Wishing you a very

HAPPY NEW YEAR

2012
Dear INPPO Members,

The INPPO webpage was created in February 2011. At that time the INPPO community only included the 12 founding members. Today, 10 months later, we are close to 500 members from 52 countries, including 73 Country representatives from 42 countries.

I wish to congratulate and thank all of you for your trust and the considerable work already done in just a few months. I very much hope that 2012 will see the realization of all these efforts. I look forward to all of you for your support toward further improving the functioning of INPPO and bring new ideas.

I wish you all a very happy and prosperous NEW YEAR 2012.

Best regards,

Dr. Dominique Job
INPPO President

Dr. Dominique Job
INPPO President,
CNRS Research Director
CNRS-Bayer CropScience Joint Laboratory (UMR5240)
Lyon-FRANCE
The Formation of the Executive Council and General Body of INPPO

I have been asked to talk about two things specifically, the Executive Council (EC) and General Body (GB) of INPPO. That’s easy I guessed at first, but as I started to write this brief message my mind wondered to how, why, and where to INPPO. So, ultimately at day 2 of starting this “short write up” I decided to “stop thinking” too much, and just do it. Here is what my feelings are translated into the lines below and I hope it makes sense.

INPPO has progressed to “nearing maturity”, and as an organization it requires for its proper functioning, the EC and GB. As is always the case with wanting to build a successful venture (profit or non-profit) attention to detail is critical, i.e., there is no compromise but on the contrary there are views to share, discuss, and debate among those who initiate the idea and all those who help make it happen. However, a start is required and someone has to take the initiative to activate the process. In the case of INPPO, it all began with the initiators and founding members, followed by the nominated core committee who were tasked with identifying and inviting, from among the INPPO members, scientists and non-scientists who have a desire to contribute some of their valuable time on INPPO. Without going into the details, I am happy to say that the EC and GB took shape and the details of constituent members are listed under the Committees menu at the INPPO website. I will not explain about each member in detail other than the fact that professionally, the members of the EC and GB, except the Finance committee chairperson yet to be decided, have taken the responsibility to contribute actively toward building up INPPO and steering it to the second phase of INPPO development. The GB, also composed of the EC members, additionally has the active support of two patron members, Bob Buchanan and Pier Giorgio Righetti, who are leading scientists in plant biology and proteomics, respectively. The GB also consists of representative continent coordinators, country representatives, INPPO chapter secretaries and the administrative staff. With such immense support, the EC and GB have the strength to discuss INPPO initiatives and activities at a global level. Further, INPPO is indeed fortunate to have in its first year the persona of Dominique Job, a scientist who has greatly influenced numerous students and fellow scientists to do good science, as a powerful leadership role model. All said and done, it is indeed a challenge to be at the start of something new, and INPPO hopes that the contribution of each member will be satisfying by seeing this INPPO enterprise take shape day by day with their combined efforts. If space will allow, I would like to add a few more lines than requested. It is my hope that INPPO will be firm in pursuing the values it stands for in promoting plant proteomics research worldwide, and at the same time recognize areas of weakness and improve upon them by open-minded and constructive discussion with others, scientists and non-scientists. Everyone has something to contribute and that is where the strength of INPPO lies. Finally, if INPPO can leave behind a legacy that will inspire generations of not only plant proteomics researchers but plant biologists, it will be a worth the hard labor and the long road ahead.

“Inspire and Get Inspired to Make the Change Now or Never”
INPPO: A non-profit-organization consisting of all those people who are involved or interested in plant proteomics and plant biology

INPPO is getting a better shape day by day in its volume and activity. With the help of INPPO Initiators, Founding Members, and Members, the Core Committee (CC), Executive Council (EC), and General Body (GB) have been formed to properly run this organization towards fulfilling the INPPO Vision & Mission on the plant proteomics and its biology. In this first INPPO newsletter, I would like to portray the “democratic” procedure used to form these administrative bodies to our members and the scientific and non-scientific communities.

