

| Top 10 Predicted Synergistic Pairs (HALO-CV1) |                 |                 |  |                      |                         |
|---|-----------------|-----------------|--|----------------------|-------------------------|
| Drug Pair                                     | $P(\text{syn})$ | $P(\text{ant})$ | Drug Classes   | CC Cosine Similarity | CC Euclidean Similarity |
| Bacitracin + Vancomycin                       | 0.998           | 0.002           | Polypeptide antibacterial – Glycopeptide                     | 0.599                | 0.724                   |
| Bacitracin + Oritavancin                      | 0.997           | 0.003           | Polypeptide antibacterial – Glycopeptide (lipo-glycopeptide) | 0.653                | 0.711                   |
| Mecillinam + Cefuroxime                       | 0.995           | 0.005           | Penicillin (amidino) – Cephalosporin (2nd gen)               | 0.627                | 0.693                   |
| Bacitracin + Minocycline                      | 0.994           | 0.006           | Polypeptide antibacterial – Tetracycline-class antibiotic    | 0.543                | 0.620                   |
| Cefuroxime + Penicillin G                     | 0.993           | 0.007           | Cephalosporin (2nd gen) – Natural penicillin                 | 0.655                | 0.660                   |
| Bacitracin + Thymol                           | 0.993           | 0.007           | Polypeptide antibacterial – Monoterpene phenol               | 0.456                | 0.487                   |
| Cefuroxime + Amikacin                         | 0.993           | 0.007           | Cephalosporin (2nd gen) – Aminoglycoside                     | 0.545                | 0.596                   |
| Bacitracin + Procaine                         | 0.992           | 0.008           | Polypeptide antibacterial – Local anesthetic (ester)         | 0.463                | 0.561                   |
| Bacitracin + Daptomycin                       | 0.992           | 0.008           | Polypeptide antibacterial – Lipopeptide antibiotic           | 0.762                | 0.759                   |
| Telithromycin + Tedizolid                     | 0.991           | 0.009           | Ketolide – Oxazolidinone                                     | 0.477                | 0.533                   |