7th EBSA European Biophysics Congress Genoa (Italy), July 11th – 15th, 2009

Organized by The Italian Society for Pure and Applied Biophysics.

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Welcome to the 7th European Biophysics Congress

Ladies and Gentlemen,

I am pleased and honoured to welcome you in Genoa for EBSA2009, the 7th European Biophysics Congress. While celebrating the EBSA 25 years Anniversary it does not escape from our notice the interest in, and expanded development of Biophysics in Europe. As well, the international recognition of the EBSA Congress is growing along with the popularity of the EBSA scientific voice, namely the European Biophysics Journal superbly managed by Anthony Watts, published by Springer and which is so crucial to the survival and existence of EBSA. At the time of writing this welcome I am proud to note that the 787 registrations and the 685 abstracts have been received from 46 countries, one more stating that Science has no borders as reflected in the Scientific Program. A special acknowledge is for Rosalba Kampan, Biophysical Society soul, and the Biophysical Society Executive Board. They accepted to consider the Bridge idea between EBSA and the Biophysical Society. As a result we have some prizes sponsored by the Biophysical Society at this Congress. As my colleagues in the Italian Biophysical Society of Pure and Applied Biophysics, SIBPA, know, I strongly wanted to bring the EBSA Congress to Italy and in particular to Genoa. I am very proud of the impressive growth of participants from Italy, SIBPA worked very well.

However, this dream would have not been realized without the encouragement and support of Giuliano Colombetti, Franco Gambale and Cesare Usai in conjunction with the acceptance of the Asap Company to organize the Congress with an "impulsive and last minute person" like I am. All the others in the Committees, including my research group - www.lambs.it, and my family supported me to their fullest. I am indebted with all of them. I cannot avoid mentioning the constant help given by Anthony Watts and Mike Ferenczi and the extremely valuable never ending job made by Éric Quiniou.

At EBSA2009 we also celebrate Antonio Borsellino a bright open mind that founded Biophysics in Italy from the Genoa harbour. Please, let me have the privilege



to remember a person that for sure would have been active in this conference. His name is Gianfranco Menestrina, and he came into my life like a flash - but this translation of "lampo" is not appropriate and interested readers can find the real meaning in the "a cappella" madrigal "E' questa vita un lampo" by Claudio Monteverdi (1567-1643) - and I hope he would be happy about EBSA2009.

The City and the Province of Genoa and the Region, the Foundation Palazzo Ducale and the Magazzini del Cotone Porto Antico will do do their best to provide the best possible scenario for our Congress and I hope you can take additional time to discover the area. The University of Genoa and in particular Department of Physics, the IBF and ICT National Research Council (CNR) Institutes and the Italian Institute of Technology (IIT) actively participate as scientific poles established in the congress territory and internationally linked to the Biophysics scientific community. At EBSA2009 sponsors will be not only a commercial entity. Companies will be an important scientific component of the congress since they bring what's new in terms of biophysical tools from books to instruments, from disposables to devices, making possible the design of new experiments and the generation of new ideas.

In my prospective role of EBSA President, I hope that this Congress will make clear that any member of an European National Biophysical Society is member of EBSA and that European Biophysics Journal is the EBSA members journal. The competition with the Biophysical Society is frank and based on the Science value. The competition based on scientific merit is a great value for everyone, scientist or not.

Now, since EBSA is your organization, one way for making treasure of it and getting value from EBSA membership it is attending the EBSA General Assembly on Tuesday afternoon. Your attendance will give you the opportunity to be closer to the EBSA operative body, to influence it through the elected national representatives, and may encourage you to become more involved in EBSA activities.

As well, benefit of the Plenary lectures and lets celebrate together, until the end of the congress, this 7th EBSA Congress in Genoa, hoping that your stay in Genoa is faboulous both scientifically and socially. The day after the end of the Congress



you will have benefits for Museums and special opportunities for visiting "5 Terre" and other world famous landmarks.

