EACH LIFE IS UNIQUE

KAMADA INVESTOR PRESENTATION NASDAQ & TASE: KMDA



(A) KAMADA

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, obtaining or maintaining 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-IFRS 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 IFRS. The non-IFRS financial measures may be calculated differently from, and therefore may not be comparable to, similarly titled measures used by other companies. In accordance with the requirement of the SEC regulation a reconciliation of these non-IFRS financial measures to the comparable IFRS measures is included in an appendix to this presentation. Management uses these non-IFRS financial measures for financial and operational decisionmaking and as a means to evaluate period-to-period comparisons. Management believes that these non-IFRS 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 2016 Annual Report on Form 20-F as well as in Kamada's most recent Form 6-K filed with the U.S. Securities and Exchange Commission.

KAMADA - COMPANY PROFILE (KMDA)



COMMERCIAL STAGE BIOPHARMA	RICH PRODUCT PIPELINE	FINANCIAL SUMMARY
Growing Biopharma company generating revenue and profits from 10 proprietary products	Inhaled AAT - completed Phase 2 and phase 2/3. Plan to initiate additional phase 3 in 2018	Market cap: ~ \$210 M ⁽¹⁾ Cash: \$26.9 M, no debt ⁽²⁾
Leader in Alpha-1 Antitrypsin ("AAT") products globally, both commercialized and in development, and specific immunoglobulins	Attractive pipeline of intravenous AAT is being developed in 3 Orphan Indications	2016 revenues = \$77.5 M Guidance: 2017 revenues \$100 M
Glassia [®] , for AAT deficiency is the first and only liquid, ready-to-use intravenous AAT product approved by FDA. Marketing by Baxalta/ Shire in the US and by a network of distributors in 7 additional countries	KamRAB for anti-rabies prophylaxis treatment (PDUFA date Aug 29 2017) expected to be launched in the US through collaboration with Kedrion	Founded in 1991. Public on TASE in 2005; IPO on Nasdaq in 2013. Shares Outstanding = 36.4 million. Employees = $377^{(3)}$
Fully Integrated Manufacturing and Distribution		

KAMADA INVESTMENT HIGHLIGHTS

- Globally Positioned Biopharmaceutical Company focused on Orphan Diseases and Plasma-Derived Protein Therapeutics
- \$100M of revenues expected in 2017
- Flagship Product Glassia[®] Approved for Alpha-1 Antitrypsin (AAT) Deficiency Disease Unique and Differentiated Product Profile Represents an Exciting Growth Opportunity
- Advanced R&D Pipeline Focused on Various Orphan Indications
- Significant Opportunity for Novel Inhaled AAT for AAT Deficiency and Intravenous AAT Pipeline in Graft vs. Host Disease, Lung Transplant Rejection, Type-1 Diabetes
- Strategic Partnerships with Industry Leaders, Validating Kamada's Portfolio → Baxalta/Shire, Chiesi, Kedrion and Pari
- Integrated, Efficient and Scalable Patented Platform Technology
 Patents and know-how act as substantial barrier to entry, FDA approved facility
- **Strong Financial Profile with Increasing Profitability** Expect to generate positive cash flow in 2017





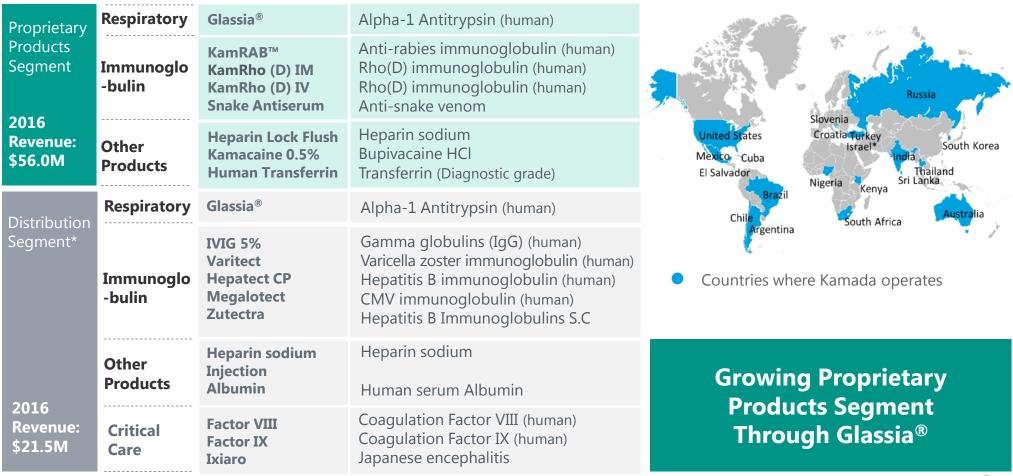


DIVERSIFIED PRODUCT PORTFOLIO WITH EXTENDED GLOBAL REACH



DIVERSE PORTFOLIO OF PREDOMINANTLY PLASMA-DERIVED PROTEIN THERAPEUTICS

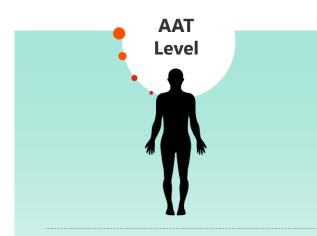
GLOBAL PRESENCE WITH EXPOSURE TO EMERGING MARKETS



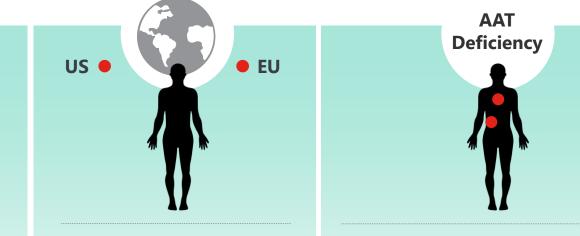
* Kamada distributes products directly in Israel through its own sales force

