

The Pharmaxis logo, featuring the word "pharmaxis" in a white, lowercase, sans-serif font. The background of the slide is a dark blue gradient with a large, curved, light blue shape on the right side.

pharmaxis

# **Therapeutic products for respiratory and autoimmune diseases**

July 2006

# Forward Looking Statements

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This presentation may contain forward-looking statements that are based on management's current expectations and beliefs and are subject to a number of factors and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. The forward-looking statements contained in this presentation include statements about future financial and operating results, results of our clinical trials, status of our regulatory submissions, possible or assumed future growth opportunities and risks and uncertainties that could affect Pharmaxis' product and products under development. These statements are not guarantees of future performance, involve certain risks, uncertainties and assumptions that are difficult to predict, and are based upon assumptions as to future events that may not prove accurate. Therefore, actual outcomes and results may differ materially from what is expressed herein. In any forward-looking statement in which Pharmaxis expresses an expectation or belief as to future results, such expectation or belief is expressed in good faith and believed to have a reasonable basis, but there can be no assurance that the statement or expectation or belief will result or be achieved or accomplished.

Factors that could cause or contribute to such differences include, but are not limited to, factors discussed in the "Risk Factors and Other Uncertainties" section of our Form 20-F filed with the US Securities and Exchange Commission

We are not under any duty to update forward-looking statements unless required by law.

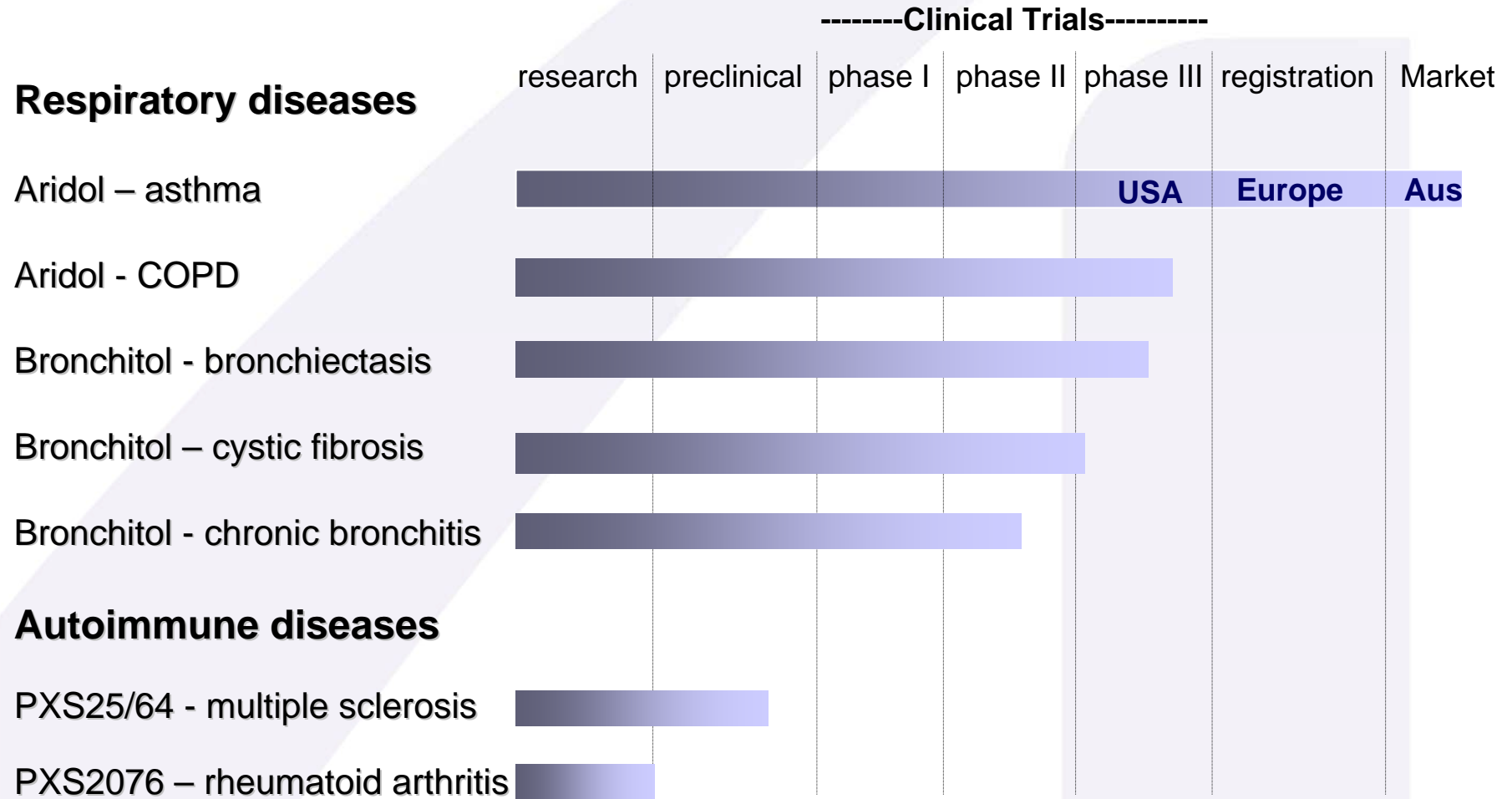
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# Summary

