

# VITAGORA®

quarterly

Quarterly Newsletter of the Food Industry Cluster

Vitagora® Taste-Nutrition-Health

No. 5 June 2009

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# Vitagora® Taste-Nutrition-Health More than a Cluster, a club!

On April 2<sup>nd</sup> Vitagora® held its annual general meeting. This year, this event was the opportunity for the various partners of the cluster to discover a snapshot of Vitagora®. One that is overall very satisfying – an ever growing number of members – even if Vitagora® must also strive to make itself more attractive to SMEs, as is evidenced by the increased number of SME representatives within Vitagora®'s governing bodies.

Another point of success for Vitagora®: the 4<sup>th</sup> Taste-Nutrition-Health Congress of last March which was greeted with highly positive feedback, both for the excellent scientific program and for the valuable opportunities for making contacts and forming partnerships. 450 participants of 15 nationalities, 95% satisfaction rate among those surveyed – keep an eye out for more information on the 2010 edition for which the scientific topics and the dates will very shortly be confirmed.

In addition to these positive points, the number of projects accredited in 2008 has made Vitagora® one of France's leading food industry clusters. But enough of these attempts to create rivalries between French clusters. Vitagora® has taken the imitative of founding a partnership with two of these clusters in order to reinforce our international standing and to guarantee that the exceptional scientific expertise of our food industry R&D networks, within France and abroad, receive the international recognition that they deserve. And so F<sup>2</sup>C Innovation, the combined network of Vitagora®, Agrimip Innovation and Valorial, was created. The first public presentation of F<sup>2</sup>C Innovation will be undertaken by Vitagora® during the IFT Food Expo tradeshow at the beginning of June in the United States. By pooling our resources within F<sup>2</sup>C Innovation, Vitagora®'s international development program will receive a valuable boost. With delegations having already travelled to Asia, United States, Canada and Northern Europe, we are already in the last stages of planning of a visit to Australia and New Zealand

– we are indeed taking our Taste-Nutrition-Health network to the ends of the earth!

More generally, these last few months have been the opportunity to further refine our strategy, our objective as a cluster being firmly oriented towards the consumer, with an eye on health and the environment. Our 4 scientific axes, redefined during 2008, are now the basis for our scientific development as a cluster.

What remains is for us to begin a new phase, one in which we must go beyond the limitations of the notion of “cluster”, defined as a grouping of competencies on a defined territory, in order to become a club – an entity within which each partner can measure his involvement in perfect cohesion with the others. Indeed, in a club, it is not only a question of forming groups around common themes, but also of sharing a mindset and benefiting from a number of services – services that we are in the process of reinforcing. Become a member of Vitagora®, and benefit from the opportunity to become part of something greater than the sum of its parts.

Pierre Guez  
*President of Vitagora®*  
Christophe Breuillet  
*Director of Vitagora®*



## F<sup>2</sup>C Innovation: a major food industry player in terms of size and scientific excellence

Vitagora<sup>®</sup> has been carrying out a concerted program of international development since 2008. The regions already visited – South East Asia, North America, Northern Europe, and soon Australasia – have resulted in valuable contacts for the cluster and its members.



Not to mention the additional effect of Vitagora<sup>®</sup>'s international Congress in creating visibility for the cluster. Opportunities abound, but are sometimes greater than what Vitagora<sup>®</sup>'s operational team can adequately exploit. In this context, Vitagora<sup>®</sup> has allied itself with two other French food industry clusters – Agrimip Innovation and Valorial – in order to create the French Food Cluster, or F<sup>2</sup>C Innovation. In addition to Vitagora<sup>®</sup>'s R&D strengths in the areas of taste, nutrition and understanding the consumer, the other two clusters bring to the table expertise in non-food agricultural production, functional ingredients and animal nutrition. Covering effectively together all the links of the agro-food production chain, the three clusters aim to pool their expertise and resources, in particular concerning their international development. Vitagora<sup>®</sup> is undertaking the first public appearance of F<sup>2</sup>C Innovation during the IFT Food Expo (Institute of Food Technologists) that takes place June 6<sup>th</sup>-9<sup>th</sup> 2009 in Anaheim California.