AAT DEFICIENCY Relatively Common, Potentially Lethal, Often Undiagnosed





Genetic/Hereditary condition causing decreased levels of AAT in blood and tissues



Affects about 100,000 people in the US and a similar number in Europe

Predisposes to lung and liver diseases

AAT deficiency-associated lung disease is characterized by airway obstruction and destructive changes in the lungs (Emphysema)

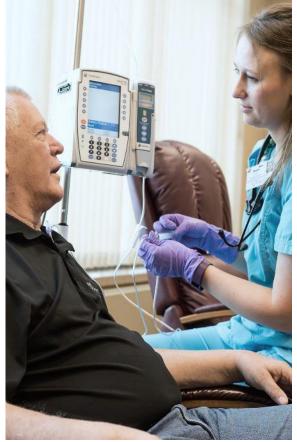
GLASSIA® IS A DIFFERENTIATED PRODUCT





AATD (IV) Product Sales w/o Milestone Revenues (in \$M)

Key Product Advantages



- Glassia[®] is the first and only liquid, readyto-use, IV plasma-derived AAT product:
 - No reconstitution required
 - Reduces treatment time
- Reduces risk of contamination and infection
- Kamada's highly purified liquid product is manufactured through a proprietary process
- Glassia[®] is sold in the U.S. by Baxalta, a leading plasma therapeutics company (now part of Shire)
- Patient count on Glassia has increased 25%/yr. in each of years 2014, 2015 and 2016, growing our market share.
- Significantly faster infusion rate was approved by the U.S. FDA (2014)
- Self-infusion approved by FDA May 2016

GROWTH OF GLASSIA[®] DRIVEN BY STRATEGIC PARTNERSHIP WITH BAXALTA (PART OF SHIRE)

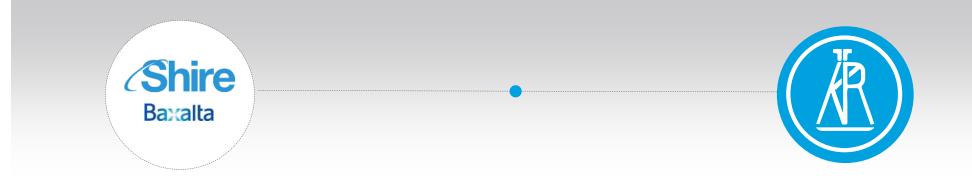


Commencement Agreements Sales to Baxalta Distribution, technology license, and supply of started in Sep. fraction IV 2010 **Territories Product: AAT IV** (Glassia®) U.S., Canada, Australia Including all future and New Zealand AAT IV indications in the territories

Agreement extended in October 2016

Baxalta to distribute Glassia® produced by Kamada through 2020 (Revenues to Kamada from sales of vials) and thereafter Glassia[®] produced by Baxalta (Royalties Revenues to Kamada).

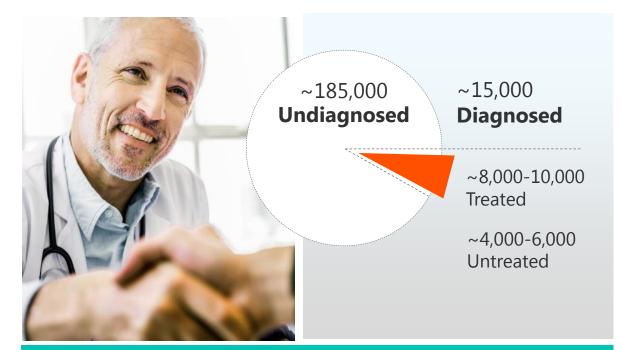
Minimum revenues of \$237M expected between 2017 through 2020 (compared to a remaining minimum commitment for 2016-2018 of \$97M prior to last amendment). Starting in 2021 Baxalta will pay royalties on sales of Glassia[®] produced by Baxalta



SIGNIFICANT OPPORTUNITY TO EXPAND THE AATD MARKET



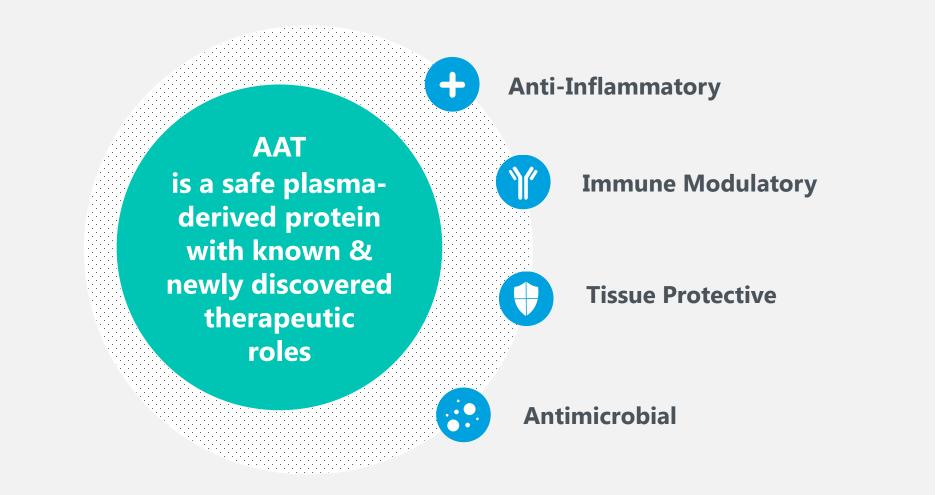
- Patients suffering from AAT Deficiency ("AATD") remain under-identified and under-treated
- Only ~6% of cases treated in the U.S. and ~2% in EU
- US Market is estimated to be growing by approx. 10% annually, mainly through expanding diagnostics sponsored by the drug companies
- Simple blood test for diagnosis expected to continue to impact demand
- Greater AAT use in Europe and other geographies could further accelerate market growth
- Chronic therapy creates sustainable product revenue opportunity
- Average annual cost of treatment estimated at ~\$80-\$100K per patient



