

A microscopic view of a cell, showing a large, textured, purple-colored nucleus on the left and several bright red, bean-shaped organelles (mitochondria) scattered throughout the cytoplasm. The background is a warm, golden-brown color.

Late-stage development

Growth-enabling & accelerating pipeline

**Briggs W. Morrison, Executive Vice President, Global Medicines Development
& Chief Medical Officer**



*Improve the lives
of 200 million
patients...one
patient at a time.*



Summary

Excellent pipeline progress

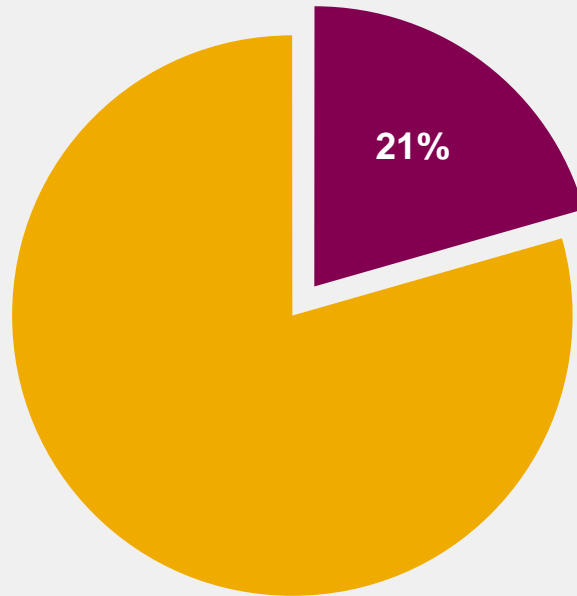
Focusing R&D spend on core therapeutic areas

Potential 14-16 submissions & 8-10 approvals 2015-2016 (NME/LE)

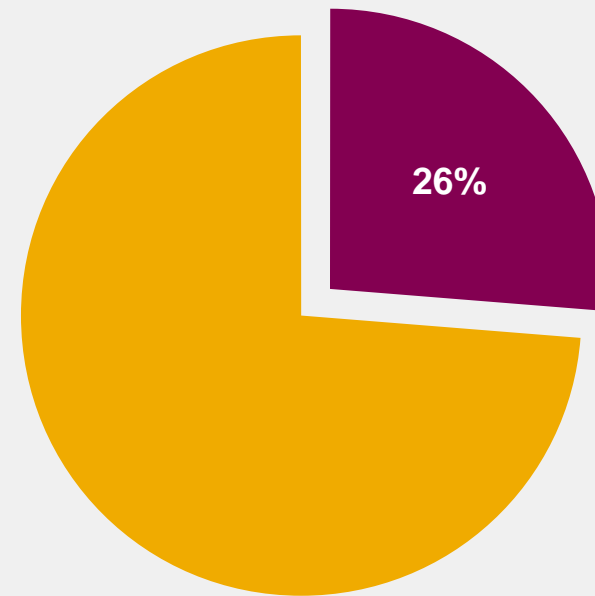


Attracting & retaining strong talent

External hires in all science units



External senior scientist hires



Hires defined as employees hired or transitioned-in since the beginning of 2013 up to 1 October 2014. Total science units population 8,956.



Scientific leadership

1

**Achieve
scientific
leadership**

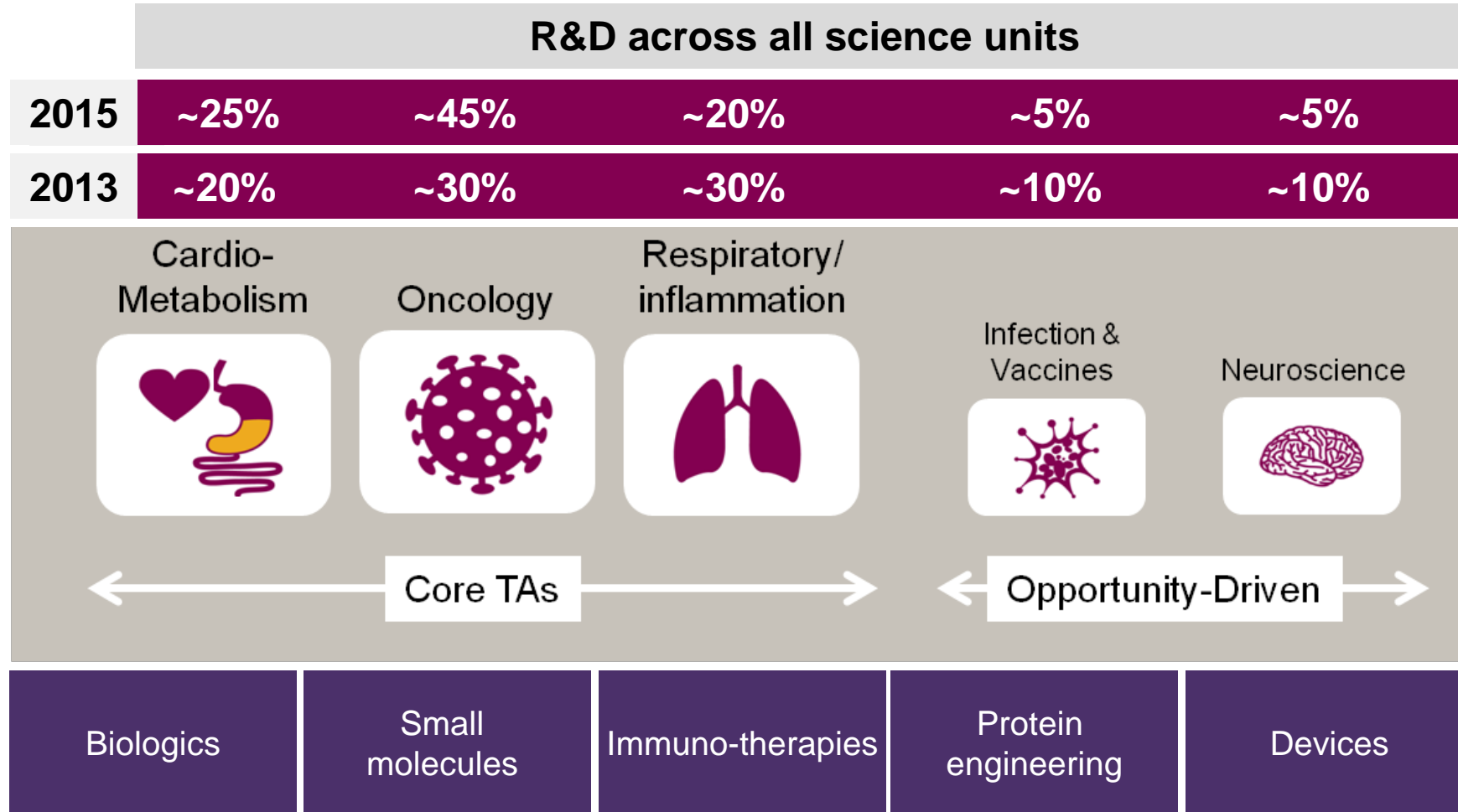
FOCUS on distinctive science in 3 core TAs

