



Commission Molecular Biology and *In Vitro* Culture

NEWSLETTER THREE

NOVEMBER 2009

SYMPOSIA

2010 22-27 Aug Lisbon

2011 12-15 Sep South Africa

2011 19-23 Sep Belgium

2011 16-22 Oct Nebraska City

2012 26-30 Mar New Zealand

2012 1-5 May Antalya Turkey

2012 20-25 Nov Santiago Chile

2013 May Amman Jordan

2013 Colorado, USA

2013 Trento Italy

Message from the Chair



Rod Drew

Dear members of Commission Molecular Biology and *In Vitro* Culture.

The Commission has continued to grow and has been well supported by active members in the past year. My thanks go particularly to the excellent Working Group Chairs we have in this Commission for all they have done and are doing for the Commission. We have had a wide range of symposia that have all been very successful and well attended and have a good program planned for the next few years. We are always open to new ideas from members and new symposia. A good example of this is the new symposium on Biotechnology and other Omics in Vegetable Science which will be convened in Antalya, Turkey by Naci Onus in 2012.

A new Working Group has been formed on GM Plants and will be chaired by Adri Veale. Adri will convene the II International Symposium on Genetically Modified Organisms in Horticulture: Paving the Way for a Sustainable Future to be held at Mpumalanga, Kruger National Park, South Africa in 2011.

Given the strong support and ongoing interest we have had in *In Vitro* Culture in the Commission and the good attendance we have had at symposia that have included plant tissue culture, the executive and board meeting in Thailand in April accepted my recommendation to change the name of the Commission to Molecular Biology and *In Vitro* Culture. Although we have a strong program in Molecular Biology, I thought that we ought to highlight to new and potential members that we do have many members of the Commission who have an interest in *In Vitro* Culture.

The symposia for the Commission in 2010 will be at IHC2010 at Lisbon, so I would encourage you to submit an abstract and plan to join us in Lisbon for the Congress.

Elections for the Position of Chair of the Commission will be conducted soon by the ISHS secretariat. This will be for the period August 2010 to 2014. The position is open to any member of the commission and you will all be sent information on the election by the Secretariat. As I will become a member of the board (as President of IHC2014) in August 2014, I am not planning to stand as chair of the Commission. So I suggest you think about who would be good in this role. It needs to be a person with enthusiasm for the role and for ISHS and who has time and energy for the work involved.

The main roles are: Editor of the Actas from Commission symposia in IHC2010 (involves a heavy workload), maintaining good working relationships with the Working Group Chairs, attending Commission symposia and representing ISHS, attending executive meetings (in April each year) and reporting on the activities of the Commission, and looking for new and innovative opportunities for the Commission. The obvious candidates are the current vice-president and chairs of Working Groups but anyone in the Commission can stand. The Board and Executive are keen to see more women involved in leadership positions on ISHS, so I encourage you to consider the women in our Commission who have shown strong leadership in the past four years. These include Acram Tagi, Trine Hvoslef-Eide, Viola Hanke, Nahla Bassil and Anabella Romano.

Publication of Volumes of ActaHorticulturae

839 [I International Symposium on Biotechnology of Fruit Species: BIOTECHFRUIT2008 \(Jul 2009\)](#)

829 [VI International Symposium on In Vitro Culture and Horticultural Breeding \(Jun 2009\)](#)

812 [III International Symposium on Acclimatization and Establishment of Micropropagated Plants \(Feb 2009\)](#)

764 [XXVII International Horticultural Congress - IHC2006: International Symposium on Plant Biotechnology: From Bench to Commercialization \(Dec 2007\)](#)

763 [XXVII International Horticultural Congress - IHC2006: International Symposium on Structural and Functional Genomics of Horticultural Plants \(Nov 2007\)](#)

748 [II International Symposium on Acclimatization and Establishment of Micropropagated Plants \(Aug 2007\)](#)

738 [International Symposium on Biotechnology of Temperate Fruit Crops and Tropical Species \(Mar 2007\)](#)

