7. BUSINESS AND INDUSTRY OVERVIEW

7.1 THE GROUP'S OPERATIONS AND PRODUCTS

7.1.1 Introduction

The Hovid Group's range of principal products and activities include:

- special drug delivery systems, such as modified release formulations and bioavailability-enhanced formulations;
- ethical products, including anti-biotics, anti-diabetics, anti-hypertensives, anti-malarial and anti-inflammatory analgesics;
- dietary supplements;
- consumer products; and
- the commercial extraction of palm tocotrienol complex, mixed carotenoid complex and phytosterols from palm fruits.

In addition to manufacturing its own products, the Hovid Group also manufactures nutritional supplements and pharmaceuticals on contract manufacture basis for private labels.

Hovid's manufacturing facilities and practices in respect of its pharmaceutical products conform to the PIC/S' GMP and Good Laboratory Practice standards.

The Hovid Group's pharmaceutical division, manufactures and sells more than 300 different types of drugs, health and dietary supplements as well as herbal tea. Hovid's product categories are divided into pharmaceutical ethical, dietary supplements, injections and consumer products.

Today, Hovid manufactures more than 300 different types of drugs and health supplements as well as tocotrienols and herbal tea. It has an established distribution network in the country. Together, Hovid, H Pharmacy and H Inc have over 5,000 customers comprising mainly distributors, medical practitioners, pharmacies, hospitals, the MOH, medical stores, supermarkets and mini markets. It also exports to over 30 countries worldwide. More than 50% of its pharmaceutical products are exported, mainly to Singapore, Hong Kong and the developing countries like Cambodia, Vietnam, Myanmar, Nigeria, Botswana, Papua New Guinea and Jordan.

Hovid's strength lies in its export market, with more than 50% of its revenue coming from exports. Hovid's pharmaceutical division has the highest revenue contribution from export markets amongst the 15 players surveyed in the IMR Report. Its wide export market extends to over 30 countries around the world. Hovid also prides itself of being one of the first to introduce the Malaysian generic drugs overseas (specifically Philippines and Cambodia) and in its ability to get numerous products registered in several countries successfully. At present, there are more than 500 products registered in 26 different countries, mainly developing countries and another 240 products pending registration in 22 of these countries.

Hovid's subsidiary, Carotech, exports to 27 countries worldwide. Carotech's wholly owned subsidiary C Inc, incorporated in 1999 and based in New Jersey, US, is responsible for the marketing and distribution of Carotech's products for the US. More than 87% of its exports are to the continents of North America and Europe. The US represents the largest market for Carotech's products, accounting for 52% of Carotech's total exports.

7.1.2 Products

The Group currently manufactures and distributes products which can be divided into two (2) major categories. These general categories are as follows:

(i) pharmaceutical products; and

(ii) phytonutrient products.

7. BUSINESS AND INDUSTRY OVERVIEW (CONTINUED)

The pharmaceutical products manufactured and distributed by the Group can be further categorised into the following:

(i) Hovid manufactured pharmaceutical and health food products branded under the name of "Hovid";

(ii) OTC pharmaceutical and health products manufactured under contract by Hovid; and

(iii) proprietary products from other suppliers.

Hovid manufactures over 300 different kinds of pharmaceutical products under the brand name "Hovid". They are all in-house formulated and developed tablets, capsules, ointments, syrups, lotions, injectables, vitamins and minerals manufactured under the PIC/S' GMP plant and environments certified by the MOH and recognised by WHO.

Hovid is also the first company in Malaysia to have a modern cGMP certified soft gelatin encapsulation plant for the encapsulation of its wide range of in-house developed pharmaceuticals and health food supplements and is also the first company in Malaysia to produce herbal tea in a modern cGMP certified plant.

The major categories of pharmaceutical products manufactured and distributed by Hovid and the Group include cough and cold preparations, anti-biotics and anti-bacterials, tranquillisers, anti-diarrhoea products, urine alkalizers, vitamins and health food supplements and disinfectants.

One of the major pharmaceutical products manufactured by Hovid is TOCOVID™ Suprabio™, a soft gel health food supplement, which is a natural combination of tocotrienols, tocopherol, phytosterols, squalene and mixed carotenoids from tropical palm oil, produced by its subsidiary, Carotech. Hovid also manufactures Chewette-C, chewable vitamin C tablets, one of its better-known vitamins.

Hovid also manufactures consumer products. "Germisep", a disinfectant tablet, is one of the more established products of its kind in the market. Another disinfectant, of the more consumer-friendly kind, is Hovid's "QuicKlean™", an instant antibacterial hand gel.

One of the best-known and easily identifiable Hovid products is the range of herbal teas under the "Ho Yan Hor" brand. It was the first product to be launched by Hovid and since then, has evolved into a household name, said to help in the relief of body heatiness, nausea and indigestion.

Carotech, a subsidiary of the Company, currently produces five (5) products, comprising three (3) main phytonutrient products, and two (2) co-products that are co-produced during the extraction process. Carotech's three (3) main products are:

(a) a full-spectrum tocotrienol complex product marketed under the brand name "Tocomin";

(b) a mixed carotene complex product marketed under the brand name "Caromin"; and

(c) phytosterol products;

in forms ranging from concentrated oil suspension, beadlets and water-dispersible powders and emulsions. These three (3) main phytonutrient products are produced to the specific needs and requirements of clients, and are mainly used in dietary supplements, pharmaceutical products, functional food and beverage products, and cosmetic and personal care applications.

7. BUSINESS AND INDUSTRY OVERVIEW (CONTINUED)

The Company's two (2) co-products are:

- refined palm fatty acid methyl ester; and
- crude glycerine.

These two (2) co-products are used mainly in the production of down-stream oleochemical products such as fatty alcohol and refined glycerine.

The word "phyto" means plants in Greek; "phytonutrients" or "phytochemicals" refer to substances found in plants that are the crucial components of a plant's defence systems against disease, predators, sunlight and oxidation. These substances often impart vibrant colours, flavours and aromas and if extracted, may act as disease-fighting substances or beneficial for health if taken as part of one's diet. There are five main groups of phytonutrients in the commercial market, namely vitamin E, carotenoids, flavonoids, isoflavones and phytosterols.

More often than not, tocotrienols are commonly mistaken as vitamin E which is a generic name for four (4) pairs of stereoisomers that are derivatives of tocopherols and tocotrienols. There are eight (8) naturally occurring isomers, a family of four (4) tocopherols (alpha, beta, gamma and delta) and four (4) tocotrienols (alpha, beta, delta and gamma). Tocotrienols are mostly found in cereal grains such as barley, rice, rye, wheat as well as the fruit of palm. Tocopherols on the other hand, are extracted mostly from nuts and common vegetable oils such as soy, corn, cottonseed and canola. The differences between the two lie in their side chains. Tocotrienols have three (3) unsaturated sites whilst tocopherols have one saturated tail. Tocotrienols are less widely distributed but many studies conducted have proven tocotrienols to be more superior in terms of quality and health benefits than tocopherols.

In Carotech's case, palm tocotrienols are extracted through a patented process from CPO. Other phytonutrients, which existed naturally in palm oil, are also extracted together in the process. These phytonutrients are carotenoids, squalenes, methyl sterols and phospholipids.

Carotenoids, or commonly known as beta-carotenes, are essentially naturally occurring plant pigments which impart the orangey-red colour to most fruits, vegetables and plants. Carotenoids can also be produced by chemical synthesis. These pigments exhibit strong antioxidant powers and are present in most fruits, vegetables and numerous vegetable oils. CPO is one of the world's richest natural plant sources of carotenes.

All pharmaceutical products manufactured by the Group must adhere to the rules and regulations by the health authorities set in Malaysia, and in the other countries to which the Group distributes its products.

For instance, in Malaysia, the NPCB is the executive body which acts as the secretariat to the DCA whose main responsibilities are to ensure that all products in the market are of quality, efficacious and safe. For the purposes of product registration, NPCB classifies pharmaceutical products into four main categories:

(i) Prescription drugs

Drugs that contains any substance specified in the Poisons List (listed in the First Schedule to the Poisons Act 1952) which includes any preparation, solution, compound, mixture or natural substance. It is only available with a prescription from a registered medical practitioner or a registered dentist.

(ii) OTC product

Products that include drugs and dietary supplements and are sold over the counter to consumers that do not contain any substance listed within the Poisons Act 1952.

(iii) Traditional medicines

Products that are employed in the practice of indigenous medicine whereby the drugs used consists of one or more naturally occurring substances of plant, animal or mineral or part thereof or in extracted form or non-extracted form and any homeopathic medicine.

(iv) Cosmetics

Defined as any substance intended for application or capable or purported to be used or claimed to be used on various external parts of the human body.

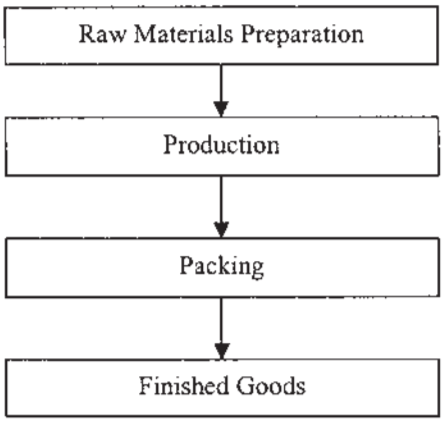
Generic drugs may be prescription or OTC drugs. It can be defined as a chemical equivalent of a drug that has an expired patent. Upon expiry of any branded drug's patent, the same active chemical compound can be produced and sold under a generic name, without any royalty having to be paid.

According to NPCB, there were a total of 50,183 applications received between 1985 – 2002, 29.7% was for prescription drugs, 21.3% was for OTC products while 44.8% was for traditional medicines and 4.1% was for cosmetics. Some generic product will fall under the category of prescription drugs depending on the active ingredient composition. Dietary supplement falls under the category of OTC products.