Like Vitagora<sup>®</sup>, the networks of Agrimip Innovation and Valorial are coordinated by small teams whose numerous activities include ensuring the preparation and selection of innovation projects under development, supervision of projects already underway, communication and promotion, carrying out market intelligence, prospecting on an international level... It is in this context that the interest of the 3 clusters to find a way of stretching their resources was born. Three main objectives have been identified for the partnership:

- Identify and cooperate with centers of scientific excellence throughout the world in order to overcome technological industry obstacles
- Identify and cooperate with clusters for the development of joint projects aiming at economic growth for cluster members.
- Promote the expertise within the F<sup>2</sup>C Innovation network throughout the world

In addition, the respective areas of expertise of the clusters were found to be entirely complementary. "By pooling our expertise and resources, while maintaining our respective areas of interest according to the scientific activities of our home regions, we are able to be much more efficient in our activities, more ambitious in terms of projects and more attractive for partners on an international scale," explains Michel Pinel, Director of Valorial.

Communicating more often between themselves, fostering exchanges and discussions, working together on specific studies, developing innovation projects together, setting up partnerships with clusters outside of France, taking part in trade shows under a joint banner, and even

co-organizing international fact-finding missions – these are the intentions of the 3 partners of F<sup>2</sup>C Innovation. "By adopting this strategy, which aims to mutually enrich our knowledge base and contacts, we are progressing faster and avoiding finding ourselves in a closed off environment," underlines Patrice Roché, Director of Agrimip Innovation.

As such, from next June, Christophe Breuillet, Director of Vitagora<sup>®</sup>, and his team will represent F<sup>2</sup>C Innovation during the IFT Food Expo 2009 in Anaheim, California. "We will also be present together later in June at a French trade show in Lille, NutrEvent, where we can make contacts with European clusters and scientific research centers. On an international level, we are all interested in presenting ourselves as one entity, one that has the necessary size and scientific excellence to be a serious player in the food industry on an international level," concludes Christophe Breuillet.

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The Vitagora<sup>®</sup> booth at the IFT Food Expo in 2008 in New Orleans



## HumanFATaste : The next step after SensoFAT

The **Laboratory of Physiology of Nutrition** of the University of Burgundy, directed by **Philippe Besnard**, is today launching a new Vitagora® accredited program that focuses on the gustatory perception of fats. **HumanFATaste**, the name of the program, is a reference to the Fatty Acid Transporter (FAT), the protein CD36, which this laboratory has shown to be a lingual lipid-receptor. Carried out in partnership with **CNIEL**, France's dairy industry association, and the **Burgundy Regional Council**, HumanFATaste is the logical continuation of another Vitagora® accredited project, **SensoFAT**, also run by the Laboratory of Physiology of Nutrition.

Although SensoFAT is only half way through its program, the project HumanFATaste is already underway. If the former is focused on understanding the functions of CD36, whether on the tongue, in the intestine or in the brain, the latter attempts to answer 3 key questions. Do specialized structures exist within human mouths for the gustatory perception of lipids? Can we observe a relationship between the oral perception of lipids, a preference for fatty foods and the physiological or physiopathological state of the subjects? Finally, does this perception depend on CD36? To find answers, the Laboratory of Physiology of Nutrition, mastermind of this project, has decided to involve the expertise of 3 research teams, two based in Dijon and one in Lille.