- AATD prevalence: ~200,000
 yet fewer than an estimated 5% of potential patients in the U.S. and Europe are treated.
- Current market estimated at \$1B WW.

AAT SERVES AS AN EXCITING POTENTIAL THERAPY FOR MULTIPLE INDICATIONS





10



PRODUCT	INDICATION	PHASE I PHASE II PHASE III MARKET	PARTNERS
INTRAVENOUS AAT	AAT Deficiency	FDA Approved (2010)	U.S. (Shire
D1-AAT (IV)	Type 1 Diabetes *	POC Study Completed Double Blind, Ph II Ongoingo	u.s (Shire
G1-AAT (IV)	Graft versus Host Disease (GvHD) *	Phase I/II Ongoing	U.S. (Shire
L1-AAT (IV)	Lung Transplant	Phase II Ongoing	U.S. CShire
INHALED AAT	AAT Deficiency *	EU: Phase II/III Completed**•	EU GChiesi
KamRAB (IM)	Prophylaxis for Rabies	US : Completed, BLA submitted	U.S. KEDRION

* Orphan Drug Designation

** MAA Withdrawn June 2017

Inhaled **AAT to Treat** Alpha-1 Antitrypsin Deficiency (AATD)







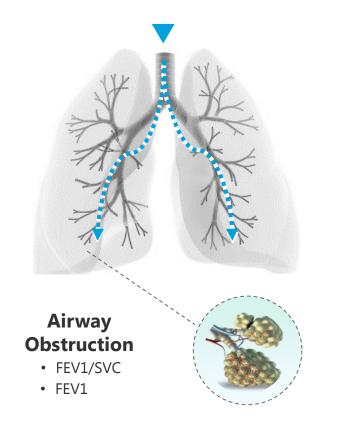


Most effective mode of treatment for reaching primary site of injury

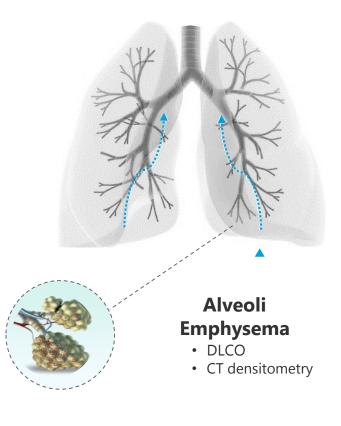
INHALATION ENABLES DELIVERY OF AAT 5X HIGHER THAN INTRAVENOUS



Inhaled AAT ~ 50% of the dosage reaches airway tree and alveoli



Intravenous AAT ~ 2% of the dosage reaches alveoli and airway tree



INHALED AAT PHASE II/III TRIAL POST-HOC RESULTS Spirometry Measures (MMRM**)

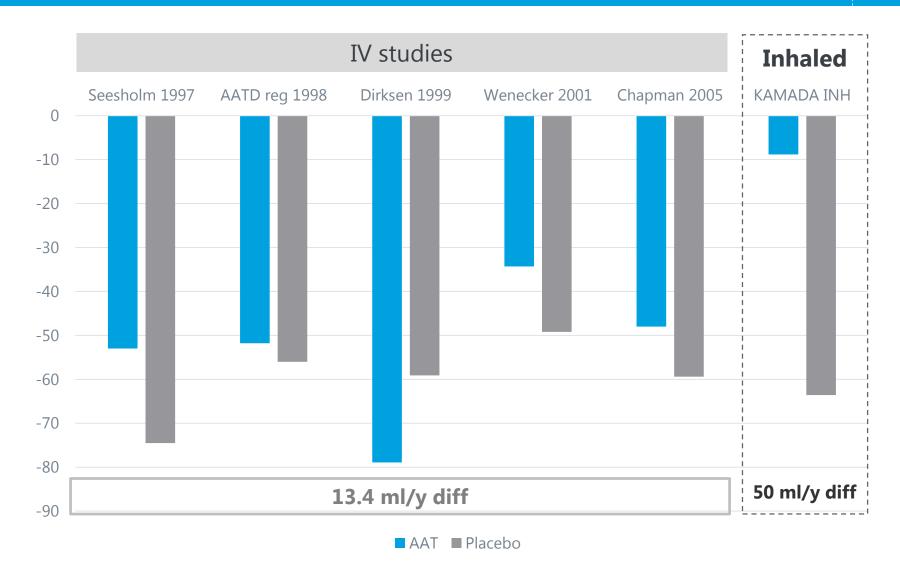


Lung Function	Least Squares Means (SEM) (Changes at Week 50 from Baseline)		P-Value** (Changes at Week	Least Squares Means (SEM) method: Overall treatment effect		P-Value** (Overall
	AAT (N= 84)	Placebo (N= 81)	50)	AAT (N= 84)	Placebo (N= 81)	Effec)
FEV ₁ (L)	-12mL	-62mL	0.0956	+15mL	-27mL	0.0268
FEV₁ (% of predicted)	-0.1323	-1.6205	0.1032	0.5404	-0.6273	0.0658
FEV₁/SVC (%)	0.6183	-1.0723	0.0132	0.6230	-0.8715	0.0074

*Safety population ** MMRM = Mixed Model Repeated Measure

FEV = Forced Expiratory Volume. SVC = Slow Vital Capacity.

