of patients in 2014

# Kamada Investment Highlights



# Kamada Investment Highlights



- **Rapidly Growing, Globally Positioned Biopharmaceutical Company**  
Focused on Orphan Diseases and Plasma Derived Protein Therapeutics
- **Flagship Product Glassia® Approved for Alpha-1 Antitrypsin Deficiency Disorder**  
Has a Unique and Differentiated Product Profile and Represents an Exciting Growth Opportunity
- **Valuable R&D Pipeline Focused on Various Orphan Indications**
- **Significant Opportunity for Intravenous AAT Pipeline**  
Type-1 Diabetes, Graft vs Host Disease, Lung Transplant Rejection and for Novel Inhaled AAT for AATD
- **Validating Strategic Partnerships with Industry Leaders**  
Baxalta, Chiesi, Kedrion and Pari Pharma
- **Integrated, Efficient and Scalable Best-in-class Patented Platform Technology and Know-How**
- **Strong Financial Profile with Increasing Profitability**



**THANK YOU**

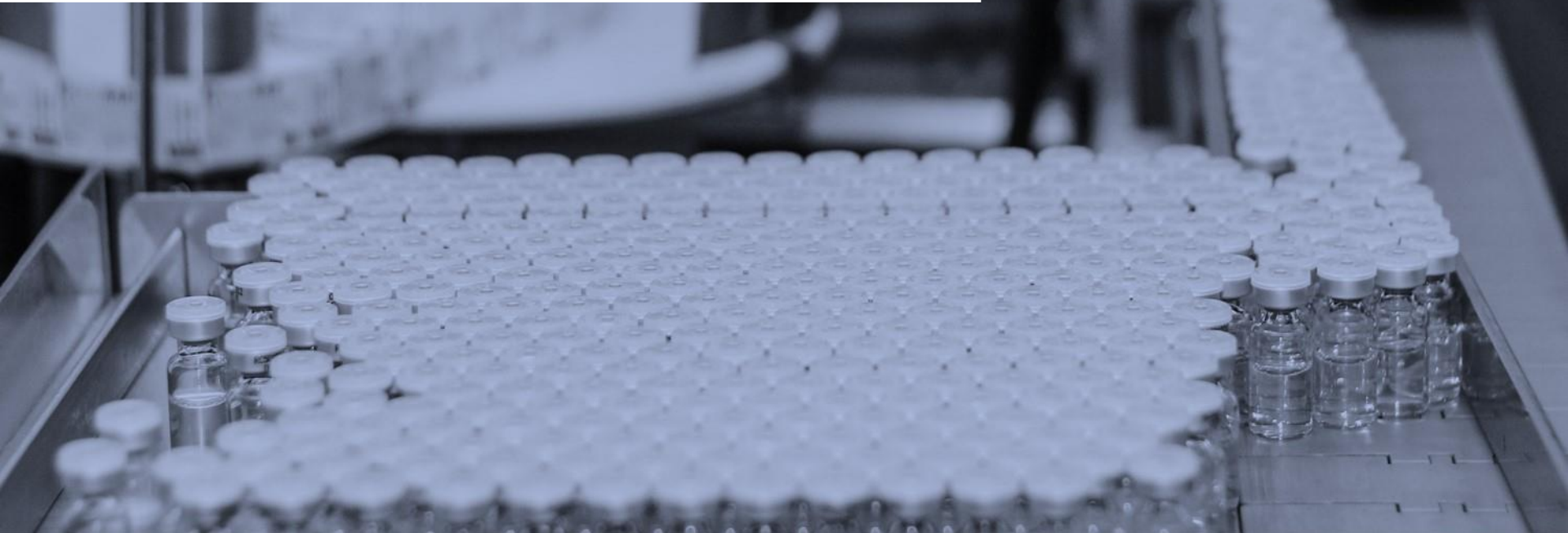
[www.kamada.com](http://www.kamada.com)



**KAMADA**  
High Quality Pharmaceuticals



# APPENDIX



# Integrated, Efficient, Scalable Platform Technology

## Proprietary, Innovative and Patented Technology Platform

- Patent protected: Chromatography-based purification process
- Enables high purity extraction
- Ready-to-use, liquid and stable specialty protein therapeutics (AAT, Albumin, Transferrin and many others)
- Enables production of almost any human plasma-derived specific immunoglobulins



## Fully-Invested Manufacturing Facility & Marketed Products

- FDA approved since 2010
- cGMP compliant
- Multiple countries' certifications (U.S., Brazil, Israel, Mexico, Russia)
- State-of-the-art clean room environment
- Located in Beit Kama, Israel