When the INPPO viewpoint appeared in the journal PROTEOMICS (Agrawal et al., 2011) in April 2011, the INPPO was in its phase 1 development state. Most of its members (almost 95%) at phase 1 joined INPPO upon invitation. To run INPPO, administrative bodies were deemed necessary. As INPPO members were not very familiar about the INPPO vision and mission, and also to each other at their professional and personal levels, the twelve founder members of INPPO took the responsibility of formulating a global leadership council for INPPO. Four names were nominated to Founding Members by the administrative staff of INPPO for the position of President (Dominique Job), Vice President (Randdeep Rakwal), and General Secretaries (Jenny Renaut and Ganesh Kumar Agrawal) mainly based on their deep involvement to INPPO development and global recognition in plant proteomics to form the CC. All the Founding Members consented with the nominated names under the given INPPO conditions, and even ten of them sent their content by written e-mail replies. Thus the CC was formed with the responsibility to form the EC and GB, and to take INPPO to the next level (phase 2) of developments. The members of CC did their best to identify and invite recognized scientists, and most importantly those who showed their active interest in INPPO, in the EC and GB with global representation. On behalf of the CC, the present General Administrative staff (Mr. Abhijit Sarkar) had also sent official e-mails to all INPPO members asking them to join INPPO committees and subcommittees or to send their suggestions. Looking at the democratic norms, normally practiced in governmental and non-governmental organizations, we believe that the steps taken to form CC, EC, GB, and committees/subcommittees are highly “democratic” and well-practiced standard procedures. One might differ from this standard “democratic” selection procedure. As INPPO is an organization “of all the people interested in plant proteomics and/or plant biology under various sub-disciplines”, the INPPO platform is ready to listen the voice of all people.

All attempts including rules and regulations are being, and will be made and practiced to keep the INPPO vibrant and healthy, and an excellent platform to join and work. Once INPPO is all set (that is, members are actively involved and they know everyone by profession), the INPPO family will bear the responsibility to conduct an open election for the INPPO organization. There is a plan to also form an INPPO Election Committee having a neutral Election Official for thoroughly inspecting and coordinating the entire election process.

Reference
# INPPO Organizational Structure

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<tr>
<th>Position</th>
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<tr>
<td>President</td>
<td>Dominique Job</td>
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<td>Vice-President</td>
<td>Randeep Rakwal</td>
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<td>General Secretaries</td>
<td>Jenny Renault &amp; Ganesh K. Agrawal</td>
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<td>Spokesperson</td>
<td>Natalia Bykova</td>
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<td>Research Coordinator</td>
<td>Ganesh Kumar Agrawal</td>
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<td>INPPO Development Coordinator</td>
<td>Renu Deswal</td>
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<td>Finance Coordinator</td>
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<td>Public Relations Coordinator</td>
<td>Michael J. Dunn</td>
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<td>Education Outreach Coordinator</td>
<td>Thomas Kieselbach</td>
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<td>Rainer Cramer</td>
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<td>Patron Members</td>
<td>Bob Buchanan</td>
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<td>Pier Giorgio Righetti</td>
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<td>Africa Coordinators</td>
<td>M.S. Rafudeen</td>
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<td>Neila Jellouli</td>
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<td>Asia Coordinators</td>
<td>Niranjan Chakraborty</td>
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<td>Tai Wang</td>
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<td>Sun Tae Kim</td>
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<td>Australia &amp; Oceania Coordinators</td>
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<td>Phil Jackson</td>
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<td>Wolfram Weckwerth</td>
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<td>Latin America Coordinators</td>
<td>Bronwyn Jane Barkla</td>
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<td>Mid-East Coordinator</td>
<td>Ghasem Hosseini Salekdeh</td>
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<td>North America Coordinators</td>
<td>Christof Rampsch</td>
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<td>Sixue Chen</td>
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<td>South America Coordinators</td>
<td>Maria Victoria Vega</td>
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<td>Country Representatives</td>
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<td>INPPO Chapters Secretaries</td>
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<td>Administrative Officer (General)</td>
<td>Abhijit Sarkar</td>
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<td>Administrative Officer (Database &amp; Webpage)</td>
<td>Raj Agrawal</td>
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INPPO Research Committee

Research Committees and Subcommittees: Coordinating Research, Project Development, Database and Tools Development and their Dissemination

The Research Committees and subcommittees of INPPO are progressing towards having global representatives of active scientists to cover most of the research areas in plants. The General Administrative staff of INPPO (Mr. Abhijit Sarkar) has also passed the message to all INPPO members in a regular update that if any INPPO members have interest in serving the Research committees / subcommittees, he or she is free to contact him. We sincerely hope that INPPO members will show their interest and actively take part in giving a good shape to the Research committees/subcommittees.

