


Late-stage Pipeline Review

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Strategy to maximise growth and returns to shareholders

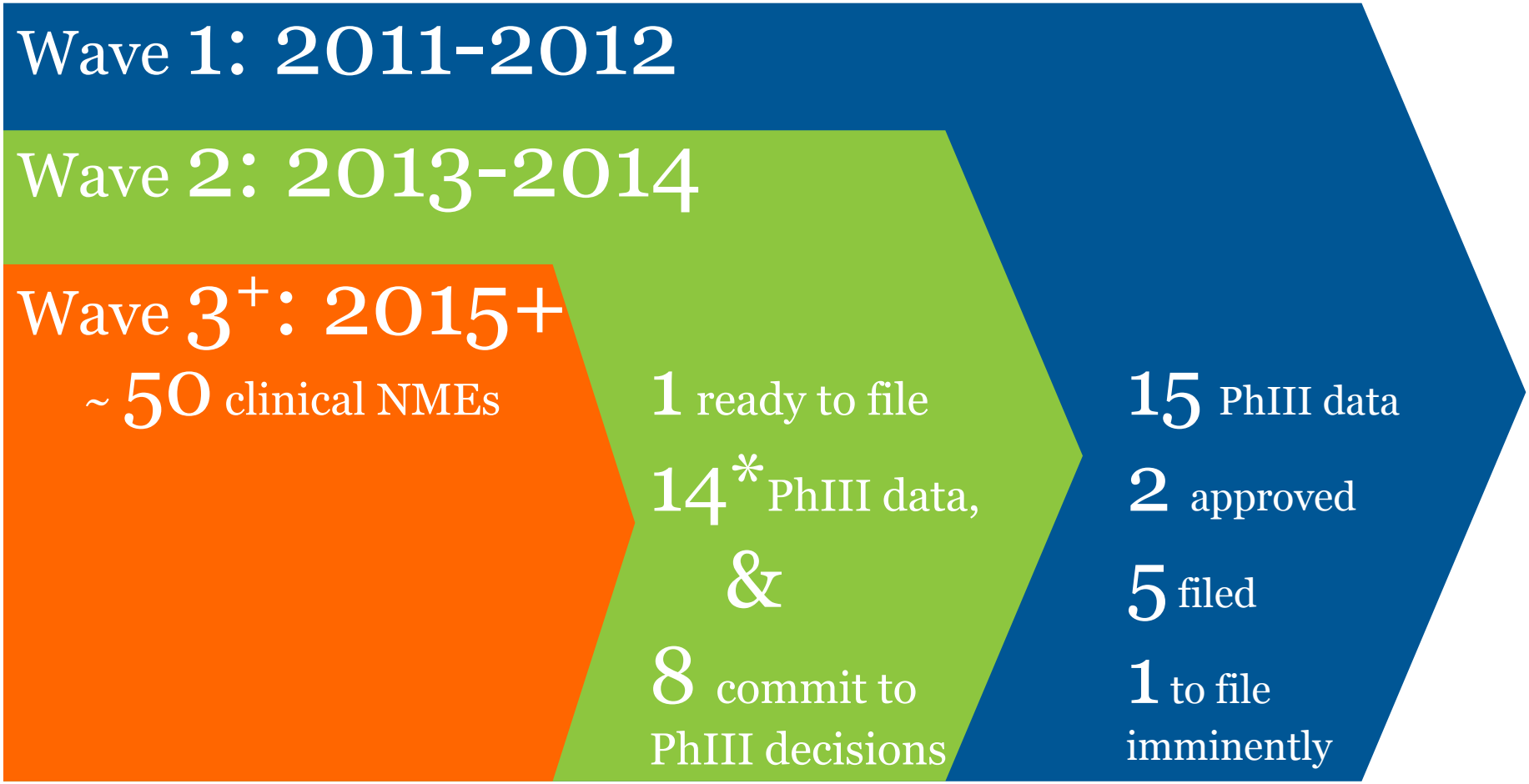
Grow a diversified global business

Deliver more products of value

Simplify the operating model

- Re-engineered drug discovery organisation
- Built late stage pipeline while improving efficiency
- Enhanced returns on R&D investment
- Restructured commercial & manufacturing to support the pipeline

Unprecedented progress of the late stage pipeline in 2012



* Includes some assets from Wave 1

6 new drugs completed Phase III in 2012
5 filed and 1 expected imminently

Oncology	Diabetes	HIV	Respiratory
dabrafenib	albiglutide*	dolutegravir	Relvar/Breo
trametinib			UMEC/VI

* albiglutide regulatory filing expected imminently



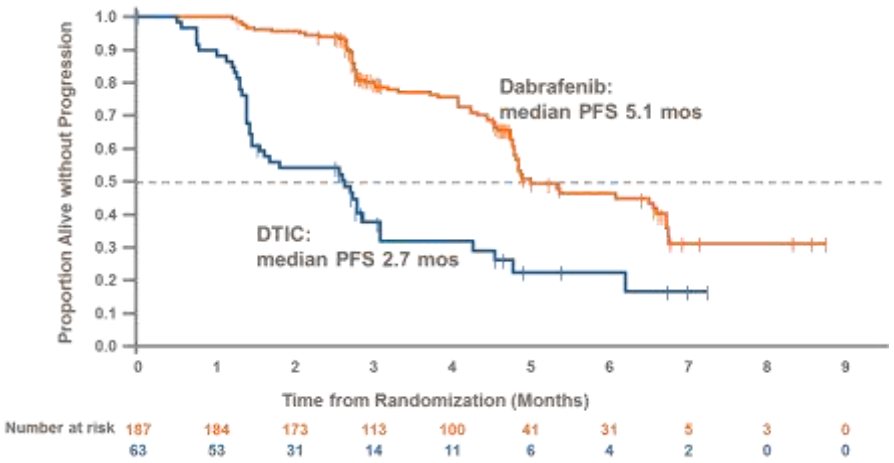

Oncology

BRAF inhibitor - dabrafenib
MEK inhibitor - trametinib

Dabrafenib & trametinib are not approved as a treatment for metastatic melanoma or any other indication anywhere in the world