PRIORITISE & ACCELERATE our pipeline

TRANSFORM our innovation culture & model



Investment focused on core therapeutic areas (TAs)



2013: Targets used to measure progress

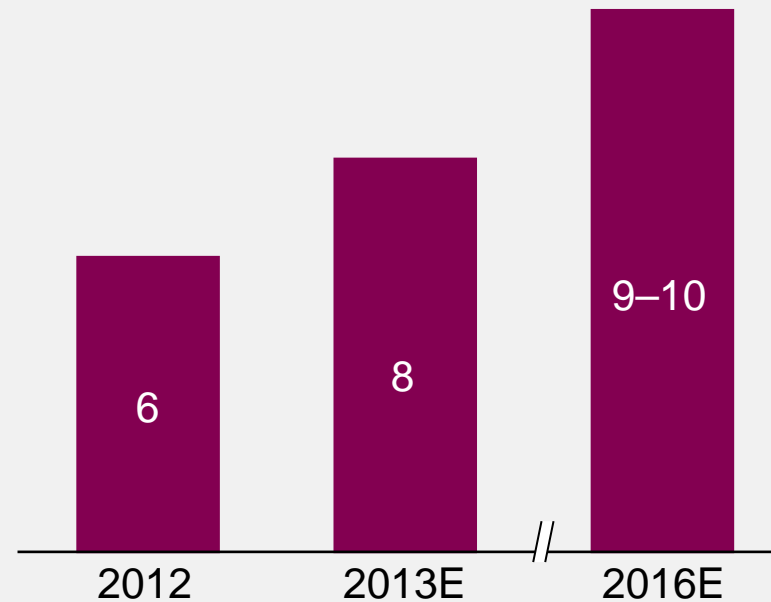
Near-term

In 2013–2014 we anticipate
~5–7 NME Phase III starts

10 potential NME submission
opportunities between now
and 2016

By 2016 we will be at the target
volume in Phase III and
Registration

Phase III and Registration NME pipeline volume (#)

