

## Development Portfolio Review



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### AstraZeneca portfolio review

Key marketed and development products

- 🔗 Gastrointestinal
- 🔗 Central Nervous System
- 🔗 Respiratory
- 🔗 Pain
  
- 🔗 Overall Pipeline Summary





Nexium® launch status

- ◆ Launched in 72 countries within 2 years
  - ◆ Key countries first half 2002
    - France , Italy, Australia
- ◆ Remaining key countries
  - ◆ China
  - ◆ Japan

A light gray world map is positioned in the background of the text, showing the global distribution of Nexium launches. The map highlights the regions mentioned in the text: Europe (France, Italy), Australia, China, and Japan.

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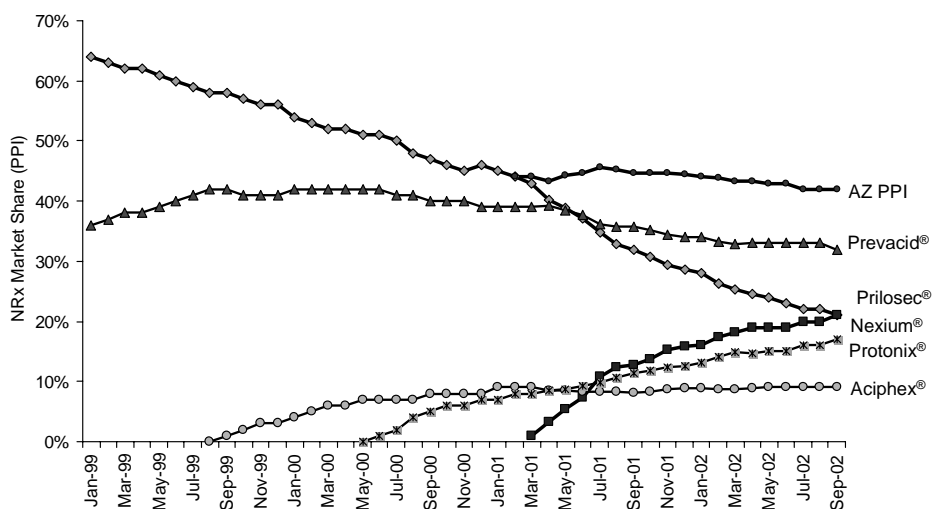
## AstraZeneca PPI sales 1999–2002

\$m

	<b>1999</b> Q3 99 MAT	<b>2000</b> Q3 00 MAT	<b>2001</b> Q3 01 MAT	<b>2002</b> Q3 02 MAT
Losec/ Prilosec	5,753	6,054	6,015	4,975
Nexium	0	4	308	1,608
<b>Total</b>	<b>5,753</b>	<b>6,058</b>	<b>6,323</b>	<b>6,583</b>

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## Nexium® US NRx market share (PPI)

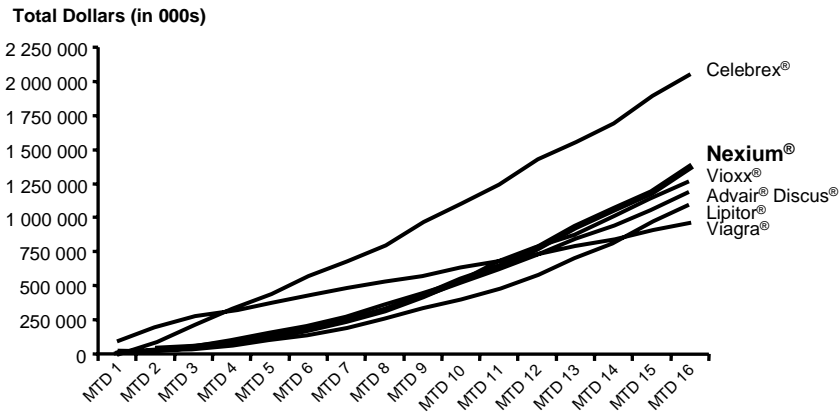


Source: IMS Health, IMS NPA+ (Retail, Mail Order & Long Term Care)

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## Nexium® sales vs other megabrands in US

Nexium had the 3<sup>rd</sup> best launch ever in terms of cumulative US sales to-date after one year in the market and is slowly making gains to become the 2<sup>nd</sup> best launch in sales during its second year in the market



Source: IMS Retail & Provider Perspective; IMS New Product Spectra

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## Nexium® Life Cycle developments

	NDA	NDA
Nasogastric tube administration	4Q 2002	
Parenteral	2Q 2003	
NSAID GI side effects		
Symptom resolution	2Q 2003	
Symptom prevention and healing	1H 2004	

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## Nexium® - Further Life Cycle enhancements

- ✦ Direct clinical comparisons with PPIs
- ✦ Development of GERD segment
- ✦ Dyspepsia
- ✦ Extraesophageal reflux disease

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## What next in GI?