Rod Drew

Griffith University

Australia

Fax: 617-373 57618

Email: r.drew@griffith.edu.au

Reports on Working Groups

Acram Taji convened the VI International Symposium on In Vitro Culture and Horticultural Breeding in Brisbane 25-29 August 2008 which was attended by 200 delegates from 43 countries. The theme of the symposium was 2020 vision for horticultural breeding. The plenary lecture was given by Simon Robinson and entitled "Gene technology – new tools for innovation in horticultural crops". There were 58 oral presentations and 80 poster presentations. A full report is in *Cronica Hort*: 48 (4):43-44. There were two offers to hold the next symposium: from Jordan and Belgium. So the VIIth symposium in this series will be at University of Ghent, Belgium in 2011; and, the VIIIth will be in Amman, Jordan in 2013.

In Vitro Culture

Prof. Acram Taji

Faculty of Science, Queensland University of Technology, Brisbane Q4001, Australia acram.taji@qut.edu.au

The IV International Symposium on Acclimatization and Establishment of Micropropagated plants was convened by Jitendra Prakash in Bangalore from 7-13 December, 2008. Attendance was lower than expected as it occurred after the terrorist attacks in Mumbai. However this was a good symposium and was of strategic importance to India and ISHS. Many Indian scientists don't have the funds for international travel hence symposia in India provide a good opportunity for local delegates to attend ISHS symposia. A highlight of this symposium was the participation of commercial tissue culture laboratories. There are 39 commercial labs in Bangalore. Invitations were extended to hold the next Symposium in South Africa, Turkey and USA. The next symposium will be in Nebraska City, USA in 2011.

Quality Management in Micropropagation

Prof. Paul E. Read

Univ. Nebraska, Inst. of Agr. & Nat. Resources, Dept. Hort.
377 Plant Sci., East Campus, Lincoln, NE 68583-0724 USA pread@unl.edu

The I International Symposium on Cryopreservation in Horticultural Species was convened by Bart Panis in Leuven, Belgium 6-8 April 2009. When we first discussed this symposium, I thought that if we could get 50 delegates, it would be a good outcome. However with excellent organisation by Bart, 150 delegates attended, including all the leading scientists in the field. I have heard many good reports on the symposium, which was very stimulating and high interest and attendance was maintained throughout the symposium. The II International Symposium on Cryopreservation in Horticultural Species will be convened in Colorado, USA in 2013.

Non-Conventional Conservation of Genetic Res. of Hort. Crops

Dr. Bart Panis

Katholieke Universiteit Leuven, Kasteelpark Arenberg 13, 3001 Leuven Belgium
bart.panis@biw.kuleuven.be

Reports on Working Groups Cont'd

Viola Hanke convened the first International Symposium on Biotechnology of Fruit Species in Dresden from 1-5 September 2008. The symposium was attended by 200 delegates from 50 countries. There were 40 oral presentations and 150 poster presentations. Five themes were a) non GM biotechnological approaches, b) new strategies in gene technology, c) genomics d) advances in important agronomic traits and e) integration of transgenic fruit crops into breeding programs. I have continued to receive excellent feedback on this symposium. A full report is in *Cronica Hort*: 49(1): 38-39. For the next symposium, we received invitations from 4 countries and New Zealand was elected to host the next symposium in 2012.

Biotechnology of Fruit Species

Dr. Viola Hanke

Baz, Institute for Fruit Breeding, Pillnitzer Platz 3a 01326 Dresden Germany
v.hanke@bafz.de

Nahla Bassil convened the IIInd International Symposium on Molecular Markers in Horticultural Species in Corvallis, Oregon, from 29Jul to 1Aug 2009. This was another very successful symposium for the commission. Nahla did an outstanding job in organising, and attracting many sponsors. The program was led by a wide range of highly reputed keynote speakers and a high standard of presentations was maintained throughout the symposium. A highlight of the symposium was the friendly and relaxed atmosphere throughout the program, including social events and tours. Oral Presentations from the symposium have been posted along with photographs taken throughout the week. Please visit the website to see them. <http://oregonstate.edu/conferences/molecularmarkers2009/presentations.html> <http://oregonstate.edu/conferences/molecularmarkers2009/album/index.html> The IIIrd International Symposium on Molecular Markers in Horticultural Species will be held in Italy in 2013 and there will be a workshop at the IHC2010 in Lisbon - Workshop 11: Molecular-Marker Utilisation in Horticulture and Horticultural Science .