7.1.3 Processes

The manufacturing plants in the Group are segregated into different areas whereby, each plants completes specific production for different dosage forms (such as tablet, capsule, cream/ointment, syrup/suspension injectables and herbal products). The parameters of the equipments are set according to the required products' formulation. In-Process Quality Control ("IPQC") are undertaken in all production plants, starting from the receiving of raw material from the warehouse to the final product storage and delivery. All raw materials and packing materials are subject to QC check and approval before it can be used for production. Raw materials and packing materials that do not conform to our requirements are rejected and returned to the respective suppliers. Complete manufacturing and quality control records are maintained to enable subsequent tracking and evaluation of raw materials and production process.

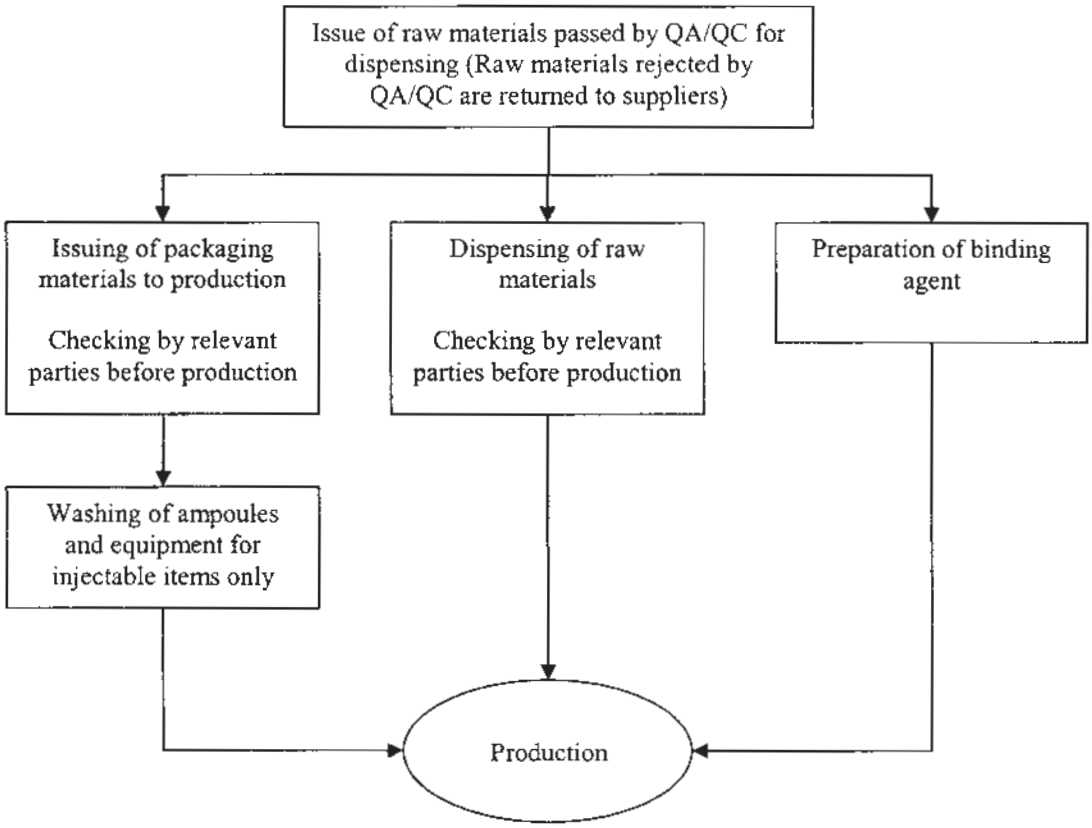
Process Flow Chart



7. BUSINESS AND INDUSTRY OVERVIEW (CONTINUED)

Production starts with the issuing of raw materials in accordance to Batch Manufacturing Record ("BMR") and Raw Material Requisition Form. All necessary testing requirements are listed on the Batch Manufacturing Record. Raw materials must firstly be tested and approved by the QA personnel to ensure compliance with the specifications given in the appropriate official monograph. After the preliminary QC inspection, the raw materials are dispensed according to the particular batch number of the respective product to be manufactured and kept in different containers that are identified by specific Vessel Labels and stored under lock and key at the dispensed raw material storage room. Raw material of a particular batch will be countered-checked and re-weighed by the production operator before being used in the manufacturing process.

Raw Materials Preparation Flow Chart



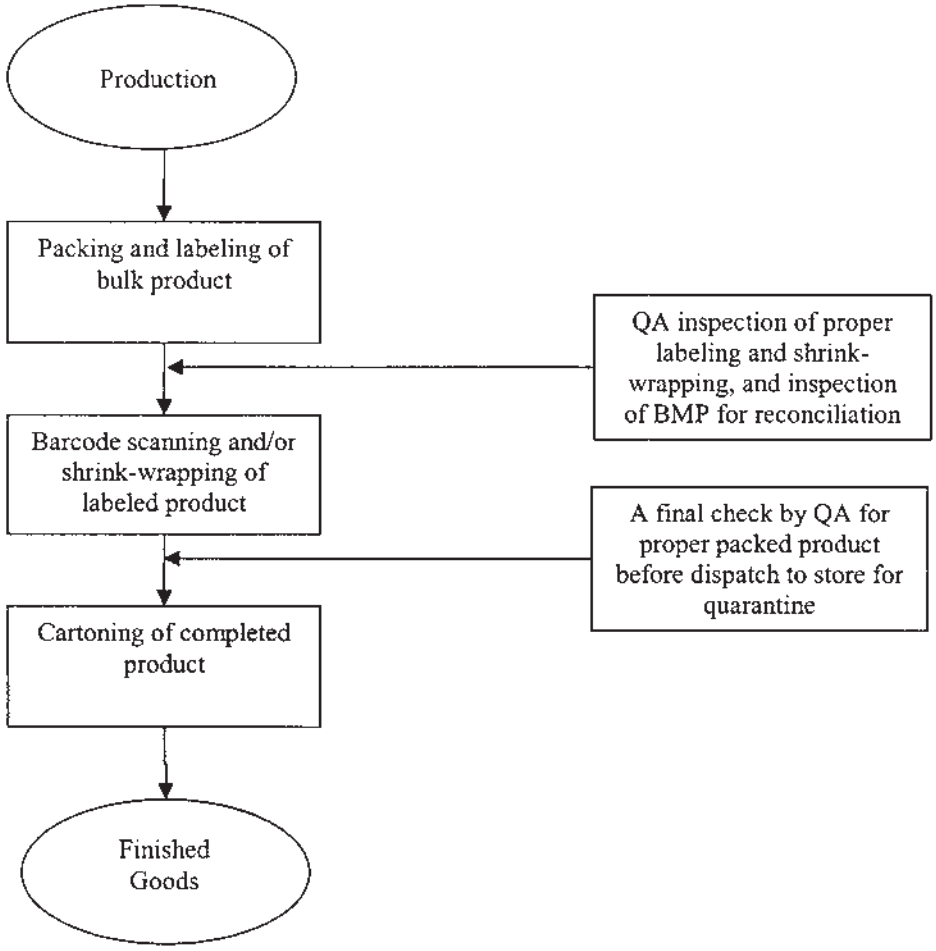
During the manufacturing process, the intermediate product is kept in a container and stored at the semi-finished product storage room. Each container is attached with a Vessel Label, which states clearly the status of the intermediate product, product code, batch number and container number.

In-process QC is performed during the entire process of production to ensure that the semi-finished products have uniform purity and quality within a batch and conforms to the product specifications. Continuous samples are obtained from each batch for quality checks. There are two types of control check on the appearance as well as product formulation testing. The physical appearance testing is performed by the QC personnel at the manufacturing floor itself, while the product formulation testing is performed at the QC laboratory. In-process QC records are documented and included in the Batch Manufacturing Record.

Upon the clearance of the in-process QC and further checking on the weight and batch number by assigned personnel, the semi-finished products will be released for compression, filling and pre-packing. The packing materials are transferred to the pre-packing or packing area according to the quantity and items stated in the Packing Material Requisition Form. These packaging materials will be checked for cleanliness and correctness of labelling, in addition to the certification of the cleanliness of the packing area by a designated supervisor.

For each packaged product, the identity, batch number, date of manufacturing and expiry date will be endorsed. The line leaders and QC personnel will randomly examine several packages of the batch for appearance check. All unused labels will be counted and recorded on the Destroying Form and subsequently sent to warehouse for future use.

Packing Flow Chart

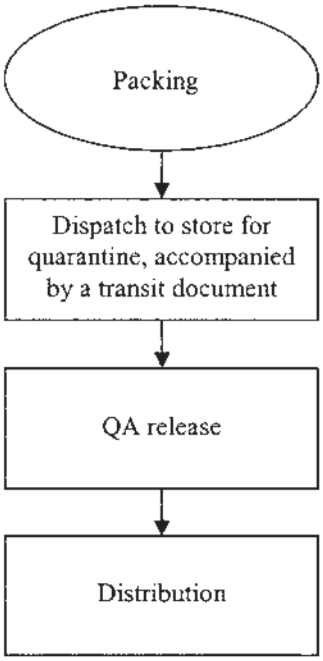


Samples of final packaged product are removed from the production line at predetermined intervals, which will undergo a final testing before being released for storage. These samples will have to comply with the Finished Product Testing Specifications as well as the Group's in-house validation procedures and methods. All relevant documents together with the Batch Manufacturing Record are forwarded to QA personnel, who will assure and certify that the relevant batch of product conforms to all testing requirements prior to release.

For each batch of the final packaged products, the Group will retain samples to enable future tracing and standards reference, in the event that the Group receives any customer complaint or adverse feedback on a particular product. In addition, the QC personnel will also randomly select samples of each product manufactured to perform a time stability study, which enable the Group to ascertain the actual shelf-life of that particular type of product.

