Jury Report
For Women In Science Rising Talent Prizes 2021

The Royal Holland Society of Sciences and Humanities (KHMW) is delighted with the initiative of L'Oréal Netherlands and the Netherlands Commission for UNESCO to encourage talented young female researchers in their pursuit of an academic research career. The Society was very pleased to engage with this initiative and accommodate the selection of nominations received for the For Women In Science Rising Talent Prizes, in the framework of the For Women In Science programme. Given the exceptional quality of nominations, and the number of nominations, 116 in total, the jury had a hard time selecting the prize winners. The jury was very much inspired by the abundance of up-and-coming talent among young female researchers in all corners of the life sciences and the physical sciences. With so much brilliance in the female research population, academia is definitely set to look different in the decades to come. All candidates show great promise for the future, in pushing the boundaries of our current knowledge and creating a better world.

First prize - Sara Issaoun, Astrophysics, Radboud University

The first prize is for Ms. Sara Issaoun, PhD candidate at Radboud University, observational astronomer and member of the Event Horizon Telescope (EHT) Collaboration. Her research focuses on the mysteries of supermassive black holes at the center of our galaxy and other galaxies. Sara is a leading contributor of the data calibration and imaging efforts that led to the very first image of a black hole released by the EHT in April 2019.

Let me share some quotes with you from the recommendation letters we received: *"Over an extremely short time span Sara has developed a staggeringly broad set of skills and experiences in radio astronomy: from actual observing, to understanding every detail of the receiver chain, to extensive data analysis, theoretical analysis and then towards putting things into context." "Sara seems to quickly become the go-to expert on every topic she touches, and she has been fearless in steadily expanding her research portfolio." "Sara is an astonishing student, with an unrivaled capacity to quickly assimilate knowledge spanning astrophysical theory, analysis, and data acquisition." "It is totally beyond me how a single PhD student can achieve so much, and excel more, at the current stage of their career."*

Such praise from very seasoned senior experts in the field counts, and there is a lot more. In an incredibly short time, she mastered the subtleties of the complex data processing and analysis procedures of the Event Horizon Telescope collaboration. Already in the very early stage of her PhD research, Sara single-handedly improved calibration procedures to the extent of establishing new standards for the entire EHT collaboration team. She is described as the person with all the answers about the EHT data, being on the pulse of every aspect of the project, from details of anomalies during the observations to the calibration procedures. For a young graduate student, just joining the project, to manage that level of disparate information and command that level of respect from her colleagues speaks to her incredible aptitude and authority.

Naturally, Sara has raised high expectations for her own groundbreaking PhD research on the supermassive black hole at the center of the Milky Way, Sgr A* (Sagittarius A). Her work is poised to become central to revealing the properties of this enigmatic black hole and in understanding the interplay between black holes and their environments. She is finishing her PhD research well within the allotted time and expected to defend her thesis in August.

While being on track for a remarkable thesis, she is also one of the most active and selfless contributors to the EHT Collaboration. Sara is described as a fearless leader and rising star within the astrophysical community as well as a constant force for fairness, diversity, and inclusion within the EHT Collaboration team. Moreover, Sara is a passionate science communicator, feeling a great responsibility to share knowledge and experiences beyond her immediate scientific community. She is able to explain the most difficult theoretical material with such a sense of enthusiasm, passion, care and humour that her audience understands what she has to say and leaves with a smile.

Given her outstanding achievements, it comes as no surprise that her talents have not gone unnoticed. Sara received a range of scholarships, stipends, awards, medals and other signs of recognition of her extraordinary performance, including a Submillimeter Array post-doctoral Fellowship with the Harvard-Smithsonian Center for Astrophysics.

We are delighted to award the first prize for Women in Science Rising Talent to Sara Issaoun and we wish you success in your further research career.

Second prize - Ymkje Anna de Vries, Psychiatric Epidemiology, University of Groningen

Another remarkable female researcher receives the second prize: Ms. Ymkje Anna de Vries from Groningen University. Ymkje's expertise lies in psychiatric epidemiology, with a particular focus on depression and anxiety. The focus of her thesis, which she defended in 2018 cum laude after only 3 years, was to describe the evidence base of several of the most commonly used interventions for anxiety and depression, and the biasing role of the scientific journals in this. Her message is clear: we need to take a broader perspective in psychiatry and employ a transdiagnostic and lifespan-oriented approach, as the internalizing vulnerability underlying depression and anxiety likely changes expression and severity during the lifespan and may respond less well to treatment than existing literature makes us presume.

Ymkje was praised in two nomination letters that recommended her to the jury with phrases such as "*I see in her an exceptional rising talent in science*" and "*Through her work, Ymkje Anna has consistently demonstrated insights rare for someone at her career stage, independence, productivity, and excellent methodological and writing skills.*". Remarkable words, especially if they are used to describe you by the most highly cited scientist worldwide!

Beyond her high number of well-cited publications and her efforts towards outreach to clinicians by translating many of her papers into Dutch, the jury was very impressed by the many additional achievements of Ymkje described in her CV: from Bachelor to Master to PhD, Ymkje concluded all her educational activities 'cum laude'. She also received prizes from two organisations for her PhD thesis and the Gratama Science Prize from the University of Groningen for societally relevant, provocative innovative research. Most recently, she is the co-applicant and project leader on a successful NRO '*Gedrag & Passend Onderwijs*' grant application, which she is now continuing her impressive research career on.

We congratulate Ymkje Anna de Vries with the second prize for Women in Science Rising Talent, and we are sure to hear more from this remarkable researcher in the coming years of her career.

