Last update 11/2024

			Novelty				Development Stage								
AMR Accelerator Project	**Asset Owner**	**Programme**	**New Class**	**New MoA**	**Mode of Action (MoA)**	**Description**	**Discovery**	**(Pre)-Hit to Lead**	**Lead to Candidate**	**Candidate to Phase I**	**Phase I**	**Phase 2a - alone or in combi-nation**	**Phase 2b - Dose ranging**	**Phase 2b - Regimen selection**	**Phase 2c - Duration rando-mization**
AB-Direct €4 m	GSK	Gepotidacin tissue distribution	✓	✓	Topoisomerase type II inhibitor	Demonstrating penetration of gepotidacin in tonsillar and prostate tissues.					➡				
ERA4TB €208 m		ERA4TB-01	✓	✓	Cholesterol catabolism.	Molecule targeting mycobacterial cholesterol cycle.					➡	*			
		ERA4TB-02	✓	✓	*Mycobacterium tuberculosis* tryptophan synthase	Compound targeting *Mycobacterium tuberculosis* tryptophan synthase, enzyme that catalyses the final two steps in the biosynthesis of tryptophan.			➡						
		ERA4TB-03			Electron chain transport.	Compounds targeting energy metabolism.					➡				
		ERA4TB-04	✓	✓	Lysine transfer RNA synthase	Compound targeting lysine transfer RNA synthase (Rv3598c), which is an essential gene as assessed by transposon mutagenesis.			➡						
		ERA4TB-06	✓	✓	Mycobacterial membrane protein Large 3 (Mmpl3)	Potent in vitro inhibitory and bactericidal activity against Mycobacterium tuberculosis.			➡						
		ERA4TB-09	✓	✓	Unknown.	Natural product analogs active against Mycobacterium tuberculosis.			➡						
		ERA4TB-10	✓	✓	Targets and covalently inhibits the enzyme Decaprenyl-phosphoryl-ribose 2'-epimerase (DprE1).	Derivative of piperazinobenzothiazinone that acts as an anti-mycobacterial compound.					➡				
		ERA4TB-11	✓	✓	Inhibits leucyl tRNA synthetase (LeuRS)	Small molecule oxaborole.					➡				
		ERA4TB-13	✓	✓	Cholesterol catabolism.	Targets cholesterol cycle in Mycobacterium tuberculosis.				➡					
		ERA4TB-14	✓	✓	Inhibits the mycobacterial cytochrome bc1 complex in the cellular respiration pathway.	Small molecule compound that leads to the depletion of ATP in three mycobacterial species, M. tuberculosis, M. leprae, and M. ulcerans					➡				
		ERA4TB-15	✓	✓	Covalently inhibits the acyl transferase domain of Mtb Pks13, a polyketide synthase involved in mycolic acid biosynthesis via a novel mode of inhibition.	A novel class of small-molecule antibiotics shown to inhibit new targets within the M. tuberculosis mycolic acid biosynthesis pathway.			➡						
		ERA4TB-16	✓	✓	Covalently inhibits the acyl transferase domain of Mtb Pks13, a polyketide synthase involved in mycolic acid biosynthesis via a novel mode of inhibition.	A novel class of small-molecule antibiotics shown to inhibit new targets within the M. tuberculosis mycolic acid biosynthesis pathway.			➡						
		ERA4TB-17	✓	✓	Inhibits FadD32, a key enzyme at the interface between the fatty acid synthase and polyketide synthase biosynthetic pathways and is involved in mycolic acid biosynthesis.	A novel class of small-molecule antibiotics that targets several Mtb biosynthesis pathways.			➡						
		ERA4TB-18	✓	✓	Inhibits FadD32, a key enzyme at the interface between the fatty acid synthase and polyketide synthase biosynthetic pathways and is involved in mycolic acid biosynthesis.	A novel class of small-molecule antibiotics that targets several Mtb biosynthesis pathways.			➡						
GNA NOW €21.6 m	GSK	Gepotidacin	✓	✓	Topoisomerase type II inhibitor	Gepotidacin is a first-in-class triazaacenaphthylene antibiotic that inhibits bacterial DNA replication by a novel mechanism of action and binding site by inhibition of two different Type II topoisomerase enzymes. Thanks to positive PhIII results for other indications (uUTI & gonorrhoea) is investigated by GNA NOW for its suitability to treat severe enteric infections in low- and middle income countries.				➡					
RespiriTB €9 m	JANSSEN	BC1 back up	✓	✓	Cytochrome bc1 complex in the cellular respiration pathway.	Lead optimisation program on BC1 inhibitors.			➡						
		MenG	✓	✓	Inhibits menG, a product of which catalyses methylation of demethylmenaquinone.	"H2L medChem for novel menaquinone biosynthesis inhibitors. "		➡							
		BDQ LAI	✓		ATPase.	Novel long-acting injectable formulation of bedaquiline for Tb preventive therapy.				➡					
		PASA	✓		Dihydrofolate reductase (DHFR).	Novel para-Aminosalicylic acid (PAS) analogues.		➡							
		HDT	✓	✓	Various.	Exploring known host-directed therapies for TB treatment.	➡								
		Mtr	✓	✓	Mycobacterium transcription regulator (Mtr).	Target exploration of Mycobacterium transcription regulator (Mtr) complex.	➡								
RespiriNTM €8 m	TBA				Unknown.	Novel assets (one first-in-human start) that may synergise with bedaquiline and cytochrome bc1 drugs.		➡							
TRIC-TB €8.3 m	BioVersys and GSK	Alpibectir	✓	✓	Bacterial transcriptional regulation.	Boosts ethionamide efficacy and lowers the dose with small molecule transcriptional modulators to overcome multi-drug resistant tuberculosis infections.						➡*			
UNITE4TB €185 m	GSK	GSK656	✓	✓	Suppresses protein synthesis in Mycobacterium tuberculosis by inhibiting the enzyme leucyl t-RNA synthetase (LeuRS).	A first-in-class investigational antitubercular agent is being developed to treat tuberculosis as part of a future combination regimen.								➡	
	Leibniz-HKI/ LMU	BTZ-043	✓	✓	Inhibits an essential enzyme for cell wall synthesis in Mycobacteria tuberculosis.	A first-in-class investigational antitubercular agent is being developed to treat tuberculosis as part of a future combination regimen.							➡	➡	

Accelerating scientific discoveries in the antimicrobial resistance (AMR) field

COMBINE €25 m	Providing learnings derived from shared vaccine and/or antibacterial clinical trial data, and improving understanding of variability and translatability of animal models of bacterial infection.
PrIMAVeRa €9 m	Developing a decision-making tool accessing health and economic outcomes of vaccines on the reduction of AMR.

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