7. BUSINESS AND INDUSTRY OVERVIEW (CONTINUED)

Finished Goods Flow Chart



For Carotech, the process used for the separation of fatty acid alkyl esters, carotenoids and tocotrienols from oil is carried out by way of subjecting fatty acids to alcohol esterification to form an ester-rich layer including fatty acid alkyl esters, carotenoids and tocotrienols. The ester-rich layer is then exposed to solvolytic micellisation to form a carotenoid-rich layer. The ester-rich layer is then separated from the carotenoid-rich layer. The carotenoids in the carotenoid-rich layer are concentrated and absorptively separated from the carotenoid-rich layer. At the same time, fatty acid alkyl esters are separated from the ester-rich layer to form a tocotrienol-rich layer. Individual tocotrienols in the tocotrienol-rich layer are then also absorptively separated and concentrated.

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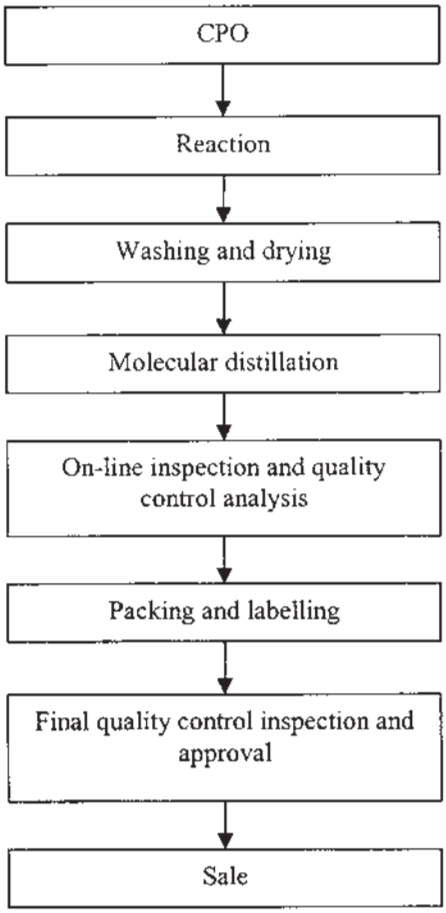
7. BUSINESS AND INDUSTRY OVERVIEW (CONTINUED)

Carotech Production Process Flow Chart



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7.1.4 Raw Materials

The raw materials used by the Company in its manufactured products include active materials (natural or chemical compounds), excipients and gelatine capsules, bottles and other packaging materials. Sourcing and purchasing of raw materials is done by the purchasing department, which adheres to strict procedures to ensure tight quality and cost control of materials obtained from approved vendors.

The majority of the raw materials used by the Hovid Group cannot be obtained locally and hence have to be sourced from established and reliable suppliers overseas. However, packaging materials and bottles are sourced locally. The Group will only purchase at the most competitive prices and specifications required for their product type without compromising for lower quality materials. Raw materials are easily available from numerous suppliers in Europe and Asia. The suppliers operate in a highly competitive environment, each desiring to initiate and establish long-term contracts with their customers. Due to the numerous suppliers and manufacturers, the risk of non-availability of raw materials is minimised. The suppliers of the Company also serve other world-renowned pharmaceutical companies in Europe and the US. As such, a high degree of quality can be expected from these suppliers.

Prior to production, the Company will estimate the amount of materials needed to cater for the total existing as well as expected demand for each of its product types. Then, it will proceed to make arrangements with the respective suppliers for the purchase of the raw materials so as to ensure continuous supply of materials throughout the manufacturing processes.

The main raw material for the production of palm-based tocotrienols is CPO. Malaysia produced 13.4 million tonnes of palm oil in 2003. This represents almost 50% of the world's palm oil output, or 12% of the world's oils and fats output. About 60% of the nation's cultivated land areas are for oil palms.

(Main Source: IMR Report)

7.2 COMPETITIVE ADVANTAGES

The Group believes that it has the following competitive advantages.

(i) Technology

Among some of the most significant achievements of Hovid in terms of technology is the technical capability to come up with the soft gelatine technology and the special drug delivery systems. At present, there are 16 types of soft gels products and 6 types of special drug delivery systems products developed by Hovid. For example, one of the successful technologies developed by the company is the SupraBio Delivery System for tocotrienols, increasing the rate and extent of absorption of tocotrienols.

The introduction of special drug delivery systems has contributed tremendously to the increasing sales of the respective products. The three types of products, i.e. Diabetmin, Clofenac and Tocovid SupraBio, utilizing the special drug delivery systems, have shown an increase in sales of more than 100% in the first year of introduction and more than 300% after three to four years.

Carotech's technological edge resides in its patent for an integrated process for the extraction of palm tocotrienols and palm carotene from CPO. The extraction of palm tocotrienols complex utilizes a sophisticated and specialized high vacuum-low temperature distillation technology. The patented process is complicated, involving the process of reaction, washing, drying, distillation at extremely high vacuum and low temperature to protect the integrity of the phytonutrients.

7. BUSINESS AND INDUSTRY OVERVIEW (CONTINUED)

(ii) PIC/S compliant plants

Hovid has modern and PIC/S compliant plants. The Directors believe that it is the first company in Malaysia to have a modern cGMP certified soft gelatine encapsulation plant for encapsulation of its wide range of in-house developed pharmaceutical and health food supplements. Internal and external audits are constantly being carried out to ensure that the manufacturing practices conform to GMP requirements at all times.

Among the goals of PIC/S is to lead the international development, implementation and maintenance of harmonised cGMP standards and quality systems of inspectorates in the field of medicinal products. Malaysia's status as a member country facilitates the export of locally manufactured pharmaceutical products to developed countries. Malaysia's application to become a member of PIC/S was accepted in January 2002.

(iii) Research & Development

One of Hovid's main strengths lies in its research and development. This is evidenced by its two (2) R&D divisions, housed at two different locations. The one situated in Universiti Sains Malaysia directs efforts towards pre-formulation studies, drug characterizations, special drug delivery system and efficacy studies. The other R&D division, located in its manufacturing plant in Ipoh, Perak Darul Ridzuan mainly works at improving production processes, improving formulations of existing products and development of new products.

Some R&D accomplishments of the Company are as follows:

- the first in Malaysia to produce film coated analgesic and painkillers in dispersible tablet form;
- the first in Malaysia to have soft gelatin encapsulation;
- a suprabio formulation of tocotrienols with enhanced absorption properties; and
- development and commercialisation of its special drug delivery system.

(iv) Product development

The frequency in which Hovid completes and registers new products to be launched into the market place is another indication of the Company's strength and commitment. In the past four (4) years, Hovid has completed a total of 49 new products, averaging 12 products a year. Since July 2004, Hovid has completed another 4 products and registered 4 products in the Malaysian market. Hovid has currently set a target to complete an average of 12 to 15 products annually.

The importance of Hovid's international markets is emphasized further with more than 21 products registered in the Philippines, 62 products registered in Nigeria and 80 products registered in Hong Kong as at 31 January 2005.

(v) Export market

Hovid pharmaceutical division's strength lies in its export market, with more than 50% of its revenue coming from exports. Its export market extends to over 30 countries around the world. Hovid also prides itself of being one of the first to introduce Malaysian generic drugs overseas (specifically Philippines and Cambodia) and in its ability to get numerous products registered in several countries successfully. At present, there are 518 products registered in 26 different countries, mainly developing countries and another 240 products pending registration in 22 of these countries.

One of the most problematic and tedious process in exporting a product is the product registration, specifically in the developing countries where there are no well documented laws or legislations or that the laws are frequently changing. Access to information on regulatory decisions on renewal, withdrawal and suspension of licenses are also other problems that most exporters would normally avoid.

Additionally, Hovid's subsidiary, Carotech, exports to 27 countries worldwide. Carotech's wholly owned subsidiary C Inc, incorporated in 1999 and based in New Jersey, US, is responsible for the marketing and distribution of Carotech's products for the US. More than 87% of its exports are to the continents of North America and Europe. The US is the largest consumer, accounting for 52% of Carotech's total exports of finished products.

(vi) Product quality

Hovid's corporate motto "Continuous Innovation and Quality" drives the company to continuously maintain the highest quality standards and strengthen its competitive edge. Additional effort has been made in to establish quality acknowledgement and to instil confidence of locally manufactured products in the domestic as well as international markets. This is evident in the Company's total adoption of the cGMP in pharmaceutical manufacturing, guidelines that regulate all aspects of manufacturing practices from premises, equipment, personnel, production, quality control and documentation. Hovid prides itself on being cGMP compliant and has constant internal and external audits to ensure this conformity.

Placing a high emphasis on quality, Hovid has received international accreditation under ISO 17025 for the various testing methods used to analyse the products, providing for valid data and results. Hovid's ISO 17025 accreditation provides its clients with international recognition and high quality assurance. Among the efforts exercised by Hovid is continual acquisition of clinical trials and bio equivalent status for the Company's expanding generic products line.

Hovid prides itself of being the first Malaysian pharmaceutical company to be a registered supplier to UNRWA. UNRWA is a UN body which procure drugs from approved and registered suppliers for the Palestinian refugees in Jordan, Syria, West Bank and Gaza.

(vii) Patents and trademarks

Hovid strives to strengthen its market position by creating entry barriers through the patenting of some of its newly discovered, unique products or processes. The focus on getting its products patented is believed to be the right direction towards creating a competitive edge against its competitors. Hovid has patents granted in New Zealand, the US, China and Australia and 7 patents pending approval including Malaysia, US, Europe, Japan and Australia, for its novel drug delivery system, "SupraBio Delivery System". The Company also has 2 patents pending for Malaysia and the US for both its Artermisinin (anti-malaria products) and Hair Growth Formulation.

For the integrated process of extracting tocotrienols and carotenoids, several patents have been granted. The patents have been granted in Malaysia, the Philippines, Indonesia, US and there is an application under the Patent Cooperation Treaty under application number PCT/US92/08911, which was published on 28 April 1994 under publication number WO 94/08987 in respect of various countries.

