

AUGUST 2015

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NEW Watch out for the new ***ESACT*** grants!!!!!!




25TH ESACT MEETING
WWW.ESACT2017.COM LAUSANNE 2017 MAY, 14-17

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Key Upcoming Dates

Animal Cell Technology course 2015 5th edition

Llafranc 2015 – September 27th to October 1st
Early-registration deadline: July 15th 2015
Bursary application deadline: July 15th 2015
Registration deadline: August 15th 2015

Cells for Compound Screening course 2015 - 2nd edition

Llafranc 2015 – September 23rd to 26th
Early-registration deadline: July 15th 2015
Bursary application deadline: July 15th 2015
Registration deadline: August 15th 2015

12th PEACe conference

September 20th – 24th, 2015, San Diego, CA, USA

Biomufacturing Challenges of Immunotherapy 2015

November 9th - 13th, 2015, Cuba

European Society for Animal Cell Technology - ESACT e.V. : www.esact.org

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Word of the Chairman

Dear members and friends of ESACT,

We are entering a new term of ESACT's life, the time between the big meetings. Following our constitution a new Executive Committee (XC) has been established. You might remember that half of this committee, usually the officers, is recruited from members of the previous one. This is to ensure continuity of ESACT goals, e.g. to warrant proper preparation of the forthcoming meetings, to continue networking and to adjust the scientific orientation. The other half has been elected and presented to the attendants of the General Assembly. A warm welcome to the new XC members, Veronique Chotteau (Sweden), Isabelle Knott (Belgium), Niall Barron (Ireland) and Michael Betenbaugh (US). The last term was very productive the members have nicely synergized to achieve this. Amine Kamen, Dethardt Müller and Alan Dickson are not any more members of the XC and we want to thank them for their work.



Those of you who had the chance to attend the ESACT meeting in Barcelona in early June will keep it in good memory. It was a fulminant meeting - in all respects. Many thanks to all contributors for their efforts. Special thanks to Francesc Godia (Quico) who has spent his heart blood to get this meeting to a success. He is not any more with the XC, but happily remains closely associated as a co-organizer of the ACT courses. ESACT owns him a lot. It is already the second meeting (remember Granada, 2003) Quico has organized.

Thanks to the efforts of Yvonne Genzel, Alan Dickson and the new group of younger members the ESACT FRONTIERS PROGRAMME (EFP) initiative has been

successfully implemented. Already active for the Barcelona meeting the group has shown their engagement and capacity. For their activities and plans please look at the respective article in this Newsletter.

What are the plans for the next term?

1. The planning for the next **biannual ESACT meeting** that will take place in Lausanne, May 14-17, 2017, have already been started and Matthieu Stettler (Merck-Serono), the meeting chairman, is in charge of this.

2. The **ESACT courses programme** has been continued. Two courses in 2015 are announced, one on Animal Cell Technology and the second, about „Compound Screening with Mammalian Cells“. Thanks to the continuous input from Paula Alves and Quico Gòdia and with the new activity from Christa Burger, these courses will be offered at Llafranc, close to Barcelona. ESACT has approved a new course on „Vaccine Technologies“ designed by former XC member Amine Kamen to be held 2016 in Llafranc for the first time. ESACT has already supported a course on Gene Therapy Technologies, held in Paris march 2015. Our support for ACT courses in Latin-America is continued by funding travel for course lecturers from ESACT and concerns a course in Rio de Janeiro and a meeting in Cuba this year.

3. Our **interactions with ACTIP** are very well established and will be continued. As reported earlier ACTIP, with the help of ESACT has tried to convince EFPIA to put the subject of “mammalian cell technologies“ as a priority subject on the list of project to be funded in the framework of the IMI2 (Integrated Medicines Initiative). We are very happy to inform you that the EFPIA board of directors has approved our joint proposal and we are expecting a call by the end of this year. Many thanks to our friends at ACTIP, in particular to Chantra Eskes and to Luc Kupers.

4. ESACT General Assembly accepted a suggestion from the XC to support students and early Post-Docs by giving **bursaries to courses and meetings** that are related to ACT. For details and the mode of application please see the article within this Newsletter issue or go the ESACT WEB site. The application for a bursary is connected with an application for ESACT membership. Successful applicants will become members with waived fee for 3 years.

