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**PhD Program:** Doctoral Program in Nanomedicine and Pharmaceutical Innovation (NANOFAR)

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**Date and Time:** September 11<sup>th</sup>, 2020. 11:00 to 13:00 h

**Mode of defense:** Microsoft Teams

**Title:** Preparation and characterization of antigen loaded chitosan nanoparticles for immunization

**Abstract:** The currently available pneumococcal vaccines are not effective in complete prevention of pneumococcal infections. To develop a better vaccine, firstly, we produced a glycoconjugate antigen based on common pneumococcal vaccine. Based on the positive immune responses generated by the glycoconjugate antigen in the mice, we further envisage that their combination with the nanotechnologies would generate a vaccine with enhanced potential. In this line, we utilized chitosan nanoparticles to encapsulate the glycoconjugate. Finally, the developed nanovaccines generated an enhanced immune response against both the protein and polysaccharide components when compared to the naked glycoconjugate.

