

Working group: Product Isolation and Purification

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Goal of the Working group on Downstream Processing

The goal of the working group Downstream Processing (Product isolatie en Zuivering) is to keep the members up to date with novel (inter) national activities in the area of separation technologies and exchange information with each other. This can be reached by keeping the website up to date with actual information, symposia, courses, etc. Overall the coordinators of this working group are always open to new suggestions to improve the goals of the working group Downstream Processing. In 2015 three events were organized. Each of these events were co-organized with other NBV or groups to get maximum synergy effects and network opportunistic and.

NBV conference, Biotech @ Work, work group session on downstream processing together with NPT

On March 11th the work group organized a session together with the Dutch Association for Process Engineers (NPT). The theme of the session was “Integration of the product and value chain”. Three presentations were held. Rene Rozendal from Pacques shared his view on the carboxylate platform, applying environmental biotechnology principles to convert waste biomass to renewable bioproducts. Giuseppe Olivieri from Bioprocess Engineering /AlgaePARC of Wageningen University discussed the process design and economic assessment of micro-algal biorefinery. The session was concluded by workgroup member Jeroen den Hollander from the DSM Biotechnology center who shared the key drivers for process development sustainability, quality and costs for Biosuccinium™ production by Reverdia. The afternoon session was well attended by about 80 people from both industry and academia.

Affinity separations, all day seminar together with NL-GUTS

On September 15th the work group organized, together with NL-Guts, a seminar on affinity separations. The seminar was hosted by Synthron. About 35 participants from both industry and academia attended the seminar in Nijmegen. Marta Rodriguez Illara presented her work on Structural adsorbents which she conducted as PhD student in Wageningen. Silvia Pirrung (Delft University of technology) presented her work on Affinity separations by process modeling/synthesis. Thijs Groenewege and Bas Stevens from Proxcys explained how to fish proteins from blood plasma. After the lunch Eric van Sonsbeek and Han Oude Groeniger (EColoRO) gave a presentation entitled: “Zero discharge with large scale Electrocoagulation: First experience results and upcoming European demonstration”.

Lena Jankowiak (WUR) hold a webinar on the Isolation of isoflavones from Okara and the program was finalized by work group member Michel Eppink who shared his thoughts on affinity separations of bio-therapeutic proteins. After the scientific program, a tour through Synthrons facilities was organized.

Evening symposium on Continuous processing for biotherapeutic proteins together with the Working Party Cell & Fermentation Technology (CFT)

On November 25th, 2015 a mini symposium was jointly organized with the Working Party on Cell & Fermentation Technology of the Dutch Biotechnological Society (NBV) and co-chaired by Michel Eppink from NBV-PZ and Mathieu Streefland from NBV-CFT. The symposium was hosted by MSD in Oss. The symposium was attended by more than 100 participants.

Marc Bisschops NBV-PZ working group member and principal Scientist at Pall presented continuous processing initiatives in the biopharmaceutical industry. Luc Kupers, program manager cell culture media strategy from Genzyme discussed Integrated Continuous Manufacturing of Protein Biologics.

After the coffee break Piet den Boer, senior consultant from Xendo B.V. discussed the practical implications and hurdles during implementation of continuous manufacturing. Barbara Paldus, CEO and Co-Founder of Finesse Solutions discussed continuous process (USP/DSP) optimization with smarter tools.