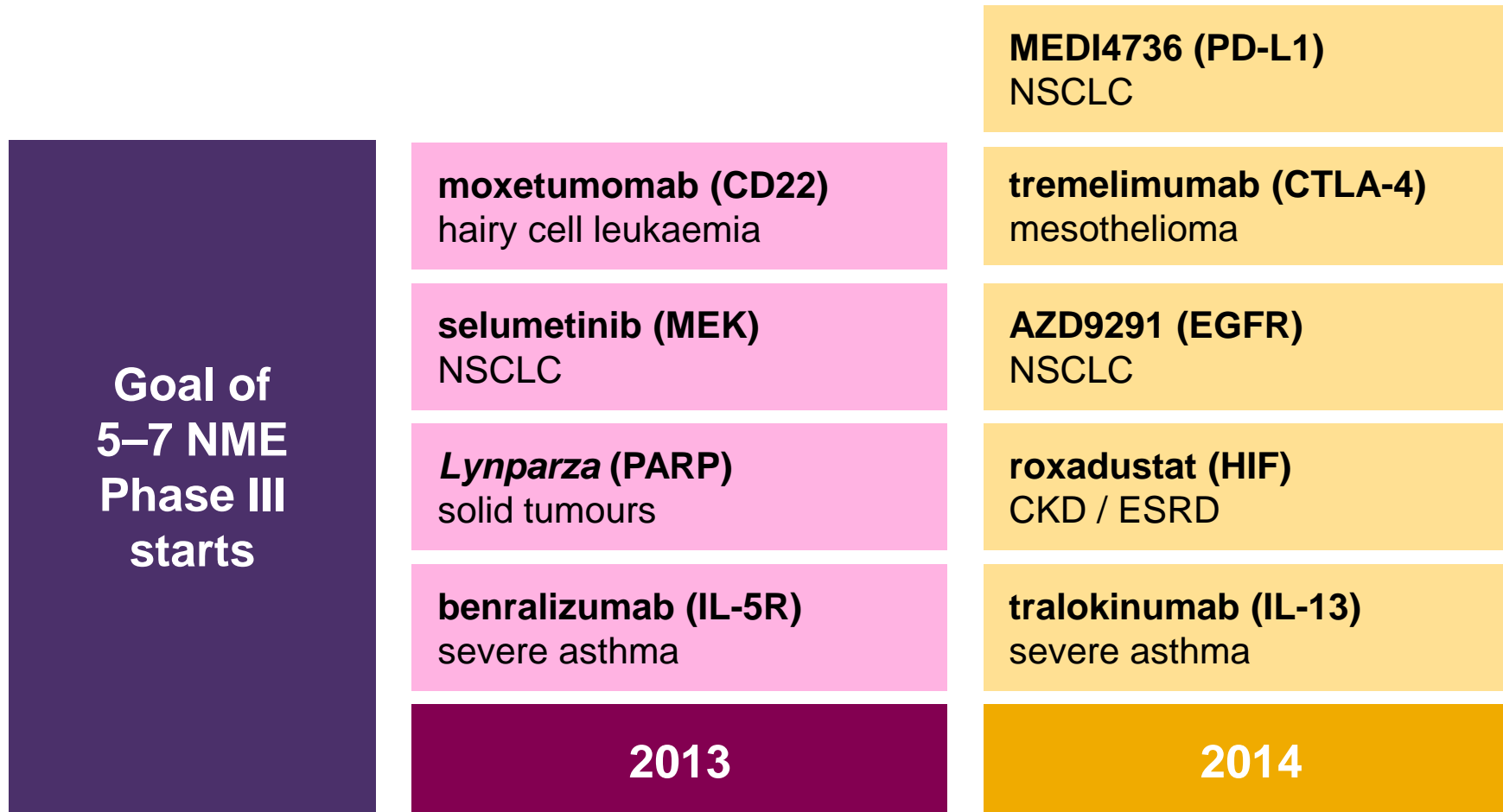


NME: New Molecular Entity



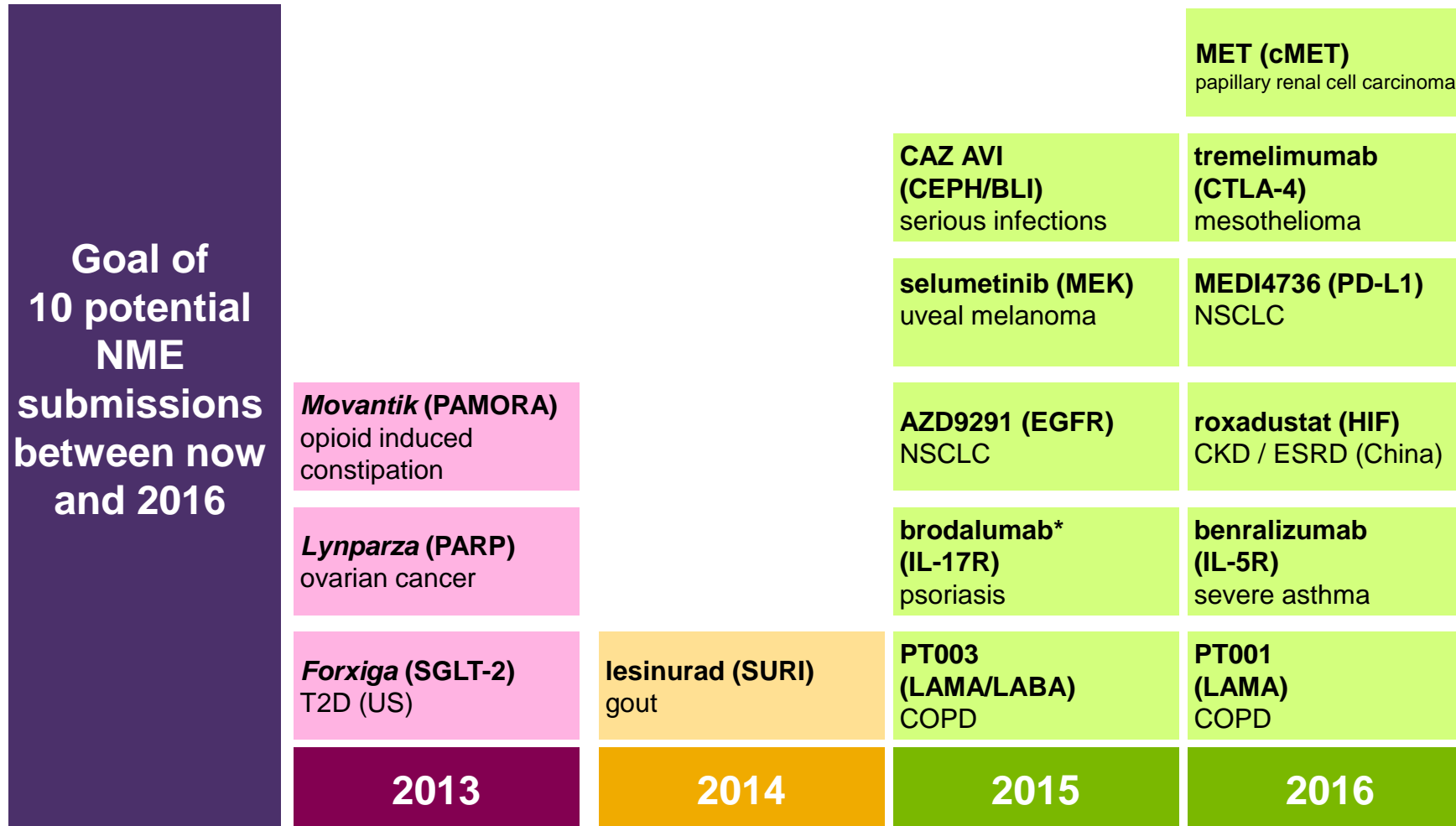
Status:

