Medical Therapies Limited

Midkine Portfolio Acquisition
9 May 2008

MEDICALTHERAPIES

Forward looking statements

This presentation contains forward-looking statements.

These statements are not guarantees of Medical Therapies Limited's future performance and involve a number of risks and uncertainties that may cause actual results to differ materially from the results discussed in these statements.

Factors that might cause the Company's results to differ materially from those expressed or implied by such forward-looking statements include, but are not limited to, development and commercialisation of the Company's product portfolio, development or acquisition of additional products and other risks and uncertainties.

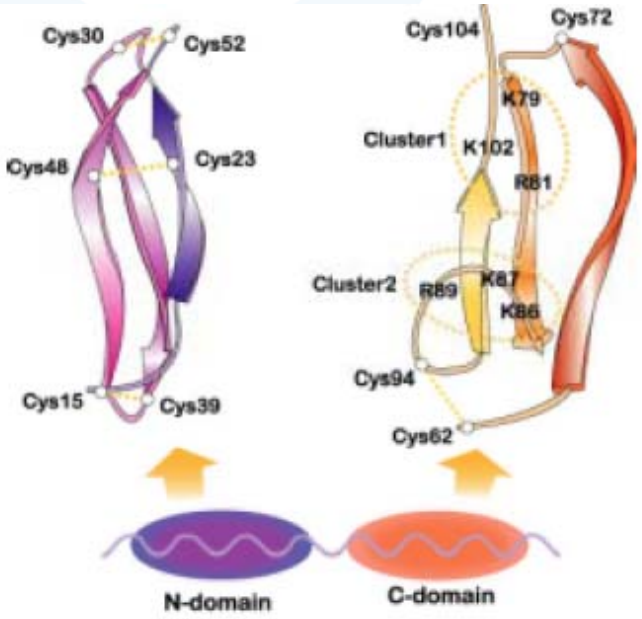
Midkine portfolio acquisition

- Rationale for the acquisition of the midkine portfolio
- What is midkine?
- Details of the IP Agreement
- Midkine therapeutics portfolio
- Midkine diagnostics portfolio
- MTY post acquisition
- Timetable of key events

Rationale for midkine (MK) acquisition

MTY acquisition criteria	Midkine portfolio
Sound scientific principles underlying the technology with clear regulatory path and strong commercial potential	◎ Known composition and mechanism of action ◎ Extensive in vitro and preclinical data (strong regulatory position) with a range of commercialisation opportunities ◎ Interest in MK from major pharma/biotech companies ◎ $10M spent on midkine since 2001
Therapeutic areas of cancer and inflammation	◎ MK for heart tissue damage ◎ MK inhibitors for cancer, RA and auto-immune disease
Late stage technology or technology platform with development potential	◎ Rich technology platform ◎ Potential for delivering early revenue via diagnostics ◎ High value therapeutic product development programs
Mostly share based acquisition	◎ 20 million shares ◎ $1.5M cash
PLUS	◎ Outstanding scientists, including discoverer of midkine ◎ Strong IP position with clear FTO in key areas of interest ◎ Diagnostic platform with early revenue potential ◎ Therapeutic collaboration potential in a number of indications

Midkine



- Discovered in 1988 by professors Muramatsu and Kadomatsu at Nagoya University
- Low molecular weight growth factor like protein (13kD) with two domains
- Highly expressed in oncogenesis, autoimmune and inflammatory diseases
- Midkine has a role in **anti-apoptosis**, **cell migration, angiogenesis** and **cell growth**

MIDKINE MEDIATES:

Cancer progression
Onset of inflammatory diseases
Preservation and repair of injured tissue

Midkine is strong therapeutic and diagnostic target

Intellectual Property Agreement

MTY will acquire from Cell Signals (CS)

- Therapeutic applications for midkine the protein
- 120+ anti-midkine antibodies with their therapeutic applications and anti-midkine nucleotides (cancer and autoimmune diseases such as MS)
- Diagnostic applications of midkine and anti-midkine antibodies owned by CS