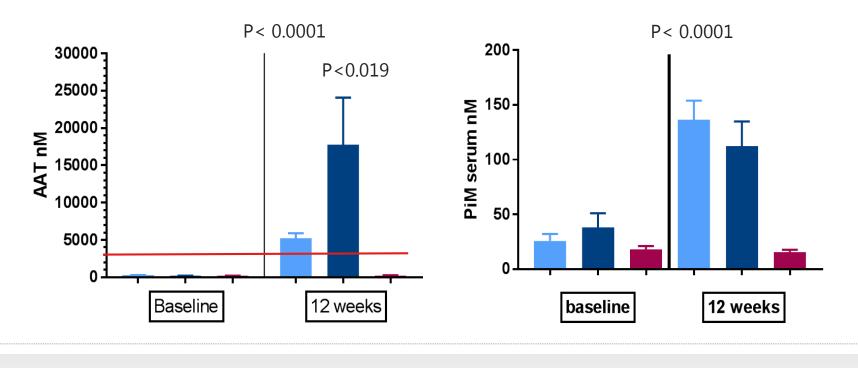
INHALED AAT SLOWED FEV1 DETERIORATION BETTER THAN FORMER IV TRIALS





ELF AAT Antigenic Level

PiM serum level

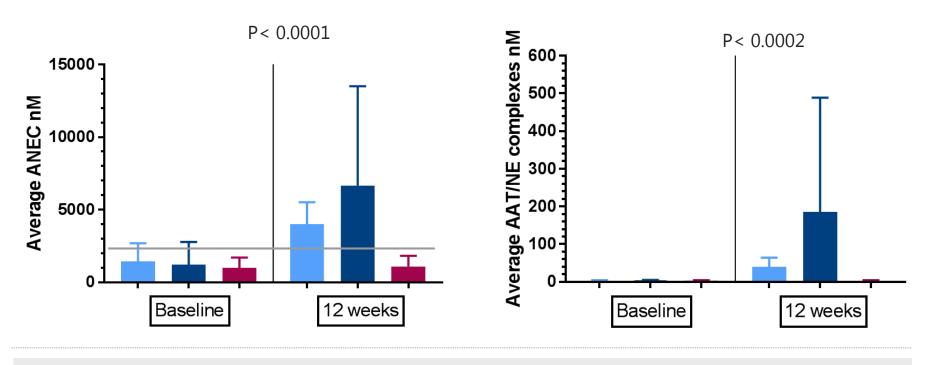


AAT ELF level is reasonably likely to predict clinical benefit



ANEC

ELF AAT – NE Complexes



Inhaled AAT is the most effective means to restore AAT inhibitory capacity in the airways (ANEC & AAT-NE Complexes)

INHALED AAT: MOVING FORWARD

Alpha-1 Foundation **Survey Confirms Inhaled-AAT** as a **Preferred Treatment** Approach⁽²⁾

Inhaled AAT opportunity is estimated by Kamada at ~\$1-2 billion (larger than current IV AAT augmentation market of ~\$1 billion)



- Scientific Advice planed for H2 2017
- MAA withdrawn, plan to resubmit MAA after US phase 3 study is completed (expected 2022-2023)

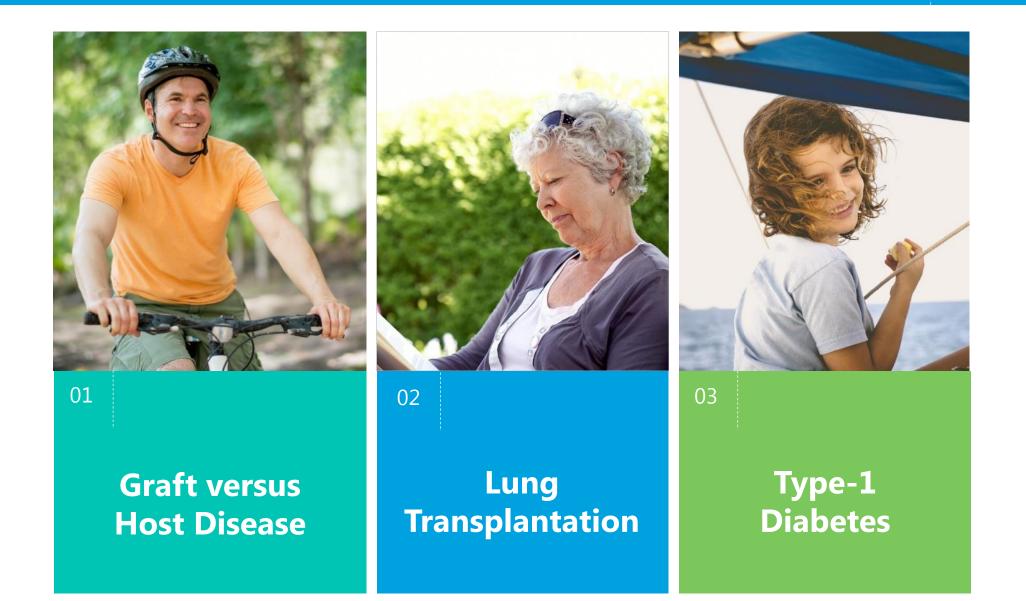
- Approach FDA with results to obtain guidance on the clinical/ regulatory pathway for licensing the IH AAT by Kamada in the U.S.
- Planned Phase 3 Protocol submitted to FDA July 17
- Expecting guidance from FDA and approved IND for registration trial H2/2017

