Methods: Patient consultation – We asked people with RMD to complete an online survey about council policies. The survey asked whether, and how, these policies restricted them, in addition to what could be done to address and solve these restrictions. The questions focused on healthcare, support and the provision of medical aids. After identifying the three greatest challenges for residents, the Dutch Arthritis Society (DAS) focused on three main recommendations, which were sent via letter to local politicians. This letter included a clear call to action for better local arthritis care.

Online tool – We also created an online tool that linked the letter to the email addresses of all local party leaders in the 380 Dutch municipalities. The online tool enabled local residents to simply forward the letter to the party leaders in their council. The tool also allowed residents to include their personal experiences.

Results: Patient consultation: More than 2,200 people with RMD completed the survey. The three greatest points of improvement included:

- Sports and leisure facilities for people with RMD – 80% of all respondents were interested in sport facilities that suit their needs. However, 75% were unsure if there were any available in their council.
- Better communication and information – 40% of all respondents indicated that it was unclear where and how they could apply for care with their council. Respondents also indicated that councils lacked expertise regarding the impact of RMD.
- A threshold-free and accessible RMD-friendly environment – Municipalities must consider RMD-friendly access to roads, public transport and public buildings.

Online tool: A total of 10,000 emails were sent to party leaders, reaching over half of all municipalities. The majority of feedback from party leaders was positive. Some residents were invited to introduce themselves, attend a meeting or take a seat on a client advisory board. RMD-friendly policies are also now featured on the political agenda of many local councils.

Conclusion: This campaign has put RMD-friendly policies on the council agenda in many municipalities. Clearly, using the momentum of local political developments is an effective tool to create attention. It is also a way to build the network and voice of the movement. Following the campaign, it has become easier for us to speak to the councilors responsible for healthcare and to address the issues raised by people with RMD. For instance, in the autumn of 2018, local RMD patient associations met with the council for the first time. The online tool has allowed for nation-wide participation in this campaign.

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Cannabis for arthritis: Hype or hope?

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Background: Osteoarthritis (OA) is a major public health problem among the increasing aged and obese population, therefore development and investigation of new therapeutics is a major focus of OA research. Endocannabinoids (EC) and cannabinoids derived from the Cannabis sativa plant and synthetic cannabinoids have been attributed anti-inflammatory, antiamylogenic, analgesic and psychoactive effects. Over recent years increasing interest in the EC system as a target for therapeutic treatment of joint diseases has emerged [1].

Objectives: Cannabidiol (CBD) is the most abundant non psychoactive compound of Cannabis sativa extracts and has been shown to have anti-arthritis potency in animal models [2, 3]. In the present study we investigated the effects of CBD on the cell viability and Ca2+ homeostasis in human articular chondrocytes.

Methods: Cell viability, discrimination of intact and necrotic cells and caspase 3/7 activity were determined by Resazurin assays. Annexin-V/7-AAD staining followed by flow cytometry and caspase-Glo 3/7 assay respectively. Intracellular Ca2+ was monitored by time-lapse fluorescence imaging. The perforated whole-cell patch clamp technique was used for measuring the cell membrane potential. Western blot analysis was performed for the quantification of Erk1/2 phosphorylation.

Results: 2.25% and human primary chondrocytes showed a significantly reduced viability with an apoptosis maximum at 10μM CBD after treatment with rising amounts of CBD. This apoptotic effect was accompanied by an increase of caspase 3/7 activity. Flow cytometry analysis of Annexin-V/7-AAD stained cells revealed a decline of intact cells and a significant dose dependent increase of the early apoptotic cell population after treatment with CBD.

CBD significantly elevated intracellular Ca2+ accompanied by a depolarization of the cell membrane. This increase of Ca2+ was abrogated, when Ca2+ was omitted from the bath solution indicating an influx of extracellular Ca2+ rather than depletion of internal stores. Several blocking substances were tested to identify the channel/receptor responsible for this Ca2+ influx. Cannabinoid receptor (CB1) antagonist AM251 significantly inhibited the Ca2+ influx triggered by CBD. Moreover, preincubation of chondrocytes with AM251 significantly reduced the toxic effects of CBD. Looking for mediators of the apotopic CBD effect downstream of the CB1 receptor enhanced Erk1/2 phosphorylation could be detected. However this Erk1/2 activation proved to be unaffected by CB1 receptor blockage.

Conclusion: Micromolar concentrations CBD induce apoptosis in human articular chondrocytes. CBD also triggers an influx of extracellular Ca2+ and potentiates Erk1/2 phosphorylation. The apoptotic effects of at least partially...
Mediated by the CB1 receptor induced by an increased cell viability and reduction of caspase activity after combined treatment with CBD and CB1 antagonist AM251. Since CBD induced ERK1/2 phosphorylation seems to be independent of CB1 signalling, the involvement of other signalling pathways and/or a crosstalk with other Ca<sup>2+</sup> channels or receptors seems likely and will be the focus of further investigations.

**References:**


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**SAFETY AND EFFICACY OF LENABASUM IN AN OPEN-LABEL EXTENSION OF A PHASE 2 STUDY IN DIFFUSE CUTANEOUS SYSTEMIC SCLEROSIS SUBJECTS (DCSSC)**

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**Background:** Lenabasum is a synthetic, non-immunosuppressive, selective cannabinoid receptor type 2 agonist that activates resolution of innate immune responses and limits fibrosis in animal models of SSC. Lenabasum had acceptable safety and tolerability, and improved efficacy outcomes in the 16-week, double-blinded, randomized, placebo-controlled Part A of Phase 2 trial JBT101-SSc-001 (NCT02646543) in dcSSc subjects.

**Objectives:** To provide long-term open-label safety and efficacy data in dcSSc subjects in study JBT101-SSc-001.

**Methods:** Subjects who completed Part A were eligible to receive oral lenabasum 20 mg BID in an open-label extension (OLE) that assessed safety and efficacy at 4 weeks, then every 8 weeks.

**Results:** 36/38 (95%) eligible subjects enrolled in the OLE, with mean interval of 4 weeks, then every 8 weeks.

**Conclusion:** Lenabasum continuation has to have a favorable safety and tolerability profile in the OLE of Phase 2 trial JBT101-SSc-001 with no lenabasum-related serious AEs or study discontinuations. Only 7 (19%) subjects had an AE related to lenabasum in ≥ 18 months of OLE dosing. ACR CRiSS score, mRSS, Physician Global Assessment, and multiple patient-reported outcomes showed continued improvement, although background therapy, potential for spontaneous improvement, and open-label dosing limit what can be definitely attributed to lenabasum.

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