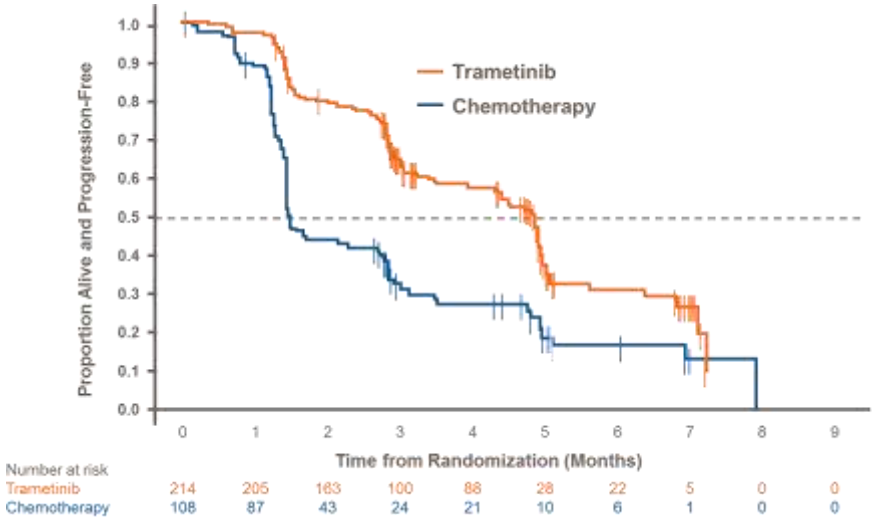
Two highly active monotherapy agents

dabrafenib (BRAFi)
(70% reduction in risk of progression or death)



	dabrafenib N=187	Chemotherapy N=59
Median PFS	5.1 months	2.7 months
HR (95% CI) P-value	0.30 (0.18,0.51); <0.0001	

trametinib (MEKi)
(55% reduction in risk of progression or death)

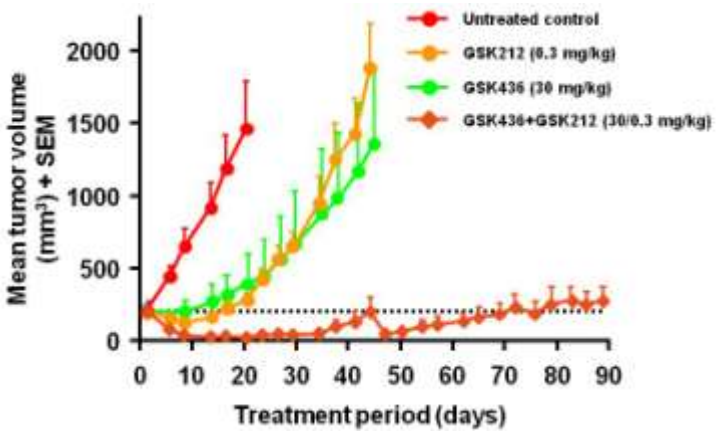


	trametinib N=214	Chemotherapy N=108
Median PFS	4.8 months	1.5 months
HR (95% CI) P-value	0.45 (0.33, 0.63); <0.0001	

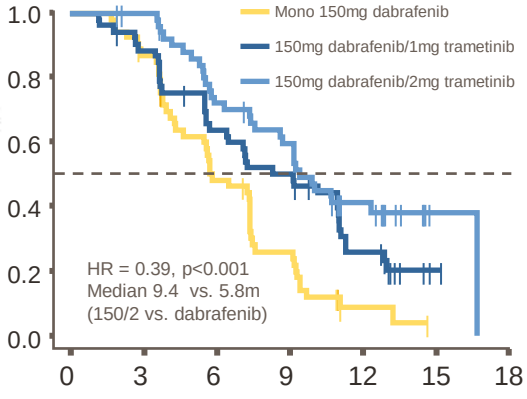
The full data including the safety profiles of these investigational assets were presented at ASCO2012

Translating preclinical science into patient benefit with the combination of dabrafenib & trametinib

Pre-clinical data

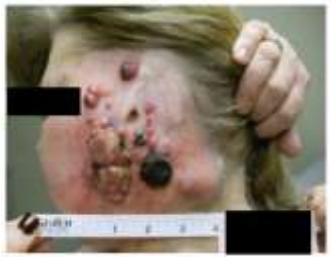


Clinical data

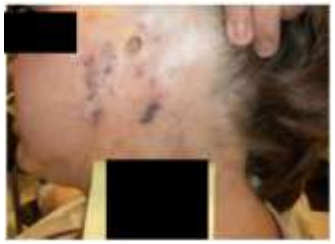


Clinical evidence

Before



After



Goals of combination therapy

- more complete blockade of critical pathway
- prevent or delay emergence of resistance
- Phase III combination trials ongoing; Phase III adjuvant programme to commence imminently

Compared to dabrafenib monotherapy, **combination therapy** results in more fever/fever-related events & adverse events associated with MEK inhibition, such as peripheral oedema, hypertension, decreased ejection fraction and ocular events while reporting a lower incidence of BRAF inhibitor-associated skin effects




Diabetes

GLP1 agonist - albiglutide

Albiglutide is not approved as a treatment for type 2 diabetes or any other indication anywhere in the world

Albiglutide: the most comprehensive GLP1 clinical registration programme in Type 2 diabetes

24 studies, including 8 large pivotal PhIII studies with up to 3 years of treatment in ~6500 patients (HARMONY) & studied in combination with and vs. a range of active comparators

3 studies completed; **overall registration package complete and submission expected imminently**

Harmony 6: albiglutide vs prandial insulin added on to insulin glargine; both produced **clinically significant reductions in HbA1c** from baseline ; **weight loss greater with albiglutide** and maintained through 52 weeks