|                     |  |
|---------------------|--|
| Objective           | To research, develop and bring to market innovative therapeutic products for the treatment and management of respiratory and autoimmune diseases   |
| Lead products       | Aridol: management of asthma and COPD<br>Bronchitol: therapeutic for cystic fibrosis and COPD  |
| Discovery           | PXS64 - multiple sclerosis   |
| Listings            | ASX (Nov 2003): PXS; NASDAQ (Aug 2005): PXSL   |
| Location            | Sydney, NSW, Australia   |
| Facility            | GMP Manufacture of lead products   |
| Employees (28/2/06) | 50   |
| Cash (31/3/06)      | A\$103 m   |
| Shares outstanding  | 176.9m (11.8m ADS)   |
| Options outstanding | 9.7m   |
| Key patents         | Aridol & Bronchitol granted in USA, Australia, Asia; pending in EU and Canada  |
| Analyst coverage    |    |

# Pipeline

## Pulmonary and Autoimmune Focus



# Recent Highlights....

## •Aridol



- Completed Phase III - asthma (Aus and EU)
- Approved for marketing in Australia (March 2006)
- Market application lodged in EU (April 2005)
- US Phase III study in progress - completion July 2006
- Two marketing/distribution partners appointed in Europe

## •Bronchitol

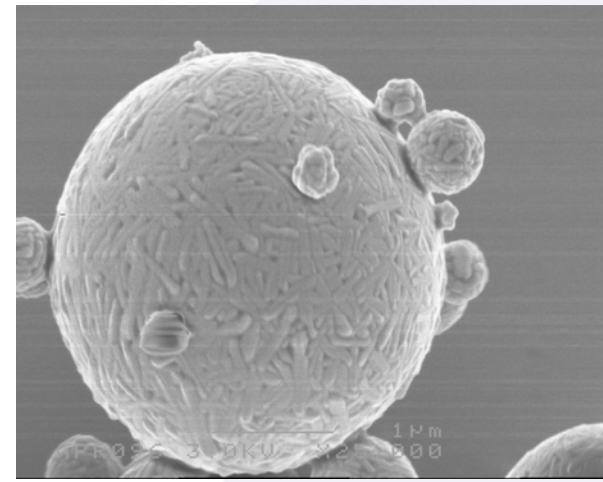


- Commenced Phase III study in Europe
  - bronchiectasis
- Completed Phase II trials
  - cystic fibrosis
- Orphan Drug designation for CF, bronchiectasis (U.S.)
- Orphan Drug designation for CF (Europe)

# Bronchitol



***Mucus clearance:***



***Cystic fibrosis  
Chronic Obstructive Pulmonary Disease  
Bronchiectasis***

# Bronchitol

## cystic fibrosis

### •Background

- Genetic disorder affecting 75,000 worldwide (30,000 in U.S.)
- Poorly hydrated, tenacious, thick mucus
- Current life expectancy is 31 years

### •Current treatments: rhDNase and tobramycin

- Delivered by nebulizer (preparation, sterilization)
- rhDNase (pulmozyme): US\$265mm @ ~30% penetration
- Tobramycin: US\$233mm

Postural drainage is a technique for loosening mucus in the airway so that it may be coughed out

