

February

2008

Product Development Pipeline

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Therapeutic area	Compound/Vaccine	Type	Indication	Phase	Estimated submission dates		
					MAA	NDA/BLA	
Cardiovascular & Metabolic	Cardiovascular projects						
	256073	high affinity nicotinic acid receptor (HM74A) agonist	dyslipidaemia	I			
	rilapladib [†]	Lp-PLA2 inhibitor	atherosclerosis	I			
	681323	p38 kinase inhibitor	atherosclerosis (also chronic obstructive pulmonary disease – COPD, neuropathic pain & rheumatoid arthritis)	II			
	856553	p38 kinase inhibitor	atherosclerosis (also COPD, depression & rheumatoid arthritis)	II			
	darapladib [†]	Lp-PLA2 inhibitor	atherosclerosis	II/III			
	Coreg CR [†] + ACE inhibitor	beta blocker + angiotensin converting enzyme inhibitor	hypertension – fixed dose combination	III	N/A	2008	
	Volibris [†]	endothelin A antagonist	pulmonary arterial hypertension	Submitted	S:Mar07	N/A	
	Arixtra	synthetic factor Xa inhibitor	treatment of acute coronary syndrome	Approved	A:Aug07	AL:Feb07 & Sep07	
	Metabolic projects						
	remogliflozin etabonate (189075) [†]	sodium dependent glucose transport (SGLT2) inhibitor	obesity	I			
	376501	PPAR gamma partial agonist	type 2 diabetes	I			
	756050	bile acid receptor agonist	type 2 diabetes	I			
	otelixizumab (TRX4) [†]	anti-CD3 monoclonal antibody	type 1 diabetes	II			
	remogliflozin etabonate (189075) [†]	SGLT2 inhibitor	type 2 diabetes	II			
	Syncria [†]	glucagon-like peptide 1 agonist	type 2 diabetes	II			
	Avandamet XR	PPAR gamma agonist + metformin	type 2 diabetes – extended release	III	N/A		
	Avandia	PPAR gamma agonist	atherosclerosis in type 2 diabetes	III			
	Avandia + simvastatin	PPAR gamma agonist + statin	type 2 diabetes	III	N/A		
	Avandia	PPAR gamma agonist	prevention of disease progression	Submitted		S:Feb07	
Infectious Diseases	580416	ribosome inhibitor	treatment of bacterial infections	I			
	945237	topoisomerase II inhibitor	treatment of bacterial infections	I			
	1349572 [†]	HIV integrase inhibitor	HIV infections	I			
	farglitazar	PPAR gamma agonist	hepatic fibrosis	II			
	sitamaquine	8-aminoquinoline	treatment of visceral leishmaniasis	II		N/A	
	tafenoquine [†]	8-aminoquinoline	<i>Plasmodium vivax</i> malaria	II			
	Musculoskeletal, Inflammation, Gastrointestinal & Urology	315234	monoclonal antibody	rheumatoid arthritis	I		
		768974 [†]	parathyroid hormone agonist	osteoporosis	I		
		962040	motilin receptor agonist	delayed gastric emptying	I		
		971086	androgen modulator	sarcopaenia	I		
1827771		interleukin 1 antagonist	rheumatoid arthritis	I			
belimumab [†]		anti-B lymphocyte stimulator monoclonal antibody (s.c.)	systemic lupus erythematosus	I			
pazopanib		multi-kinase angiogenesis inhibitor	age-related macular degeneration (also cancer indications)	I			
221149		oxytocin antagonist	threatened pre-term labour	II			
232802		3G-selective oestrogen receptor modulator	treatment of menopausal symptoms	II			
274150		selective iNOS inhibitor	rheumatoid arthritis	II			
681323		p38 kinase inhibitor (oral)	rheumatoid arthritis (also atherosclerosis, COPD & neuropathic pain)	II			
856553		p38 kinase inhibitor (oral)	rheumatoid arthritis (also atherosclerosis, COPD & depression)	II			
876008 [†]		corticotrophin releasing factor (CRF1) antagonist	irritable bowel syndrome (also depression & anxiety)	II			
ronacaleret [†]		calcium antagonist	osteoporosis & fracture healing	II			
solabegron		beta3 adrenergic agonist	irritable bowel syndrome	II			
