

PharmEste s.r.l.

***Developing best-in-class
TRP channel therapeutics***

**“LO SMALL BUSINESS ACT E IL VENTURE CAPITAL COME SOSTEGNO
ALLA CRESCITA DELLE PICCOLE E MEDIE IMPRESE EMILIANO-ROMAGNOLE”**

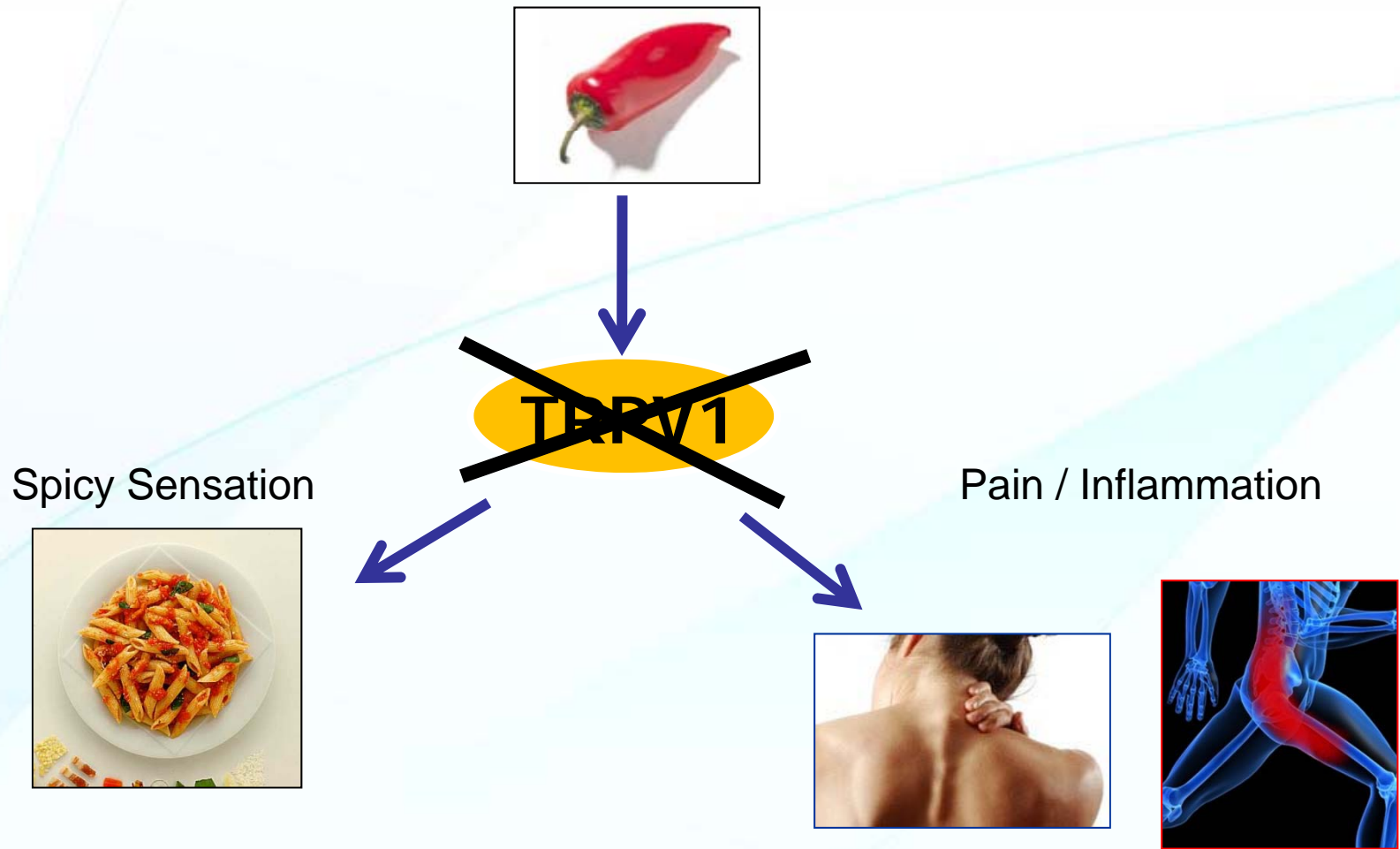
Bologna, 13 Dicembre 2010



- Founded as a spin-off of the University of Ferrara
- Committed management team with extensive industrial expertise and dedicated staff with strong multidisciplinary experience (total 12 people)
- First class Scientific Advisory Board
- Business Unit in Milan & Labs in Ferrara (Italy)
- Strong IP position fully owned by the company
- PHE377, a TRPV1 antagonist in Phase I clinical studies.
- New Drug Candidate from Second generation TRPV1 antagonist under selection
- Discovery program for new TRPs antagonists
- Two round financing for an overall amount of €11 million with a panel of Investors (Corporate Industrial Ventures and Professional Venture Capitals)
- Partnership planned in 2011

- To play a **leading role** in the discovery and development of small molecule TRP channel therapeutics for the treatment of pain, overactive bladder and other TRP-mediated diseases
- The Company intends to strategically pursue the development of TRPs antagonists to address:
