BEBPA's 7th Annual

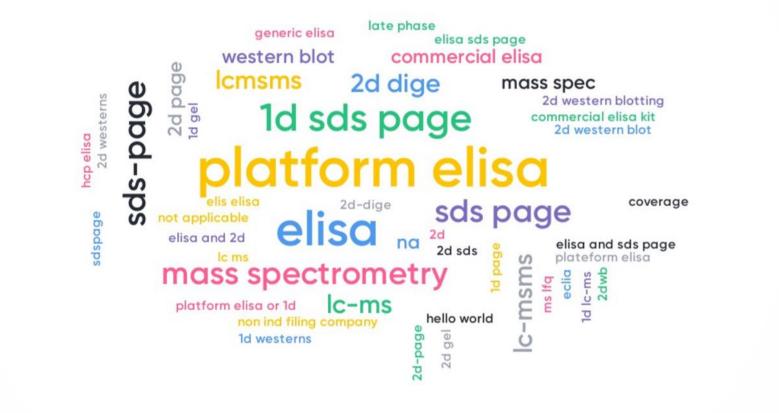
Host Cell Protein Conference

May 15-17, 2019 San Pedro, CA, USA

Survey Results

Session 1 Which HCP Assay is Most Suitable

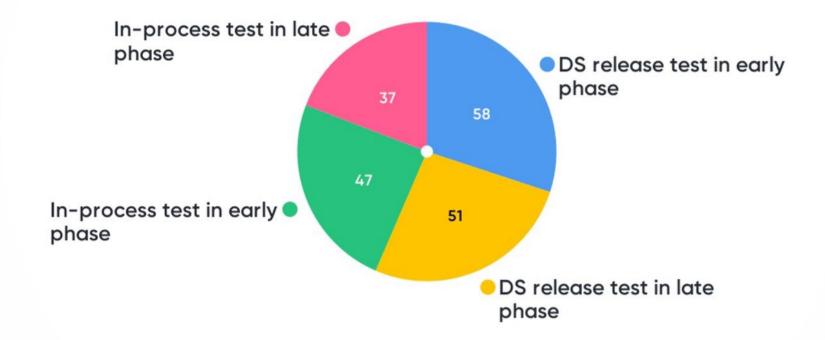
Which test methods for monitoring HCP levels are included in your organization's Phase I IND filings? (e.g. platform ELISA, 1D SDS PAGE)





What is your go-to strategy for HCP control in clinical products during early vs. late-stage process development? (Select any/all)

Mentimeter





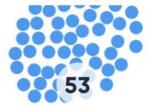
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When does your organization perform qualification for assay reagent lots? (Select any/all)



Triggered by trending data



For every new batch/lot



Dedicated experiments on a specified timeline



As needed for IND/MAA reporting



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Session 2 Analysis of HCP's for Gene Therapy and Viral Vaccines

What types of cell lines are used for clinical production of gene therapy and/or viral vaccines? (e.g. PER.C6, Yeast, HEK293)

steve hek 293



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What methods are needed to effectively monitor and control HCPs from gene, viral and cell-based therapies? (Select any/all)

27 9 5 3 0 All of the Something Process New Leverage else specific platform current above methods methods platform methods





Session 3 Improved Methods for HCP Antibody Coverage Determination

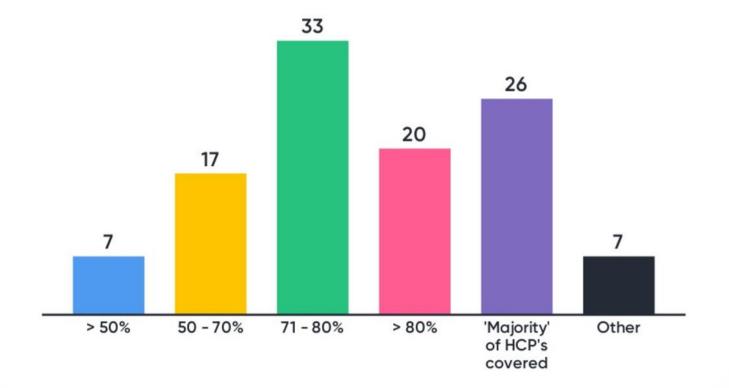
Which method(s) are routinely used for comparing an immunoassay standard with process or mock harvest? (Select any/all)

Ummunoaffinity chromatography w/2D w/LCMSMS LCMSMS 27 44 2D-PAGE



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What HCP coverage is considered acceptable for reporting (e.g. BLA) at your organization? (Select any/all)



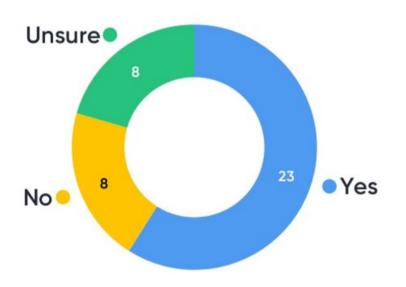


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Session 4 Application of Mass Spectrometry to Identify and Quantify HCPs

Does your organization routinely use LC-MS/MS methods with ~10ppm sensitivity or better?