9 NME Phase III/Registration starts well ahead of goal



Status:

On track to deliver NME submissions

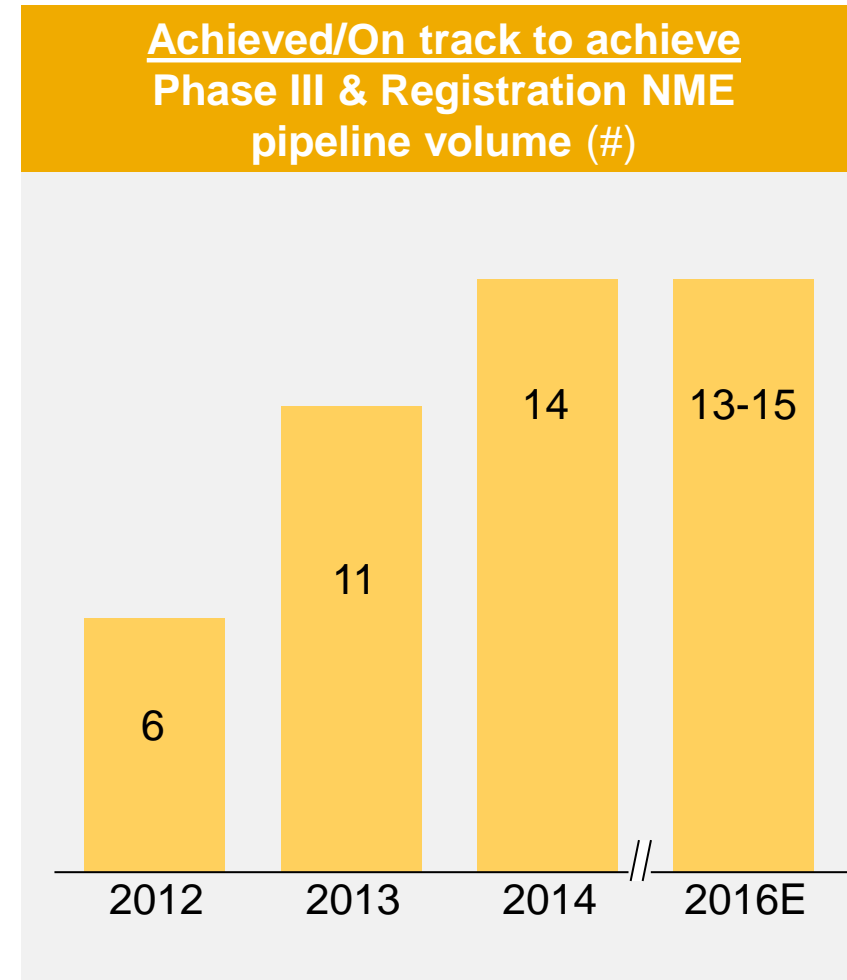
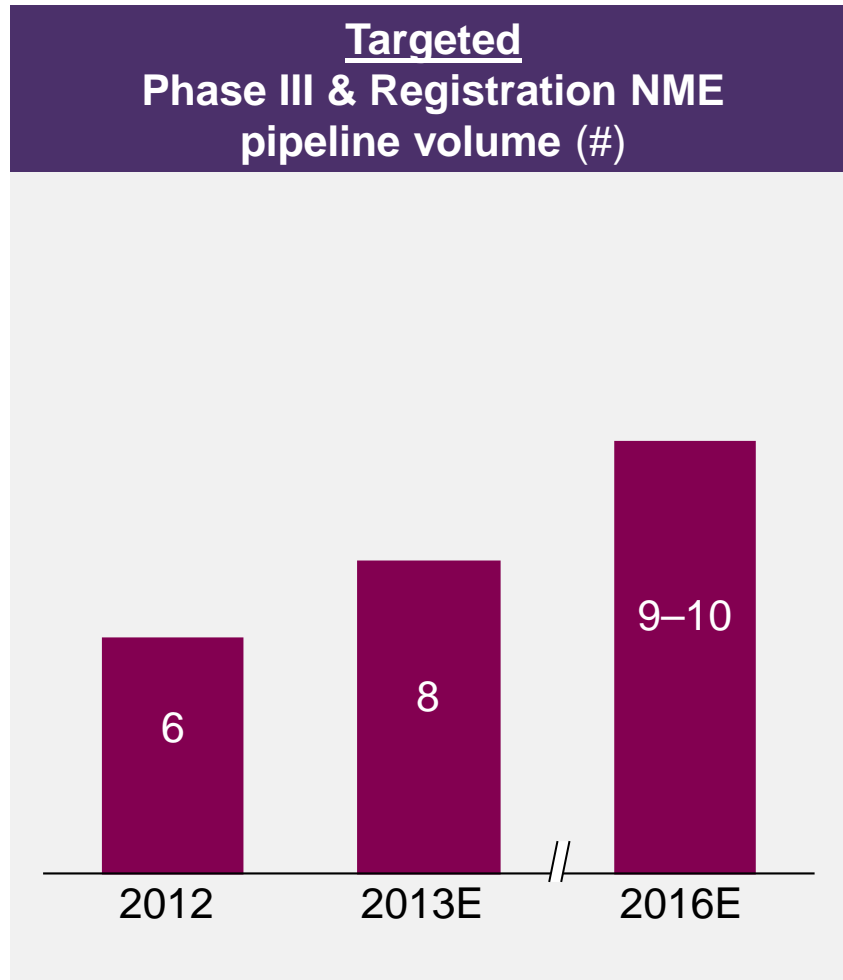


