

# Sydney Rae DeJonge

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## Education

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**Doctor of Philosophy in Kinesiology and Nutrition** Present  
University of Illinois Chicago – Chicago, IL

**Master of Science in Exercise Physiology** May 2021  
Ball State University – Muncie, IN

**Bachelor of Science in Exercise Science; Pre-Physical Therapy Concentration** May 2019  
Cornerstone University – Grand Rapids, MI

## Employment

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### **Graduate Research Assistant 2021 – Present**

Exercise Neuroscience Research Laboratory  
University of Illinois Chicago – Chicago, IL

- Assessing cognitive function using multiple neuropsychological tests.
- Observing physical activity behaviors using Actigraph Accelerometers.
- Utilized techniques such as ultrasound (carotid – wave intensity and echo tracking; brachial and femoral blood flow), flow-mediated dilation (FMD), pulse wave analysis and velocity, Finometer, transcranial doppler, Near Infrared Spectroscopy (NIRS), Biodex, and many other instruments.

### **Graduate Teaching Assistant 2021 – Present**

School of Applied Health Science  
University of Illinois Chicago – Chicago, IL

- Instruct undergraduate laboratory classes for an introductory exercise physiology course.
- Educate the students on the basics of exercise physiology: anaerobic power, aerobic capacity, substrate utilization, muscular fitness, body composition, cardiovascular responses to rest and exercise.

## Extracurricular

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- Secretary of the Graduate Student Council (UIC) 2022 – Present
- Kinesiology Graduate Student Council Representative (UIC) 2021- 2022
- Attendee and Presenter at Experimental Biology Conference 2022
- Attendee of Midwest ACSM Conference 2018 & 2019
- Global Opportunities Missions Trip to Dominican Republic 2016 & 2019
- NAIA Student-Athlete 2015 – 2019
- Advisory Council Member 2016 – 2019
- President of Exercise Science Club 2017 – 2019

## Professional Memberships and Certifications

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- Member of American Society of Clinical Oncology 2023
- Member of North American Artery 2022 – Present
- Member of American Physiological Society 2021 – Present
- Member of American College of Sports Medicine 2018 – Present
- American Red Cross CPR/ First Aid/AED Certified 2014 – Present

## Published Manuscripts

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- Shannon, Carley A., **DeJonge, Sydney R.**, Pike, Kimberli., Nagelkirk, Paul R., and Del Pozzi, Andrew T. Effect of Head Trauma on Autonomic Function. *International Journal of Exercise Science* 2020.

## Manuscripts Under Review

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- Zheng P, **DeJonge SR**, Flores VA, Jeng B, Motl RW. Systematic Review and Meta-Analysis of Sedentary Behavior in Persons with Multiple Sclerosis. *Annals of Physical Rehabilitation and Medicine*. 2023

## Conference Abstracts

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- Zheng P, **DeJonge SR**, Flores VA, Jeng B, Motl RW. Systematic Review and Meta-Analysis of Sedentary Behavior in Persons with Multiple Sclerosis Compared with Controls. Submitted to Consortium of Multiple Sclerosis Centers (2023). Abstract ID: 8875
- **DeJonge SR**, Del Pozzi A, Nagelkirk PR. Effects of a Treadmill Workstation on Coagulation Potential. Submitted to Experimental Biology (2022) Abstract ID: R4154
- Hibner BA, Lefferts EC, Lima NS, Sherman SR, **DeJonge SR**, Baynard T, Fernhall B. Aerobic Fitness as a Predictor of Conduit, Resistance and Microvascular Arterial Function. Submitted to Experimental Biology (2022) Abstract ID: R2450
- Sherman SR, Hibner BA, **DeJonge SR**, Rosenberg AJ, Lima NS, Baynard T, Fernhall B. Rapid Onset Vasodilation: Impact of Cardiorespiratory Fitness. Submitted to Experimental Biology (2022) Abstract ID: R6286

## Research Experience

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- Exercise Training for Managing Major Depressive Disorder in Multiple Sclerosis
  - Administer maximal exercise tests.
  - Assess outcomes such as: Hamilton Depression Rating Scale (HRDS-17), Patient Health Questionnaire (PHQ-9), fatigue, quality of life, and cognition.
- Home-based Exercise Intervention Program in Older Adults with Multiple Sclerosis
  - Conducting physical functioning tests such as Time Up and Go (TUG), 6-minute walk test, 30-second sit-to-stand, 25-foot walk test, and the Short Physical Performance Battery (SPPB).
  - Evaluating cognitive function using the following neuropsychological tests: Brief Visuospatial Memory Test-Revised, Symbol Digit Modalities Test, California Verbal Learning Test II, and various tests with the NIH toolbox.

- Assessing carotid-femoral pulse wave velocity (cfPWV) using SphygmoCor Excel.
- Femoral Blood Flow and Autonomic Function Analysis
  - Assessing femoral blood flow during dynamic exercise in persons with Down Syndrome and healthy controls.
- Active Workstation
  - Apply Autonomic Function Instrumentation: electrocardiogram, nasal canula, transcranial doppler, and blood pressure
  - Antecubital venipuncture using an indwelling catheter.
- Head Trauma Study
  - Apply Autonomic Function Instrumentation: electrocardiogram, nasal canula, transcranial doppler, and measuring blood pressure.
- Athlete Testing
  - Max tested the Ball State Tennis team with a discontinuous protocol
- Caffeine Research
  - Maximal and Interval cycle ergometer testing with metabolic cart.
  - Collecting blood glucose, hematocrit and hemoglobin measures