At the time of writing this note I read in a local Magazine, Blue, an article by Michela Bompiani beginning with a sentence from the Diderot's Encyclopédie (1754) that I like to propose to you: "Ce sont cependant des paysans très grossiers qui font les plus beaux damas et les plus beaux velours" regarding the fact that since 1200 Liguria has been famous throughout Europe for what we call today blue jeans. Genoa today in the world is jeans, and not only. For one week, thank to EBSA and SIBPA, Genoa will be Biophysics, capital of Biophysics or, as I prefer, the melting pot of Biophysics.

I hope you find the 7th EBSA Congress better than you expected and able to stimulate, prime and consolidate Science, and that you will plan to attend the 8th Congress, to be held in Budapest on 23-27 August 2011.

Alberto Diaspro
Chairman, Organising Committee
Vice-President, EBSA



Michael Wohlgemuth, Genova, 1493.



EBSA Welcome

The European Biophysical Societies' Association is pleased to welcome you at the 7th European Biophysics Congress in this beautiful city of Genoa. This Congress is particularly significant because we celebrate the 25th Anniversary of EBSA.

As President of EBSA, on behalf of the Executive Committee and the Member Societies of EBSA, I wish to thank our hosts, the University of Genoa, the National Research Council (CNR), the Italian Institute of Technology (IIT), Fondazione Palazzo Ducale, Provincia di Genova, Comune di Genova, Regione Liguria, Magazzini del Cotone-Porto Antico, and above all, Professor Alberto Diaspro and his team, the members of the Organising Committee and of the Scientific Committee who have worked extremely hard over the past few months to bring together the excellent scientific programme in this superb venue.

Here we all are, between sea and mountain, in one of the great historical ports of the world, about to enjoy five days of exciting science from around the world. I am very proud of the achievements of EBSA over the years and of its chairmen, whose vision, dedication and success have made this possible: I am particularly aware of the work of Peter Bayley, Manuel Cortijo, Paul Vigny, Heinz Rüterjans, Bernat Soria and Erick Dufourc.

EBSA makes this Congress possible. EBSA's healthy finances derive largely from the success of the European Biophysics Journal published by Springer, and from the incessant work of the EBJ Managing Editor, Anthony Watts, from all the scientists who submit their best papers to the Journal, and from the Editorial board and unsung referees who maintain, and improve the quality and the standards of our Journal.

One direct contribution of EBSA to the Congress is the provision of forty bursaries, worth \in 500 each, to deserving scientists from less favoured European countries. EBSA is delighted with the enthusiasm and talent of the scientists we can support in this way. We are of course delighted that at this congress once again the EBSA prize of \in 2,000 will be awarded to a young scientist of the highest calibre in our



young biophysicist competition, and we shall all have the opportunity to hear the Prize lecture.

In addition, EBSA has now set-up two new schemes. One consists of EBSA Bursaries for working visit to a laboratory in an EBSA country, and the other is an EBSA bursary scheme for attendance at an EBSA-sponsored school, course or Scientific Meeting. Please see http://www.ebsa.org/exchange.htm for details. We are actively developing new ideas for biophysics schools for postgraduates and post-doctoral researchers and hope to publish details on our web site soon.

I also wish to thank the hard work of the EBSA Executive Committee who devote time and effort to the activities of the Association. The EBSA Secretary, Antoinette Killian, has been particularly active in organising our affairs with precision and good humour. EBSA would not exist without the Committee, and at the forthcoming General Assembly we shall be presenting plans to increase participation of Member Societies in the affairs of EBSA. Please come and participate in your General Assembly on Tuesday 14th.

And last and not least, EBSA constituent members, the National Biophysical Societies who represent all Biophysicists in Europe are the foundation of your association. I wish to thank them for their essential support over the years.

I hope you will have an enjoyable and beneficial Congress, and I am looking forward to meeting you all again at the 8th EUROPEAN BIOPHYSICS CONGRESS in Budapest in two years time (August 23 – August 27, 2011).

Michael A. Ferenczi President of EBSA



THE EUROPEAN BIOPHYSICS JOURNAL AND THE 7^{TH} EBSA EUROBIOPHYSICS CONGRESS, GENOA

The European Biophysics Journal has been in existence for 25 years this year.