As mentioned in a recent INPPO viewpoint paper (Agrawal et al., 2011), Research committees/subcommittees are dedicated to achieve the goals in line with the INPPO initiatives. As soon as the committees and their subcommittees are formed, we will have a virtual discussion to come up with strategic plans and defined short- and long-term goals. As there is great diversity in plants and so the research, crop (such as rice, legumes, wheat, maize etc.) and horticultural plants (fruits including banana, grapes, oranges etc.) are likely to be the priority targets. However, the priorities may also vary and change upon the interest or need of individual countries and / or continents. Plant proteomics has made a tremendous progress in the past decade, establishing optimized protocol for investigating proteomes and generating huge datasets. We are aiming in the coming year: (i) to start utilizing exiting data and to develop a centralized database, (ii) to exploit the centralized database for systems biology in at least cereal and legume plants, (iii) to come up with impressive ideas and outlines of research projects, and (iv) to engage the members of INPPO family in developing international research projects on ground-level problems and in writing review articles in the hot areas of proteomics research. We have already worked / are working on developing research projects and writing review articles. For example, a megaproject on rice has been submitted to SATREPS (Japan) in December 2011. If funded, the project will also help in organizing proteomics conferences, promoting Education Outreach programs, developing databases, understanding biology at systems level, and translational proteomics.

Reference
INPPO Education Outreach Committee

INPPO Educational Outreach committee have started their work

The Educational Outreach committee of INPPO was established during the autumn (northern hemisphere) of 2011. In their initial correspondence, the committee members have shared the view that important preliminary actions would include organizing lunchtime seminars, and half day symposiums at existing proteomics or plant biology conferences, as well as supporting short workshops and tutorials held by proteomics groups from different countries. There were three immediate suggestions from the INPPO community for workshops in Cape Town, South Africa, in Kathmandu, Nepal, and in Gainesville, Florida.

The workshop at the University of Cape Town is going to focus on bioinformatics for proteomics, specifically to look at the analysis of plant proteomics data from gel and gel-free approaches. Suhaib Rafudeen and Bongani Ndimba are going to organize this workshop at the Department of Molecular and Cell Biology (MCB). The Head of the Department supports the idea of hosting this workshop at the MCB, but funds still need to be confirmed. The workshop in Kathmandu, Nepal is going to offer a two-day theoretical program on “Gel-based Proteomics and its Application in Plants”. Ganesh Kr Agrawal has also received a proposal from a High-School (Grade 10-12, seniors) in Nepal to give them a one-day introductory course in proteomics.

With support of the U.S. National Science Foundation, Sixue Chen and Nick Polfer (Department of Chemistry of University of Florida; UF) have worked together with UF Center for Pre-collegiate Education and Training and organized two workshops on plant proteomics and mass spectrometry for more than 60 high school teachers (http://www.moleculardetective.org). This year, they will organize a third workshop. One of the exciting results of such workshops is the publication of the first high school proteomics lab curriculum in the American Biology Teacher.

In addition, Bronwyn Barkla from Mexico highlighted the possibility of organizing bioinformatics courses in plant proteomics in collaboration with the European Bioinformatics Institute (EBI) following a successful “Bioinformatics Road show” organized by the Mexican Proteomics Society in collaboration with the EBI in April of 2011.

While organizing seminars and workshops is an important part of the work of the Educational Outreach committee, it was also pointed out that it is important to explain why we should use proteomics to study plant biology. What is the benefit of plant proteomics for basic research and what can it contribute to agriculture and industry? A discussion of these and related questions should be included in educational activities of INPPO.

The Educational Outreach Committee appreciates and welcomes suggestions from the INPPO community for future educational activities of INPPO. If you would you like to organize an event or participate in the international seminar series of INPPO, please contact any member of the committee.
INPPO Development Committee

Start their Work

Thanks to all the founding members of INPPO for providing a common platform to plant proteomes all over the globe. INPPO is growing strong day by day due to tireless and selfless efforts of the founding members. I had a chance to interact and see at least one of them (Prof. Randeep Rakwal) working non-stop for INPPO, during my recent visit to Tsukuba, Japan. Another, pleasant surprise was to interact with Abhijit Sarkar, the INPPO Administrator, regarding development of Indo-Nepal Plant Proteomics Chapter (INPPC) with the help of Dr. Rakwal. The chapter was conceived in Tsukuba and would be ready shortly for the forward march of plant proteomics community of these two countries under INPPO.

