

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. DO NOT EXCEED FIVE PAGES.

NAME: Semchonok, Dmitry

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: Principal Investigator

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE (if applicable)	END DATE MM/YYYY	FIELD OF STUDY
Odessa Regional Basic Medical College, Laboratory diagnostics, Odessa	laboratory assistant	07/2003	Laboratory diagnostics
Odessa I. I. Mechnikov National University, Biology, Odessa	BS	07/2007	Biology
Odessa I. I. Mechnikov National University, Odessa, Odessa	MS	07/2008	Biochemistry
Rijksuniversiteit Groningen, Groningen	PHD	03/2016	Biophysical chemistry, electron microscopy
Rijksuniversiteit Groningen, Groningen	Postdoctoral Fellow	09/2017	Biophysical chemistry, electron microscopy
Rijksuniversiteit Groningen, Groningen	Resident	04/2018	Guest researcher in Biomolecular X-ray Crystallography group
Hebrew University of Jerusalem, Jerusalem	Postdoctoral Fellow	09/2018	Biophysical chemistry, electron microscopy
Rijksuniversiteit Groningen, Groningen	Resident	05/2019	Guest researcher in Biomolecular X-ray Crystallography group
Martin-Luther-Universität Halle-Wittenberg, Halle	Postdoctoral Fellow	12/2022	Biophysical chemistry, electron microscopy
Martin-Luther-Universität Halle-Wittenberg, Halle	Postdoctoral Fellow	10/2023	Biophysical chemistry, electron microscopy
University of Tennessee, Knoxville	Resident	present	Biophysical chemistry, electron microscopy
ITQB Nova, Oeiras	Other training	present	Principal Investigator of Cryo- EM Integrative Structural Biology Lab

A. Personal Statement

Major research foci: - Establishing basic principles of photosynthetic protein synthesis, assembly and functioning; - Molecular evolution of multicomponent complexes in bioenergetic membranes.

Expert in membrane proteins, cryo-EM, image analysis, and model building.

- Opatíková M, Semchonok D, Kopečný D, Ilík P, Pospíšil P, Ilíková I, Roudnický P, Zeljković S, Tarkowski P, Kyrilis F, Hamdi F, Kastitis P, Kouřil R. Cryo-EM structure of a plant photosystem II supercomplex with light-harvesting protein Lhcb8 and α -tocopherol. *Nature Plants*. 2023 August 07; 9(8):1359-1369. Available from: <https://www.nature.com/articles/s41477-023-01483-0> DOI:

10.1038/s41477-023-01483-0

2. Semchonok D, Mondal J, Cooper C, Schlum K, Li M, Amin M, Sorzano C, Ramírez-Aportela E, Kastiris P, Boekema E, Guskov A, Bruce B. Cryo-EM structure of a tetrameric photosystem I from *Chroococcidiopsis* TS-821, a thermophilic, unicellular, non-heterocyst-forming cyanobacterium. *Plant Communications*. 2022 January; 3(1):100248-. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S2590346221001541> DOI: 10.1016/j.xplc.2021.100248
3. Semchonok DA, Li M, Bruce BD, Oostergetel GT, Boekema EJ. Cryo-EM structure of a tetrameric cyanobacterial photosystem I complex reveals novel subunit interactions. *Biochim Biophys Acta*. 2016 Sep;1857(9):1619-1626. PubMed PMID: 27392600.
4. Semchonok D, Li M, Bruce B, Oostergetel G, Boekema E. Cryo-EM structure of a tetrameric cyanobacterial photosystem I complex reveals novel subunit interactions. *Biochimica et Biophysica Acta (BBA) - Bioenergetics*. 2016 September; 1857(9):1619-1626. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S0005272816305722> DOI: 10.1016/j.bbabo.2016.06.012

B. Positions, Scientific Appointments and Honors

Positions and Scientific Appointments

2023 -	Principal Investigator, ITQB Nova, Macromolecular Crystallography Unit, Oeiras
2023 -	Guest researcher, University of Tennessee, Knoxville, Department of Biochemistry and Cellular and Molecular Biology, Knoxville
2023 - 2023	Postdoctoral researcher, Martin Luther University Halle-Wittenberg, Biophysikalische Chemie, Halle
2019 - 2022	Postdoctoral researcher, Martin-Luther-Universität Halle-Wittenberg, Biozentrum IWE ZIK HALOm, Halle, Sachsen-Anhalt
2018 - 2019	guest researcher, Rijksuniversiteit Groningen, Biomolecular X-ray Crystallography , Groningen, Groningen
2018 - 2018	Postdoctoral researcher, Hebrew University of Jerusalem, Plant & Environmental Sciences, Jerusalem, Jerusalem
2017 - 2018	Guest researcher, Rijksuniversiteit Groningen, Biomolecular X-ray Crystallography , Groningen
2016 - 2017	Postdoctoral researcher, Rijksuniversiteit Groningen, Electron Microscopy group, Groningen, Groningen
2010 - 2016	PhD candidate , Rijksuniversiteit Groningen, Electron Microscopy group, Groningen, Groningen

C. Contribution to Science

Complete List of Published Work in My Bibliography:

<https://www.ncbi.nlm.nih.gov/myncbi/dmitry.semchonok.1/bibliography/public/>