

Educational Tours

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This Study Tour was organised by the Pharmaceutical Students Association together with NSTS. The aim was to give the Maltese students an insight into the large Pharmaceutical Industries.



Tours to Ciba-Geigy and Sandoz were organised by Interpharma.

Interpharma also contacted the Pharmacy Institute of Basel, and the students invited us to visit the Institute. We were given three twenty-minute talks on plant tissue cultures, the pharmaceutical training of the institute and the chemistry department. One student also took us around the pharmaceutical museum which is the oldest and one of the most complete museums in Europe.

Tour to Ciba Geigy

The tour, which was conducted by the Mediterranean Export Manager, was introduced by a slide show on the history of this pharmaceutical company followed by another slide show on the products of Ciba-Geigy. The products are divided into six operations.

Dyestuffs and chemical division

The division's various activities cover the production of dyes, chemicals and finishes, which are used for dyeing and painting of textiles made of wool, silk, cotton, synthetic fibres and blends and of leather, furs and paper. Finishing chemicals do not merely improve the in use and wear properties of textiles but they also facilitate coating lamination and produce effects such as stretch and softening, all of which have become an essential element of fashion. Other important chemicals are — a range of fluorescent whitening and photo-bleaching agents which are used in detergents.

- Antimicrobials which are used in deodorants, soaps, hand washing preparations,
- Dyes and pigments used in the tannery industry,

- Dyes and bleaching agents used in the paper industry,
- Decolorization of liquid effluents and the suppression of foam in sewage treatment plants.

Pharmaceutical Division

These were the plants that we toured. The five major areas of pharmaceuticals in which Ciba-Geigy is represented with highly effective products are:

1. Cardiovascular preparations
2. Anti-rheumatic and other anti-inflammatory products
3. Psychotropic and neuroleptic drugs
4. Antibiotics and medication for tropical diseases
5. Dermatologicals and drugs for cough and colds.

Agricultural Division

The primary goal of this division is to improve the performance and quality of food crops, livestock and natural fibres and is divided into three branches:

1. Plant protection
2. Animal health
3. Seeds

Plant protection is concerned with the production of larger and better harvests and they are mainly herbicides, insecticides, fungicides and macronutrients.

Animal health branch offers drugs used for the prevention and treatment of disease.

Seed Branch is engaged principally in the breeding and production of improved, locally suited highbred seeds.

Plastics and Additives

This group is made up of three important components:

- Plastics
- Pigments
- Additives.

All three components are used in an innumerable number of processes.

Ilford Group: which is a manufacturer of black and white photographic material.

Electronic Equipment Group.

Tour of the Pharmaceutical Division

The tour was divided into the following processes:

1. Solid dosage forms
2. Creams and ointments
3. Injections
4. Suppositories
5. Transdermal therapeutic systems
6. Storage and transport of materials.

Before entering each department we were shown a video on each process which was very informative. These videos also highlighted important points of good manufacturing practice for example sectioning of factory into sterile areas and non sterile areas. Each area is clearly marked so contamination does not take place. Also sectioning is important so that

1. Chemicals and products that are being processed do not get mixed up.
2. Fault in system may be identified
3. Error may be corrected, this would be impossible if process is left to completion
4. Machinery and condition adjusted so that the same error will not take place.

Labelling

Each container is labelled so that easy identification may take place. The label indicates the material present, state of material e.g. powder or granule if tested.

Finished products are either labelled by computer codes as in the case of creams and ointments, by coloured bands as in the case of ampules, identification marks are punched into the tablets as they are being processed.

Records

Each step in a process is recorded in a register. This would contain batch number of finished products, the code numbers of raw materials and the signature of controller of the process.

Tour of Salco

Although this company is a small company as compared to Ciba-Geigy and Sandoz, it showed us a manufacturing process which was different to the ones we had previously seen.

The main product of Salco is Solcoseryl which is a natural product obtained from the blood of calves that is used on damaged skin to promote wound healing. The tour was introduced with a video of the product which explained its function, clinical use of the product and results of clinical trials which showed that the main actions of Solcoseryl are:

- Stimulates the cells to divide
- Promotes vascularization

Stimulates the formation of collagen.

We then were shown around the factory and given a detailed explanation of how the product is extracted.

The company also produces a variety of vitamins and other injectables.

Tour to Sandoz

On arriving we were greeted by Dr. Agius who gave us an introductory talk after which we were shown a promotional feature about new Sandoz products. Then we were taken to the various departments of the plant. In each department we were introduced to the staff, who explained in great detail every step in the production of particular products. We also had the opportunity to visit several laboratories where we acquainted ourselves with the techniques and protocols employed. At every stage on our tour we were given the opportunity to ask questions and the staff were most helpful.

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time "party" to which people are invited, but a year-long national mobilization for health development.

Suggested possibilities for action include debates in parliament, radio and television programmes, information and discussion in the press, the issue of special stamps, exhibitions, activities by municipalities, local and provincial authorities, non-governmental organisations, professional associations, universities and schools, competitions and sports events of all kinds.

A number of countries have already set up national committees to prepare for the WHO anniversary.

The grook by Piet Hein is available as a source of inspiration and to help seed up worldwide action for health.

References:

- Hein, Piet, Grooks (1966) 2nd Edition, Borgen's Pocket books 85 (Borgens Forlag, Denmark).
 - A Grook for Health, the Times, 4th Jan. 1988, p. 6.
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Membership 1988

All registered members of our Chamber and other pharmacists are asked to enrol or renew their membership. We are pleased to announce that all registered members for 1988 can collect their free copy of the British National Formulary from the permanent secretary of the Federation of Professional Bodies. This offer is a result of the first 'Pharmaid' Collection and Distribution Scheme organised by the C.P.A.