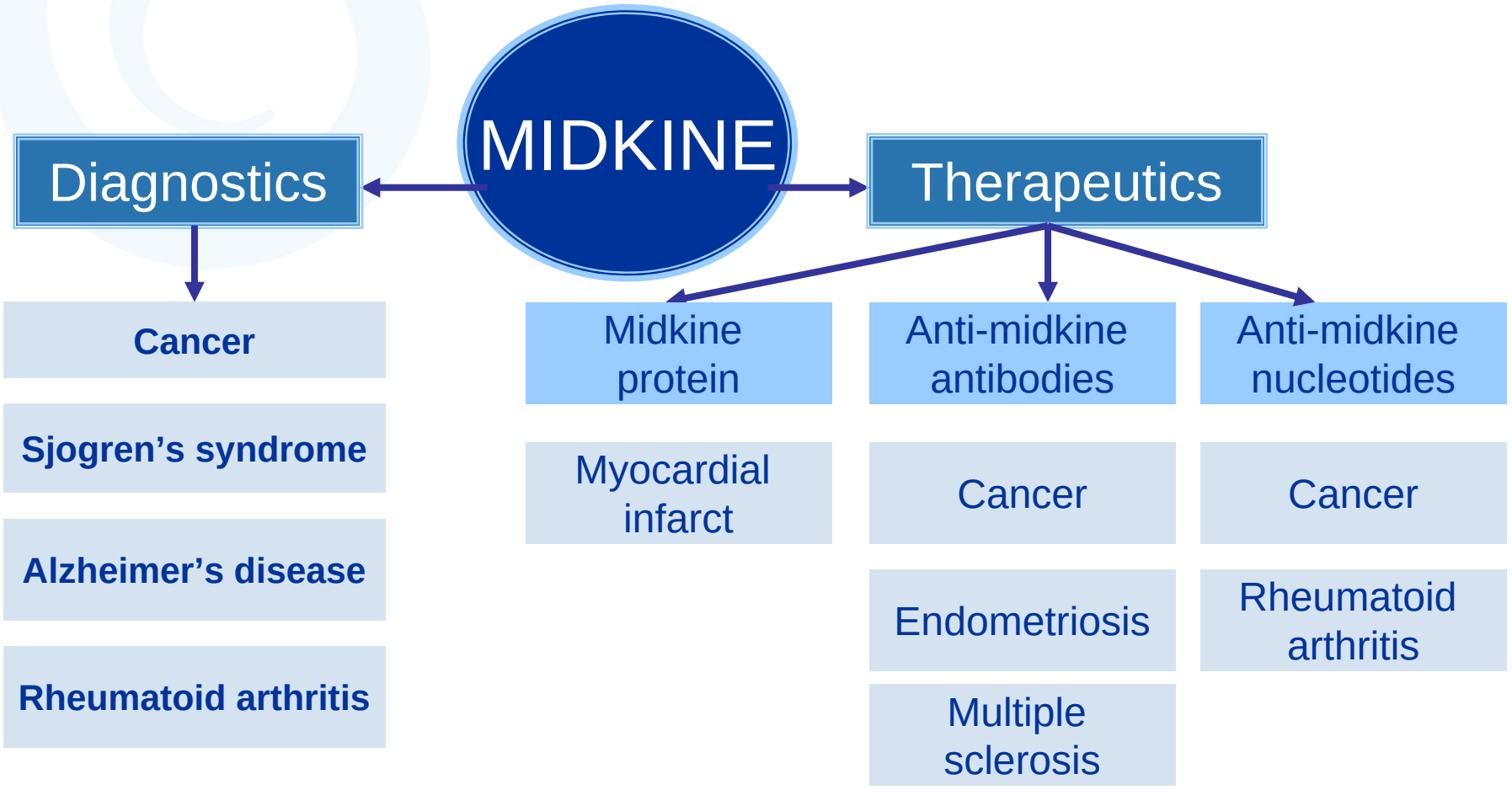
Consideration

- $1.5M cash
- 20 million MTY shares

Conditions

- Due diligence on the midkine intellectual property portfolio
- Approval of the transaction by a general meeting of MTY shareholders
- Private placement of shares to the value of $2M

Midkine portfolio

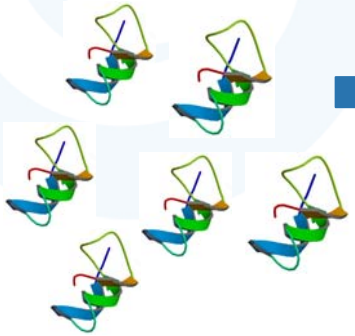


Intellectual Property Portfolio

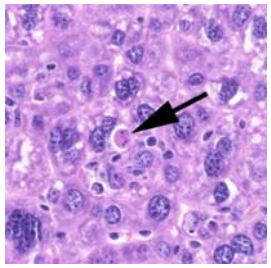
- 28 patents covering use and manufacture of midkine, anti-midkine antibodies and anti-midkine nucleotides for diagnostic and therapeutic applications:
  - 120+ anti-midkine antibodies and all reagents
  - ELISA tests for
    - Early detection of cancer
    - Diagnosis of rheumatoid arthritis
    - Diagnosis of Alzheimer's disease
    - Diagnosis of Sjogren's Syndrome
  - Therapeutics
    - Preclinical data supporting use of midkine for the prevention and treatment of heart damage during myocardial infarct
    - Anti-midkine antibodies for the treatment of inflammatory conditions and autoimmune diseases
    - Anti-midkine antibodies and nucleotides for the treatment of cancer