*Partner Amgen to manage regulatory submission

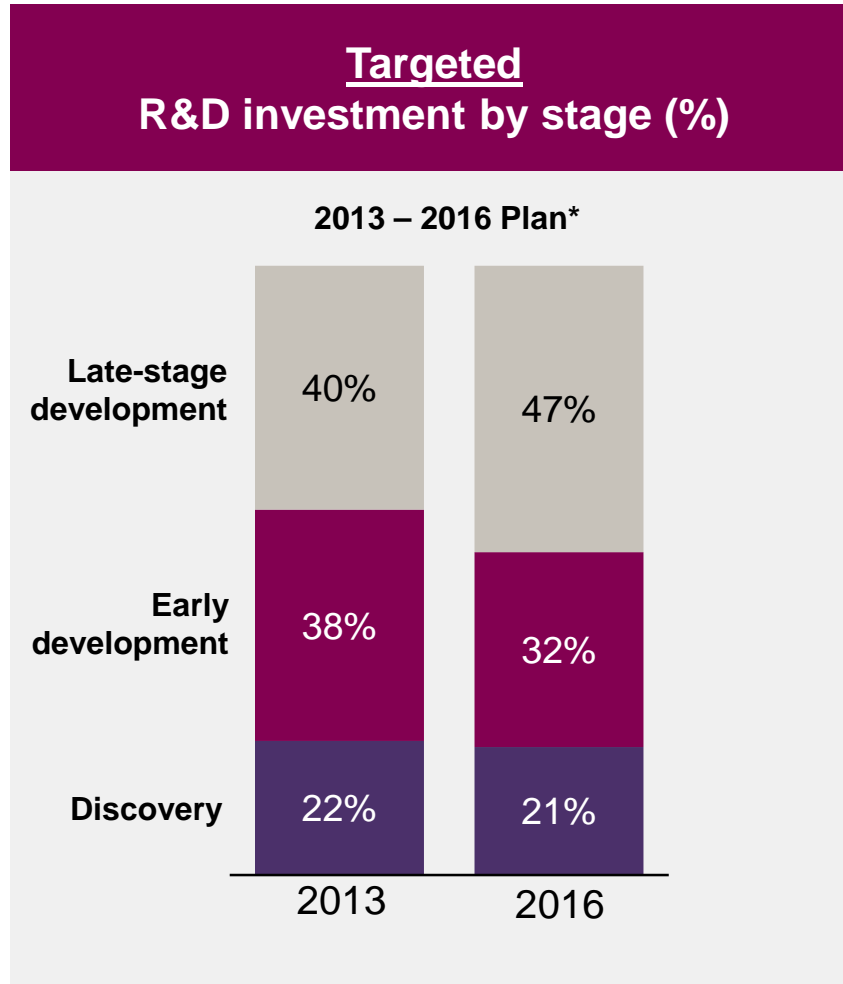


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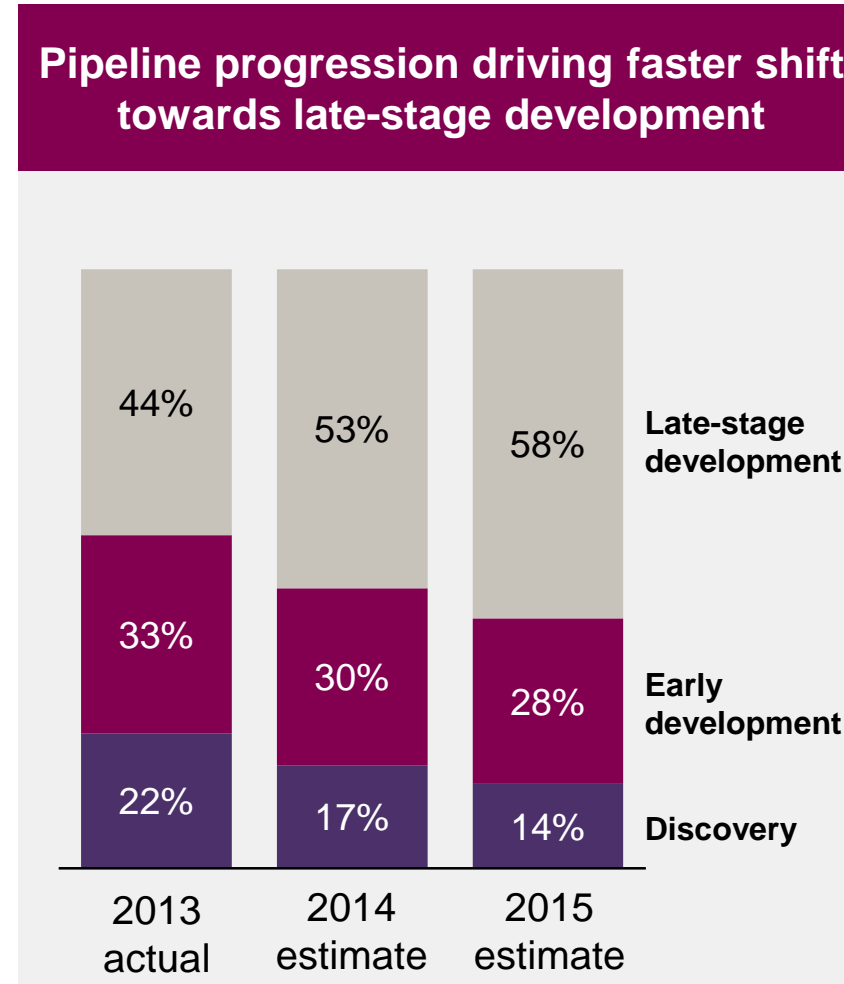
Late-stage pipeline volume well ahead of plan



R&D spend has shifted to support late-stage development



*2013-2016 plan as of March 2013



2013: Early pipeline

Phase I (26 New Molecular Entities)

Small molecule	Large molecule
ATM AVI BL/BLI SBI	MEDI-550 pandemic influenza virus vaccine
AZD1446* NNSA Alzheimer's	PRVV (MEDI-559) Paediatric RSV vaccine
AZD3293* BSECDR Alzheimer's	MEDI-557 Anti-RSV MAb –RSV
AZD8848* TLR7 asthma	MEDI5117 Anti-IL-6 MAb osteoarthritic pain
AZD7594* Inhaled SGRM asthma, COPD	MEDI4212 Anti-IgE MAb asthma
AZD7624 Inhaled p38 inhibitor COPD	MEDI2070* IL-23 Crohn's
AZD2014 TORC1 solid tumours	MEDI9929* TSLP asthma
volitinib* MET solid tumours	MEDI5872* B7RP1 SLE
AZD1208 PIM haems	moxetumomab* CD22 HCL
AZD9150 STAT3 haems + solids	MEDI0639 DLL-4 solid tumours
AZD8330* MEK inhibitor solid tumours	MEDI3617* ANG-2 solid tumours
AZD5363* AKT solid tumours	MEDI-565* CEA BiTE GI tumours
	MEDI6469* mOx40 solid tumours
	MEDI4736* PD-L1 solid tumours