It is the publication voice of EBSA which holds the copyright for the Journal, and is currently published by Springer. We have enjoyed a long and highly co-operative interaction with Springer, and I am delighted that they have been so supportive of the 7th EBSA Congress by co-sponsoring it and lending their support in such a generous way. Sabine Schreck, Dieter Czeschlik and their team are great to work with, not only in getting the abstract book, which is a citable supplement to the Journal, but over the years in production and management of EBJ – their drive to grow the journal is now paying off with our target of becoming a monthly journal to be realized this year. The financial contribution of EBJ through its publication to all the congresses and to EBSA is vital and important, and it is a pleasure to be involved with this result of the Journal's activity.

Special mention must also be made for Éric Quiniou, whose superb software (developed for the last congresses in Montpellier and London) and unending devotion to getting the final .pdf files ready for publication, have made everyone's input, from abstract submission by participants right through to publication and cataloguing, so painless and easy. We very much hope to use this approach again for subsequent EBSA congresses.

Since this now biannual event does generate new interest in EBJ, I would like to thank especially Alberto Diaspro, as well as members of the Italian Biophysical Society (SIBPA), and all the members of the scientific committees, on behalf of the Editorial Board of EBJ for their efforts over the last two years to get this congress off the ground – such ventures can only raise the profile of EBJ in the European biophysical community. This congress has been organized with not insignificant sacrifice to research and personal activity, for the benefit of the community, and as such this effort is difficult to appreciate until one is immersed in it personally. Alberto and his local colleagues have worked tirelessly at every detail of the congress,



and we wish it every success.

The origin and connection between EBSA and EBJ was reported for the London congress by Peter Bayley in a short commentary which is now on the ESBA web site. We hope to see the relationship between EBSA and the Journal continue to develop to mutual benefit, to encourage more submissions of highest quality papers from a wider constituency and to help promote the further development of EBJ within a European and international arena. Already submissions from Asia, Australasia and the Americas are increasing, as is the participation of scientists from these countries at these congresses, so we are now becoming more international as time goes on. We have editors from all continents, to recognize this fact, and we encourage papers and submissions from everywhere. In addition, we are embracing new methods and approaches, in particular single molecule studies (somewhat emphasized at this congress), and all areas of bionanotechnology.

The future looks good for biophysics as a discipline, and the attendance and interest in this congress is proof of the healthy growth of the subject. I wish every success to the Congress, and hope EBJ will be an obvious choice for publication of participants' next high quality and novel papers.

Anthony Watts

Managing Editor, EBJ

Member, Scientific Committee



Some useful EBJ information

Handling times for papers

The Oxford office is now averaging a time of 4–8 weeks between receipt of a paper and the first decision to an author about their paper for 85 % of all submitted papers (as a matter of course, every paper is acknowledged immediately upon receipt in the office).

In addition, on receipt of corrected proofs by the publisher, the paper is published on the web (in On-Line First) within 10 - 21 days with a citable DoI (document identifier) number. Any further delays in publication are usually associated with seeking and receiving suitable reviewer comments, as well as authors' delays in revising papers in response to reviewers' comments.

Electronic submission

From May 15 2003, all material (papers, letters, reviews, techniques) have been submitted electronically, by logging on to http://www.springer.com/ Reviewing and editorial work is performed from here, and authors can track their papers directly. In addition, the Journal is pleased to support the Congress by the publication of this volume of Abstracts, each section of which has been reviewed by the conference organisers.

Journal development and submission numbers

The Editorial Board is making a special effort to increase the size of the Journal and its publishing frequency, by encouraging colleagues to submit their best work to the Journal in the form of EBJ Invited Reviews, original Research Articles, and as Biophysics Letters. The purpose of Biophysics Letters is to provide a means for the rapid publication of significant new findings and concepts in Bio- physics, with accelerated publication available for work which is basically acceptable in the submitted form, and which meets the Journal 's normal high standards of rigour and originality.

Over the last 3 years, we have seen a major growth in the number of submissions, more than doubling since October 2002 until now, with very significant numbers from the Pacific Rim and the Australian Biophysics Society, in particular. This upturn has resulted from, it is assumed, in the new interest in biophysics and the recent decisions to fund "interface" science at the boundaries of physics, biology and chemistry. In particular, we have seen a major influx of papers describing single molecule detection and bionanotechnology, areas we are pleased to support.

