

1. Personal details and date of CV

Surname: Allahverdiyeva-Rinne (previously Allahverdiyeva)
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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
- 2010 – 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 (large 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 Erkkö 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, e.g. in 2023: 9 invited/keynote presentations and chaired multiple sessions; in 2024 delivered 8 invited talks and served in chairing roles.

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)

- Currently supervising 11 PhD candidates and co-supervising 3 PhD candidates, 5 postdoctoral researchers
- 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

- 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 (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 for grant proposals and peer-reviewed scientific journals: 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)