

Research and Development

We see research and development (R&D) as our competitive edge in developing 'home made recipes' or formulation that enables us to climb up the value ladder.

In 2009, CCM achieved another milestone when we launched Innovax Sdn Bhd, the Group's RM10 million hi-tech R&D centre in Glenmarie to facilitate the manufacturing of new and innovative pharmaceutical products. The 63,000 sq. ft. facility houses four main departments and manages product pipelines for the Pharmaceuticals Division. Innovax has targeted almost 35 new generic products in its product pipeline until 2015 and they are currently in various stages of research and development and approval processes. The R&D centre is well equipped with analytical, formulation and quality laboratories, and has an annual capacity of 24 new products' slots, double that of our previous capacity of between 10 and 15 products' slots in 2005. Innovax boasts a team of 30 highly knowledgeable and skilled personnel, 20 of which are scientists with specialist skills in various pharmaceutical disciplines such as pharmaceutical technology, chemistry, clinical pharmacology, microbiology and biotechnology. These professionals are well trained to conduct analysis for highly specific niche technologies including soft gel capsule technology and slow-release and modified release products. CCM is the only local pharmaceutical company in Malaysia that has embarked on this technology and we are confident that with our strengthened R&D capabilities, we will be able to meet and exceed consumers' expectations.

R&D is the backbone of the pharmaceutical industry and the Group's investment in the facility recognises the significance of cutting edge capability to progress and stay ahead of the competition in this fast growing sector. The launch of the new R&D centre will also intensify our efforts to drive our ambitions in the lucrative halal and herbal pharmaceutical markets.

Meanwhile, Innovax made its debut at the *2nd World Halal Research Summit* and the *6th International Halal Showcase (MIHAS)* in Kuala Lumpur to showcase its technological advancements and achievements. *The World Halal Research Summit* is an international conference organised by the Halal Industry Development Corporation (HDC) to provide a platform for scientists, researchers, scholars and academicians to meet, discuss and exchange ideas on new research findings, emerging technologies, trends, issues and challenges in the global halal industry. During the two-day event, Innovax was also given the opportunity to talk about its R&D activities and the latest developments in its halal research initiatives.

CCM also signed a strategic partnership with Inno Bio Ventures Sdn Bhd (IBV) through our subsidiary, CCM Duopharma Biotech Berhad (CCMD) to jointly develop biosimilar products and explore future business opportunities, especially in the manufacturing and commercialisation of Erythropoietin (EPO) biosimilars. The MOU would enable CCM and IBV to contribute our respective expertise and resources to produce affordable and high quality biosimilars to address areas of clinical needs such as cancer and genetically related diseases. The joint venture allows us to leverage on Innovax and fully utilise its cutting edge technological capability to tap into the huge potential of manufacturing and marketing EPO biosimilars as well as other biosimilar products locally and overseas. Together with IBV, we are set to become the first local manufacturer of EPO biosimilars in South East Asia once it is commercialised. The biopharmaceutical market is the fastest growing area of the pharmaceutical industry and this initiative gives us the opportunity to enhance our presence within the biopharmaceutical industry.

Our Fertilizers Division also achieved a milestone when it established a strategic alliance with the Malaysian Agricultural Research and Development Institute (MARDI) to undertake R&D to promote the commercialization of Nitro Humic Acid (NHA) and crop booster foliar fertilizers. NHA is a cost effective substitute for the imported Humic Acids (HA) and is used as a soil conditioner, coagulating agent and media for foliar fertilizer formulation. It can also be used as an ingredient or additive to manufacture a new class of compound fertilizers. Field trials have proven that NHA based foliar formulation is effective in enhancing the plant crop yield of paddy, chillies, tomatoes and citrus by increasing the size and number of harvested fruits. Our Fertilizers business' latest effort will not only widen the CCM's range of products and enhance its existing array of compound fertilizers but also strengthen our position as a leading fertilizer manufacturer in Malaysia.