Doctor Sylvie Issanchou, of FLAVIC research unit in Dijon, specialized in the perception of gustatory molecules in humans, is interested in the limits of perception of various types of fats in various categories of person. "Does an obese person have the same perception limit as a slim person? Does this perception influence their food choices and could it contribute to the emergence or the development of a pathology? These are the questions for which we are attempting to find the answers". Another team in the project, belonging to the Dijon unit of INSERM (France's national medical research institute), is lead by

Bruno Verges, the head of the Dijon University Hospital Diabetology department. "The search for markers, mainly in the blood, is one of the objectives of this project. We will be working with small cohorts of healthy and obese subjects and seeing whether a fictional meal - in other words a stimulation of the tongue with lipids, but without ingesting anything - leads to the presence of specific blood markers," explains Philippe Besnard. The final research team, lead by Philippe Frogel at the Pasteur Institute in Lille and already involved in SensoFAT, will be working with a smaller group of subjects who are all carriers of a polymorphism that invalidates CD36.

### Stimulating lipid receptors with simulations

Gustatory perception of fats is clearly a subject of great interest for the food manufacturers, in particular for the dairy industry. For this reason, CNIEL has co-funded this project with the Burgundy Regional Council. "A certain number of "diseases of plenty", such as cardiovascular disease, are associated with an excessive consumption of food rich in fats. Research carried out within HumanFATaste could eventually lead to the opportunity for food companies to develop "simulations" capable of deceiving fat-taste receptors. This is an area to be explored, but many other applications are possible, hence

the strong interest from the dairy sector,” concludes Koenraad Duhem, Scientific Director of CNIEL.

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For more information about SensoFAT:

- Vitagora® Quarterly N°1, April 2008, page 3: “Does the taste of fat exist?”



## A prize for the University of Burgundy PHD student at the Vitagora® Congress

“This poster was more or less the beginning of my thesis. Receiving a prize during the Vitagora® Congress has given my motivation a boost for continuing with this subject. It’s the proof that people are interested in my work,” declares Céline Martin, a second year doctoral student at the University of Burgundy, within the Laboratory of Physiology of Nutrition. This research team, responsible for proving the role of CD36 as a gustatory lipid receptor, is now looking into the existence of other detection systems such as GPR120, which is also known to be linked to and activated by fatty acids. Co-directed by Philippe Besnard and Patricia Degrace, Céline’s thesis aims to compare the expression of the two proteins, CD36 and GPR120, within human taste buds. “I am looking to see if the proteins are expressed in the same cells and if the same means of signaling are involved, the end objective being, if possible, to discover the role played by the protein GPR120 in the tongue,” she explains.

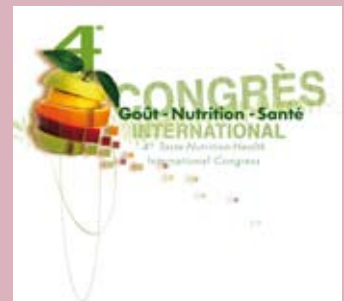
With her research underway, Céline Martin was able to publicly present a part of it during the posters competition organized during the 4th Taste-Nutrition-Health Congress in March 2009. Many PhD students took part, but also researchers from France and abroad. “My poster showed that the two proteins, CD36 and GPR120, have the same profile, in other words they are expressed in a specific way within taste buds. I also showed that the invalidation of the gene that codes CD36 doesn’t modify the expression of GPR120 and that these two proteins do not appear to be expressed in the same type of cell. In theory, they are part of two independent systems,” she explains. A remarkable piece of research which lead the scientific committee of the Congress to award Céline with the

prize for the best poster. A well deserved success for this young PhD student who has already set her sights on finding post-doctoral work within a company in the United States.

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Céline Martin (right) receives her prize for best poster from members of the Taste-Nutrition-Health scientific committee (from left): Pr. Michel Narce, Dr. Stéphanie Courau and Pr. Philippe Besnard.



## FLOUR+ tomorrow's bread is in sight

**FLOUR+** has a special place in the minds of “Vitagorians”, being the first project to receive Vitagora® accreditation. It focuses on bread, that ubiquitous product in so many societies that is the result of a long agricultural, technological and gastronomic process. FLOUR+ is indeed a project that is unique on a world level, since it concerns all the stages of bread production: from wheat cultivation to the marketing of bread products. After the first harvest last summer of the experimental crop, and the second harvest approaching fast, the first results are proving to be very encouraging.