*Within the GERD market there are still unmet medical needs and with different mechanisms of action we can meet those needs....*

- ✦ **RAPID (AZD0865)**
  - ✦ complete inhibition of acid secretion from first dose and onwards
  - ✦ pH>6 within 1-2 hours after dose intake
  - ✦ low variability of the effect
  - ✦ full effect regardless of acid secretion status
- ✦ **Reflux inhibitor (AZD3355)**
  - ✦ targets the most dominant reason for reflux (TLESRs)
  - ✦ more physiological approach to reflux disease

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## Seroquel® current performance

- ◆ \$1 billion brand
- ◆ Fastest growing major atypical anti-psychotic
  - ◆ gaining share in all major market segments
  - ◆ taking share from other atypicals
  - ◆ US - only major atypical with market share growth
  - ◆ Japan - exceeded olanzapine in patient treatment days
- ◆ Broadening use through new indications

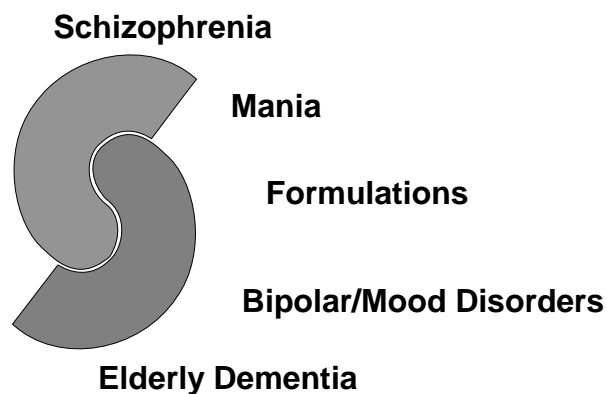
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## Seroquel® Improvement without Impairment

	risperi- done	olanza- pine	ziprasi- done	aripi- prazole	Sero- quel®
Fast onset of action efficacy in one week	✓	✓	✓	✓	✓
Long-term efficacy	✓	✓	✓	✓	✓
Efficacy in partial responders	✓	✓	?	?	✓
Placebo-like EPS	X	X	X	X	✓
Placebo-like prolactin	X	X	X	✓	✓
No significant QTc changes	✓	✓	X	✓	✓
Weight-neutral long-term	X	X	✓	✓	✓
Placebo-like nausea/vomiting	X	✓	X	X	✓

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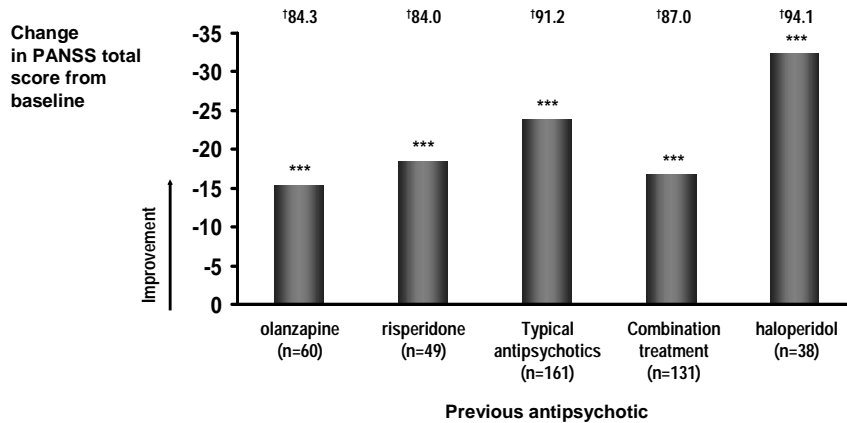
## Seroquel® Comprehensive Life Cycle programme



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## Seroquel® SPECTRUM study Efficacy where other atypicals have failed

*Switching to Seroquel® significantly improves schizophrenia symptoms*



\*\*\*p<0.001 vs baseline  
† mean PANSS scores at baseline.

