



UNIVERSITY OF NAPOLI "FEDERICO II"

POLYTECHNIC AND SCIENCE SCHOOL

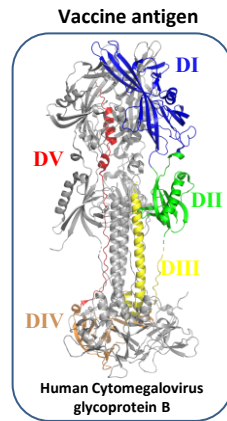
Department of Chemical Sciences

Ph.D. School in Chemical Sciences (XXXVII Cycle)



First year activity

Protein N-glycans occupancy and microheterogeneity investigation is a powerful tool for immunological outputs clarification and drug substance lots comparability. During the PhD first year activities the Human Cytomegalovirus antigen glycoprotein B (gB) N-glycans occupancy and microheterogeneity have been evaluated using high resolution LC-MS/MS.



18 N-glycosylation sequons

LC-MS/MS
Bottom-up approach

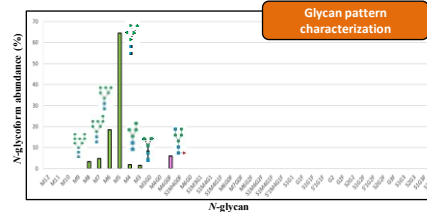
gB sequon N44



N-glycosylation site glycan occupancy
● Unoccupied %
● Occupied %



N-glycosylation site glycan microheterogeneity
● High mannose glycans %
● Hybrid glycans %
● Complex glycans %



Ph.D. Student

Antonio Lembo

Title

Development and analysis of glycoprotein based antiviral vaccines through Mass-spectrometry