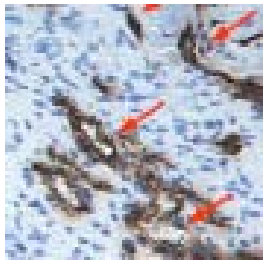
Therapeutics Portfolio: Midkine

Using midkine and its protective function

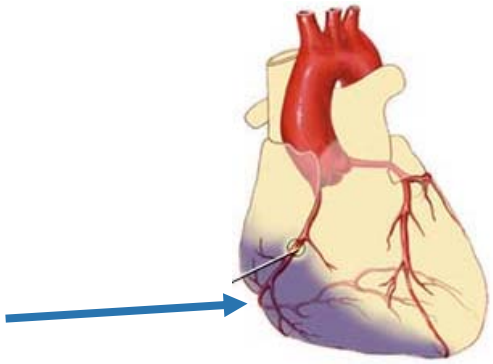


Midkine

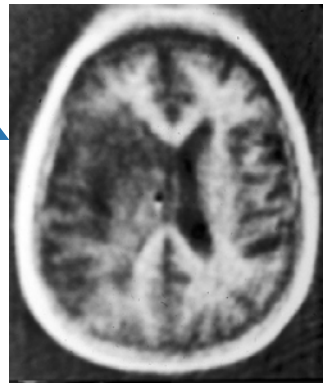




Midkine prevents apoptosis and increases blood vessel formation



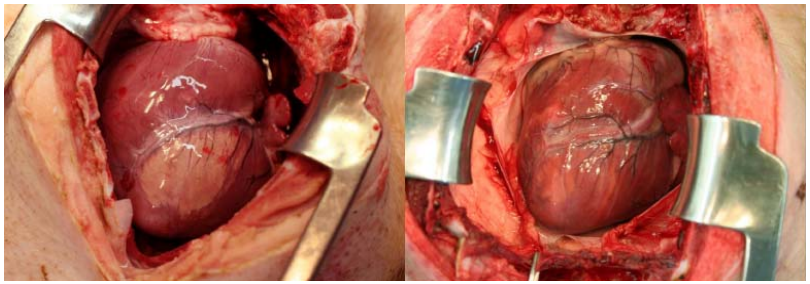
Midkine reduces damage from myocardial and cerebral infarct



Treatment for heart tissue damage

- **Addition of midkine reduces heart tissue injury in animal models by reducing apoptosis and increasing angiogenesis**

Pig model

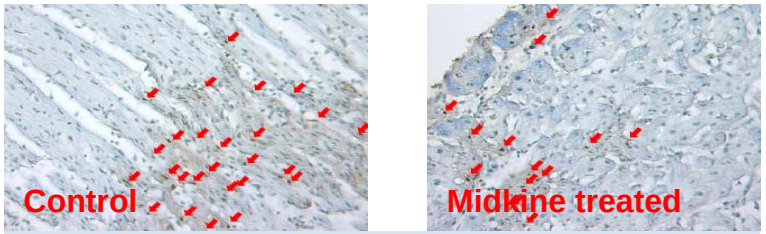


Control Midkine treated

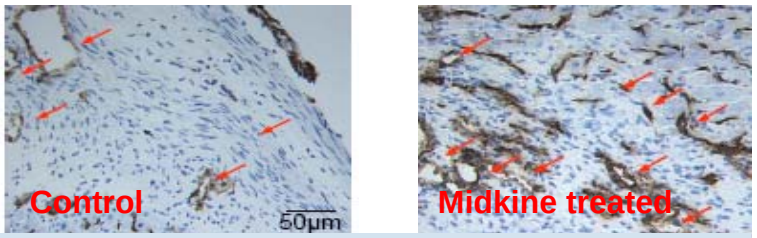
Mortality rate after 24h:

- Control: 4/12 (33.3%)
- MK-treated: 1/9 (11.1%)

Mouse model



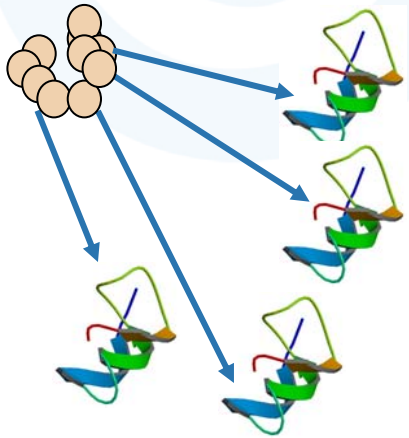
Apoptosis



Angiogenesis

Therapeutics portfolio: Midkine inhibitors

Inhibition of midkine using anti-midkine antibodies and nucleotides



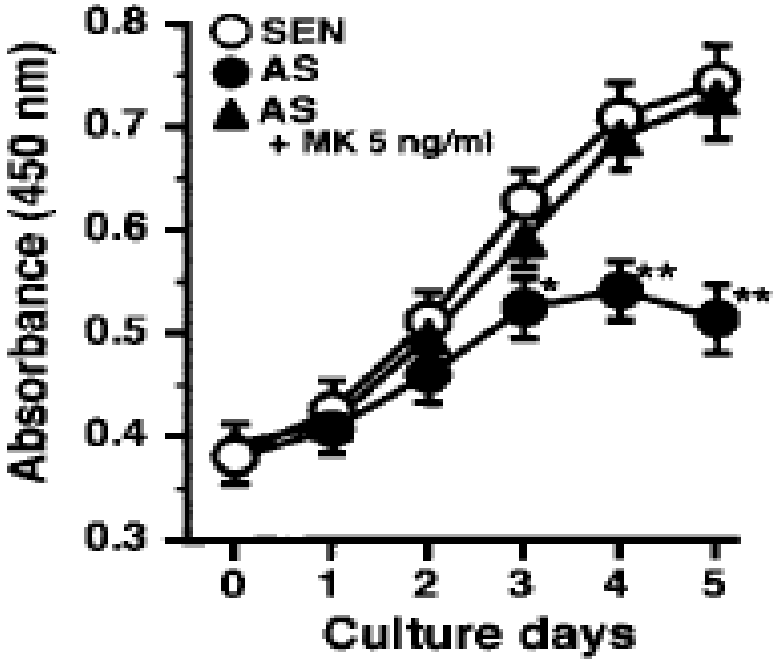
Midkine is expressed during oncogenesis, inflammation and tissue repair

