

## CELLMID LIMITED

**IMMUNO-ONCOLOGY COMPANY WITH REVENUES** 

March 2014

Maria Halasz CEO



This presentation contains forward-looking statements that are subject to risks and uncertainties. Such statements involve known and unknown risks that may cause the actual results, performance or achievements of Cellmid to be materially different from the statements in this presentation.

Actual results could differ materially depending on factors such as the availability of resources, the results of clinical studies, the timing and effects of regulatory actions, the strength of competition and the effectiveness of the Company's patent protection.



## Cellmid Limited (CDY:ASX)

#### 12 MONTH SHARE PRICE PERFORMANCE



#### **KEY STATISTICS**

Share price \$0.03
 Market cap \$23
 Shares on issue 735M
 Options 300M
 Cash (31 Dec 2013) \$4.2M
 Top 20: 35%

6 month turnover 675M shares (\$23.6M)
Base cash burn \$250K/m. (before revenue)

#### **BOARD**

- Dr David King (Chairman)
- Maria Halasz (CEO and MD)
- Graeme Kaufman (NED)
- Martin Rogers (NED)

#### **MANAGEMENT**

- Maria Halasz (CEO and MD)
- Darren Jones (Head of Product Development)
- Koichiro Koike (General Manager, Japan)
- Emma Chen (General Manager, Australia)



## Agenda

- 1. Cellmid's business and assets
- 2. Immuno-oncology platform, clinic-ready program in 2014
- 3. Revenue generating assets: Cancer diagnostics
- 4. Revenue generating assets: Consumer health
- 5. Upcoming milestones



## 1. CELLMID'S BUSINESS AND ASSETS



### **Business structure**

### Cellmid

Immuno-oncology platform with anti-midkine antibodies

Clinic ready antibody drug in multiple cancers in late 2014

Strong scientific validation with 650+ publications

Broad intellectual property with 50 patents in cancer

Companion biomarker patented, validated with assay

Revenue producing assets

Cancer diagnostic: Cxbladder

Cancer diagnostic: Quest LungDx

Cancer diagnostic: Fujikura Kasei

Cancer diagnostic: Collaborations

Consumer health (FGF-5 inhibitors)

Revenue in 2014



## Midkine (MK) assets – broad portfolio

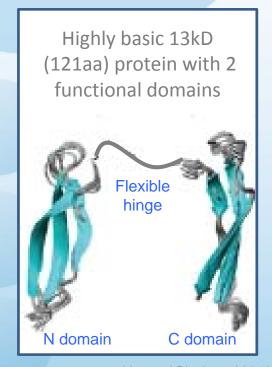
- Cellmid owns 83 patents (19 patent families)
  - Antibodies to treat cancer
  - Composition of matter/method of treatment (MK antibodies)
  - Production of anti-MK mAbs using Mdk-/- mice
  - Early diagnosis of cancer
- Over 250 peer reviewed publications on MK by Cellmid inventors
- Large inventory
  - 130 highly characterised monoclonal antibodies
  - >4g of purified rhMK protein (\$5M market value)
  - MK knockout mouse (Mdk<sup>-/-</sup>) model