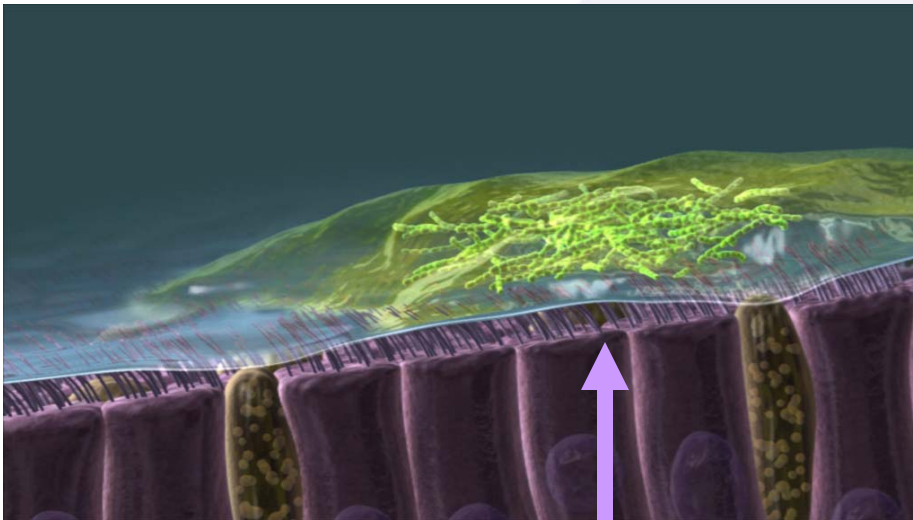




# How Bronchitol works.....

## Osmotic clearance of abnormal mucus

Before treatment

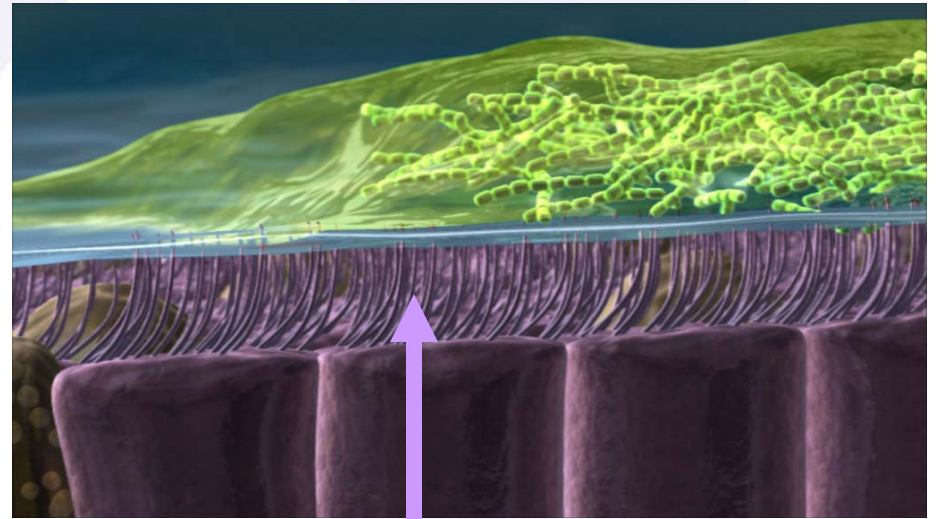


Lung surface dehydrated

Airway surface fluid layer impaired

Lung defense and hygiene compromised

After Bronchitol administration



Lung rehydrated

Airway surface liquid restored

Normal lung clearance



# Bronchitol

## Phase II cystic fibrosis trial



- Crossover, 8 site study in 39 CF patients
- Randomised two week treatment periods
- Double-blind, placebo controlled
- Primary Endpoint:
  - Change in  $FEV_1$
- Secondary Endpoints:
  - Effect on other lung function measures
  - Effect on symptoms/signs
  - Effect on QoL
  - Safety (including microbiology)

# Bronchitol

## CF Phase II Results: Change in Lung Function

|                                | Bronchitol* | Control* | p value |
|--------------------------------|-------------|----------|---------|
| Change in FEV <sub>1</sub>     | 7 ± 2%      | 0 ± 2%   | 0.008   |
| Change in FEF <sub>25-75</sub> | 15.5 ± 5%   | 0.6 ± 5% | < 0.01  |

Includes patients being treated with pulmozyme

FEF<sub>25-75</sub> is a measure of small airway function

# Bronchitol

## cystic fibrosis registration strategy

- Phase III trial (EU & Aus):



- Commence Q3 2006
- Primary endpoint: same as Phase II ( $FEV_1$ )
- Placebo-controlled, 6 month dosing
- Scheduled completion end 2007



- Phase III trial (US) to commence early 2007

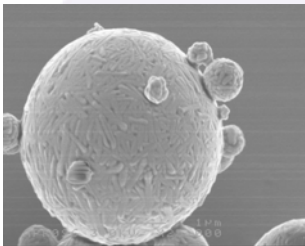


- Similar size, design to EU/Aus trial
- Scheduled completion beginning 2008

- Orphan drug designation – EU and USA

# Bronchitol

## bronchiectasis



### •Background

- Abnormal, irreversible dilation of the lower airways
- Daily mucus production, constant coughing, breathlessness: major quality of life impact
- Normal lung clearance impaired
- 500,000 affected worldwide (110,000 in the U.S.)<sup>1</sup>

