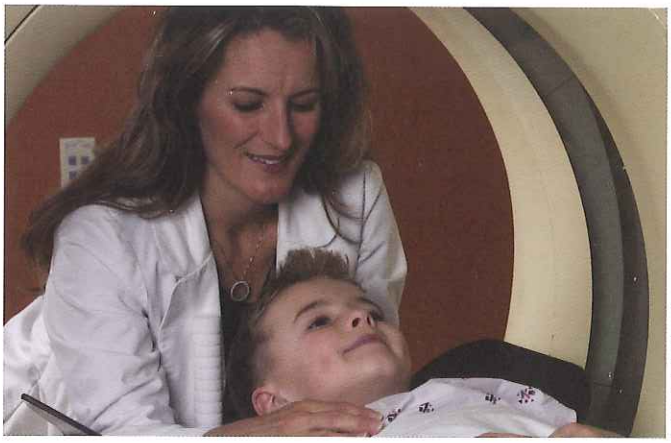
pre-clinical testing. For even more efficient use of resources, both pipelines were linked to a central bioinformatics platform. Meta-analysis further reinforced the integrated approach by linking fresh and existing data on ETs.

Post-genomic research has successfully been translated to applications in the clinical setting of paediatric oncology. Pharmaceuticals developed specifically for ET may be adapted for treatment of morphologically related cancers such as melanomas and lung cancers.

The project was coordinated by the Universität Duisburg-Essen, Germany.

1 'European embryonal tumor pipeline'.

Funded under the FP6 specific programme 'Life sciences and health'. http://cordis.europa.eu/marketplace > search > offers > 8051



© Willie Davis, Shutterstock

Chewing over DREAM models

Understanding food structure can provide insight into the nutritional and health value of food, and how processing affects these factors. This requires the development of new models.

Food may be our daily bread but, scientifically, there is a lot to digest. Food is complex both in terms of composition and structure. Scientists have a good grasp of composition but their understanding of structure remains incomplete. It is important to improve our understanding of this because structure has a strong influence on human health, and processing often alters it significantly, with consequences for the nutritional value of food.

The DREAM[1] project was funded under the Seventh Framework Programme (FP7) to develop food models with well-characterised structures for simulating the impact of processing on the nutritional and microbiological properties of food.

Developing standard models for each major food category makes it easier for research partners to pool their knowledge and share it with the food industry, particularly small and medium-sized enterprises (SMEs). Scientists also need generic but realistic models that can mimic food structure complexity in order to assess the impact of a change in composition, or of processing conditions, on the nutritional and health properties of foods.

DREAM worked to develop models in four main structural groups: filled cellular solids (fruit and vegetables), proteinous cellular networks (meat), combined gelled/dispersed/aerated systems (dairy products) and open solid foam (cereal products including bread).

One innovative aspect of the DREAM project involved the application of cognitive science to integrate scientific knowledge and know-how into the development of model foods and their standard operating procedures (SOPs).

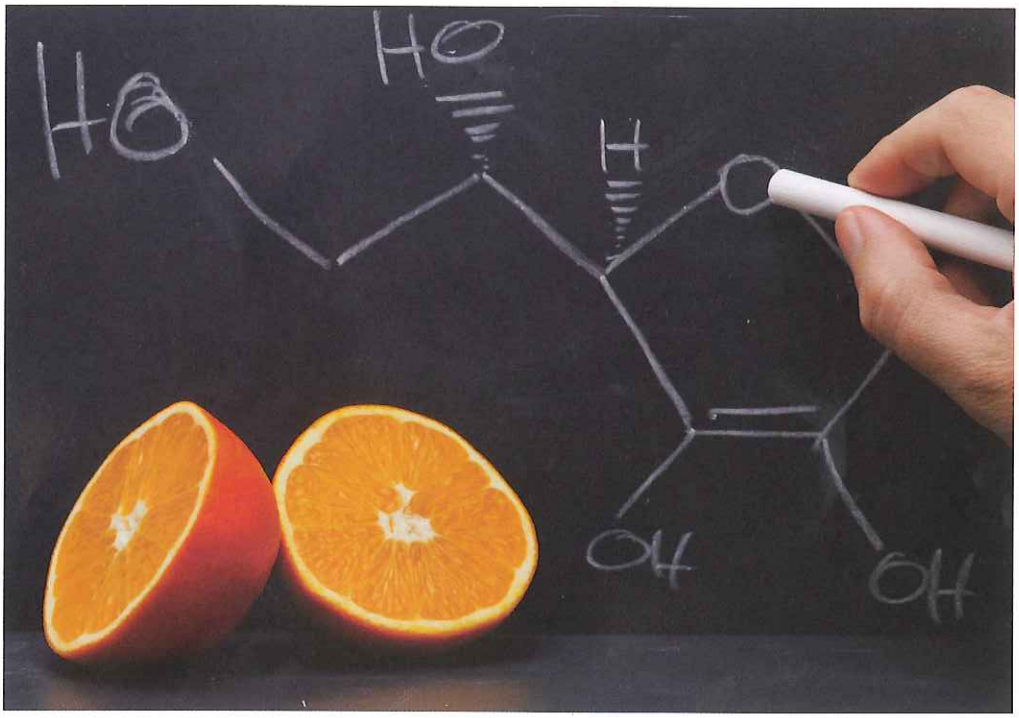
The activities of the project focused on integrating mathematical knowledge for numerical food simulation models, including work on cellular solid models and proteinous cellular network models. Efforts were also dedicated to combined gelled/dispersed/aerated systems models and investigation of open solid foam models.

Project partners placed an emphasis on technology transfer and examined the needs of industry, particularly SMEs, to assess the practicability of the food models and their protocol.

The project was coordinated by the Institut National de la Recherche Agronomique in Nantes, France.

1 'Design and development of realistic food models with well-characterised micro- and macro-structure and composition'.

Funded under the FP7 specific programme Cooperation under the theme 'Food, agriculture and fisheries, and biotechnology' (KBBE). http://cordis.europa.eu/marketplace > search > offers > 7418



© Shawn Hempel, Shutterstock