De Nayer A et al; Colleg. Int. NeuroPsych. P.2.W.020, 2002

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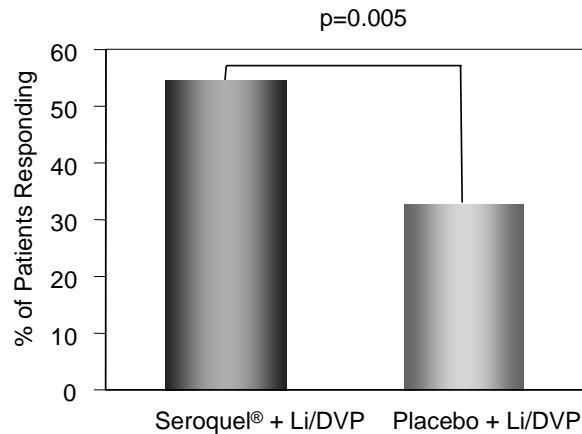
## Seroquel® - Benefits in bipolar disorder

- ◆ Bipolar disorder
  - ◆ high functioning population
  - ◆ up to 3% of the population suffer
  - ◆ mania programme ~1,000 patients
- ◆ Proven efficacy in bipolar mania
- ◆ Excellent tolerability profile
- ◆ Unique EPS profile equivalent to placebo
- ◆ Mania submission on track for Q1 2003

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## Seroquel® response rates in mania

≥50% Reduction in YMRS at Last Visit



Sachs, G et al: Bipolar Disorders 2002:4 (Suppl 1) Abs61,p133

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## Seroquel® - Strong differential advantage across the indications

### Broad-based efficacy

- ◆ as effective as other atypicals
- ◆ efficacy in one week
- ◆ effective in the long-term

### Unique tolerability profile

- ◆ placebo-like EPS
- ◆ placebo-like prolactin levels
- ◆ low incidence of sexual dysfunction
- ◆ weight-neutral in the long-term

## Improvement without Impairment

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## Acute ischaemic stroke

- High unmet medical need
  - third leading cause of death
  - most common cause of disability



Permanent dysfunction

- Health Economics
  - 5-10% of health care costs
  - burden in US: \$30 billion
  - direct costs: \$17 billion



Needs help with daily care

- Market size: > \$3 billion
- High Risk : High Reward

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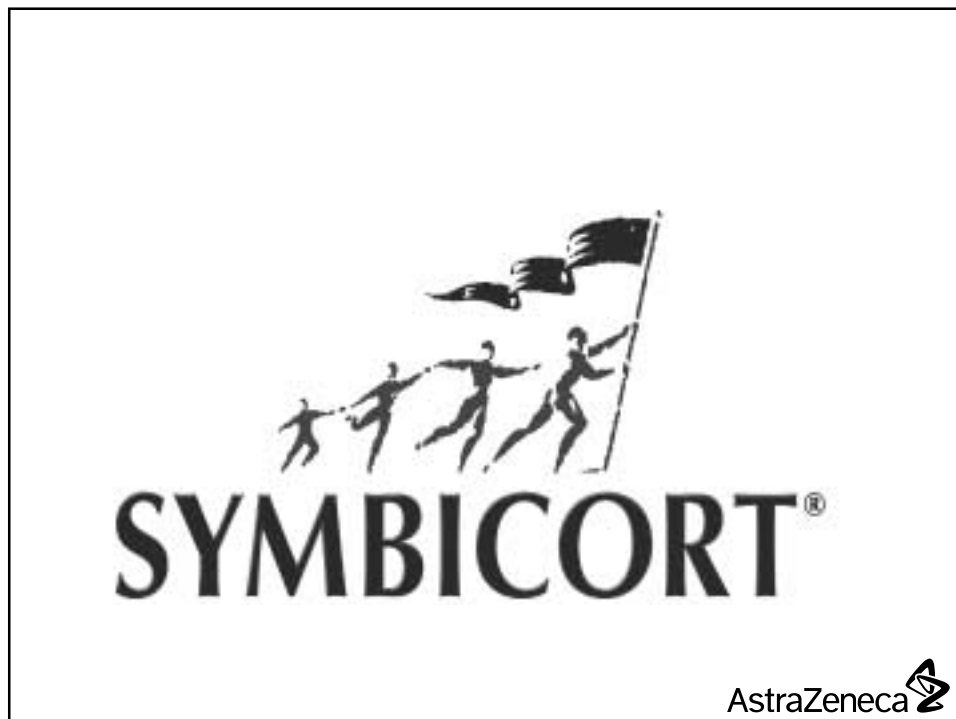
## NXY-059

