Perceived efficacy and Advertising Claims

In recent years, increased attention has been given to measuring perceived efficacy and to develop evidence in support of claims of product benefits or superiority as part of some advertising campaign.
Perceived efficacy addresses the issue from a behavioral viewpoint; that is, the product should be perceived by the consumer as providing a particular benefit.
Ideally, the product's sensory characteristics are consistent with the consumers expectations for that product. Failure to appreciate these differences in efficacy has had far-reaching and primary negative business consequences.

Product development

- Formulation of a new product (new for that company or entirely new in that market)
- Reformulation of an existing product
- Use of new technology
- A new ingredient…
- or some other activity that directly impacts a product

Sensory evaluation has a very important role in product development, beginning with involvement in the early planning stages and progressing to the more typical role of evaluating products during formulation-reformulation stages and into full-scale production.
Ideas for new products are derived from a variety of sources, including employees, market intelligence and new technologies.
"Focus groups" is an essential tool for the product development process; however it can be overused and/or the results can be subject to misinterpretation. This happens most often when an inexperienced (or experienced but biased) individual is observing the group and assigning too much importance to some of the comments from one or two participants. Unfortunately, this selective listening, a trait common to individuals who hear only what they want to hear rather than the entire discussion, can have disastrous consequences for a project.
Quantification of information obtained from focus groups should be encouraged, by converting information into a series of close-ended questions that are scored by a larger group of consumers. This procedure provides an independent assessment of the qualitative information.
Once a concept has been described, formulation efforts should result in a large number of prototypes. Some of these prototypes may be very different from others, reflecting different interpretations of the concept. One of the challenges that the sensory staff face at this stage is the difficulty of convincing developers to prepare sufficient numbers of products for evaluation without regard for whether the products are considered "acceptable". The value of the information obtained from a multiproduct test is far greater than a test of two or three products. Multiproduct tests have the potential for developing causal relationships that have even greater value by identifying those formulation changes that impact attributes in negative ways.

What should be kept in mind is the need to include a sufficient number of products to yield an array of differences (and similarities) that will be helpful in subsequent formulation and processing efforts.
Acceptance testing will be helpful and will provide direction to the formulation efforts (especially when combined with the QDA data) and an estimate of the degree of liking for the products.
In some instances, one can have subjects develop their own ideal product using their existing descriptive scorecard. Subjects score based on their "ideal" product. The resulting data may help identify those experimental products closest to the ideal and this could aid the developers in focusing their work. We observed that a subject's "ideal" often represents a target to aim for but subjects do not expect or believe it can be reached. In addition, asking subjects for their ideal as a direct question does not necessarily mean that it also is important (enough so as to have a direct effect on preference behavior).
In many projects, the role that sensory plays is not as prominent as it should be primarily because of a lack of understanding of sensory's contribution.

Product optimization
By optimization we mean a procedure for developing the best possible product in its class. This procedure implies that an opinion of best possible is provided, and in sensory evaluation this means responses for the most liked/preferred product. Optimization information has considerable appeal because of its immediate and practical applications for the marketing specialist seeking a competitive advantage. For the product specialist, the information provides a focus for formulation efforts.
For sensory evaluation, it is usually not possible, a priori, to specify the important sensory variables and therefore the selection of products for the project becomes very important. Product selection is difficult because the criteria by which products are selected will include sensory properties, technology, formulation differences and marketplace consideration.
Optimization procedures continue to be of significant value and interest in sensory evaluation. Studies have revealed new information unobtainable with smaller and less diverse product sets. One finding is that consumer preferences are often heterogeneous, and the heterogeneity is related more to sensory difference among products than to demographic differences among populations. Because the testing was done on a blind basis, the basis for the clustering is not explained by brand usage or typical demographic criteria and more often explained by other emotional and related criteria. Many patterns in the optimization task is to identify attributes important to each preference group. Once this is accomplished, a meaningful development and business strategy is possible. This may require unique products optimized for the different groups or a "bridge" product that represents a compromise between disparate preference groups. Deriving a bridge product from known preference differences is preferred to using averages from aggregate data.

Sensory evaluation is one of the least understood and most misused functions in the research and development process.