

Scientific Advisory Committee on Nutrition

Paper for discussion: Agenda Item 4

Working Group on Iron

Please see attached paper for consideration. The following annex is also attached:

Annex 1: Biographies of those nominated to the Working Group.

Scientific Advisory Committee on Nutrition

Working Group on Iron

BACKGROUND

1. At SACN's first meeting the Committee agreed to the setting up of a working group on iron. It was also agreed that the Chair and Vice Chair would both be members of SACN. The following terms of reference for the group was agreed:

To review the dietary intakes of iron in its various forms and the impact of various dietary patterns on the nutritional and health status of the population and to make proposals.

2. Members agreed that both beneficial and adverse effects of increasing iron intakes need to be considered including:
 - the effect of low-grade infections/inflammation on iron status
 - the effect of iron status on mental and physical development
 - the effect of nutritional status of other micronutrients on iron absorption and utilisation
 - the potential adverse effects of excess iron, in particular, the promotion of free radical damage and the risk of cardiovascular disease and cancer
3. At the last meeting the Committee agreed that Professor Peter Aggett would Chair the Working Group on Iron and that a provisional group would be put before the main Committee for comment at the next SACN meeting.
4. The Committee stated that the working group should include scientists with an awareness of:
 - iron's interactions with other nutrients
 - molecular aspects regarding cellular and metabolic regulation;
 - pathological considerations
 - broader social and ethical dimension
 - epidemiological considerations.

NOMINATIONS

5. A meeting to discuss the composition of the Working Group based on these criteria took place on Tuesday 20 November 2001. Professor Peter Aggett and the Chair of SACN met with the Secretariat to discuss the nominations received from both SACN members and academic institutions.
6. Bruno de Benoist, Head of the World Health Organisation's micronutrient programme was nominated to act as an external observer to the working group.
7. Suitable nominees, who have not been included, could be called upon as reviewers / consultees at a later stage.
8. The following names were short-listed from those originally received by the Secretariat. Biographies are attached at Annex 1.

	NAME
Chair	Professor Peter Aggett Professor of Child Health and Nutrition Head of School, Lancashire Postgraduate School of Medicine and Health
Vice Chair	Dr Ann Prentice, Vice Chair Director, MRC Human Nutrition Research, Cambridge Member of SACN
International Observer	Dr Bruno de Benoist Senior Advisor, Micronutrients Department of Nutrition for Health and Development World Health Organisation
	Members
1	Dr Philip Calder Fetal Origins of Adult Disease Division University of Southampton School of Medicine
2	Professor Sue Fairweather-Tait Head of Nutrition and Consumer Science Division Institute of Food Research
3	Professor Sally Grantham-McGregor Centre for International Child Health Institute of Child Health
4	Professor Olle Hernell Dept of Clinical Sciences, Paediatrics Umea University

	Sweden
5	Ms Paulette Jones Senior Mentoring Development Officer Divert Trust Lay Member of SACN
6	Dr Tim Key ICRF Cancer Epidemiology Unit Radcliffe Infirmary Oxford Member of SACN
7	Professor Joe Lunec Director of Chemical Pathology Leicester University
8	Professor Martin Pippard Professor of Haematology University of Dundee Medical School
9	Professor Mark Worwood Dept. of Haematology University of Hospital Wales

Members are invited to:

Agree the membership of the Working Group

**SACN Secretariat
November 2001**

ANNEX 1

Biographies of those nominated to the Working Group are as follows:

PROF PETER AGGETT

Professor Aggett is Head of School, at Lancashire Postgraduate School of Medicine and Health, and Professor of Child Health and Nutrition. His interests are in nutrition and metabolism. He has initiated and chaired a variety of advisory committees at national and international levels relating to clinical nutrition, public health and preventative medicine. Professor Aggett was also a member of various DH and MAFF advisory committees and was a member of COMA for 7 years. He is currently a member of SACN.

DR PHILIP CALDER

Dr Calder is a lecturer at the University of Southampton. His research interests include the identification of the influence of dietary fatty acids on the immune and inflammatory systems and to understand the mechanisms of action of specific fatty acids. He is a member of a number of expert panels and committees.

DR BRUNO DE BENOIST

Dr de Benoist is a senior advisor on micronutrients at the Department of Nutrition for Health and Development, at the World Health Organisation.

PROFESSOR SUE FAIRWEATHER-TAIT

Professor Susan Fairweather-Tait is Divisional Manager for Diet, Health and Consumer Science and Theme Leader for Diet and Health Research at the Institute of Food Research, Norfolk Research Park. Her main research interests are in human mineral requirements and bioavailability. She has been carrying out research on mineral requirements for over 20 years, and has achieved international recognition for developing inorganic stable isotope techniques to investigate mineral metabolism and bioavailability, especially that of iron, in human volunteers.

