

Leading the way in cell & gene therapy

October, 2017

From genes to therapy

Forward-looking statements

The presentation contains certain forward-looking statements. Although the Company believes its expectations are based on reasonable assumptions, these forward-looking statements are subject to numerous risks and uncertainties, including scientific, business, economic and financial factors, which could cause actual results to differ materially from those anticipated in the forward-looking statements.

The Company assumes no responsibility to update forward-looking statements or adapt them to future events or developments.

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Declaration by the official Corporate Financial Reporting Manager:

The undersigned herewith attests, pursuant to Article 154-bis, paragraph 2 of the Italian Consolidated Law on Finance (Legislative Decree 58/1998), that the accounting disclosure contained in this presentation matches documentary evidence, corporate books, and accounting records.

Andrea Quaglino, Chief Financial Officer, official Corporate Financial Reporting Manager



MolMed, from academia to public company and beyond

1992 - 1995	1996 - 2001	2002 - 2007	2008 - 2015	2016 - 2017
Academia (Ist. Scientifico San Raffaele)	Integ	rated biotech co	mpany	Turning point
 First investigational gene therapy treatments: ADA SCID (now Strimvelis)* TK (now Zalmoxis)** 	 Inception: JV between Boehringer Mannheim and Science Park Raf, as service provider in C>, thus developing know-how & original pioneering technology in the field Turning into a biopharmaceutical company: Acquisition of Genera S.p.A. Proprietary pipeline (internal R&D & in-licensing) 	 Authorisation as clinical-grade pharm. company (2003) New strategic shareholders (2004) TK Phase II trial TK007 completed (2007) 	 IPO (2008) NGR-hTNF in Phase III (2009) Start of new GMP facility (2013) Acquisition of CAR-T project CD44v6 (2015) Authorisation as market-grade pharm. company (2015) 	 Zalmoxis® (TK) granted CMA in the EU Signed commercial agreements for EU, Israel and certain Asian countries Promising preclinical data on CAR-T CD44v6 Reinforcement and enlargement of CMO collaborations (GSK, Rocket, Genenta and Cellectis)



Dual business model in the cell & gene field leveraging common technological assets

Common Assets

- 20 year experience in cell&gene therapy development and manufacturing
- 2 GMP manufacturing facilities of almost 5.000SQM (55.000SQF)
- >150 highly qualified scientist and operators plus ~40 support staff
- Manufacturing of the only 2 ex-vivo gene therapy products approved in EU
- 12 proprietary patent families including 256 granted patents and 43 pending applications
- Wide network of collaborators





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Partnerships in cell & gene field

Year	Partner	Product/ Therapy	Collaboration
2010	gsk	Strimvelis MLD WAS	The partnership was established in 2010 and in 2016 the companies emended the agreement increasing the minimum guaranteed payment to 48M€ . MolMed manufactured RV/LV and transduces HSC for the clinical programs (MLD and WAS) and for the commercially approved Strimvelis.
2015	旅 elethon	BTHAL MPS GLD CGD	The long lasting partnership was reinforced in the last years (2015 and 2016) to cover the development and manufacturing of vectors and transduced cells for the clinical programs of several genetic diseases
2016	XX genenta	IFN	Since 2016 MolMed support the development and manufacturing of Genenta's leading program on hematological malignancies part of an agreement with Amgen
2017	Procket	FA	Since Q12017 MolMed support the US based Rocket Pharma for the development and manufacturing of the Fanconi Anemia program
2017	cellectis	UCART	Since July 2017 MolMed support Cellectis for the development and manufacturing of Cellectis UCART programs



Excellence supported by a solid GMP manufacturing capacity

DIBIT Facility (Milan)



- 1,500 SQM and 9 grade B/C suites
- Authorized GMP manufacturing facility since 2003 for clinical programs
- Authorized GMP manufacturing facility since 2015 for the Commercial products

Open Zone Facility (Bresso)



