

## CONCLUSION

The Coconut shell and Cashew nut shell discarded as waste indeed comprise a primary place as agricultural waste. The parts of coconut and cashewnut trees are used to treat infectious diseases caused by the microbes and to fight free radicals. The phytochemical analysis of CSO and CNSO showed the presence of many compounds. The antimicrobial property of ethanol, petroleum ether extract of CSO and ethanol extract of CNSO showed higher efficiency in all the tested microorganisms. The minimum inhibitory concentration of CSO and CNSO proved the efficiency against the bacterial growth. The ethanol extracts of CSO and CNSO showed antioxidant power. The identified secondary metabolites showed better antioxidant property due to the presence of lauric acid from the coconut and anacardic acid from the cashewnut. Based on the cell line study it is proved that the CSO and CNSO were promising candidates for the treatment of breast cancer without leaving side effects. The researches on the properties of CSO and CNSO are important for the treatment of cancer, mainly to reduce cost and increase the therapeutic values. The use of herbal formulations from the bio-waste can make the interest of the industry adding new values to the preparation of drugs. This study revealed that the bio-waste could serve as cheap source for the production of antimicrobial agents and replace the conventional chemical antibiotic. Molecular docking studies enabled us to propose a possible mechanism in the biological activity of the eight research molecules.

Further research is required to take forward on the shortlisted two molecules namely Methyl 3 $\beta$ - hydroxyl- bisnorellocholanoate (Ligand-3) and 9,12-octadecadienoic acid (Ligand-6) towards designing of drugs for breast cancer treatment. Thus, phytochemical, pharmacological, pharmacogenetic and docking studies in CSO and CNSO help us to find the traditional medicinal value and produce biofuel for humanity. Targeting the inhibition of misregulated EGFR is an essential task in anticancer research. Various drugs involved in targeting extracellular and intracellular regions needs clinical development. All the four selected compounds from CSO and CNSO bind with the important target catalytic active site residues such as ASP93, THR184, GLY97, LYS58, ASN51. The bioactivity profile of these compounds analysed and revealed that these compounds might be used as lead compounds to design novel HER2, EGFR and HSP90 inhibitors. In the present

research biofuel quality parameters such as kinematic viscosity, flashpoint, density, gross calorific value and cetane number were studied. Biofuel is an alternative fuel made from agricultural wastes by transesterification reaction using methanol. The purpose of the transesterification is lowering the viscosity of the oil. From the obtained results it is found that CSO and CNSO were efficient as biofuel and it can be used as biofuels in future with further research and improvement.