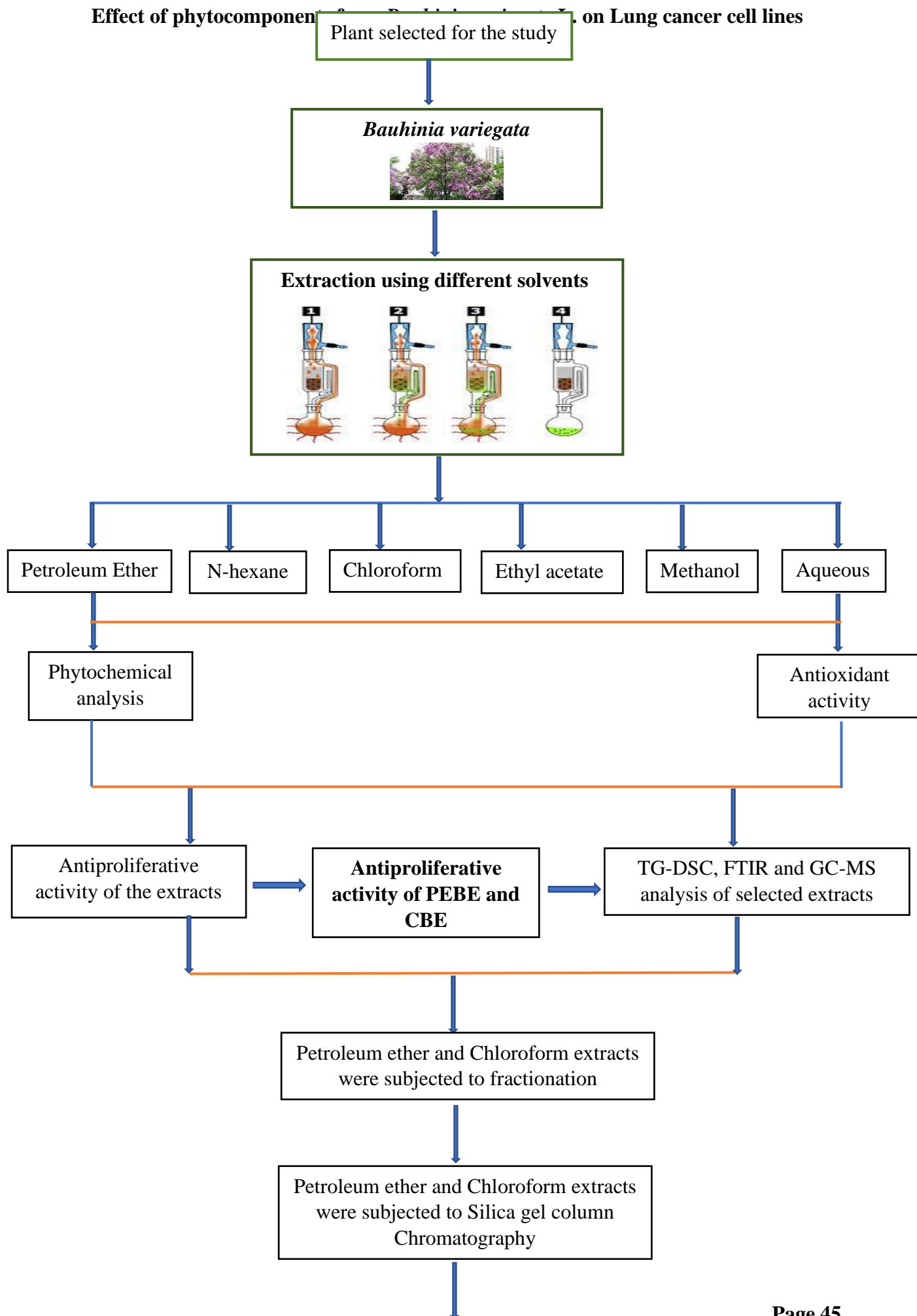


Chapter-2

AIM AND OBJECTIVES OF THE STUDY ARE

- Extraction of phytocomponents from bark of *Bauhinia variegata* by Soxhlet method.
- To identify the phytoconstituents in different solvent extracts of *Bauhinia variegata* by qualitative analysis.
- To assess the free radical scavenging activity of different solvent extracts of *Bauhinia variegata*.
- Cytotoxicity of the extract on human lung cancer cell line (A549 and H460) by MTT assay and extract showing best cytotoxic effect on lung cancer cell lines to be chosen for the further study.
- Isolation of fraction from the effective plant extract was done by silica gel column chromatography and separation of compounds by TLC.
- Characterization of the selected extract is done by TG-DSC, FTIR and GC-MS analysis.
- Characterization of the selected fractions using UV, FT-IR, GC-MS, ¹HNMR and RP-HPLC for structural prediction.
- To study the anticancer activity of the isolated compounds by MTT assay and nuclear staining.
- To understand the mechanism of apoptosis on A549 and H460 cell line by fluorescence microscopy and comet assay.
- To study the expression of caspase-3, PARP, Akt & p-Akt proteins in A549 and caspase -3 and caspase- 9 in H460 cell line by Western blot analysis.



Effect of phytocomponents from *Bauhinia variegata* L. on Lung cancer cell lines