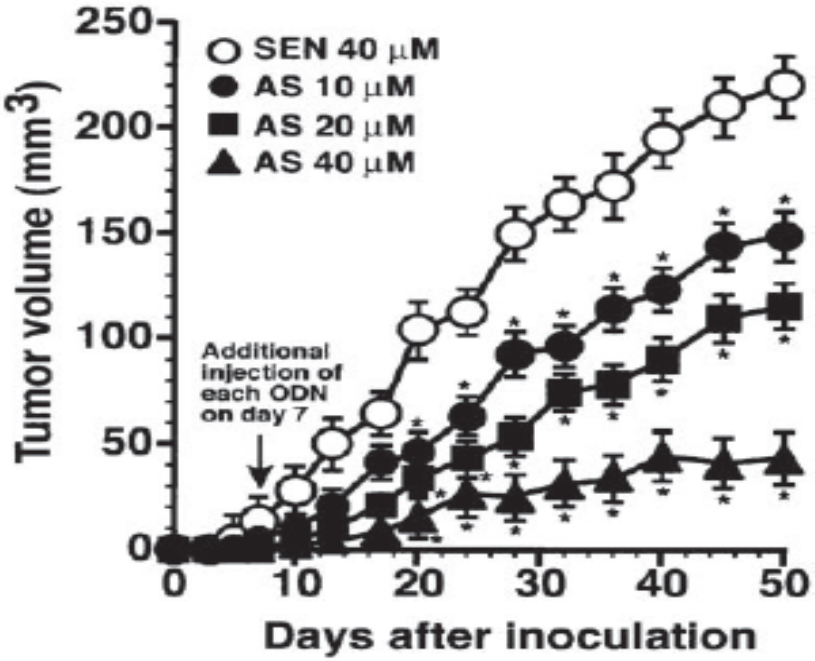
Inhibition of midkine is potential treatment

Solid Tumours
Rheumatoid arthritis
Multiple sclerosis
Endometriosis

Treatment for rectal carcinoma

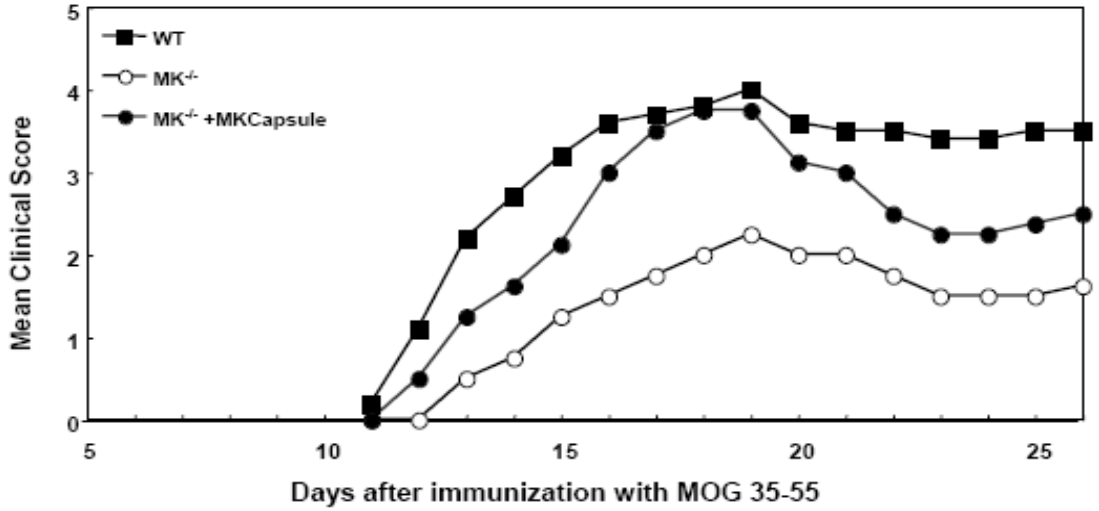
- Anti-midkine antisense DNA directed to suppress growth of mouse rectal carcinoma cells (CMT-93) (Takei et al, 2001)





Treatment for multiple sclerosis

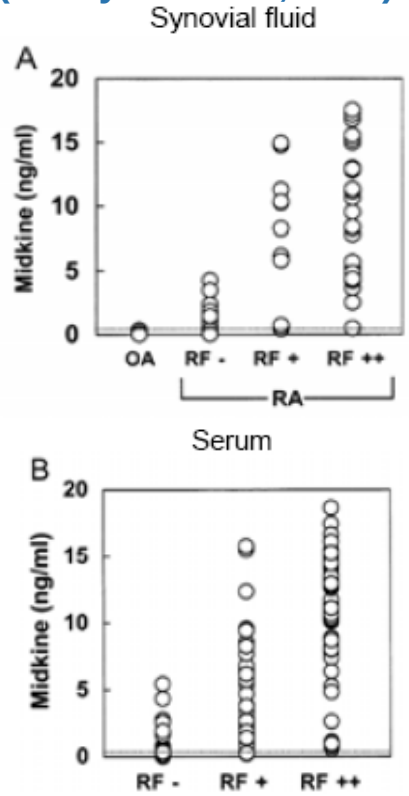
- MS symptoms are reduced when MOG35-55 is administered to mice with no midkine genes (Wang et al, 2008)



