

**For GBMSDG careers web page:**

*(if you are interested please contact [hendrik.neubert@pfizer.com](mailto:hendrik.neubert@pfizer.com) or apply directly*

*at: [https://pfizer.wd1.myworkdayjobs.com/en-US/PfizerCareers/job/USA---MA---Andover/Post-Doctoral-Fellow--Immunogenicity\\_1602099-1](https://pfizer.wd1.myworkdayjobs.com/en-US/PfizerCareers/job/USA---MA---Andover/Post-Doctoral-Fellow--Immunogenicity_1602099-1))*

Role Description:

We are seeking a Postdoctoral Fellow to develop and apply advanced mass spectrometry techniques to measure HLA-associated peptidomes. The position is integrated into a multidisciplinary group dedicated to understanding and predicting the immunogenicity of protein-based therapeutics. The successful candidate will closely collaborate with cellular biologists and quantitative protein mass spectrometrists to advance a dendritic cell mass spectrometry (DC-MS) assay. This assay detects peptides from therapeutic proteins that are presented on MHCII on antigen presenting cells for helper CD4+ T cell recognition. Following optimization of key assay steps including HLA extraction efficiencies from antigen presenting cells as well as immunoprecipitation, the DC-MS assay will be applied to detect and semi-quantitate T cell epitopes from selected biologics. Data will be analyzed together with the clinical immunogenicity outcomes for that drug, HLA type and T cell responses. In addition to cell culture, MHCII immunoaffinity isolation and mass spectrometry analysis, this position requires expertise in relevant bioinformatics solutions. The Postdoctoral Fellow will join at the interface of predictive immunogenicity sciences and proteomics to contribute to our vision to rationally design low immunogenicity biomolecules. The expectation is that the results from these studies are published in top tier journals setting the foundation for a career in academia or industry.

Additional role responsibilities:

- Responsible for the set-up, advancement and application of the dendritic cells mass spectrometry (DC-MS) assay with particular focus on MHCII immunoaffinity procedures, high resolution LC-MS/MS analysis and bioinformatics.
- As a strong collaborator develop deep partnerships with Immunogenicity Scientists working on cell preparation or assessing immunogenicity project risks as well as other LCMS team members.
- Participate and lead in technology development and implementation by exploring advancement to the DC-MS workflow.
- Participate in all phases of mass spectrometry laboratory operations including technology evaluations, the development of sample preparation and separation methods, data analysis, interpretation, reporting and follow up discussions with the project teams.
- Ensure all tasks and responsibilities are carried out according to scientific and ethical standards.
- Publications in peer-reviewed scientific journals and external / internal presentations are expected

Qualifications:

- Qualified applicants hold a Ph.D. with 0-2 years of post-doctoral experience.
- Expertise in development and implementation of mass spectrometry based immunopeptidomics methods
- Expertise in mass spectrometry based proteomics
- Experience and knowledge in operation of QExactive mass spectrometers, associated control and data analysis software systems
- Knowledge and application of complex sample preparation methodologies as applied to quantitative protein mass spectrometry workflows techniques including immuno-analytical techniques
- Good understanding of protein biochemistry