



Cancer Research Laboratory (MATCH)

(Institute of Bioscience, University Putra Malaysia)

What is MATCH?

The MAKNA-UPM Cancer Research Laboratory (MATCH) was officially launched on January, 18, 2006 by YBhg. Jen (B) Tan Sri Dato' Zain Hashim, MAKNA's Chairman of Board of Trustees. Its primary aim are to conduct research and development work on human cancers. It is a joint collaboration between MAKNA and the Institute of Bioscience, University Putra Malaysia

What are the functions of MATCH?

- To conduct fundamental research in cancers and utilizing this approach to pursue into clinical investigations.
- To coordinate all future cancer research to be conducted in UPM.
- To initiate research groups consisting of clinicians and medical scientists, with the primary aim of providing investigative laboratory assistance in managing and treating cancer patients.



Who and How to conduct the research?

The MATCH laboratory will be divided into three (3) groups to cater the following research areas :

a. Molecular Pathology Group

- to conduct investigations into the pathogenesis of cancer at molecular and cellular levels, consisting both *in vivo* and *in vitro* experimental studies.

b. Clinical Oncology Group

- to conduct clinical studies in oncology which utilizes fundamental research, in preference at improving treatment and the management of cancer patients. These studies shall be done in collaboration with local General and Private Hospitals.

c. Diagnostic and Therapeutic Group

- to improve existing method of cancer detection and treatment that could possible be derived from the research conducted.

In addition to the above, the MATCH laboratory has introduced The Cancer Screening Unit which will placed under the Diagnostic and Therapeutic group.

The Cancer Screening Unit will introduce new screening services that could be an improvement in the diagnosis for cancers and better detection method for future screening of the disease.

Current projects :

a) Anti-cancer Properties of Plant-derived and Chemically Synthesized Compounds on Breast Cancer Cells.

- The purpose of this study is to determine the mechanisms underlying possible chemotherapeutic effects of local plant derived products and chemically synthesized compounds on breast cancer cells.

b) Anti-cancer Effects of Zerumbone from *Zingiber Zerumbet* on human cervical cancer cells (HeLa) and female balb/c mice induced with cervical cancer.

- The Zerumbone compound has been extracted and purified using chemical conventional method adapted elsewhere. The compound has been previously investigated and shown to possess anti-cancer properties in HeLa cervical cancer cells of human origin.

c) Anti-tumourigenic Effects of Corresponding Chemical Analogues in Chemical Intraepithelial Neoplasia of Female balb/c mice.

- Several synthetic compounds have been synthesized, in relation to the original structure of a natural compound, known previously to possess anti-cancer property.