# 2.IMMUNO-ONCOLOGY: MIDKINE ANTIBODY THERAPEUTICS



## Midkine is an important cancer target

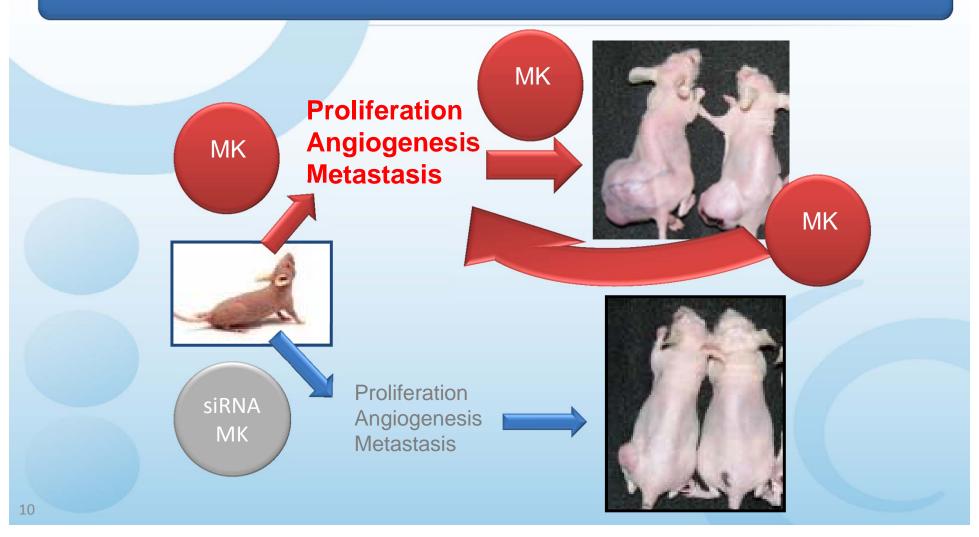


Lim et al Biochem J 2013

- Growth factor prominent in embryogenesis, but barely detectable in healthy adults
- In adults, midkine expression occurs in two settings:
  - 1. Malignancy
  - 2. Inflammation
- >90% amino acid identity between mammalian species

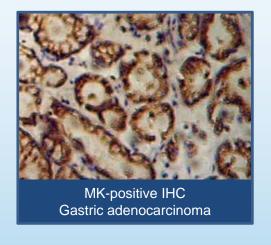
Allows strong validation in animal models

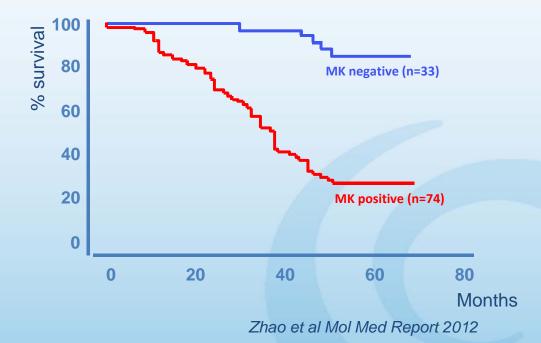
### Midkine is a dominant driver of solid tumours





# Strong clinical relevance shown in human prognostic studies

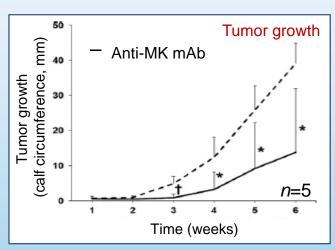


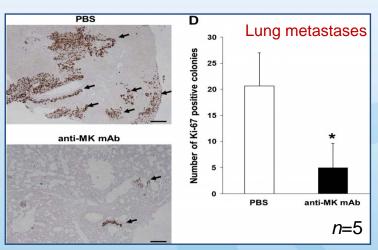




## Midkine antibody slows tumor growth

- Midkine antibody inhibits primary tumour growth and slows metastasis in osteosarcoma
- Intra-muscular xenograft (143B cell line)
- IP injection 24h post xenograft, then every 5 days to 42 days (dose 4mg/kg)



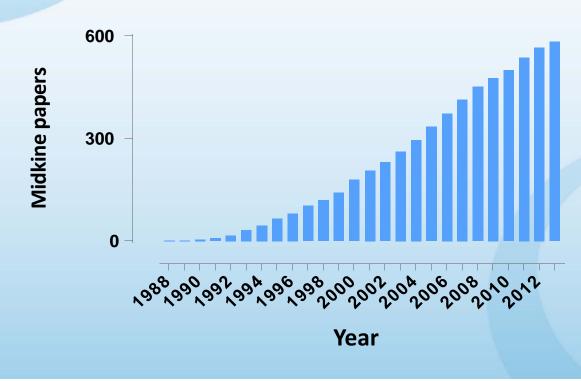


Sueyoshi et al Can Lett 2011



### The number of publications on midkine continue to grow

#### **Subject of >650 scientific papers**





## Planned Phase 1/2a clinical study

- 1Q2014: Commence IND enabling studies
- 3Q 2014: Pre-IND meeting
- 1Q2015: Commence open label study in multiple solid tumours (colorectal, lung, gastric)
- 4Q2015: Expected completion of phase 1/2a
  - Late or end stage patients with prior chemotherapy
  - 12 patients in 4 groups of 3 each
  - Log 3 dose escalating (4 doses, 1 per week)



# 3. REVENUE GENERATING ASSETS: CANCER DIAGNOSTICS



- MK is overexpressed in at least 26 different tumour types
- License opportunities: Cellmid has patens for the early diagnosis, prognosis or management of any cancer using MK