Phase II (21 New Molecular Entities)

Small molecule	Large molecule
AZD5847 oxazolidinone TB	benralizumab* IL-5R severe asthma, COPD
AZD6765 NMDA MDD	mavrilimumab* GM-CSFR rheumatoid arthritis
AZD3241 MPO Multiple System Atrophy	MEDI8968* IL-1R COPD, HS
AZD5213 H3R Tourette's, neuropathic pain	sifalimumab* IFN α SLE
AZD1722* NHE3 inhibitor ESRD-Pi/CKD	MEDI-546* IFN α R SLE
AZD5069 CXCR2 asthma	tralokinumab IL-13 severe asthma, IPF, UC
AZD2115* MABA (dual) COPD	MEDI7183* A4 β 7 Crohn's, ulcerative colitis
AZD5423* iSGRM COPD	MEDI-551* CD19 CLL, DLBCL
AZD4547 FGFR solid tumours	MEDI-573* IGF metastatic breast cancer
olaparib PARP-BRCA solid tumours	tremelimumab CTLA-4 solid tumours
selumetinib* MEK solid tumours	

Phase III / Registration (6 New Molecular Entities)

Small molecule	Large molecule
CAZ AVI* BLI/cephalosporin SBI	brodalumab* IL-17R psoriasis, psoriatic arthritis
naloxegol* opioid induced constipation	metreleptin* lipodystrophy
lesinurad URAT1 gout	
fostamatinib* SYK inhibitor rheumatoid arthritis	

Oncology
 RIA
 CVMD
 Neuroscience
 Infection

*Partnered product



2014: Early pipeline stronger with late-stage acceleration

Phase I (39 New Molecular Entities[†])