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

^{1.} http://www.fda.gov/BiologicsBloodVaccines/NewsEvents/WorkshopsMeetingsConferences/ucm435242.htm

IMMUNE-MODULATORY INDICATIONS







AAT	IMMUNE-MOD AAT promotes a tolera			
Anti- Inflammatory Induces the production of anti-	Regulatory T-cell Differentiation Promotes Treg differentiation	Blocks Pro-Inflammatory Mediators IL-1β, IL-6, IL-8 and TNFα		Modifies Dendritic Cells Modifies dendritic cell
inflammatory mediators IL-10 and IL-1-receptor antagonist (IL-1Ra	Protect Cells from Inju Protects cells from IL-1 β /IFN γ -induced injur and reduces the levels o nitric oxide	у	Blocks "Danger" Molecules Binds to gp96 and diminishes gp96- induced cell injury	maturation towards a tolerance- inducing profile



01

AAT to Treat Graft versus Host Disease

GRAFT VERSUS HOST DISEASE (GVHD): A Major Complication in Stem Cell Transplantation



DEADLY SIDE EFFECTS



~20% • of deaths are caused
by C use by GvHD complications

~50%•

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

No FDA-approved specific drug for GvHD indication – An Unmet Medical Need

Estimated Market Size*: ~ \$700 MILLION

*company estimate





Phase I/II POC Study interim results (12 patients) have indicated that AAT may exert healing of the bowel mucosa in gut GvHD slowing / stopping the disease progression and re-modulation of the immune attack

- Administration of AAT as salvage therapy for steroidresistant gut GVHD may be a feasible approach <u>without</u> <u>clinical toxicity</u>
- Preliminary results are encouraging and warrants further study of AAT therapy in extended trials as therapy of steroid refractory acute GVHD or as first line therapy

Benefits of ATT: May exert protective effect

- Stool AAT levels showed a <u>decrease in intestinal AAT</u> <u>loss</u>, suggesting healing of the bowel mucosa
- AAT administration during HCT <u>suppresses serum levels</u> <u>of pro-inflammatory</u> <u>cytokines</u>, interferes with GVHD manifestation

IMAGES FROM PHASE I/II CLINICAL STUDY INTERIM REPORT

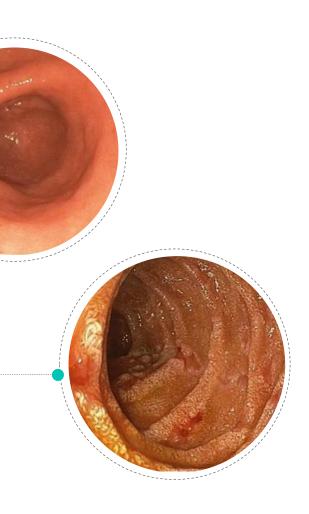


BEFORE

Duodenits Suspect severe upper and lower GVHD

AFTER 8 DOSES OF AAT

Moderate mucosal denudement and edema noted throughout the duodenum





S US



Approved IND for Pivotal phase II/III study with AAT (IV) for the treatment of acute Graft-Versus-Host Disease. Planning to combine the US & EU clinical programs. Positive Scientific Advice from EMA for the proposed program. Received guidance for the design of the planned Phase II/III. Intend to submit and receive approval for a CTA in 2017 and launch the study in early 2018..



AAT to Treat Lung Transplantation

ADVANCING THE LUNG TRANSPLATATION OPPORTUNITY





Lungs have the highest rate of rejection among transplanted solid organs

~33% will experience acute rejection within the first year ~50% will develop chronic rejection within the first 5 years

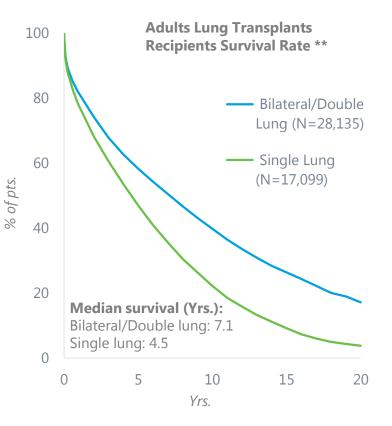


No new treatment options have been made available for years

Physician feedback indicates strong need for improved post-transplant therapies over existing options (toxicity, immunosuppressive)



Kamada initiated the first clinical trial designed to prevent lung transplant rejection