- 3,300 SQM and >20 Grade B/C suites
- Qualified Officina Farmaceutica, authorized for GMP manufacturing and quality control activities for the production of TK cells used in clinical trials



GMP Solutions

Significant revenues growth from development & manufacturing services and partnerships





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Haploidentical transplant (haplo-HSCT) today

 Haploidentical transplant is a lifesaving procedure for many patients with haematological malignancies: number of haploidentical transplants doubled since 2010 for all indications*

- There are two protocols currently used:
 - Ex vivo T-cell depleted haplo grafts without any donor cell therapy
 - delayed immune recovery and increased non-relapse mortality
 - T-cell replete haplo grafts followed by in vivo T-cell depletion and immunosuppression
 - increased GvHD and relapse risks



*Passweg 2015

Zalmoxis®

TK cells allow to preserve GvI and GvL effects

The TK haploidentical HSCT procedure makes a suitable donor available for any patient, without interfering with the timeframe of a normal transplantation



Bordignon, Hum Gene Ther 1995; Bonini, Science 1997; Bonini, Nat Med 2003; Traversari, Blood 2007; Ciceri, Blood 2007; Ciceri, Lancet Oncol 2009



MOLMED

Clinical efficacy (EBMT pair-matched analysis): benefit in OS, NRM and chronic GvHD



p-value^	0.003	0.007	0.02

Contemporaneous haploidentical transplants (period 2000-2013), including 36 Zalmoxis and 139 controls (70 T-cell replete and 69 T-cell depleted) were matched (1 to 4 ratio). 28 controls without information on cGvHD. *RI and NRM are competing risk events (when one competing event occurs, patients are no longer at risk for the other event, with those with shorter survival being less likely to develop relapse) and NRM events occur earlier than relapse events. ^Cox test stratified on match group (LFS and OS) and Gray test (RI, NRM and chronic GvHD)



European market potential analysis*: strong growth and relevant upsides

CMA	850 (′14) - 2.000 (′23) (+19% ′13-′14)	1	 Haplo in Acute leukemia 	 AML and ALL are the target indications also of TK008 PhIII Study
Current indicati	450 ('14) - 600 ('23) (+40% '13-'14)	2	 Haplo in Other Hemat. Mal. 	 MDD, MPN, CLL, Plasma cell disorders (MM, others), Hodgkin and non-Hodgkin lymphoma
psides	1.400 (`14) - 2.000 (`23)	3	 MUD 9/10 	 MUD 9/10 clinically performs as mismatched thus haplo could be preferred
3	2.500 (`14) - 3.500 (`23)	4	• DLI	 DLIs could significantly benefit from TK suicide strategy
			and	

Most autologous and allogeneic CAR-T therapies may benefit from TK suicide gene machinery

* Source: Company and EBMT



Network of partners for the commercialization of $Zalmoxis^{\mathbb{R}}$





Following CMA, MolMed started several market access activities





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CD44v6 is expressed by several blood and solid cancers

- MolMed's CAR-CD44v6 is specific for variant v6 of antigen CD44 which is minimum expressed in normal tissue, while is over-expressed in haematological and epithelial tumours
 - 60% of AML and 90% of MM express CD44v6
 - Historically known as «metastatic factor» in multiple epithelial cancers, including:
 - breast cancer (triple negative)
 - pancreatic adenocarcinoma
 - head & neck cancer
 - Crucial role in growth of brain tumour stem cells
 - Specifically expressed on colon cancer stem cells
- The target is clinically validated



Off-target toxicities might be managed by exploiting the combination with a suicide gene



OFF-TARGET TOXICITIES

- CD44v6 expression by normal cells
- Cytokine release syndrome
- Non-specific spacer-mediated activation
- CAR-CD44v6 expression on effector cells

Use in combination with TK suicide gene

Source: Casucci et al, Cancer Immunol Immunother



CAR-CD44v6

CAR-CD44v6: in vivo activity in a high tumor burden model of AML-M5 (THP-1)



MolMed unpublished results



CAR-CD44v6: in vivo activity in a lung adenocarcinoma model (MR232)