### Enters Phase III development for Acute Stroke

- A free radical trapping agent set to be the first neuroprotectant for acute stroke
- Well tolerated in Phase II at doses producing significant efficacy in animal models
- Substantial functional improvements and reduction in infarct volume demonstrated in a primate model
- Challenging development area

NXY-059 licensed from Centaur Pharmaceuticals

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### Symbicort® Turbuhaler®

- ✦ Approved in over 50 countries and launched in 42 countries
- ✦ High strength and paediatrics use approved in EU
- ✦ COPD filed with EU and some other countries

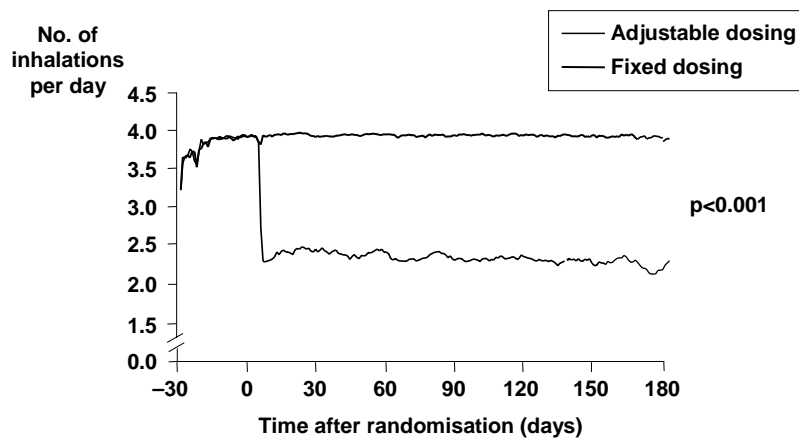
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## Symbicort® Turbuhaler® asthma Differentiation vs Seretide®/Advair®

	Symbicort®	Seretide®
Maintenance treatment	Y	Y
Age Range	6+ years	4+ years
No. of Strengths	3	3
Rapid Onset	Y	N
Adjustable Dosing (with same inhaler)	Y	N
Once Daily Dosing (all strengths)	Y	N

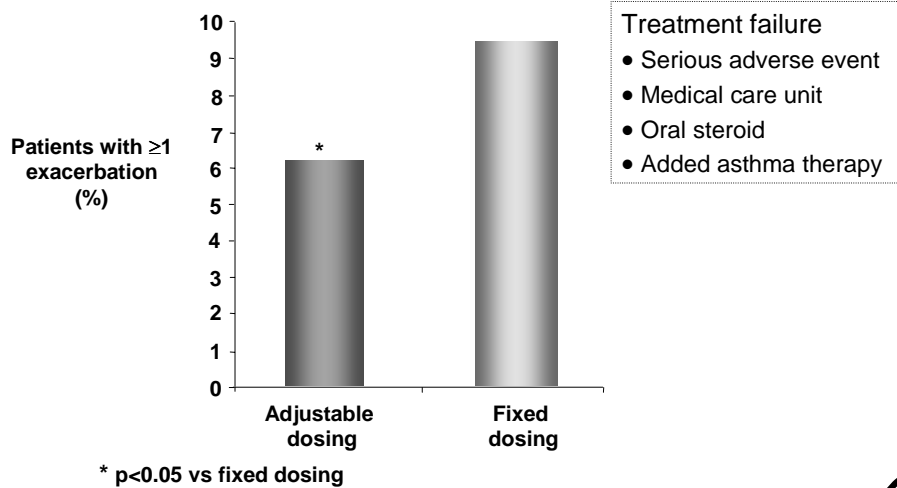
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## Symbicort® SAMS study Intake of study medication