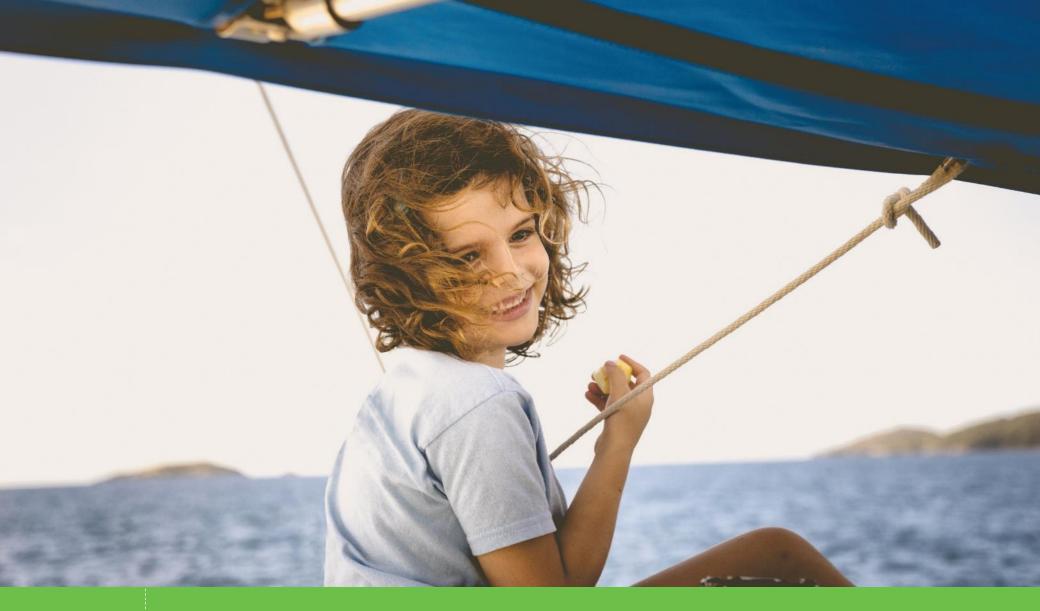
Potential Market Size*: ~ \$400-500 MILLION

*company estimate



Phase II:ObjProspective, openIabel, standard ofcare (SOC) controlled,Des	Study Objective Design	 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 30 lung transplant recipients randomized 2:1 to
randomized, parallel group single center study	5	receive AAT IV on top of standard-of-care (SOC) or SOC alone, for 48 weeks plus 12 months of follow- up period
In collaboration with Baxalta/Shire. Led by Prof. Mordechai Kramer, Rabin Medical Center	Primary Endpoint	 Safety - Related adverse events (AEs) <i>Efficacy</i> - 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)



03

AAT to Treat Newly Diagnosed Type-1 Diabetes

AAT (IV) IS A PROMISING POTENTIAL TREATMENT FOR NEWLY DIAGNOSED TYPE-1 DIABETES PATIENTS



MARKET OPPORTUNITY	DRUG IMPACT	BENEFITS
Type-1 Diabetes Occurs when the immune system attacks and destroys beta cells in the pancreas	Studies have shown that AAT protects beta cell islets	Preservation of beta cells correlates with reduced risk of long-term complications
 More than 10 million suffer from Type 1 diabetes globally 100,000 new patients/year diagnosed globally In the U.S. alone: 3 million patients, with 30,000 new patients diagnosed annually 	 Delays the onset of autoimmune diabetes Reduces the incidence of diabetes Inhibits insulitis and beta-cell apoptosis Decreases beta-cell inflammation 	 DCCT* indicated that patients with C-peptide on MMTT ≥0.2 pmol/mL were less likely to develop retinopathy and hypoglycemia complications (Greenbaum et al 2012) Higher / sustained levels of C-peptide correlate with reduced incidences of the microvascular complications (Steffes et al 2013)



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, Last Patient Out February 2017 Topline results expected H2 2017
Endpoints	• In accordance with FDA / EMA guidance for clinical trials evaluating beta-cell preservation (C-peptide parameters, HbA1C, hypoglycemic events and insulin daily dose)

KamRAB: Human Rabies Immune Globulin

KamRAB Human Rabies Immune Globulin





WHO estimates ~10 million people worldwide require medical treatment against rabies each year after being exposed to an animal suspected of rabies infection

U.S Market

- Phase II/III study successfully completed
- BLA submitted PDUFA August 29, 2017
- Expected product launch: H2/2017

Worldwide

- More than 1.4M Vials (420M IU) sold to date (2ml) = 280,000 people treated w/w
- Major launches: India, Thailand, Israel, Russia, Mexico
- 100% domestic market share (Israel)
- Approved Supplier of the WHO

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U.S. Opportunity:

Strategic agreement with Kedrion S.p.A for the clinical development and marketing of KamRAB in U.S.



- U.S. pivotal Phase II/III clinical trial met primary endpoint of non-inferiority when measured against an IgG reference product
- Biological License Application submitted and accepted for review by FDA; PDUFA date Aug 29, 2017
- U.S. launch expected end of 2017
- In the U.S., there are ~40,000 post-exposure prophylaxis treatments administered each year, representing ~\$100 million market opportunity
- Currently, only one significant provider of anti-rabies immunoglobulin exists

Financials



COMPELLING INVESTMENT DRIVEN BY MULTIPLE PILLARS OF GROWTH



Existing Anchor Product

Profitable unit

Sales in 15 countries

Predictable, stable business

(\$0.5B)*

Glassia[®] (AAT-IV) in U.S. & ROW

Estimated only ~5% of cases treated in U.S.

Annual therapy costs ~\$80 -\$100K per patient

Partnered with Shire solely for IV products in the U.S. (agreement also covers Canada, Australia and New Zealand)

Key geographies retained by Kamada

(100K pts., \$0.75-1B)*

Inhaled AAT for AATD in U.S. & Europe

Estimated only ~2% of cases treated in Europe

Estimated only ~5% of cases treated in US

Orphan drug designation in US and EU

Partnered with Chiesi for Inhaled AAT for AATD in Europe only

Have not out-licensed rights in US) Unencumbered asset in U.S.