## Benefits

- Enables manufacturing of plasma-derived protein therapeutics with differentiated product profiles
- Efficient production process with higher yield than manufacturing methods employed by competitors
- High safety profile and proven track record
- Infrastructure in place to meet future pipeline product demand
- Expandable product platform to additional territories and indications

# Inhaled AAT for AATD: Completed Pivotal Phase II/III Trials in Europe and on going Phase II in the U.S.

## Phase II / III EU

## Phase II U.S.

### Description

- Randomized; Over 160 AATD subjects, majority are treatment naïve
- Double blind, placebo controlled, randomized
- Multi center international study: Western EU (UK, IR, SC, SW, NL, DK, GR) and Canada
- 80% power to detect a difference between the two groups at 1 year
- Powered for 20% difference between the two groups
- Power is based on number of events collected during the study

- Randomized; Sample size of ~36-40 subjects
- Double blind, placebo controlled, randomized

### Route & Dosage Form

- Inhalation of human AAT, 160mg total, twice daily ~10-15 minutes; eFlow® device

- Inhalation of human AAT; two dosage groups (80mg and 160mg daily); eFlow® device

### Clinical Endpoints

- Exacerbation events (Primary: time to first moderate/severe, Secondary (among others): rate, severity of first event; Lung Function)

- Primary: Concentration of AAT in ELF
- Secondary: safety and tolerability, Concentration AAT in serum, ELF inflammatory analytes

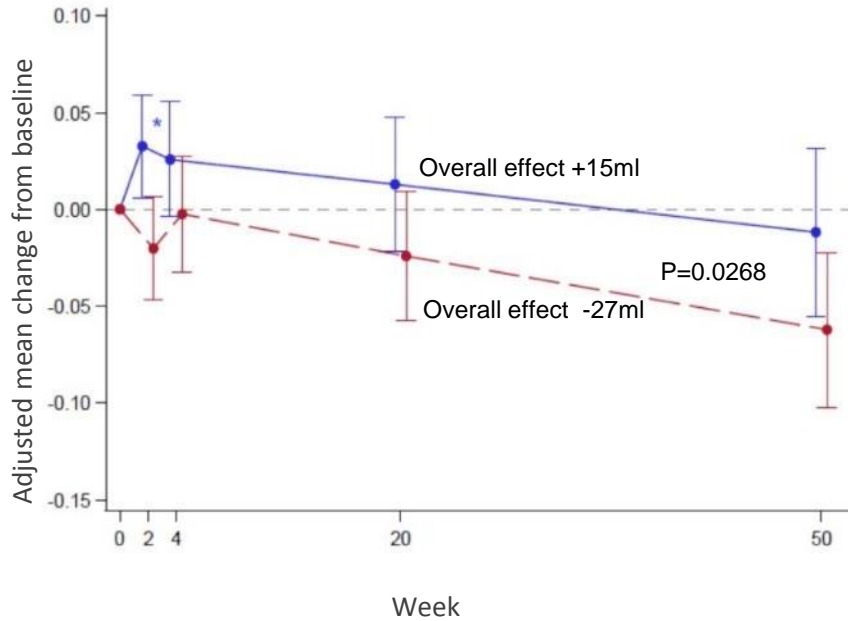
### Duration

- 50 wk treatment in DB period; daily treatment
- 50 wk open label extension ; daily treatment
- Study completed

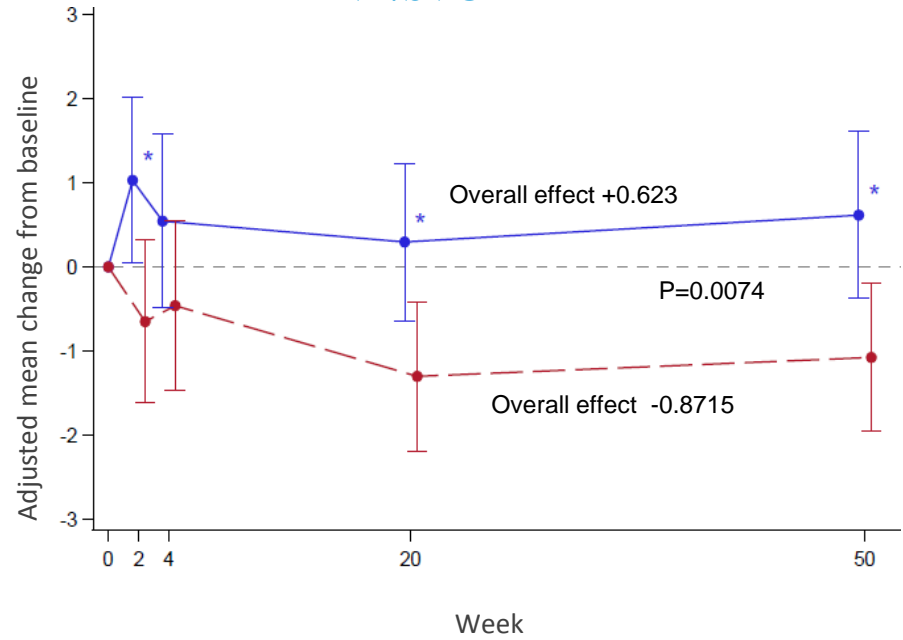
- 12 weeks double blind
- 12 weeks open label extension
- Study initiated in 1Q2014

