

OLEKSII PIDLYPENETS

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EDUCATION

The University of the South

Sewanee, TN

Bachelor of Science with Honors (Candidate)

Aug' 2022 - May 2026

Double Major in Chemistry and Molecular Biology, Minor in Computer Sciences

GPA: 3.85 / 4.00, Dean's List all semesters

ΔΔK member – national honor society, Order of the Gown member – University Honor Society

Global Scholar recipient – Distinction Scholarship for International Students

Danish Institute for Studying Abroad (DIS)

Copenhagen, Denmark

Core Course: Medical Biotechnology and Drug Design

Aug' 2024 - Dec' 2024

Taras Shevchenko National University of Kyiv

Kyiv, Ukraine

Bachelor of Science (transferred from)

Sep' 2020 - May 2022

Major: Biology (General and Medical Genetics)

GPA: 94 / 100

RECENT RESEARCH EXPERIENCE

Researcher, Yale School of Medicine, Gastroenterology: Dr Ameen Lab

June 2025 - July 2025

Gut inflammation and cellular regeneration under induced stress

New Haven, CT

- Analyzed stress-induced intestinal inflammation and tissue regeneration in. SGK1-KO vs HET mice
- Conducted quantitative data analysis and histo-immunochemical and molecular genetic methodology

Research Assistant, University of the South: Metalorganic synthesis laboratory

May 2023 - Present

Anti-Cancer Pharmaceuticals Synthesis Project

Sewanee, TN

- Conduct independent research on the synthesis and characterization of novel Pt (II) and Pt (IV) complexes with indazole derivatives, confirmed by X-ray with predicted anti-cancer properties
- Synthesized several novel frameworks for organometallic complexation with Pt and Co
 - *Awarded University Summer Research Fellowship Twice (2023, 2024)*

Intern, Rigshospitalet, Department of Medical Genomics

Sep' 2024 - Dec' 2024

Pharmacogenomics and Personalized Treatment of Cancer

Copenhagen, Denmark

- Performed bioinformatic analysis of genomic variants to predict chemotherapy response
- Led a project to expand the gene panel for using NGS data, in personalized oncology treatments

Clinical Researcher, Sewanee Molecular Diagnostic Lab

Sep' 2022 - May 2023

Genomic study of antibiotic resistance of UTI bacteria

Sewanee, TN

- Analyzed human UTI biological samples in clinical laboratory for the genes expressivity involved in antibiotic resistance to provide guidelines for health insurance companies
- Performed statistical analysis of qPCR data to determine clinical relevance for insurance companies

Research Assistant, National Bohomoletz Institute of Physiology

Oct' 2021 - Mar' 2022

TERT, p16 and p21 expression characterization in senescent fibroblasts in vitro ***Kyiv, Ukraine***

- Conducted independent research on the changes of TERT, p16 and p21 expression levels in mice cardiac senescent fibroblasts in vitro at different stages of aging
- Developed hypothesis and methodology of the project and presented to scientific research committee

Research Assistant, National Institute of Molecular Biology and Genetics **Jun' 2021 - Sep' 2021**

Evaluation of the micro-RNAs expression level in human glioblastoma samples and normal adjacent tissues ***Kyiv, Ukraine***

- Formulated research proposal of testing selected microRNAs as markers of malignancy in human GB
- Conducted mentored research on differences of selected microRNAs levels in surgical tumor samples and normal adjacent tissues
- Wrote and submitted an abstract of the research to the research conference and research journal

RELEVANT SKILLS

Biology laboratory: PCR (qPCR, RT-PCR), DNA & RNA extraction; confocal microscopy; immunofluorescence; polyadenylation reaction; quantification of DNA & RNA purity and concentration on NanoDrop; gel electrophoresis; Western blot; light microscopy; cell cultures; immunocytochemistry

Bioinformatics and CS: professional with BLAST, gnomAD, ClinVar, Python (Matplotlib, Numpy, Flask, Pandas), R for data analysis and visualization, Fiji for image analysis, Linux and MacOS command line

Clinical laboratory: Gram staining, blood smear preparation and analysis, working with and analyzing results from hematology analyzer, identification of blood groups by antibodies test

Chemistry laboratory: NMR (1H, 13C, Dept), IR, TLC, acid-base titration, column chromatography, and working with hazardous chemicals

Other: English (fluent); German (intermediate); Ukrainian, Russian; MS Office, Power Point, Excel

PRESENTATIONS AND PUBLICATIONS

• ***American Chemical Society (ACS) – Fall 2024, New Orleans***

"Development of Novel Di-Indazole Chelate Ligands and Their Metal Complexes" (*Oral Presentation*)

• ***Journal of Vision (Peer-reviewed) – Sep 2024***

"General and Specific Effects of Meditation on Gaze Cueing of Attention" (*Abstract Published*)

• ***Scholarship Sewanee – Research Symposiums 2024, 2025***

"Development of Novel Di-Indazole Ligands with Predicted Anticancer Activity" (*Poster Presentation*)

• ***Modern Oncology, NAS of Ukraine (Peer-reviewed) – 2024***

"Expression of microRNAs in Glioblastoma vs. Adjacent Normal Tissues" (*Abstract Published*)

RELEVANT WORK EXPERIENCE

Scientific writer

Ukrainian Teenager Science Organization (UkrTeenScience)

Aug' 2023 - Jan' 2025

Ukraine

- Authored over 20 science communication articles on molecular biology, oncology, and biomedical innovations, aimed at making complex research accessible to a younger audience
- Developed educational materials—including lesson plans, blog posts, and interactive content—for a national youth science community of 3,500+ members, fostering early interest in STEM fields

Chemistry Tutor/TA, University of the South

Jan' 2023 - Present

Chemistry Department

Sewanee, TN

- Provided educational support to the undergraduate students in courses of General and Advanced General Chemistry in groups of 5-15 students per session
- Developed individual study schedule for students and personalized study approaches
- Introduced problem-solving techniques and analytical approaches to strengthen students' comprehensive understanding of the subject

Laboratory Technician, University of the South

Aug' 2022 - Present

Chemistry Department

Sewanee, TN

- Ensure safety and organization of laboratory sessions by maintaining safe and clean work space, prepare and maintain chemicals and analytical instruments in order and according to safety standards
- Organize the work of student-employees and promote effective collaboration and work distribution

CERTIFICATIONS

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- **Yale University EHS: BSL-2 and bloodborne pathogens training**
 - **Biomedical Research - CITI Program** *valid till Oct' 2025*
Credential ID: 51176049
 - **Nordic TechImpact Talent Competition 2024 – compilation and honorable mentioning**
Completed the series of workshop on startup development and business planning in tech sector

HONORS AND AWARDS

National Leadership Honor Society - OAK (Omicron Delta Kappa)

Inducted in Mar' 2025

Local Honor Society, Order of the Gown, University of The South

Inducted in Oct' 2023

Dean's List all collegiate semesters, requires minimum 3.625/4 GPA, *University of The South*

International research competition in China, **BYSCC 2020**, 1st place, section of Molecular and Cellular Biology