Molecular Markers

Dr. Nahla V. Bassil

Nat'l Clone Germplasm Repository, 33447 Peoria Road Corvallis, OR 97331-23521 USA Nahla.Bassil@ars.usda.gov

New Working Group

Working Group: GM Plants. Chair: Adri Veale.

Adri Veale will chair a new working group on GM Plants. Adri will convene the II International Symposium on Genetically Modified Organisms in Horticulture: Paving the Way for a Sustainable Future to be held at Mpumalanga, Kruger National Park, South Africa in 2011. This will be an interesting symposium at a great venue. I suggest you buy a round world ticket and go from this symposium to Ghent for the In Vitro Culture and Horticultural Breeding Symposium.

GM Plants **Adri Veale** University of Pretoria, Faculty of Natural and Agric. Science, Department of Genetics, Pretoria, South Africa Adri.Veale@up.ac.za

Date	Symposium	Convenor	Venue
2010			
22-27 Aug	GM Horticultural Crops, from the Lab to the Field	Richard Litz, Fernando Alfaro Pelago	IHC 2010 Lisbon
22-27 Aug	Symposium on Horticultural Crop Genomics	Kevin Folta Manuel Talón	IHC 2010 Lisbon
22-27 Aug	Workshop 11: Molecular-Marker Utilisation in Horticulture & Horticultural Science	Nahla Bassil Jane Toll	IHC 2010 Lisbon
2011			
12-15 Sep	II International Symposium on Genetically Modified Organisms in Horticulture: Paving the Way for a Sustainable Future	Adri Veale	Mpumalanga, Kruger National Park S Africa
19-23 Sep	VII International Symposium on In Vitro Culture and Horticultural Breeding	Danny Geelen	University of Ghent Belgium
16-22 Oct	V International Symposium on Acclimatization & Establishment of Micropropagated Plants	Paul Read John Preece	Lied Lodge Nebraska City
2012			
26-30 Mar	II International Symposium on Biotechnology of Fruit Species	Susan Gardiner	Nelson, NZ
1-5 May	I International Symposium on Biotechnology and other Omics in Vegetable Science	Naci Onus	Antalya, Turkey
20-25 Nov	IX International Symposium on Grapevine Physiology and Biotechnology	Manuel Pinto	Santiago, Chile
2013			
May	VII International Symposium on <i>In Vitro</i> Culture and Horticultural Breeding	Mohamad Shatnawi	Amman, Jordan
	III International Symposium on Molecular Markers in Horticulture	Roberto Viola, Riccardo Velasco	Trento Italy
	II International Symposium on Cryopreservation in Horticultural Species	Dave Ellis	Colorado, USA

II ISHS Genetically Modified Organisms in Horticulture Paving the Way for a Sustainable Future

