THE 22ND PLANOVA™ WORKSHOP

LISBON, PORTUGAL
10-11 OCTOBER 2019

Join us at the Workshop in Lisbon!

Register to attend the Workshop
200 EUR per person
https://destree.eventsair.com/22nd-planova-workshop-akbe/reg

* Reservations at the InterContinental Hotel Lisbon, Portugal are available at a special rate through the above registration site. (Optional)
200 EUR per night + tax for single room including breakfast

Timeline

WEDNESDAY, 09TH

14:00 — 17:00 — 19:00
Virus Removal & Safety Training | Registration | Reception Dinner

THURSDAY, 10TH

08:00 — 17:00
Workshop Day 1 | Short Trip in Lisbon & Main Dinner

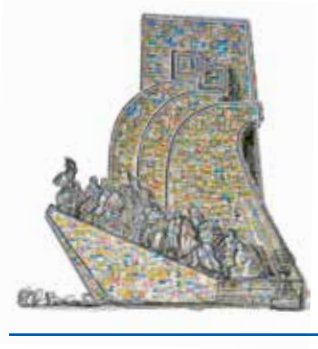
FRIDAY, 11TH

08:00 — 13:00
Workshop Day 2 | Lunch

Virus Safety: Andy Bailey, Ph.D., CEO & Operations Director, ViruSure
Virus Filtration: Sebastian B. Teitz, Ph.D., Product Manager & Scientific Coordinator, Asahi Kasei Bioprocess Europe

PLANOVA™
Assurance Beyond Expectation

AsahiKASEI
BIOPROCESS



THE 22ND PLANOVA™ WORKSHOP

Brussels, 14 August 2019

Dear valued customers,

We look forward to hosting you at the upcoming 22nd Planova™ Workshop in Lisbon where professionals from around the world will gather to share their expertise on topics such as virus filtration fundamentals, process development, robust manufacturing and new trends.

The 22nd Planova™ Workshop
InterContinental Hotel Lisbon, Portugal
10 and 11 October 2019
(Registration and optional Virus Removal & Safety Training on 9 October)

The knowledge gained from various presentations and case studies will also provide insights into resolving pain points in process development and manufacturing.
Chairs, speakers and presentation titles are shown on the next page.

Our pre-workshop Virus Removal & Safety Training will give the attendees a basic understanding of the principles of virus removal and virus safety.

We would be honored to host you in the beautiful city of Lisbon for presentations on the latest applications and strategies for using Planova filters. Please join us today!

For further information, please contact:

Organizer: ws2019lisbon@akbio.eu
Registration Secretariat: ws2019lisbon@destree.be

More information will soon be available in our next announcement and on our workshop website:
https://planova.ak-bio.com/workshops/2019-Lisbon/

Yours faithfully,

Nobuo Nakano
Managing Director

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SPEAKERS AND PRESENTATIONS

DAY 1: THURSDAY, 10 OCTOBER

CHAIR: Thomas R. Kreil, Ph.D.
Vice President, Global Head of Pathogen Safety, Takeda Pharmaceutical Company

Fundamental Knowledge

8:45	**Overview of Challenges in Virus Filtration: Principles and Applications** **Tomoko Hongo-Hirasaki, Ph.D.,** Lead Expert, Scientific Affairs, Global Marketing, Bioprocess Division, Asahi Kasei Medical
9:15	**Regulatory Developments in Viral Safety** **Johannes Blümel, Ph.D.,** Head of Virus Safety Section, Department of Virology, Paul-Ehrlich-Institut
9:45	**Strategies for Controlling Virus Risk in Upstream Processes** **Andy Bailey, Ph.D.,** CEO & Operations Director, ViruSure
10:40	**Quantitative Visualization of Virus Behavior in Planova™ Membrane Filters Using Optical Microscopes** **Takayuki Nishizaka, Ph.D.,** Professor, Department of Physics, Gakushuin University
11:10	**Implementation of Virus Removing Filtration – Challenges to Overcome** **Ingrid M.M. Prins-de Nijs,** Project Leader Product Development, Sanquin Plasma Products

CHAIR: Salvador Grancha, Ph.D.
Vice President R&D, Bioscience Industrial Group, Grifols

Hepatitis E Virus Filtration

12:40	**A Non-Enveloped Virus with a Lipid Envelope: Antibody-Enhanced Hepatitis E Virus Nanofiltration During the Manufacture of Human Immunoglobulin** **Andreas Wieser, DI (FH),** Senior Lab Associate, Global Pathogen Safety, Takeda Pharmaceutical Company
13:10	**Impact of Matrix Conditions on Small Virus Challenges to 35-nm Filtration: Case Study of Hepatitis A and E Viruses in the Context of a Virus Safety Evaluation of an Immune Globulin from Human Plasma** **Francisco Belda, Ph.D.,** Pathogen Safety Coordination Section Manager, Bioscience Industrial Group, Grifols
13:40	**Practical Approach to Evaluating the Removal of Hepatitis E Virus, a Membrane-Associated Non-Enveloped Virus by Nanofiltration Membrane** **Kaoru Sakai, Ph.D.,** General Manager, Central Research Laboratory, Japan Blood Products Organization

CHAIR: Uwe Gottschalk, Ph.D.
Chief Scientific Officer, Pharma Biotech & Nutrition R&D, Lonza

Robust Manufacturing

14:30	**Next Generation Processes: Challenges and Considerations for Robust Validation of Viral Filtration Applications** **James Eagles,** MS&T Purification Scientist, Manufacturing Science & Technology, Bristol-Myers Squibb
15:00	**Adoption of the Planova™ BioEX to a Platform Process** **John Zehmer, Ph.D.,** Scientist III, Purification Sciences, MacroGenics
15:30	**Robust Virus Removal in Boehringer Ingelheim's Downstream Platform Processes** **Simon Reitz, Ph.D.,** Associate Director Protein Science, BioProcess + Analytical Dev., Boehringer Ingelheim

DAY 2: FRIDAY, 11 OCTOBER

CHAIR: Nathan J. Roth, Ph.D.
Executive Director, Global Pathogen Safety, R&D, CSL Behring

New Trends and Virus Filtration Fundamentals

9:00	**Aggregate Clearance in the Production of Viral Vaccines** **Leila Dias, Ph.D.,** Senior DSP Scientist in Process Development for Viral Vaccines, Intravacc
9:30	**Virus Reduction for Large Proteins: Nanofiltration & UV-C Irradiation, a Complementary Approach** **Marcel Asper, Ph.D.,** Director Virus Laboratory - Pathogen Safety, Biotest
10:00	**Impact of Critical Process Parameters on Virus Filtration** **Walter Elffrink, B.Sc.,** Senior Research Technician, Synthon Biopharmaceuticals
11:00	**Choice of Parvovirus Model (MVM, CPV, PPV) Influences the Interpretation of the Effectiveness of Virus Filtration Step** **Thomas Nowak, Ph.D.,** Senior Manager, Global Pathogen Safety, CSL Behring
11:30	**Low Flux Impacts on Virus Filtration: The Devil is in the Details** **Daniel Strauss, Ph.D.,** Principal Scientist, Science and Technology, Asahi Kasei Bioprocess America