Dr. Renu Deswal,
INPPO Development Committee
Chair Person

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INDIA
Proteomics is a cutting-edge technology that requires high level of infrastructure

Proteomics is a cutting-edge technology that requires high level of infrastructure, instrumentation and knowledge for its precise and successful implementation. In recent years, proteomics has taken central position in different aspects of plant biology, and India is no exception; however its growth is still in infancy as compared to animal proteomics research. India is a growing economy and undoubtedly, its future largely depends on agriculture, with 60% of its population dependent on it, and food security, in terms of adequate amount with balanced nutrition, is the key issue. Therefore, the use of plant proteomics and knowledge-based agricultural application is of primary importance. The increasing research efforts and emerging technologies necessitate interaction among the proteomics community that would eventually help to share the knowledge for growth and development. I believe the INPPO has been established with the strong agenda of promoting cooperation, collaboration, and education among the fraternity. In this regard, I appreciate the idea of education for research in plant proteomics through seminar series, workshops and conferences to share the knowledge, experience and complementary expertise. At this juncture, concerted efforts are needed to network the existing infrastructure, investments and intellectual strengths, wherever they exist, to achieve effective and optimal benefits. Currently, the global crop productivity is threatened by various environmental stress factors, accounting for ~70% yield losses for major crops every year. With the progressive global climate change, shortage of water resources and worsening eco-environment, the situation is likely to turn more serious in the coming years. We must look for traits that would make crops commensurably resilient.

During the last decade, many researchers have been involved in identifying stress-responsive proteins in different crop species, which might facilitate the targeted manipulation of novel candidates in crop improvement program.
MASCP and INPPO 2012

The year 2011 saw a change in direction for the Multinational Arabidopsis Steering Committee (MASC) with the end of the 2010 functional genomics program and the adoption of the 2021 roadmap embracing a future bountiful harvest. The new direction is clearly focused on translating findings in Arabidopsis to agricultural species. The initiation of INPPO in supporting the general application of proteomics plants is timely for the MASC proteomics subcommittee (MASCP).

The model plant Arabidopsis has been a considerably focus for advanced proteomic applications, and many of these approaches can begin to make their way into other species. This transition will be highly supported by MASC and through its association with INPPO. One such example is the development of plant proteomic aggregation portals such as that recently developed for Arabidopsis (MASCP Gator: http://gator.masc-proteomics.org/). The development of the MASCP Gator has created a framework and infrastructure including an open access application programming interface for the simplified duplication of this resource for other plant species. The most promising candidates are rice and Medicago, and the potential for proteomic aggregation or summary portals will be explored in these species in 2012.

The International Conference on Arabidopsis Research (ICAR) will be held in Vienna, Austria in 2012. For the past 5 years, MASCP has regularly hosted proteomics workshops at the ICAR. In Vienna one major topic of the proteomics workshop will be the marriage of MASCP and INPPO. Members of both MASCP and INPPO will be involved in organizing and in presenting at this workshop.
Message from PROTEOMICS

INPPO and PROTEOMICS

We at PROTEOMICS, one of the leading Life Science journals published by Wiley-VCH, welcome the opportunity to support the INPPO (International Plant Proteomics Organization) initiative. Having observed strong growth in the application of proteomics to plant biology, we consider the establishment of INPPO to be a logical development in this field. Last May, we published in our journal a Special Issue on the topic of Plant Proteomics in cooperation with INPPO and the Editors Dominique Job, Paul A. Haynes and Michel Zivy. This issue contains a Viewpoint article which provides information on the aims and current initiatives of INPPO [1]. In recognition of the importance of this area, we are launching in collaboration with INPPO a new Section of PROTEOMICS under the heading “Plant Proteomics”. This becomes effective with the first issue in 2012. Further to this, we will publish short articles providing details of INPPO activities under the banner “INPPO Highlights”; the first of these articles is scheduled to appear at the beginning of 2012.


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INPPO: The world of plants, proteins and plant proteomics

Being a computer engineer, my interest in plants was limited mainly to gardening and landscaping. So, when I had started my work on developing the INPPO website and saw (and also tried to understand) the contents, I really came across to a completely new arena of knowledge which includes – plants, proteins, proteomics techniques and most importantly those wonderful people who are passionately practicing this. Thanks to INPPO and all the INPPO members for sharing this beautiful world of plant proteomics with me.

As you all know the webpage (www.inppo.com) has been functional since January 2011 and initially I designed the webpage using PHP language but which hindered the membership management and its database development. So, I felt the need to upgrade the webpage to a JAVA-based system which is to me a much better system to work with and show to the scientific community. This year, and onwards, I will also continue to upgrade the INPPO webpage with a more advanced format. I request all the INPPO members to kindly send me (rajaanova@gmail.com) any comments, suggestion or great ideas for the webpage they may have; this will be greatly appreciated.