Mpumalanga, Kruger National Park, South Africa
12 - 15 September 2011

The second ISHS Genetic modified organisms symposium in Horticulture is a follow-up on the first symposium held in Ski (Oslo), Norway, in 2007. This 2011 event will be an update of progress and challenges in plant biotechnology for horticulture crops with an extra focus on developing countries. It will be relevant for research scientists and the industry involved in the developing of biotechnology products in horticulture in the world. The use of genetic modifications to these small scale, but often highly valuable crops offers particular challenges because of the amount of research presently needed for each new crop to be successful. One of the projects in South Africa that focuses on sustainable development is the improvement of bananas for disease resistance. On the African continent alone, bananas and plantains produced by smallholder subsistence farmers constitute the majority of the daily carbohydrate for at least 100 million people. Apart from being a highly nutritious crop, the cultivation of bananas in South Africa also ensures job opportunities for thousands of South Africans. Cavendish bananas are the only varieties grown for the commercial trade. However, these bananas are highly susceptible to Fusarium wilt (caused by *Fusarium oxysporum* f.sp. *cubense* [Foc]), other leaf diseases and insect pests such as weevil borer. No control strategy exists for the devastating Fusarium wilt of banana and disease resistance is the only viable option. Cavendish bananas are seedless and therefore conventional breeding methods can not be used to introduce resistance into susceptible commercial cultivars. The only sustainable option is the use of unconventional molecular improvement techniques, such as plant transformation. Without successful introduction of resistance into susceptible planting material, the banana industry faces a very real threat of extinction in future. At present, South Africa, Egypt and Burkina Faso is the only countries in Africa to commercialise genetic engineered crops. In South Africa, the Department of Agriculture, Fisheries and Forestry regulates the process of testing and commercialising a genetic engineered crops. The Genetically Modified Organisms Act (Act No.15 of 1997) was developed to ensure that genetic engineered crops do not pose a threat to human and animal health or the environment. Permits are required to carry out a field trial before commercialisation. To obtain a general release permit for commercialisation information about all aspects of the new crop must be provided for assessment.



The Agricultural Research Council (ARC) has developed new potato varieties with food production, storage and environmental benefits that can be added to their potato breeding programme and made available to both smallholder and commercial farmers once they are approved. The ARC applied to national authorities for a safety assessment and general release approval of their SpuntaG2 potato, which is resistant against potato tuber moth damage in the field and in storage. This approval will enable the ARC to initiate farmer participatory trials under unconfined conditions and develop a certification and labelling system to prepare for commercial release of improved potato varieties. This is the first publicly funded genetically modified (GM) crop to enter the safety approval process for general use in South Africa. Approved cotton, maize and soybean events are produced by seed companies. Environmental studies showed that SpuntaG2 controls the potato tuber moth without affecting other organisms. Studies show that the potatoes are as safe to grow and eat as other potatoes. When this has been reconfirmed and approved by South African authorities under the GMO Act, the ARC will enable smallholder farmers to test the potatoes in their fields. If the regulators and smallholder farmers are satisfied with SpuntaG2, the ARC will transfer potato tuber moth resistance to other preferred varieties.



The challenge to scientists is to develop genetic modification of organisms (GMO's) that will promote a sustainable development of horticultural production. The road ahead of us is clear, we must move ahead in using the best available science for a sustainable future.

VII International *In Vitro* Culture and Horticultural Breeding

Ghent, Belgium

19-23 September 2011

WELCOME

These are exciting times for tissue culturists and plant breeders. During the last decade there has been a major shift in the research focus from the use of a few model species to a range of plants for which we have a commercial interest. This renewed research effort to investigate a broad variety of plant species brings on new challenges and opportunities. To accommodate our needs for more nutritious and healthy food as well the emerging demand for new and renewable plant materials, horticulturists need to be looking for better and faster ways to generate modernized crop varieties.

Inspired by molecular approaches, there are many areas of inquiry in horticultural crops that help to design novelty. With the implementation of more molecular tools, plant breeding is changing profoundly and is moving back into the laboratory. Helped by the numerous markers and genomes that are being sequenced at an ever increasing rate, horticultural science is catching up with the advancements made in model species.

The implementation of tissue culture technology has greatly contributed to the development of horticultural improvements. Reproduction of clonal plants of superb quality has been ever so high. Today, also tissue culture techniques are integrating molecular analysis and methods. These advancements are likely going to rationalize micropropagation and the use of tissue culture in breeding strategies. Current progress in the development of new molecular tools is beginning to help to overcome traditional constraints limiting research in many horticultural crops and to some extent ornamental and medicinal plants. With the help of these techniques, researchers will be able to unravel fundamental mechanisms underlying the process implemented for crop improvement and the introduction of new agricultural and economic traits. With this Symposium academic and industrial researchers will be provided a communication platform to share and discuss ideas aiming at the improvement of research and application in the area of horticultural plant tissue culture and breeding. Highlights of recent successes will be presented to mark the road ahead and to accelerate the production and enhancement of crops.