Immunostaining of tumor sections from CAR CD44v6 ΔN treated mice





MolMed leads the EU-funded EURE-CART project

- MolMed is coordinator of the the EURE-CART project
- EURE-CART's main object is to conduct a multicentre, first-in-man Phase I/IIa clinical trial to demonstrate the safety and the efficacy of CAR-CD44v6 T-cell immunotherapy in acute myeloid leukaemia and multiple myeloma
- EURE-CART involves a consortium of nine partners from five different EU countries, including clinical, scientific and industrial groups clearly representing excellences in their fields. MolMed's partners are:
 - Ospedale San Raffaele (Italy)
 - Universitätsklinikum Würzburg (Germany)
 - Ospedale Pediatrico Bambino Gesù (Italy)
 - Fundacio Privada Institut de Recerca de L' Hospital de la Santa Creu i Sant Pau (Spain)
 - Fakultni Nemocnice S Poliklinikou Ostrava Foundation (Czech Republic)
 - Istituto Superiore di Sanità (Italy)
 - Acromion GMBH (Germany)
 - ARTTIC SAS (France)



Key financials – 1sthalf 2017

Key Income Statement:

- ✓ total revenues of Euro 9.8 million, of which Euro 8.9 million from sales, up by 2.9% respect to Euro 8.7 million of first half 2016
- ✓ Operating and net results considerably improved by 21.2% and 22.2% respectively, against first half 2016

(amounts in € thousand)	1 st half	1 st half	Varia	tion
	2017	2016	€	%
Operating Revenues	9,819	10,221	(402)	(3.9%)
Revenues	8,935	8,681	254	2.9%
Other revenues	884	1,540	(656)	(42.6%)
Operating costs	16,320	18,457	(2,137)	(11.6%)
Operating result	(6,501)	(8,236)	1,735	21.1%
Net result for the period	(6,522)	(8,379)	1,857	22.2%



Key financials – 1sthalf 2017

Net Financial Position (cash and cash equivalents, as the Company has no indebtedness)

(amounts in € thousand)	June 30, 2017	Dec 31 st , 2016
Net Financial Position	12,461	19,702

Additional resources – Standby Equity Facility Agreement

At the end of 2016, the Company signed a SEF Agreement with Société Générale; the bank has undertaken to subscribe the Share Capital Increase upon submission of discretionary requests from the Company at the terms and conditions specified in the agreement (3 days VWAP, 5% discount).

The agreement (2 year length till October 2018) involves a total of n. 42,000,000 of new MolMed's shares, of which already issued n. 23,5 million (**gross proceeds of about € 9,8 million**).

Capex

(amounts in € thousand)	1 st half 2017	1 st half 2016
Capex	741	933



MolMed's shareholders' structure

Market cap:~200 M € (at Oct 27, 2017)





Objectives for 2017

Zalmoxis®

- Enter the first EU market ongoing
- Final licensing agreements with Megapharm (Israel) ☑ and TTY (some Asian countries) ☑
- Partners for Zalmoxis[®] commercialisation in other EU and extra-EU areas ✓

CAR-T CD44v6

- Advance EURE-CART project, focused on leukaemia and multiple myeloma
- Advance in preclinical studies to confirm potential in solid tumours

GMP Solutions

- New collaboration agreements in cell&gene therapy:
 - ✓ Rocket Pharma, for Fanconi's anemia
 - ✓ Cellectis on UCART
- Gradual entry into operation of the new GMP facility



Target for 2018

Zalmoxis®

- Price in main EU markets
- Advancement of PhIII TK008
- Growing stream of revenues from EU sales

CAR-T CD44v6

- Starting of PhI/II on hematological malignancies
- Completion of preclinical efficacy and safety testing on solid tumors
- Exploratory partnering discussion
- Further expand the pipeline

GMP Solutions

- Finalization of the authorization process for the Stream 1 of the new GMP facility
- New partnerships or expansion of existing agreements for development and manufacturing of vectors and cells



Contacts

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