The 350 wheat varietals, planted in October 2007, were harvested last summer. Some of the flours that were subsequently produced have been put to the test in the production of various types of bread that have undergone sensory and nutritional analysis. Evidently, this project does not have a completely inflexible schedule and it has not been a case of waiting for the results of 3 full harvests to be available (due at the end of 2010) before starting the following stages, focusing flour and bread production. “All the different phases are being carried out in parallel, which represents a lot of work,” explains Jean-Philippe Fasquel, the scientific director of Eurogerm and the project coordinator. These sensory and nutritional analyses are being carried out with the help of two specific structures created for the project. The first, CERELAB, is an R&D center that offers a large range of expertise applied to cereals. CONSOLAB, the second structure, looks into consumer preferences.

### Some significant advances

Tasting bread and describing its sensory characteristics is not an easy exercise. “Bread is a relatively neutral food product and it is relatively difficult to judge its characteristics. We have therefore put together an expert panel made up of people trained in this activity,” Fasquel



Jean-Philippe Fasquel, coordinator of the program FLOUR+

explains. Project confidentiality obliging, there is no question of publishing the results. The first scientific publications from the three doctoral theses involved in the project are expected for 2010. Jean-Philippe Fasquel has however let a hints emerge. *“We are capable today of identifying wheat varieties, those presenting nutritional characteristics, and those of specific sensory interest. Certain varieties have thus lead to the production of soft bread products, and others with a higher level of crustiness or with a particular color. These are significant advances since they allow us to predict the capacity of a wheat variety to provide certain characteristics that the consumer is looking for,”* he concludes.

Having been identified as of interest during the harvest of 2008, certain wheat varieties were sown this year in order to acquire an industrial quantity. *“In other words, according to the results of the first harvest, we made a few modifications to what was sown in 2009, and will do the same in 2010. It is certain that the comparison of the three harvests, at the end of the project, should allow us to obtain some very exciting results, the final objective being to be able to predict the behavior of the various varieties when used in a particular flour production process.”* Already, CERELISABLE, the study and characterization service within CERELAB, has been able to identify a milling process that is suited to the production of flour with improved nutritional characteristics.

### “Senior bread”: a clinical study for the end of 2009

One of the aims of FLOUR+ is to acquire specific flours with which to manufacture bread products for certain populations, for example seniors. *“We are working on it. The nutritional formulation has been defined. The sensory evaluation is underway. In theory, we should be launching a clinical study before the end of the year,”* indicated Jean-Philippe Fasquel. According to the results of the clinical study, the first “Senior bread” could be on the market in the next few years. A bread designed for people suffering from obesity is another area of study for FLOUR+.

*“With obesity, the nutritional aspects are more vague and difficult to define. A first study has been carried out. We are currently putting together the protocol for a second study. It is at a less market-ready stage, more research than development, unlike the “senior bread” which is more development than research,”* he notes. As for whether FLOUR+ could lead, for example, to the creation of a start-up and job creation, *“this is one of the possibilities that we are studying”*, says Jean-Philippe Fasquel. But, the attentive researcher that he is, he remains cautious about anticipating the results of the clinical studies and the consumer tests.

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## The 4<sup>th</sup> Taste-Nutrition-Health International Congress In numbers and images

**450 participants and speakers of 15 nationalities: the 4<sup>th</sup> edition of the Taste-Nutrition-Health International Congress organized by Vitagora® on March 18<sup>th</sup> and 19<sup>th</sup> continues to foster contacts between representatives of the worlds of research, food industry and health professionals.**

**265** business meetings (of which **51%** involved two participants of different nationalities) were scheduled between **83** participants.