solabegron		beta3 adrenergic agonist	overactive bladder	II			
Avodart		5-alpha reductase inhibitor	reduction in the risk of prostate cancer	III			
Avodart + alpha blocker		5-alpha reductase inhibitor + alpha blocker	benign prostatic hyperplasia – fixed dose combination	III	2008	2009	
belimumab [†]		anti-B lymphocyte stimulator monoclonal antibody (i.v.)	systemic lupus erythematosus	III			
Bosatria (mepolizumab)		anti-IL5 monoclonal antibody	hypereosinophilic syndrome (also severe asthma & nasal polyposis)	III	2008	2008	
Entrareg/Entereg [†]	peripheral mu-opioid antagonist	opioid-induced bowel dysfunction	III				
ofatumumab [†]	anti-CD20 human monoclonal antibody	rheumatoid arthritis (also cancer indications)	III				
Entrareg/Entereg [†]	peripheral mu-opioid antagonist	post operative ileus	Approvable		AL:Jul05 & Nov06		
Neurosciences	163090	5HT1 antagonist	depression & anxiety	I			
	239512	histamine H3 antagonist	dementia	I			
	249320	monoclonal antibody	neuronal injury	I			
	424887	NK1 antagonist/SSRI	depression & anxiety	I			
	561679 [†]	CRF1 antagonist	depression & anxiety	I			
	586529 [†]	CRF1 antagonist	depression & anxiety	I			
	598809	dopamine D3 antagonist	drug dependency	I			
	618334	dopamine D3 antagonist	drug dependency	I			
	729327	AMPA receptor modulator	schizophrenia	I			
	933776	monoclonal antibody	Alzheimer's disease	I			
	1014802	sodium channel blocker	bipolar disorder	I			
	1018921	type 1 glycine transport inhibitor	schizophrenia	I			
	orvepitant	NK1 antagonist	depression & anxiety	I			
	189254	histamine H3 antagonist	narcolepsy	II			
	372475 [†]	triple (5HT/noradrenaline/dopamine) re-uptake inhibitor	depression	II			
	468816	glycine antagonist	smoking cessation	II			
	649868 [†]	orexin antagonist	sleep disorders	II			
	681323	p38 kinase inhibitor	neuropathic pain (also atherosclerosis, COPD & rheumatoid arthritis)	II			
	742457	5HT6 antagonist	dementia	II			
	773812	mixed 5HT/dopaminergic antagonist	schizophrenia	II			
	842166	non-cannabinoid CB2 agonist	inflammatory pain	II			
	856553	p38 kinase inhibitor	depression (also atherosclerosis, COPD & rheumatoid arthritis)	II			
	876008 [†]	CRF1 antagonist	depression & anxiety (also irritable bowel syndrome)	II			
	1838262 (XP13512) [†]	voltage-gated calcium channel modulator	migraine prophylaxis	II			
	1838262 (XP13512) [†]	voltage-gated calcium channel modulator	neuropathic pain	II			
	casopitant	NK1 antagonist	depression & anxiety (also as <i>Zunrisa/Rezonica</i> for chemotherapy-induced & postoperative nausea & vomiting)	II			
	firatragrast [†]	dual alpha4 integrin antagonist (VLA4)	multiple sclerosis	II			
	1838262 (XP13512) [†]	voltage-gated calcium channel modulator	restless legs syndrome	III		2008	
	Lamictal XR	sodium channel inhibitor	epilepsy – partial generalised tonic-clonic seizures, once-daily	III	N/A	2008	
	rosiglitazone XR	PPAR gamma agonist	Alzheimer's disease	III			
Lunivia [†]	non-benzodiazepine GABA agonist	insomnia	Submitted	S:Jul07	N/A		
Lamictal XR	sodium channel inhibitor	epilepsy – partial seizures, once-daily	Approvable	N/A	AL:Sep07		
Treximet [†]	5HT1 agonist + naproxen	migraine – fixed dose combination	Approvable	N/A	AL:Jun06 & Aug07		
ReQuip Modutab/XL [†]	non-ergot dopamine agonist	Parkinson's disease – once-daily controlled release formulation	Approved	A:Mar07	AL:Dec07		
Oncology	461364	polo-like kinase inhibitor	cancer	I			
	690693	AKT kinase inhibitor	cancer	I			
	923295 [†]	centromere-associated protein E (CENP-E) inhibitor	cancer	I			