(viii) Diverse customer base

Hovid has minimal risk on key client dependency. Hovid's customer base is well diversified compared to the top three players. Domestically, Hovid is serving more than 5,000 customers from the pharmaceutical (clinics, pharmacies, hospitals, MOH, dental, etc) and consumer (medical halls, wholesalers, supermarkets, retail, mini markets, etc).

Under exports, there is only one major distributor per country. The top three export customers have a collective purchase value of only 11.1% of Hovid Group's total revenue for FYE 2004, with the largest export customer accounting for approximately 5.2% of the Group's total revenue. Because of its customer diversity, there are minimal risks of dependence on any single customer.

(ix) Strong and experienced management team

Hovid and Carotech are led and managed by its founder and a group of well-trained and experienced professionals. Under the stewardship of DH, Hovid has evolved to its current position as one of the prominent pharmaceutical players in Malaysia. Both management teams comprise of professionals with vast and in-depth experience in corporate management, legislation, research and development, manufacturing, marketing in the pharmaceutical industry. Most of the senior managers have been with Hovid for more than ten (10) years.

(x) Ample supplies of raw materials

About 80% of the raw materials needed for the extraction of palm tocotrienols are made up of CPO. The remaining are caustic soda, methanol and packaging materials. All the raw materials can be sourced locally. Carotech usually has two or three reputable local palm oil producers, secured via special arrangements, to ensure that only the freshest and highest quality palm oil is being provided. Malaysia is one of the largest producers of CPO. Hence, raw material sourcing is not an issue. Carotech has strict requirements and often ensures that only the best quality and, most competitive prices of raw materials are met.

7.3 MODES OF MARKETING

Hovid has established a wide distribution network all over the country with over 5,000 customers comprising of pharmaceutical (clinics, pharmacies, hospitals, MOH, dental, etc) and consumer (medical halls, wholesalers, supermarkets, retail, mini markets, etc). Local pharmaceutical sales accounts for approximately 80% of the Company's pharmaceutical division's domestic revenue in FYE 2004 whereas local consumer sales accounts for the remaining 20% of locally generated revenue.

The Company's pharmaceutical division's strength lies in its export market, with 46.6% of its revenue coming from exports in FYE 2004. Its export market extends to over 30 countries around the world. The Company also prides itself as being one of the first to introduce Malaysian generic drugs overseas (specifically the Philippines and Cambodia) and in its ability to get numerous products registered in several countries successfully.

The Group's tocotrienols and carotenoids are mainly exported to the US, in its raw material form and in bulk, in various levels of concentration. A small portion goes to Europe and Japan, but these are still fairly new markets. It is currently running at full capacity catering to the world market.

The end-products of tocotrienols reach the end consumer in the US via six (6) distribution channels. These distribution channels are health food stores (which mainly cater for the higher-end market), the supermarkets (which cater for the mass market), the multi-level-marketing organizations, physicians, mail orders and info-commercials on televisions.

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7. BUSINESS AND INDUSTRY OVERVIEW (CONTINUED)

7.4 MAJOR SUPPLIERS

The Hovid Group has a wide supplier base and is not dependent on any one or a small group of suppliers. Its largest supplier accounted for only 12.3% of the Group's total purchases of RM57.0 million for FYE 30 June 2004. The Hovid Group maintains cordial relationships with its suppliers, with most of them having been supplying to the Hovid Group for over eight (8) years to date.

The details of the major suppliers of the Hovid Group for FYE 30 June 2004 are as set out below:

No.	Major supplier	% of the Group's purchases [a]	Length of relationship (years)
1.	Sime Darby Berhad	12.3	8
2.	Kuala Lumpur Kepong Berhad	4.6	4
3.	Lupin Chemicals (Thailand) Ltd	4.1	13
4.	Perusahaan Kimia Gemilang Sdn Bhd	3.9	8
5.	KDL Biotech Limited	3.4	13
6.	Aceto Pte Ltd	3.3	13
7.	Orchid Chemical and Pharmaceuticals	2.5	3
8.	Su-Heung Capsule Co Ltd	2.6	13
9.	Bilim Pharmaceuticals	2.4	2
10.	Narmada Gelatines Limited	2.3	2
		41.4	

Note:

(a) Proportion of purchases is based on audited purchases of RM59.4 million for the FYE 30 June 2004

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7. BUSINESS AND INDUSTRY OVERVIEW (CONTINUED)

7.5 MAJOR CUSTOMERS

The Hovid Group has established a wide base of customers comprising of a total of approximately 5,700 customers throughout Malaysia and countries overseas. The Hovid Group enjoys close business relationships with its customers and places great emphasis on developing and maintaining its goodwill and rapport with them.

The details of the top ten (10) major customers of the Hovid Group are set out below:

No.	Major customer	% of the Group's revenue [(a)]	Length of relationship (years)
1.	Cognis Oleochemical (M) Sdn Bhd	6.1	8
2.	Pharmatex (Nigeria) Ltd	5.2	9
3.	Medicine Group Co, Ltd	3.3	8
4.	Goldplus Universal Pte Ltd	2.6	6
5.	Swiss Biopharma Sdn Bhd	2.4	2
6.	H. Reisman Corporation	2.3	5
7.	Aceto Pharma GmbH	2.2	5
8.	Life Extension Foundation Buyers Club Inc.	1.9	5
9.	International Pharmaceutical Chemicals BV	1.7	5
10.	Kyaw Wynn & Co. Ltd	1.7	6
		29.4	

Note:

(a) Proportion of sales is based on audited revenue of RM113.5 million for the FYE 30 June 2004

The top ten (10) customers of the Hovid Group accounted for approximately 29.4% of its total revenue for the FYE 30 June 2004. Most of the above customers have been with the Group for more than five (5) years. The directors of the Company are of the view that the Hovid Group is not dependent on any single major customer, since none of the major customers contribute more than 10% of the total revenue of the Group for FYE 30 June 2004. The Group is also continuing to secure new customers and improve the existing relationships with its other customers.

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7. BUSINESS AND INDUSTRY OVERVIEW (CONTINUED)

7.6 LOCATIONS OF OPERATIONS

The Company's registered address and main plant is at No. 121, Jalan Tunku Abdul Rahman (formerly known as Jalan Kuala Kangsar), 30010 Ipoh, Perak Darul Ridzuan ("Lot 121"). Its other plant is located at Lot 56442, 7½ Mile Jalan Ipoh/Chemor, 31200 Chemor, Ipoh, Perak ("Plant B at Chemor").

The list of production facilities in the Hovid Group and their production capacity are summarised as follows:

Facilities / Location	Dosage Form	Unit	Production Capacity	Output in FYE 2004
Cephalosporin Plant (Lot 121)	Capsule	unit	60,000,000	9,215,700
	Tablet	unit	70,000,000	7,337,600
	Granules	ml	21,000,000	19,169,500
Penicillin (Lot 121)	Capsule	unit	120,000,000	83,272,990
	Tablet	unit	60,000,000	13,181,900
	Granules	ml	108,000,000	117,490,500
Softgel (Lot 121)	Softgel Cap	unit	114,192,000	52,685,780
External (Lot 121)	Cream/	g	75,000,000	39,536,005
	Lotion	ml	300,000,000	75,934,380
Syrup (Lot 121)	Liquid	ml	750,000,000	614,916,230
Injectables (Lot 121)	Ampoules	ml	3,000,000	465,650
	Eyedrops	ml	12,000,000	1,663,200
Non Penicillin and Non Cephalosporin Solid Dosage (Plant B at Chemor)	Capsule	unit	97,000,000	83,176,689
	Tablet	unit	720,000,000	559,152,665
	Granules	ml	20,000,000	7,693,760
Phytonutrient Plant (Carotech Plant at Lot 56442, 7½ mile Jalan Ipoh/Chemor, 31200 Chemor, Perak Darul Ridzuan)	Oil	metric tonne per day	40.0	6,153

In addition, H Pharmacy also operates from several locations around Peninsular Malaysia. These are as follows:

- 29, Jalan Yang Kalsom, 30250 Ipoh, Perak Darul Ridzuan;
- 64, Jalan Leong Sin Nam, 30300 Ipoh, Perak Darul Ridzuan;
- 71, Jalan Pengkalan Indah 2, Bandar Pengkalan Indah, 31650 Ipoh, Perak Darul Ridzuan;
- 16, Jalan SS4D/14, 47301 Petaling Jaya, Selangor Darul Ehsan;
- 38-42, Jalan TPJ 10, Taman Prn Jaya, Subang Jaya, 47200 Selangor Darul Ehsan;
- 52, Lintang Angsana, Bandar Baru Ayer Itam, 11500, Pulau Pinang;
- 25, Jalan Sri Bahagia 5, Taman Sri Bahagia, 81200 Johor Bahru Darul Takzim; and
- 12, Laluan Kuala Kangsar 9, Off Jalan Tunku Abdul Rahman (formerly known as Jalan Kuala Kangsar), 30010 Ipoh, Perak Darul Ridzuan.

H Inc operates as the Group's representative office in the Philippines and operates from Unit 306, AIC Gold Tower Condominium, Emerald Avenue, Ortigas Center, Pasig City, 1605 Philippines. HYH Sg operates as the Group's representative office in Singapore and its registered office is at 10, UBI Crescent, #03-15, UBI Techpark, 408564 Singapore.

Carotech's plant is located in Lot No. 56442, 7 ½ Mile, Jalan Ipoh/Chemor, 31200 Chemor, Ipoh, Perak Darul Ridzuan. C Inc operates as Carotech's representative office in the US and operates from 21, Balmoral Court, Edison, New Jersey 08817 US.

7.7 TECHNOLOGY, INTELLECTUAL PROPERTY AND LICENCES

7.7.1 Pharmaceutical Products

Among some of the most significant achievements of Hovid in terms of technology is the technical capability to come up with the soft gelatine technology and the special drug delivery systems. At present, there are 16 types of soft gels products and six (6) types of special drug delivery systems products developed by Hovid. For example, one of the successful technologies developed by the company is the SupraBio Delivery System for tocotrienols, increasing the rate and extent of absorption of tocotrienols.