The positive feedback from the Congress participants was also very high for this 4<sup>th</sup> edition: **95%** of those surveyed claimed to have achieved their objectives and **93%** confirmed that they would participate again in this type of event. The scientific program was particularly well-received, in terms of both quantity of conferences and quality of the topics.

The European Technical Training Session organized by Welience on March 20<sup>th</sup> on the topic of “Developing food products for the older consumer” has a total of **16** participants of which half has taken part in the Congress on the previous two days.

Finally, the Taste-Nutrition-Health Village, the public event held in Dijon’s town center, served more than **700** healthy breakfasts to local residents on the morning of March 20<sup>th</sup>. In total, the Village received more than **2,000** visitors over two days.

**Keep up to date on the latest information on the 2010 edition of the Taste-Nutrition-Health Congress by visiting the website:**

**[www.taste-nutrition-health.com](http://www.taste-nutrition-health.com)**



Above: Christophe de la Fouchardière, Congress President, opens the scientific sessions.



Above: Benoît Jullien (moderator) discusses with Thérèse Dufresne (Prophagia, Quebec) and Yves Boirie (INRA, Clermont-Ferrand) during the round table debate “Diet and the elderly”.



Above: The Regional Product Tasting Evening allowed Congress participants to discover specialties of the Burgundy and Franche-Comté regions.

Right: Pr. Kees de Graaf (University of Wageningen, the Netherlands) gives a conference titled “Sensory and Nutrition in Children”.



Above: The conferences of the Speaker Corner on regulatory affairs were particularly well-received.



Left: Pr. Philippe Marteau (Hôpital Lariboisière, Paris) gives a presentation to kick off the round table debate on “Probiotics and Health”.



Right: 30 scientific posters and a dozen oral communications were presented during the Congress, selected during the call for abstracts.



Left: The Gala Dinner took place in the historic setting of the Château de Meursault.



Right: The Taste-Nutrition-Health Village, on March 20<sup>th</sup> and 21<sup>st</sup>, received more than 2,000 visitors for activities based around healthy eating and physical exercise.



Left: Researchers from UMR FLAVIC who work on the project OPALINE carried out activities on the identification of aromas with visiting school children during the Taste-Nutrition-Health Village.

Photo credit: Pierre Athias and Marthe Jewell

## International Development

# Northern Europe: new opportunities for Vitagora®

After Asia and North America in 2008, and before Australia and New Zealand later this year, Vitagora® undertook a fact-finding mission to Northern Europe, specifically **Denmark, Sweden, Finland** and **Norway**. These countries had indeed been identified as of strategic interest for the cluster in terms of the quality of their R&D activities, as well as having many interests in common with Vitagora®. And these are promising contacts all the more interesting for their experience in developing international projects and their interest in the research activities of Burgundy and Franche-Comté, specifically in the area of the sensory, and existing collaborations with members of Vitagora® such as UMR FLAVIC and the CESG. **First impressions.**

*“These are countries with a lot of opportunities for Vitagora® where the possibilities for collaborations are numerous for the medium to long term,”* declare Marthe Jewell, communications manager, and Delphine Goget, project manager, who both took part in this mission last April on behalf of Vitagora®. The former visited Finland and Norway, the latter heading for Sweden and Denmark. As for previous missions, the groundwork was carried out by the French Trade Commissions of each country visited, resulting in an intense program of visits in a minimum amount of time.

### Themes compatible with Vitagora®

In Finland, the program was particularly dense with visits of four important research institutes (VTT, MTT, Viiikki Food Center, Functional Food Forum of the University of Turku) and two companies, Valio, the Finnish leader in dairy products, and Raisio, best known for the product Benecol. *“The researchers of the Functional Food Forum are very well known in the area of sensory evaluation and have established contacts with Dijon-based researchers. In addition, they were present in Dijon for the last Taste-Nutrition-Health Congress,”* indicated Marthe Jewell who says that Valio and Raisio have also been in contact with researchers within the Vitagora® network. A point of interest for Finland: the notion of “cluster” is quite different to that in France, the divisions between public and private sectors, and between industry and research, being less well defined. As a consequence, the National Food Development Cluster in Finland has a role that focuses more on building relations between the country’s various research institutes, with each member already benefiting from an established network of industry partners.

