Classical drug discovery relationship

Drug

(Target) Drug is serendipitously tested and found to be effective in another disease

(Path 1) Drug is found to have novel activity (e.g., selectively kills cells in another disease)

(Path 2) Drug is found to potently inhibit a target in another disease

(Path 3) Drug is found to be an important target in another disease

(Path 4) Pathway is found to be important in another disease

(Path 5) Unexpected side effects found during clinical trials

Selected examples of repositioned drugs

Bupropion

Thalidomide

Nelfinavir

Imatinib

Sunitinib

Crizotinib

Everolimus

Duloxetine

Sildenafil

Minoxidil