

Karpagam Cancer Research Centre

Karpagam Cancer Research Centre is established under the aegis of the Managing Trustee Dr. R. Vasanthakumar. His deep-rooted interest to provide scientific validation on indigenous herbs and to identify promising lead molecules as candidate drugs to existing drugs has laid foundation for this centre. The centre is actively working to delineate the cause for cancer and to improve the quality of life in individuals diagnosed with cancer.

It has the following units

1. Phyto-chemical isolation and characterization unit
2. Animal cell culture unit
3. Computational drug designing and development unit
4. Pre-clinical testing unit
5. Synthetic Chemistry unit
6. Surgical Oncology unit

According to World Health Organization (WHO), Cancer is a generic term for a large group of diseases characterized by the growth of abnormal cells beyond their usual boundaries that can then invade adjoining parts of the body and/or spread to other organs. WHO estimated Cancer as the second leading cause of death globally and accounted 9.6 million cancer related deaths in 2018. Lung, prostate, colorectal, stomach and liver cancer are the most common types of cancer in men, while breast, colorectal, lung, cervix and thyroid cancer are the most common among women. The centre is actively working to develop a novel drug using multi-disciplinary approach. Principal Investigators from various disciplines such as phyto-pharmacology, computational biology, cell culture, molecular biology are working in tandem to accomplish the set objective. The centre is well equipped with state of the art research facilities in various disciplines. A bioassay guided fractionation approach using cell based assays and computational tools are being utilized to identify lead molecules, which are being tested in pre-clinical models. Further, the centre also analyzes the expression pattern of different protein molecules in the tissue samples excised during surgery after getting informed consent from the patient to understand the patho-physiology of various cancer types. The centre envisages the identification and development of a new viable drug molecule.