## **Gerhard Sponder** (Berlin, **Germany**)





Gerhard Sponder is postdoctoral researcher at the Institute of Veterinary Physiology at Free University Berlin, Germany. From the beginning of his scientific career, he has focused on cellular Mg<sup>2+</sup> homeostasis, in particular on the functional and structural characterization of the channel Mrs2 that forms the main Mg<sup>2+</sup> influx system in mitochondria. Later, his research focused on the physiological relevance of solute carrier 41A1 which represents the main Mg<sup>2+</sup>-efflux system of mammalian cells and its dysregulation is associated with diseases such as diabetes mellitus, hypertension, and neurodegenerative disorders. Also in dairy cows and horses he investigates Mg<sup>+</sup> transport, especially under metabolically challenging situations like the onset of lactation and equine metabolic syndrome. contact: gerhard.sponder@fuberlin.de In his speech, he will talk about the role of the mitochondrial Mg<sup>2+</sup>-channel Mrs2 and of the solute carrier family 41 for cellular Mg<sup>2+</sup>-homeostasis