

# JAGIENKA TIMEK

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909 Plymouth Ave SE  
Grand Rapids, Michigan

## EDUCATION

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**BS University of Michigan.** College of Literature, Sciences, and the Arts (LSA)  
**Majors:** Molecular, Cellular, and Developmental  
Biology (MCDB) Honors, Music May 2022  
Graduated Magna Cum Laude, GPA: 3.861  
**Minor:** Spanish Language, Literature, and Culture

## HONORS AND AWARDS

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**Fulbright US Student Program Finalist; Fulbright-Austrian Marshall  
Plan Foundation Award in Science and Technology** 2023-2024  
Medizinische Universität Wien; Vienna, Austria  
Project Title: Immune Response of Spider Silk Components in Peripheral  
Blood Mononuclear Cells In Vitro

**Fulbright US Student Program Semi-Finalist** 2023  
Medizinische Universität Wien; Vienna, Austria  
Project Title: Immune Response of Spider Silk Components in Peripheral  
Blood Mononuclear Cells In Vitro

**DAAD One Year Grant for Doctoral Students** 2022-2023  
Medizinische Hochschule, Hannover; Hannover, Germany  
Project Title: Tissue Engineering of MHC I Expression for Immune Compatible  
Human Skin Allografts

**Program in Biology Director's Award** 2022  
Outstanding academic coursework and original independent research

**Sigma Alpha Iota Ruby Sword of Honor** 2022  
Outstanding service in Southeast Michigan Province

**Fulbright US Student Program Semi-Finalist** 2021  
Medizinische Hochschule, Hannover; Hannover, Germany  
Project Title: Tissue Engineering of MHC I Expression for Immune Compatible  
Human Skin Allografts

**Honors Summer Fellowship** 2021  
Undergraduate summer research opportunity funded by LSA Honors Program

**Underwood-Alger Scholarship** 2021

Research support for females pursuing biological sciences

**Undergraduate Research Opportunities Program (UROP) Biomedical and Life Sciences Summer Research Fellowship** 2020

Undergraduate summer research opportunity funded by UROP

**Sophomore Honors Award with Distinction** 2020

Excellence in academics, extracurriculars, and engagement within LSA Honors Program

**James B. Angell Scholar** 2020

Awarded to students who achieve an “A” record for two or more consecutive terms

**Slavic Languages Department Essay Award** 2019

Outstanding work written in a native language

Essay Title: *Art and Absurdism*

**William J. Branstrom Freshman Prize** 2019

Awarded to top 5% of freshman class within LSA

**LSA Honors Program** 2018-2022

## **RESEARCH EXPERIENCE**

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**Department of Plastic, Aesthetic, Hand, and Reconstructive Surgery, Hannover Medical School, Hannover** 2022-2023

**Research Assistant, Kerstin Reimers Laboratory for Regenerative Biology**

- Optimized and executed RNA isolation techniques, Western blots, qPCR, and successful cell culture of tumor cells
- Managed individualized project concerning axolotl-derived skin antimicrobial peptides for breast cancer treatment
- Gained animal handling experience with golden orb weaver spiders and axolotls
- Facilitated intercultural communication between colleagues in German

**Honors Thesis, University of Michigan, Ann Arbor** 2022

Advisor: Paul Cederna, MD

- Project Title: *Regenerative Peripheral Nerve Interfaces (RPNI) Attenuate Neuropathic Pain and Molecular Markers Associated with Symptomatic Neuromas In Both Male and Female Rats*

**Section of Plastic Surgery, University of Michigan, Ann Arbor** 2020-2022

**Research Assistant, Neuromuscular Lab**

- Assisted in 3 nerve injury experiments using surgical constructs with rats while becoming proficient in tissue techniques such as immunohistochemistry, sectioning, and fluorescent imaging
- Acquired animal handling and behavioral testing proficiency with rats

- Authored literature review investigating effects of neuroma pain on mental health of patients with amputations

**Department of General Surgery, University of Michigan, Ann Arbor** 2019-2020

**Research Assistant, Cohen Laboratory**

- Performed cell culture techniques, Western blots, and nanoparticle analysis to determine exosomal cargo of tumor cells within cross-cultured tumor microenvironment

## **PUBLICATIONS**

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### ***Journal Publications***

Riegger, A., Timek, J., Nelson, N., Dehdashtian, A., Daniel, M., Buchman, S., Kemp, S.W.P., “Severity of Neuropathic Pain, Sensorimotor Impairments, and Sensory Neuron Abnormalities in Rat Model of Radiation Induced Neuropathy is Dose Dependent” *Plastic and Reconstructive Surgery- Global Open*, vol. 10, issue 6S, p. 129.