5. The ESACT constitution foresees annual **General Assemblies** (GA). We will keep the tradition and focus essential discussions at the biannual GAs that are associated to ESACT meetings. The legally required GAs held during the intervening years (e.g. 2016) will show a minimal agenda and will be announced two months in advance to all members. We expect, however, that the required minimal quorum (40 members) might not be reached and, in such circumstances, a new date (at least 4 weeks later) will be defined and announced. For the second date, no quorum is required and the attending members will have a formal GA – however – without the power to make decisions that profoundly affect the society. We expect that the Gas, held in even years will only be attended by the Executive Committee and decisions will be restricted to Executive Committee issues. Thus, during even years you will receive invitations to GAs that you might ignore.

6. We are happy to continue our collaboration with our head of the **ESACT secretariat**, Dr. António Roldão. He is managing member support, the WEB site, the Newsletter, and a bundle of secretarial work of diverse nature. We are in process of establishing an Administrative Assistant who overtakes a number of activities that could not be efficiently managed in the past. The Administrative Assistant will also act as a help and back-up for the secretariat.

Hansjörg Hauser

ESACT XC Election 2015

The election of ESACT's Executive Committee for the period 2015-2017 took place from April 10th to June 2nd 2015. The election process run entirely within the ESACT website www.esact.org (under members restricted area). ESACT members were allowed to vote in 4 persons from a list of 7 candidates:

- Niall Barron
- Michael Betenbaugh
- Véronique Chotteau
- Hitto Kaufmann
- Isabelle Knott
- Ricardo Kratje
- Dethardt Müller

The results were announced during the 24th ESACT meeting in Barcelona at the ESACT General Assembly

on June 2nd 2015. The total number of eligible members was 272 of which 57 have voted (21%). The voting evolution was as follows:



The elected regular members were Niall Barron, Michael Betenbaugh, Véronique Chotteau, Hitto Kaufmann and Isabelle Knott. As it is said in the ESACT constitution, if the election does not give a clear result for 4 new members, the XC is extended by one additional member.

The new XC of ESACT for the period 2015-2017 is therefore:

Chairman	Hansjörg Hauser
Vice-Chairman	Paula Alves
Treasurer	Nicole Borth
Secretary	Yvonne Genzel

Regular Members	Niall Barron
	Michael Betenbaugh
	Véronique Chotteau
	Hitto Kaufmann
	Isabelle Knott

Meeting Chairman	Matthieu Stettler
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Paula Alves and António Roldão

25th ESACT Meeting - Lausanne 2017



As announced in Barcelona, the next scientific meeting will take place in Lausanne, Switzerland, from May 14

to 17, 2017. The 25th ESACT conference will be hosted at the Swiss Tech Convention Centre (www.tstcc.ch). Geographically, the conference venue is located in an idyllic setting between the lake and the mountains, not far from Geneva Airport and less than a two-hour flight from most major European cities. In the meantime, please get in touch if you have suggestions for the meeting or if you wish to help organize another scientifically outstanding conference.

Looking forward to seeing you all in Lausanne in 2017.

Matthieu Stettler

ESACT Frontiers Program

The first initiatives from ESACT Frontiers Program (EFP) took place at ESACT 2015 Barcelona meeting. EFP organized the **Poster Prize Contest**, an academic **workshop** on **Synthetic Biology** and co-chaired the **Emerging Technologies session**.

For the **Poster Prize Contest**, a jury composed of distinguished ESACT members aided in the scientific evaluation of 100 posters pre-selected by the Scientific Committee from submitted abstracts. The jury identified the 20 top posters which were selected for an oral presentation. From these, 3 winners were voted by the audience during the Poster Session:

Poster title	First Author	
Emulating the human vasculature in a multi-organ-chip platform	Tobias Hasenberg	Technische Universität Berlin, Germany
Cascading effects in bioprocessing: The impact of cell culture environment on mammalian cell behaviour and host cell protein species	Cher Hui Goey	Imperial College London, UK
Production of virus-like particles in high density cell cultures and serum free media. A promising rabies vaccine candidate.	Diego Fontana	Universidad Nacional del Litoral, Argentina

Additionally, EFP organized a **new video contest: C2P2 in 90 sec**. All registered attendees and authors from submitted abstracts, were invited to upload a clip, up to 90 seconds length, connecting their research to the ESACT 2015 theme: C2P2 – Cells, Culture, Patients,