	Armala (pazopanib)	multi-kinase angiogenesis inhibitor	colorectal cancer	I			
	iboctadekin [†] + rituximab	IL18 immunomodulator + anti-CD20 monoclonal antibody	non-Hodgkin's lymphoma	I			
	totrombopag [†]	thrombopoietin agonist	thrombocytopenia	I			
	1363089 (XL-880) [†]	C-met kinase inhibitor	papillary renal cell carcinoma, gastric cancer and head & neck squamous cell carcinoma	II			
	ofatumumab [†]	anti-CD20 human monoclonal antibody	relapsed diffuse large B cell lymphoma	II			
	Armala (pazopanib)	multi-kinase angiogenesis inhibitor	non-small cell lung cancer	II			
	Armala (pazopanib)	multi-kinase angiogenesis inhibitor	ovarian cancer	II			
	Armala (pazopanib)	multi-kinase angiogenesis inhibitor	sarcoma	II			
	Armala (pazopanib) + Tykerb	multi-kinase angiogenesis inhibitor + ErbB-2 and epidermal growth factor receptor (EGFR) dual kinase inhibitor	metastatic breast cancer	II			
	Armala (pazopanib) + Tykerb	multi-kinase angiogenesis inhibitor + ErbB-2 and EGFR dual kinase inhibitor	other cancers	II			
	Revolade/Promacta [†]	thrombopoietin agonist	chemotherapy-induced thrombocytopenia	II			
	Tyverb/Tykerb	ErbB-2 and EGFR dual kinase inhibitor	head & neck squamous cell carcinomas (unresectable disease)	II			
	Tyverb/Tykerb	ErbB-2 and EGFR dual kinase inhibitor	refractory inflammatory breast cancer	II			
	Armala (pazopanib)	multi-kinase angiogenesis inhibitor	renal cell cancer	III			
	Armala (pazopanib) + Tykerb	multi-kinase angiogenesis inhibitor + ErbB-2 and EGFR dual kinase inhibitor	inflammatory breast cancer	III			
	elesclomol (STA-4783) [†]	oxidative stress inducer	metastatic melanoma	III			
	Hycamtin	topoisomerase I inhibitor	ovarian cancer, first-line therapy	III			
ofatumumab [†]	anti-CD20 human monoclonal antibody	refractory chronic lymphocytic leukaemia (also rheumatoid arthritis)	III	2008	2008		
ofatumumab [†]	anti-CD20 human monoclonal antibody	refractory follicular lymphoma (also rheumatoid arthritis)	III				
Revolade/Promacta [†]	thrombopoietin agonist	hepatitis C	III				
Revolade/Promacta [†]	thrombopoietin agonist	long-term idiopathic thrombocytopenic purpura	III	2008	2008		
Tyverb/Tykerb	ErbB-2 and EGFR dual kinase inhibitor	breast cancer, adjuvant therapy	III				
Tyverb/Tykerb	ErbB-2 and EGFR dual kinase inhibitor	breast cancer brain metastases	III				
Tyverb/Tykerb	ErbB-2 and EGFR dual kinase inhibitor	breast cancer, first-line therapy	III				
Tyverb/Tykerb	ErbB-2 and EGFR dual kinase inhibitor	head & neck squamous cell carcinomas (resectable disease)	III				
Zunrisa/Rezonica	NK1 antagonist	chemotherapy-induced & postoperative nausea & vomiting (also depression & anxiety)	III	2008	2008		
Revolade/Promacta [†]	thrombopoietin agonist	short-term idiopathic thrombocytopenic purpura	Submitted	2008	S:Dec07		
Hycamtin	topoisomerase I inhibitor (oral)	small cell lung cancer, second-line therapy	Approved	S:May07	A:Oct07		
Tyverb/Tykerb	ErbB-2 and EGFR dual kinase inhibitor	refractory breast cancer	Approved	S:Oct06	A:Mar07		
Respiratory	656933	interleukin 8 antagonist	cystic fibrosis	I			
	835726	histamine H1/H3 dual antagonist (oral)	allergic rhinitis	I			
	1004723	histamine H1/H3 dual antagonist (intranasal)	allergic rhinitis	I			
	2190914 (AM-103) [†]	5 lipoxygenase activating protein (FLAP) inhibitor	respiratory diseases	I			
	159797 [†]	long-acting beta2 agonist	COPD, also COPD & asthma in combination with a glucocorticoid agonist	II			
