Manganese Health Research Program: Recent published literature

December 2009 - February 2010

March 2010
The Institute of Environment and Health (IEH) was established at Cranfield University in November 2005. The research and consultancy activities of the Institute are principally funded through specific grants, contracts and awards by UK Government Departments and Agencies.

This document is a report by the Institute of Environment and Health for the Manganese Health Research Program (MHRP)

Prepared by Lini Ashdown & Christina Tam

©Institute of Environment and Health, 2010

Institute of Environment and Health
Cranfield University
Vincent Building
Cranfield
Bedfordshire
MK43 0AL
UK
http://www.cranfield.ac.uk/health/ieh
Introduction

This report presents the bibliographic details of papers identified as being first published during the period December 2009 to February 2010.

The papers were selected because they address research areas that are considered of direct relevance to the health effects of manganese (Mn); in order to aid review, the papers are presented under the following categories:

**Section 1 - EXPOSURE MEASUREMENT AND MODELLING:** Papers relating to the measurements or modelling of environmental and occupational Mn exposure, the development of biomarkers of exposure or effect.

**Section 2 - HEALTH EFFECTS:** Papers on the influence of Mn on health, disease and dysfunction.

**Section 3 - MECHANISM:** Papers on the physiological, biochemical and cellular mechanisms underlying the toxic effects of Mn.

**Section 4 - HUMAN SUSCEPTIBILITY:** Papers relating to assessment of the influence of genetic and epigenetic factors on human susceptibility to the effects of Mn.

**Section 5 - TREATMENT AND IMAGING:** Papers on the development and implementation of new medical approaches to the treatment of excessive Mn exposure.

**Section 6 - MISCELLANEOUS:** Other papers considered of interest or potential relevance to the study of the health effects of Mn.

The papers presented herein were identified using a series of structured searches of the following on-line databases: Medline, Toxline, Biological Sciences and Proquest Health. The paper abstracts were reviewed and categorised by an experience Scientist to confirm their relevance before inclusion in this report.
1. EXPOSURE MEASUREMENT AND MODELLING


2. HEALTH EFFECTS


3. MECHANISM


4. HUMAN SUSCEPTIBILITY

No relevant papers identified.
5. TREATMENT AND IMAGING

No relevant papers identified.
6. MISCELLANEOUS