

Dr. Elnaz Kyavar

Plant Physiologist • Biotechnology
Researcher • Peer Reviewer

Cyanobacterial Biotechnology • Phycobiliproteins • Redox
Biology • Mechanistic Phytomedicine

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Status: Senior Research Scientist &
Peer Reviewer

★ High-Volume Editorial & Peer Review Track Record

△ Over 100 peer reviews completed since November 2025

106	89	Reviewer Pool	Invited Reviewer
Completed Reviews	Phytomedicine (Elsevier)	Royal Society of Chemistry	Oxford University Press

Executive Academic Profile: Senior plant physiologist and biotechnology researcher specializing in cyanobacterial biotechnology, phycobiliprotein biomanufacturing, nutrient–stress regulation, bioprocess optimization, redox biology, and bioactive compounds. Experienced in experimental design, statistical appraisal, and evidence-calibrated interpretation of mechanistic and biological data. Active international peer reviewer with over 100 evaluations completed since November 2025 across Elsevier, Springer Nature, Oxford University Press, and other international journals.

Academic Education

- Ph.D. in Plant Biology – Plant Physiology — Islamic Azad University, Science and Research Branch, Tehran, Iran
- M.Sc. in Plant Biology – Plant Physiology — Islamic Azad University, Science and Research Branch, Tehran, Iran
- B.Sc. in Microbiology — Islamic Azad University

Core Research & Editorial Expertise

• Plant Physiology, Cyanobacterial Biotechnology & Bioprocessing - Cyanobacterial physiology, biomanufacturing, and nutrient–stress regulation - C-phycocyanin and phycobiliprotein production, extraction, and downstream processing - Response Surface Methodology (RSM), process optimization, and Design-Expert ANOVA modeling	• Redox, Apoptosis & Cellular Mechanistics - Mitochondrial pathway modulation and ROS dynamics - Apoptotic cell-death signaling (Caspase-3, MMP loss) - Phytomedicine bioactivity assays (DPPH, ABTS, Cell Viability)
• Methodological & Statistical Appraisal - Experimental design evaluation and analytical-unit independence - Causal inference vs. computational/molecular docking predictions - Replication, control integrity, and data-to-claim alignment - Critical appraisal of multi-omics integration, pathway enrichment, network pharmacology, and computational-to-experimental validation	• Translational Phytomedicine - Gut microbiota–bile acid–FXR/TGR5 axis in cardiometabolic models - Preclinical evidence calibration and network pharmacology audit - Natural bioactives for metabolic and cellular therapeutics

Selected Publications & Scholarly Projects

- **Kyavar E**, Soltani N, Saadatmand S, Mosaffa N, Tabani H. *Process-oriented optimization of phycobiliprotein production in Arthrospira platensis through interaction-driven nutrient–stress regulation*. **Process Biochemistry**. 2026. DOI: 10.1016/j.procbio.2026.06.005.
- **Kyavar E**, Soltani N, Saadatmand S, Mosaffa N, Tabani H. Enhanced recovery of phycobiliproteins from Arthrospira platensis by combined glass bead vortexing and ultrasonication. **Discover Applied Sciences**. 2026. DOI: 10.1007/s42452-026-09574-1.
- **Kyavar E**, Soltani N, Saadatmand S, Mosaffa N, Tabani H. Effects of salinity, iron, and nitrogen on growth, chlorophyll content, and phycobiliproteins, with emphasis on physiological adaptive responses of Spirulina platensis. **Journal of Plant Environmental Physiology**. 2026. Accepted for publication.
- **Invited Mini-Review (World Journal of Microbiology and Biotechnology; abstract approved)**: Design-decision architecture for next-generation microbial cell factories in phycobiliprotein biomanufacturing.
- **Review Manuscript**: Plant-derived bioactives and the gut microbiota–bile acid–FXR/TGR5 signaling axis in cardiovascular and cardiometabolic health.

Conference Abstracts & Scientific Meetings

- **Kyavar E**. Rethinking Microbial Biomanufacturing: Lessons from Biological Interactions. **Accepted Speaker, International Conference on Clinical Microbiology, Virology and Infectious Diseases, Rome, Italy**, 9–11 November 2026. Abstract published online; listed in the official conference speaker programme (Day 1).

Peer Review & Editorial Service

Active international peer reviewer with sustained editorial re-invitation and over 100 evaluations completed since November 2025:

Journal Title	Publisher	Completed Reviews	Focus Area
Phytomedicine	Elsevier	89	Multi-omics & Systems Pharmacology; Mechanistic Phytomedicine; Network Pharmacology & Experimental Validation
Systems Ethnopharmacology and Sustainable Bioresources	Elsevier	13	Natural Bioresources, Ethnopharmacology & Experimental Evaluation
Applied Biochemistry and Biotechnology	Springer Nature	3	Bioprocess Engineering & Biotechnology
Toxicology Research	Oxford University Press	1	Nanotoxicology, systemic toxicity, and oxidative stress

Additional Recognized Reviewer Roles:

- **Royal Society of Chemistry** — Member of the Official Reviewer Pool
- **Oxford University Press (Toxicology Research)** — Member of the Official Reviewer Pool

Professional Leadership & Affiliations

- **Founder & Scientific Director** — Green Life ELK, Tehran (Biotechnology, bioactive research, and process development)
- **Founder & Director** — E Clinic, Tehran (Clinical operations and professional management)
- **Professional Affiliations:**
 - Associate Member — The Physiological Society, UK
 - Iranian Algae Society
 - Iranian Society of Microbiology

 Academic Profiles:

ORCID	Web of Science	Scopus	Google Scholar	ResearchGate
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