### •Current treatments: bronchodilators, antibiotics

- No drugs effective to clear mucus

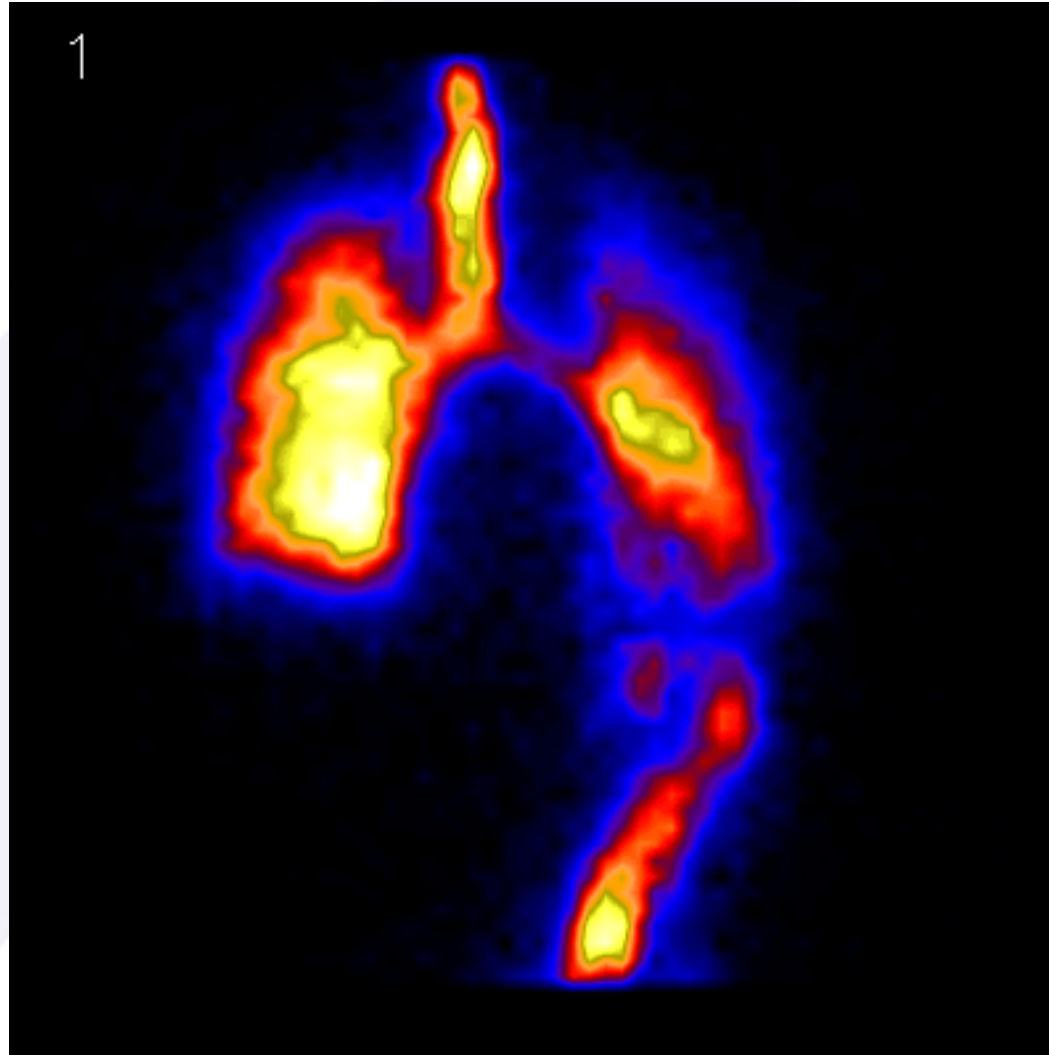
# Bronchitol

## bronchiectasis

- Phase II Trial results
  - Safe, effective, clinically significant improvements in health
- Phase III Trials
  - Commenced enrolment in Australia and the UK
    - Target patient recruitment of 350
    - Scheduled close of recruitment - end 2006
    - Data - mid 2007
  - US trial to commence early 2007
- Supplied on individual compassionate-use basis

