Supplementary Table S1: List of conserved essential targets in 20 mastitis-causing pathogens and their corresponding drugs from Drugbank database.

S.No	Count	Description	Drug
1	1	30S ribosomal protein S10	Nitrofurantoin
2	14	30S ribosomal protein S12	Framycetin; Amikacin; Tigecycline; Tobramycin; Gentamicin; Spectinomycin; Netilmicin; Neomycin; Streptomycin; Kanamycin; Ribostamycin; GENTAMICIN C1A; Arbekacin; 2-METHYLTHIO-N6-ISOPENTENYL-ADENOSINE-5'-MONOPHOSPHATE
3	2	30S ribosomal protein S13	Tigecycline; 2-METHYLTHIO-N6-ISOPENTENYL-ADENOSINE-5'-MONOPHOSPHATE
4	3	30S ribosomal protein S19	Tigecycline; Tetracycline; 2-METHYLTHIO-N6-ISOPENTENYL-ADENOSINE-5'-MONOPHOSPHATE
5	2	30S ribosomal protein S3	Tetracycline; 2-METHYLTHIO-N6-ISOPENTENYL-ADENOSINE-5'-MONOPHOSPHATE
6	7	30S ribosomal protein S4	Doxycycline; Lymecycline; Clomocycline; Oxytetracycline; Demeclocycline; Minocycline; 2-METHYLTHIO-N6-ISOPENTENYL-ADENOSINE-5'-MONOPHOSPHATE
7	1	30S ribosomal protein S5	2-METHYLTHIO-N6-ISOPENTENYL-ADENOSINE-5'-MONOPHOSPHATE
8	2	30S ribosomal protein S7	Tetracycline; 2-METHYLTHIO-N6-ISOPENTENYL-ADENOSINE-5'-MONOPHOSPHATE
9	2	30S ribosomal protein S8	Tetracycline; 2-METHYLTHIO-N6-ISOPENTENYL-ADENOSINE-5'-MONOPHOSPHATE
10	9	30S ribosomal protein S9	Doxycycline; Lymecycline; Clomocycline; Tigecycline; Oxytetracycline; Demeclocycline; Minocycline; Rolitetracycline; 2-METHYLTHIO-N6-ISOPENTENYL-ADENOSINE-5'-MONOPHOSPHATE
11	2	50S ribosomal protein L11	8-Hydroxy-4-(1-Hydroxyethyl)Quinoline-2-Carboxylic Acid; (4s)-2-[(1e)-1-Aminoprop-1-Enyl]-4,5-Dihydro-1,3-Thiazole-4-Carboxylic Acid
12	1	50S ribosomal protein L16	Chloramphenicol
13	5	aminotransferase class V	Chloramphenicol; Selenocysteine; S-Mercaptocysteine; S-Selanyl Cysteine; L-2-amino-3-butynoic acid; 3'-O-N-Octanoyl-a-D-Glucopyranosyl-B-D-Fructofuranoside
14	19	DNA gyrase subunit A	Ciprofloxacin; Rosoxacin; Moxifloxacin; Grepafloxacin; Enoxacin; Pefloxacin; Trovafloxacin; Cinoxacin; Lomefloxacin; Norfloxacin; Levofloxacin; Gemifloxacin; Ofloxacin; Sparfloxacin; Temafloxacin; Fleroxacin; Besifloxacin; Finafloxacin; Gatifloxacin
15	5	DNA ligase (NAD(+)) LigA	N-[2-(2,4-diaminopyrido[2,3-d]pyrimidin-7-yl)-2-methylpropyl]-4-phenoxybenzamide; Nicotinamide Mononucleotide; 2-amino-7-fluoro-5-oxo-5H-chromeno[2,3-b]pyridine-3-carboxamide; 7-amino-2-tert-

			butyl-4-{[2-(1H-imidazol-4-yl)ethyl]amino}pyrido[2,3-d]pyrimidine-6-carboxamide; 7-amino-2-tert-butyl-4-(4-pyrimidin-2-ylpiperazin-1-yl)pyrido[2,3-d]pyrimidine-6-carboxamide
16	4	DNA recombination/repair protein RecA	Phosphoaminophosphonic Acid-Adenylate Ester; Adenosine-5'-Diphosphate Monothiophosphate; 2'-Deoxyadenosine 5'-Triphosphate; Tetrafluoroaluminate Ion
17	5	DNA topoisomerase I	Thymidine-5'-Phosphate; Adenosine-3'-5'-Diphosphate; Thymidine-3',5'-Diphosphate; Pefloxacin; Novobiocin
18	3	DNA-directed RNA polymerase subunit alpha	Rifabutin; methyl [(1E,5R)-5-{(3S)-3-[(2E,4E)-2,5-dimethylocta-2,4-dienoyl]-2,4-dioxo-3,4-dihydro-2H-pyran-6-yl}hexylidene]carbamate; Myxopyronin B
19	1	guanylate kinase	Formic Acid
20	2	Holliday junction DNA helicase RuvB	Hexane-1,6-Diol; Adenine
21	1	methionyl-tRNA formyltransferase	N-Formylmethionine
22	1	phenylalanine--tRNA ligase subunit beta	1-{3-[(4-pyridin-2-ylpiperazin-1-yl)sulfonyl]phenyl}-3-(1,3-thiazol-2-yl)urea
23	1	phosphate acetyltransferase	Acetylphosphate
24	1	ribosome biogenesis GTPase Der	Guanosine-5'-Diphosphate
25	1	ribosome maturation factor	Decyloxy-Methanol
26	1	RNA methyltransferase	S-Adenosyl-L-Homocysteine
27	3	RNA polymerase sigma factor	Fidaxomicin; Myxopyronin B; methyl [(1E,5R)-5-{(3S)-3-[(2E,4E)-2,5-dimethylocta-2,4-dienoyl]-2,4-dioxo-3,4-dihydro-2H-pyran-6-yl}hexylidene]carbamate
28	2	thioredoxin reductase	Flavin adenine dinucleotide; Azelaic Acid
29	1	tRNA (guanosine(37)-N1)-methyltransferase TrmD	S-Adenosyl-L-Homocysteine
30	1	uracil phosphoribosyltransferase	Uridine-5'-Monophosphate

Supplementary Table S2: List of unique drugs from Drugbank database for each of the 20 mastitis causing pathogens.

Please see the attached .xls file for drugs.