Danny Geelen

Convener IVCHB 2011 Symposium "In Vitro Culture and Horticultural Breeding"

GENERAL INFORMATION

The Symposium will be held at the Faculty of Bioscience Engineering under the auspices of the Ghent University Association (AUgent) in collaboration with the Institute for Agricultural and Fisheries Research (ILVO) and the Belgian Association of Plant Biotechnology (BPBA).

Participants are requested to register via the symposium website and will gain access to the congress activities and scientific programme.

Deadlines and dates to remember

December 1, 2010 – End of abstract submission

March 31 – advanced registration at reduced fee

Contacts

IVCHB 2011 Secretariat for Scientific Programme

VII International In Vitro Culture and Horticultural Breeding

Faculty of Bioscience Engineering, Ghent University

Coupure links, 653 Ghent, Belgium

Tel. +32 9 264 6070 / Fax. +32 9 264 6225

V International Symposium on Acclimatization and Establishment of Micropropagated Plants

Nebraska City

16-22 October 2011

Three-day symposium with tours to visit local nurseries, the University Biotechnology Center, one or more local wineries, the "underground railway" (famous for the history related to abolition of the slave industry), the Lewis and Clark Interpretive Center and a paddle boat ride on the Missouri river.

Dates: October 16-22 2011

Venue: Lied Lodge & Conference Center in Nebraska City

<http://www.liedlodge.org/>



Sunday, October 16—arrival, with a welcoming reception that evening, Monday and Tuesday for technical sessions and Wednesday afternoon for the field trips/tours.

Depending upon how many papers and posters are proposed, we could use Wednesday morning for technical sessions as well, or we could use the entire day for tours of local and scientific interest. Alternatively, we could place the tours within the conference, ie Monday technical sessions, Tuesday for the tours and Wednesday for technical sessions.

The Lied Lodge and Conference Center (LLCC) will provide the meeting venue, meals sleeping rooms and can assist with transportation arrangements for travel from nearby airports to/from the LLCC.

Paul E. Read
Professor of Horticulture/Viticulture
Tel: 402-472-5136
Fax: 402-472-8650
pread@unl.edu

II International Symposium on Biotechnology of Fruit Species (Biotechfruit) New Zealand 26 to 30 March 2012

Biotechfruit 2012 venue announced

The second International Symposium on Biotechnology of Fruit Species (Biotechfruit) will be held in New Zealand from 26 to 30 March 2012.

Biotechfruit 2012 will bring together scientists working in both basic and applied fruit-related research. Presentations from international experts and emerging researchers will cover topics including plant development in model systems, perennial fruit crop biotechnology and tropical fruit research.

Fruit is New Zealand's sixth largest industry, totalling NZ\$4.7 billion (US\$3.4 billion) per annum. The sustainable growth of New Zealand's horticultural industry is based on innovation, leading to the direct export of fruit and international licensing of cultivars with novel characteristics to meet the demands of premium markets. Successes include ZESPRI®GOLD Kiwifruit and Jazz™ apples, both developed through ongoing breeding programmes at Plant & Food Research, the Symposium hosts.

Biotechfruit 2012 will be held at the Rutherford Hotel in Nelson, a key hub of New Zealand's fruit industry. The Nelson area has over 5000 hectares of fruit orchards, including apples, berryfruit, kiwifruit, olives and hops, and is close to the famed Marlborough wine region. The Symposium programme will include site visits to working orchards and a research station, and the dinner will be held at Nelson's World of WearableArt™ and Classic Cars Museum. Arrangements can be made for pre- or post-conference visits to other Plant & Food Research sites and research orchards in different regions of New Zealand, by request.

The Symposium will be organised by Plant & Food Research scientists Dr Roger Hellens and Dr Sue Gardiner on behalf of the International Society for Horticultural Science. Plant & Food Research is one of the world's largest institutes in the field of integrated horticultural research. Based in New Zealand, with offices in Australia and the USA, Plant & Food Research brings together more than 900 science and support staff focused on supporting the horticultural industry, through the development of elite cultivars, bioprotection practices and sustainable production systems.



