**PRESS RELEASE**

**Combatting cancer cells using targeted immunotherapy: Finnish biology inventors selected as finalists for the European Inventor Award 2024**

* **The** **husband-and-wife team, Sirpa and Markku Jalkanen, developed a clinical treatment to activate** **the immune system in fighting cancer cells**
* **The scientists couple are finalists in the ‘SMEs’ category, competing against a French team and a Polish one. The winners will be announced during the ceremony on 9 July in Malta**
* **Voting for the** [**Popular Prize**](https://a.cstmapp.com/login/973466/?vote=144556_707562082&lc=eng)**, awarded by the public, is open as of today**

**Munich, 16 May 2024** – Cancer is the most common cause of death and morbidity in Europe after cardiovascular diseases, with more than 3.7 million new cases each year, according to the [World Health Organization (WHO)](https://www.who.int/). The [EU’s Beating Cancer plan](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/promoting-our-european-way-life/european-health-union/cancer-plan-europe_en) launched in 2022 states that, without intervention, cancer deaths in Europe are set to increase. Building on this urgent need, **the Finnish biologists Sirpa and Markku Jalkanen** have developed a **clinical drug** **to activate the immune system to better combat cancer cells**. The Jalkanen pair are finalists in the ‘SMEs’ category of the European Inventor Award 2024. They were selected from over 550 candidates for this year’s edition.

**Igniting the immune system to target cancer**

Based on literature, around 1,000 mutations occur in normal cells every day. In normal conditions, mutated cancerous cells will be eliminated by our immune system. “*Cancer has* *multiple* *ways to dampen our immune system. Importantly, cancer takes and modifies our ‘immunity soldiers’ for its own benefit to boost cancer growth. This is our main challenge, to block this conversion*”, explained Sirpa Jalkanen.

Bexmarilimab, the drug developed by this husband-and-wife team, **better equips the immune system to fight cancer cells**, making it a form of immunotherapy, which is an [increasingly important area in cancer treatment](https://www.epo.org/en/service-support/publications?size=n_10_n&filters%5B0%5D%5Bfield%5D=node_id&filters%5B0%5D%5Bvalues%5D%5B0%5D%5B0%5D=1074440&filters%5B0%5D%5Btype%5D=any&sort-field=publication_date_content&sort-direction=desc). **This new treatment aims to overcome resistance to current therapies and improve outcomes.** So, when used with standard cancer treatments, Bexmarilimab could enhance their effectiveness and extend the benefits of immunotherapy to more patients with different types of cancer.

Markku Jalkanen explains, *“we have such good feedback from patients who have received this therapy and clinical benefit, especially leukaemia patients. In general, bexmarilimab is well-tolerated. We have also observed that the treatment can help bring other blood values back to normal, meaning fewer other treatments”.*

**Making cancer research a family affair**

After meeting just after high school, Sirpa and Markku Jalkanen pursued the same career path, starting in Finland and developing part of their research career in the US. Sirpa, unable to practice clinically in this country, where Markku was pursuing a post doctorate at Stanford, became a leading researcher in lymphocyte migration in the human immune defence system. Sirpa also serves as the Director of the InFLAMES Flagship (Innovation Ecosystem Based on the Immune System), a major collaboration between Turku University and Åbo Akademi University, involving 96 companies.

Markku pioneered Finnish biotech development while being the first Director of Turku Biotechnology Center within the BioCity community in Turku. Together, they founded Faron Pharmaceuticals in 2007, with their children also having roles in the business and development aspect of the company.

The Finnish couple behind the innovation has been named one of three finalists in the ‘SMEs’ category for this year’s European Inventor Award. The other finalists in this category are French inventors Bruno Mottet and Lydéric Bocquet for their osmotic power generation technology using nanostructured materials and a Polish team led by Olga Malinkiewicz for their innovative thin-film perovskite solar cell printing technology. The EPO will announce the winners of the different categories during a ceremony livestreamed [here](https://www.epo.org/en/news-events/european-inventor-award/streaming?mtm_campaign=EIA2024&mtm_keyword=pressrelease&mtm_medium=press) from Malta on 9 July 2024. In addition, the EPO will reveal the Popular Prize winner, chosen by online public vote. Voting will remain open until the day of the ceremony.

Find more information about the invention’s impact, the technology and the inventors’ stories [here](https://www.epo.org/en/news-events/european-inventor-award/meet-the-finalists/sirpa-jalkanen-and-markku-jalkanen?mtm_campaign=EIA2024&mtm_keyword=pressrelease&mtm_medium=press).

**Media contacts European Patent Office**

**Luis Berenguer Giménez**
Principal Director Communication / EPO spokesperson

**EPO press desk**

press@epo.org
Tel.: +49 89 2399-1833

**About the European Inventor Award**

The European Inventor Award is one of Europe's most prestigious innovation prizes. Launched by the EPO in 2006, the award honours individuals and teams, who have come up with solutions to some of the biggest challenges of our time. The European Inventor Award jury consists of inventors who are all former finalists. To judge proposals, the independent panel draws on their wealth of technical, business, and intellectual property expertise. In 2024, the jury is chaired by Wolfgang M. Heckl. All inventors must have been granted a European patent for their invention. Read more [here](https://www.epo.org/en/news-events/european-inventor-award?mtm_campaign=EIA2024&mtm_keyword=pressrelease&mtm_medium=press) on the various categories, prizes, selection criteria and livestream ceremony to be held on 9 July in Malta.

**About the EPO**

With 6,300 staff members, the [European Patent Office (EPO)](https://www.epo.org/?mtm_campaign=EIA2023&mtm_keyword=EIA-pressrelease&mtm_medium=press&mtm_group=press) is one of the largest public service institutions in Europe. Headquartered in Munich with offices in Berlin, Brussels, The Hague and Vienna, the EPO was founded with the aim of strengthening co-operation on patents in Europe. Through the EPO's centralised patent granting procedure, inventors are able to obtain high-quality patent protection in up to 45 countries, covering a market of some 700 million people. The EPO is also the world's leading authority in patent information and patent searching.