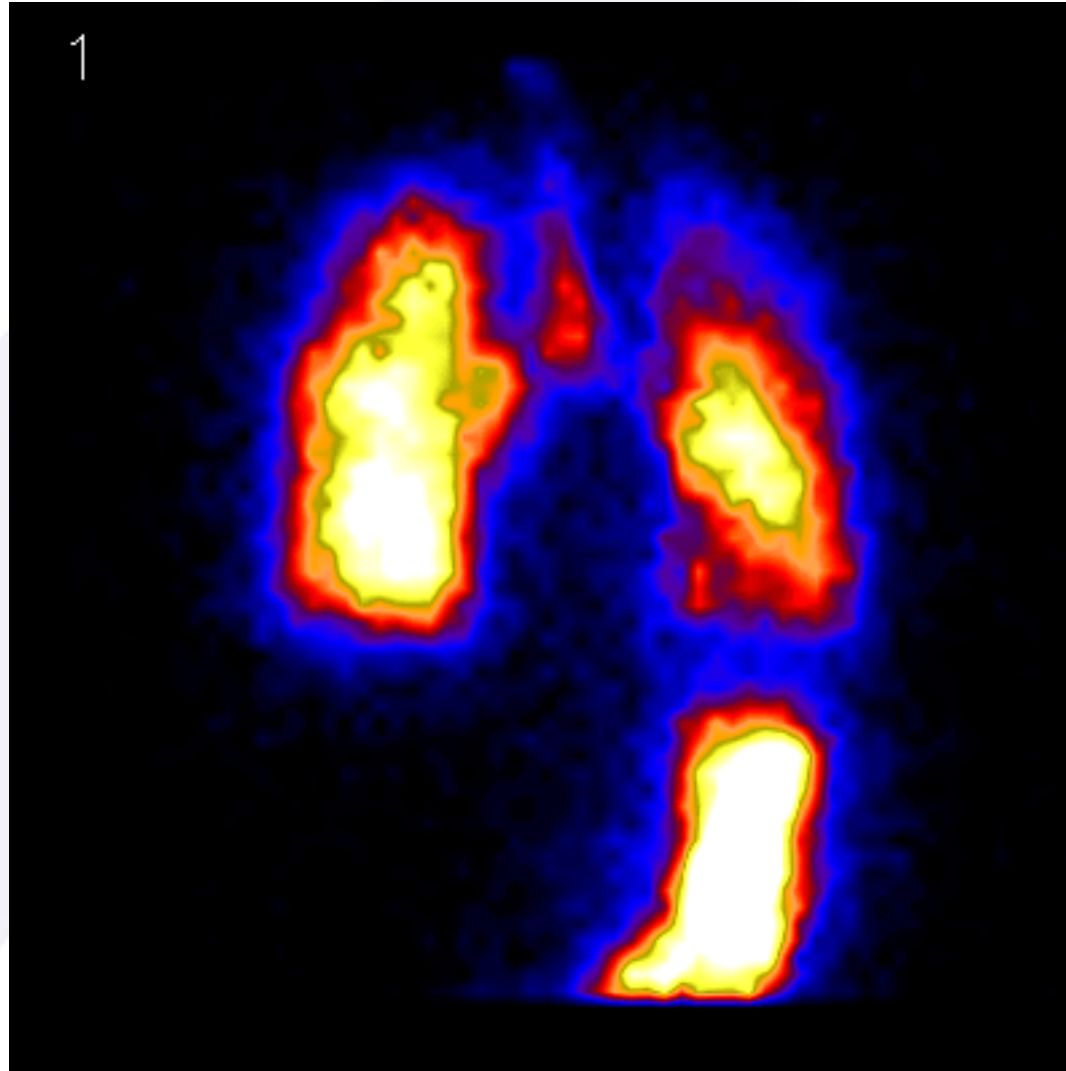
# Bronchitol in the clinic.....

Chronic bronchitis – without Bronchitol



# Bronchitol in the clinic.....

Chronic bronchitis – with 400 mg Bronchitol





# Bronchitol

## Chronic Obstructive Pulmonary Disease

- Clearance of retained lung secretions
- Proof of concept demonstrated with ICU patients
  - Currently supplied on request to patients with life threatening condition
- Clinical conditions include:
  - asthma, COPD, cystic fibrosis, secondary respiratory disease, neurogenic disorder
- Complete acute care pilot study (safety) Q4 2006
- Complete pivotal Phase III study Q4 2007
- 30 million COPD exacerbations per year in the U.S.<sup>1</sup>
- 1 million U.S. emergency room visits per year

# Aridol™



***A rapid and simple test for airways inflammation that facilitates diagnosis and management of asthma and COPD patients.***

# Aridol

## Asthma and COPD Opportunity

### •Asthma



- 51mm patients in 7 major markets
- No ***simple*** test
- ~34% of people diagnosed with asthma do not have the disease
- Ongoing patient management difficult

### •Chronic Obstructive Pulmonary Disease



- 30 million people affected in 7 major pharmaceutical markets
- Cost to US healthcare - US\$30 billion pa
- 20-25% respond to inhaled steroids but no test to identify them

# Current best practice



## Current guidelines for diagnosis:

- symptoms: wheeze, breathlessness, chest tightness, cough and nocturnal waking,
- airflow limitation
- increase in airway hyperresponsiveness.

***Current tests are not specific and / or not 'point of care'***

# The burden of asthma

## Europe



Patients reporting  
daytime symptoms

46%

Patients needing  
urgent care p.a.