The Symposium will be held in Nelson, on the coast of New Zealand's South Island (courtesy of Nelson Tasman Tourism)

The Symposium will discuss topics such as using genomics knowledge in breeding fruit with identified phenotypes, for example red flesh in apples (courtesy of Plant & Food Research)



I International Symposium on Biotechnology and other Omics in Vegetable Science 1-5 May 2012 Antalya Turkey

Dear colleagues,

It is my privilege to invite you and your colleagues to attend International Symposium on Biotechnology and other Omics in Vegetable Science which is planned to be held in May, 2012, Antalya-Turkey.

It is a well known fact that the present status of biotechnology and other omics stimulates more active collaborative efforts to exploit the potentials of biotechnology generally in agriculture and vegetable science. The symposium is focused on the use of biotechnology and other omics in research to discover basic molecular events modeling in vegetable science, development and productivity. It is hoped that the new information will contribute to increase successes in vegetable science and related industries.

During the symposium special attention will be devoted to *in vitro* propagation, plant regeneration processes, somatic embryogenesis, ploidy manipulation techniques, protoplast culture and fusion, *in vitro* mutagenesis, somaclonal variation, elimination of pathogens, cryopreservation, cisgenic strategies, alternative selection systems, expression and regulation of transgenes, chimera detection, transient expression assays for gene function analysis, RNAi, transgene stability, gene identification, QTL identification, BAC libraries, gene isolation, candidate genes, association mapping, molecular markers, new sequencing techniques, ESTs, marker assisted selection, genomic databases, bioinformatics, disease resistance/ tolerance to biotic and abiotic stresses, biotechnology to reduce impact of climate change on vegetable growth and production, vegetables and product quality, flavor, texture, post-harvest handling, industrial and pharmaceutical traits, release and commercialization of transgenic varieties, risk assessment studies, transgene stability, and public acceptance of GM vegetable crops.

The organizing committee wants to provide encouraging conditions for young scientists to show their excellence in vegetable sciences and research. It is hoped that useful discussions is going to take place after the presentations. The poster session is open for all the interested researchers and students in where details are shown and discussed. It is thought that this meeting offers an optimal environment for personal contacts and initiation of collaborative projects.

We expect perfect weather conditions in Antalya with lots of sunshine during meeting time.

The social events are expected to provide new dimensions for establishing personal friendships.

So join us in early May, 2012 for an outstanding scientific meeting.

Prof. Dr. A. Naci ONUS
Convenor



VIII International Symposium on *In Vitro* Culture and Horticultural Breeding

May 2013
Amman Jordan

On behalf of the organizing committee, it gives us a great pleasure and honor to welcome you to the VIII International Symposium on *In Vitro* Culture and Horticultural Breeding. We are eager to welcoming you to this conference and to our University. In the last decades, plant biotechnology and horticulture has been witnessing tremendous developments. With the improvement of new approaches and modern technology, plant biotechnology, horticulture industry and applications are acquiring new horizons enabling them to expand the quality of their products and applications.



Al- Balqa Applied University

There is no doubt that plant biotechnology and horticulture research offer great potential for sustainable development. Although advanced plant biotechnology and horticulture research is costly, it is still the sole hope for developing countries worldwide to utilize these technologies and hence improve their productivity in all aspects of agriculture, horticulture and forestry. Most of developing countries are committed to overcome poverty and diseases through application of science and technology. Fortunately, most of these countries still have some advantages to benefit from gene revolution, such as high degree of biodiversity, very rich natural genetic resources and highly qualified human resources who have received their training and postgraduate education abroad.

This conference is aiming at bringing the scientific communities from far and wide together to exchange knowledge and experience and to increase the awareness of scientists in the field with scientific capabilities and help facilitate long lasting collaboration. Creating of such an atmosphere will develop real multinational cooperation and networking among developing countries and advanced scientific institute worldwide in aid of better future for all. The conference will be held at the beautiful campus at five star international hotel in Amman. Daily bus shuttle between conference hotels and the venue will be provided in the morning and after sessions. The Conference Secretary will be located near the main entrance of the building. Weather in May, in Al-Salt is expected to be dry and pleasant with temperatures ranging between 18 °C and 26 °C. Light clothing is generally suitable, but sweaters or jackets will be needed at night.

