

# **SOCIETY OF COSMETIC SCIENTISTS**

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## **PRODUCT INNOVATION**

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### **NEW RAW MATERIALS DRIVE FORMULATORS FORWARD**

#### **DEFINITION**

To innovate: Bring in novelties; make changes in.

#### **THE RULES OF INNOVATION**

1. Realise that innovation can mean different things to different people.
2. Have a common goal.
3. Communicate.
3. Listen.
4. Make an attempt.
5. Be selective, specialise as necessary.

It might be said that some are born innovators, some achieve innovation and others have innovation thrust upon them.

#### **I. BORN INNOVATORS**

A born innovator is someone who looks at the existing technology, and adapts it to his own set of performance criteria.

Examples include the re-examination of classic raw materials.

- natural materials used for cosmetic skin benefits causing product discolouration, which may necessitate the reduction in synthetic colourants.

- natural material used for skin benefit giving the side effect of UV protection, which may necessitate the removal of synthetic UV sunscreens.

- natural material added as a skin antiseptic adding to preservative function, requiring a reduction in the synthetic preservative loading.

## II. ACHIEVED INNOVATION

Identifying a product need and finding the raw material that fulfills that need.

- Natural perfume. Using natural oils to fragrance the product, and achieving skin benefit at the same time.

- Identifying a plant with benefit and trying to obtain it. The literature is full of plants that have documented benefit, but the material is not available as a raw material.

- Ethnobotany. There are many well documented local plant uses from tribal and ethnic medicinal sources, many aimed at the treatment of simple but specific skin conditions. This knowledge is relevant to skin care products.

- Identifying a product need and finding the plant(s) to fulfil that need. Marketing often demand specific themes, exotic plant names in order to form a platform for their market niche.

- Data base searches. The creation of large volumes of diverse botanical data from around the world, enables rapid searching and specific targeting for beneficial additives.

- Great Ormond Street Hospital for Sick Children. The search for the cure or alleviation of paediatric eczema has lead to comparative studies between Chinese medicinal plants and European plants to conventional pharmaceutical materials. This provides a feed back loop on data substantiation.

## III. INNOVATION THRUST UPON US

- Microgel with slow release of actives. A simple two phase (two component) system which offers slow release of hydrophilic and lipophilic actives. Allows skin respiration, whilst providing high degree of occlusivity without greasiness or tackiness.

- Anti-cellulite studies. Dilemma whether to accept the published data as it stands or whether to consider in greater depth the underlying causes of this condition.

#### IV. SEEKING INNOVATION

The use of another technology from a different field.

##### **Aromatherapy**

Scientific investigation of known information gives proof of effect. The stimulating effect of Jasmine, the improvement of attitude caused by Chamomile, the sedative effects found in Lavender. Proven psychological influences of these oils.

##### **Herbal medicines**

Research of plants for drug materials shows other benefits useful to the cosmetics industry. One man's reject can prove to be another man's panacea.

##### **Phytotherapy**

The search for new directions in the plant drug industry finds suitable materials for the cosmetics industry. Collaboration can lead to a merging of knowledge with an end result of the sum being greater than the individual parts.

##### **Ethnobotany**

Examining plant materials and skin physiology from a different viewpoint can give fresh insights into cause and cure scenarios. Ayuverdic and Chinese herbal medicine view the mechanisms of healing in a way foreign to western thinking.

##### **Traditional textiles**

New sources of plant materials having natural colour. A colour is a colour, and textiles require a high degree of light fastness. The textile industry knows the colouring plants, we have the knowledge of the plant benefit where relevant.

##### **Food technology**

Food technology leads to improved processing and hygiene standards. It also leads to new suppliers with new raw materials, many of them quite innovative in our field.

##### **Collaboration**

Drawing together numerous disciplines in order to build a complete picture. (e.g. Aromatherapists, herbalists, pharmacognocists, ethnobotanists, chemists, pharmacists, etc.).

## **NECESSITY IS THE MOTHER OF INVENTION**

### **V. THE INNOVATIVE USE OF WORDS**

The use of meaningless words to blind the customer with science, is not clever innovation.

### **VI. INNOVATIVE CAUSES**

Using a cause to promote the product (e.g. animal testing) often leads to deep pitfalls from which there is no escape, without extensive compromise on definitions.

### **CONCLUSION**

Innovation takes time and creativity. It requires many hours of research, both on the bench and in the library. The best innovation comes from collaboration with colleagues from both inside and outside of one's own field. Recognising the potential of a new material is better achieved by experimentation than reading the specification or the brochure!