MK-KO mice show delay in disease onset and reduction in disease severity after immunisation with MOG35-55

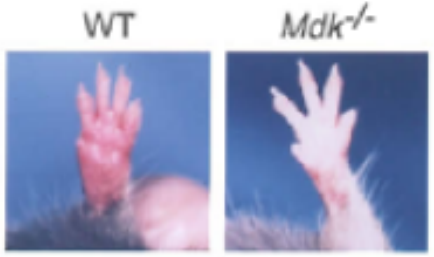
Treatment for rheumatoid arthritis

- **MK as a new target for treating RA (Maruyama et al, 2004)**



Increased levels of MK in patients with RA

	No. of mice arthritis +	-	Incidence (%)
WT	6	1	86
KO-MK	1	9	10
MK pump	9	3	75

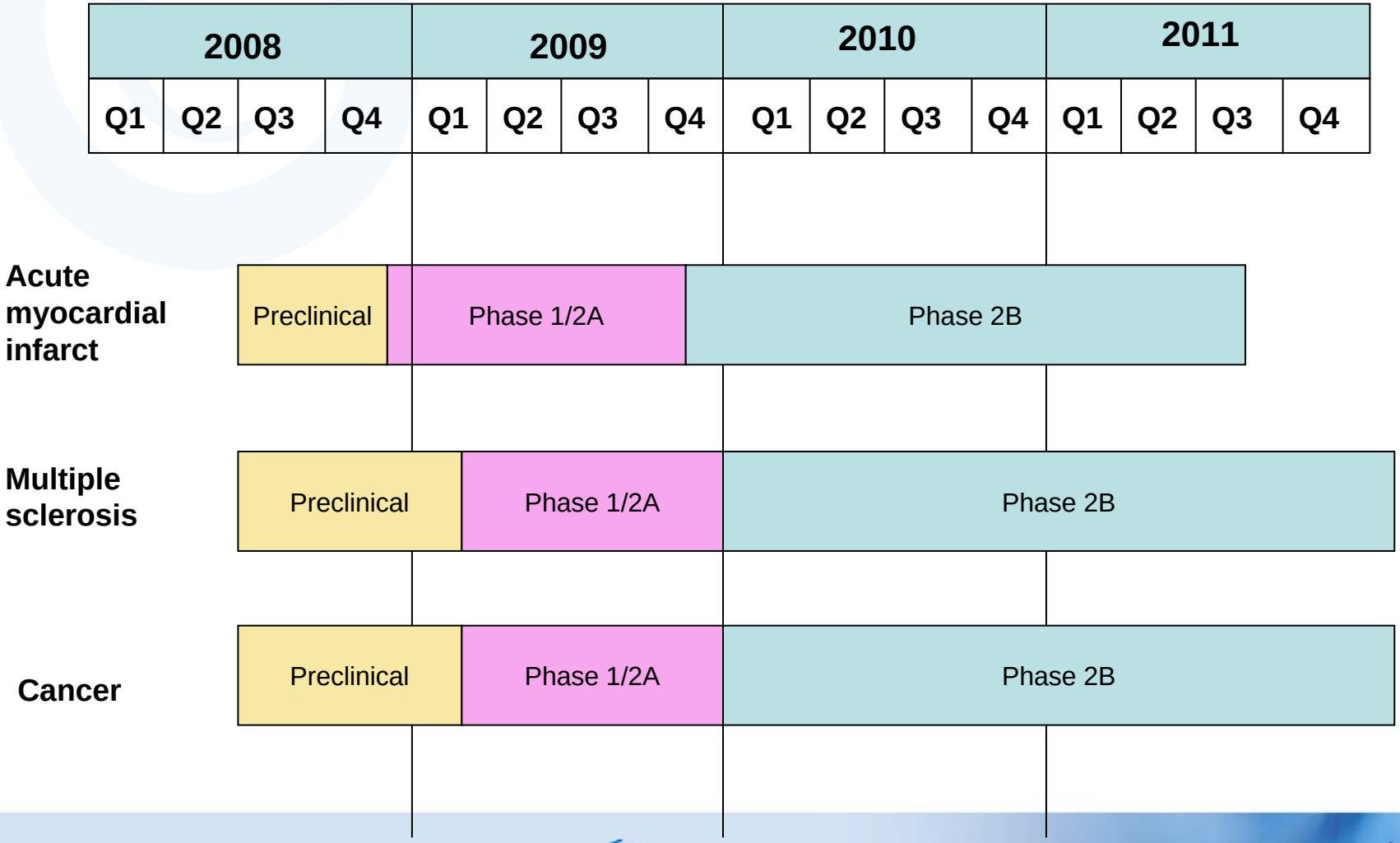


- **6/7 (86%) WT mice show symptoms from antibody-induced arthritis**
- **1/10 of MK-KO (10%) mice show symptoms**