III International Symposium on Molecular Markers in Horticulture

San Michele all'Adige (Italy)

2013

We are pleased to invite you to the Third International Symposium on Molecular Markers in Horticulture.

FEM-IASMA Research & Innovation Centre located in San Michele all'Adige (Italy), will be the venue of the Symposium.

R&IC is well-known in Italy and abroad since it carries out advanced scientific research on agricultural and environmental systems, with the aim of developing agricultural production, the biodiversity and bio-complexity of the environment, human health and quality of life. Research addresses prominent issues, among them: Grapevine and fruit tree genomics, with the aim of exploiting the tools of modern biology to maintain the sustainability and competitiveness of agricultural production. The processes of transformation and development of food products, with the focus on organoleptic and sensory properties as well as the traceability and healthiness of products. The impact of diet on human health, exploiting the links between human and plant genomics and aimed at further development of the nutritional value of fruits and other quality products.

Through its activities, R&IC actively places itself as a force of attraction for graduate and post-graduate training courses with an elevated content of research in an international context.

Beautifully located in the rural surroundings of Trento, San Michele all'Adige hosts the big campus of the FEM-IASMA, which besides the R&IC includes also a secondary school in agriculture and a centre for the technology transfer. One of the main features of FEM-IASMA is the ancient castle dated around 1st Century a.C., which was inhabited by the Augustinian monks until the 2nd half of 19th century. The castle's ancient wine cellars, the refectory and the monastery's cloisters are still standing today, bearing witness to the distant origins of FEM-IASMA. The original foundations of the Augustinian monastery include two historic wine cellars, exquisite examples of architectural beauty and of great historic interest, testimony to an ancient wine making tradition in the territory. These days the modern wine cellar has a wide range of wines and sparkling wines, and typical Trentino grappas and liqueurs. Average annual production comes to around 200,000 bottles of wine, 100,000 bottles of sparkling wine and 10,000 bottles of distillates.



Close to San Michele there is Trento, which is the capital of the Autonomous Province of Trento and gives the name to one of the Church's most important councils. Trento offers rather interesting monuments. Its architecture has a unique feel, with both Italian Renaissance and Germanic influences. The city centre is small, and most Late-Medieval and Renaissance buildings have been restored to their original pastel colours and wooden balconies. Part of the medieval city walls is still visible in Piazza Fiera, along with a circular tower. Once, these walls encircled the whole town and were connected to the Castle of Buonconsiglio, which today includes a museum and the notable Torre dell'Aquila, with a cycle of fine Gothic frescoes depicting the months, commissioned by the prince-bishop Georg von Lichtenstein.

The Symposium will be held in June 2013 under the aegis of International Society for Horticultural Science (ISHS). The leitmotiv will be "Plant Breeding toward Human Health and Food Quality". Scientific programme will include the following topics: Progresses into plant-based nutraceuticals; Fruit and vegetable quality and human health; Metabolomics and breeding of plants: expected progresses in the next decennium; Economic, social, and environmental benefits of plant breeding. Oral and poster presentations will be featured throughout the Symposium. A technical tour is scheduled for participants and an alternative touristic programme will be developed for accompanying persons. The official language of the Symposium will be English.

A website of this event will soon become available. In the meanwhile you can hold in check the R&IC website: <http://research.iasma.it>

We're looking forward to meeting you.

Dr. Roberto Viola and Dr. Riccardo Velasco (Convenors)

IASMA Research and Innovation Centre - Fondazione Edmund Mach

Via E. Mach, 2 – 38010 – San Michele all'Adige (ITALY)

Tel. +39.0461.615306 Fax +39.0461.615183

e-mails: roberto.viola@iasma.it, riccardo.velasco@iasma.it

<http://research.iasma.it>

