

MINUTES

General Assembly Meeting of the EFB Section on Biochemical Engineering Science

Salzburg, 28 August 2006

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Minutes

of the General Assembly Meeting of the EFB Section on Biochemical Engineering Science hold in Salzburg, on Monday, 28 August 2006

Venue: Salzburg Congress
(venue of the 6th European Symposium on Biochemical Engineering Science)
Auerspergstr. 6
5020 Salzburg, Austria
Mozart Saal, 1st Floor

Chairman: Prof. Dr. Marin Berovic
University of Ljubljana, Slovenia

Duration: 12:15 – 13:00 h

Agenda

1. Opening of the meeting and introduction

2. Working Rules

3. Information from the Chairman

- a) Report from the EFB Executive Board
- b) Section Finances
- c) Membership

4. Formation of the Board

5. Working Group activities

- a) Downstream processing
- b) M3C
- c) Bioreactor performance
- d) Biotransformation

6. Bid for ESBES-7 2008

7. Next Meeting

Next Section meeting: 13th European Congress on Biotechnology,
17-19 September 2007, Barcelona

8. Any other business

9. Closing of the meeting

1. Opening and Welcome

The meeting was opened by the Chairman of the Section, Marin Berovic at 12:15 hrs.

2. Working Rules

The new Working Rules including the changes decided by the Section Board can be found as **Appendix 1**.

3. Working Group Activities

Each of the Chairmen presented a short overview of the activities of his Working Group.

a) Downstream Processing

Guilherme Ferreira reported on the activities of the Working Group on Downstream Processing (WGDSP). (**Appendix 2**)

Since the ESBES 2004 conference in Stuttgart the WGDSP organised or co-organised several meeting and Workshops e.g.:

- March 22-23, 2004, Faro: *Adsorptive Methods in Bioseparation*
- November 15-16, 2004, Lausanne: *Workshop on Continuous Bioprocessing - Challenge and Opportunity in the Production of Advanced Biopharmaceuticals*.
- August 25-26, 2005, Lyngby: *Issues in Downstream Process Modelling and Control plus other aspects of downstream processing*.
- May 15-16, 2006, Frankfurt: *M3C in DSP: Measurement, Monitoring, Modelling & Control in Downstream and Integrated Processes*.
- June 20-21, 2006, Lund: *Adsorbents in Downstream Processing*.

WGDSP plans to continue regular activities mainly through organising workshops and meetings. For 2007 a WGDSP meeting is planned in Delft dedicated to "Novel Trends in Bioseparation". WGDSP is also involved in the organisation of the next International Conference on Biopartitioning and Purification to be held in Lisbon June 2007.

b) M3C

Clemens Posten gave a brief overview of the activities of the Working Group on Measurement, Monitoring, Modelling & Control (M3C). (**Appendix 3**)

The WG M3C organised several meetings in 2005 e.g.:

- 22nd – 24th March 2005, Gentofte, Denmark: *Strategy Meeting*
- 15th – 16th May, Frankfurt: *Symposium M3C in DSP during Achema*

The WG M3C has its own website www.m3c.esbes.org, which includes a calendar of events.

Further activities for 2007 are:

- Contribution to the 10th Symposium on Computer Applications in Biotechnology, June 6-8, 2007, Cancun, Mexico
- Membership initiative

c) Biotransformations

Milan Polakovic presented some of the activities of the Working Group on Biotransformations. (**Appendix 4**)

- 6-7 October 2005, Dortmund: *Workshop on Gram to Tonne Biocatalysis (with focus on scale-up of biocatalytic processes)*
- The continuation of the topic of Gram to Tonne Biocatalysis is planned in a form of a Summer School for the year 2007.

d) Bioreactor Performance

Andreas Lübbert briefly presented the activities of the Working Group on Bioreactor Performance.