Global markets for key indications

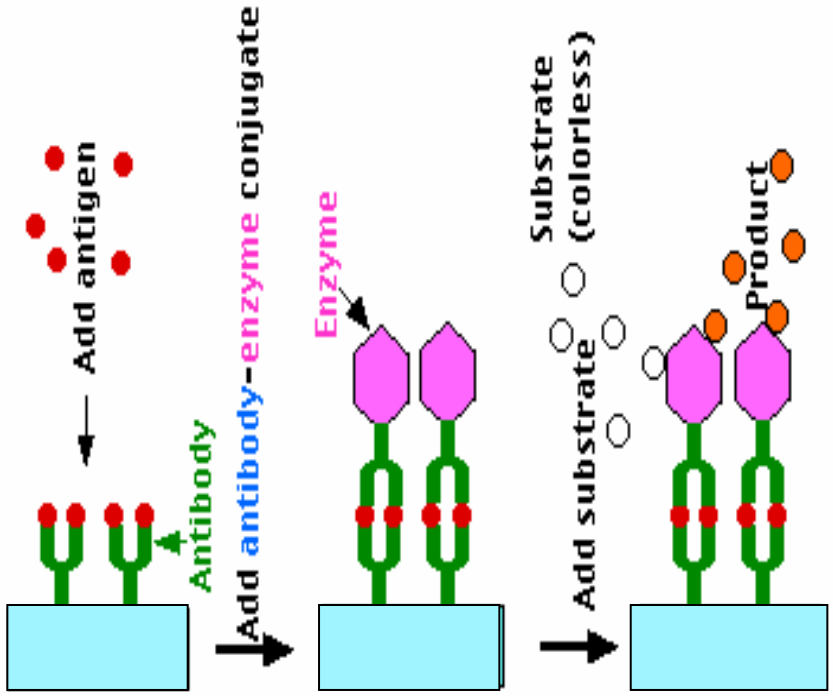
INDICATION	GLOBAL PREVALENCE	TREATMENT	GLOBAL MARKET (US$)
Acute myocardial infarct	~ 32 million heart attacks / year	• Surgery • ACE inhibitors • Beta blockers • Fibrinolysis	• Cardiovascular drugs worth ~ $82.4 billion in 2007
Cancer	~ 25 million	Chemotherapy Radiotherapy Targeted therapies	• $4 billion in 2007 for Herceptin alone • Estimated $45 billion in 2012 for global cancer drug market
Multiple sclerosis	~ 3 million	Disease-modifying agents	$4.9 billion in 2006
Rheumatoid arthritis	~ 5 million	NSAIDs Corticosteroids Biologicals	$16 billion in 2006
Endometriosis	~ 89 million	NSAIDs Surgery Hormonal therapy	$2.2 billion by 2014 for pharmaceutical treatments alone