Finally, I wish all the INPPO members a very happy and prosperous New Year 2012, and believe me you guys are doing a great job…!
Message from INPPO Country Representatives

Message from Belgium

Just like the term “Omics” has become one of the keyword of today’s research technologies, “networking” has become a keyword of today’s research world. The information age has made both “Omics” technologies and worldwide networking possible, and the existence of international organizations like INPPO facilitates and improves the exchange and sharing of information, knowledge and infrastructure.

Like it is the case for most techniques and methods, their development often originates in medical science. However it rarely stops here, moreover, the applications and further development find their way in other research areas like for instance plant science. The mission statement of INPPO should accomplish that in the first place researchers in plant science from all over the world can exchange knowledge on proteomics research and can gain access to proteomics facilities.

As sessile organisms, plants face extreme environmental challenges and have to overcome these by rapid modifications at the proteome level, linked to cellular changes through signalling cascades to acclimate to the environment. A second accomplishment of INPPO should be the motivation and stimulation of plant scientists to invest in modifying existing or develop new technologies in the sub disciplines of proteomics, such as membrane proteomics, phospho-proteomics and redox proteomics, as these are novel demanding and challenging fields in plant proteomics.

Message from Cyprus

Increased frequency of extreme environmental events resulting from global climatic changes remarkably influences plant growth and development. However, the challenges of abiotic stress factors can no longer be addressed simply by applying trends of the past. Innovative approaches using advanced molecular genetics and systems biology approaches are essential for researchers to provide a better understanding of the molecular mechanisms and regulatory cascades underlying plant responses to abiotic stresses, with the ultimate goal of providing suitable targets for necessary alleviation of accumulating negative effects of this
great multitude of stress factors. INPPO provides a solid network of excellence in which plant researchers from all over the world can exchange essential know-how on proteomics research and form collaborations in research projects, often by providing access to advanced, state-of-the-art equipment. This is of particular importance for countries like Cyprus, where limitations in local resources can greatly affect ongoing or future research. Currently, the Cyprus INPPO chapter counts two members; new members are encouraged to join this groundbreaking initiative, while the potential exists for the formation of multi-national chapters, especially in the proximate Mediterranean region, which would allow the promotion of excellence in plant research and the establishment of strong international scientific bonds.

Infrastructure for the advancement of plant proteomics in Spain

Since the coin of the term in the mid-1990s, Proteomics has very much attracted the Spanish scientific community, and as a result, several institutional initiatives flourished during the first half of the current decade and achieved their consolidation. In 2002 the Genoma España Foundation (www.gen-es.org) was created with a major aim in promoting applied research using genomic and proteomic approaches and establishing technology platforms to provide technical support to that type of research. In the field of applied plant genomics and proteomics several projects have been accomplished: Grapegen for grape berry quality jointly with Genome Canada; ESP-SOL for tomato fruit quality and the collaborative sequencing of the tomato genome; Oleagen for olive tree genome mapping and olive fruit and olive oil quality, and others still running-on: Melonomics for the sequencing of the melon genome and resistance to fungal diseases. Importantly, Genoma España promoted Proteored (www.proteored.org), the Spanish National Institute of Proteomics, to coordinate, integrate and develop the existing proteomics facilities, around 20 country-wide disseminated; to support the development of proteomics research in Spain; and to provide proteomics services to the Spanish research community. After its consolidation, Proteored platform is currently supported by the ISC-III, the research financial agency of the Ministry of Health, and is a major infrastructure to support all kind of proteomic-based research in Spain, which combines highly qualified technicians with modern equipment to provide the most advanced services, including quantitative and targeted proteomics, the analysis of protein post-translational modifications or protein arrays.
The other catalyzing initiative for the advancement of proteomics in Spain was the creation in 2004 of SEProt, the Spanish Proteomics Society (www.cbm.uam.es/seprot/). A major activity of SEProt is the celebration of an international congress every two years in which world prestigious scientist in the field of proteomics are participating. In these, plant proteomics has a specific session.

In summary, the afore-described infrastructures have allowed for an important advance of this field in Spain, thus helping to increase the visibility in the topic of “Plant Proteomics”. In this sense, in the last two years (2010-2011) Spain reached the 4th place in the world in the number of publications (8.63% of the total number) in this topic (Web of Knowledge). We believe that INPPO initiative will find in Spain an important support and leadership for both the strong technical background and the demonstrated expertise in conducting plant proteomics research.