Reviews

EBJ is currently soliciting short, well-balanced contemporary reviews covering any area of biophysics. The reviews editor is Gordon Roberts, who should be approached initially (through ebj@bioch.ox.ac.uk) with suggestions and ideas for review topics and authors.

Special Issues

On occasion, EBJ publishes Special issues, usually of about 10 papers or more each. These can either be themed in specific areas, or cover a major national biophysics conference or event. Potential special issue editors should contact the managing editor with a proposal well before the conference or event takes place. All articles are reviewed in the same way as for regular papers, and editors should be aware that papers are treated this way in order to maintain the quality of the Journal, and some papers may be rejected for publication after the review process





Congresses of the

EUROPEAN BIOPHYSICAL SOCIETIES' ASSOCIATION

1st EUROPEAN BIOPHYSICS CONGRESS, 1971, BADEN, AUSTRIA

 2^{nd} CONGRESS, 1997, ORLEANS, FRANCE

3rd CONGRESS, 2000, MUNICH, GERMANY

4th CONGRESS, 2003, ALICANTE, SPAIN

 5^{th} EBSA / 15^{th} IUPAB / SFB CONGRESS, 2005, MONTPELLIER, FRANCE

6th CONGRESS, 2007, LONDON, UNITED KINGDOM

7th CONGRESS, 2009, GENOA, ITALY

for your diary

8th CONGRESS, 2011, Budapest, Hungary August 23 – August 27, 2011

9th congress will be in 2013 (see http://www.ebsa.org/ for venue and dates)



EBSA Bursaries

Awarded to:

Aliyeva, Samira, Baku, Azerbaijan

Andrushchenko, Valery, Prague, Czech Republic

Arakelyan, Anush, Yerevan, Armenia

Asandei, Alina, Iasi, Romania

Ayvazya, Naira, Yerevan, Armenia

Bashkatova, Valentina, Moscow, Russian Federation

Boryskina, Olena, Kharkov, Ukraine

Buzova, Diana, Košice, Slovakia

Carvalho, Filomena, Lisbon, Portugal

Chernyavskiy, Oleksandr, Prague, Czech Republic

Czaplinska, Malgorzata, Łódź, Poland

Dobovišek, Andrej, Ptuj, Slovenia

Emre, Mustafa, Adana, Turkey

Evstigneev, Maxim, Sevastopol, Ukraine

Golovanova, Tatiana, Saint Petersburg, Russian Federation

Hakobyan, Lilit, Yerevan, Armenia

Hlevnjak, Mario, Split, Croatia

Isvoran, Adriana, Timisoara, Romania

Kabakov, Alexander, Moscow, Russian Federation

Karaduleva, Elena, Pushchino, Russian Federation

Khvedelidze, Mariam, Tbilisi, Georgia

Kipenko, Irina, Saint Petersburg, Russian Federation

Kopach, Olga, Kiev, Ukraine

Krupenina, Natalia, Moscow, Russian Federation

Kuzdzal, Michal, Wrocław, Poland

Muntean, Cristina, Cluj-Napoca, Romania

Nechipurenko, Dmitry Yurievich, Moscow, Russian Federation

Perepelytsya, Sergiy, Kiev, Ukraine

Perevoshchikova, Irina, Moscow, Russian Federation

Pshybytko, Natalia, Minsk, Belarus

Robaszkiewicz, Agnieszka, Łódź, Poland

Rodionova, Tatiana, Saint Petersburg, Russian Federation

Shushanyan, Mikhael, Tbilisi, Georgia

Sokolenko, Lena, Moscow, Russian Federation

Sokolyk, Oksana, Kharkov, Ukraine

Solymosi, Katalin, Budapest, Hungary

Strzelecki, Janusz, Torun, Poland

Vig, Andrea, Pécs, Hungary

Waseem, Tatiana, Minsk, Belarus

Zarębski, Mirosław, Kraków, Poland