Therapeutic portfolio



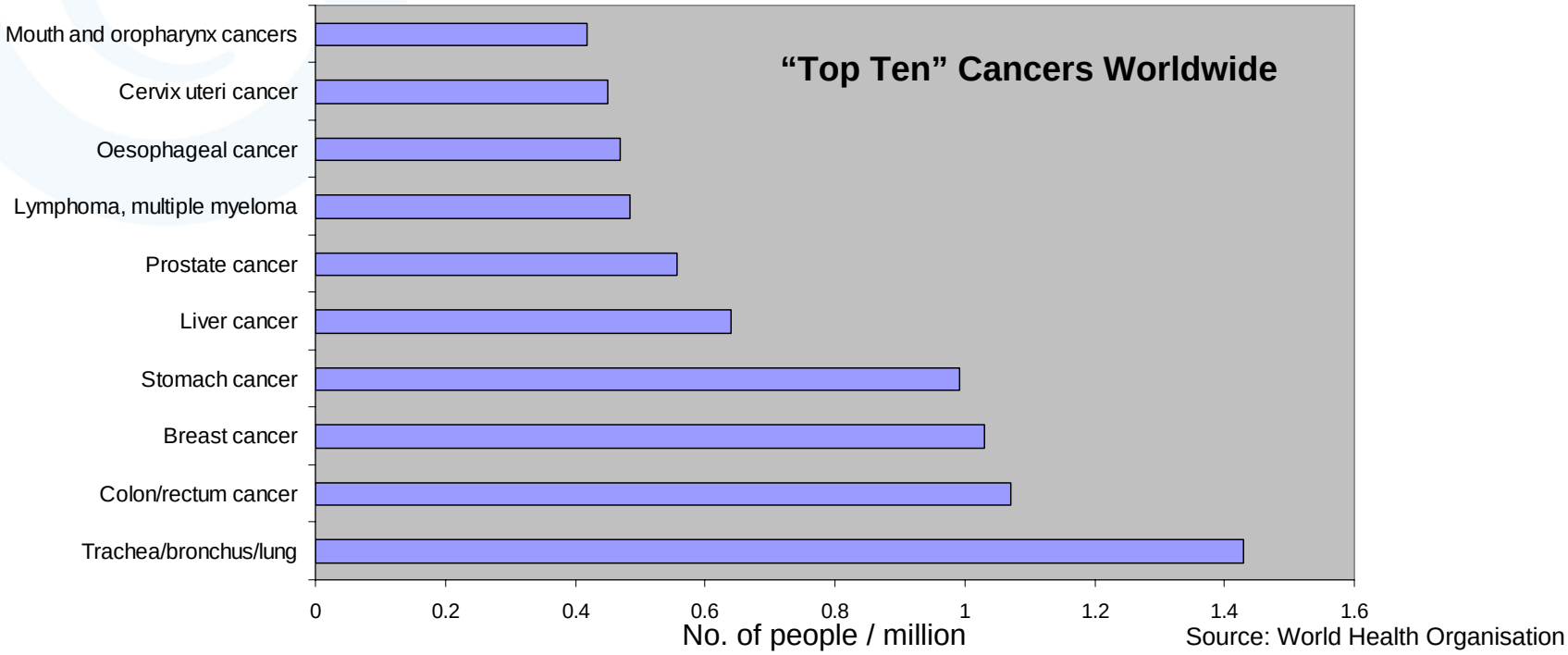
Diagnostic Products

- Detection of midkine using Enzyme-linked Immunoassay (ELISA)



Incidence and cost of cancer

- Almost 11 million new cases of cancer diagnosed each year globally



Source: World Health Organisation

Breast cancer diagnostic

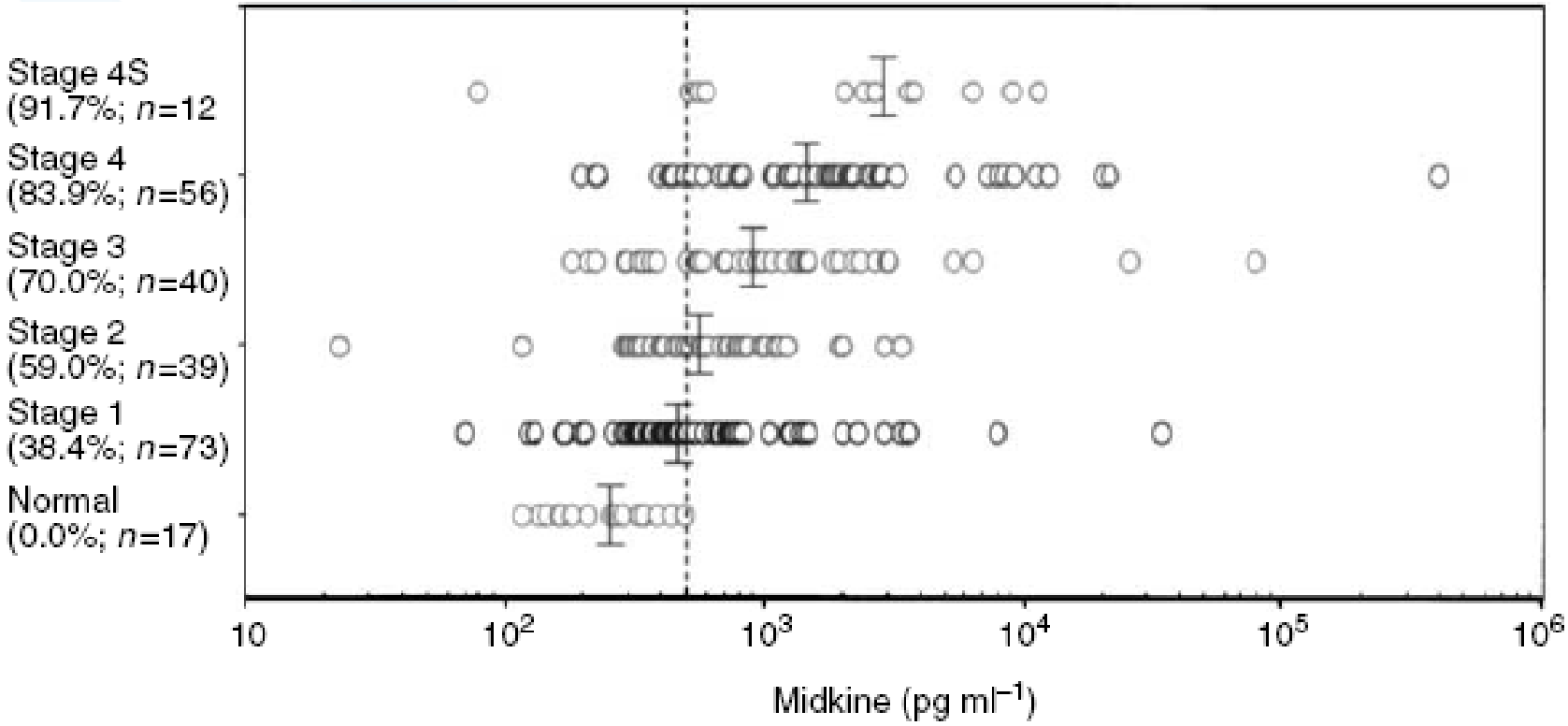
Breast cancer Stage	Other Biomarkers**			Midkine*
	CA15-3	BCA225	CEA	
0	0%	0%	0%	45.5%
I	4%	8%	6%	27.9%
IIA	8%	22%	11%	50.0%
IIB				
IIIA	19%	39%	18%	33.3%
IIIB				
IV	38%	100%	56%	100%

