

**Treatment of patellofemoral osteoarthritis with nasal chondrocyte-based engineered cartilage implantation in a randomized, controlled, multicenter phase II clinical trial**

Trial registration number:

Duration: 01.04.2024-28.03.2028

Status: Ongoing

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Short summary: There are currently no treatment methods clearly recommended by the guidelines for the treatment of patellofemoral osteoarthritis (PFOA). With the implantation of cartilage produced from nasal cartilage cells (N-TEC), the cartilage surface could be rebuilt for the first time. A phase II study is planned with 75 patients with patellofemoral osteoarthritis. The patients will be randomly divided into two groups. One group will be treated with the engineered nasal cartilage, while the other will receive the standard therapy with platelet-rich plasma (PRP). After the intervention, all participants receive a physiotherapy programme for at least 18 weeks. For evaluation, standardised questionnaires are completed, physiotherapy assessments are performed and a MRI examination is carried out to check the cartilage surface. Follow-up measurements are planned for up to two years after the intervention.