



Thursday, March 2, 2017
11:00 a.m., Room 101 Biochemistry

Dr. Marianne Wessling-Resnick
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“Metal Transport and Human Health”

Research in the Laboratory

Iron and manganese are both essential micronutrients but can be toxic at high levels. Both iron deficiency and overload affect human health, and iron homeostasis is highly regulated to avoid these disease states. Our laboratory has focused on iron delivery at the molecular level and found many interactions with manganese that demonstrate that their transport pathways and homeostasis are interconnected. We seek to define molecular information about the transport and metabolic disposition of these and other metals to advance our understanding micronutrient nutrition and optimal human health at both the cellular and organismal levels.

References

- Seo YA, Li Y, **Wessling-Resnick M**. Iron depletion increases manganese uptake and potentiates apoptosis through ER stress. *Neurotoxicology*. 2013; 38: 67-73.
- Seo YA, **Wessling-Resnick M**. Ferroportin deficiency impairs manganese metabolism in flatiron mice. *FASEB J*. 2015; 29:2726-2733.
- Kim J, Buckett D, **Wessling-Resnick M**. Absorption of manganese and iron in a mouse model of hemochromatosis. *PLoS One*. 2013,8:e64944.