The introduction of special drug delivery systems has contributed tremendously to the increasing sales of the respective products. The three types of products, i.e. Diabetmin, Clofenac and Tocovid SupraBio, utilizing the special drug delivery systems, have shown an increase in sales of more than 100% in the first year of introduction and more than 300% after three to four years.

Hovid has modern and PIC/S compliant plants. The Directors of Hovid believe that it is the first company in Malaysia to have a modern cGMP certified soft gelatine encapsulation plant for encapsulation of its wide range of in-house developed pharmaceutical and health food supplements. Internal and external audits are constantly being carried out to ensure that the manufacturing practices conform to GMP requirements at all times.

Among the goals of PIC/S is to lead the international development, implementation and maintenance of harmonised cGMP standards and quality systems of inspectorates in the field of medicinal products. Malaysia's status as a member enables the country to export locally manufactured pharmaceutical products to developed countries. Malaysia's application to become a member of PIC/S was accepted in January 2002.

The Group also has a number of patent and patent applications, and trademarks and trademark applications, in respect of its range of products.

(Main Source: IMR Report)

7.7.2 Carotech

Carotech has patented its technological process of extracting tocotrienols. It has also been granted a manufacturing licence (Licence No. A011598) issued by the MITI for the production of palm mixed carotenoids, palm tocotrienols, palm fatty acid, methyl esters and crude glycerine. Further details in relation to the aforesaid manufacturing licence are set out in **Section 5** of this prospectus. In order to protect its brand names, Carotech has its more established and popular products sold under specific registered trade marks, as set out below.

(i) Extraction process of tocotrienol complex, mixed carotene complex and phytosterols

The process used by Carotech for the commercial extraction of tocotrienol complex, mixed carotene complex and phytosterols from palm oil involves a sophisticated and specialised high vacuum-low temperature distillation technology. A patent for this process has been registered or filed with the following regulatory authorities:

(a) the US Patent and Trademark Office, under patent number 5,157,132 on 20 October 1992, with expiry date on 20 October 2009;

(b) the Registrar of Patents, Malaysia, under patent number MY-108126-A, on 15 August 1996, with expiry date on 15 August 2011;

(c) the Bureau of Patents, Trademarks and Technology Transfer, the Philippines, under patent number 29849, and granted on 13 August 1996, with expiry date on 13 August 2013;

(d) the Indonesian Patent Office, Indonesia, under patent number P-004873/ID0 000 732, on 21 June 1996, with expiry date on 21 June 2016; and

(e) filed for patents under the Patent Cooperation Treaty under application number PCT/US92/08911, which was published on 28 April 1994 under publication number WO 94/08987 in respect of various countries.

This process is used for the separation of fatty acid alkyl esters, carotenoids and tocotrienols from oil, whereby fatty acids are subjected to alcohol esterification to form an ester-rich layer including fatty acid alkyl esters, carotenoids and tocotrienols. The ester-rich layer is then exposed to solvolytic micellisation to form a carotenoid-rich layer. The ester-rich layer is then separated from the carotenoid-rich layer. The carotenoids in the carotenoid-rich layer are concentrated and absorptively separated from the carotenoid-rich layer. At the same time, fatty acid alkyl esters are separated from the ester-rich layer to form a tocotrienol-rich layer. Individual tocotrienols in the tocotrienol-rich layer are then also absorptively separated and concentrated.

(ii) "Caromin" brand name

Carotech has registered "Caromin" as a trademark under international class 1 with the US Patent and Trademark Office on 21 July 1998 under registration number 2,174,487, in respect of the use of the same for extracts and concentrates of palm tree fruits used in the manufacture of cosmetics, pharmaceutical preparations, fruit beverages and in food preparations, all in class 1. The registration will expire on 21 July 2008.

(iii) "Tocomin" brand name

Carotech has registered "Tocomin" as a trademark under international class 1 with the US Patent and Trademark Office on 7 July 1998 under registration number 2,170,942, in respect of the use of the same for extracts and concentrates of palm tree fruits used in the manufacture of cosmetics, pharmaceutical preparations, fruit beverages and in food preparations, all in class 1. The registration will expire on 7 July 2008.

7.8 R&D

7.8.1 Pharmaceutical

In addition to its continuing quality control efforts in respect of its products, the Group has also conducted R&D into the potential uses of its products. In this regard, the Group is researching, inter alia:

(a) a unique delivery system to achieve increased absorption of tocotrienols; and

(b) a tocotrienol formulation that induces hair growth.

One of Hovid's main strengths lies in its R&D. This is evidenced by its two (2) R&D divisions, housed at two different locations and numerous collaborations with overseas institutions of higher learning. The one situated in Universiti Sains Malaysia directs efforts towards pre-formulation studies, drug characterizations, product development, special drug delivery system and efficacy studies. The other R&D division, located in its manufacturing plant in Ipoh, Perak Darul Ridzuan mainly works at improving production processes, improving formulations of existing products and developing new products.

Hovid's R&D units have so far focused on special functionalities like soft gel and special drug delivery systems as well as the development of tocotrienols formulation of dietary supplements. The success stories of these three (3) types of technologies, specifically the patented extraction process of tocotrienols via Carotech, add further to the credibility of Hovid and acts as endorsements to Hovid's R&D expertise and strength. The development of an enhanced bio-availability Artermisinin product for the anti-malaria therapeutic market which is currently pending approval of its patent is yet another success story that Hovid takes pride in.

Amongst the top five (5) players in Malaysia, Hovid ranked among the highest in terms of R&D staff strength. Since 1999, its staff strength has grown from 18 full time employees to more than 26 full time employees. R&D expenditure has been growing at an average rate of 14.6% per annum or approximately 3.7% of annual turnover for the past five (5) years.

Some of its R&D accomplishments include:

- The first in Malaysia to produce film coated analgesic and painkillers in dispersible tablet form
- First company in Malaysia to have soft gelatin encapsulation
- A suprabio formulation of Tocotrienols with enhanced absorption properties
- Development and commercialisation of its special drug delivery system

7.8.2 Carotech

Carotech's R&D efforts are spearheaded by DH. Carotech continues to conduct R&D into the production processes to improve yields and purity of extracts, utilising the services of four (4) senior members of the production team and two (2) members of the laboratory team. In the course of such R&D, Carotech and/or the inventor may apply for patents or other intellectual property rights. DH will be granted a licence over the patent or other intellectual property rights to use any such inventions discovered or acquired by Carotech. See **Section 6.3.5** of this prospectus for further details on the agreement relating to the employment of the Managing Director dated 24 August 2004 between the Carotech and DH.

At the same time, Carotech has formed alliances with research scientists at universities / research institutes worldwide and locally in line with their commitment into extensive R&D. Other than its collaboration with Hovid as mentioned above, some of Carotech's on-going research collaborations overseas are with:

(a) the Ohio State Medical University Center on brain cell protection with Tocomin / tocotrienols, primate/human study on Tocomin / tocotrienols in Alzheimer's and Parkinson's disease models;

(b) the Louisiana State University School of Pharmacy (study of Tocomin / tocotrienols for the inhibition of breast cancer cells);

(c) the University of Hawaii Medical Technology Center on the effects of Tocomin / tocotrienols on cellular adhesion molecules;

(d) the Technical University of Hamburg, Germany on improvement to extraction and concentration of phytonutrients; and

(e) the Kyoto University, Graduate School of Pharmaceutical Sciences on neuroprotection of Tocomin / tocotrienols.

In the course of such R&D, Carotech and/or the technical collaborator / inventor may apply for patents or other intellectual property rights. Where a patent is owned by the technical collaborator / inventor, Carotech is usually granted a licence to use the patent.

In each collaboration, Carotech either funds such R&D activities financially or provides raw materials, for instance, tocotrienols, to facilitate the activities. One of the key achievements in R&D for the Company is the recognition by the US National Institute of Neurological Disorders and Stroke in the form of an award worth USD1.2 million to fund Carotech's collaboration with the Ohio State University Medical Center.

In the past three (3) financial years ended 30 June 2004, Carotech has spent approximately RM1.35 million in R&D, representing 1.6% of Carotech's consolidated revenue.

7.9 QUALITY ASSURANCE

7.9.1 Pharmaceutical

The Group has a quality assurance team of approximately thirty (30) personnel to oversee the quality assurance process for the Group's products. The process includes built-in quality control systems in the manufacturing process, together with post-production sampling and testing.

Additionally, the process includes quality control systems in the sampling and testing of all raw materials and packing materials used by production.

7.9.2 Carotech

Carotech has a quality control team of eight (8) personnel, headed by the Assistant Quality Control Manager, to oversee the quality control process for Carotech's products. Carotech exercises stringent quality control measures in all its production lines, from raw materials to finished packed products. QC is continuously applied to all processes in the extraction process, together with post-production sampling and testing. The QC Department produces certificates of analysis for inspection by the customers. Quality of the various products is further assured by the QA Department, which embarks on quality assurance of raw materials to the production and subsequent release of finished goods.

Carotech has also embarked on the implementation of cGMP in all departments of the plant, and has targeted to be cGMP certified by June 2006 and the US Food and Drug Administration ("USFDA") certified by 2008. All products and practices in the plant would have to then comply and meet the high specifications of the QC, cGMP and USFDA guidelines.

7.10 EMPLOYEES

As at 31 January 2005, the Group has a total of 984 full-time employees in the following categories and number of years of service:

Category	Malaysian	Foreign	Total in number	Average no. of years in service
Sales	98	21	119	4.4
Engineering	49	-	49	4.1
Finance and Administration	146	3	149	4.3
Laboratory	107	-	107	4.1
Production	560	-	560	3.7
Total	**960**	**24**	**984**	**3.9**

The Group recognises the importance of its employees and continuously takes steps to update them on the latest developments in the industry. These employees are trained under the Group's own internal training programmes from time to time in order to keep the employees up-to-date in terms of technical and operational know-how, quality control, and occupational safety and health. The managerial and professional employees of the Group are also occasionally sent for training courses in order to update them on the latest developments in their respective scopes of expertise.