Products. A total of 12 videos submitted for evaluation and accepted clips played in a loop at the exhibition area during the congress. From these, the EFP was tasked with selecting the best videos, been ended up selecting 4 winners:

Video title	Authors	
My PhD on mabs glycosylation	Celine Raymond	CNRC, Montreal, Canada
Cookie Monster - The Crumbly Intruder	Mandy Bachmann Thomas Bissinger Max Frick Tanja Laske Alexander Nikolay	MPI Magdeburg, Germany
CLDMB - Science Never Sleeps	Ana Oliveira Ana Isabel Almeida Hélio Tomás Hugo Soares Miguel Guerreiro	IBET, Oeiras, Portugal
Hyperglycosylated IFNalpha CHO vs HEK	Agustina Gugliotta	FBCB, Santa Fe, Argentina

Congratulations to the winners of the poster prize and the video contests!

For those who had not yet the opportunity to see the winner videos, these were made available in [ESACT 2015 meeting webpage](#).

ESACT Frontiers Group

ESACT Grants

The ESACT has initiated the ESACT Grant Program which aims at supporting young scientist (students and post docs within three years of their graduation) to attend meetings, workshops or courses other than those organised by ESACT, to either learn about topics of relevance to Animal Cell Technology or to present their results in this field. The proposal was approved by members during the General Assembly in Barcelona.



Applications including a motivation statement are to be submitted to the ESACT office in due time for the deadlines (January 1st, May 1st and September 1st each year) and will be reviewed by the XC. Grants provided are a contribution towards coverage of registration fee, accommodation or travel. In addition, each recipient is awarded a 3-years free ESACT membership. The review of the grant application is considered equal to a membership review. Detailed information can be found on the ESACT homepage under The Society/Activities.

Nicole Borth

ESACT sponsored Course in Rio de Janeiro, July 2015



FEDERAL UNIVERSITY OF RIO DE JANEIRO
COPPE/UFRJ
JULY 27-31, 2015



The sixth edition of the “International School on Production of Biologicals using Animal Cell Cultures” has just ended. Leda Castilho has organized this course again at the Federal University of Rio de Janeiro (Brasil)/COPPE/UFRJ for the sixth time. About 130 participants and 45 speakers, coming from 12 different countries, had a full week of lectures from the basics of animal cell culture processes, from cell line development to downstream processing, up to detailed applications of stem cells, gene therapy, cancer treatment possibilities with antibody drug conjugates and vaccine production. Topics also touched regulatory questions and the course ended with a round table discussion with company stakeholders of Brazil. Biosimilars and future

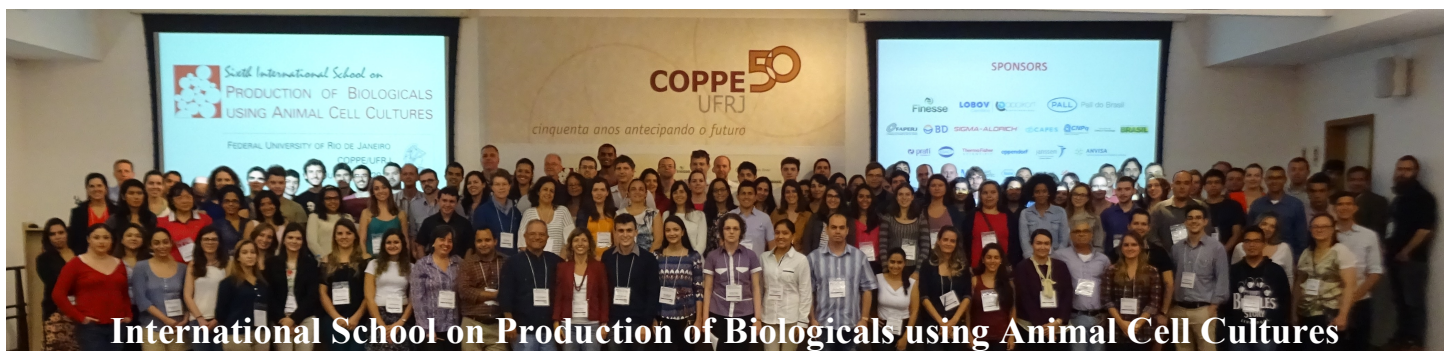
biotechnology applications for South America and Brazil were addressed. Late afternoon parallel case studies allowed the participants to get deeper insights into specific questions and to have enough interaction with the speakers. ESACT supported the travel for three speakers and many of the speakers are active members of ESACT. Again the course was a great success and the high attendance shows the importance of such activities. The next edition will be in 2017! Plan ahead to join!

