

1. Personal details and date of CV

Surname: Allahverdiyeva-Rinne (previously Allahverdiyeva)
First name: Yagut
ORCID ID: 0000-0002-9262-1757
Date of the CV: 18 July 2025

2. Degrees

- 2001 - Doctor of Philosophy (PhD) in Biological Sciences, Institute of Botany, Azerbaijan Academy of Sciences, Baku, Azerbaijan
- 2009 - Docent in Bioenergetics, University of Turku, Finland

3. Current employment

- 2021 – Full Professor in Fundamental and Applied Photosynthesis, Molecular Plant Biology, Department of Life Technologies, University of Turku, Finland
- 2009 – PI of the Photosynthetic Microbes group (<http://www.utu.fi/photo-microbes>), University of Turku, Finland

4. Previous work experience

- 2017 – 2020 Associate Professor (tenure track) at the Molecular Plant Biology unit, Biochemistry Department, University of Turku, Finland
- 2014 – 2019 Early-stage PI at the Centre of Excellence Academy of Finland "Molecular biology of primary producers", University of Turku, Finland
- 2008 – 2013 Senior researcher at the Centre of Excellence Academy of Finland "Integrative Photosynthesis and Bioactive Compound Research at Systems Biology Level", University of Turku Finland
- 2009 Visiting scientist (2 months) at the Department of Plant Biochemistry, Faculty of Biology, Ruhr-University Bochum, Germany (Prof. M. Rögner's group)
- 2002 – 2008 Post-doctoral researcher at the Plant Biology and Molecular Biology, Department of Biology, University of Turku, Finland
- 2002 Visiting scientist (2 months) at the National Institute for Basic Biology, Okazaki, Japan (Prof. N. Murata's group)
- 2002 Research fellow (5 months) at the Molecular Stress and Photobiology group, Institute of Plant Biology, Biological Research Center, Szeged, Hungary (Dr. I. Vass's group)
- 2001 ITC fellow at the Molecular Stress and Photobiology group, Institute of Plant Biology, Biological Research Center, Szeged, Hungary (Dr. I. Vass's group)
- 2000 Research fellow at the Department of Molecular Plant Biology, Szent István University, Budapest, Hungary (Prof. G. Horvath's group), UNESCO fellowship

5. Career breaks

- 2008 Maternity leave

6. Research funding and grants (major grants - last 6 years)

- 2025-2027, RCF national research infrastructure roadmap FIRI FIN-BioFoundry, UTU share for the first round > 400 000 €, deputy-director
- 2024-2028, EU HE RIA, "Solar Butanol production by solid-state photosynthetic cell factories", S2B, > 4 Mil €, UTU share > 1.2 Mil €, coordinator

- 2024-2026, Business Finland co-research project, Microalgae for sustainable bioeconomy, AlgaCircle, ~1 Mil €; coordinator
- 2024-2029, Jane and Aatos Erkko foundation "The next generation biohybrid systems for photosynthetic fuels and chemicals production" (PhotoFactory), total > 2.2 Mil €; UTU share >1.6 Mil €; coordinator
- 2023-2027, Academy of Finland "A bio-inspired generator of green electricity using photosynthetic bacteria and sustainable materials" (Photo-e-Mat), total 1 Mil €; UTU share 400 000 €; coordinator
- 2023-2027, Finnish Cultural Foundation "Green solution: Photosynthetic power generation from sunlight and water", 200 000 €; PI
- 2023-2024, Tandem Industry Academia, Finnish Research Impact Foundation (Vaikuttavuussäätiö) "Integration of greenhouse farming and microalgae bioproduction for a sustainable circular agriculture approach" (AgriAlga), ~215 000 €; PI
- 2022, donation, MVVT Maa- ja vesitekniikan tuki ry 500 000 €
- 2022-2026, EU IA "Reusing Effluents from Agriculture to unLock the potential of Microalgae" (REALM), total > 8 Mil €, UTU share > 900 000 €; PI
- 2022-2025, EU CSA "SUNERGY Community and eco-system for accelerating the development of solar fuels and chemicals" (SUNER-C), total > 4 Mil €, UTU share ~120 000 €; PI
- 2021-2023, Novo Nordisk Foundation "Advanced photosynthetic biocatalysts" (PhotoCat) total funding > 3.9 Mil DKK; UTU share ~ 330 000 €; coordinator
- 2020-2023, EU FET-Open "Leaf-inspired nanocellulose frameworks for next generation photosynthetic cell-factories" (FuturoLEAF) total funding > 3M €; UTU share ~ 600 000 €; PI
- 2020-2023, Novo Nordisk Foundation "Photosynthetic cell factories for production of phenylpropanoids" (PhotoPro) total funding 3.8 Mil DKK; UTU share >160 000 €; co-PI
- 2019-2023, Academy of Finland "CO₂ capturing leaf inspired biocatalyst from photosynthetic cells and lignocellulosic building blocks" (AlgaLeaf) total funding 987 834 €; UTU share ~330 000 €; PI
- 2018-2022, Academy of Finland "Revisiting the photosynthetic electron transport chain opportunities for improved efficiency toward valuable sink" 466 989 €; PI
- 2017-2022, NordForsk, Nordic Centre of Excellence "Towards versatility of aquatic production platforms: unlocking the value of Nordic bio-resources" (NordAqua) total 30 Mil NOK; UTU share > 0.8 Mil €; coordinator
- 2017-2020, Novo Nordisk Foundation "Nanocellulose microalgal thin-films as catalysts for biofuel and high-value production platform" (NanoPlatform) total funding > 2.5 Mil DKK; UTU share ~218 000 €; coordinator