 - **Neuropathic pain** of different origins
 - Other TRPs related diseases such as **Overactive Bladder, Cough, Itch** and Gastrointestinal Disorder
- First compound PHE377 will be developed up to completion of all **Phase I** clinical studies by PharmEste.
 - **Phase IIa** studies will be conducted in partnership in the following clinical conditions:
 - Painful diabetic neuropathy (**PDN**)
 - Post-herpetic neuralgia (**PHN**)

TRPV1: the Capsaicin Receptor



Neuropathic Pain: an unmet medical need



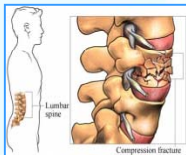
- Chronic pain syndrome results from damage to the nervous system induced by different processes
- Includes a group of disorders such as:



- **Painful diabetic neuropathy:** the most common complication of diabetes mellitus

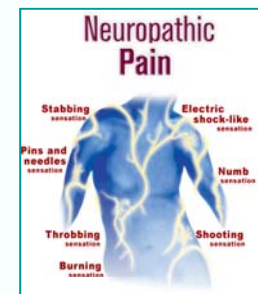


- **Post-herpetic neuralgia:** a complication of shingles, the second outbreak of the varicella zoster virus



- **Low back pain:** one of the most common pain syndromes and among the most frequent causes of loss of working days and disability

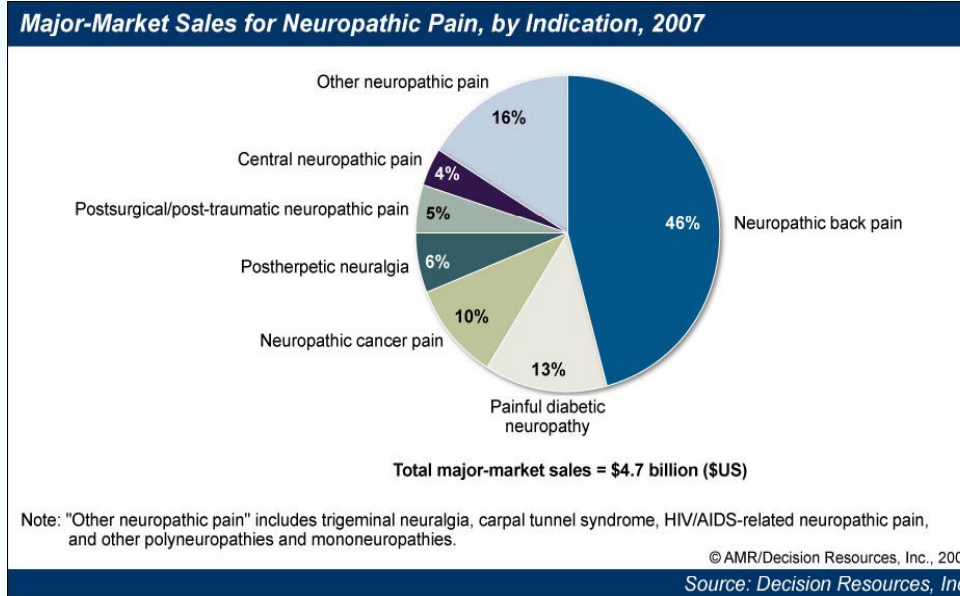
- These disorders share several critical features, including:
 - poor response to conventional analgesics
 - chronic course of the symptomatology



