Formulate Seminars
1st Published in SPC - 2015
John Woodruff

The home page for Making Cosmetics states that it features seminars, workshops, demonstrations and a major exhibition, offering ideas for developing, sourcing, manufacturing and outsourcing cosmetics and personal care products and taking them from concept to consumer. A major part of the event are the free seminars where industry experts share their knowledge and what follows is a brief overview of those events that the writer was able to attend.

Be Creative

Many of the attendees are owners of small brands or those wishing to start their own company. All new products start with an idea and new ideas should be creative. **Sue Hurst of MiDAS Consultants** gave a fascinating talk on exercising creativity. Hurst has 30+ years of hands-on experience of the innovation and NPD process from blue sky research to store shelf experience and of helping businesses set up and grow. Hurst said that Creativity is the difference between having an idea and creating a product, having a problem and finding a solution and it's about how you create as well as what you create. Brains need down time to assimilate information and people need to focus on the task in hand, ignoring interruptions and not multitasking.

Know your Market

Is the idea going to fit current trends? **Erika Hatva, Cosmetic Business**, gave two talks on the subject, the first was a review of marketing trends in UK Skin and Body Care market sectors. Hatva highlighted the notable products, ingredients, packaging and designs launched over this period and gave some future projections and a well-rounded assessment of this dynamic market sector. Hatva's second talk was an in a similar vein but covering the decorative cosmetics market.

Developing the Idea

After having an idea it needs to be developed and **Cuross Bakhtiar of Harley Street Cosmetic Ltd.** discussed the risks and returns of new product development (NPD). Bakhtiar said the UK cosmetic market was worth £8 billion and creativity and innovation were required to successfully launch a new product into this market. He defined NPD as a process designed to develop, test and consider the validity of products which are new to the market in order to ensure the growth or survival of the organisation. Bakhtiar outlined the reasons for success and failure in NPD and said that the most important factor for creating a successful new product was to have a clear product concept.

Formulate Seminars
1st Published in SPC - 2015
John Woodruff

Packaging, Perfume and Preservatives

The new product will need packaging, perfume and preservatives and all three aspects were well covered in the presentations. Unfortunately with as many as five occurring concurrently the writer was unable to attend those on packaging and perfume. He did attend all those on preservatives and because of their importance these are covered in more detail in the XXX Issue of SPC.

Legislation

All new products need to comply with legislation and this was the subject of several presentations. Under the title "Be Compliant, Safe & Effective – An Introduction to the Legislation" **Lauren Sudlow, Scientific Affairs Manager, CTPA**, described the basics of EU Cosmetics Regulation (EC) No. 1223/2009 and outlined some of the key points when starting to make or import cosmetic products, to ensure they are safe and legal. This included how and where to access cosmetics legislation, the legal definition of a cosmetic product and the product information file (PIF) as well as safety assessments and labelling.

Emma Merideth, Director of Science, CTPA, gave an update of the current situation and said that there are 28 countries involved and each has its own interpretation of the legislation. Although EC No. 1223/2009 came fully into effect on 11 July 2013 there are still some key aspects outstanding which not only add confusion to the legislative process but may also result in legal cosmetic products being challenged by regulators.

In this session Merideth was supported by **Amanda Isom, Technical Affairs Manager, CTPA**, who discussed, errors in the Annexes, labelling issues and the confusion over nanomaterials. The problems of characterising nanoparticles were described by **Simon Lawson, Escubed**, and how REACH and EU regulations applied to nanoparticles were presented by **Neil Hunt of The Reach Centre Ltd.**

With his unique style of delivery and unrivalled knowledge of his subject **Tony Dweck, Dweck Data**, is always assured of a full house for his talks. For Making Cosmetics 2015 Dweck gave three quite different ones; on the subject of legislation he discussed safety assessments and how these are made up from a study of the chemistry and function of the ingredients; from toxicological data and any reported undesirable health effects, a calculation of total exposure and of the margin of safety. Dweck illustrated the requirements of the product Information File (PIF) and how Dweck Data built up the information from its data files.

Regarding safety of the ingredients Dweck said that the number of NOAEL values and acute studies is small. OECD tests, alternatives to animal testing e.g. HET-CAM, RIPT studies and previous formulae placed on the market are extremely valuable. At Dweck Data "virtual" NOAELs are created and constantly reviewed as more data is acquired and values are set very low where there are no similar molecules with which to compare. Dweck's motto is to err on the side of safety!

The Natural Niche

There was a seminar about making your brand a success and learning from the experts about creativity, product development and turning ideas into reality. It included a very comprehensive delivery by **Judi Beerling, Technical Research Manager**, **Organic Monitor,** that started with advice about how to clearly define objectives and the importance of writing a good business plan through to the opportunities and challenges for natural and organic brands and how to measure a company's success.

In a series of 218 slides **Tony Dweck, Dweckdata**, covered the properties of most types of ingredients required to make natural products. Dweck described the chemistry and function of many of these and how different oils could be used to treat different skin types. Numerous materials with antioxidant or chelating properties were shown and Dweck discussed product preservation using hurdle chemistry and ways of preserving and colouring natural products while complying with legislations and COSMOS standards. Dweck has examined 219 fixed oils and 230 essential oils in depth and these and many other materials are covered in his book, Formulating Natural Cosmetics.

Developing the natural theme **Jennifer Bell, Statfold Seed Oils**, talked about creating natural and organic formulations targeted at specific skin types. Statfold are specialists in seed oil development; growing and procuring new and unusual seeds from all around the world for pressing at its plant in rural Staffordshire. After briefly describing the companies processing capabilities Bell suggested that the holy grail of creating organic and natural products is for them to look sophisticated with real benefits and she gave ideas of where and where not to start developing such products. The presentation included a formulation for an organic face cream that should meet COSMOS standards and descriptions of the various oils and other ingredients that could be used for various skin types.