	159802 [†]	long-acting beta2 agonist	COPD, also COPD & asthma in combination with a glucocorticoid agonist	II			
	256066	PDE IV inhibitor (inhaled)	COPD	II			
	256066	PDE IV inhibitor (inhaled)	asthma	II			
	256066	PDE IV inhibitor (intranasal)	allergic rhinitis	II			
	573719	muscarinic acetylcholine antagonist	COPD	II			
	642444 [†]	long-acting beta2 agonist	COPD, also COPD & asthma in combination with a glucocorticoid agonist	II			
	679586	monoclonal antibody	severe asthma	II			
	681323	p38 kinase inhibitor (oral)	COPD (also atherosclerosis, neuropathic pain & rheumatoid arthritis)	II			
	685698	glucocorticoid agonist	asthma, also COPD & asthma in combination with a long-acting beta2 agonist (also as <i>Avamys/Veramyst</i> for allergic rhinitis)	II			
	856553	p38 kinase inhibitor (oral)	COPD (also atherosclerosis, depression & rheumatoid arthritis)	II			
	870086	novel glucocorticoid agonist	asthma	II			
	961081 [†]	muscarinic antagonist, beta2 agonist	COPD	II			
	darotroprium (233705)	muscarinic acetylcholine antagonist	COPD	II			
	mepolizumab	anti-IL5 monoclonal antibody	severe asthma & nasal polyposis (also hypereosinophilic syndrome)	II			
	Avamys/Veramyst	glucocorticoid agonist	allergic rhinitis	Approved	A:Jan08	A:Apr07	
Paediatric Vaccines	Hib-MenCY-TT	conjugated	<i>Neisseria meningitidis</i> groups C & Y disease & <i>Haemophilus influenzae</i> type b disease prophylaxis	III			
	MenACWY-TT	conjugated	<i>Neisseria meningitidis</i> groups A, C, W & Y disease prophylaxis	III			
	Infanrix-IPV/Kinrix	subunit-inactivated	diphtheria, tetanus, pertussis & poliomyelitis prophylaxis (booster-5th dose)	Submitted		S:Apr07	
Synflorix	conjugated	<i>Streptococcus pneumoniae</i> & non-typeable <i>Haemophilus influenzae</i> disease prophylaxis for children	Submitted	S:Dec07			
Rotarix [†]	live attenuated (oral)	rotavirus-induced gastroenteritis prophylaxis	Approved	A:Feb06	S:Jun07		
Other Vaccines	Cytomegalovirus	recombinant	cytomegalovirus infection prophylaxis	I			
	HIV	recombinant	HIV infection prophylaxis	I			
	<i>S. pneumoniae</i> adult	recombinant – conjugated	<i>Streptococcus pneumoniae</i> disease prophylaxis	I			
	Dengue fever	attenuated tetravalent	Dengue fever prophylaxis	II			
	Epstein-Barr virus [†]	recombinant	EBV infection prophylaxis	II			
	Hepatitis E virus [†]	recombinant	hepatitis E prophylaxis	II			
	Mosquirix	recombinant	malaria prophylaxis	II			
	Tuberculosis	recombinant	tuberculosis prophylaxis	II			
	Varicella Zoster virus	recombinant	Varicella Zoster prevention	II			
	Flu pandemic [†]	H5N1 inactivated split – monovalent (Quebec)	pandemic influenza prophylaxis	III	2008		
	Flu pre-pandemic [†]	H5N1 inactivated split – monovalent (Quebec)	pandemic influenza prophylaxis	III	2008	2008	
	New generation flu vaccine	inactivated split – trivalent	seasonal influenza prophylaxis for the elderly	III			
	Simplrix	recombinant	adult herpes prophylaxis	III			
	Boostrix	subunit	adult booster for diphtheria, tetanus & pertussis	Submitted		S:Feb08	
	Flu pandemic [†]	H5N1 inactivated split – monovalent (Dresden)	pandemic influenza prophylaxis	Submitted	S:Feb07		
	Flu pre-pandemic [†]	H5N1 inactivated split – monovalent (Dresden)	pandemic influenza prophylaxis	Submitted	S:Jan07		
	Cervarix [†]	recombinant	human papilloma virus infection prophylaxis	Approved	A:Sep07	AL:Dec07	
Antigen Specific Cancer Immunotherapeutic (ASCI)	MAGE-A3 ASCI	recombinant	treatment of melanoma	II			
	MAGE-A3 ASCI	recombinant	treatment of non-small cell lung cancer	III			

