

## The Young Researchers' Challenge 2024

### Description

**During the Marcus Wallenberg Prize event a group of selected 30 young PhD students and PostDocs participated in a three-day-scientific-programme that connects young talented researchers with a focus on sharing inspiring forest-related research, stimulate collaboration, and create networking opportunities.**

This year's participants came from nine countries; Belgium, Brazil, Canada, Estonia, Finland, Netherlands, Slovenia, Sweden and Switzerland and represented 18 different universities or research institutes.

The young researchers are able to participate **through the sponsorship of the [Erik Johan Ljungbergs Educational Foundation](#)**, Finnish Forest Products Engineers' Association, VTT, Natural Resources Institute Finland, Pöyry Foundations, universities and research institutes.

The Young Researchers' programme kicked off with presentations from two Wallenberg Research Initiatives; Wallenberg Initiative Materials Science for Sustainability (WISE) and Wallenberg Wood Science Center (WWSC). The session started with Anna Herland, who gave a short introduction to WISE and talked about her own research into developing disposable biosensors using sustainable materials and device designs. The session continued with Carl Moser from WWSC and he talked about the interesting material development that has evolved from WWSC throughout the years. A selection of different materials was showcased in a small exhibition. Interesting discussions and questions were raised during the session and these discussions continued during the following coffee break.

The programme continued with a much appreciated and inspirational panel discussion with the 2024 MWP Laureates, John Ralph and Wout Boerjan. The subjects spanned from broader questions about research; how to make it in the academic world, article writing, to more specific questions about lignin and its potential in the future. Everyone enjoyed the discussions and they continued well after the scheduled time.

On the second day of the programme, the inspirational talks continued with presentations both

from academia as well as from entrepreneurs/start-ups companies within the forest industry.

Hannele Tuominen, SLU, gave some insights to her research concerning forest related plant physiology. She talked about the latest findings of her research, with a focus on lignification and how genes regulate the formation of wood. The talk continued with explaining how the knowledge of wood forming genes can be used to alter the properties of wood to make them more suited for certain end-applications or sustainable production of bio-based materials, fuels and energy. Thomas Baumgarten, Reselo AB, gave a very encouraging talk about the journey of taking your innovative research idea and start a company. Reselo uses the biorefinery approach and birch bark, a waste product from the pulp industry, to introduce a fossil-free rubber alternative, Reselo Rubber, on the market. Thomas highlighted key success factors in securing funding and creating a great start-up team but also challenges associated with starting your own deep-tech company. The session ended with a talk from Maria Karlsson, Bright Materia AB, a start-up company focusing on user-customised lignin of high quality, which have been developed through a unique patent-pending manufacturing process that produces lignin from waste biomass that has a bright color

and is odorless. Maria talked about how her PhD project turned into a start-up company and how her research idea can contribute to a circular, CO2 emission-free process with complete chemical- and material recovery.

Hannele Tuominen, SLU  
 Thomas Baumgartner, Reselo AB  
 Maria Karlsson, Bright Materia

### Lecturers at the MWP 2024 Young Researchers' Program

The young researchers were very eager to learn more about the different topics they had just listen to and once again the discussions continued during the coffee break and the following lunch.

In the afternoon, the young researchers participated and presented their own research through 3MT presentations. In this event, members of the MWP Selection Committee participated and gave valuable insights to the young researchers. Both the committee and the young researchers ranked their favourite presentations, and three presentations were awarded;

Tinkara Bizjak-Johansson

Julia Azzi

Åsa Jerlhagen

1st prize – Tinkara Bizjak-Johansson, Swedish University of Agricultural Sciences, Sweden

2nd prize – Julia Azzi, The University of British Columbia, Canada

3rd prize – Åsa Jerlhagen, KTH Royal Institute of Technology, Sweden

All 3MT presentations were filmed and the recordings are available at the Marcus Wallenberg Prize [Youtube channel](#)

Throughout the whole event, the young researchers displayed their research on posters, and a poster session took place in connection to the MWP Symposium on November 12. Three of the posters were awarded by the MWP Selection committee;

1. Two posters were awarded the 1<sup>st</sup> place: Isak Ingerholt, Swedish University of Agricultural Sciences, Sweden and Karun Dayal, Ghent University, Belgium

3. Nette De Ridder, VIB-UGent Center for Plant Systems Biology, Belgium

To learn more about the Young Researchers' research projects read their abstracts that are available here: [Young Researchers' abstracts 2024](#).

In the evening, the young researchers attended the Marcus Wallenberg Prize Ceremony and Banquet, a memorable evening, and an excellent way to celebrate the Laureates and their accomplishments.

The third and final day of the programme, the young researchers participated in the MWP Symposium and networked with the symposium attendees during the poster session.

Laureate John Ralph

Laureate Wout Boerjan

Mr. Marcus Wallenberg

The application period for the MWP Young Researchers' Challenge 2025 will open 5 May 2025. Stay tuned for more information!