**Message from Poland**

Plant proteomics is still insufficiently widespread among biological sciences. One of the most efficient ways to broaden the circle of those interested could be to encourage environmental scientists to include molecular biological studies in their research. In our opinion a lot of interesting projects could be supplemented by analysis at molecular level, including the application of proteomics approaches. Currently in Poland, many environmental researchers have started to apply different molecular biology methods in their research. Most of techniques they use include mainly genetic analyses, so the first step has already been made. For last ten years we worked in different institutes and we know the subject very well. The past decade, therefore saw a steady increase of environmental researchers collaborating more and more with molecular biologists. However, in our opinion, there is still too little knowledge and awareness of plant proteomics.

We think that presenting the possibilities of proteome studies during congresses could be one of the best ways to popularize plant proteomics. Transmission of our knowledge in a friendly manner to our colleagues who do not have every day contact with molecular research will definitely result in numerous successful collaborations. Finally, we strongly believe that the INPPO is one of the most accessible ways to learn about Plant Proteomics and its potential contribution in their respective research work.
Outlook into 2012-INPPO activities in the USA

As the year 2012 approaches, the INPPO branch in the USA has started to think ahead to its activities in the New Year. A major goal of INPPO is to attract members to the organization so that power of proteomics can be brought to the attention of plant biology researchers. One of the main methods to publicize proteomics and INPPO are through proteomic workshops organized at professional conferences. We currently have a proposal pending at the U.S. National Science Foundation (NSF) requesting support for proteomic workshops to be held during the (northern summer of 2012. If successful, INPPO can assist in publicizing and organizing the workshop as well as disseminate the lectures and experimental protocols. There have been several similar workshops in the past. In 2009 Drs. Sixue Chen and Sally Assman organized a successfully event at University of Florida (http://proteomics.centers.ufl.edu/conference%20pics.htm). Looking ahead to 2012, INPPO USA plans to make good use of the Plant Biology 2012 conference to be held in Austin, Texas, July 20-24, 2012. A preconference plant proteomics workshop may be planned for the conference participants. Such events will not only bring INPPO members together, but also provide training and education to young plant scientists. These activities will be disseminated through the INPPO website. As proteomics technologies develop, it is essential to train and educate young students about applications of proteomics in biology. With a five-year support of the U.S. National Science Foundation, Drs. Sixue Chen and Nick Polfer from Department of Chemistry of University of Florida have worked together with UF Center for Precollegiate Education and Training (http://www.cpet.ufl.edu) and organized two proteomics and mass spectrometry content knowledge workshops (http://www.moleculardetective.org) for more than 60 high school teachers from the state of Florida. Over 10 graduate students from the two laboratories have been actively involved in the workshop. This year, they will organize a third workshop. One of the exciting results of such workshops is the publication of the first high school proteomics lab curriculum in The American Biology Teacher.
Members Corner: Views & Comments Directly from General Members

**Message ONE** *(INPPO is a fantastic worldwide initiative...)*

"Plants are primary producers for food, various materials, and also energy. With 9 billion people on earth in 2050, the demand for plant based products will notably increase. There is urgent need to study model and crop plants for improving their quality and productivity. My team studies biology of seed oil storage organelles (oil bodies). Our research aims to modulate amounts and tailor the nature of lipids produced, as well as to facilitate lipid extraction. As other proteomers, we need concepts, tools and databases to organize the more and more complex lists of proteins we obtain. We need to extract from these data as much information as possible (involvement in specific biochemical pathways, dynamic of sub-proteomes, identification and quantification of protein post translational modifications ...). Oil bodies structure is stabilized by various interactions (protein-proteins, protein-lipids ...). Structural proteomics approaches (specific or non-specific protein labelling coupled with mass spectrometry analysis) will be powerful alternative to high resolution techniques (crystallography, NMR) for such complex structure determinations.

INPPO is a fantastic worldwide initiative, which should be supported by various national and international institutions. I personally will be happy to participate to the development various aspects of plant proteomics, and to interact with other proteomers. I hope all INPPO existing initiatives (web site, face book page, newsletter) will be followed by future ones (trainings, databases, plant proteomic meetings, courses?). Finally, I wish an excellent year 2012 to INPPO and all plant proteomers."