Third prize - Ziena Abdulrahman, Cancer Immunology and Immunotherapy, Leiden UMC

The jury awarded the third prize for Women in Science Rising Talent to a scientist in the field of cancer immunology and immunotherapy: Ms Ziena Abdulrahman from Leiden University Medical Center.

Ziena studies the tumor immune microenvironment in human papillomavirus (HPV) induced cancers for its potential as a prognostic and predictive biomarker for response to immunotherapy. This is a highly relevant topic, since less than 50% of the patients with HPV-induced cancers respond to immunotherapy.

Ziena was actually one of the youngest of the 116 nominees for the For Women in Science Rising Talent Prizes. What is it then, that drew the attention of the jury to this candidate? Well, her achievements are remarkable for someone at this early stage of her career: she graduated from Gymnasium summa cum laude, obtained the Bachelor of Medicine cum laude, was invited to the Honourscollege for Medicine and graduated summa cum laude, followed a Pre-Master in Medicine and concluded cum laude, was awarded the MD/PhD track scholarship for excellent medical students and also finished her Master of Medicine summa cum laude. Since March 2020, she is now working on her PhD project, for which she has obtained personal funding from LUMC based on her excellence. She has also won two prizes for her Master thesis and the Pieter de Mulder Award for promising PhD students. At this early stage of her career, she has already been selected to present her work in oral presentations at several international conferences, and she has published three papers describing empirical work as first and second author.

Her nominators describe Ziena using multiple positive phrases, such as "*She has proven to be a talented, intelligent, motivated and enthusiastic researcher, who also engages in discussions to move the other projects in the lab ahead.*" and "*Ziena is one of the best PhD candidates I have had the pleasure to guide throughout my career. She is a bright and exceptionally motivated scientist.".*

Her CV is filled additionally with many impressive extracurricular activities, including many activities directed at global outreach: to mention just a few, she has been a volunteer for UNICEF and at emergency refugee shelters, she was a Dutch Youth Ambassador to combat extreme poverty and preventable diseases, and she has been an Ambassador for the Netherlands-Asia Honours Summer School.

I want to conclude with another citation from one of Ziena's recommendation letters: "S*he is an excellent role model for other young female scientists.*". Congratulations to Ziena Abdulrahman for winning the third prize for Women in Science Rising Talent!

Honorable mention - Lonneke IJsseldijk, Marine Biology, Utrecht University

The jury hands out one honorable mention this year, which is awarded to Lonneke IJsseldijk, marine biologist and PhD candidate at Utrecht University.

The jury was convinced that Lonneke IJsseldijk deserves this special prize because of her tremendous ambition, drive and dedication to use her scientific talents and a variety of skills to understand and protect the health and wellbeing of marine mammals, in particular the harbor porpoise (*Bruinvis* in Dutch). Already at very young age 'curious' Lonneke became passionate about research, volunteering for instance during autopsies on harbor porpoises in

the Faculty of Veterinary Medicine in Utrecht, naturally growing into the role of research assistant to the team of pathologists. Later, she was appointed to manage the Marine Stranding Program of the Division, a position she outgrew very soon, independently running the research program on her own. In this natural habitat, where she could combine her love for research and marine biology, her Rising Talent became apparent. She published her first papers and shared her findings with the broader public - an urge that has brought her to several societally and politically relevant committees and boards. But her love and talent for science prevailed. Next to her managerial tasks, Lonneke successfully followed a Master program that allowed her to start her PhD. Currently, she is well underway to finish her PhD with an excellent thesis this summer. Her talent, perseverance, broad interest and multidisciplinary research already led her to (co)author 37 scientific papers, while undertaking at the same time her many other activities that have already made her one of the foremost experts on marine mammals in Europe.

Lonneke is exceptionally gifted in bridging people and disciplines, and actively engages her extensive network into her non-trivial research questions. Het nominators describe her as *"a catalyst of research, linking ideas, people and data sets that would otherwise not come together to study questions that would otherwise not be studied."* Established experts around the world value and trust her expertise and want to work with her. That is probably also why she has a seat on several governmental advisory committees as well as international expert panels to advice on mammal strandings and health.

Lonneke's career so far is extraordinary. She masters the combination of performing high-level research with research management, and public and political engagement and as such is the prefect role model for bringing science to society. That is why we award Lonneke IJsseldijk with this honorable mention. We congratulate her with this special achievement and look forward to seeing her flourish and succeed in her carreer.

Prof. dr. C.V.C. (Carlijn) Bouten, hoogleraar biomedische technologie Technische Universiteit Eindhoven
Prof. dr. R. (Roberta) Croce, hoogleraar biofysica van fotosynthese & energie Vrije Universiteit Amsterdam
Prof. dr. B. (Barbara) Franke, hoogleraar moleculaire psychiatrie Radboud Universiteit Nijmegen
Prof. dr. M. (Monique) Laurent, onderzoeker en lid management team Centrum Wiskunde & Informatica Amsterdam, hoogleraar combinatorische optimalisering Tilburg University
Prof. dr. ir. M.P.C. (Margot) Weijnen, hoogleraar proces- en energietechnologie Technische Universiteit Delft, lid raad van bestuur NWO, voorzitter NWO domein Toegepaste en Technische Wetenschappen

The jury meeting took place 4 March 2021, was chaired by Drs. M.L.L.E. (Marlies) Veldhuijzen van Zanten-Hyllner, former vice-chair KHMW, and also attended by Prof. dr. A.P. (Ad) IJzerman, Secretary of Natural Sciences KHMW and Drs. S. (Saskia) van Manen, Secretary (minutes).