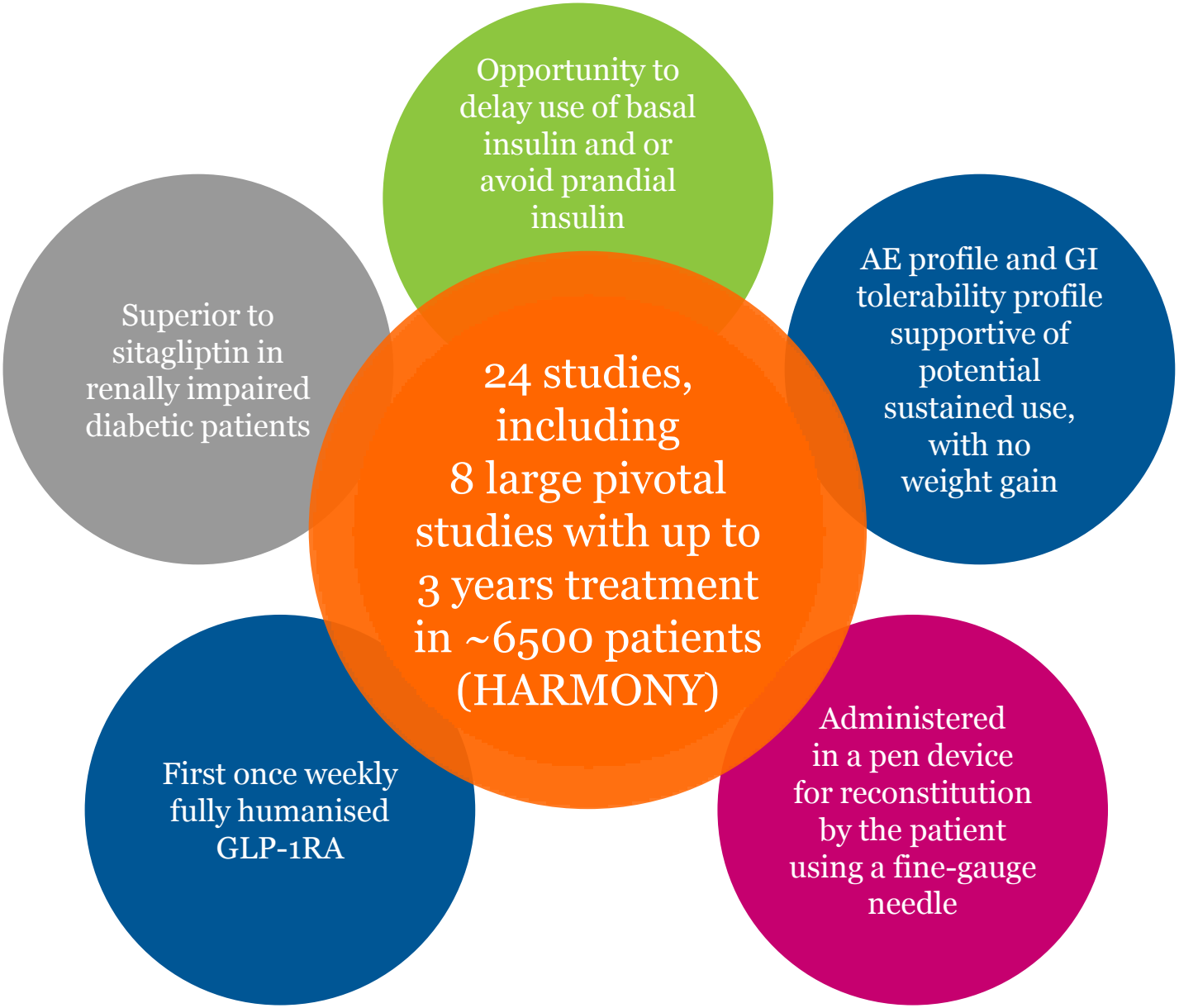
Harmony 7: liraglutide and albiglutide **clinically and statistically reduced HbA1c** from baseline; treatment difference did not meet non-inferiority criteria vs. liraglutide; nausea and vomiting lower with albiglutide and weight loss greater with liraglutide

Harmony 8: **Clinically and statistically significant reductions in HbA1c** and superiority versus sitagliptin in patients with severe renal impairment, weight loss greater with albiglutide

Safety profile supports filing; most common AEs were gastro-intestinal, hypoglycaemic events and injection site reactions

The full data from Harmony 6 & 7 studies were presented at ADA 2012

Albiglutide profile is emerging, regulatory filing expected imminently






HIV

Integrase Inhibitor - dolutegravir

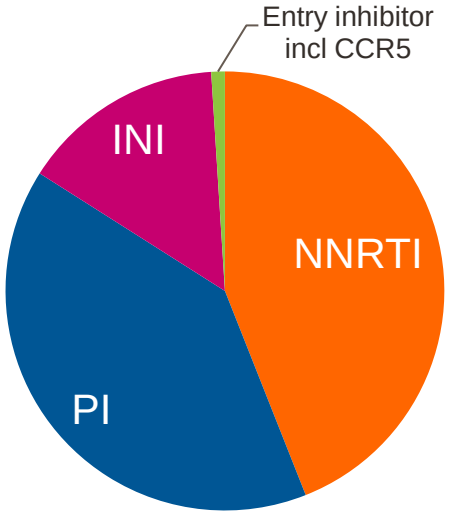
ViiV Healthcare

Dolutegravir is not yet approved as a treatment for HIV or any other indication anywhere in the world

Current HIV Treatment Paradigm

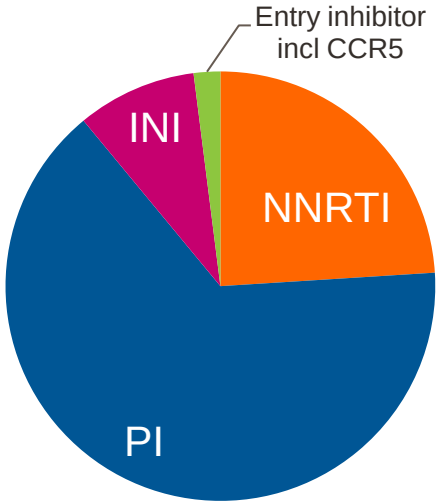
- The majority of people on treatment receive a combination of three anti-retrovirals
- A backbone of 2 NRTIs + a third agent (NNRTI, PI, INI or CCR5 Inhibitor)
- Third agent choice varies according to patient characteristics and physician/patient preference

