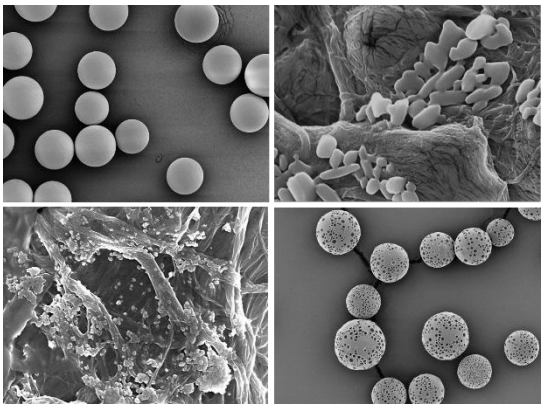
nanomi
monosphere technology

monosphere technology for the life sciences™

Internship: Development of pharmaceutical sustained release products



Location:

Nanomi B.V.
Zutphenstraat 51
7575 EJ Oldenzaal
The Netherlands

Duration:

12 months (min. 6 months)

Company:

Nanomi, based in Oldenzaal (Overijssel, eastern Netherlands), is a drug delivery company developing pharmaceutical products based on nano- as well as microparticles. These particles are developed by using Nanomi's microfluidic microsieve™ based process technology, enabling the manufacturing of very unique and uniform custom-made particles for a broad range of pharmaceutical products. In 2014 Nanomi was acquired by Lupin and became its center of excellence for complex injectables. Nanomi offers a highly innovative as well as dynamic environment and benefits from its parent company that was founded in 1968.

Lupin is an innovation led transnational pharmaceutical company developing and delivering a wide range of branded & generic formulations, biotechnology products and active pharmaceutical ingredients (APIs) globally. The company is a significant player in the cardiovascular, diabetology & metabolic syndrome, asthma, pediatric, CNS, GI, anti-infective and NSAID space and holds global leadership position in the Anti-tuberculosis segment.

Lupin is the 5th and the 7th largest generics pharmaceutical company by market capitalisation and sales globally (March 31st, 2016, Bloomberg). The Company is the 5th largest pharmaceutical player in the US by prescriptions (4.68% market share - IMS Health, National Prescription Audit, March 2016); the 3rd largest Indian pharmaceutical company by revenues; the 6th largest generic pharmaceutical player in Japan and the 4th largest generic pharmaceutical company in South Africa (IMS Health, March 2016).

Nanomi uses the microsieves to create emulsions and particles in the micron and nano range by dispersing droplets of one fluid into another immiscible one. This process allows a high degree of uniformity in particle size (C.V. around 5 %), much better than those produced by conventional microsphere production techniques like high speed homogenization. Microsieves are silicon membranes fabricated by photolithographic techniques, which possess highly uniform pores with variable size and shape. In this way, highly monodisperse droplets and particles that serve as basis for sustained release pharmaceutical, products can be produced in a robust, reproducible and cost effective way. Particles designed by Nanomi's technology that contain an active pharmaceutical ingredient (API) can be injected into the patient by using smaller needles and a prolonged sustained release of the API can be obtained in time.

Assignment description:

As an intern you will become a part of a young and dynamic group of researchers in a multidisciplinary environment. The goal of the assignment will be to solve diverse formulation and/or process challenges and perform tasks within R&D projects. You will develop and implement new process methods and techniques to be used in the manufacturing process of complex injectable micro- and nanospheres.

The goal of the assignment will be to develop process methods and techniques to be used in the manufacturing process of complex injectable micro- and nanospheres. Accordingly, the particles will be characterized in terms of size, surface charge, morphology, loading of the encapsulated compound and release profiles. Ultimately, optimization of all microsphere-related parameters will take place so as to obtain an outstanding systemThis assignment will allow you to gain knowledge in micro- and/or nanosphere production/ characterization and drug delivery, learn about equipment/instrumentation, learn to report your results in standard documents and gain skills for the preparation, optimization and analysis.

Data will be reported according to high standards and Nanomi's protocols. A presentation of the obtained results within the company will take place at least once during the assignment.

Laboratory work will be conducted in a well-equipped facility under supervision of skilled researchers.

You should be proactive, skilled in laboratory practice and have a very good level of English. For this internship position background in pharmacy, pharmaceutical technology, chemistry or chemical engineering is required.

Additional information:

Nanomi is situated in the Valkenaer building in Oldenzaal, a town located 15 minutes by car from Enschede (158000 inhabitants). Enschede is a dynamic, student city. It has also a large university campus (University of Twente), therefore being a very attractive location for student expats. Oldenzaal is connected with Enschede by bus and train.

Nanomi BV
Zutphenstraat 51
7575 EJ Oldenzaal
The Netherlands

☎ +31 541 53 99 18
✉ student@nanomi.com

Accommodation:

Nanomi can provide help with the search for an accommodation.

Application procedure:

If you are interested, please, send your CV and a motivation letter to student@nanomi.com.