25%

Patients with  
disturbed sleep

30%

## USA



Americans whose  
activities are  
restricted by  
asthma

64%

US Annual  
hospitalisations  
due to asthma

470,000

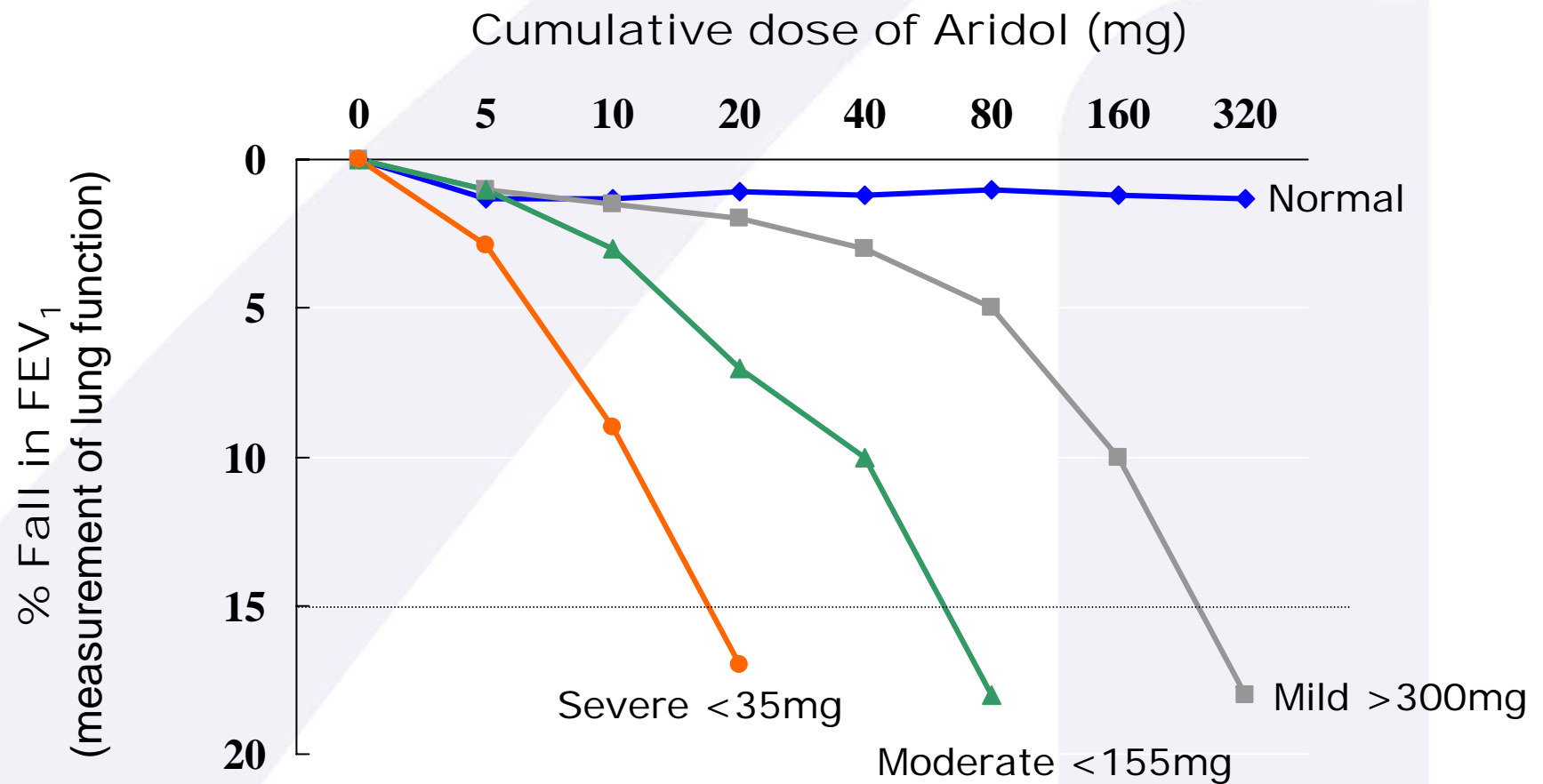
Annual days of  
restricted activity  
due to asthma

100 m

*There exists a significant unmet medical need to  
improve the diagnosis and control of asthma*

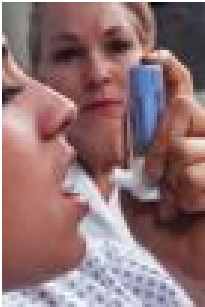
# Aridol

## Measurement of airway hyper-responsiveness



# Aridol

## Current status



- **Phase III results (646 patient study)**
  - Effective at identifying clinical mis-diagnosis (7%)
  - 20% of subjects over treated and over diagnosed
  - 25% of subjects not well controlled
- **European marketing authorization submitted**
  - Anticipated approval – 3Q 2006
- **Approved for marketing - Australia**
  - Product launched - March 2006
- **US Phase III trial commenced**
  - Scheduled completion mid – 2006
  - Subjects enrolled at June 30: 297/280 (revised target-350)