The employees of the Group are not members of any trade union, and the management of the Group enjoys cordial relations with these employees. There has not been any material dispute to date between management and these employees.

7.11 MANAGEMENT SUCCESSION PLAN

The management of Hovid acknowledges the importance of maintaining minimal interruptions to the management team and operations of the Company, as such disruptions usually result in a weakening of the competitive advantages of the Company. Integral to the Company's effort to mitigate such interruptions is that of implementing a comprehensive management succession plan while continuously enhancing the skills of its personnel.

In addition to preparing the Company for any unforeseen interruptions that may occur, the management succession plan has also allowed for potential succession gaps within the management team to be identified and therefore, allow the formulation of an effective plan for the necessary training and recruitment required to fill such gaps, as this is essential to ensure the continued smooth operation of the Hovid Group.

It is also the long term objective of the management succession plan to further reduce the over-dependence on certain key personnel and management. This will be achieved through the institutionalisation of the respective key areas of operation to enable a greater level of autonomous operation by each key area via the adoption of lean manufacturing practices.

In ensuring the smooth running of the above key areas of operation through minimal disruptions and early identification of potential succession gaps, the Company will undertake the following:

- continuous monitoring by the Directors and managers of the performance, competency, experience, motivation and aptitude of the next level of personnel that would potentially succeed their respective predecessors;
- training for the respective grades of staff to enable them to perform their responsibilities better as well as prepare them for the next grade;
- rotation and secondment of personnel between the key areas of operation to allow the next generation of managers to have well-rounded experiences in relation to the overall operations of the Company; and
- exposing the next generation of managers to greater managerial roles and responsibilities through specific tasks or projects, with clearly-defined objectives.

In addition, the Group has set up an Executive Management Committee to oversee the key areas of operation of the Group, such as Finance & Electronic Data Processing, Sales, R&D, Production Operations and Quality Assurance. The committee meets regularly to plan and monitor the operations of the Group and reports to the Board via the Managing Director. The members of the Executive Management Committee comprise all the Key Management and Technical Personnel stated in **Section 6.5** of the prospectus.

In the unlikely event of the early demise or resignation of any one of the Executive Directors or the Managing Director of the Company, a new suitable candidate from the Executive Management Committee, subject to the approval of the Board of Directors, will be chosen to succeed the outgoing Executive Director or Managing Director of the Company. In the event no suitable candidate can be identified from the Executive Management Committee, the Board will seek such candidate from outside the Group.

7.12 INTERRUPTIONS TO BUSINESS DURING THE PAST 12 MONTHS

There has not been any material interruption to the businesses of the Group in the twelve (12) months preceding the date of this prospectus.

7. BUSINESS AND INDUSTRY OVERVIEW (CONTINUED)

7.13 OVERVIEW OF THE ECONOMY AND THE INDUSTRY

7.13.1 The Malaysian economy

Malaysia's growth momentum continues into 2004 after recording a strong growth in 2003. Unlike 2003, when the global economy was affected by the war in Iraq and Severe Acute Respiratory Syndrome ("SARS") the external environment in 2004 has improved markedly with upswing in the global electronics demand as well as favourable commodity prices. This enabled the Malaysian economy to expand steadily from 7.6% in the first quarter of 2004 to 8% in the second quarter, the highest since the third quarter of 2000.

The robust domestic economic activities, which supported growth in 2002 through to 2004, are further augmented by favourable external environment. Of significance, the domestic sector is buoyed by the expansion in private consumption and investment activities. The manufacturing sector registered a solid growth of 12.3% during the first half of 2004, while the services sector expanded strongly by 6.8% in the same period. With the Leading Index pointing towards further expansion in the second half of the year, both sectors are envisaged to contribute significantly to the economic growth. The build-up in international reserves arising from larger current account surplus and inflows of foreign capital continues to strengthen Malaysia's macroeconomic fundamentals. Given this favorable scenario, the Malaysian economy is set to surpass its earlier estimate of 6.0 – 6.5% and post a stronger growth of 7% in 2004 (2003: 5.3%).

This impressive growth performance in an environment of low inflation helps to generate additional employment and new business opportunities. Consequently, national income in current prices is envisaged to increase by 10.8% to RM411,794 million, with per capita income rising by 8.5% to reach RM16,098 (2003: RM14,838). Similarly, per capita income in terms of purchasing power parity is estimated to increase by 9.3% to USD10,163 (2003: USD9,295).

Production of domestic-oriented industries has been on the rising trend since May 2002. In the first half of 2004, output of the industry recorded a sustainable growth of 10.8% (January-June 2003: 11.3%) on account of increased output of plastics and chemicals, basic metals and transport equipment as well as food and beverages.

Chemical and plastic products, comprising chemical and chemical products, industrial chemicals as well as plastic products, grew by 17.8% during the first six months of 2004 (January-June 2003: 20%). Chemical and chemical products remain the largest component of this sub-sector, with output increasing by 19% (January-June 2003: 15.1%), due to higher demand in pharmaceuticals, paints and lacquer. In tandem with the higher growth of production the sales of these products also registered an increase of 20.2%.

(*Source: Malaysian Economic Report 2004/2005*)

7.13.2 The Pharmaceutical and Phytonutrient Industry

Pharmaceutical

According to the Intercontinental Marketing Services World Review, global audited sales of pharmaceuticals rose 9% in 2003 to reach RM1,772 billion. This data is inclusive of all prescription drugs (patented and generic) and certain OTC products in more than 70 countries. Zooming down to a regional level, pharmaceutical sales for Asia, Africa and Australia increased some 12% to RM141.7 billion, making up some 8% of global sales.

In Malaysia, there are 16,266 pharmaceutical preparations currently registered in Malaysia with a market value estimated at around RM2.2 billion annually. There are presently 81 registered pharmaceutical manufacturers in Malaysia catering to the generic drugs market. The 15 manufacturers surveyed take up only approximately 24.2% of this market share. This ratio should be seen as an area of opportunity for local manufacturers to exploit as the remaining market is still untapped.

Apart from local market, there are ample growth opportunities in the export markets. The discussions below set out the industry growth factors.

Growing Population

The pharmaceutical industry is driven by the natural growth of world population of over 77 million per year. The United Nations Population Division projected that the world population will reach 8.9 billion by 2050. Generic pharmaceuticals are especially enjoying opportunities from less developed countries that have 90% of the world's births per year. Table 1.1 and Table 1.2 show that the potential of less-developed countries for generic pharmaceuticals are great. In 2004, less-developed countries (excluding China) made up of 61% of the world population and by 2050, the percentage is projected to increase to 71%, indicating the growing importance of these countries. Table 1.1 shows the world's largest population countries in 2004 and 2050. China and India are the largest ones but the local generic pharmaceutical manufacturing industries in both countries are well developed, thus offering limited opportunities for export opportunities for Malaysian manufacturers. Targeting the other third world countries is a strategic plan. For example, three (3) of the export markets of Hovid, namely Vietnam, Nigeria and the Philippines, have a total population of 302.5 million as at 2004; and the total population of these three (3) countries will increase to 569.8 million by 2050.

Table 1.1: World Population by Region

Region	Population (2004)	Population* (2050)	GNI per capita (2002) (US$)
World	6,396 million	9,276 million	7,590
Developed Countries	1,206 million	1,257 million	23,689
Less-Developed Countries (excluding China)	3,890 million	6,582 million	3,630

** Projections*

Emerging Target Markets

Local pharmaceutical companies, including Hovid, are looking for more opportunities in less-developed countries, such as Cambodia, Myanmar, Vietnam, Nigeria and the Philippines. These countries have similar characteristics with large population and generally poorer health/wealth indicators. The GNI purchasing power parity ("PPP") of less-developed countries is about US$3,630 compared to US$23,689 in developed countries. There are ample opportunities for generic pharmaceuticals in these markets given their lower purchasing power and fast growing population.

Table 1.2: Population Growth by Countries, 2004-2050

Country	Population^ (2004) (million)	Projected population growth rate^ (2004-2050) (%)	GNI Per Capita (2002)^ (US$)	Population with Access to Sanitation * (%)	
				Urban	Rural
Cambodia	13.1	104%	1,970	56%	10%
Myanmar	50.1	29%	NA	84%	57%
Vietnam	81.5	41%	2,300	82%	38%
Nigeria	137.3	124%	800	NA	NA
Philippines	83.7	76%	4,450	93%	69%

*Source: ^ Population Reference Bureau, 2004; * World Development Indicator, 2002.*

7. BUSINESS AND INDUSTRY OVERVIEW (CONTINUED)

Ageing Population

The high life expectancies and rising standards of living in Malaysia and Singapore, and a steady flow of new products and product line extensions are factors that are likely to help sustain global growth in the consumption of pharmaceutical products. In addition, an ageing population will be a major driver behind growth in the health services segment. The WHO has reported that the global ageing population (over 65 years) is the single-largest user group of prescription drugs and consumes three times as many pharmaceutical medicines as compared to younger patients. The aging population is expected to increase to more than 690 million by 2025 according to the WHO population reports. For Malaysia and Singapore, ageing population is 4% and 7% respectively. Ageing populations are expected to provide a strong market demand for pharmaceutical products as elderly people often suffer from chronic and degenerative diseases.

Patent Expiry

The worldwide market share of generic drugs is growing at a rapid pace. Prior to 1984, generics accounted for close to 19% of prescriptive drugs and it has since grown to some 50% market share. It is expected that generic market share will reach 60% by 2005. The opportunities for generic pharmaceuticals are tremendous as it is estimated that more than 50% of the world's major prescription drugs will lose patents' protection by 2005. Generic manufacturers are well poised to obtain significant market position in the next few years when blockbuster drugs come off patent.

