

Supplementary Materials: Bioinformatics Identification of Drug Resistance-Associated Gene Pairs in *Mycobacterium tuberculosis*

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Table S1. The summarized results by GBOOST (The Hong Kong University, Clear Water Bay, Kowloon, Hong Kong, China) based on the dataset 1.

Sample	EMB ^a	INH ^b	RMP ^c	STR ^d
SNP pairs	1407	3057	3925	2018
Gene pairs	1215	2597	3328	1636

^a ethambutol; ^b isoniazid; ^c rifampicin; ^d streptomycin.

Table S2. The summarized results by GBOOST based on the dataset 2.

Sample	CPM ^a	EMB ^b	ETH ^c	INH ^d	KAN ^e	OFX ^f	RMP ^g	STR ^h
SNP pairs	786	840	2499	269	871	722	269	1244
Gene pairs	695	694	2002	219	761	620	219	969

^a capreomycin; ^b ethambutol; ^c ethionamide; ^d isoniazid; ^e kanamycin; ^f ofloxacin; ^g rifampicin; ^h streptomycin.

Table S3. Anti-tuberculosis drug targets information from DrugBank ^a.

Drug	Targets (Abbreviation)
Capreomycin (CPM)	70S ribosome
Ethambutol (EMB)	probable arabinosyltransferase C (embC) probable arabinosyltransferase B (embB) probable arabinosyltransferase A (embA)
Ethionamide (ETH)	catalase-peroxidase (KatG) enoyl-(acyl-carrier-protein) reductase (NADH) (InhA)
Isoniazid (INH)	catalase-peroxidase (KatG) enoyl-(acyl-carrier-protein) reductase (NADH) (InhA) cytochrome P450 2C8 cytochrome P450 1A2 cytochrome P450 3A4 cytochrome P450 2C19 dihydrofolate reductase
Kanamycin (KAN)	30S ribosomal protein S12 16S rRNA
Ofloxacin (OFX)	DNA gyrase subunit A DNA topoisomerase 4 subunit A DNA topoisomerase 2- α

Table S3. *Cont.*

Drug	Targets (Abbreviation)
Rifampicin (RMP)	DNA-directed RNA polymerase subunit β DNA-directed RNA polymerase subunit β nuclear receptor subfamily 1 group I member 2 solute carrier organic anion transporter family member 1B1 solute carrier organic anion transporter family member 1A2 solute carrier organic anion transporter family member 1B3 Lanosterol 14- α demethylase Serum albumin solute carrier organic anion transporter family member 2B1
Streptomycin (STR)	30S ribosomal protein S12 16S rRNA protein-arginine deiminase type-4

^a <http://www.drugbank.ca>.