- From 17 to 22. September 2006 the Working Group on Bioreactor Performance organizes the next BIOPROCESS ENGINEERING COURSE in Supetar, Island of Brac, Croatia. The course covers the full spectrum of bioprocess engineering, starting from genetic concepts for micro-organisms used to produce pharmaceutical and other products via microbial physiology, bioreaction kinetics to bioreactor design.

4. Section Finances

Christiane Hirsch from the ESBES secretariat at DECHEMA presented the following financial figures:

Section Funds (Delft)	17.094,00 €
Working Group Bioreactor Performance	11.307,62 €
Working Group Downstream Processing	63,71 €
Working Group M3C	1.322,38 €
Group Animal and Plant Cell *	205,79 €
Total	29.993.50 €

* The Group Animal and Plant Cell used to be an old Working Party under the "old" EFB structure and does not exist anymore.

The amount of €12,899.60 (broken down by the Working Groups as listed) is money that is currently in the EFB Central & Section Funds account in Liège, Belgium.

The amount of €17.094,00 is still controlled by the old Secretariat at the Technical University in Delft, The Netherlands.

Marin Berovic asked Anna Alsina from the EFB Central Office in Barcelona about the status of the Section Funds in Delft. She reported that the EFB Central Office has confirmation from Delft that the money will be turned over soon. She expects the money to be transferred in the next few weeks and will inform the ESBES Board as soon as this has happened.

Action:

Transfer of ESBES Funds from Delft office should be checked and referred by EFB ECO and ESBES Chairman.

5. Formation of the Board

a) Presentation of the Board

Marin Berovic presented the current *ex-officio* Board members to the General Assembly:

- Chairman: Marin Berovic
- Vice-Chairman: Alois Jungbauer
- Scientific Secretary: Willi Meier
- Chairman WG Downstream Processing: Owen RT Thomas
- Chairman WG M3C: Clemens Posten
- Chairman WG Bioreactor Performance: Andreas Lübbert
- Chairman WG Biotransformations: Milan Polakovic
- Vice-Chairman WG Downstream Processing: Guilherme N.M. Ferreira
- Vice-Chairman WG M3C: Carl-Fredrik Mandenius
- Vice-Chairman WG Bioreactor Performance: N.N.
- Vice-Chairman WG Biotransformations: N.N.

Action :

Vice-Chairman WG Bioreactor Performance will be elected on meeting 23.9.2006.
Vice-Chairman WG Biotransformations: will be elected by WG on next meeting.

b) Election of 2 new Board Members

Marin Berovic continued by presenting the 2 Board Member candidates:

1. Prof. Manuel Cánovas, University of Murcia, Murcia, Spain
2. Dr. Torsten W. Schulz, Boehringer Ingelheim Pharma GmbH & Co. KG
Biberach an der Riss, Germany

Manuel Cánovas shortly introduced himself to the General Assembly. Torsten Schulz could not attend the General Assembly Meeting and had send his apologies.

The General Assembly approved Manuel Cánovas and Torsten Schulz as Board Members and Marin Berovic expressed his warm welcome to the 2 new members.

c) Additional Board Member candidates

Alois Jungbauer presented 2 additional candidates for the Board:

1. Dr. Klaus Graumann, Sandoz GmbH, Kundl, Austria
2. Dr. Arne Staby, Novo Nordisk AB, Copenhagen, Denmark

Action:

Klaus Graumann and Arne Staby will be presented for election to the General Assembly by electronic voting in the coming month.

6. 13th European Congress on Biotechnology (ECB)

Anna Alsina presented the date of the next ECB: the 13th European Congress on Biotechnology will take place from 17-19 September 2007 in Barcelona.

Marin Berovic stated that the EFB Section on Biochemical Engineering Science has some remarks about the Conference Structure of ECB. The ESBES Board feels that Biochemical Engineering topics do not occur transparently enough. The Board will make some suggestions in a letter to the EFB Central Office.

Action:

Alois Jungbauer and Willie Meier will be present at the next Meeting of the Scientific Committee in Barcelona on September 23 and will present further details there.