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## Symbicort® SAMS study Patients with treatment failure



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## Symbicort® - Adjustable dosing in asthma

- ✦ Individually tailored treatment possible with one maintenance inhaler
- ✦ Reduced drug load (cost) & overall better control



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## Symbicort® pMDI asthma USA

### Objective

- ◆ register pMDI 160/4.5, 80/4.5 and 40/4.5 as maintenance therapy in asthma
- ◆ differentiate from Advair® at launch
- ◆ dose counter included at launch



### Delivery

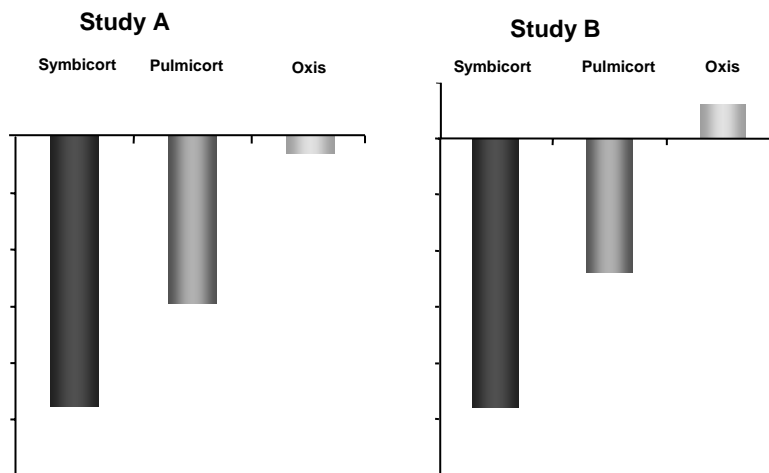
- ◆ pivotal trials have started
- ◆ differentiation studies have started
- ◆ NDA: 1H 2004

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## Symbicort® in COPD

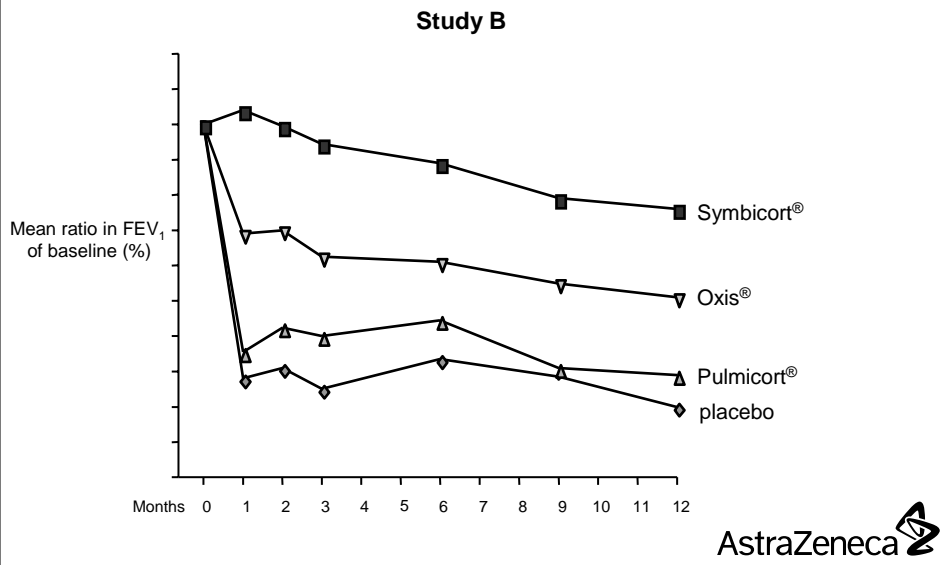
Superior reductions of severe exacerbations

Rate of severe exacerbations vs placebo (%)



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## Symbicort® in COPD FEV<sub>1</sub> measured at clinic visits



## AZD3582 - The first CINOD

### COX Inhibiting Nitric Oxide Donator

- Targeted at acute and chronic nociceptive pain
- Development programme aims at documenting efficacy and safety advantages vs COX 2 selective NSAIDs

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## AZD3582 CINOD

Efficacy and safety in acute pain



### **Efficacy**

As effective as naproxen in time to onset, magnitude and duration of pain relief following surgical removal of impacted molar teeth



