**PRESS RELEASE**

**Dutch scientist Rochelle Niemeijer tops** **Young Inventors Prize for portable AI-based chemistry kit to identify bacterial infections**

* **29-year-old Rochelle Niemeijer ranked first for the** **Young Inventors Prize at the European Inventor Award 2024, coming first out of three finalists**
* **The European Patent Office (EPO) honours the young Dutch inventor for developing a fast, affordable and data-driven diagnostic tool to identify bacterial infections, thus improving treatment options**
* **Niemeijer’s invention focuses on the most common type of infection, urinary tract infections, which affect more than 400 million people annually**

**Munich, 9 July 2024** – The European Patent Office (EPO) announced today that 29-year-old Dutch scientist Rochelle Niemeijer ranked first for the Young Inventors Prize at the European Inventor Award 2024, winning 20,000 EUR, for her **artificial intelligence-based (AI) portable miniature chemistry lab to quickly identify bacteria causing infections like urinary tract infections**. Ukrainian Valentyn Frechka ranked second with his sustainable paper-making solution and is set to receive 10,000 EUR, while Tunisians Khaoula Ben Ahmed, Ghofrane Ayari, Souleima Ben Temime, and Sirine Ayari came in third with their smart wheelchair control system, receiving 5,000 EUR.

*“Making novel diagnostic technologies like ours accessible to patients requires trust and support. Receiving the Young Inventor's Prize from the EPO is a big step on our journey to earning that trust and transforming patient care,”* says Rochelle Niemeijer.

More than 400 million people globally per year are affected by [urinary tract infections (UTIs)](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9363895/), with 50% - 60% of women experiencing at least one UTI in their lives. Consequently, **a lot of treatment is carried out without adequate diagnosis, or antibiotics are overused** – a major concern that Niemeijer sought to address.

**Enhancing healthcare with AI**

*“A future where we cannot treat infections with existing antibiotics is not far off if we don’t change our behaviour soon. The antibiotics field is moving slowly, and the development of new antibiotics is slower than the rise of resistant bacteria. To preserve the efficacy of existing and new antibiotics, we need to make sure we use them correctly – our test is made to facilitate that,”* explains Niemeijer.

Niemeijer’s MedTech start-up Nostics has raised EUR 10 million to build fast, affordable, **and data-driven diagnostic tools in the form of a hand-held platform for doctors** to address this issue. This AI-enhanced device quickly identifies bacteria, aiding in precise antibiotic prescription. It combines **Surface-Enhanced Raman Spectroscopy (SERS) chips (laser technology) with artificial intelligence-powered digital software,** identifying bacteria in 15 minutes without expensive lab equipment or expertise.

This versatile technology is suitable for resource-limited settings and point-of-care tests and can be scaled to different needs. Nostics aims to expand its application to detect sexually transmitted diseases, fungal infections, and bloodstream infections.

**All the winners of the 2024 edition of the European Inventor Award were announced at a hybrid ceremony today** in Malta. You can stream the ceremony [online](https://www.epo.org/en/news-events/european-inventor-award/streaming?mtm_campaign=EIA2024&mtm_keyword=pressrelease&mtm_medium=press).

[Find out](https://www.epo.org/en/news-events/european-inventor-award/meet-the-finalists/rochelle-niemeijer?mtm_campaign=EIA2024&mtm_keyword=pressrelease&mtm_medium=press) more about the invention’s impact, the technology and the inventor’s story.

**Next generation of the Young Inventors Prize in 2025 to take place in Iceland**

During today's ceremony in Malta, the European Patent Office (EPO) was excited to announce a new concept for the award, starting in 2025. From next year onward, the award will be held biennially, with the upcoming edition focusing on young innovators below 30 years-old whose inventions address one or more United Nations Sustainable Development Goals (SDGs). An independent jury of former finalists will evaluate the entries, ensuring a fair and insightful selection process that honours the innovative spirit and achievements of the next generation of inventors. The 2025 edition will be celebrated in Iceland, marking the first of these newly biennial-focused awards, and the [nominations period](https://www.epo.org/en/news-events/young-inventors-prize/nominations?mtm_campaign=EIA2024&mtm_keyword=pressrelease&mtm_medium=press) for all technological fields remains open from today until the end of September.

In alternating years, starting in 2026, the EPO will return to the original concept of the European Inventor Award, featuring its traditional categories of ‘Industry’, ‘Research’, ‘SMEs’, ‘Non-EPO countries’, ‘Lifetime Achievement’ and ‘Popular Prize’.

**Media contacts European Patent Office**

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

**EPO press desk**

[press@epo.org](mailto:press@epo.org)   
Tel.: +49 89 2399-1833

**About the inventor**  
  
Rochelle Niemeijer’s aspiration to help others by becoming a doctor evolved during her volunteer work at a hospital in Samraong, Cambodia, in 2012. There, she faced significant resource shortages, which redirected her to pursue Nanobiology, combining technology and healthcare.

After earning her bachelor’s and master’s degrees from Delft University of Technology, she worked as an application engineer, developing sustainable devices with nanoparticles. By April 2020, she co-founded Nostics and became its Chief Scientific Officer, leveraging nanotechnology, photonics, and machine learning to innovate in diagnostics.

**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 finalists and winners are selected by an independent jury comprising former Award finalists. Together, they examine the proposals for their contribution towards technical progress, social and sustainable development, and economic prosperity. All inventors must have been granted a European patent for their invention.

**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.