Relaxed Patent Protection

In some parts of Asia and Africa, there is resistance to pressures to adhere to worldwide and regional regulatory frameworks that set intellectual property protection standards such as the World Intellectual Property Organization and the WTO. There has been much debate and discussions on the increasing concerns about the dependency of less-developed countries on private companies for critical health support and life saving patented pharmaceuticals that are often beyond reach due to the high price. In June 2002, the WTO council responsible for intellectual property approved a decision extending until 2016 for the transition period during which less-developed countries do not have to provide patent protection for pharmaceuticals. This presents good opportunities for generic pharmaceutical manufacturers in the less-developed countries.

Tropical Disease – Malaria

WHO estimated that there are at least 300 million acute cases of malaria each year globally, resulting in more than a million deaths. Around 90% of these deaths occur in Africa, mostly in young children. Malaria is Africa's leading cause of infant mortality (20%) and constitutes 10% of the continent's overall disease burden. WHO pointed out that one of the major issues is inappropriate treatment due to high levels of resistance to the drugs in use. Anti-malarial drugs, when used as mono-therapy, are rapidly losing their effectiveness. Moreover, few new affordable drugs are being developed because multi-national pharmaceutical companies do not place much emphasis on malaria drug markets. This highlights the need and opportunities for anti-malaria therapeutic options. There are studies that showed that when two or more drugs with different biochemical targets in the malaria parasite are used in combination, the development of resistance to both drugs can be delayed. Among them, drug combinations containing artermisinin derivatives have the highest therapeutic efficacy and the greatest potential to delay the onset of resistance.

Special Drug Delivery

Oral delivery through pills, tablets, capsules and caplets has been the mainstay of drug delivery for the pharmaceutical industry. It is a convenient, familiar, cheaper and usually painless way to deliver medications. However, standard oral formulations do have some shortfalls. Some drugs are not absorbed by the intestine effectively, or are destroyed in the high pH of gastric secretions. Others are short-lived once they reach the blood stream, failing to perform the level of therapeutic effect required of the drug. A number of special delivery methods such as the followings are being developed to improve oral delivery and address these drawbacks:

- Use of carrier vehicles to increase gastrointestinal absorption
- Colon-specific drug delivery
- Sustained and/or controlled-release formulations to reach and maintain safe but effective blood levels
- Rapid dissolution to ensure fast onset of action in times of urgent clinical need

Such drug delivery systems are designed to control the release of a drug in terms of rate, volume and duration of action, and can optimise pharmacological efficacy. In addition, another factor which influences the market acceptance of a drug delivery product is its ability to reduce or eliminate side effects associated with an active compound, thus assist in achieving higher drug penetration and compliance among patients.

Increasing Health Consciousness

In Malaysia, the dietary supplements market is and will continue to be driven by increasing health consciousness where consumers are increasingly informed and aware of the link between nutrition, health and disease prevention. Consumers are seeking convenience for themselves and those they care for, children and the elderly. They are seeking the convenient "healthful" solution in dietary supplements, as a complement or alternative to medicinal or exercise regimes. In general, dietary supplements are positioned to have various benefits ranging from health enhancement, anti-ageing, cosmetics, weight control, even to a possible role in the treatment and prevention of diseases. In addition, positive attitudes of medical professionals toward dietary supplements and the availability of scientific evidence about specific benefits of some products are important driving factors for the dietary supplements market.

Therapeutic Benefits of Dietary Supplements

Preventing, treating, and curing disease by regularly consuming dietary supplements are envisioned in an ideal world. This, in fact, has been a strong driving factor for the growth of dietary supplements markets in the modern world. Supported with clinical studies, dietary supplements and vitamins have been recommended for use in cardiovascular diseases, prenatal problems and osteoporosis. It has been indicated that up to 70% of diseases and their associated costs are preventable and dietary supplements play an important role in such preventive efforts. Dietary supplements carry the promise of averting specific disease problems before they start or, at least, delay their onset and ameliorate their effects on the population.

Phytonutrient

Tocotrienols will ride on the strong demand growth of natural vitamin E that has been widely used in cosmetic products and in mainstream healthcare products, particularly in the US and Europe markets. Natural vitamin E is in high demand among consumers because of research linking it to reduced risk for coronary heart disease and cancer. Natural vitamin E is also promoted as being four times more effective than its synthetic counterpart and is therefore more adapted for use in health supplements. Scientific research findings indicate that tocotrienols, especially delta-tocotrienols, exert more profound effects for antioxidant, cholesterol lowering, and anti-cancer effects than tocopherols. Alpha-tocotrienols are some 60 times more potent than alpha-tocopherols in the prevention of lipid peroxidation.

Tocotrienols are more valuable in protecting the interior cell membranes, such as those that surround the cell nucleus and mitochondria, because of their greater ease in being incorporated into cellular membranes. Moreover, tocotrienols have been shown to assist in lowering the amount of cholesterol plaque in arteries, lower the level of the extremely damaging lipoprotein, prevent the aggregation of platelets, and inhibit the expression of cellular adhesion molecules. There are also studies that indicate the probable therapeutic benefits of tocotrienols in human cancers.

With such therapeutic properties, the potentials for tocotrienols in developed markets such as US, UK, Germany, France and Japan, are tremendous. The antioxidant and cardiovascular properties of tocotrienols are especially important in addressing the growing ageing population. Likewise, many studies confirm the antioxidant properties of carotenoids and their effects on the health status of elderly people. There are thus tremendous opportunities for tocotrienols and carotenoids in major markets namely the US, UK, France, Germany and Japan. With the exception of the US, more than 20% of the citizens in these countries are above 60 years old.

The potential for tocotrienols and carotenoids in the developed markets namely US, Japan and Europe, lies in the booming nutraceuticals market. In the US, surveys showed that 82% of Americans consume vitamins and dietary supplements. The growth of the nutraceuticals market, that includes functional food and dietary supplements, has demonstrated strong trends over the years. In the US, it is currently estimated at some US$19 billion compared to US$8 billion in 1994. Inclusive of functional food and dietary supplements, the nutraceuticals market is forecasted to reach US$35.4 billion by 2006 for the US market. For Japan, the market for nutraceuticals has been consistently expanding at about 10% per annum registering US$21.2 billion in 2002 and is expected to reach US$54 billion by 2012.

Vitamin E is commonly used in the cosmetics industry as antioxidants or as a colouring in concentrations under 0.2%. They are used as an active ingredient in cosmetic products for their antioxidant or physiological properties. They have shown to be able to increase the moisture levels of the skin, improve skin surface relief and reduce premature skin ageing, but most of all they give cosmetics a healthy and youthful image. Vitamin E is used as an antioxidant in cosmetics or as an active ingredient in sun protection, anti-ageing, shaving or makeup products. The cosmetics industry traditionally used synthetic tocopherols, but the use of natural vitamin E is rising, especially as an active ingredient. Carotenoids are used for their colouring properties principally in make-up lines and they are also used as active ingredients for their antioxidant properties.

The US, Japan and European cosmetics markets are developing rapidly where high-end cosmeceuticals are fast gaining market dominance. The cosmeceuticals market is represented by products that combine cosmetics with vitamins, herbs and/or pharmaceuticals. The US cosmeceuticals market has been growing at more than 10% since 1998 and is worth US$2.6 billion in 2002. For Europe, the market is estimated at US$1.5 billion to US$1.75 billion. This represents good opportunities for tocotrienols as the developed markets are attracted to natural ingredients.

(Source: IMR Report)

7.13.3 Future Plans of the Group

(a) New Products Under Development And Pending Registration

The number of new products under development and pending registration is usually an indicator of the growth and direction of a pharmaceutical company. Upon development, a product will be sent for registration, a process that could take up to two (2) years.

The Company's focus will be to extend its special drug delivery systems and Bio-Enhanced technologies to more products and is in the midst of patenting its Special Drug Delivery System. The Company currently has four (4) Slow Release products under development with one (1) pending registration approval. For Bio-Enhanced products, there are three (3) currently under development with one pending registration approval. As at 31 January 2005, the Group has more than fifty (50) new products pending registration approvals to be launched into the Malaysian market. It is expected that three (3) products will be launched by the end of 2005, and more than twenty (20) products in the following two years. The Group is working towards a quicker time-to-market for the to-be-expired patented products to achieve better margins and increase market share.

For the export market, the Company has 241 products pending registration approval in 22 different countries such as Maldives, Afghanistan, Papua New Guinea, Vietnam and Cambodia. These are products currently registered or pending registration in Malaysia that have already been developed.

Carotech is looking at introducing new and novel natural biological-active compounds such as lycopene, lutein and other value-added derivatives. This will help diversify Carotech's current portfolio and represent huge growth potentials for the company.

(b) Expansion Into Different Therapeutic Markets

The Company is also looking at further expansion into other different therapeutic markets.

(i) Diabetes

According to the International Diabetic Institute ("IDI"), the diabetic rates are expected to increase at an alarming 142% by year 2025. Asia Pacific and Africa are expected to be the most affected regions, with rates rising 2 to 3 times from what is recorded today.

Recognising this development, the Company will be focusing aggressively on anti-diabetic products. The Company's anti-diabetic product is known as "Diabetmin" which also has the "Slow Release" special drug delivery system. Released in 1999, Diabetmin has been contributing about 7%-15% of the Company's total generic drug sales. In terms of sales volume, the anti-diabetic products are amongst the top five (5) products of the company. With the anticipated increase in diabetic cases, the Company expects increased contribution from its Diabetmin product in the next few years. It currently has Diabetmin products registered in seven (7) countries, including Malaysia and products pending registration in four (4) other countries, namely Botswana, Myanmar, South Africa and Vietnam. The Company has currently done 4 bio-equivalence tests for 3 anti-diabetic products, one currently in progress (which is pending registration) and another 2 anti-diabetic products under development.

