PhD Candidate –
QC dissolution method development for amorphous solid dispersions (ASDs) (m/f/d)

https://ddic.invite-research.com/

INVITE

Innovation is what drives us. As a non-profit research organization, we develop groundbreaking technologies with our interdisciplinary team that shape the future – and create added value for society.

Our **Vision** is to achieve substantial things through strong partnerships. Together with our broad network of scientific and industrial partners, we create synergies from which everyone benefits.

Technology is our passion, and we love to share it. Through research on industry-relevant scientific questions and further education, we prepare the next generation for the challenges of the future.

For a 3-years industrial collaboration project within our Drug Delivery Innovation Center (DDiC) – Consortium on the topic of "**Quality control (QC) dissolution method development for amorphous solid dispersions (ASDs)**" we are looking for you:

Your tasks and responsibilities

The main goal of the PhD project is to develop a rational decision tree for dissolution method development for amorphous dispersions with focus on quality control

Amongst others, your task will include:

- Manufacturing of ASDs including post-processing to tablet formulations
- Evaluation of parameters affecting the QC dissolution with focus on ASDs. Investigate which parameters should be detected with QC methods (e.g. crystalline content, compression force, ASD particle size, level of polymer, other critical excipients (e.g. disintegrant) to identify critical process parameters, critical material attributes, critical formulation variables as well as critical bioavailability attributes
- Compare QC method to biorelevant/biopredictive dissolution and comparative dissolution according to ICH M9
- Establish a procedure for development of discriminatory quality control dissolution method for ASDs
- Supervise practical trainings of students at the academic partner
- Present results and achievements to internal and/or external cross-industry and cross-academic audience within the DDiC and international conferences
- Author scientific publications

What you bring with you

- Degree in pharmacy or equivalent degree with excellent marks
- Practical experience in lab work, preferably in a formulation and/or analytical lab setting (industrial experience is a plus)
- Flexibility to work at all partner institutions INVITE GmbH, Leverkusen, Rheinische Friedrich-Wilhelms-Universität Bonn and Bayer AG (Wuppertal and Leverkusen)
- Fluent English in speaking and writing (knowledge of German is an advantage)

What you will take with you

- The work will provide you with insight into scientifically and industrially relevant challenges in the life science and agrochemical industry.
- You gain experience in working in direct interaction with industrial partners within the DDiC and in an international cross-disciplinary team at INVITE.
- The work offers you the opportunity to contribute creatively to the development of new scientific topics.
- Compensation related to TVL E13 (50%), starting in Q1/Q2 2026

INVITE GmbH strives for a gender-equitable employment structure and therefore expressly welcomes applications from women.

Contact person

Please, send your complete application documents to Ildikó Terebesi (info@invite-research.com) and Tim Lillotte (lillotte@invite-research.com).