In Norway, Marthe Jewell was able to visit two sites of Nofima Mat, the Norwegian national food and agriculture research institute, in Ås, near Oslo, and in Stavanger, in the west of the country. The center in Stavanger is specialized in food processing and seafood products

but also collaborates closely with the NCE Culinology. The latter structure is a sort of cluster, in the image of Vitagora®, with two points of interest: the first being the association of industry and gastronomy, and the second a focus on the meal as a whole as a means of structuring R&D activities. This original approach has the interest of creating bridges between industrial production and gastronomic creation and favors, in particular, the industrialization of gastronomic products with a minimal loss in quality. *“Many of their R&D themes are entirely compatible with our own. The representatives of many of the organizations I met also expressed a strong interest in initiating collaborations, which is all the more interesting for their considerable experience in setting up international projects,”* she underlines.



Le Måltidets Hus à Stavanger en Norvège : nouveau centre de recherche réunissant Nofima Mat, NCE Culinology et des équipes de R&D des entreprises, une bonne illustration des collaborations courantes en Europe du Nord entre le public et le privé.

### Future collaborations on the horizon

In the program of the visits to Sweden and Denmark were also a number of research centers and companies, but also representatives of political institutions and a multitude of clusters. These included VIFU, a Danish food industry R&D center, similar to Vitagora® in terms of organization, and SIK, a Swedish organization with a

focus on applied research. “SIK has a structure similar to Welience [see article below] and also manages a network of companies, research laboratories and universities,” explains Delphine Goget. Another cluster visited was Oresund Food Network, a Danish organization with strong links to Sweden and which also expressed an interest in collaborations with Vitagora®.

On the research side, Danish and Swedish institutes are also heavily involved in international projects and frequently cooperate with Vitagora® members such as FLAVIC and the European Center for the Sciences of Taste (CESG), mostly in the area of university level exchange programs.

### Maintaining and building partnerships

During the mission, the two representatives of Vitagora®

were also able to observe a strong top-down movement in all four countries that focuses on promoting and developing local gastronomy. “There is a strong interest in creating and developing a national gastronomic culture that has been neglected in the past. In parallel, these countries are looking for new ways of eating, their objective being to work on slowing the increase in obesity. In this context, our French researchers have much to offer,” they declare. They will now be turning their attention to maintaining and furthering exchanges that should eventually lead to the development of joint R&D projects.

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## The sensory, a new activity for Welience Food and Bio-industry

**Among the five areas of expertise offered by Welience, the technology transfer unit of the University of Burgundy, there is the “Food and Bio-industry” branch that has recently been developing its “sensory” department in collaboration with the scientific institutions of Dijon’s university campus. A new expertise that is already in play for a number of Vitagora® accredited projects.**

“The range of services that we offer in the area of sensory evaluation is quite large,” indicates Karen Joly, the research engineer in charge of this new activity. For example, a company looking to test the acceptability of its new product on a panel of consumers or seeking to understand the effect of a modification of ingredients, technological process or sensory characteristics of the product. Or indeed, a company wishing to carry out a comparative study of its product with reference to its competitors or even take part in a sensory evaluation training session offered by Welience. Not to mention the involvement of Welience as a partner in certain Vitagora® projects.

### From training a panel of experts for the “Fumage” project...

A project with Vitagora® accreditation, “Fumage” (meaning “smoking” in French) is an interesting illustration of the expertise that Welience has to offer the food industry. The aim of this project, lead by the Franche-Comté pork producers association, is to better understand and control the various practices of smoking Morteau sausages (a local specialty) in order to better evaluate possible food safety risks linked to this process and avoid production errors. “We were asked to carry out the sensory evaluation aspect of the project, and also to coordinate the project’s R&D program,” explains Karen Joly. The project will involve in particular the precise analysis of types of smoke and their impact on products finished in various types of smoking apparatus. Welience is currently working on a collaboration with a scientific expert of the Pork

Institute (IFIP) in collaboration with other players.