US 2011



Source: Synovate patient monitor

EU 2011



Source: RP Therapy Watch patient monitor

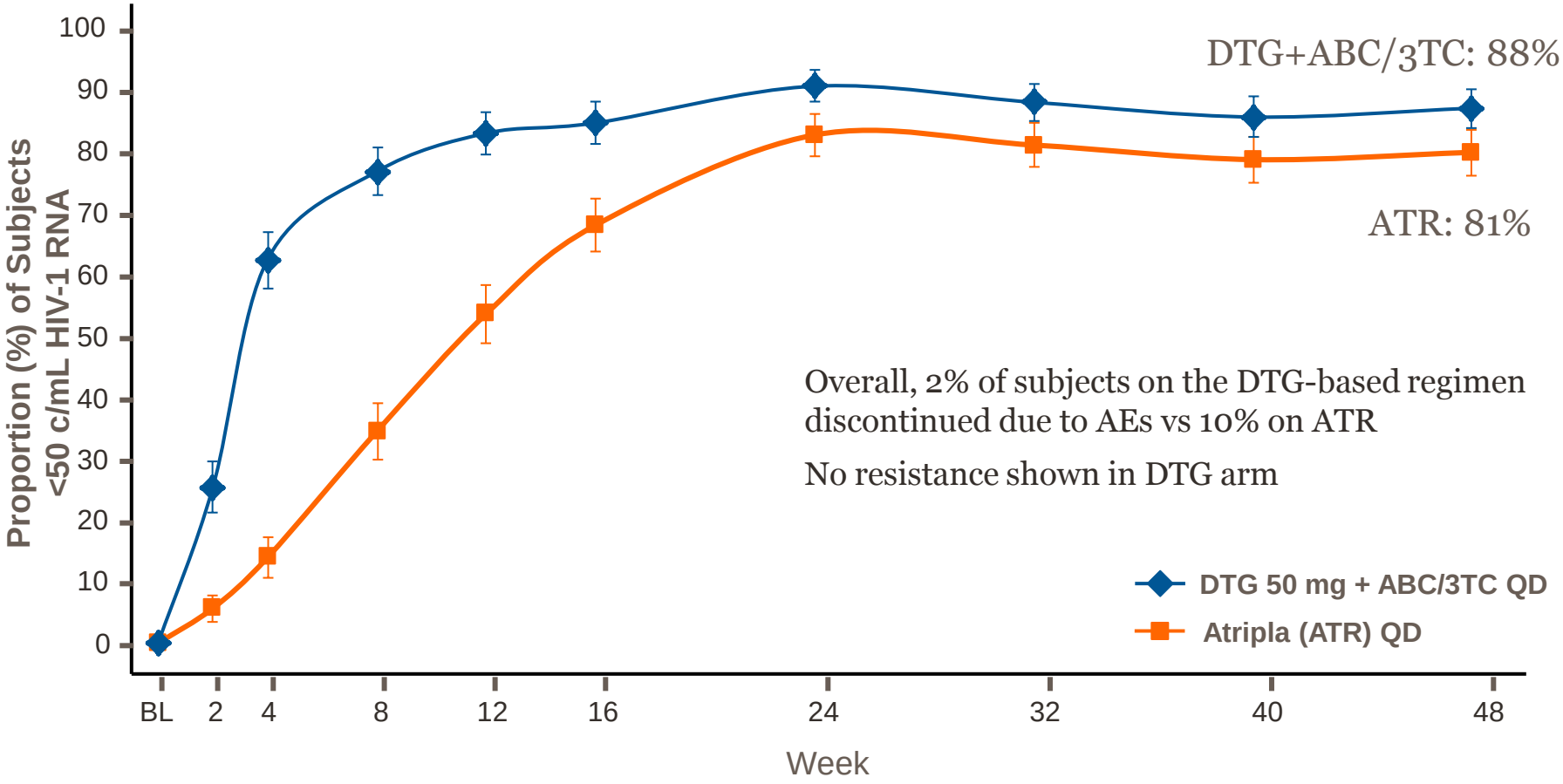
NRTI: Nucleoside Reverse Transcriptase Inhibitors , NNRTI: Non- Nucleoside Reverse Transcriptase Inhibitors, PI: Protease Inhibitors, INI: Integrase Inhibitors

Global HIV treatment trends

- Treatment is starting earlier at higher CD4+ T-cells counts
- Patients are aging and diversifying
- Naïve patients stay on therapy longer
- Trade-offs exist in the early or long-term with all 3rd agents **currently** used first line

Integrase inhibitors	✓ Efficacious Tolerable	✗ Resistance profile: fragile Twice daily or require booster
Protease inhibitors	✓ Efficacious Durable	✗ Tolerability Lipids
NNRTIs	✓ Efficacious Tolerable?	✗ Resistance profile: fragile

Dolutegravir 50mg +ABC/3TC QD was non-inferior & statistically superior to Atripla at Week 48



Subjects receiving DTG+ABC/3TC achieved virologic suppression faster than those receiving Atripla, median time to HIV RNA<50c/mL of 28 days (DTG+ABC/3TC) vs 84 days (Atripla), p<0.001

Full data on this investigational asset including safety data have been presented at the Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC) 2012

Regulatory files submitted in 2012 included data from 4 pivotal phase 3 studies

	Study design	Results
SPRING-2	**Treatment naïve** DTG 50mg OD vs. RAL 400mg BID	Non-inferior to RAL
SINGLE	**Treatment naive** DTG 50mg + ABC/3TC OD vs. Atripla	Superior to Atripla*
VIKING-3	**Treatment experienced INI-resistant** DTG 50mg BID	63% virologically suppressed at wk 24 3% discontinued due to AEs
SAILING	**Treatment experienced, INI-naïve** DTG 50mg once daily	Results in house Presentation at future scientific meetings
FLAMINGO	**Treatment naïve** DTG 50mg OD vs DRV/r 800mg/100mg OD	Data expected in 2013 (not part of initial regulatory package)

*The SINGLE study was designed to demonstrate non-inferiority of the dolutegravir-based regimen versus Atripla, and the primary analysis met this criterion. Statistical superiority was concluded as part of a subsequent, pre-specified testing procedure.