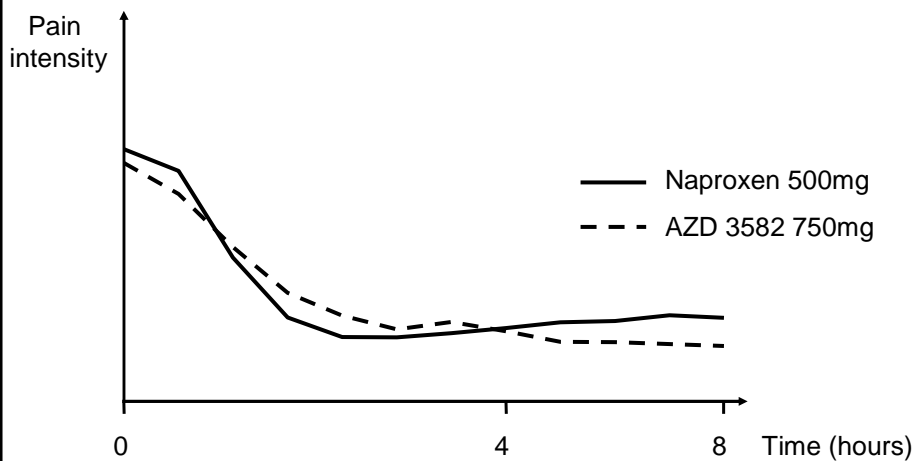
### **Safety**

No significant difference in incidence of adverse events between patients receiving AZD3582 and those given placebo

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## AZD3582 CINOD

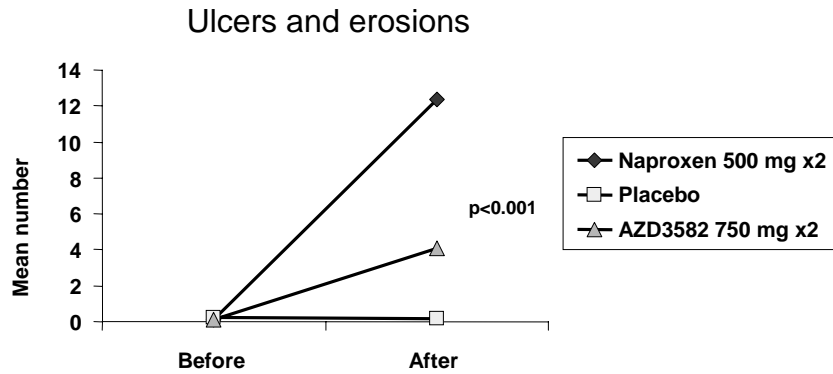
Effectively reduces acute pain



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## AZD3582 CINOD

GI safety principle demonstrated in man



Hawkey, Bjarnason et al, 2002

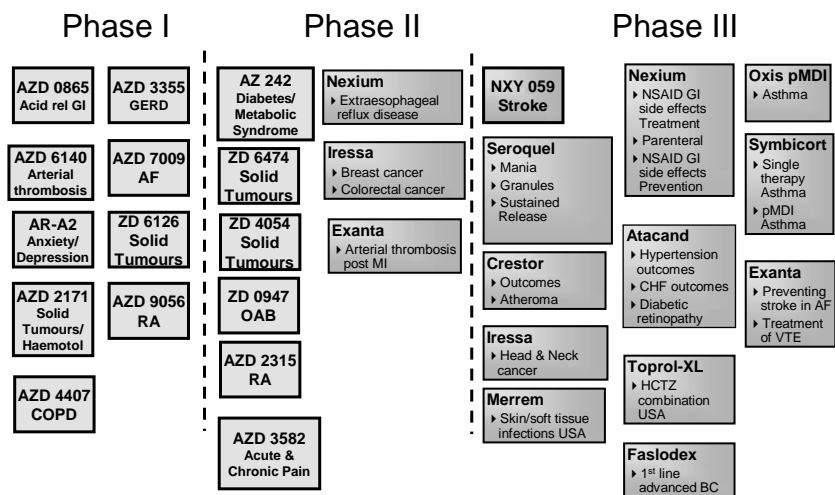
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## Projects in pre-clinical phase

