

CURRICULUM VITAE

Elizaveta F. Terlova

Education and Academic Appointments

2023–present **Heinrich Heine University**, Dusseldorf, Germany
Postdoctoral Fellow, Institute for Cell and Interaction Biology
 Advisor: Prof. Dr. Gruido Grossmann

2016–2022 **University of Connecticut**, Storrs, CT, USA
Ph.D., Ecology and Evolutionary biology
 Thesis: *Response to dehydration stress and recovery in terrestrial and aquatic green algae from Tetradismus G. M. Smith (Sphaeropleales, Chlorophyta)*
 Advisor: Dr. Louise A. Lewis

2010–2015 **Lomonosov Moscow University**, Moscow, Russia
Specialist in Botany (equivalent to MSc) Biology
 Thesis: *Desmids (Conjugatophyceae, Charophyta) of the Filinskoe peat-bog, Moscow region, Russia*
 Advisor: Dr. Olga Anissimova

Research grants

Total: \$12,428

2020 **2020 Northeast Algal Society Grant-in-Aid of Student Research** (\$1000)
 Metabolomics of aquatic and terrestrial sister-species under desiccation stress.

2020 **UConn Doctoral Dissertation Fellowship** (\$2000)

2020 **The Betty Foster Feingold Award, Department of Ecology and Evolutionary Biology, University of Connecticut** (\$1500)
 Comparative transcriptomics of a pair of congeners from aquatic and terrestrial habitats

2019 **2019 Society of Systematic Biologists Graduate Student Research Award** (\$3000)
 Signatures of desiccation tolerance in genomes of aquatic and desert sister-species.

2018 **The Betty Foster Feingold Award, Department of Ecology and Evolutionary Biology, University of Connecticut** (\$1500)
 Metabolomics of aquatic and desert sister-species during desiccation and rehydration.

2017 **The Betty Foster Feingold Endowment for Ecology and Evolutionary Biology to the Department of Ecology and Evolutionary Biology** (\$1428)
 Ultrastructural comparison of desert and aquatic species of Tetradismus (Chlorophyceae, Chlorophyta) in the hydrated, desiccated, and rehydrated states.

2017 **Phycological Society of America's Grant in Aid of Research** (\$2000)
 Desiccation tolerance in chlorophycean algae: a transcriptomic analysis.

Publications

5. **Terlova, E. F.**, Holzinger, A., Lewis, L. A. 2021. Terrestrial green algae show higher tolerance to dehydration than do their aquatic sister-species. *Microbial Ecology*, 82, p. 770–782.
4. **Terlova, E. F.**, Lewis, L. A. 2019. A new species of *Tetradismus* (Chlorophyceae, Chlorophyta) isolated from desert soil crust habitats in southwestern North America. *Plant and Fungal Systematics*, 34:1.
3. Anissimova, O. V., **Terlova, E. F.** 2015. Additions to the desmid flora (Desmiales, Conjugatophyceae) of Moscow region. *Ботанический журнал* (Journal of Botany), 1:100.
2. Anissimova, O. V., **Terlova, E. F.** 2015. Conjugatophyceae (Streptophyta) of Northern region of Russian Federation: review of studies and taxonomy. *Вопросы Современной Альгологии* (Issues of Modern algology) 2:9. URL: <http://algology.ru/746>
1. Anissimova, O. V., **Terlova, E. F.** 2014. Micrasterias C.Agardh (Conjugatophyceae) in the bogs of Moscow region. *Вопросы Современной Альгологии* (Issues of modern algology) 1:5. URL: <http://algology.ru/476>

Presentations

Terlova, E.F., Lewis, L. A. 2021. Investigating metabolic changes during a desiccation-rehydration cycle in two desert species of *Tetradismus* (Sphaeropleales, Chlorophyceae). 59th Annual Northeast Algal Symposium. **Francis R. Trainor Poster Award.**

Terlova, E.F., Lewis, L. A. 2021. Metabolite changes during desiccation-rehydration cycle in desert and aquatic green algae from *Tetradismus*. 12th International Phycological Congress. Puerto Varas, Chile.

Terlova, E. F., Lewis, L. A. 2018. Structural comparison of desert and aquatic species of *Tetradismus* (Chlorophyceae, Chlorophyta) through the cycle of desiccation and rehydration. The 57th Annual Northeast Algal Symposium. West Haven, CT.

Terlova, E. F., Anissimova, O. V. 2014. Desmid algae (Conjugatophyceae, Charophyta) of the Filinskoe peat-bog (Moscow region, Russia). The 3rd International conference and school for young scientists. Borok, Russia.

Terlova, E. F., Anissimova, O. V. 2013 Desmid algae (Conjugatophyceae, Charophyta) of Moscow region, Russia. The 19th International student, postgraduate and young scientist conference. Moscow, Russia.

Terlova, E. F., O. V. Anissimova. 2013. Desmid algae (Conjugatophyceae, Charophyta) of the Russian North. Marine Biology, Geology and Oceanography: interdisciplinary research at marine stations; dedicated to the 75th anniversary of the Nikolai Pertsov White Sea Biological Station. Moscow, Russia.

Wet lab skills

1. Axenic cell culture establishment and maintenance (liquid & solid media)
2. TEM and SEM sample preparation
3. Confocal microscopy
4. Amplicon sequencing (DNA extraction, PCR, Sanger sequencing)
5. RNA extraction
6. High molecular weight DNA extraction (for long-read genome sequencing)
7. Metabolome extraction

Bioinformatics skills

1. **Programming languages**

bash – independent user

R – independent user

Python – independent user

2. **Transcriptomics**

QC (FastQC, MultiQC, Trimmomatic, Sickle)

Denovo transcriptome assembly (Trinity)

Structural annotation (TransDecoder, EviGene pipelines)

Functional annotation (EnTAP)

3. **Genomics** (Oxford NanoPore long read technology)

QC (NanoPlot, PoreChop, Centrifuge)

Genome assembly (Shasta, Flye, Canu)

Structural annotation (RepeatModeler pipeline)

Functional annotation (Breaker2, Maker, EnTAP)

4. **Metabolomics** (LC/MS data)

Preprocessing and annotation (XCMS family, MS-Dial)

Field Work

1. GoLife collecting trips to Panama (2016), Chile (2017), Malaysia (2018), South Africa (2019); collected and processed water, soil, lichen photobionts, and algal epiphyte samples and specimens. Web site of the project: <http://mycophygolife.org>

Mentoring experiencee

2016 – 2019 Mentoring Undergraduates (molecular lab techniques, including DNA extraction, gene amplification, and Sanger sequencing; sterile techniques; poster presentations).

Public outreach

2018 UCONN Junior Science Salon instructor (instructor for an interactive display of plant adaptations; age: primary and middle school students).

2017 Connecticut BioBlitz in East Hartford, CT

2016 Connecticut BioBlitz at Greenwich Point, CT