Neuropathic Pain: a market opportunity

PharmEste

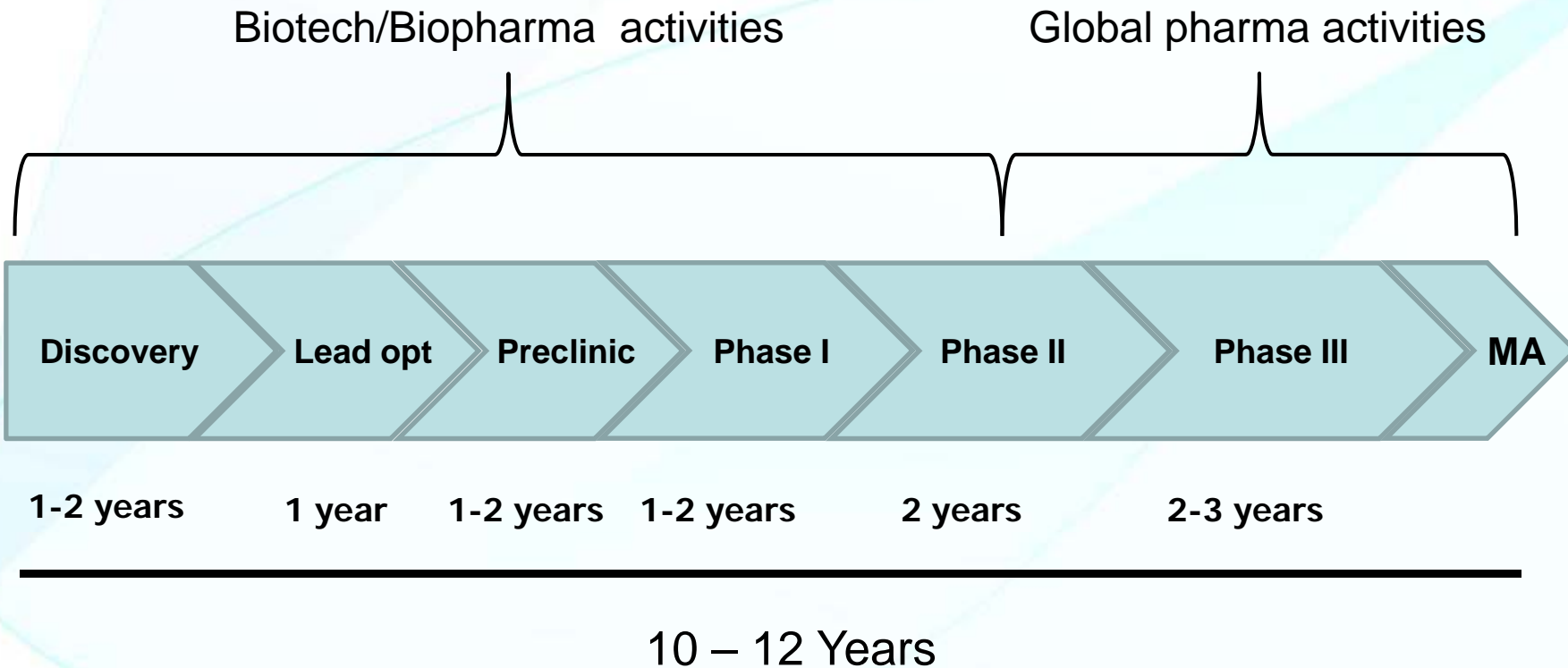
- It is estimated that ~1% of the population is affected
- About € 4.7 billion in the top seven countries in 2007
- Growth estimated to accelerate in the next 10 years (€ 7.9 billion in 2017) due to aging population, emerging geographical markets and availability of better tolerated and more effective drugs



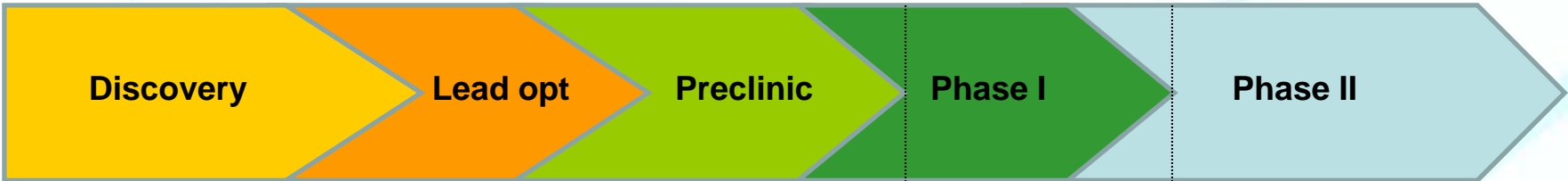
From bench research to the market



From discovery to the market a NCE will take more than 10 years with high risk of failure and high investment needed.