Small molecule	Large molecule
ATM AVI BL/BLI SBI	MEDI-550 pandemic influenza virus vaccine
AZD0914 GHyrAR serious infections	MEDI3902 Psl/PcrV pseudomonas
AZD3293 BSECDR Alzheimer's	MEDI4893 staph alpha toxin SSI
AZD6423 NMDA suicidal ideation	MEDI7510 RSV sF+GLA-SE RSV prevention
AZD1979 MCH obesity	MEDI8897 RSV Mab YTE passive RSV prophylaxis
AZD1419 TLR9 asthma	PRVV (MEDI-559) paediatric RSV vaccine
AZD7594 Inhaled SGRM asthma, COPD	MEDI1814 Amyloid β Alzheimer's
AZD7624 Inhaled p38 inhibitor COPD	MEDI6012 LCAT ACS
AZD8999 [‡] MABA asthma COPD	MEDI8111 Rh-Factor II trauma/bleeding
AZD5312 Androgen prostate	MEDI4920 CD40L-Tn3 Primary Sjögren's Syndrome
AZD6738 ATR CLL, H&N	MEDI5872 B7RP1 SLE
AZD8186 PI3K β solid tumours	MEDI-551 CD19 MS
AZD9150 STAT3 haems + solids	MEDI0680 PD-1 solid tumours
	MEDI6383 OX40 fusion protein solid tumours
	MEDI0639 DLL-4 solid tumours
	MEDI3617 ANG-2 solid tumours
	MEDI-565 CEA BiTE GI tumours
	MEDI6469 mOX40 solid tumours
Oncology combinations	
AZD9291+MEDI4736/selumetinib/volitinib EGFR + PD-L1/MEK/MET NSCLC	MEDI4736+MEDI0680 PD-L1+PD-1 solid tumours
MEDI4736 TATTON PD-L1 after EGFR/MEK/CTLA-4 NSCLC	MEDI4736+MEDI6469 PD-L1+mOX40 solid tumours
MEDI4736+dabrafenib+trametinib [†] PD-L1+BRAF+MEK melanoma	MEDI4736+treme PD-L1+CTLA-4 solid tumours
MEDI4736+lressa PD-L1+EGFR NSCLC	MEDI-551+rituximab CD19+CD20 haems

Phase II (26 New Molecular Entities[†])

Small molecule	Large molecule
AZD5847 oxazolidinone TB	AZD9412 Inhaled IFN β asthma, COPD
CXL BLI/cephalosporin MRSA	mavrilimumab GM-CSFR rheumatoid arthritis
AZD3241 MPO Multiple System Atrophy	MEDI2070 IL-23 Crohn's
AZD5213 H3R Tourette's, neuropathic pain	sifalimumab IFN α SLE
AZD4901 hormone modulator PCOS	anifrolumab IFN α R SLE
AZD1722 (tenapanor) NHE3 inhibitor ESRD-Pi/CKD	MEDI9929 TSLP asthma
AZD2115 MABA (dual) COPD	MEDI7183 α 4 β 7 Crohn's, ulcerative colitis
PT010 LAMA/LABA/ICS COPD	MEDI-551 CD19 CLL, DLBCL
RDEA3170 URAT1 gout	MEDI-573 IGF metastatic breast cancer
AZD0548 (abediterol) [‡] LABA asthma COPD	
PT008 ICS asthma	
PT009 ICS/LABA asthma, COPD	
AZD1775 Wee-1 ovarian, 1L NSCLC	
AZD4547 FGFR solid tumours	
AZD2014 TORK solid tumours	
AZD5363 AKT breast cancer	
AZD6094 (MET) MET solid tumours	

Terminations in 2014

In Phase I: AZD1208 (solid tumours), AZD4721 (COPD), MEDI4893 (SSI), MEDI9287 (avian flu)
In Phase II: AZD5069 (asthma), AZD8848 (asthma), MEDI8968 (COPD, HS)

[†] Includes significant combination programmes. Parallel and LCM indications that are in the same phase as the lead indication are listed in a single box for each asset. Those in earlier phases are excluded unless they are in a different TA (Exclusions: selumetinib (2L KRAS- NSCLC) in P2, brodalumab (asthma) in P2, moxetumomab (pALL) in P2, tralokinumab (IPF) in P2)

[‡] Registrational P2/3 study

[§] MedImmune-sponsored study in collaboration with GSK

* Myalept (metreleptin) launched in US Q2 2014; divestment to Aegerion expected to complete in January 2015

[‡] Added to the pipeline post Q3 2014 (Almirall respiratory franchise)

Phase III / Registration (14 New Molecular Entities[†])

Small molecule	Large molecule
CAZ AVI cephalosporin/BLI SBI	brodalumab IL-17R psoriasis, psoriatic arthritis
roxadustat (AZD9941) HIF anaemia CKD/ESRD	benralizumab IL-5R severe asthma, COPD
lesinurad SURI gout	tralokinumab IL-13 severe asthma
PT003 LAMA/LABA COPD	tremelimumab [‡] CTLA-4 mesothelioma
PT001 LAMA COPD	MEDI4736 PD-L1 NSCLC
AZD9291 [‡] EGFRm T790M NSCLC	moxetumomab CD22 HCL
Lynparza PARP BRCA ovarian, gastric, breast	
selumetinib MEK 2L KRAS [‡] NSCLC, uveal melanoma, DTC	

New approvals (3 New Molecular Entities[†])

Small molecule	Large molecule
Epanova hypertriglyceridaemia	Myalept lipodystrophy
Movantik opioid induced constipation	



Late-stage pipeline: Continued momentum

	Compound	Indication	Milestone	
RIA	lesinurad	gout	Phase III topline results	✓
CVMD	Bydureon Pen	type 2 diabetes	US & EU approval	✓
	Farxiga/Forxiga	type 2 diabetes	US & Japan approval	✓
	Xigduo	type 2 diabetes	US & EU approval	✓
	Epanova	hypertriglyceridaemia	US approval	✓
	saxa-dapa FDC	type 2 diabetes	Phase III topline results	✓
Oncology	Lynparza	PSR BRCAm ovarian cancer	CHMP positive opinion & US submission	✓
Infection	CAZ AVI	serious infections	Phase III topline results	✓
Neuroscience	Movantik/Moventig	opioid-induced constipation	US approval & CHMP positive opinion	✓



