persisted as aggregates, resistant to degradation. Fibronectin aggregates within MS lesions contribute to failure of remyelination and are potential therapeutic targets for promoting remyelination. (Stoffels JMJ, de Jonge JC, Stancic M, et al. Fibronectin aggregation in multiple sclerosis lesions impairs remyelination. **Brain** 2013 Jan;136(Pt 1):116-31) (Response: Dr Wia Baron. E-mail: w.baron@umcg.nl).

CHILDHOOD OBESITY AND RISK OF PEDIATRIC MS

Researchers at Kaiser Permanente of Southern California studied a possible relation between childhood obesity and pediatric-onset multiple sclerosis (MS) or its potential precursor, clinically isolated syndrome (CIS), which encompasses optic neuritis (ON) and transverse myelitis (TM). Seventy-five newly diagnosed pediatric cases of MS or CIS were identified between 2004 and 2010; 41 (55%) were girls, and 54 (72%) were age 11-18. Onset of MS/CIS was uncommon at ages 2-11 years. Thirty-eight (50.7%) children or adolescents with MS/CIS were overweight or obese. Obesity was associated with a significantly increased risk of MS/CIS in girls but not in boys. Moderately and extremely obese patients were more likely to present with TM compared with normal/overweight children (p=0.003). (Langer-Gould A, Brara SM, Beaber BE, Loebnick C. Childhood obesity and risk of pediatric multiple sclerosis and clinically isolated syndrome. **Neurology** 2013 Feb 5;80(6):548-52). (Response: Dr Langer-Gould. E-mail: Annette.M.Langer-Gould@kp.org).

COMMENT. Childhood obesity is independently associated with an increased risk of pediatric-onset MS/CIS in girls but not in boys. The authors speculate that the rapid rise and high estrogenic exposure of obese, peripubescent girls coupled with inflammatory mediators released by adipose tissue accelerate MS/CIS onset in adolescence. Pregnancy in females and tobacco smoke among males (Palacios N, et al. **Ann Epidemiol** 2011 Jul;21(7):536-42), additional potential risk factors for MS, were not addressed in this study. The need to further address the progress of the childhood obesity epidemic is stressed, especially in girls.

PERINATAL DISORDERS

MELATONIN AND EXPERIMENTAL PERINATAL ASPHYXIA

Researchers from University College London, Hopital Robert Debre, and Universite Paris Diderot, Paris assessed the neuroprotective effects of melatonin combined with therapeutic hypothermia after transient hypoxia-ischemia in a piglet model of perinatal asphyxia. Melatonin administered intravenously 10 min after transient hypoxia-ischemia and repeated at 24 hr augments hypothermic neuroprotection based on improved cerebral energy metabolism, using magnetic resonance spectroscopy biomarkers and continuous EEG monitoring. The piglet model of H-I resembles the clinical setting in a neonatal intensive care unit. The observed benefits and safety profile of melatonin support consideration of phase I and II clinical studies of melatonin-augmented therapeutic hypothermia for neonatal encephalopathy. (Robertson NJ,