**RE:  Autism studies and the use of existing data on babies born at home**

**under the care of midwives as a control group in Autism research**

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To Whom It May Concern:

Public health authorities have identified an enormous increase in the incidence of childhood autism. In California, the number of kids receiving state services for autistic disorders has nearly quadrupled since 1987. (1) A recent news report on National Public Radio noted 775 news cases, a 33% increase over the previous quarter in which only 550 new cases were identified. This brain development disorder results in a lack of normal language skills and inability to form human bonds of affection with parents and other people. The majority of its victims are boys. Many also suffer from epilepsy. The physical, mental, emotional and social disabilities combined are so sever that most autistic children end up in institutions by the age of 13.  This is a tragedy for the child and its parents, a loss to society and an economic burden of great proportion. Autism is now thought to affect one person in 500, making it more common than Downs syndrome or childhood cancer. According to Dr Marie Bristol Power from the National Institute of Child Health and Human Development, it is a not a rare disorder but a �pressing public-health problem�. (1)

Neither the cause of this disorder nor the reason for its exponential increase is well understood by researchers at this time.  However there is data associating autistic disorders with the use of an artificial hormone (Pitocin) which is given to pregnant women to induce or speed up labor (1, 2). Pitocin is a synthetic exogenous source of the natural hormone oxytocin which stimulates the gravid uterus to contract. It was developed as a drug by the Parke-Davis pharmaceutical company in 1953 and put into general use in 1955. It comes from the pituatary glands of cattle and includes acetic acid for pH adjustment and .5 percent chloretone as a preservative. The lead story in the July 31, 2000 issue *Newsweek* magazine was devoted to exploring this growing health problem. The *Newsweek* reporter, Geoffrey Cowley, interviewed Dr Eric Hollander of New York�s Mount Sinai School of Medicine, a physician who specializes in treating autistic kids. Dr Hollander reported that several years ago he noticed that 60% of the autistic patients in his clinic had been exposed to this drug as a fetus. Material published by the World Health Organization also notes an association between the use of Pitocin and autistic disorders (2).

In spontaneous labors the mother�s pituitary gland makes an endogenous (i.e. internal) oxytocin that triggers the physiological onset and progress of labor. The hormone oxytocin is also produced during breastfeeding (causing the let-down of breast milk) and it accompanies sexual orgasm. For this reason it is referred to as the �love hormone� by obstetrician Christian Northrop, MD as each of these biological events are associated with experiences of great emotional bonding and include meaningful social interaction between the individuals involved. Since autistic disorders produce an inability to make or maintain affectionate bonds or have normal social relationships, one cannot help but wonder if perhaps there is an causal relationship between these disorders and exogenous sources of an artificial form of oxytocin. Perhaps flooding the immature body of the fetus (especially boy babies) with this gender-specific synthetic hormone from animals somehow interferes with the eventual function of these psychological systems. It is an intriguing question.

However, Pitocin is not the only drug received by women whose labors are being induced or augmented. The use of Pitocin requires that the mother also be given IV fluids, have continuous electric fetal monitoring in place and remain sedentary in her hospital bed while connected to this equipment. Pitocin-induced uterine contrations and enforced maternal immobility makes labor more painful, so much so that under these circumstances most laboring women also receive narcotic pain relievers and/or epidural anesthesia. The use of these drugs and anesthetics is also associated with an increase in operative deliveries (vacuum extraction or forceps). It is possible that the causative agent or trigger event for autism is a particular combination of drugs or certain physical problems or propensity for either the mother or baby, in combination with certain drugs, rather than a simple direct effect of Pitocin per se.

The use of Pitocin to induce or augment labors and concomitant use of epidural anesthesia has been steadily climbing for the last 20 years � about the same period that the increase in autism has been reported. Estimates of the use of Pitocin in laboring women over the last 2 decades range from 12% to 60%. However, a 1992 survey by a medical anthropologist at the University of Texas found that 81% of women in US hospital receive Pitocin to either induce or augment labor. Epidural use is as high as 95% in many urban hospitals. When one factors in a Cesarean rate of 23% (acknowledging some overlap), the proportions of these facts is staggering as virtually 100% of medically-managed births are subjected to a high level of pharmaceutical interventions that have never been approved for use in fetuses. It certainly seems prudent to research the possible association with pharmaceutically-augmented labors in an attempt to discover the cause of the rising tide of autistic disorders. It may be necessary to amend our current obstetrical practices to prevent an epidemic of this expensive and emotionally-crippling  disorder.

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For research purposes it seems only logical to utilized the subset of healthy childbearing women who received physiological management of the intrapartum and experienced *no medical treatments during the labor and birth* (i.e. � no Pitocin or other labor-inducing drugs, no narcotic pain medications, no general or regional anesthetics and no operative deliveries, etc) as a control to determine if intrapartum medical treatments are causative or contributory to the development or acerbating of autism disorders.  In the early 1990s the Midwives Alliance of North America (MANA) embarked on a retrospective statistical study of domiciliary birth outcomes. More recently they have been conducting a prospective study by enrolling nationally certified professional midwives as a requirement of their re-certification. To date they have compiled statistics on about 15,000 births. This would provide the demographic data for follow-up questionares to ascertain the rate of autism within this substantial group of babies who were unmedicated during the labor. Also a recent change in the California birth registration law authorizes for the first time since 1915 the filing of birth certificates by professional midwives providing community-based birth services (client home and free-standing birth centers) so that the gathering of statistical data in California on this subset of births is now possible.

An informal survey among the dozen or so community midwives practicing in our geographical area and spanning the last 20 years, failed to identify any babies born at home who have since been diagnosed with autistic disorders. Every year I attend a national midwifery conferences sponsored by MANA which includes an exchange between midwives of practice problems and unusual trends. Among the 400 or so community midwives (CNMs and direct-entry midwives), no cases of autism have been reported. Admittedly this is not a rigorous scientific study but it does raise questions as to whether strict adherence to physiological management of intrapartum events, either alone or in combination with the self-selection of healthy women choosing home-based midwifery care, may confer some protective effect relative to autistic disorders.

We are very much interested in facilitating this form of research and would be happy to follow your lead in helping to bring about interest in it by scientists at US-Davis and elsewhere who are involved in the study of autistic disorders.

    (1)    *Newsweek Magazine*, July 31, 2000

    (2)    *Care in Normal Birth*: A Practical Guide�W.H.O�s �Safe Motherhood� series

    (3)  *Mothering Magazine*, Spring Issue, 2001

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