(200K pts., \$1-2B)*

New Geographies

Potential to sell existing and new products into new geographies

Rabies Ig to U.S. and additional territories

Capital-efficient strategy minimizes outlay required by Kamada

(\$0.5B)*

Additional Unencumbered Pipeline Products

G1-AAT (IV): Planning to initiate GVHD phase II/III **(\$0.5-1B)***

L1-AAT (IV): Lung transplant rejection phase I/II in process (\$0.5B)*

D1-AAT (IV): Type-1 diabetes in Phase II LPO (100K pts., \$3.5-5B)*

(All AAT (IV) are unencumbered outside of U.S., Canada, Australia and New Zealand)

THE KAMADA PILLARS

Existing Anchor Products Glassia® (AAT-IV) in U.S. Inhaled AAT for AATD in U.S. & Europe New Geographies Additional Unencumbered Pipeline Products

STRONG FINANCIAL PROFILE WITH REVENUE GROWTH AND EXPANDING PROFITABILITY



Stable, profit-generating revenue stream from marketed products	Pipeline products expected to accelerate revenue growth	
Better product mix expected to improve gross margin	Profits from marketed products to partly fund clinical development programs	
Strategic partnership model results in lower operating expenses	Low capital expenditures to support infrastructure investments in order to	
Baxalta/Shire purchase obligations provide predictable revenue through 2020 and royalties thereafter	meet future demand Preferred tax treatment under Israeli law	
Kedrion partnership for Rabies Ig expected to increase revenues and profitability from 2018 and beyond		

SUSTAINED REVENUES AND GROSS PROFITS ARE FUNDING R&D



2017 Guidance:

Revenues ~\$100 M (~\$76-\$78 M in proprietary Products segment ~\$22-\$24 M in Distribution segment

Profitable

\$ M	FY2014	FY2015	FY2016	% change
Proprietary Products	44	43	56	30%
Distribution	27	27	21	(22%)
Total Revenues	71	70	77	10%
Gross Profit	15	16	22	37%
R&D	(16)	(17)	(16)	
S&M and G&A	(10)	(11)	(11)	
Net Loss	(13)	(11)	(7)	(36%)
Adjusted EBITDA*	(5)	(6)	(1)	

	Milestone Date	201
Inhaled AAT for AAT Deficiency: Scientific Advice in EU for future study IND for registration trial of inhaled AAT in US	2H-2017	
Approved CTA for registration GvHD trial in EU	2H-2017	
Final report for Phase II for type-1 diabetes trial	2H-2017	
Interim report for Phase II for lung transplant trial	2H-2017	
Rabies product launch in the U.S. (if approved)	2H-2017	
Achieve \$100 million in annual revenues	2017	
Strategic agreement: Out-licensing; In-licensing of new products / technologies	2017	
Initiating inhaled AAT for AATD phase III study in US	1H-2018	
Initiating GvHD phase II/III study in EU	1H-2018	
Double* the number of Glassia patients WW	2018	y and the second se

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- Globally Positioned Biopharmaceutical Company focused on Orphan Diseases and Plasma-Derived Protein Therapeutics
- ~\$100M of revenues expected in 2017
- Flagship Product Glassia[®] Approved for Alpha-1 Antitrypsin (AAT) Deficiency Disease Unique and Differentiated Product Profile Represents an Exciting Growth Opportunity
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- Strategic Partnerships with Industry Leaders, Validating Kamada's Portfolio → Baxalta/Shire, Chiesi, Kedrion and Pari
- Integrated, Efficient and Scalable Best-in-class Patented Platform Technology
 Patents and know-how act as substantial barrier to entry FDA approved facility
- Strong Financial Profile with Increasing Profitability Expect to generate positive cash flow in 2017











Kamada Investor Presentation

APPENDIX A



Appendix A: Reconciliation of Non-IFRS Measures

Adjusted EBITDA is defined as net income (loss), plus income tax expense, plus financial expense, net, plus depreciation and amortization expense, plus non-cash share-based compensation expenses, plus or minus income or expense in respect of exchange and translation differences and derivatives instruments not designated as hedging, and plus one-time management compensation payment.

We present adjusted EBITDA because we use this non-IFRS financial measure to assess our operational performance, for financial and operational decisionmaking, and as a means to evaluate period-to-period comparisons on a consistent basis. Management believes this non-IFRS financial measure is useful to investors because: (1) they allow for greater transparency with respect to key metrics used by management in its financial and operational decision-making; and (2) they exclude the impact of non-cash items that are not directly attributable to our core operating performance and that may obscure trends in the core operating performance of the business. Non-IFRS financial measures have limitations as an analytical tool and should not be considered in isolation from, or as a substitute for, our IFRS results. We expect to continue reporting non-IFRS financial measures, adjusting for the items described below, and we expect to continue to incur expenses similar to certain of the non-cash, non-IFRS adjustments described below. Accordingly, unless otherwise stated, the exclusion of these and other similar items in the presentation of non-IFRS financial measures should not be construed as an inference that these items are unusual, infrequent or non-recurring. Adjusted EBITDA is not a recognized term under IFRS and does not purport to be an alternative to any other IFRS measure. Moreover, because not all companies use identical measures and calculations, the presentation of adjusted EBITDA may not be comparable to other similarly titled measures of other companies. Vear Ended December 31

Teal Ended December 51,				
	2016	2015	2014	
(in thousands)				
income (loss)	\$(6,733) \$	(11,270) \$	(13,213)	
ome tax expense	1,722	-	52	
ancial expense, net	(343)	471	1,682	
preciation and amortization expense	3,501	3,227	2,788	
n-cash share-based compensation expenses	1,071	1,907	3,751	
ome (expense) in respect of translation differences and derivatives instruments, net	(127)	(625)	-	
bense (income) in respect of revaluation of warrants fair value	-	-	-	
e-time management compensation payment	-	-	-	
justed EBITDA	\$ (909) \$	(6,290) \$	(4,940)	

NEXT GENERATION – AAT INHALED



Inhaled directly to the lungs

Clinical trail in Europe completed

"The study results demon started 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 Medical Center, Principal Investigator of the Phase II/III clinical trail and Chairman of the Alpha 1 International Registry (AIR)

INHALED AAT FOR AATD: COMPLETED PIVOTAL PHASE II/III TRIALS IN EUROPE AND PHASE II IN THE U.S.