Yvonne Genzel & Leda Castilho

New ESACT Course on 2016

ESACT is sponsoring a new course titled: Cell Culture Production of Viral Vaccines. Aligned with the mandate and priorities of ESACT, the first session of this course will be offered in fall 2016. Building on the successes of the Animal Cell Technology Course, which will offer its fifth edition in fall 2015, the Cell Culture Production of Viral Vaccines is designed as a follow-up and complementary course to the Animal Cell Technology course and will be offered following the same format and at the same location in Llafranc, Costa Brava, Spain.

The course will cover advanced topics in cell-culture produced viral vaccines, including Immunological concepts for designing antigens, regulation and immunizations policies, process development challenges associated with up-stream, downstream and analytical technologies as well as industrialization and manufacturing. A number of case studies such as polio, influenza and HIV will be developed and new antigen-delivery platforms, including vectored vaccines and Virus-Like Particles (VLPs) will be evaluated. The course is directed to industrial personnel as well as graduate students aiming at broadening and consolidating their knowledge on cell culture produced



viral vaccines and advanced enabling technologies. International experts in cell culture and viral vaccines from key vaccine industry, academic laboratories and governmental organizations agreed to contribute to this important initiative.

The course is organized and coordinated by Amine Kamen, McGill University, Canada, Yvonne Genzel, Max Planck Institute for Dynamics of Complex Technical Systems, Germany and Francesc Godia, UAB, Spain.

Amine Kamen

UPCOMING in 2015

ESACT Events

Animal Cell Technology course 2015 – 5th edition

After the interest received by the last 4 editions and the excellent feed-back from the attendants, the 5th edition of the ACT course will be organised by ESACT in Llafranc, Costa Brava/Spain, from September 27th to October 1st 2015.

The Course is planned in an intensive four-day schedule with a number of participants limited to 30 in order to facilitate the interaction among them and with the lecturers. The Course comprises lectures covering the main topics of Animal Cell Technology:

1. Cell line development
2. Cellular mechanisms
3. Post-translational modifications
4. Bioreactor design
5. Downstream processing
6. Genomics and proteomics
7. Bioreactor scale-up and scale-down. Single use bioreactors
8. Process Analytical Technology
9. Economical aspects of ACT bioprocesses
10. Integrated bioprocess for protein production
11. Integrated bioprocess for stem cells

The program has slots dedicated to the preparation and presentation of case studies by participants, and discussion groups with the lecturers.

Confirmed lecturers include Terry Papoutsakis (University Delaware, USA), Manuel Carrondo and Paula Aves (IBET, Portugal), Hansjörg Hauser (HZI, Germany), Francesc Gòdia (UAB, Spain), Stefanos Grammatikos (UCB Pharma SA, Belgium) and Anne Tosltrup (Biogen-Idec, Denmark).

More information can be found soon in www.esact.org.

Francesc Gòdia and Paula Alves

Cells for Compound Screening course 2015 – 2nd edition

After the interest received by the 1st edition and the very positive participant's feedback, the organizers decided to launch a second edition of the Cells for Compound Screening course. This course will be organised by ESACT and it will be held in Llafranc, Costa Brava/Spain, from September 23rd to 26th 2015.

The course covers all important aspects of mammalian cell based screens for the identification of biologically active compounds. The course focuses on cell production and use for compound screening, establishment, criteria as well as different formats and use of physiological relevant cellular assays with good reproducibility.

The aim of the course is to train interested individuals (PhD students, Engineers, Post-Docs, Technicians, Interested established scientists) from Industry and Academia. We are offering basic and pharmaceutical industry Know-How to a broader community. The course will cover the following topics:

1. Target Identification and validation
2. Preclinical testing
3. Assay Development and validation
4. Cell line selection
5. Cell material production and validation
6. Frequently used cellular HTS assays
7. Complex cellular assays
8. Equipment and logistic

Confirmed lecturers include: Rosalia Arrebola (Sanofi, France), Catarina Brito (iBET, Portugal), Christa Burger (Merck, Germany), Hansjörg Hauser (HZI, Germany), Stephanie Hennen (Uni Bonn, Germany), Eberhard Krauß (VIB Headquarters, Belgium), Heinz Ruffner (Novartis, Switzerland) and Urs Lüthi (Actelion, Switzerland).