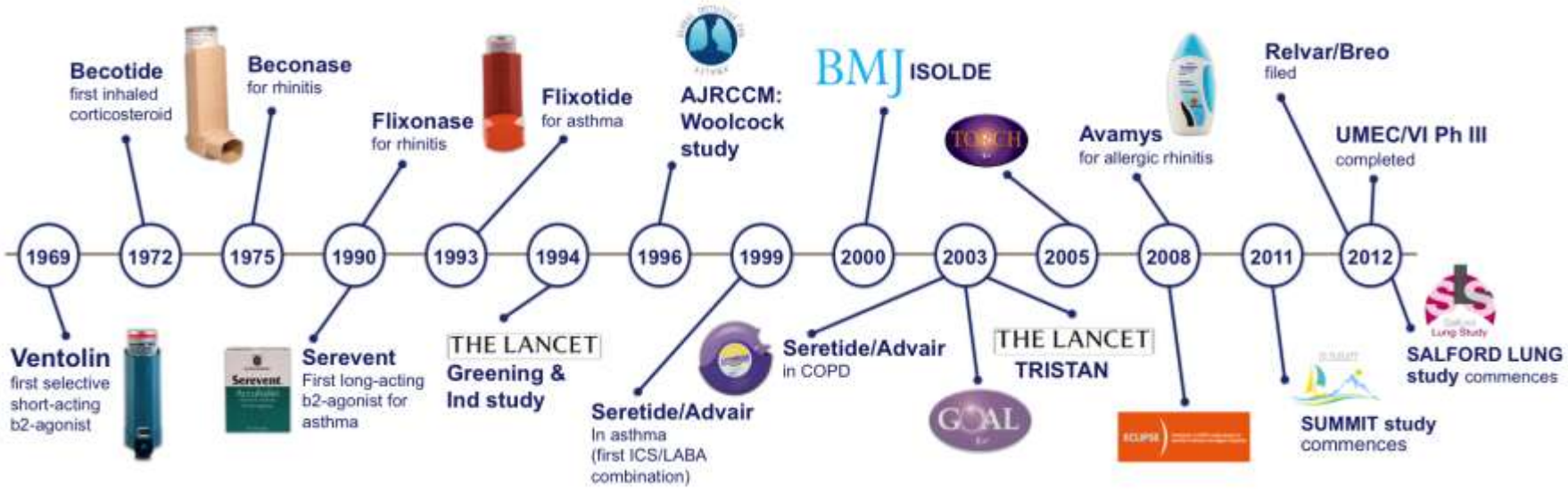

Respiratory

ICS/LABA – Relvar, Breo

LAMA/LABA - UMEC/VI

Relvar/Breo and UMEC/VI are not yet approved as a treatment for asthma or COPD or any other indication anywhere in the world

GSK's Respiratory heritage – the story so far



Broad respiratory portfolio targets existing and new areas

	SABA	ICS	LABA	ICS/ LABA	LAMA	LAMA/ LABA	MABA	ICS/ LAMA	Anti-IL 5	p38	FLAP
GlaxoSmithKline	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Company 1			✓	✓	✓	✓					
Company 2			✓		✓	✓					
Company 3			✓	✓	✓	✓	✓				
Company 4			✓	✓	✓	✓					
Company 5		✓	✓	✓	✓		✓		✓		
Company 6										✓	

£2.3bn: rescue	**£4.7bn:** maintenance bronchodilator
£7.8bn: ICS/LABA	**£0.6bn:** biological severe asthma
£2.7bn: steroid	**£2.9bn:** oral asthma

Source: GSK R3 Model based on IMS Health MAT June 2012.

Includes marketed and development products for GSK and other companies

Relvar/Breo extensive data package supported filings in asthma and COPD

Once a day ICS /LABA (FF/VI)

ELLIPTA device, dry powder inhaler

- Once daily FF well tolerated and efficacious at lower doses compared to FP
- Addition of VI to FF significantly reduced risk of severe asthma exacerbations
- Significantly greater improvements in lung function v FF or FP
- FF/VI had generally similar safety profile to FF

- FF/VI 100/25mcg significantly reduced annual rate of moderate & severe COPD exacerbations vs. VI alone
- FF/VI 200/25mcg confers no additional benefit compared with FF/VI 100/25mcg in terms of reduced risk of COPD exacerbations
- FF/VI 100/25mcg demonstrated superiority vs. Advair 250/50mcg in one of two studies
- Overall rates of serious and fatal AEs were similar across 4treatment groups. The increase in risk of pneumonia with FF is consistent with previous studies of ICS in COPD. Pneumonia occurred approximately twice as often in the FF/VI groups than in the VI group.*

2012 Filings	Asthma	COPD
US	Additional PhIII study ongoing	✓Breo 100/25mcg
EU & Japan	✓ Relvar 100/25mcg & 200/25mcg	✓Relvar 100/25mcg

*There were 6 cases of fatal pneumonia and one case of fatal COPD exacerbation with concurrent pneumonia in the FF/VI 200/25mcg group, all of which occurred in the HZC871 study and the majority of these cases were reported from one site; one case of fatal pneumonia occurred in the FF/VI 100/25 group of the HZC970 study. Full data on this investigational asset including safety data were presented at ERS2012

Relvar/Breo - an innovative approach to evidence generation

- Relvar/Breo being studied in the **COPD and asthma populations** in Salford, England
- Unique pre-approval open-label controlled, minimum intervention trial to **mimic real-world usage**
- Paperless, fully integrated electronic records allowing capture of real time data to assess total impact on healthcare utilisation

- **S**tudy to **U**nderstand **M**ortality and **M**orbid**ITy** in COPD
- Extensive **global** study of **16,000 patients** to assess the potential for FF/VI to improve survival in those with COPD and a history of, or at risk from, cardiovascular disease
- Secondary objectives will evaluate the effect of FF/VI compared with placebo on the rate of decline in lung function, as well as on cardiovascular endpoints including cardiovascular death, heart attacks and strokes

UMEC/VI profile is emerging, US regulatory file submitted in 2012

Once daily LAMA/LABA for COPD; potentially first in class in the US

Global regulatory filings began Dec 2012; data supports UMEC monotherapy filings in 2013

