

Personal Details

Name Professor Harry John **McArdle**

Address Rowett Institute of Nutrition and Health, University of Aberdeen,
Greenburn Road, Bucksburn, Aberdeen AB21 9SB UK

Present position Deputy Director (Science)
Director (Academic Affairs)
Professor in Biomedical Sciences, University of Aberdeen.
Special Professor in Biosciences, University of Nottingham.

Higher Education

1976 B.Sc. (Honours), 1st Class, Physiology, University of St Andrews
1980 Ph.D. Physiology, University of St Andrews)

Employment

1980-85 Research Scientist, Physiology, University of West Australia
1985-90 Senior Scientist, Murdoch Inst for Research into Birth Defects, Melbourne
1990-96 Lecturer/senior lecturer, Child Health, University of Dundee
1996-current Group leader, Head of Division and Deputy Director (Science) (2007), Rowett
Research Institute

Research Interests

My main interests relate to the metabolism of micronutrients and the role they play during fetal growth and development. Most of the work relates to iron and copper uptake and transfer and the consequences of deficiency. I am also interested in how they interact with each other and how their metabolism affects each other. In relation to fetal programming, we found that maternal iron deficiency during pregnancy resulted in an increase in blood pressure in the offspring, even though their iron status was normal. We hypothesised that there was a developmental change that could not be reversed, and have concentrated on trying to identify the change. At the same time, we have been trying to determine whether the same effect can be seen in humans. Our work involves cellular and molecular physiology, using animal and cell culture models, and more recently we have been trying to build computer models that will mimic the interactions and the kinetics of micronutrients in pregnancy.

My work is currently supported by the Scottish Government and the BBSRC, and we have had support in the past from EU (Earnest, NuGO and FeMMES) and from the Wellcome trust and the NH&MRC of Australia.

Relevant recent publications

1. Brion M-JA, Leary SD, Smith GD, **McArdle HJ**, and Ness AR. Maternal anemia, iron intake in pregnancy, and offspring blood pressure in the Avon Longitudinal Study of Parents and Children. *Am J Clin Nutr* 88: 1126-1133, 2008.
2. Fosset C, Danzeisen R, Gambling L, McGaw BA, and **McArdle HJ**. Cu loading alters expression of non-IRE regulated, but not IRE regulated, Fe dependent proteins in HepG2 cells. *J Inorg Biochem* **103**, 709-716. 2009.
3. Gambling L, Czopek A, Andersen HS, Holtrop G, Srai SK, Krejpcio Z, and **McArdle HJ**. Fetal iron status regulates maternal iron metabolism during pregnancy in the rat. *Am J Physiol* **296**, R1063-R1070, 2009.