



## **Biosketch**

### **Alice Racca, PhD in bioengineering**

Dr. Racca has a PhD degree from the University of Washington and conducted postdoctoral research with Michael Geeves at the University of Kent and with Jeffrey Moore at the University of Massachusetts Lowell.

Dr. Racca's master's thesis began her studies of myosin, for which she investigated the effects of skeletal embryonic myosin mutations on the contractility of adult muscle and examined the expression profile of embryonic myosin mRNA in mouse and rabbit, among several focuses. Her PhD research correlated genetic mutations with clinical phenotypes through proteomics, advanced biophysics, and computer molecular dynamic modelling, and she also investigated the biophysics, mechanics, and kinetics of human fetal skeletal and cardiac tissues.

Her postdoctoral work with Michael Greeves investigated changes in biophysics, mechanics, and kinetics of human fetal proximal skeletal and cardiac tissues through proteomics and transient kinetic methods as a function of age. With Jeffrey Moore, she studied tropomyosin coiled-coil resiliency to mutations that possibly interfere with key hydrophobic and ionic interactions. She also explored the single-bout effect of exercise on skeletal muscle fibers and protein expression.

Dr. Racca's work has been recognized by a Ruth L. Kirschstein Predoctoral Individual National Research Service Award from the National Institute of Arthritis and Musculoskeletal and Skin Diseases of the National Institutes of Health, a Marie Skłodowska-Curie Individual Fellowship from the Horizon2020 program of the European Commission, and a postdoctoral fellowship from the American Heart Association.

Dr. Racca has extensive experience with teaching and outreach. She is an experienced backpacker who has explored the Cascades and Olympic ranges in Washington, the Scottish Highlands, and the English Dover Downs trail.