Blank space: not test Red: Lincesed Blue: Not licensed y		Prostate	Ovarian	Cervical	Uterine	Lung (NSC)	Lung (SC)	Lung (brain mets)	Neuroblastoma	Glioblastoma	Medulloblastoma	Primative neurectodermal	Meninginoma	Neurofribromatosis type I	Gastric	GI stromal	Bladder	Colorectal	Duodenal	Oral SCC	Osophageal SCC	Hepatocellular	Bile Duct	Pancreatic	Thyroid	Osteosarcoma	Renal	CLL	
Blood	V	V	V		V	V	V	V	V					V	V	V		V	V	V	V	V	V	V	V			~	
Tissue	V	V	V	V	V	V	V	V	v	V	V	V	v		v	V	v	V		V	v	V		V	V	~			
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## Revenue producing: Cxbladder license

- Developed by licensee Pacific Edge Biotechnology
- Monitoring bladder cancer patients for re-occurrence
- Launched in USA in March 2013
- Reimbursement secured for more than 50 million Americans so far
- \$900K revenue received by Cellmid from license to date
- Cellmid will receive single digit royalty from sales
- First royalty is expected in late 2014



## Revenue producing: LungDx license

- Currently being developed by Quest Diagnostics
- Diagnosing lung cancer in indeterminate pulmonary nodules identified by CT-scans
- Clinical validation in progress including PLCO study
- \$250K revenue received by Cellmid from license to date
- Cellmid will receive single digit royalty from sales



## Revenue producing: Fujikura Kasei

- Latex assay platform using Cellmid antibodies
- Material supply and license agreement
- Multiple cancer indications, Japan only
- Clinical validation in progress in ESCC
- \$600K revenue received by Cellmid to date
- Cellmid will sell antibodies and receive double digit royalties from product sales



# 4. REVENUE PRODUCING ASSET: CONSUMER HEALTH



# The only clinically validated topical anti-aging hair product addressing hair biology





### Market for anti-aging hair products

- Addressing hair thinning, volume loss, hair quality concerns
- 38% of women over 35 have excessive hair thinning\*
- Over 50% of those with the problem don't know there is a solution\*
- Hair care market topped \$75 billion in 2012\*\*
- Anti-aging hair care is the fastest growing segment in the cosmetics and shampoos and hair lotions segments\*\*
- 92% of growth from emerging markets Brazil, China and India\*\*
- 49% of total hair care market is in emerging markets\*\*

<sup>\*</sup>Independent market research

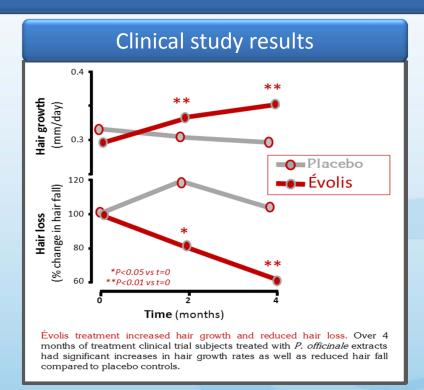
<sup>\*\*</sup>Euromonitor international



# Novel mechanism to prevent hair thinning: inhibiting hair cycle regulator FGF-5

- 21% increase in hair growth rate\*
- 35% reduction in hair loss\*
- Significant increase in growing follicles\*
- 74% found the treatment beneficial for hair growth\*

\*Double blinded placebo controlled clinical study



## Australian launch confirmed market potential



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June 2012	<ul> <li>Launched commercial proof of concept in Australia (website, media, trade)</li> </ul>								
Dec 2012	<ul> <li>More than 700 pharmacies signed up</li> <li>Positive market response and solid early revenues</li> </ul>								
May 2013	<ul> <li>Acquired company with global rights</li> <li>Established Japanese distribution</li> <li>Import permits in place to China</li> </ul>								



## 5. UPCOMING MILESTONES



### Milestone timetable

		1Q 2014	2Q 2014	3Q 2014	4Q 2014	1Q 2015	2Q 2015	3Q 2015	4Q 2015
Cancer Therapeutic	IND enabling studies (start and finish)	*			*				
	Pre-IND meeting			*					
	Phase 1/2a					*			
Cancer Diagnostics	Fujikura license		*						
	CxBladder royalty				*				
	LungDx (Quest)								
Consumer health	Chinese, EU and Indian distributor	*		*		*			
	US distributor							*	
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The above is subject to a number of internal and external factors including the availability of resources, the results of studies, the timing and effects of regulatory actions, the strength of competition and the effectiveness of the Company's patent protection.



## Summary

Immuno-oncology program ready for phase 1/2a clinical studies in 2014

Revenue generating diagnostics assets with multiple licenses and royalty from late 2014

Revenue generating consumer health division with growth potential in emerging markets



High value immuno-oncology platform underpinned by revenue producing assets



## Thank you

www.cellmid.com.au



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