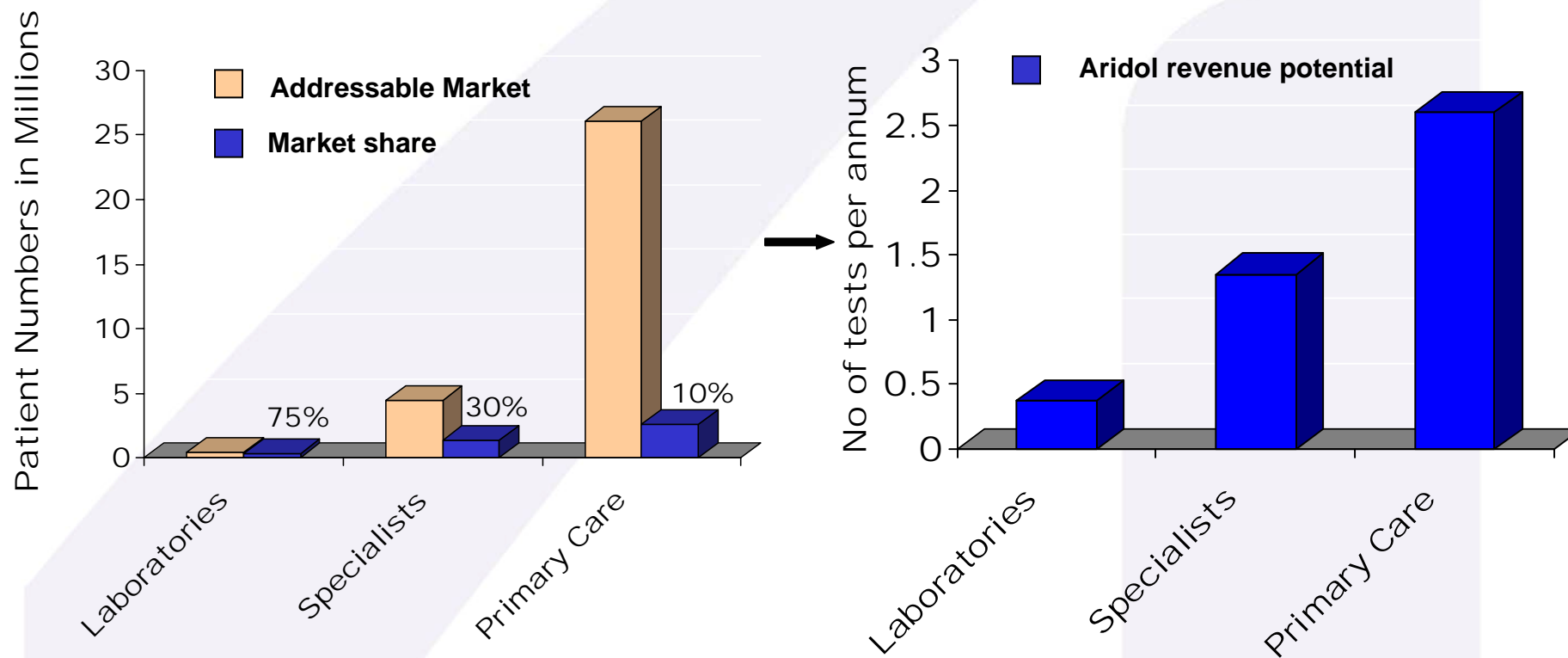
# Aridol

## Marketing - Australia



- **Marketing and sales force recruited (Australia)**
- **Marketing partners appointed (Europe)**
- **Promotional materials prepared**
- **Market Introduction**
  1. Respiratory laboratories
  2. Respiratory specialists
    - Hospital formulary
    - Clinical trial use
  3. Primary Care Physicians
- **Reimbursement available under existing treatment code**