Source:*Cell Signals, **The Journal of The Japan Medical Association 2004

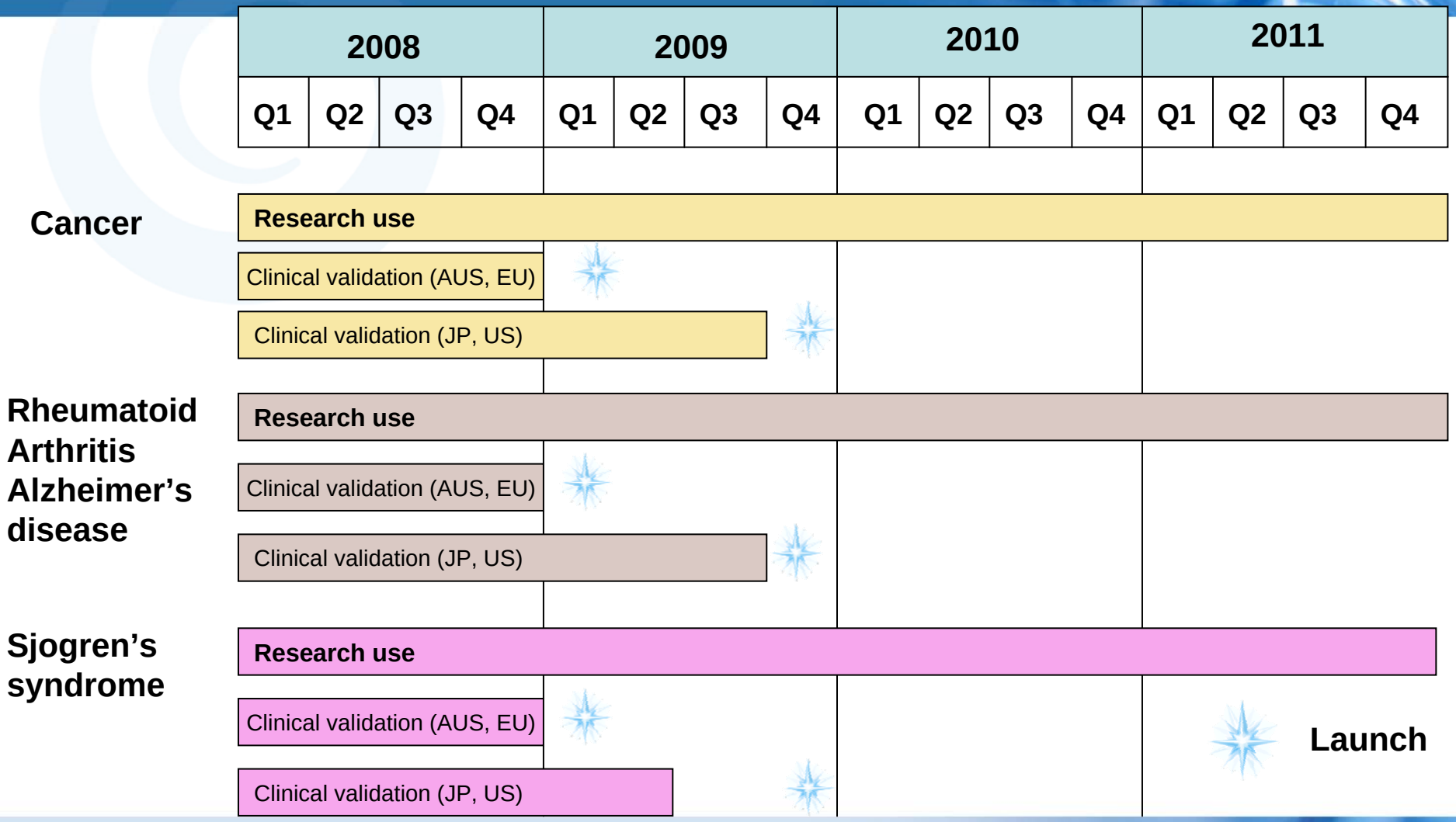
- Midkine detected in 45.5% of stage 0 breast cancers

Neuroblastoma Diagnostic

Correlation of elevated level of blood midkine with poor prognostic factor of human neuroblastomas (Ikematsu et al, 2003)



Diagnostic Portfolio



MTY – Post Acquisition

Capital structure

Shares	74,085,624
New Shares (NS Capital Co)	23,500,000
New Shares (Cell Signals)	20,000,000
Total shares on issue	**117,585,624**
Options (Employee)	7,505,000
Convertible notes	9,381,096

Operations

- Sydney will remain the pre-clinical/clinical and administrative centre
- Therapeutic R&D will be conducted in Tokyo and in Australia under collaborative arrangements
- Diagnostic portfolio will be clinically validated via collaborations

Proposed timetable of key events*

EGM Notice	15 May 2008
Shareholder briefings	16 May – 10 June 2008
EGM	16 June 2008
Issuing of shares under the IP Agreement	18 June 2008
Settlement of IP Agreement	19 June 2008

***This timetable is subject to change**

CONTACT

Maria Halasz

CEO and Managing Director

Level 6,
40 King Street
Sydney NSW 2000
M +61416 008 413
E halasz@medicaltherapies.com.au

T +61 2 9299 0311
www.medicaltherapies.com.au