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Autism and Lyme Disease—Reply

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In Reply

We evaluated the hypothesis that the rate of Lyme disease or associated seroprevalence is increased in children with autism as has been put forward by Dr Bransfield and others.^{1,2} A key assertion previously made in their *Medical Hypotheses* articles is that a substantial number of children with autism have active Lyme disease, with associated symptoms presumably resolving through antibiotic treatment.^{1,2} However, Bransfield and Kuhn now instead suggest that Lyme disease triggered autism in the affected children's distant past (ie, *B burgdorferi* infection was no longer present), citing that as a reason why seropositivity could not be detected in any of the autistic children that we studied. Such a claim is contradictory to their previous argument for the association of autism with ongoing and antibiotic-responsive *B burgdorferi* infection.

We used the 2-tier testing system recommended by the CDC because it is the most widely accepted algorithm for serological assessment of Lyme disease in the United States. The suggestion that the immunoblot reactivity patterns for autistic children, even though not meeting criteria for seropositivity, nevertheless show more *B burgdorferi*-specific bands than would be found for children without autism is not supported by any published data and is doubtful. Furthermore, Bransfield and Kuhn try to rationalize away our negative serological findings by suggesting that the assays we used have low sensitivity, citing an article from the Netherlands.³ However, the cited study was performed in individuals who were only suspected of *Borrelia* infection.³ As such, that particular study cannot be used for reporting assay diagnostic performances.

Bransfield and Kuhn indicate that the studies they cited included 130 children with ASDs, but do not mention that those studies have not been published. It should be noted that our findings and conclusions were recently confirmed in an independent study that used the CDC-recommended 2-tier testing algorithm in addition to other diagnostic assays for Lyme disease.⁴

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