Oncology	CNS	CV	Respiratory	Pain	Inflammation
AZD3409 Solid tumours	AZD5106 OAB	AZD9684 Thrombosis	AZD0275 COPD	AZD4717 Acute & Chronic Pain	AZD8955 OA
AZD4440 Solid tumours	AZD4750 MS	AZD7806 Diabetes	AZD0902 COPD	AZD4282 Neuropathic Pain	AZD8309 RA
AZD0530 Solid tumours	AZD1134 Anx/depr	AZD0837 Thrombosis	AZD3342 COPD		AZD7140 RA

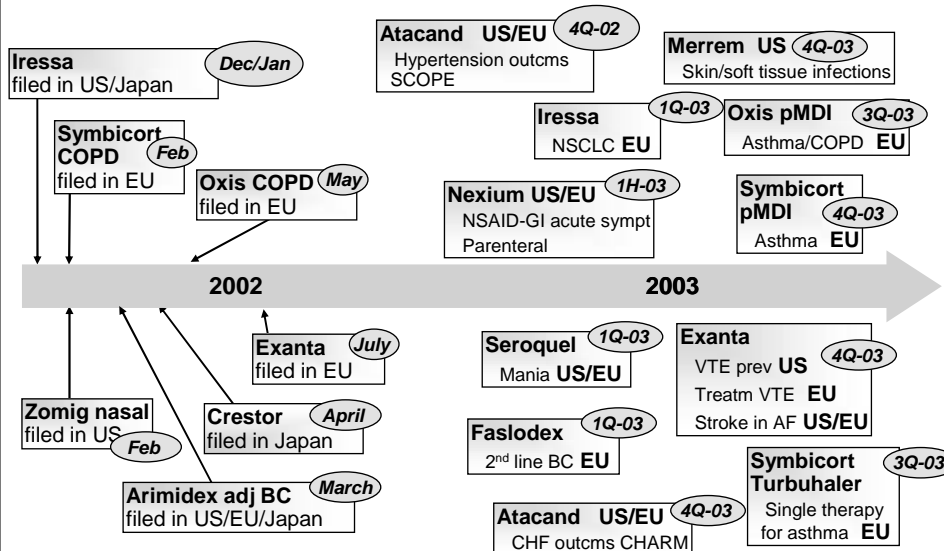
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## AstraZeneca clinical development pipeline



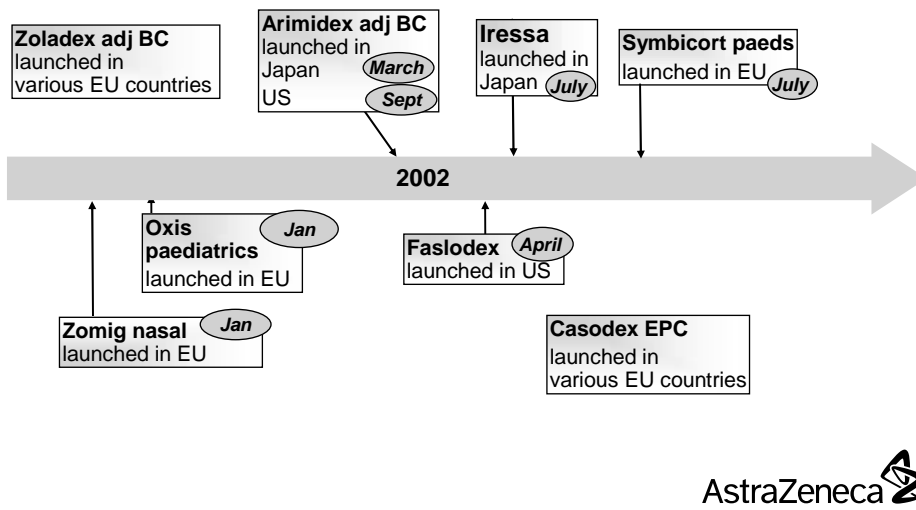
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## Major regulatory filings 2002-2003



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## First launches since last review



## Unique growth opportunity



## Strengths in the AstraZeneca pipeline

- ✦ Rich pipeline in Discovery
- ✦ Many CDs in areas of unmet medical need
- ✦ Strong early pipeline (Phase I-II) which provides choice for strongest candidates to enter full Clinical Development
- ✦ Comprehensive LCM programme to optimise our late stage portfolio and new product launches
- ✦ Portfolio focus on Quality, not Quantity

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