# Inhaled AAT Phase II/III Trial Results: Spirometry Measures (MMRM)

## FEV1 (L) - MMRM



## FEV1/SVC - MMRM



Treatment Group

AAT —————

Placebo - - - - -

# Inhaled AAT Phase II/III trial: Symptom Based Exacerbation Analysis

Major Three (3) Exacerbation Symptoms by Severity: Dyspnea; Sputum Volume; Sputum Color				
Exacerbation Type/Category	Classification Rules	Possible Manifestations		
		Dyspnea <sup>*</sup>	Sputum Volume <sup>**</sup>	Sputum Color <sup>**</sup>
Type I	All 3 symptoms at high score	+	+	+
Type II	Two of the 3 symptoms at high score	+	+	
		+		+
			+	+
Type III	One of the 3 symptoms at high score	+		
			+	
				+

## **Scores (by severity):**

\*5, 10, 15, 20 for Dyspnea (high severity score  $\geq 10$ )

\*\* 1, 2, 3, 4 for Sputum volume and Sputum color (high severity score  $\geq 2$ )

\*Kamada's Inhaled AAT Phase 2-3 EU and Canada Study results. Denver USA 2015

# Inhaled AAT Phase II/III Trial: Nature of the First Exacerbation

ITT	N (%)		P Value
	AAT	Placebo	
Type/Category	N=85	N=83	
Type I	16 (18.8%)	26 (31.3%)	0.0614
Type II	23 (27.1%)	12 (14.5%)	0.0444
Type III	34 (40.0%)	33 (39.8%)	0.9746
None	12 (14.1%)	12 (14.5%)	0.9498

## AAT may change the nature of the exacerbation

(Potential change from Type I to Type II)

Type I+II → Type I exacerbation stands for 41% within total of type I+ II exacerbations for AAT group vs. 68% for placebo group.



# Inhaled AAT Phase II/III Trial: Symptom Score MMRM

*Analysis of First (Types I+II+III) Exacerbation Severity for each major Symptom (during 0-10 and 0-14 days of the exacerbation event)*

Symptom	Exac. Type	Days	MMRM		P-Value*
			Least Square Means		
			AAT N=73	Placebo N=71	
Dyspnea	All Types (I, II, III)	0-10	11.9464	12.2548	0.0243
		0-14	11.5803	11.7832	0.0817
Sputum Volume		0-10	1.2748	1.3837	0.0334
		0-14	1.2367	1.3206	0.0595
Sputum Color		0-10	2.1566	2.0137	0.0502
		0-14	2.0240	1.8393	0.0032

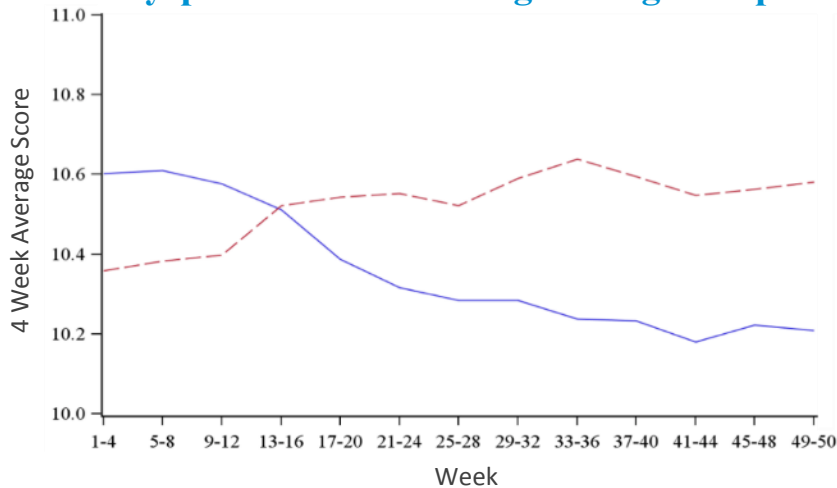
\*Adjustment to age, oxygen, BMI, Country, Treatment Duration