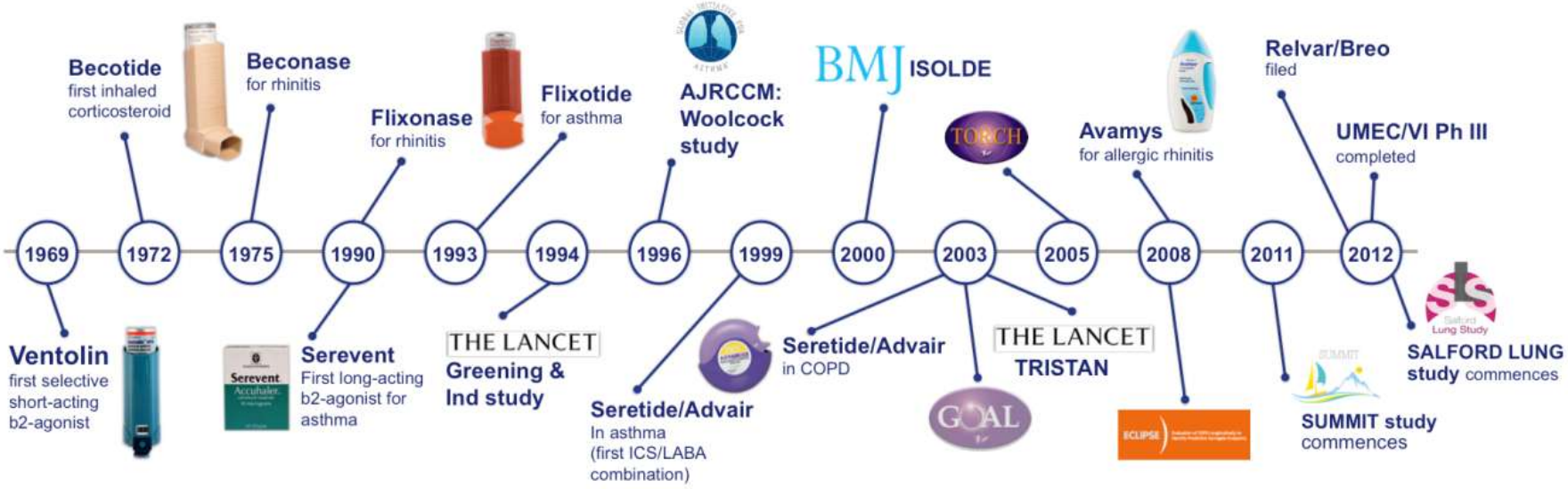
Statistically significant improvements over placebo & individual components on trough FEV1

Global development programme, 7 pivotal studies investigating 62.5/25mcg & 125/25mcg doses in ~6000 patients

Administered in the investigational Ellipta device

Incidence of CV events and all other serious AEs similar across all treatment groups

We continue to progress our Respiratory portfolio



Advanced portfolio

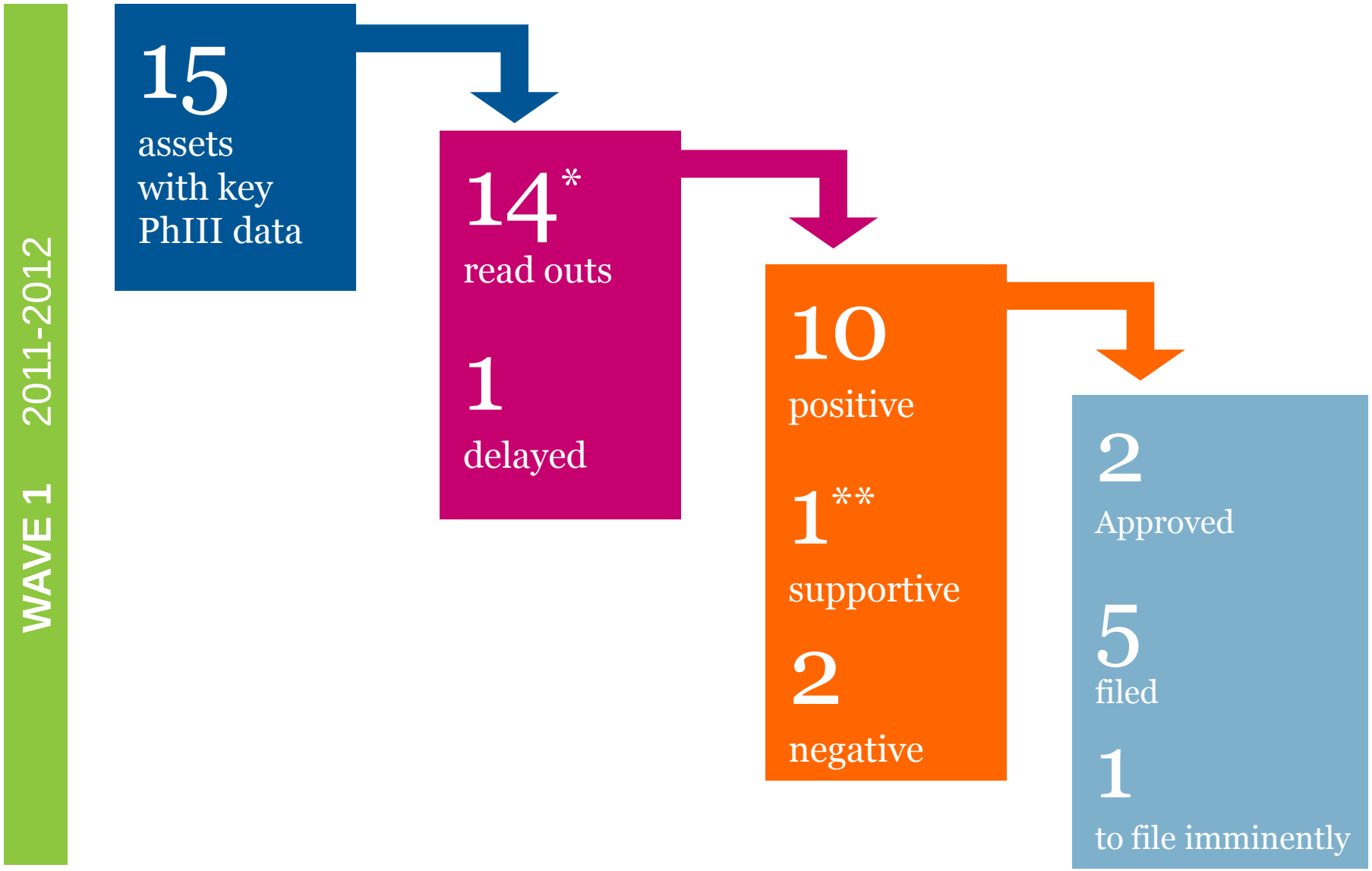
LAMA mono - COPD	LABA mono - COPD
mepolizumab - asthma	MABA - COPD
FF monotherapy (ICS) - asthma	LAMA / ICS - asthma




Pipeline Sustainability

Re-engineered drug discovery delivers sustainable flow

Visibility of multiple waves of pipeline delivery



*Includes drisapersen phase IIb data received in-house. Additional data expected with Wave 2.
** Includes encouraging migalastat HCl 6-month data, although primary endpoint was not met. Additional data expected with Wave 2.