Estimated submission dates are only disclosed where they are within 12 months of the date of the chart. This date represents the most likely year of submission where it is considered that there is a reasonably high probability of successfully meeting the date assuming the clinical data meets the expected end-points of the clinical trials.

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Product Development Pipeline February 2008

This document outlines GlaxoSmithKline's drug development portfolio. The content of the drug development portfolio will change over time as new compounds progress from discovery to development and from development to the market. Owing to the nature of the drug development process, many of these

compounds, especially those in early stages of investigation, may be terminated as they progress through development. For competitive reasons, new projects in pre-clinical development have not been disclosed and some project types may not have been identified.

Phase I	Phase II	Phase III	Filed/Approved
256073	681323	<i>Coreg CR</i> [†] + ACE Inhibitor	<i>Volibris</i> [†]
rilapladib [†]	856553	<i>Avandamet XR</i>	<i>Avandia</i>
remoglifozin etabonate (189075) [†]	darapladib [†]	<i>Avandia</i>	<i>Arixtra</i>
376501	otelixizumab (TRX4) [†]	<i>Avandia</i> + simvastatin	<i>Entrereg/Entereg</i> [†]
756050	remoglifozin etabonate (189075) [†]	<i>Avodart</i>	<i>Lunivia</i> [†]
580416	<i>Syncria</i> [†]	<i>Avodart</i> + alpha blocker	<i>Lamictal XR</i>
945237	farglitazar	belimumab [†]	<i>Treximet</i> [†]
1349572 [†]	sitamaquine	<i>Bosatria</i> (mepolizumab)	<i>ReQuip Modutab/XL</i> [†]
315234	tafenoquine [†]	<i>Entrereg/Entereg</i> [†]	<i>Revolade/Promacta</i> [†]
768974 [†]	221149	ofatumumab [†]	<i>Hycamtin</i>
962040	232802	1838262 (XP13512) [†]	<i>Tyverb/Tykerb</i>
971086	274150	<i>Lamictal XR</i>	<i>Avamys/Veramyst</i>
1827771	876008 [†]	rosiglitazone XR	<i>Infranrix-IPV/Kinrix (v)</i>
belimumab [†]	ronacaleret [†]	<i>Armala</i> (pazopanib)	<i>Synflorix (v)</i>
<i>Armala</i> (pazopanib)	solabegron	<i>Armala</i> (pazopanib) +	<i>Rotarix (v)</i> [†]
163090	189254	<i>Tyverb/Tykerb</i>	Boostrix
239512	372475 [†]	elesclomol (STA-4783) [†]	Flu pandemic [†] (v)
249320	468816	<i>Hycamtin</i>	Flu pre-pandemic [†] (v)
424887	649868 [†]	<i>Revolade/Promacta</i> [†]	<i>Cervarix (v)</i> [†]
561679 [†]	742457	<i>Tyverb/Tykerb</i>	
586529 [†]	773812	<i>Zunrisa/Rezonix</i>	
598809	842166	Hib-MenCY-TT (v)	
618334	1838262 (XP13512) [†]	MenACWY-TT (v)	
729327	casopitant	Flu pandemic [†]	
933176	firategrast [†]	Flu pre-pandemic [†]	
1014802	1363089 (XL-880) [†]	New generation flu vaccine (v)	
1018921	ofatumumab [†]	<i>Simplirix (v)</i>	
orvepitant	<i>Armala</i> (pazopanib)	MAGE-A3 ASCI (p)	
461364	<i>Armala</i> (pazopanib) + <i>Tyverb/Tykerb</i>		
690693	<i>Revolade/Promacta</i> [†]		