	EU Phase II / III trial - Completed	US Phase II - Completed
DESCRIPTION	 Over 160 AATD subjects, majority are treatment-naïve Double blind, placebo controlled, randomized Multi-center international study: Western EU (in 7 countries) 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 subjects Double blind, placebo controlled, randomized
ROUTE & DOSAGE FORM	 Inhalation of human AAT, 160mg total, twice daily, ~10-15 minutes using 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; Safety: Lung function 	 Primary: Concentration of AAT in ELF Secondary: safety and tolerability, Concentration AAT in serum, ELF inflammatory analytes
DURATION	 50 week treatment in DB period; daily treatment 50 week open label extension ; daily treatment Study completed 	 12 weeks double blind 12 weeks open label extension Topline released August 16



Turno /Cotogomy	AAT	Placebo	P Value	
Type/Category	N=85	N=83	Pvalue	
Туре 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	

IMPROVED DAILY SCORE

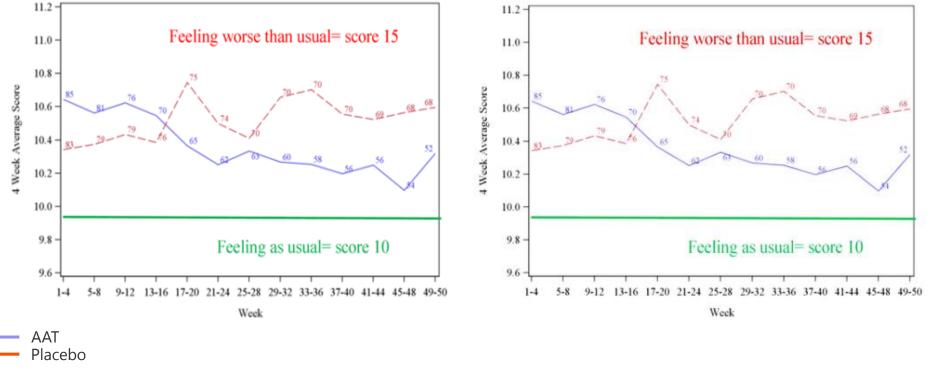


AAT patients tended to have better **Dyspnea score**

Dyspnea 4 Week Moving Average Graphs

AAT patients tended to have better **Well-Being score**

Well Being 4 Week Moving Average Graphs





EU Phase 2/3:

" 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) "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

"These new analyses confirm the clinicallymeaningful 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.

US Phase 2:

"The results of this study are extremely compelling. Based on the results of this study, it is clear that inhaled AAT is the most effective mode of treatment for reaching the primary sites of potential lung injury, and restoring AAT inhibitory capacity. I look forward to the start of a pivotal study in the U.S. to confirm these results."

Professor Mark Brantly, MD, the Primary Investigator in this study who serves as a Vice Chair of Research, Department of Medicine, Chief Division of Pulmonary, Critical Care and Sleep Medicine, Professor of Medicine, Molecular Genetics and Microbiology at the University of Florida College of Medicine and Alpha One Foundation Research Professor.



Phase I/II study:	Dose	•	4 dose groups - 15 day regimen. Doses given on days: 1, 3, 5, 7, 9, 11, 13 and 15
Open label of 24 patients with steroid- resistant GvHD	Primary End Points	•	% of patients at each dosing cohort who experience no toxicity and in whom GVHD is stable or improved
following allogeneic bone-marrow stem cell transplant	Secondary End Points	•	AAT levels, cytokine levels, infection rate, progression of GVHD, SAEs
	Interim results	•	Published January 2016

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

PHASE II/III STUDY WITH AAT (IV) FOR GVHD



Pivotal phase II/III study: randomized, two-part, multicenter, placebo controlled, with AAT (IV) for the treatment of acute Graft-Versus-Host Disease

Study Objective	•	to evaluate the safety and efficacy of AAT (IV) as an add- on biopharma-co-therapy to standard-of-care steroid treatment as the first-line treatment in subjects with acute GvHD with lower GI involvement
Methods	•	A two-part Phase II/III study
		 Part 1 will evaluate the safety, efficacy and PK in approximately 20 subjects
		 Part 2 will compare the safety and efficacy of AAT (IV) vs. placebo in a total of approximately ~150 randomized subjects
Primary Endpoint	•	Proportion of patients achieving Overall Response (OR)* by Day 28
		*OR is defined as Complete Response (CR) and Partial Response (PR); GvHD CR is complete resolution of all signs and symptoms of acute GvHD in all organs without intervening salvage. GvHD PR is improvement of one stage in one or more organs involved in GvHD

without progression in other organs.

50

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 (N=24)

AUC% for C-peptide decreased 23% from baseline vs. ~40-50% expected decrease after 12-15 months from diagnosis¹

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)