She has served on various expert panels and committees including the 1991 COMA Panel on Dietary Reference Values and three British Nutrition Foundation task forces, including one on 'Iron; Nutritional and Physiological Significance'. She has also served on the Department of Health Advisory Committee on Borderline Substances, and the Steering Committee for Medical Research Council-BBSRC Foresight Associate Programme in Human Nutrition Research.

PROFESSOR SALLY GRANTHAM-McGREGOR

Professor Grantham-McGregor, is professor of Child Health and Nutrition at the Centre for International Child Health, Institute of Child Health. She is an international expert on nutrition, (energy and micronutrients) and child development, cognitive function and school achievement. She has spent thirty years in Jamaica, where she has built up a strong research base looking at the cognitive development of children. She is also an adviser to UNICEF and the WHO.

MS PAULETTE JONES

Paulette Jones is a senior mentoring development officer, at Divert Trust, London, where for three years her achievements include supporting and advising the mentoring projects throughout London, writing of the Divert mentoring handbook, setting up and management of projects, and spearheading the Charity's development of parental support. She represents Divert at the Associate Parliamentary Group on Parenting, and coordinates a London mentoring and befriending forum. She has an interest in nutrition through her work with the elderly. She is also a member of SACN.

DR TIM KEY

Dr Key is a senior scientist and reader in epidemiology at the Imperial Cancer Research Fund Cancer Epidemiology Unit University of Oxford. He studied veterinary medicine, nutrition and epidemiology. His main research interests are the roles of diet and sex hormones in the aetiology of cancer, especially cancers of the breast and prostate. He is currently working on the European Prospective Investigation into Cancer and Nutrition (EPIC), as the principal investigator of the Oxford cohort of 60 000 subjects and the Chairman of the EPIC prostate cancer group. He is also a member of SACN.

PROFESSOR OLLE HERNELL

Olle Hernell is Professor and Consultant in Paediatric Gastroenterology and Nutrition at Umea University in Sweden. Professor Hernell has been working in collaboration with Professor Lonnerdal at the University of California using multiple parameters to determine iron status in early childhood and adolescence. He is also looking at the role of iron supplementation in prevention of iron deficiency and anaemia in developed and developing countries.

PROFESSOR JOE LUNEC

Joe Lunec is Professor and Director of Chemical Pathology at Leicester University. His main research interests are in the catalytic effects of iron and free radical reactions during inflammation. He has approximately 150 peer reviewed publications in the area of free radicals and pathology. Professor Lunec is currently investigating the effects of iron catalysed lipid peroxidation products and colon cancer and oxidised lipoprotein metabolism and cardiovascular disease.

Professor Lunec is a member and previous chairman of ESCODD (European Standards Committee on Oxidative DNA Damage) and of EUROFEDA (European Committee on Functional Effects of Antioxidants). He is also a member of the FSA's Committee on Toxicology of Chemicals in Food, Consumer Products and the Environment.

PROFESSOR MARTIN PIPPARD

Former head of the Department of Molecular and Cellular Pathology at the University of Dundee, Professor Pippard is a specialist in diseases of the blood, especially disorders involving altered iron metabolism.

Current research includes the identification of new therapeutic strategies for the clinical management of haemopoiesis in myelodysplasia and other anaemias associated with progressive bone marrow failure; the relationship between iron supply and disordered erythropoiesis.

He was a member of the British Nutrition Foundation Task Force on Iron and contributed sections on iron and anaemia, and non-haematological effects of iron deficiency, to the final report (1995). He co-edited a monograph on Iron Metabolism and its Disorders (1994), and is the author of the chapters on iron in the Oxford Textbook of Medicine (1996), and Postgraduate Haematology (1999). He is a scientific advisor to the UK Haemochromatosis Society, chairs a working group for the British Committee for Standards in Haematology to develop clinical guidelines for the investigation of iron status and is associated editor for the British Journal of Haematology, dealing with manuscripts related to iron and anaemia.

DR ANN PRENTICE

Dr Prentice is director of MRC Human Nutrition Research in Cambridge. Her main research interests are in nutritional aspects of bone health and osteoporosis; dietary requirements for human growth, pregnancy and lactation, and old age with particular reference to micronutrients. She has published extensive peer-reviewed articles, book chapters and reports. Dr Prentice also chaired COMA's Subgroup on Nutrition and Bone Health and is a member of SACN.

PROFESSOR MARK WORWOOD

Professor Worwood has a Personal Chair in the Department of Haematology, University of Wales College of Medicine, and is a registered clinical scientist.

His research interests include iron metabolism and human disease.

- Subcellular distribution studies of iron absorption in the intestinal mucosa.
- Serum ferritin and development of immunoassays, biochemical and diagnostic applications
- Genetic and functional studies of human tissue ferritins
- Haemochromatosis – genetics and significance of HFE mutations in human iron metabolism and disease.

Professor Worwood was Editor of the British Journal of Haematology from 1986 to 1991, he was a member of the 1995 British Nutrition Foundation's Task Force on Iron and is scientific advisor to the Haemochromatosis Society. He is author of numerous articles and books on iron biochemistry.