Late-stage pipeline: Key news flow through 2015

	Compound	Indication	Potential milestone
RIA	brodalumab	psoriasis	Regulatory submission
	PT003 (LAMA/LABA)	COPD	Phase III results & regulatory submission
	anifrolumab	SLE	Phase II presentation
	lesinurad	gout	Regulatory submission
CVMD	<i>Brilinta</i>	prior MI (PEGASUS)	Phase III results
	saxa/dapa FDC	type 2 diabetes	Regulatory submission
Oncology	<i>Lynparza</i>	PSR BRCAm ovarian cancer	Approval & Phase III topline results (SOLO-2)
	AZD9291	2 nd line NSCLC	Regulatory submission
	MEDI4736 (PD-L1)	3 rd line NSCLC	Phase II/potential registration topline results
	MEDI4736 (PD-L1) / tremelimumab	NSCLC	Phase I presentation (ASCO)
	cediranib	ovarian cancer	Further analysis (ICON6)
Neuroscience	<i>Movantik/Moventig</i>	opioid-induced constipation	US de-scheduling & launch; EU approval

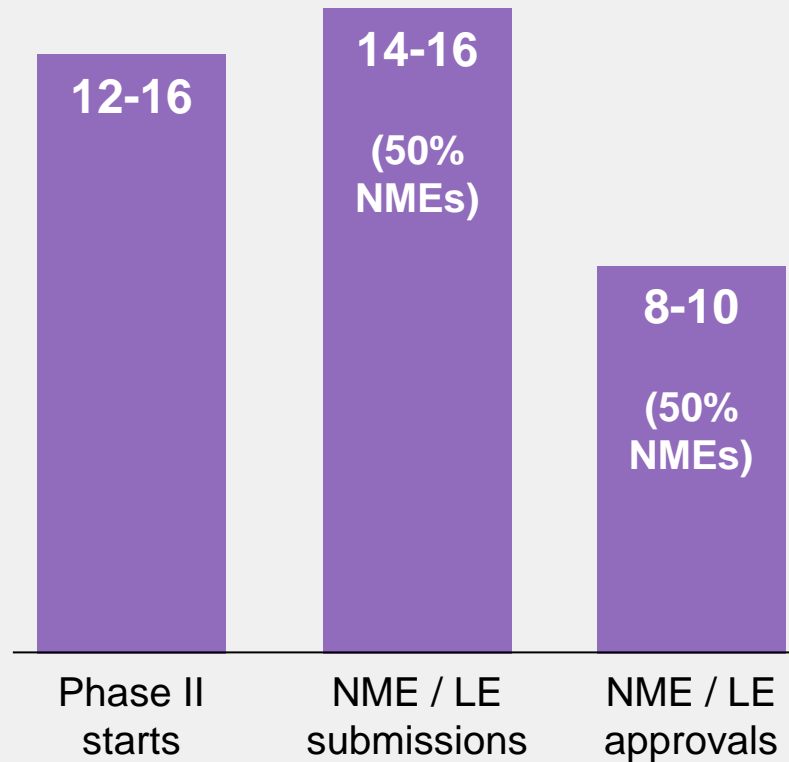


2015-2016: Targets to measure progress

Near-term delivery & longer-term sustainability

- Focus shifting from rebuilding the late-stage pipeline to following through with submissions and approvals
- High quality Phase II starts ensure sustainability of pipeline

Anticipated 2015-2016 delivery



2015-2016: 14-16 NME & LE submissions

LE submission opportunities				MEDI4736 + tremelimumab 2L SCCHN
			<i>Faslodex</i> 1L metastatic breast cancer	MEDI4736 2L SCCHN
			<i>Brilinta</i> stroke	<i>Lynparza</i> BRCAm metastatic breast cancer
		saxa/dapa FDC type 2 diabetes	brodalumab* psoriatic arthritis	<i>Lynparza</i> BRCAm PSR ovarian cancer (SOLO-2)
NME submission opportunities	<i>Brilinta</i> prior MI	<i>Bydureon</i> autoinjector	lesinurad FDC gout	<i>Caprelsa</i> differentiated thyroid cancer
		CAZ AVI serious infections	roxadustat CKD / ESRD (China)	MET papillary renal cell carcinoma
	brodalumab* psoriasis	selumetinib uveal melanoma	benralizumab severe asthma	tremelimumab mesothelioma
	PT003 (LAMA/LABA) COPD	AZD9291 NSCLC	PT001 (LAMA) COPD	MEDI4736 3L NSCLC
	2015		2016	

*Partner Amgen to manage regulatory submission



Summary

Excellent pipeline progress

Focusing R&D spend on core therapeutic areas

Potential 14-16 submissions & 8-10 approvals 2015-2016 (NME/LE)



A microscopic view of a cell, showing a large, textured, light purple nucleus on the left and several bright red, bean-shaped organelles (mitochondria) scattered throughout the cytoplasm. The background is a warm, golden-brown color.

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Growth-enabling & accelerating pipeline

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