7. ESBES-7 2008

Marin Berovic asked for ESBES-7 Congress proposals. The only proposal was that the 7th European Symposium on Biochemical Engineering Science in 2008 could take place in Ljubljana, Slovenia.

Action:

The General Assembly decided that ESBES-7 will take place in Ljubljana from 7 – 10 September 2008 and that DECHEMA in Frankfurt should be responsible for the organisation.

8. Closing of the meeting

Marin Berovic thanked the members for joining the General Assembly and closed the meeting.

ESBES Working Rules

Membership

Scientists interested in European biotechnology can become a member by sending a request to the secretariat. Members will have the right to receive information on ESBES, to attend the ESBES General Assemblies and ESBES Symposia and to vote for Board Members.

ESBES General Assembly

ESBES General Assemblies are held each year, coinciding with the EFB events (preferable the European Congress on Biotechnology) and the ESBES Symposia.

Board

The Board consists of max. 11 members plus the following ex-officio members: the Section Chairman, the Vice-Chairman, the Working Group Chairmen, the Working Group Vice-Chairmen and the Secretary. Each Board member will serve a period of three years. Re-election is possible. The Section Chairman serves for a three years period. After three years the Chairman resigns to become Vice-Chairman for one and a half year. The Board elects a Vice-Chairman in order to succeed the Chairman after one and a half year. The Board is endorsed by the EFB Executive Committee. Board member candidates will have to submit a profile stating of which EFB member Society they are a member. The Board will always have the right to change the Chairman if necessary. In that case a majority vote of the Board members is required.

Elections

Elections are organised every three years during the ESBES Symposia or the EFB Congresses. One month before the elections the list with candidates is made available on the ESBES website. Voting will take place at the ESBES General Assembly. Postal/Email Vote is also possible. Each Section member will vote for two Board members.

Finances

The finances of ESBES will be handled by the Secretary and overseen by the Board.

Working Group Information

ESBES members can propose a Working Group by submitting a business plan. ESBES members can decide to become an active member of one or two Working Groups. Registrations will be handled by the ESBES Secretary. Working Groups have to provide an outline of the objectives, if possible with an action plan and time schedule, deliverables, milestones and budget, plus a suggestion for financial resources. The Board is required to endorse or dissolve each Working Group. Working Group leaders report annually to the Board.

These working rules are open for further amendments as needed, for which approval of the EFB Board is required.

M³C Report Activities 2005 2006

M³C

Measurement
Monitoring
Modeling &
Control

Strategy Meeting 22nd – 24th March 2005



“Promote M3C as a hub for exchange of ideas and information and as a platform for meeting people !”

Guest Speaker: Dr. Jan Gustafsson

Novo Nordisk A/S, Gentofte, Denmark; ISPE Nordic

M3C-Report

Outcomes Strategy Meeting

Identified Fields for more Activities:

Process Analytical Technology (PAT)	[Carl-Fredrik Mandenius]
Molecular methods for process development	[Karl Bayer]
Simulation for training and education	[Volker Hass]
Application to downstream processing	[Clemens Posten]

Action List

- Symposium during Achema
- Contribution to ESBES-6
- Involvement in PAT
- Book about Modelling

Benefits for Members

- Web-Site
- Newsletter
- Membership initiative

Symposium M3C in DSP during Achema

2 Days 15th – 16th May for 22 Papers organized in 4 Sessions



Field enhanced separation and chromatography
Measurement and monitoring
Process analytical technology (PAT)
Scale-down and simulation

Depending on session 30 – 90 participants

Thanks to Dechema for hosting and assistance !

Further Activities

Web-Site *www.m3c.esbes.org*

Marketing of events – network of courses

Appr. 250 visitors per months

Missing: member and activity list

Contribution to political PAT activities [Carl-Fredrik Mandenius]

Contribution to ESBES-6

Left over for 2006/2007

Contribution to CAB10

Text Book on Modelling

Annual Meeting, workshop/course jointly with ISPE ?

