

NATURAL PRODUCTS CHEMISTRY – AN EXAMPLE

(1) FOLK MEDICINE:

ANTHROPOLOGY, ETHNOBOTANY

(2) COLLECT PLANT MATERIAL

(3) **EXTRACT WITH SOLVENT**

(4) SEPARATE COMPLEX MIXTURES INTO
INDIVIDUAL COMPOUNDS AND PURIFY:

**EXTRACTION, DISTILLATION,
RECRYSTALLIZATION,
CHROMATOGRAPHY (TLC, GC, HPLC, ETC)**

(5) IDENTIFY COMPOUNDS

**MP'S. BP'S, SPECTROSCOPY (NMR, IR, UV, MASS
SPEC), X-RAY CRYSTALLOGRAPHY,
DERIVATIVE FORMATION, SYNTHESIS**

(6) TEST BIOLOGICAL ACTIVITY:

ANIMAL, OTHER

(7) ACQUIRE LARGER QUANTITIES:

LAB SYNTHESIS OR NATURAL SOURCE

(8) CLINICAL TRIALS, FDA APPROVAL, COMMERCIAL
PRODUCTION AND USE

CHEMISTRY