Timek, J., Guy, E., Dehdashtian, A., Riegger, A., Kemp, S.W.P., Cederna, P., “Regenerative Peripheral Nerve Interfaces “RPNI” Attenuate Neuropathic Pain and Molecular Markers Associated with Symptomatic Neuromas in Both Male and Female Rats” *Plastic and Reconstructive Surgery- Global Open*, vol. 10, issue 6S, p. 65

### ***Journal Papers in Review***

Lee, J., Timek, J., Brown, D., Cederna, P., Kemp, S.W.P., “A Surgeon’s Guide to Understanding the Impact of Mental Health on Surgical Outcomes Following Peripheral Nerve Injury,” Submitted to: *Plastic and Reconstructive Surgery*.

Kemp, S.W.P., Dehdashtian, A., Timek, J., Svientek, S., Risch, M., Bratley, J., Riegger, A., Kung, T., Cederna, P., “Sexually Dimorphic Pattern of Pain Mitigation Following Prophylactic Regenerative Peripheral Nerve Interface (RPNI) in a Rat Neuroma Model,” Submitted to: PAIN.

### ***Conference Presentations***

Burke, K., Timek, J., Guy, E., Dehdashtian, A., Riegger, A., Kemp, S.W.P., Cederna, P., “Attenuation of Molecular Markers and Neuropathic Pain Associated with Symptomatic Neuromas in Both Male and Female Rats with the Regenerative Peripheral Nerve Interface (RPNI)” *American Society for Peripheral Nerve*, Miami, Florida. January 20-22, 2023.

Dehdashtian, A., Wisely, J., Svientek, S., Guy, E., Riegger, A., Timek, J., Cederna, P., Kemp, S.W.P., “Perineural Application of Minimally Processed Fat Tissue to

Mitigate Neuropathic Pain in a Rat Model of Neuroma” Plastic Surgery Research Council, Toronto, Ontario. June 8-12 2022.

Riegger, A., Timek, J., Nelson, N., Dehdashtian, A., Daniel, M., Buchman, S., Kemp, S.W.P., “Severity of Neuropathic Pain, Sensorimotor Impairments, and Sensory Neuron Abnormalities in Rat Model of Radiation Induced Neuropathy is Dose Dependent” Plastic Surgery Research Council, Toronto, Ontario. June 8-12 2022.

Timek, J., Guy, E., Dehdashtian, A., Riegger, A., Kemp, S.W.P., Cederna, P., “Regenerative Peripheral Nerve Interfaces “RPNI” Attenuate Neuropathic Pain and Molecular Markers Associated with Symptomatic Neuromas in Both Male and Female Rats” Plastic Surgery Research Council, Toronto, Ontario. June 8-12 2022.

## **COMMUNITY SERVICE**

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### **Hope Medical Clinic**

Front Desk Assistant, Ypsilanti, MI; 2021-2022

### **Sigma Alpha Iota International Music Fraternity**

Music Committee Co-Chair, Ann Arbor, MI; 2020-2022

### **Detroit Educational Society**

Tutor, Ann Arbor, MI; 2020-2021

### **Proyecto Avance, Latino Mentoring Association**

Tutor, Ann Arbor, MI; 2019-2020

### **University of Michigan Red Cross Club**

Fundraising Chair and Member, Ann Arbor, MI; 2018-2020

## **LANGUAGES**

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**English:** Fluent

**Polish:** Native

**Spanish:** Advanced

**German:** Intermediate

## **REFERENCES**

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**Dr. Stephen W.P. Kemp, PhD**, Associate Research Professor, Plastic Surgery  
Director, Neuromuscular Lab  
Department of Surgery, Section of Plastic Surgery  
University of Michigan  
1150 W Medical Center Drive  
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**Dr. Paul Cederna, MD**, Professor of Plastic Surgery, Chief  
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