Wave 1 delivered with accelerated cycle times

dabrafenib

Fastest cycle time for an NCE in history of GSK: Less than 5 years from CS to planned launch (vs. industry bench mark of 8.8 years)

trametinib

From FTIH to Ph III results in just over 3 years

UMEC/VI

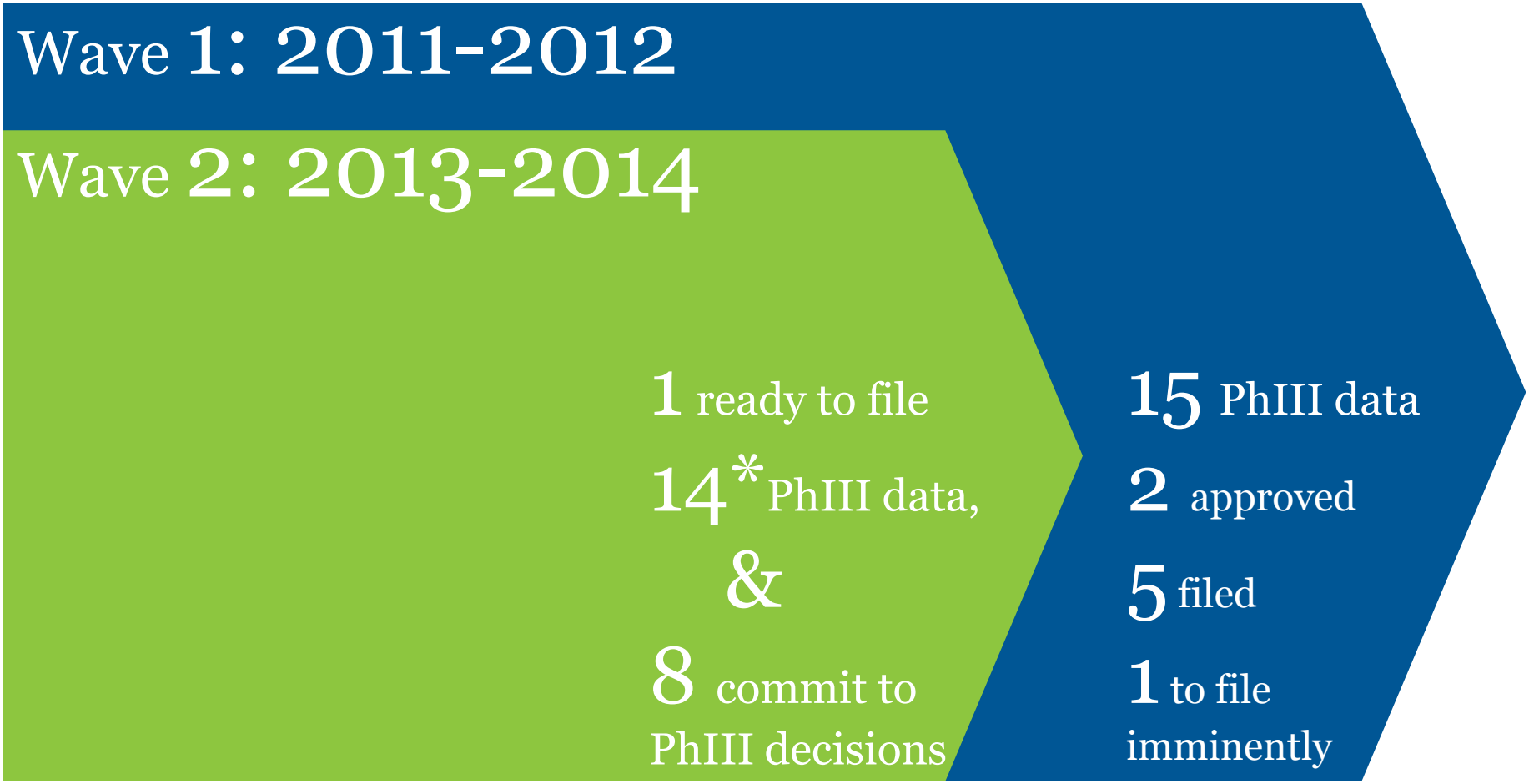
Commit to Ph III to decision to file in 2 years

dolutegravir

FTIH to completion of registration programme in 5 years

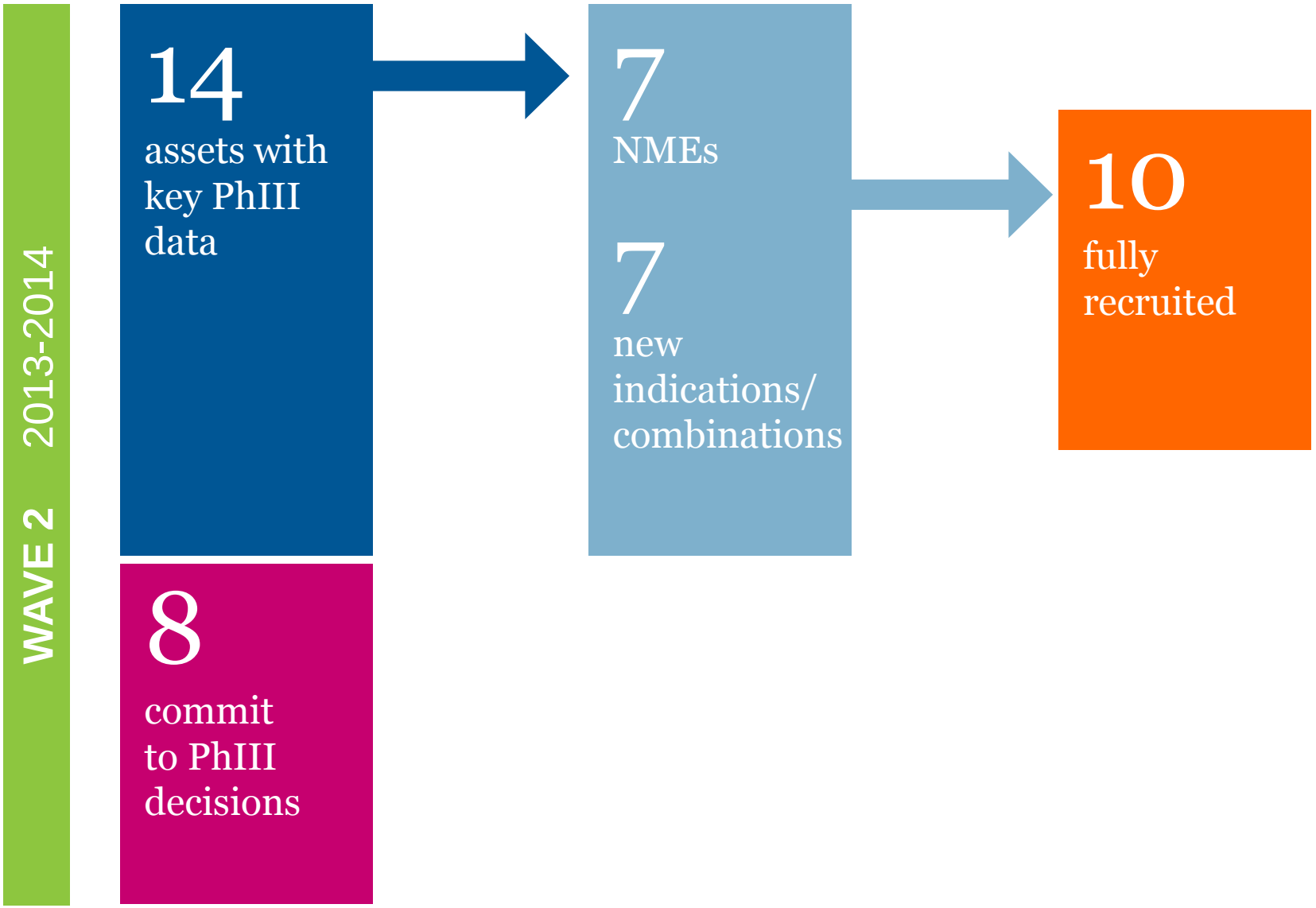
CS: Candidate selection; FTIH: First time in humans

