

PACLITAXEL (TAXOL)

(11 STEREOCENTERS ->
 $2^{11} = 2048$ POSSIBLE STEREOISOMERS)

CLINICAL USE:

TREATMENT OF ADVANCED OVARIAN CANCER.

CLINICAL TRIALS:

TREATMENT OF LEUKEMIA, BREAST, OVARIAN,
BRAIN, LUNG CANCERS.

NATURAL SOURCE:

BARK OF 100 YEAR OLD PACIFIC YEW TREE.

1 TREE -> 3000 G BARK -> 0.3 G TAXOL -> SINGLE
DOSE FOR A CANCER PATIENT.

DRAWBACKS: LOW YIELD FROM SLOW-
GROWTH TREES - DECIMATE OLD GROWTH
FORESTS, HOME OF ENDANGERED NORTHERN
SPOTTED OWL.

SYNTHETIC SOURCE:

ORGANIC CHEMISTRY LABORATORY.

BENEFITS: SAVE TREES, WILDLIFE, ALLOW
SYNTHESIS OF DERIVATIVES WHICH ARE MORE
POTENT AND HAVE FEWER SIDE EFFECTS,
UNLIMITED SUPPLY.