Unlike organic food there are no official legal standards or definition of organic beauty products so for a product to make a credible claim that it is organic it should be certified by a

recognised organisation. **Emma Reinhold and Michelle Ames** of the **Soil Association** described how COSMOS can bring integrity to the cosmetics industry. COSMOS is an attempt to harmonise various certification bodies and from 1st January 2017 certification and the use of its logo will become mandatory if making organic claims for cosmetic products within Europe. The basic requirements to gain certification are the absence of genetically modified ingredients (GMOs), of synthetic fragrances or colours; no silicone oils or derivatives, no products tested on animals and an encouragement to use environmentally-friendly green chemistry.

The use of natural ingredients in cosmetic products is such an important part of formulation that the Society of Cosmetic Scientists (SCS) is organising a conference on the subject in London in July, 2015 [Ref 1].

Substantiating Claims

It is highly likely that one or more claims about a cosmetic's intended purpose will be made. A cosmetic claim is any public information on the content, the nature, the effect, the properties, or the efficacy of the product consistent with reasonable consumer expectations in the context of product presentation. Under REGULATION (EC) No 1223/2009 the product information file (PIF) must include proof of the effect claimed for the cosmetic product where justified by its nature.

It was the aim of **Steve Barton, Skin Thinking Ltd**., to help the audience to make sense of complying with cosmetic claims legislation and after describing the legal expectations he defined the role of the marketer and role of the responsible person in this regard. In the UK claims made by advertising or on digital media are self-regulated by the Advertising Standards Agency. Broadcasted advertising is screened by Clearcast, which gives advice and training and Barton described the difference in approach by these two organisations.

The CTPA publishes guidelines referring to claim justification and Barton emphasised the need to focus on intended claims from the start of the NPD process. He used making a claim for a product offering 24 hour moisturising as an example and showed the way a body of evidence to support such a claim could be gathered.

Foot care cosmetics is a rapidly growing market sector, partly because of an ageing population that needs products with the ability to prevent, not just treat, a foot problem. Cosmetic claims for foot care products were described by **Peter Dykes, Cutest Systems Ltd**. At Cutest a cosmetic product's claim to soften and remove hard skin from feet and to smooth,

and moisturise them was investigated. Illustrated with photographs Dykes described the various ways that each of the claims made could be evaluated. The improvement in them was readily visible in the photographs and Dykes concluded his presentation by saying that claims can be based on a range of methods with different outcomes.

Joyce Ryan of Joyce Ryan Consulting discussed designing claim support trials and how many consumers are needed to support product claims. Ryan said that panel size may affect the number of samples required and the time necessary to complete the trial and consequently the budget needed. Skimping on panel size can be a false economy if the data collected is insufficient to satisfy regulatory requirements. Ryan showed how the nature of the claim, the method selected to substantiate it and the availability of historical data were factors that influence the choice of panel size so there was no simple answer.

Making the Product

Once the idea has developed into a final product and it has passed all its legislative requirements it will need to be manufactured. **Andy Martin, ABM Consulting Ltd & Pharmig**, said that regulation 1223/2009 requires that cosmetic products are safe and are manufactured according to ISO 22716, "Cosmetics GMP – Guidelines on Good Manufacturing Practices" The ISO guidelines represent organisational and practical advice on the management of human, technical and administrative factors that can affect quality of the product, said Martin. The guidelines are organised such as to provide a logical process flow from receipt of materials through to product shipment. They instil the Quality Assurance concept through sound scientific judgement and risk assessment and central to this is documentation, which is an integral part of GMP. Other key elements include roles and responsibilities of people, the selection and use of appropriate raw materials and the effective control of both chemical and microbiological contamination.

Process validation for cosmetic products is a requirement under GMP so that manufacturers can prove control of critical aspects of their operations. The crucial time for any new product is the scale-up process and **Stacey Irving, Stacey Irving Consultancy**, talked about the validation of processing methods as an important element in the scale-up process. Irving said that cosmetic formulators need to work closely with process and manufacturing engineers during the formulation development and scale-up stages in order to put in place suitable and realistic methods for the product's manufacture.

Formulate Seminars
1st Published in SPC - 2015
John Woodruff

Formulating a product at lab scale so that it can be produced on a large scale is a complex process, said Irving. Most issues that come to light during the scale-up process are due to inaccuracies found in the processing method, therefore it is important that the processing method be put in place to manufacture a product to produce consistent results so that the product retains its quality during its lifespan.

Retailing the Product

The idea is now a reality but it still has to be sold. Breaking into retail is a daunting task for the uninitiated. **Helen Miller of Helen Miller Consulting**, gave an inside view of how retail buyers think and how to use that knowledge to your advantage. Miller showed delegates how to create a retail strategy and to how to plan a good negotiation strategy, which has multiple retailers agreeing to listing, at affordable margins. In addition there were a number of presentations from retailer representatives including Boots, M&S and QVC who were offering guidance to hopeful entrepreneurs and from successful start-up owners such as Sam Farmer, Sarah Cross and Maleka Dattu.

There were many other presentations about toxicology, stability and safety testing, risk management, product manufacture and sales and marketing but the problem with concurrent presentations is that only one can be attended at any one time and I was particularly sorry to miss the debate about Cosmetics, Chemicals & the Truth.

Ref 1 Naturals in Cosmetic Science; 1-2 July 2015, Royal College of Physicians, London, NW1 4LE

John Woodruff
www.creative-developments.co.uk