

The Research Center Pharmaceutical Engineering GmbH (RCPE) is a global leader in pharmaceutical engineering sciences. We help our partners create and manufacture advanced medicines for patients worldwide through optimizing products and processes.

PAID DIPLOMA / MASTER'S THESIS

BLOCKCHAIN IN THE PHARMACEUTICAL INDUSTRY

Ref. No. DA176

To dedicated students of Informatics, Software Engineering, Data Science, Digitalization, Chemical Engineering, Particle Engineering, Mechanical Engineering, or related disciplines, we offer an opportunity to write a paid Diploma/Master's thesis.

Objective

Blockchain is an emerging technology to revolutionize various industries by providing transparency, security, and increased efficiency. In the pharmaceutical industry, where product safety and quality are critical for patient health, blockchain presents a transformative opportunity. By leveraging blockchain, pharmaceutical companies can establish a transparent and tamper-proof supply chain, ensuring the authenticity of medications from production to consumption. Moreover, blockchain enables seamless tracking and tracing of pharmaceutical products in production and logistics, mitigating the risks of counterfeit drugs and enhancing regulatory compliance. This master's thesis will involve an extensive literature study as well as the development of concepts for the application scenarios with blockchain in the pharmaceutical industry.

Key tasks are to:

- Explore the role of blockchain technology in ensuring transparency and trust within the pharmaceutical supply chain.
- Investigate the potential of blockchain-based solutions in pharmaceutical industry with a special focus on improving drug traceability, combating counterfeit medications and advanced logistics.
- Analyze the challenges and opportunities associated with integrating blockchain into existing pharmaceutical systems and processes.

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

If you are interested in writing your thesis at the interface between university research and industry/ business and to contribute to the optimization of product and process development in the pharmaceutical industry, please contact us indicating the reference number.

Contact

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