Membership initiative

Past activities of Working Group on Biotransformations:

Workshop on Gram to Tonne Biocatalysis, 6-7 October 2005, Dortmund

The workshop **Gram to Tonne Biocatalysis** was held with the focus on scale-up of biocatalytic processes. A two day workshop was held in Dortmund. On the first day, selected participants were divided into 5 groups with 12 persons in average where they discussed a specific topic. The outcome of the discussion was reported by the speakers in the groups in one open plenary session. This format appeared to be attractive and the whole workshop with 100 participants, from which 30% was from industry, was very successful. The outcomes of this workshop should appear in a book.

Planned activities:

The continuation of the topic of **Gram to Tonne Biocatalysis** is planned in a form of a Summer School for the year 2007.

Work Group Down Stream Processing Activities Report 2004/2006

The Working Group Downstream Processing (WGDSP) intends to stimulate advances in the recovery and purification of biological products. In order to achieve this goal, it provides a platform for communication, education and exchanging ideas between researchers in the field. WGDSP organizes recurrent meetings or workshops which normally cover two days with presentations followed by a short business meeting.

Since the ESBES 2004 conference in Stuttgart the following activities were organised or co-organised by the WGDSP:

- 1. March 22-23, 2004, Faro: *Adsorptive Methods in Bioseparation.***
Presentations made by invited experts working in academia, industry and regulatory agencies covered current and emerging techniques for design, control and monitoring of bioprocess operations for the manufacture of biotechnology derived medicines, fine chemicals, food additives and molecular machines for the 21st century.
In this meeting the new WGDSP coordination team was elected (Owen Thomas from University of Birmingham as Chairman and Guilherme Ferreira from University of Algarve as Vice-Chairman), as already reported in the last ESBE meeting in Stuttgart, September 2004.
- 2. November 15-16, 2004, Lausanne: *Workshop on Continuous Bioprocessing - Challenge and Opportunity in the Production of Advanced Biopharmaceuticals.***
This meeting covered current and emerging techniques for the design, control, and implementation of continuous bioprocess strategies into the manufacturing of advanced recombinant protein drugs. In this meeting the coordination of the WGDSP were passed over the new chairman and vice-chairman team.
- 3. August 25-26, 2005, Lybgy: *Issues in Downstream Process Modelling and Control plus other aspects of downstream processing.***
The meeting aimed at addressing and discussing several aspects of DSP such as modelling of downstream processes and how better links can be built to the control of purification processes. The program focused a broad range of DSP issues such as process modelling, scale-up, PAT and analytical aspects of DSP.
- 4. May 15-16, 2006, Frankfurt: *M3C in DSP: Measurement, Monitoring, Modelling & Control in Downstream and Integrated Processes.***
This meeting was the first joint activity of DSP and M3C and was held during Achema 2006. The program addressed different aspects of modelling monitoring and control of purification processes and unit operations.

5. June 20-21, 2006, Lund: Adsorbents in Downstream Processing.

This meeting was organised jointly with CBioSep (the Swedish Centre for BioSeparations) to mark its tenth anniversary. The meeting was also marked the terminal milestone CBioSep. Different aspects of adsorption were addressed and the discussion about future trends in DSP was fostered.

6. August 27-30, Salzburg:

At ESBES 2006 conference the WGDSP is responsible by the workshop *Magnetics in Biotechnology: Product recovery by high-gradient magnetic fishing*, and three conference sections.

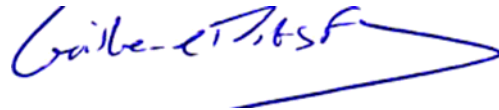
Planned activities for 2007:

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Salzburg, 27th August 2006



Owen RT Thomas
(WGDSP Chairman)



Guilherme NM Ferreira
(WGDSP Vice.Chairman)