(ii) Malaria

There are at least 300 million acute cases of malaria each year globally, directly causing 1 million deaths and contributing to a further 1.7 million deaths. 40% of the population affected are those living in the world's poorest countries, which are at the highest risk of malaria. Amongst the problems faced so far is the lack of emphasis placed by multinational pharmaceutical companies, current anti-malarial drugs rapidly losing their effectiveness as mono-therapy drugs and the result of inappropriate treatment which resulted in high levels of resistance to the drugs in use. Hence, new therapeutic approaches are vital to tackle the drug resistant malaria. One of the drug combinations, which contained artemisinin derivatives, is discovered to have high therapeutic efficacy and has great potential to delay the onset of resistance.

The Company is currently waiting for its patent for its Artemisinin product in both Malaysia and US. The Company expects this product to be a significant contributor to the Group's revenue in the next few years.

(iii) Tocotrienols & Carotenoids

As for Carotech, there are also other different therapeutic markets that the company can look into. The functional food and drink market is one untapped market for Carotech's Tocomin ® tocotrienols complex and Caromin ® Mixed Carotene complex. It is estimated by the Nutrition Business Journal that the functional food/drink market in the US is expected to grow by 5% to 7% annually over the next four years to US$31 billion in 2010. The global sales for functional food are estimated to be around US$50 billion. The total global market value for Vitamin E in 2002 is estimated to be US$694 million and is expected to grow by 4.5% to US$725 million in 2007.

Carotech is also looking at expanding into the cosmeceuticals market. The cosmeceutical market is represented by products that combine cosmetics with vitamins, herbs and/or pharmaceuticals. The US cosmeceuticals market has been growing at more than 10% since 1998 and is worth US$2.6 billion in 2002. For Europe, the market is estimated at US$1.5 billion to US$1.75 billion. This represents good opportunities for tocotrienols as the developed markets are attracted to natural ingredients.

(c) Geographical Expansion

Hovid is also looking at growth via geographical expansion. The Company targets to extend its distribution network to more than 50 countries by the end of 2005. The Company currently has exposure to more than 30 countries with 522 registered products to-date. In addition, the Company has 56 products pending registration approvals for the local market and 241 products pending registration approvals for the export market. This is an increase of 46% to the current products registered with the export countries.

The Company is currently actively pursuing six (6) more export countries, namely South Africa, Zimbabwe, Cameroon, Thailand, Indonesia and Tanzania. The Company will also be looking at countries in Eastern Europe and South America in future.

Carotech's major export market is now in the US. The company has actively ventured into Europe and is looking at Japan as the next target market especially in the area of cosmetic and skin nutrition. Carotech is currently pursuing export countries such as South East Asia, China, South and Central America, Taiwan and Korea.

8. CONFLICT OF INTERESTS AND RELATED PARTY TRANSACTIONS

8.1 CONFLICT OF INTEREST

OSK confirms that, as of the date of this prospectus, there is no existing or potential conflict of interest in its capacity as the Adviser and Managing Underwriter for the Listing.

PricewaterhouseCoopers has given its written confirmation that there is no existing or potential conflict of interest in its capacity as the Reporting Accountants for the Listing.

Zain & Co. has given its written confirmation that there is no existing or potential conflict of interest in its capacity as the Legal Adviser for the Listing, save for its role in acting for Carotech in the purchase of an unsubdivided piece of freehold land from Hovid.

Colliers, Jordan Lee & Jaafar Sdn Bhd has given its written confirmation that there is no existing or potential conflict of interest in its capacity as the Valuer for the Listing.

Infocredit D&B (Malaysia) Sdn Bhd has given its written confirmation that there is no existing or potential conflict of interest in its capacity as the Independent Market Research Consultant for the Listing.

8.2 RELATED PARTY TRANSACTIONS WITH DIRECTORS, SUBSTANTIAL SHAREHOLDERS AND KEY MANAGEMENT AND TECHNICAL PERSONNEL

Other than as disclosed below, there is no contract or arrangement with the Company or the Company's subsidiaries that is subsisting and which involves an interest of a director, substantial shareholder or key management or technical personnel of the Company.

(a) The Company's subsidiary, Carotech, purchases for resale lycopene (tomato extracts) produced by Chengdu Gao Shen Natural Products Co. Ltd. ("CGS") at its plant in Chengdu, China. DH owns 50% of the total issued and paid-up share capital in CGS. The Company purchased approximately RM1.2 million worth of lycopene for FYE 2004.

(b) The Company has been and will continue to purchase from time to time plastic products from Falcon Plastic Sdn Bhd, a company in which Jacqueline Judith East has a direct interest. Purchases for the FYE 30 June 2004 amounted to approximately RM1.2 million, that is, 2.1% of the total purchases of the Hovid Group from all its suppliers.

(c) The Company entered into a tenancy agreement with Fernwood Valley Sdn Bhd for the rental of No. 80, Jalan Pengkalan Indah 1, Bandar Pengkalan Indah, 31650 Ipoh, Perak at RM600 per month for a term of one (1) year beginning from 1 November 2004. DH is a director and substantial shareholder of Fernwood Valley Sdn Bhd. However, the Directors are of the opinion that the Tenancy Agreement was entered into on the usual market terms and at an arms-length basis, and thus, is not any more favourable than other tenancies.

(d) The Company entered into a tenancy agreement with DH for the rental of No. 110 and 110A, Jalan Pengkalan Indah 1, Bandar Pengkalan Indah, 31650 Ipoh, Perak at RM600 per month for a term of one (1) year beginning from 1 November 2004. However, the Directors are of the opinion that the Tenancy Agreement was entered into on the usual market terms and at an arms-length basis, and thus, is not any more favourable than other tenancies.

(e) The Company reallocates the costs of various common departments such as Electronic Data Processing, Logistics, Administration, and Engineering Departments, which provides services to Carotech. This amounted to approximately RM0.4 million for FYE 2004. Similarly, Carotech supplies steam to the Company, of which amounted to approximately RM0.6 million for FYE 2004.

8. CONFLICT OF INTERESTS AND RELATED PARTY TRANSACTIONS (CONTINUED)

(f) Hovid purchases the products of Carotech from time to time. The directors of the Company confirm that these transactions are conducted on arm's length commercial terms which are no less favourable to the Company than those available to third parties. The Company acquired approximately RM1.0 million worth of finished products from Carotech for FYE 2004.

The same apply for sales by the Company to Carotech. However, the volume is insignificant.

(g) Pursuant to a sale and purchase agreement dated 22 December 2003 (as amended by supplemental agreement dated 21 June 2004) between Carotech and the Company, the Company agreed to sell to Carotech an unsubdivided portion measuring approximately 13.51 acres of a parcel of freehold land held under GRN6107, Lot 56442, Mukim Hulu Kinta, Daerah Kinta, Perak, together with the buildings thereon for a consideration of RM5,710,000 to be satisfied entirely by a cash payment.

The consideration of RM5,710,000 was arrived at based on a willing buyer-willing seller basis after taking into consideration, inter alia, the market value of the land and buildings of RM5,710,000 assessed by the Valuer. Based on the valuation report prepared by the Valuer dated 30 October 2003, the market value of the land and buildings was arrived at using the cost and investment methods of valuation.

The Disposal was completed on 17 November 2004.

The Directors are of the opinion that the abovementioned arrangements and agreements were entered into on the usual market terms and at an arms-length basis, and thus, are not any more favourable than other similar arrangements and agreements available to other third parties.

There is no transaction that is unusual in its nature or condition, involving goods, services, or tangible or intangible assets, to which the Company, its subsidiaries or any of its substantial shareholders was a party in respect of the FYE 30 June 2004, and in the subsequent financial year immediately preceding the date of this prospectus.

There is no amount of outstanding loan (including guarantees of any kind) that has been made by the Company, its subsidiaries or any of its substantial shareholders to or for the benefit of any director, substantial shareholder or person connected with such director or substantial shareholder, as of the date of this prospectus.

8.3 INTERESTS IN A SIMILAR TRADE

None of the directors and substantial shareholders of the Company have any interest, direct or indirect, in any other business or company which is carrying on a trade similar to that of the Company and/or its subsidiaries.

8.4 INTERESTS IN MATERIAL ASSETS ACQUIRED, DISPOSED OF OR LEASED

Other than as disclosed below, none of the directors and substantial shareholders of the Company have any interest, direct or indirect, in any promotion of, or in, any material asset, within the two (2) years preceding the date of this prospectus, acquired by, disposed of by, or leased to the Company or any its subsidiaries, or is proposed to be acquired by, disposed of or leased to the Company or its subsidiaries:

(a) The sale of entire issued and paid up share capital of H Pharmacy, entire issued and paid-up share capital of H Inc and 1,587,078 ordinary shares of Carotech by HYH, DH, Liong Kam Hon, Choong Foo Wah, EQL, Goh Tian Hock and Jacqueline Judith East to the Company via sale and purchase agreement dated 15 November 2003;

(b) The sale of PN 2988 Lot 96, Mukim Ulu Telom, Daerah Cameron Highland, Pahang by DH to the Company via sale and purchase agreement dated 22 December 2003;

(c) The sale of Lot 8811N, No. 121, Jalan Tunku Abdul Rahman (formerly known as Jalan Kuala Kangsar), Ipoh, Perak, and Lot 117N, No.1, Jalan Bijeh Timah, Ipoh, Perak by HYH to the Company via sale and purchase agreement dated 22 December 2003;

8. CONFLICT OF INTERESTS AND RELATED PARTY TRANSACTIONS (CONTINUED)

(d) The sale of the entire issued and paid-up share capital of H Marketing by DH and Liong Kam Hon to the Company via sale and purchase agreement dated 22 December 2003;

(e) The sale of 810,105 ordinary shares of RM1.00 each in Carotech by HYH, CAV, DH and Leong Weng Hoong and EQL to the Company via sale and purchase agreement dated 22 December 2003 and supplemental agreement dated 24 August 2004;

(f) The sale of 40,000 ordinary shares of SGD1.00 each in HYH Sg by DH and Chong Soo Seng to the Company via sale and purchase agreement dated 22 December 2003; and

(g) The sale of the entire issued and paid-up share capital of Javid and the transfer of shareholders' advance due by Javid to DH, by DH and Jacqueline Judith East dated 22 December 2003.

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