During first exacerbation, AAT group significantly improves dyspnea and sputum volume symptoms

# Inhaled AAT Phase II/III Trial Results

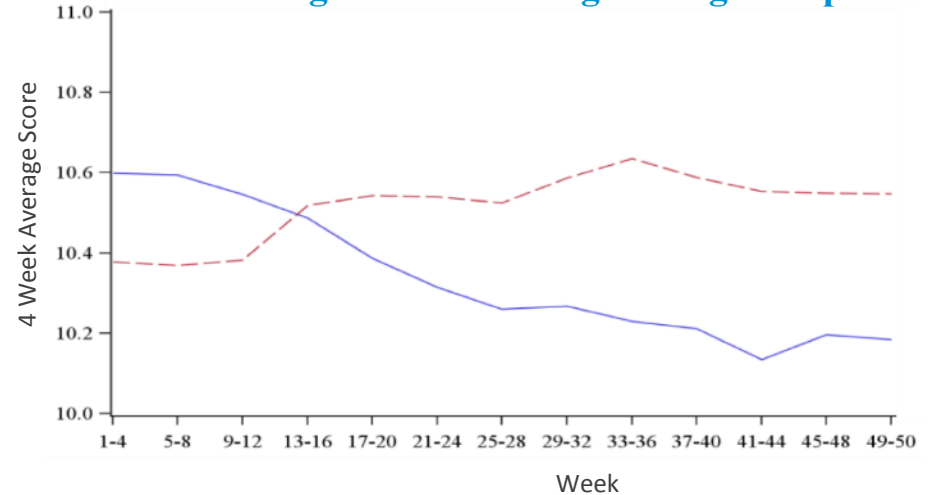
## Continuous Symptom Score: Dyspnea

### Dyspnea 4 Week Moving Average Graphs



## Continuous Symptom Score: Well Being

### Well Being 4 Week Moving Average Graphs



AAT ———  
Placebo - - - - -

Improvement trend in favor of AAT group - not statistical significant

“This study has enlightened our understanding about the course of exacerbation events, specifically with respect to its composite symptoms, exacerbation severity and frequency with linkage to patients’ baseline disease. Importantly, the improvements seen in well-being and dyspnea in the inhaled AAT treated patients suggest that in addition to lung function improvements, these patients are seeing important improvement in their symptoms, which are correlated to quality of life.”

”

Prof. R.A. Stockley, M.D., Professor of Medicine at Birmingham University and Medical Director of the Lung Resource Centre, Queen Elizabeth Hospital, Birmingham, U.K. and a principal investigator of the European Phase 2/3 study.

Improvement trend in favor of AAT group, No statistical significance

# Conditional Approval Guidance & Precedence

## EMA Guidance

EMA/509951/2006

**GUIDELINE ON THE SCIENTIFIC APPLICATION AND THE PRACTICAL ARRANGEMENTS NECESSARY TO IMPLEMENT COMMISSION REGULATION (EC) No 507/2006 ON THE CONDITIONAL MARKETING AUTHORISATION FOR MEDICINAL PRODUCTS FOR HUMAN USE FALLING WITHIN THE SCOPE OF REGULATION (EC) No 726/2004**

## Precedence for Conditional Approval

Arzerra - GSK

<http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aaAMTmwslwq4>

Cometriq – Exelixis

<http://www.exelixis.com/investors-media/press-releases>

Translarna PTC Therapeutics

<http://ir.ptcbio.com/releasedetail.cfm?ReleaseID=888466>

Deltyba - Otsuka

[http://www.otsuka.co.jp/en/company/release/2013/1125\\_02.html](http://www.otsuka.co.jp/en/company/release/2013/1125_02.html)

