

Ph.D. in Biotechnology and Food Engineering with 8 years of research experience. Specialized in alternative proteins, cyanobacteria growth, and polyphenols. Proven experience in various chemical and biochemical methods.

Professional Experience

2024-Present Research and Development Project Manager , Algaenite

- Leading the company's R&D projects
- Laboratory management
- Development of protein extraction methods
- Cyanobacteria growth including growing media development
- Research planning and documentation
- Grant applications to Israeli Innovation Authority and European Innovation Council

2017-2024 Ph.D. Research , Technion

- Study of protein and polyphenols techno-functional properties
- Research of protein interactions and degradation kinetics
- Development of methods to enhance protein functional properties
- Development of analytical methods and scientific data analysis
- Scientific writing and literature review
- Working with pilot equipment

Education

- 2017-2024: Direct Track Ph.D. in Biotechnology & Food Engineering, Technion
 - Under the supervision of Assoc. Prof. Avi Shpigelman
 - Thesis: The influence of processing methods on the stability and properties of *Arthrospira platensis* (Spirulina) proteins
- 2013-2017: B.Sc. in Biotechnology & Food Engineering, Cum Laude, Technion

Technical Skills

Methods

- Sensory evaluation
- HPLC-MS
- Rheology
- SDS-PAGE
- Lumisizer: physical and emulsion stability
- UV-Vis spectroscopy for techno-functional properties analysis
- Protein extraction and purification
- Circular dichroism (CD)
- Texture profile analysis (TPA)
- Nano differential scanning fluorimetry (nanoDSF)
- particle size distribution: Zetasizer & Mastersizer

- High-pressure homogenization
- High-pressure processing

Teaching Experience

- 2020-2024: Teaching Assistant, Laboratory of Bioprocess and Food Process
- 2020-2023: Teaching Assistant, Laboratory of Advanced Technologies in Food Engineering and Biotechnology
- 2019: Teaching Assistant, Laboratory of General Microbiology
- 2018: Teaching Assistant, Laboratory of Food Microbiology

Publications

- Shkolnikov Lozober, H., Okun, Z., Parvari, G., & Shpigelman, A. (2023). The Effect of Storage and Pasteurization (Thermal and High-Pressure) Conditions on the Stability of Phycocyanobilin and Phycobiliproteins. *Antioxidants*, 12(3), 568.
- Shkolnikov Lozober, H., Okun, Z., & Shpigelman, A. (2021). The impact of high-pressure homogenization on thermal gelation of *Arthrospira platensis* (Spirulina) protein concentrate. *Innovative Food Science & Emerging Technologies*, 74, 102857.
- Shkolnikov, H., Belochvostov, V., Okun, Z., & Shpigelman, A. (2020). The effect of pressure on the kinetics of polyphenolics degradation – Implications to hyperbaric storage using Epigallocatechin-gallate as a model. *Innovative Food Science and Emerging Technologies*, 59, 102273.
- In preparation: Flavonoid-phycocyanin covalent conjugation for conjugated pigment with increased stability

Awards and Achievements

- 2023: Carasso Scholarship for Excellence in Research
- 2018: First place in food solutions program, "Building student skills in micro-algae processing, component characterization and innovative product development", EIT food

Languages

Hebrew – Native | English – Fluent | Russian - Fluent