923295 [†]	<i>Tyverb/Tykerb</i>	Key	
iboctadekin [†] + rituximab	159797 [†]	(v) Vaccine	
totrombopag [†]	159802 [†]	(p) Pharmaccine	
656933	256066	† In-license or other alliance relationship with third party	
835726	573719	* Subject to completion of ongoing regulatory discussions	
1004723	642444 [†]	S Date of first submission	
2190914 (AM-103) [†]	679586	A Date of first regulatory approval (for MAA, this is the first EU approval letter)	
cytomegalovirus (v)	685698	AL Date approvable or Complete Response letter received - indicates that ultimately approval can be given subject to resolution of outstanding queries	
HIV (v)	870086	BLA Biological License Application	
<i>S. pneumoniae</i> adult (v)	961081 [†]	MAA Marketing authorisation application (Europe)	
	darotropium (233705)	NDA New drug application (USA)	
	mepolizumab	Phase I Evaluation of clinical pharmacology, usually conducted in volunteers	
	Dengue fever (v)	Phase II Determination of dose and initial evaluation of efficacy, conducted in a small number of patients	
	Epstein-Barr virus (v) [†]	Phase III Large comparative study (compound versus placebo and/or established treatment) in patients to clinical benefit and safety	
	Hepatitis E (v) [†]		
	<i>Mosquirix (v)</i>		
	Tuberculosis (v)		
	Varicella Zoster virus (v)		
	MAGE-A3 ASCI (p)		

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

Under the safe harbor provisions of the US Private Securities Litigation Reform Act of 1995, the company cautions investors that any forward-looking statements or projections made by the company, including those made in this document, are subject to risks and uncertainties that may cause actual results to differ materially from those projected.

Continued development of commercially viable new products is critical to the Group's ability to replace sales of older products that decline upon expiration of exclusive rights, and to increase overall sales. Developing new products is a costly, lengthy and uncertain process. A new product candidate can fail at any stage of the process, and one or more late-stage product candidates could fail to receive regulatory approval.

New product candidates may appear promising in development but, after significant investments, fail to reach the market or have only limited commercial success as a result of efficacy or safety concerns, inability to obtain necessary regulatory approvals, difficulty or excessive costs to manufacture or infringement of patents or other intellectual property rights of others or inability to differentiate the product adequately from those with which it competes.

Other factors that may affect the Group's operations are described under 'Risk Factors' in the Operating and Financial Review and Prospects in the company's Annual Report on Form 20-F for 2007.

