

I am a professor of inorganic biochemistry at the University of Wrocław, where I serve as the head of the Department of Biological Chemistry. Author of more than 100 articles related to biochemistry, biology, and toxicology of zinc, copper, and nickel. My research interests are focused on understanding molecular bases that control zinc protein function, stability, and reactivity. The mechanism by which zinc proteins associate and dissociate zinc ions under cellular conditions is not well understood. The question of whether the protein is saturated with zinc or not is linked to its biochemical and chemical features such as thermodynamics and kinetics. I am particularly interested in understanding how zinc regulatory proteins work under cellular free zinc changes and how zinc fluxes correlate to protein status (e.g., metal-depletion of metallothioneins, folding of transcription factors, or metal activation/inhibition of enzymes). Additional research interests are related to cellular LMW ligands that participate in metal chelation, transport, protein regulation, etc. As a chemist, my scientific vision is to discover and highlight molecular bases of metalloproteins action for metal-oriented biologists.