Sirturo - Johnson & Johnson

<http://www.investor.jnj.com/releasedetail.cfm?ReleaseID=831021>

# Inhaled AAT Is A Significant Opportunity

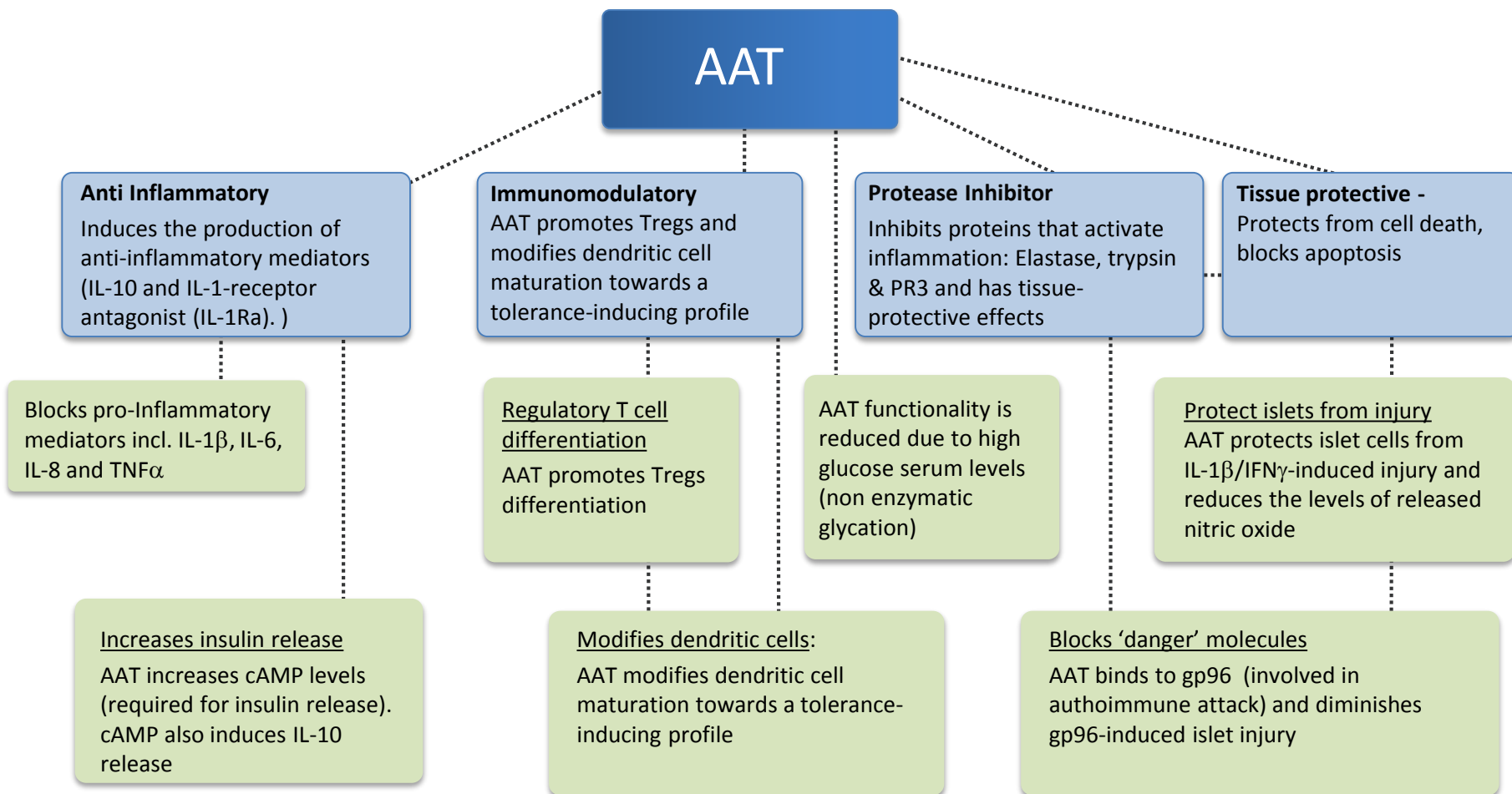
## Inhaled AAT Highlights

- The most advanced Inhaled AAT product developed to date.
  - Device and drug combination enable optimal size particles delivered directly to the diseased tissue
- Demonstrated efficacy in lung function
- Safe and tolerable
- Potential to expand AATD market, particularly in Europe
- Potential Inhaled AATD launch in EU planned late 2016/ beginning of 2017
- US pathway to be discussed with FDA 2H'15

## Strategic Partnership with Chiesi

- Chiesi distribution agreement as of August 2012
- Agreement: Chiesi responsible for S&M, patient ID, and reimbursement
- Product: AAT for AATD Inhaled only
- Territories: EU and Turkey
- Milestone revenues: \$60MM upfront, regulatory and sales
- Distributor price
- Minimum purchases from 2nd yr following receipt of regulatory and reimbursement approvals, ~\$120MM for first 4 years, subject to actual price after regulatory approval

# Mechanistic Evidence - Alpha1-Antitrypsin, a Therapeutic Approach for Type-1 Diabetes



Reference: Fleixo-Lima et al. Mechanistic Evidence in Support of Alpha1-Antitrypsin as a Therapeutic Approach for Type 1 Diabetes. J Diabetes Sci Technol. 2014.