

Written Public Comments

**IACC Full Committee
Meeting**

July 15, 2008

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Eileen Nicole Simon

July 7, 2008

I hope there will be consideration of the following two points: (1) Vulnerability of the auditory system to all etiologic factors associated with autism, and (2) That the current obstetric protocol for cutting off continuing postnatal placental circulation may be responsible for the occurrence of "respiratory depression" at birth in 5-6 per 1000 infants, and the increased prevalence of autism.

Please let me know.

Lee Grossman

July 14, 2008



Autism Society of America
The Voice of Autism.

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Tom Insel, MD
Director, National Institute of Mental Health
Bethesda, Maryland

July 14, 2008

Dear Dr. Insel:

As the numbers of individuals diagnosed with autism spectrum disorders continues to increase in the US and around the world, and as it becomes more apparent that environmental factors play a role in triggering or causing many cases of ASD, it becomes ever more clear that the agenda and timetable for autism research needs to be infused with a sense of urgency and determination to make a difference as soon as possible.

Unlike genetics, environmental factors point toward both treatment and prevention. They point toward onset that is contingent rather than inevitable. And point to factors that can be addressed, removed or otherwise changed to prevent harm and improve the quality of life.

Also, the need for improved and expanded services is consistently identified as the most critical issue for the Autism Community. The Strategic Plan must emphasize how we are to make this happen as improving service delivery will have the greatest and fastest impact on improving the lives of all that are affected by ASD.

We need an Autism Strategic Plan that is smart, streamlined, practical, fair and unbiased, clear in its substantive targets, clear in its fiscal targets, and detailed in its budgetary specifications.

We need to recruit the unsurpassable resources of the federal government to the best possible coordinated response to this public health crisis. The gains to the public will be felt by every person with autism, their families and much beyond. Conversely a failure to rise to the occasion would have the reverse broad effect.

To make this Autism Strategic Plan the best it can possibly be you need ongoing strategic input so that this initial effort can help streamline future iterations.

On behalf of the Autism Society of America, we stand ready to work with you to make the Strategic Plan a success and a benefit to the entire Autism Community.

/Lee Grossman/

Lee Grossman

President and CEO

Autism Society of America

Note: Personally Identifiable Information (PII) has been redacted in this document

Eileen Nicole Simon

July 15, 2008

Subject: Suggested Focus for Research in the IACC Plan: Obstetric complications Summary

Autism cannot be identified in newborn babies, though genetic and prenatal predispositions are considered important. There is good reason to question whether obstetric procedures can cause injury that will only appear later in childhood. Respiratory depression at birth affects to 6 infants per 1000, and is regarded to be a low number, but autism at the same prevalence (1 in 150) is shocking. Many children who develop autism suffered respiratory depression at birth.

For example Glasson et al. (2004) reported that children who later developed autism were more likely to have taken more than one minute before onset of respiration at birth.

Until about 20 years ago obstetric teaching was to leave the umbilical cord intact until breathing was established. Now the published protocol is to clamp the cord immediately after delivery. How many prospective parents know anything about this? How many prospective parents understand that placental circulation continues after birth, and should not be terminated before the baby's lungs have taken over the function of respiration? Banking of umbilical cord blood requires termination of postnatal placental circulation if any significant amount of blood is to be collected.

The 5 to 6 per 1000 infants who develop respiratory depression are at risk for ischemic impairment of brainstem nuclei. The midbrain auditory nuclei (the inferior colliculi) are most susceptible to damage. Damage of the inferior colliculi has been observed in infants who died in early infancy. Gilles (1963) pointed out that lesions in the brains of human infants are identical to those found in monkeys subjected to asphyxia at birth; and Gilles suggested that aphasia in childhood might be the result of injury to the inferior colliculi.

Evidence from several case reports has revealed that injury to the inferior colliculi results in loss of the ability to comprehend spoken language. How much more serious such an injury would be for an infant, and in further experiments with monkeys, maturation of the brain did not follow a normal course following asphyxia at birth. Is neural plasticity a matter of wishful thinking?

A lapse in respiration at birth impairs the blood-brain barrier (BBB) first. This better explains the entry of bilirubin into vulnerable subcortical nuclei than direct toxicity of bilirubin. Likewise, injury caused by neonatal vaccinations can be better understood as entry across a compromised blood/brain barrier than as direct toxicity of vaccine components.

Additional comments for the July 15, 2008 meeting of the IACC

After listening to the IACC Workgroup meeting on July 8, I would like to add the following comments to those I submitted earlier for the IACC meeting on July 15:

A final common pathway in the brain? I submitted comments for the May 12 meeting that included evidence that injury in the midbrain auditory pathway causes loss of ability to comprehend spoken language. Evidence has been available for decades that the same midbrain nuclei (the inferior colliculi) are selectively damaged by asphyxia at birth, which would certainly impede a child learning to speak. Can this become a focus of investigation?

Preventable causes? Current obstetric protocols include clamping the umbilical cord immediately at birth, whether or not breathing has been established. Respiratory depression at birth occurs in 5 to 6 per 1000 infants. Prevalence of autism is at the same rate (1 in 150). Because “respiratory depression” at birth can lead to impairment of the auditory system and language development, obstetric practice is as important as investigating vaccines as a cause of autism.

Early intervention? Normal children learn to speak “by ear.” The sound boundaries between syllables and words are easily detected during early childhood. This capability is clearly lost by the end of the first decade of life, when it also becomes difficult to learn a new language without accent. Detection of sound boundaries allows recognition of morphemic units (basic units of meaning), which then leads to baby talk (telegraphic speech). Kanner described the irrelevant and metaphorical speech of children with autism – which represents use of whole phrase fragments often applied badly out of context. Use of phrase fragments rather than morphemic units results from failure to hear sound boundaries. Perhaps (with the help of experts in acoustics) children could be helped to hear the syllable and word boundaries that normal children use in detection and recognition of morphemic units.

Lifelong services? Long-term care insurance should be required for every child born. Actuarial scientists would thereby be recruited into research on preventable causes. Services funded only by taxes cannot be expected to provide for the large numbers of children with autism reaching adulthood who will not be able to be meaningfully employed and self-sufficient. More on the above four summaries can be found online, with bibliographic references, at <http://www.conradsimon.org/>

Eileen Nicole Simon, PhD, RN (Registered Nurse)
[PII Redacted]