Re-engineered drug discovery delivers sustainable flow



* Includes some assets from Wave 1

Visibility of multiple waves of pipeline delivery

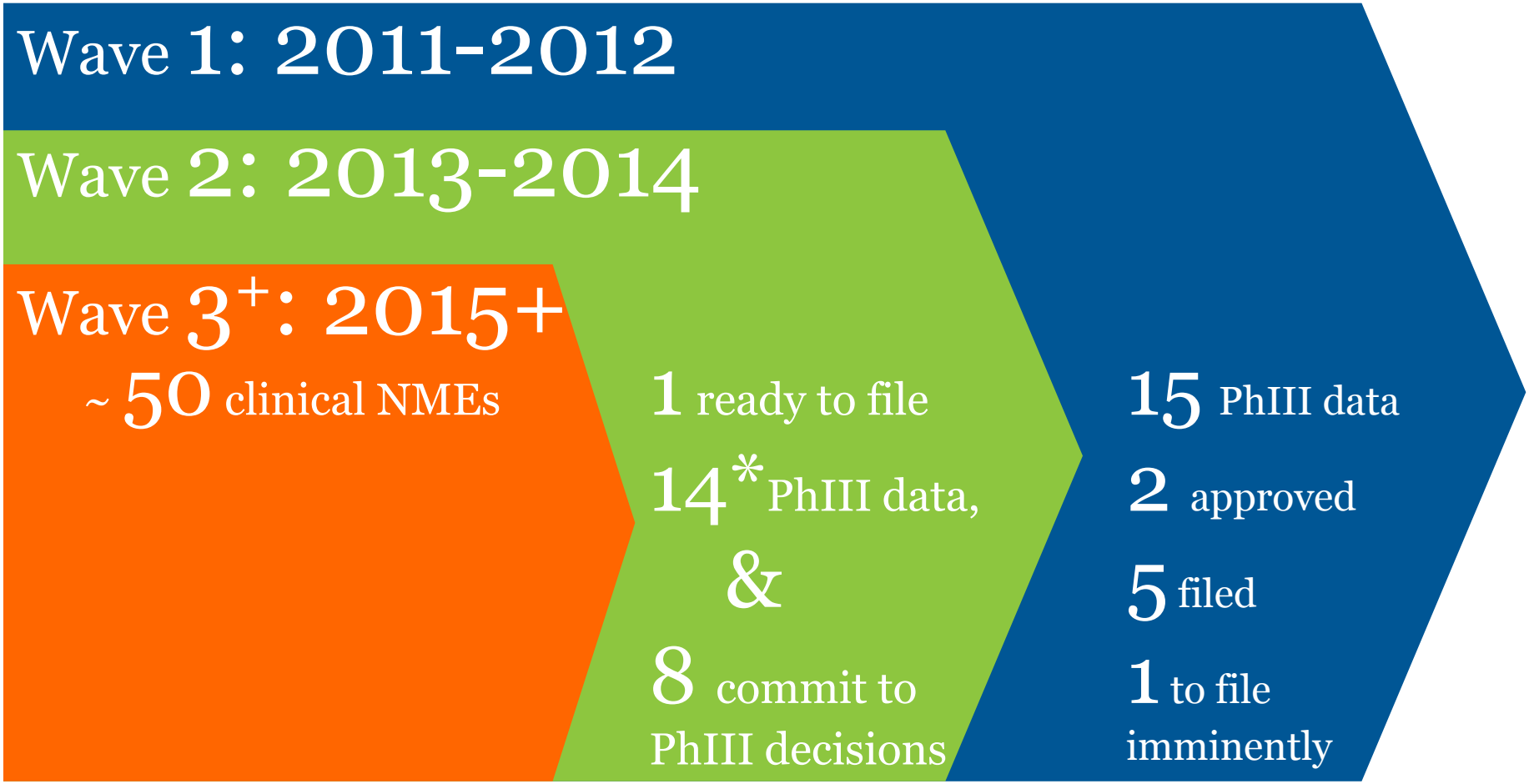


Wave 2: Key PhIII data delivery in 2013-2014

Respiratory	FF monotherapy (asthma) mepolizumab (severe asthma)
Oncology	Arzerra* (CLL, DLBCL) MEK/BRAF combo* (melanoma) Tykerb* (H&N, gastric) Votrient* (ovarian)
Vaccines	MAGE-A3* (therapeutic vaccines) Zoster* (shingles)
HIV	dolutegravir/Trii (HIV)
Immuno-inflammation	Benlysta subcut (SLE) vercirnon (Crohn's)
Rare diseases	drisapersen (DMD) migalastat HCl (Fabry's)
CV	darapladib* (atherosclerosis)

* Event driven

Re-engineered drug discovery delivers sustainable flow



* Includes some assets from Wave 1

Sustainability: R&D engine focused on best science

- ~40 Discovery Performance Units
- >50 external discovery engines
- >20 publications in Nature and NEJM




Thank you

Q&A