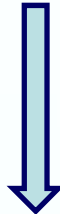
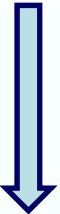
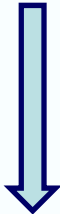
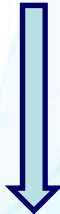
From bench research to the exit



*Build up IP portfolio
Prepare management
and staffing*

Company structure

Boosting management structure



Spin off/start up

First round VCs

Second round VCs

Third round VCs




Exit: M&A,
Trade Sale, IPO



The gap

PharmEste
Today

- Six fully owned patents all related to small molecules covering 5 different chemical classes
- **PHE377** for the treatment of **neuropathic pain** in Phase I studies
- 2° generation TRPV1 antagonists under final optimization phase
- Evaluation of TRP modulators potential in **other related clinical indications** also through external research collaborations

Compound	Disease Indication	Discovery	Lead Optimization	Pre-clinical Development	Phase I	Phase II
PHE377 TRPV1 antag	Neuropathic Pain					
2°generation TRPV1 antag	Pain OAB					
TRPs antagonists	Pain/ Respiratory Others					

PharmEste Key events



- 2003 : founded as University Spin off by University professors P. Baraldi; P.Borea; P.Geppetti around an innovative and high potential project as TRPV1 antagonist for the treatment of neuropathic pain
- 2004 : agreement with Z-Cube corporate venture Zambon Company providing seed, managerial activities and scientific support.
- 2004-2006 :
-discovery activities
-filing the first IPs
-identification of most relevant chemical structures
-identification of initial management and staffing
- January 2007 : first financial round closing €3,2 million (Zernike MetaVenture; Fondamenta SGR; Quantica SGR; Z-Cube srl)
-Set up the first independent managerial and staffing team
-Set up an outstanding scientific international advisory board
- October 2007 : PHE377 selected for the preclinical development
New drug discovery program for 2nd generation TRPV1 antagonist

PharmEste Key events



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- October 2008 - Second financial round of €6million (MPS Venture; MP Healthcare Venture Management; Quantica SGR; Z-Cube srl)
 - 2008-2009
 - Implementation of company management and staffing.
 - Established new location as Business office in Bresso and new laboratories in Ferrara
 - July 2009 - Enter into Phase I clinical development after approval from EC/Swiss Medic
 - October 2010
 - Additional financing and commitment from internal investors to further support Company development
 - Selection of second drug candidate from 2nd generation TRPV1 antagonist for the preclinical development
 - New discovery program for a new target as TRPs antagonists
 - 1Q 2011 - Initiation of Phase Ib clinical study to demonstrate PoP in HV.
 - 2011 - Open discussion for partnership with international pharmaceutical companies.
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From the science:

- ✓ An outstanding research project which should meet the unmet medical need.
- ✓ A relevant market potential

From the management and staffing

An experienced industrial team able to transform the scientific project in a real drug
Potential and able to attract investors for their managerial capability

From investors

A group of professional investors able to support the company in different round of financing

The final customer of the biotech/biopharmaceutical company is the global pharmaceutical one who has to buy the product or the company

Our Success has required multiple aspects **PharmEste**



- January 2007: Series A round closed at €3.2 M
(Z-Cube, Quantica, Zernike MetaVenture and Fondamenta)
- September 2008: Series B round closed at €6 M
(Z-Cube, Quantica, MPS Venture, MP Healthcare Venture Management)
- October 2010: first extension Series B round closed at € 1.8M
- By 2011 PharmEste expects to have:
 - ✓ completed all phase I clinical studies for PHE377
 - ✓ initiated IND package with a second generation TRPV1 antagonist
 - ✓ selected of a new TRPs antagonist
 - ✓ generated partnerships with Pharma Companies

Contact us



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