

## A. Elessar Telcontar

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### EDUCATION:

Lawrence University, Appleton, WI  
Bachelor of Arts in Biology, June 2022  
Major: Biology; Minor: Anthropology  
GPA: 3.85

### LABORATORY SKILLS:

Western Blot	RNA/DNA Isolation	Gel electrophoresis
cDNA Synthesis	Flow Cytometry	Protein Expression
Coomassie Assay	Gene Cloning	Protein Purification
Cell Culture	PCR	FPLC

### RESEARCH EXPERIENCE:

Lawrence University, Department of Biology  
*Student Independent Study, Dr. Samwise Lab* Appleton, WI  
Sept. 2020 – Present

- Perform gene analysis using various tools (VectorNTI, SMART, Siganlp, etc.)
- Characterize Mpeg genes and determine its distribution in *Biomphalaria glabrata*
- Clone and express Mpeg proteins in bacteria
- Test Mpeg proteins' function by using different functional assays
- Discuss experiment progress and results with Lab supervisor biweekly

University of Chicago, Department of Biological Science  
*Summer Research Assistant, Smeagol Lab* Chicago, IL  
Jun. – Aug. 2020

- Utilized cloning techniques to clone CD19 scFv in Bacteria
- Expressed CD19 scFv protein and purified it using Ni-NTA affinity and FPLC
- Performed Coomassie assay and Western blot to detect CD19 scFv protein
- Examined the binding ability of CD19 scFv protein test the binding ability of CD19 scFv protein to CD19 on human lymphoma B cells with flow cytometry
- Worked independently under the project supervisor
- Communicated PI and other lab members for questions
- Presented the project progress and results during weekly lab meetings

Lawrence University, Department of Biology  
*Student Independent Study, Dr. Samwise Lab* Appleton, WI  
Sept. 2019 – Jun.2020

- Maintain Bge cell line culture for research purpose
- Examined TLR transcription level in Bge cells using PCR and gel electrophoresis
- Carried out RNA extraction, cDNA synthesis, PCR and gel electrophoresis to examine Mpeg gene expression in Bge cells
- Maintain laboratory facilities to meet university standards and protocols
- Successfully solved problems found in RNA extraction and PCR to get clear results

Lawrence University, Department of Biology  
**Summer Research Assistant, Dr. Samwise Lab**

Appleton, WI  
Jun. 2019 – Sept. 2019

- Contributed to project using qPCR and gel electrophoresis to examine different protein expression levels in NF- $\kappa$ B pathway
- Recorded detailed notes of all procedures, observations, and interpretation in lab
- Learned various new laboratory equipment and bio techniques quickly
- Assisted other lab members' projects.

#### **SELECTED COURSE EXPERIENCES:**

- Led group class projects for biology classes
- Collaborated with lab partners on presentations to deliver project results to classes
- Discussed various published research papers with classmates
- Examined principles of epidemiology and public health in role of microorganisms in infectious disease prevention and transmission

#### **TECHNICAL SKILLS:**

- Analysis programs: BLAST, VectorNTI, SMART, Signalp, TMMTH, Kaleidograph, PAST
- Microsoft: MS Word, MS Excel, and MS PowerPoint; Google: Docs, Sheets, Slides
- Operating Systems: Windows, Mac

#### **POSTER PRESENTATIONS:**

- Summer Research Symposium, Lawrence University Oct.11.2020

#### **WORK EXPERIENCE:**

##### **Center for Academic Success, Lawrence University**

Appleton, WI  
Sept. 2019 – Present

##### *Content Tutor*

- Help students studying Latin with homework and exam preparation
- Lead review sections for students before their midterms and finals

##### **Biology Stock Room, Lawrence University**

Appleton, WI  
Nov. 2018 – Jan. 2019

##### *Student Worker*

- Help with lab preparations and stock room maintenance

##### **Lothlórien Forests**

Galadh, WI  
June – Aug. 2018

##### *Jr. Ranger (Seasonal)*

- Maintained 150+ miles of trails and walkways in 9000 acres park
- Helped set-up basic trap cameras

#### **VOLUNTEER EXPERIENCES:**

- Shelter Volunteer, Saving Paws Animal Rescue In., Appleton, WI 2018 – Present
- Volunteer, St. Elizabeth Hospital, Appleton, WI 2018 – 2019
- English Tutor, Fox Valley Literacy Council, Appleton, WI 2018 – 2019

#### **CLUB ACTIVITIES:**

*President*, Alliance of Research on Weathertop, Eriador, and Nazgul (ARWEN) 2018 – Present  
*Secretary*, People for Animal Welfare 2019 – Present  
*Publicity Chair*, People for Animal Welfare 2018 – 2019