7. Research output

- > 100 peer-reviewed papers in international journals. Delivered numerous invited and keynote talks at international conferences; in 2024-2025 alone, delivered 20 invited/keynote presentations and served in chairing roles at 8 international conferences.

8. Research supervision and leadership experience

- 13 PhD candidates graduated: S. Shunmugam (20.04.2012); H. Leino (19.12.2014); M. Ermakova (13.03.2015); L. Bersanini (26.02.2016); H. Mustila (08.09.2017); M. Jokel (25.8.2017); T. Huokko (16.3.2018); G. Murukesan (14.9.2018); M. Jämsä (27.05.2019); A. Sanchez

(19.11.2021); D. Solymosi (26.11.2021); G. Toth (7.06.2024); J. Salazar (05.12.2024); M. Hubacek (15.08.2025)

- Currently supervising 10 PhD candidates and co-supervising 2 PhD candidates, 5 postdoctoral researchers
- Vice-director of national infrastructure FIN-BioFoundry (2025-)
- Chair of the Nordic Centre of Excellence “Towards versatility of aquatic production platforms: unlocking the value of Nordic bio-resources” (2017–2022) financed by NordForsk Bioeconomy program
- Director of the BioCity Turku Research Program “Advanced Bioresources and Smart Bioproducts: SmartBIO”

9. Teaching merits

- Head of the MSc programme line “Sustainable Biotechnological Processes”. Organizer and main instructor of advanced level courses “Photosynthetic biotechnologies”, “Applied photosynthesis research”, “Towards Bio-based Finland”...

11. Awards and honours

- Finnish Bioindustries Biotech Stars Award (2026), Physiologia Plantarum prize (2024), Eliaz Tillandz the best publication prize of BioCity Turku (2018 and 2021)

12. Other key scientific or academic merits, societal impact

- Acted as an opponent of doctoral dissertations (2026, 2025 University of Copenhagen, Denmark; 2024 Nord University, Norway; 2024 Riga Technical University, Latvia; 2022 NIBIO, Norway; 2021 NTNU, Norway; 2018 Uppsala, Sweden), member of PhD examination committees (2024 VU Amsterdam; 2022 Linnaeus University; 2014, 2016, 2020 Uppsala University), pre-examiner of doctoral dissertations (2025, 2023, 2019 and 2014, Finland)
- Acted as a referee or panel member for grant applications: e.g. Norwegian RCN, Swedish Foundation for Strategic Research; FWO Research Foundation, Belgium; German DFG; German BMBF “Tailor-made, bio-based ingredients for a competitive bioeconomy” program; Hungarian Scientific Research Fund OTKA, NSC Poland, etc. Reviewer for numerous international scientific journals.
- Member of International Society of Photosynthesis Research (ISPR), Scandinavian Plant Physiology Society (SPPS), European Algae Biomass Association (EABA) and European Plant Science Organization (EPSO), European Federation of Biotechnology (EFB)
- Co-author of the EU Sunrise CSA Technological Roadmap, February 2020 and SRIA 2023 (<https://sunergy-initiative.eu/resources/strategic-ri-agenda/>)
- Scientific Board member of the European Algae Biomass Association (EABA)
- SUNER-C Executive Board member
- Conference organization
 - (i) Main organizer of several international conferences: RRB 2025 (Renewable Resources & Biorefineries, Turku, ~250 participants), EMA2024 (Photosynthesis Research, Turku, ~ 160 participants), NAS22 (Nordic Algal Biotechnology, Turku, >100 participants), SUNRISE Stakeholder Workshop (2019, Turku), NAS18 (Nordic Algae Symposium - founder, Helsinki), and the Finnish-Japanese symposium on photosynthesis and bioeconomy (2016, Saariselkä); (ii) Member of scientific organizing committees of major meetings, including the European Photosynthesis Congress (e-PS2, 2024), Nordic Photosynthesis Congress (NPC), Nordic Algae Symposium (NAS), European Workshop on Cyanobacteria (EWBC)