Concerning the sensory evaluation part of this project, the Dijon-based team is carrying out all the activities, from putting together a panel of experts of cooked meat products to generating descriptors and carrying out the tests. “Defining descriptors and training the expert panel has required a lot of time. Of course, these are people who are used to tasting food products and have already a well-developed vocabulary for describing them. However, it will be necessary to train them to describe this particular product, Morteau sausage, and this often takes from 3 to 6 months,” she explains.

### ... to the consumer tests for the project “Substimag”

In “Substimag”, another Vitagora® accredited project involving the companies Chazal (producer of traditional meat terrines), Jean-Louis Amiotte (producer of sausages) and the EMMA (Water-Active Molecules-Macromolecules-Activities) research team of the University of Burgundy, Welience is also a partner. For this project, they are involved in producing a test-product and carrying out the sensory evaluation. However, the difference to “Fumage” is that there will be no expert panel to evaluate the test-product. “The test product in question, a lower animal fat formulation, will be tested by a cohort of at least 60 consumers. For this group, they will not be describing but attributing a grade of appreciation,” explains Karen Joly, who remains enthusiastic about the possibilities of this new activity within Welience.

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## XIV International Congress on Molecular Plant-Microbe Interactions

July 19-22, Quebec



The XIV Congress of the International Society for Plant-Microbe Interactions will take place at the Congress Center of Quebec, July 19-23, 2009.

This XIV congress offers eight scientific sessions and 18 concurrent sessions, with a lengthy list of prestigious speakers. The social activities include a welcome cruise on the St Laurent river, a banquet at

the Congress Center and a folk music show by the famous Painchaud family.

David Wendehenne of the UMR Plante-Microbe-Environnement (PME - INRA, CNRS, University of Burgundy) in Dijon will be moderating a concurrent session entitled "ROS/NO signalling and PCD" (concurrent session 3, Monday July 20<sup>th</sup>, 2pm-4pm).

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## 8<sup>th</sup> Pangborn Sensory Science Symposium

July 26-30, Florence

One of the most important scientific symposiums for the disciplines of the sensory and consumer science, the 8<sup>th</sup> Pangborn Sensory Science Symposium will take place on July 26-30 in Florence, Italy.

Sponsored by Vitagora®, the Pangborn Symposium offers delegates a program of plenary sessions by invited speakers – including Sylvie Issanchou of UMR FLAVIC and Benoist Schaal of the European Center for Sciences of Taste (CESG) in Dijon – and oral communications on the following themes: Fundamentals of Sensory, Effective Use of Sensory, Consumer Behavior, Non-food.

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## SPISE Vietnam 2009

August 7-9, Ho Chi Minh City

Organized by Ho Chi Minh City University of Technology in partnership with ENSBANA (AgroSup Dijon), the European Center for Sciences of Taste (CESG) and AgroCampus Ouest, SPISE (Summer Program In Sensory Evaluation) is a Franco-Vietnamese symposium on the theme of "Food Consumer Insights In Asia : Current Issues & Future".

Sponsored by Vitagora®, this symposium offers a program of conferences with international experts (United States, Australia, Netherlands, Vietnam etc.) on the following themes: Food Choice and Determinant Factors; Social and Cultural Effects; Age and Gender Effects; Preferences and Healthy Choices; New Methods for Consumer Study; Statistical Techniques; Market Research.

The event has the aim of offering an opportunity for participants to present their latest research in the areas of the sensory and consumer understanding, but also to foster exchanges between researchers and food companies on topics related to the themes of the symposium.

Enrolment deadline: July 1<sup>st</sup> 2009.

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