

## PAID DIPLOMA / MASTER'S THESIS

# HIGH CONCENTRATION ANTIBODY FORMULATION USING SPRAY DRYING

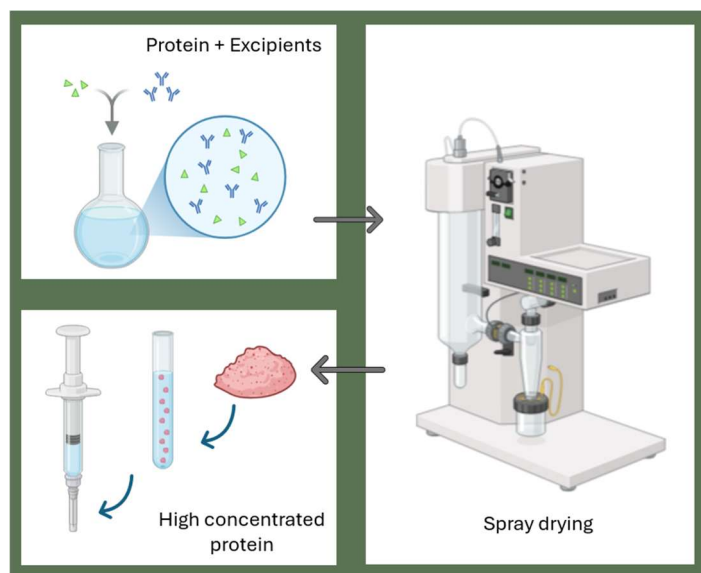
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To dedicated students of Pharmaceutical Sciences, Drug Delivery, Biotechnology or related with an interest in Formulation Development and Protein Stabilization Strategies.

### Objective

High-concentration protein formulations (>150 mg/mL) are essential for subcutaneous delivery but are often limited by high viscosity, solubility, and stability issues. This project explores a novel formulation approach using spray drying combined with glass-forming sugars and viscosity-reducing agents to produce high concentration, low-viscosity antibody suspensions in non-aqueous solvents. The work involves formulation design, spray drying, characterization of the spray dried powder, reconstitution into non-aqueous systems, and analytical assessment of the developed formulation.

The goal is to develop an innovative, patient-friendly platform for subcutaneous delivery of biologics, offering a promising alternative to conventional aqueous or lyophilized formulations.



### Within the framework of this diploma / master's thesis we offer the following

- Extensive participation in a top-level and industrially relevant research project in an international environment
- Supervised training in the task
- Assistance of experienced staff with the implementation of innovative ideas
- Access to highly modern infrastructure on campus of Graz University of Technology
- Assistance with the publication of results

### Financing

- Compensation on the basis of a service contract

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