# Aridol opportunity by market segment

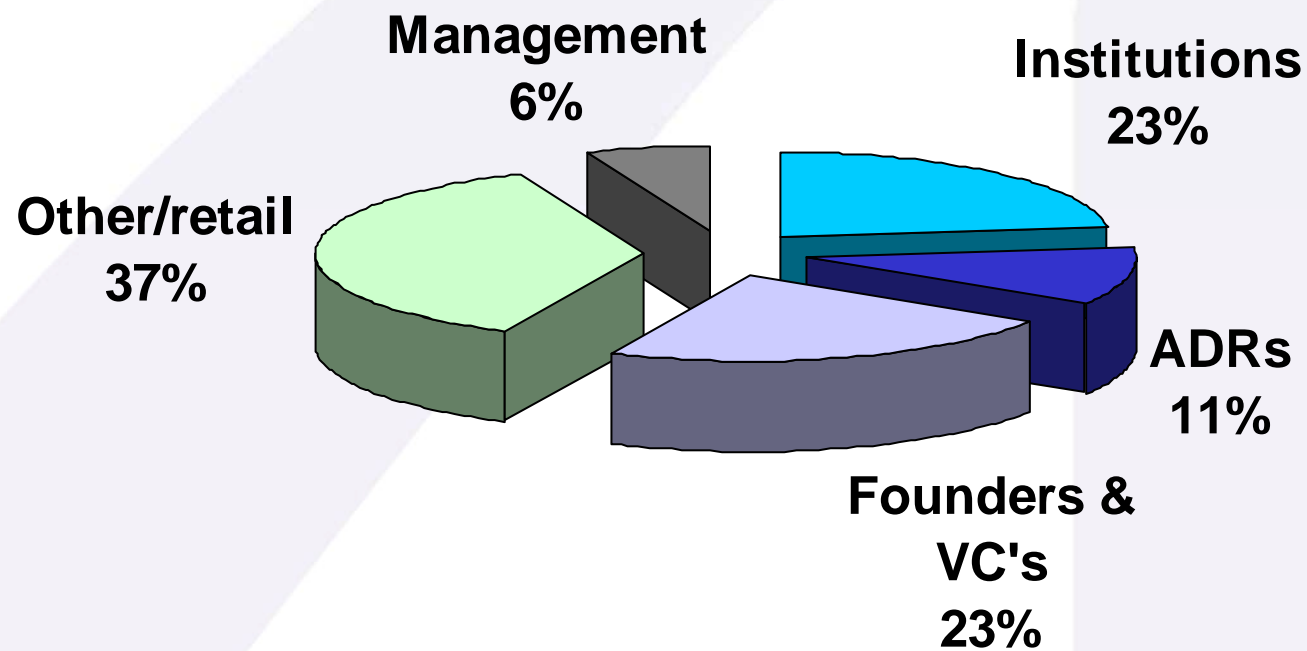


- Replace old tests
- Increase referrals
- New indications
- Create 'practice' test market

→ Total Opportunity = \$210m+

# Share Capital

(including options)



9 June 2006: 176.9m shares; 9.7m options

# Financial Statements

Unaudited - A\$'000 (except per share data)

## Balance Sheet

|                            | <u>As at</u>     |                  |
|----------------------------|------------------|------------------|
|                            | <u>31-Mar-06</u> | <u>30-Jun-05</u> |
|                            | A\$              | A\$              |
| Cash and cash equivalents  | 102,609          | 33,389           |
| Plant & equipment          | 3,069            | 2,477            |
| Intangible assets          | 1,174            | 1,106            |
| Total assets               | 108,379          | 37,937           |
| Total liabilities          | 2,999            | 2,470            |
| Total shareholders' equity | 105,380          | 35,467           |

## Income Statement

|  | <u>Three months ended</u> |                  | <u>Year-to-date</u> |                  |
|--|---------------------------|------------------|---------------------|------------------|
|  | <u>31-Mar-06</u>          | <u>31-Mar-05</u> | <u>31-Mar-06</u>    | <u>31-Mar-05</u> |
|  | A\$                       | A\$              | A\$                 | A\$              |
| Revenue  |                           |                  |                     |                  |
| Interest   | 1,418                     | 498              | 2,854               | 1,209            |
| Other income                                     |                           |                  |                     |                  |
| Grant income                                     | 468                       | 357              | 898                 | 847              |
| Other  | -                         | 1                | -                   | 1                |
|  | 1,886                     | 856              | 3,752               | 2,057            |
| Expenses   |                           |                  |                     |                  |
| Research & development                           | (4,404)                   | (2,083)          | (10,050)            | (6,363)          |
| Commercial                                       | (497)                     | (345)            | (1,100)             | (665)            |
| Administration                                   | (981)                     | (533)            | (3,163)             | (2,128)          |
| Total expenses                                   | (5,882)                   | (2,961)          | (14,313)            | (9,156)          |
| Net loss before and after tax                    | (3,996)                   | (2,105)          | (10,561)            | (7,099)          |
| Basic and diluted earnings (loss) per share      | (0.023)                   | (0.016)          | (0.068)             | (0.059)          |
| Depreciation & amortisation                      | 174                       | 146              | 706                 | 421              |
| Fair value of options issued under employee plan | 408                       | 69               | 812                 | 163              |

# Significant Milestones ahead

| Milestone   | 3Q-06 | 4Q-06 | 1Q-07 | 2Q-07 |
|---|-------|-------|-------|-------|
| <b>Aridol</b><br>Approval – Sweden<br>Launch - Sweden<br>COPD clinical data<br>Ph III US clinical data available            |       |       |       |       |
| <b>Bronchitol – cystic fibrosis</b><br>PII dosing study data<br>Commence PIII trial (EU)<br>Combination trial enrolled      |       |       |       |       |
| <b>Bronchitol – bronchiectasis</b><br>PIII trial enrolment complete<br>PIII data available<br>File EU marketing application |       |       |       |       |
| <b>Bronchitol – COPD</b><br>Commence PII pilot trial<br>Data available  |       |       |       |       |
| <b>PXS64</b><br>Complete preclinical studies  |       |       |       |       |