**Message TWO** *(I must congratulate the people who have made it possible...)*

"INPPO is an important global organization that will help plant scientists to design their work in a better way to get authentication at every step. I must congratulate the people who have made it possible. It will be nice to have information about the mega projects involving plant proteomics technologies, which are going on around world and their expected outcome(s). How proteomics will help in crop improvement is needed to be highlighted."

**Dr. Thierry Chardot,**

**Dr. Sajad Majeed Zargar**
School of Biotechnology SKUAST-J, Chatha, Jammu, INDIA
Message THREE (The launching of INPPO was an extremely important initiative...)

"The launching of INPPO was an extremely important initiative, not only for the plant proteomic researchers, but also for the entire scientific community working on plants. We all know the importance of plant proteomics for the better understanding of plant systems and we are also well aware of the challenges we face in this field of study. The protein samples complexity and the lack of sufficient plant genome sequences in the databases significantly hinder protein identification. Therefore, joint efforts of different research groups around the world working in the same field will certainly give a boost on plant proteomics. This initiative will also help bring together the plant proteomic community, which will gain strength and attract more participants and enthusiasts to this fascinating field of research. In Brazil, the plant proteomic community is quite small and the success of the INPPO initiative will certainly help consolidate these groups and even stimulate other plant researchers implement proteomic technologies. Significant advances in plant proteomics must occur in order to keep pace with genomic technologies and we hope INPPO will help us in this important task."

Dr. Angela Mehta
Research Scientist
Embrapa Recursos Genéticos e
Biotecnologia, BRAZIL

Message FOUR (INPPO - a driving force of plant proteomics...)

"In the rapidly progressing post-genomic era where biological data are being integrated into systems biology approaches. At the same time, proteomics has become an important tool in plant system biology study. We are delighted seeing that the INPPO have established, and it will greatly promote and advance plant proteomics studies. Recently, some challenges were ahead our research, such as low reproducibility or hard detection of low-abundance proteins and integral membrane proteins as well as animal or microorganism fields, which may need the improved and novel mass spectrometers and proteomics strategies. For plant proteomics study, the poor database also limited the achievement in our research. It is very hard for us to find the exactly protein in the databases if our study object is not model plant. Besides, there are still errors and inconsistencies in databases. "There is confusion about annotation, with some databases having several names for the same sequence, or different names for the same protein depending on whether it does or doesn’t have the [N-terminal] methionine terminator, or for sequences that differ by only one amino acid." as Aebersold said. We believe that INPPO could apply itself to solve these problems in plant proteomics. Just as Yates said "When people say proteomics is not reproducible they are just being dismissive because they don't really understand the technology or the external design required to use the technology". I am sure INPPO will help us to get more success about plant proteomics in the foreseeable future."

Dr. Ting-Wu Liu
Key Laboratory for Coastal and Wetland Ecosystem of Ministry of Education, College of the Environment and Ecology, Xiamen University, Xiamen, Fujian 361005, P. R. CHINA
Message FIVE  *(INPPO gives opportunities to generate new science and new friendships...)*

“I've known and worked with Professor Randeep Rakwal and Dr. Ganesh Kumar Agrawal for several years now and I have never failed to be impressed by their skill, dedication and the sheer quality of their work. When I heard that they were involved in starting up the International Plant Proteomics Organization (INPPO) I was keen to be a part of it.

Proteomics (the study of an organism's full complement of proteins) has been established for many years and has benefited biological and medical research immensely. However, plant proteomics is an emerging (but fertile) field of scientific research. Recent developments in analytical technologies, bio-chemical modelling, flux analysis and informatics have all come together to help elucidate the interactions between biological networks and pathways and to understand plant growth and disease mechanisms. I have no doubt that they will continue to do so in future.

I see the role of INPPO to promote the growth and development of the field of plant proteomics internationally, and to provide the opportunity for collaborations and associations between researchers in related areas. This will give opportunities to generate new science and new friendships. The creation of INPPO will also help establish links between academia, governments and industry. Within the next 10 years I anticipate that proteomics will become a well-established instrument in the plant scientist's toolkit. I look forward to INPPO conferences and workshops, and perhaps even a new journal?

These are exciting times and I look forward to being a part of them.”

Message SIX  *(INPPO in my eyes...)*

“As the world’s population increases rapidly, the problem of food shortage becomes more and more serious. To meet the food demands, the continuous increase of plant production is needed. Although genomics, transcriptomics and metabolomics provide us important clues for understanding the mechanism of plants response to environmental factors, there is still a long way to go. Proteomics could link transcriptomics and metabolomics, thus provide us more information.

