Curriculum Vitae

Personal information

Andreas Maccani

Work experience

07/2024 - present: Quality assessor for biologics / Austrian Agency for Health and Food Safety / Austria

11/2020 - 06/2024: Lead of Gene Therapy Pilot Scale Downstream / Takeda / Austria

Team and laboratory management (four technicians), Downstream process development and optimization for gene therapy, AAV purification by filtration, chromatography and ultracentrifugation, Scale up, Non-GMP pilot scale production (50 – 500 L scale), Data evaluation and presentation, Prepration of reports and scientific publications, Support of submissions, Support of process and technology transfer to GMP manufacturing and other sites, Support of QbD activities

03/2019 - 10/2020: Lead of Process Science / Takeda / Austria

Led a team of three development scientists, Upstream and downstream process development and optimization for gene therapy (lab scale to 200 L pilot scale), AAV production in bioreactors, AAV purification by filtration, chromatography and ultracentrifugation, Scale up, Data evaluation and presentation, Prepartation of reports and scientific puplications, Support of patent applications and submissions, Support of process and technology transfer to GMP manufacturing, Support of QbD activities

03/2015 - 02/2019: Development Scientist / Takeda/Shire/Baxalta/Baxter / Austria

Upstream and downstream process development and optimization for gene therapy (lab scale to 200 L pilot scale), AAV production in bioreactors, AAV purification by filtration, chromatography and ultracentrifugation, Design of Experiments (DoEs), Data evaluation and presentation, Prepartation of reports, Support of patent applications and submissions, Scale up, Evaluation of PAT methods, Supervisor upstream IPC laboratory (one technician)

02/2015 - 02/2015: Scientist / The Antibody Lab / Austria

Establishment of a cell culture laboratory for the development of recombinant mammalian cell lines

04/2010 - 12/2014: Junior Researcher / Austrian Centre of Industrial Biotechnology / Austria

Development of mammalian cell lines for recombinant protein expression, Bioreactor cultivation of mammalian cells, High-throughput gene and microRNA expression analysis (Microarrays and qRT-PCR), Cell engineering, Gene copy number determination (qPCR), Protein quantification and analysis (ELISA, bio-layer interferometry, SDS-PAGE, Western Blot), Flow cytometry, Molecular biology methods (Cloning, PCR, DNA purification, agarose gel electrophoresis)

Education and training

03/2010 - 09/2014: PhD in biomolecular technology of proteins / BOKU - University of Natural Resources and Life Sciences / Austria

PhD thesis at the Department of Biotechnology (Titel: *Genome wide analysis of recombinant protein expression in Chinese hamster ovary cells*)

10/2007 - 02/2010: Master's degree in biotechnology / BOKU - University of Natural Resources and Life Sciences / Austria

Master thesis at the Department of Biotechnology (Title: *Identification and characterization of CHO endogenous gene regulatory elements)*

10/2004 - 10/2007: Bachelor's degree in food science and biotechnology / BOKU - University of Natural Resources and Life Sciences / Austria

Bachelor thesis at the Department of Biotechnology (Title: *Baculoviruses for gene therapy)*

Additional information

Publications

Maccani A., Pachlinger R., Eisenhut P., Unterthurner S., Heider S., Repik C., Reuberger S., Andorfer P., Lengler J., Kinastberger B., Seczer D., Gruber P., Apschner A., Micutkova L. (2025) Potency by Design: Novel insights in transfection and purification for manufacturing of rAAV gene therapy vectors. *Journal of Biotechnology* 398: 127-132

Bayer B., Maccani A., Jahn J., Duerkop M., Kapeller E., Pletzenauer R., Kraus B., Striedner G., Hernandez Bort J.A. (2022) Proton-transfer-reaction mass spectrometry (PTR-MS) for online monitoring of glucose depletion and cell concentrations in HEK 293 gene therapy processes. *Biotechnology Letters* 44: 77-88

Maccani A., Hackl M., Leitner C., Steinfellner W., Graf A.B., Tatto N.E., Karbiener M., Scheideler M., Grillari J., Mattanovich D., Kunert R., Borth N., Grabherr R., Ernst W. (2014) Identification of microNRAs specific for high producer CHO cell lines using steady-state cultivation. *Applied Microbiology and Biotechnology* 98: 7535-7548

Maccani A., Landes N., Stadlmayr G., Maresch D., Leitner C., Maurer M., Gasser B., Ernst W., Kunert R., Mattanovich D. (2014) *Pichia pastoris* secretes recombinant proteins less efficiently than Chinese hamster ovary cells but allows higher space-time yields for less complex proteins. *Biotechnology Journal* 9: 526-537

Maccani A., Ernst W., Grabherr R. (2013) Whole genome sequencing improves estimation of nuclear DNA content of Chinese hamster ovary cells. *Cytometry A* 83: 893-895

Krammer F., Pontiller J., Tauer C., Palmberger D., Maccani A., Baumann M., Grabherr R. (2010) Evaluation of the influenza A replicon for transient expression of recombinant proteins in mammalian cells. *PLOS ONE* 5: e13265

Pontiller J., Maccani A., Baumann M., Klancnik I. and Ernst W. (2010) Identification of CHO endogenous gene regulatory elements. *Molecular Biotechnology* 45: 235-240

Projects

Memberships

Other Relevant Information