More information can be found soon in www.esact.org.

Paula Alves, Christa Burger and Hansjörg Hauser

Events Powered by ESACT

12th PEACe conference

The 12th Conference on Protein Expression in Animal Cells (12th PEACe) will take place September 20-24, 2015 at the Loews Coronado Beach in San Diego, CA.



From Monday to Thursday, the 7 sessions including an industrial workshop will follow the now established tradition of a PEACe meeting with presentations from selected leaders in the field of animal cell technology. The value of this type of meeting in an inspiring environment is certainly in the congenial atmosphere that is conducive to a free interchange of ideas from the almost equal mix of industrial and academic participants. As established at the 11th PEACe conference, several student bursaries will be awarded. Abstracts are currently being accepted and a sizeable number of abstracts will be chosen for oral presentations. For those who prefer to present a poster, there will be a Poster competition with a cash award.

Session 1: Maximizing Production from Cell Hosts

Session 2: Transient Technologies

Session 3: Assembly of Protein-Protein Complexes

Session 4: Cell Culture for Virus Production

Session 5: Monitoring and Controlling Post-translational Modifications

Session 6: Trends in Bioprocessing

PEACe is organized by PEIS, a not for profit organization. For additional information please visit:

www.peace-conference.org

Bruno Begin

Biomanufacturing Challenges of Immunotherapy 2015

Second edition of this workshop will be organized by the Center of Molecular Immunology (CIM) in Havana during November 2015. Planned to be a biannual workshop, first edition took held in 2013 with more than hundred works presented in lectures and posters. The first edition was successful in engaging participants in fruitful discussion on technical hurdles to expand immunotherapeutic agents' availability for an extended use in treatment of several diseases.

Since our last meeting the potential and achievements of immunotherapy has continue to grow. Recently, the 2014 annual meeting of American Society of Clinical Oncology (ASCO) predicted an increase use of immunotherapy for cancer, with potential demand reaching more than 50% of all cancer treatments. Unfortunately, development time and costs for new immunotherapy drug candidates continue to grow, which makes the use of these medicines unavailable for most of the patients who need the treatments.

CIM is inviting the scientific community to meet again in Havana to discuss recent advances in product development and manufacturing technologies for immunotherapy. Lectures and posters will be accepted covering topics like cell line development, cell culture for glycoprotein and antibody production, antigen processing for therapeutic vaccines, downstream platforms, formulation development, regulatory trends, as well as process economics and design. It is also an excellent opportunity to know Cuban Biotech achievements, visiting scientific centers and enjoy the beauty of old Havana.

Please follow the link bioit.cim.co.cu/biomit/ to access the website of the meeting.

Adolfo Castillo

ESACT Office Matters

Important Reminder

I would like to stress once again that the official ESACT e.V. bank account to which you should transfer the membership fees, if you wish to use this method, is the following:

Bank name: Deutsche Bank Privat-Und
Geschaeftskunden Ag

Account Nr: 0189191

BLZ: 27070024

IBAN: DE55 2707 0024 0018 9191 00

SWIFT Code: DEUTDEDB270

ESACT e.V. Address: SK Frankfurt, Zeilweg 42,
60430 Frankfurt am Main, Germany

Please note that for transfers in Euros within Germany the Account Nr and BLZ are needed while for transfers outside Germany IBAN and SWIFT Code are needed. All bank transfers should be in Euro. Membership fees are 20€/year and all costs associated with the transfers should be assumed by the members.

We encourage all ESACT members to use the bank transfer method rather than the PayPal system for the payment of membership fees due to economic reasons related with the transaction cost of PayPal for ESACT. In the era of online banking, transferring into the ESACT account should be as easy as PayPal.

All ESACT accounts in Belgium, Switzerland and the UK to which ESACT members were used to transfer their membership fees have been closed. Therefore, future payments of membership fees must be done to the ESACT e.V. bank account provided above.

António Roldão