



NEWSLETTER



PROJECT PROGRESS

In the first 24 months of the project, a firm basis was laid for the iPSpine concept. The consortium focused on creating standard operating procedures to collect human cells and re-program them into induced pluripotent stem cells (iPSCs). These cells were then differentiated into specialized disc cells that typically reside in healthy young (notochordal-like cells (NCLs)). In parallel, biomaterials were further developed to support the specialized disc cells in the degenerated disc.



18

**Deliverables
Completed**



8

**Milestones
Achieved**



8

**Peer-reviewed
Publications**

Scientists have also begun designing methods and equipment for biomechanical testing of the disc tissue that will allow for functional studies. In addition, a computer algorithm was created to determine the health disc tissue. This algorithm can be used in the future to evaluate the iPSpine therapy automatically and objectively. iPSpine has put much effort into standardisation of used methods and implementation of new technology in culture methods, analysis, and characterisation of cells and biomaterials. This harmonization process among the 21 iPSpine partners will facilitate solid outcomes. Lastly, the iPSpine partners have worked on identifying the key aspects and parameters that must be addressed for the safety of the therapy.

For a broad impact, the iPSpine develops (a) a knowledge sharing platform to better exploit the knowledge being generated by iPSpine, (b) an open digital management platform that will allow for informed decisions in the development of advanced therapeutic products and (c) a framework to empower ethical research.

Follow us:



[ipspine.eu](https://www.ipspine.eu)



[@iPSpine](https://twitter.com/iPSpine)

IN THIS ISSUE

Updates from the first 24 months of iPSpine:

- **Project Progress**
- **Consortium Meetings**
- **Patient Engagement**
- **Scientific Advice & Exploitation Opportunities**
- **A Message from the Coordinator**



This project received funding from the EU H2020 Research and Innovation Programme, under GA No 825925



Photo from the iPSpine Consortium Meeting in Nantes, France (Jan 2020)

CONSORTIUM MEETINGS

The consortium partners kicked-off the project in February 2019 in Utrecht, The Netherlands. They laid out plans for the 5-year project and celebrated the beginning of their new journey.

The partners met one year later in January of 2020 in Nantes, France and updated each other. Based on the helicopter view of all interdependencies and research activities, important next steps were drafted to keep with the timeline of the project. An interim project update meeting was held virtually in September 2020 to discuss the impact of the pandemic and to prioritize ongoing work.

Members also attended a variety of scientific conferences, including key meetings of the orthopaedic societies: TERMIS, ORS, Eurospine, and BioSpine.



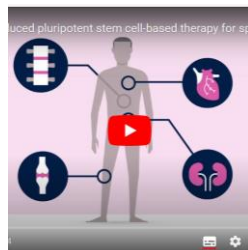
SCIENTIFIC ADVICE & EXPLOITATION OPPORTUNITIES

The iPSpine consortium bodies are strengthened in their function by advice from the External Expert Advisory Board (EEAB), the IP and Outputs Management Group (IPOMG), and the Ethics Board, all of which were established in the past months. The main objective of the EEAB is to provide expert and objective recommendations to maximise the long-term impact of iPSpine at the scientific, societal and exploitation level. The board will convene for the first time early 2021 and the meeting will be led by the Board chair, Prof. Andras Nagy. The main objective of the IPOMG is to advise the consortium on IP strategy as appropriate. It consists of iPSpine members representing specific areas of expertise and is chaired by the Innovation Manager dr. Beatrix Förster.

PATIENT ENGAGEMENT

The iPSpine Patient Advisory Board (PAB) established in the first year of the project is comprised of patients, engagement experts, an ethicist, and end-users of the potential iPSpine therapy. In the first 24 months of the project, the PAB met three times via teleconference. The goals for this period included; 1) generating informational materials, 2) raising awareness of the project in patient networks and in the general public, and 3) patient and scientist communication.

As one of its first tasks, the PAB, together with the consortium, developed an [animation](#) to tell the iPSpine story. The purpose is to spread awareness of the project in patient communities and the general public. In addition, in order to address the critical questions that patients have about iPSpine, the PAB created a [FAQ section](#) on the website. They also shared their [patient journeys](#) and began a dialogue between the scientists and patients that will continue throughout the project.



iPSpine animation

MESSAGE FROM THE COORDINATOR



Prof. dr. Marianna Tryfonidou

Consortium partners from across Europe, the USA, and China have joined forces and generated tremendous synergy over the last two years. Together we laid down a solid framework for the iPSpine therapeutic strategy. I look back to two successful years, with great dignity and respect for our team. We managed to embrace pandemic challenges that slowed our lab-based activities and progress. Through international online meetings, we had in-depth scientific discussions and planned multidisciplinary research activities, while keeping the focus on the goals of iPSpine.