INPPO provides a chance for cooperation among proteomics researchers in plant laboratories around the world, also an information sharing platform and a suitable platform to globally discuss plant proteomics from both fundamental and applied perspectives. Through INPPO we can know what peers are doing, and what new achievements are made. This is very useful for our research. I hope that INPPO could organize workshops at international levels to train manpower and exchange information, particularly encourage PhD students to participate in. The workshops not only broaden the view of PhD students, but also provide a chance for PhD students to communicate with outstanding scientists. It may contribute to the doctoral research and development in the future. My research interest is proteomics forcing on seed (development and germination). Now I'm doing research in seed germination. I hope that I could make contributions to the improvement of seed.”
### Relevant scientific up-coming events in 2012

#### JANUARY

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<td>EMBO Conference, Plant development and environmental interactions Matera, Italy.</td>
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## Relevant up-coming deadlines in 2012

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**INTERNATIONAL**

**http://www.cost.esf.org/participate/open-call**

COST (European Cooperation in Science and Technology)

The latest announcement 07/08/2011

Next collection date 30-03-2012

**http://www.escmid.org/profession_career/eu_calls_other_funding/embio**

EMBO Fellowships

- Long term
- Short term

15/8 and 15/2

**NATIONAL**

**http://www.bbsrc.ac.uk/funding/apply/apply-index.aspx**

Biotechnology and Biological Sciences Research Council (BBSRC) Apply for funding, UK

**http://www.bbsrc.ac.uk/funding/international-funding-index.aspx**

Biotechnology and Biological Sciences Research Council (BBSRC) International funding, UK

**https://www6.inra.fr/saclay-plant-sciences_erg/Call-and-Job-offers/SPS-Funding**

Saclay Plant Sciences (SPS) Funding, France

15-02-2012

**http://www.sfi.ie/funding/funding-calls/open-calls/**

Science Foundation Ireland (SFI) Open Calls, Ireland


New Swedish fellowship programme for young researchers, Sweden.

04/2012

**http://www.snis.ch/content/call-projects-2012?utm_source=SNIS+newsletter&utmcampaign=3a41d4e7a=Call+for+Projects+2012&utm_medium=email**

Swiss network for international studies (SNIS)

16/01/2012

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EDITORIAL MESSAGE

It gives us great pleasure to deliver the very first INPPO Express News & Views, the official newsletter of the International Plant Proteomics Organization (INPPO). We intend to publish two of these newsletters per annum, one in January and another in July. Quoting words of Dr. Dominique Job, the current President of the INPPO, “Plants are our ‘bread and butter’, the fundamental basis of human and animal nutrition. They are the most important species on our planet, controlling our food production and providing human sustenance, at least in the foreseeable future”. As the human race population march past 7 billion, and counting, these words are a vivid reminder of the importance of organizations such as the INPPO. ‘INPPO Express: News & Views’ is one of the most important INPPO instruments of communication for our global membership and beyond.

The INPPO Express News & Views, as a biannual publication, intends to provide interactive and informative updates and views, complementing our webpage and other INPPO communication instruments. Our aim is to keep our readership informed and interested in our subject area and activities while attracting new members and regular readers.

In this January 2012 Issue we published articles, news and views contributed by the entire spectrum of the INPPO membership, from the President, various committees, continental and country representatives / coordinators across to general members. The contributions published here tackle various issues, from the narratives of the formation of the INPPO, its organizational administrative structures up to the news and views about the status of Plant Proteomics in various continents & countries.

INPPO Express News & Views will be complemented by the INPPO Highlights, a comprehensive paper also published bi-annually in PROTEOMICS, one of the premium world leading Wiley-VCH life science journals. In this January 2012 Issue, Professor Michel Dunn and Dr. Joachim Kraus, the Chief Editor and Managing Editor of PROTEOMICS, respectively, have provided a brief contribution articulating the relationship between their journal and INPPO.

Finally, we would like to offer our sincere gratitude to all those who contributed, both directly and indirectly, to this historical landmark INPPO Express Issue. We look forward to future publications with great enthusiasm. Wishing all the “Plant Proteomers” a scientifically prosperous 2012.

With Kind Regards,
Bongani Ndima
Georgia Tanou
Abhijit Sarkar

Drs. Bongani Ndima
Georgia Tanou
Mr. Abhijit Sarkar

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(Chief Editor) (Associate Editor) (Associate Editor)