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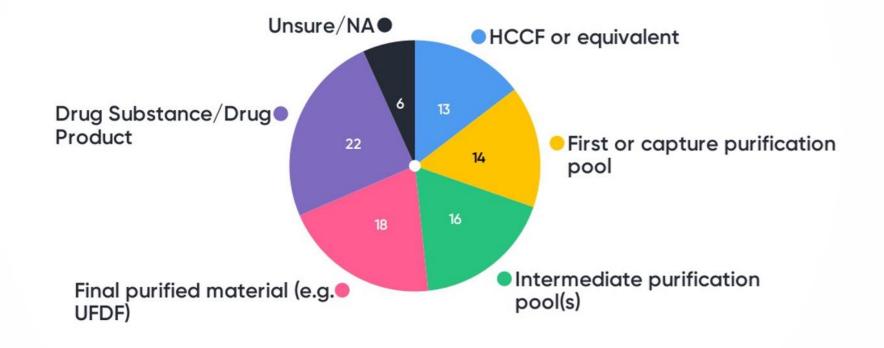
For HCP identification, what is the typical throughput for 1 testing run using your routine LC-MS/MS method?





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Which sample type(s) do you routinely evaluate by LC-MS/MS methods for HCP identificaiton? (Select any/all)





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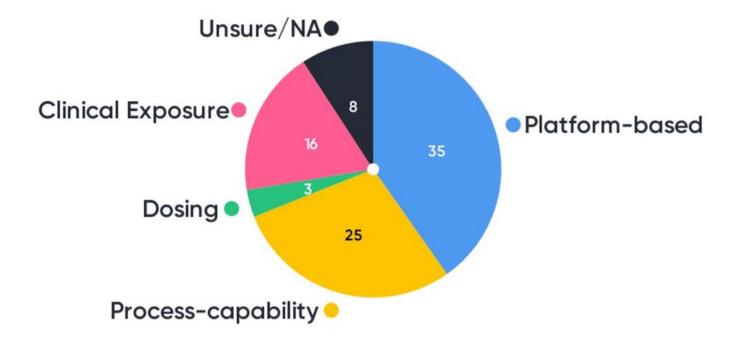
Safety and Tox Risks Associated with Host Cell Protein Impurities

Mentimeter What numerical limits does your organization typically have around total HCP levels by ELISA In BLA/MAA for MAb products? > 200 ppm < 10 ppm 🖲 • 50 - 200 ppm 21 23 10 - 49 ppm • **5**8



What is the general strategy your organization uses to determine the HCP acceptance criteria by ELISA for BLA/MAA?

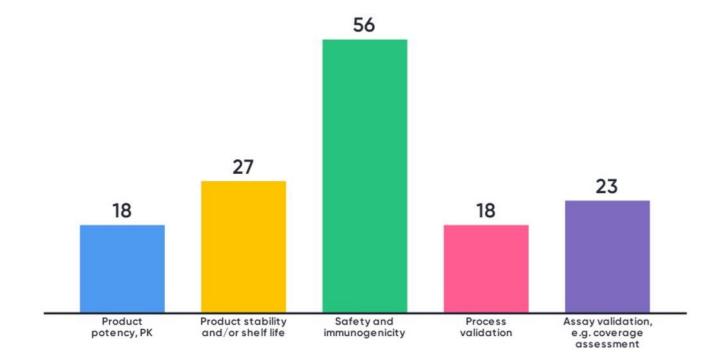
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What are the primary impact considerations for risk assessment of specific/individual HCP's? (Select any/all)







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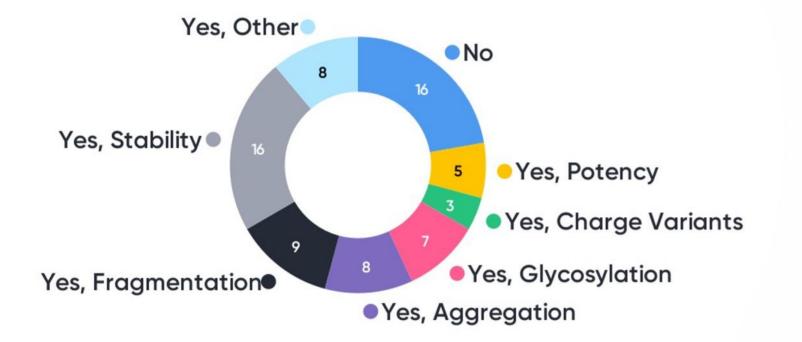
Session 6 Process Impacts on HCP Profile

Is your organization currently using or evaluating knockout cell lines for reduction of HCP load?





Is your organization currently tracking correlations between specific HCP's and product quality attributes? (Select any/all)





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Session 7

Innovations in Mass Spectrometry for HCP Analysis

Mentimeter Does your organization routinely use DIA, DDA, or a combination of acquisition methods for HCP identification? DIA/SWATH Unsure, N/A 8 Other (e.g. MSE) 11 8 DDA **Combination**

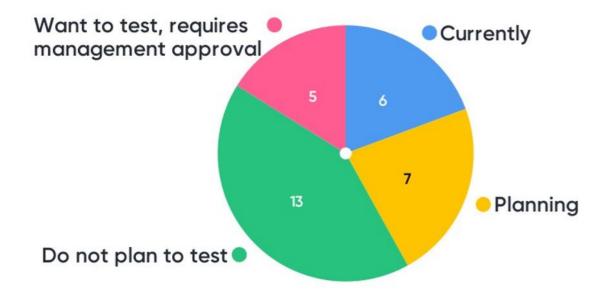


Mentimeter Which MS instrument is preferred for HCP quantification? OrbiTrap Unsure, N/A 11 8 Triple quadrupole **Other** QTOF



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Do you currently or are you planning to test marketed products using high sensitivity (< 10 ppm) LC-MS/MS methods?





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