

My research fields include: bioanalytical, biophysical, and food chemistry.

My research focuses on understanding how nitrate from diet, particularly from vegetables, is converted to nitrite in human body. In recent years, it has been discovered that nitrate from food has health beneficial effect. It is believed that nitrate from diet is taken up by salivary glands and concentrated into saliva, where it can be converted to nitrite by anaerobic bacteria or enzyme (nitrate reductase). The formed nitrite is then converted to nitric oxide (NO) in blood and tissues and NO has been found to have therapeutic potential in a variety of cardiovascular conditions, such as reducing blood pressure and increasing blood flow.

I am also interested in developing new methods in the determination of nitrite and nitrate in biological samples.