IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NORTH DAKOTA
SOUTHWESTERN DIVISION

MKB MANAGEMENT CORP., et al., Plaintiffs,	
vs.	**Declaration and Expert Report of Jerry M. Obritsch, MD, FACOG**
BIRCH BURDICK, et al., Defendants.	**Case No. 1:13-cv-071**

Jerry M. Obritsch, MD, FACOG declares and states the following:

I. Professional Background and Credentials

1. I provide the following opinions as an expert in embryonic and fetal development and a practicing Obstetrician in the State of North Dakota.

2. I am certified by the American Board in Obstetrics and Gynecology and a certified sonographer in Obstetrics and Gynecology by the American Registry of Diagnostic Medical Sonographers.

3. I am licensed to practice Medicine in North Dakota, South Dakota, and Missouri. I have practiced Obstetrics and Gynecology in the State of North Dakota continuously for the past 22 years (since 1991).

4. I earned a Bachelor's degree in Biology and a Bachelor's degree in Chemistry from Dickinson State University, Dickinson, ND, in 1979. I earned a Master of Science degree in Microbiology from the University of Nebraska, Lincoln, NE, in 1980. I completed my Medical Doctor (MD) degree at the University of North Dakota School of Medicine and Health

Sciences, Grand Forks, ND, in 1987. I completed my Graduate Medical Education (Resident Physician) in 1991 in the School of Medicine, University of Missouri, Columbia, MO.

5. I began private practice as an Attending Obstetrician and Gynecologist in 1991 at the Center For Women, Mid Dakota Clinic, Bismarck, ND, and continue to practice as such to the present time. I am Vice Chairman and Clinical Professor in the School of Medicine, University of North Dakota School of Medicine and Health Sciences.

6. I am a Fellow in the American Congress of Obstetrician and Gynecologists (ACOG), the Nation's leading organization in Women's Health Care, and a member of the North Dakota Society of Obstetricians and Gynecologists.

7. I am a member of Alpha Omega Alpha Honor Medical Society, founded by William W. Root, MD, 1902. This is the elite honor society of medical students, residents, and physicians.

8. A copy of my curriculum vitae which summarizes my background and professional experience is attached hereto as Exhibit A.

II. Introduction

9. I was retained by the Office of the Attorney General, Civil Litigation Division, as an expert witness on behalf of the State of North Dakota in defense of House Bill 1456.

10. I have reviewed House Bill 1456. As I understand, North Dakota's HB 1456 prohibits an abortion[1] if the unborn child[2] the pregnant woman is carrying has a detectable

[1] In referring to an "abortion," I am employing the definition found in N.D.C.C. § 14-02.1-02(1), an induced termination of a clinically diagnosed intrauterine pregnancy of a woman with knowledge that the termination will with reasonable likelihood cause the death of the unborn child.

[2] I may sometimes refer to the term "unborn child," which shall have the same meaning as that term is defined in N.D.C.C. § 14-02.1-02(18), the offspring of human beings from conception until birth.

heartbeat, absent certain exceptions such as to prevent the death of a pregnant woman, to prevent a serious risk of the substantial and irreversible impairment of a major bodily function of the pregnant woman, or to save the life of an unborn child.

11. I provide these opinions in opposition to Plaintiffs' Motion for Summary Judgment against enforcement of North Dakota House Bill 1456, now codified at North Dakota Century Code Sections 14-02.1-05.1, 14-02.1-05.2 and 43-17-31.

12. The opinions I express are held to a reasonable degree of medical certainty, based on my medical education, training, 22 years of clinical practice, including completing a little over 5000 deliveries, providing Obstetrical care for those deliveries, ongoing Director of Ultrasound in Obstetrics and Gynecology in my Department of Obstetrics and Gynecology for 19 years, ongoing preceptor and medical educator as Clinical Professor and Vice Chairman, Department of Obstetrics and Gynecology, University of North Dakota School of Medicine and Health Sciences, and my ongoing review of the medical literature. Citations used in this document are from *Moore et al: The Developing Human 9E, Clinically Oriented Embryology, 9th edition, 2013*, which is the medical textbook used in the University of North Dakota School of Medicine and Health Sciences to teach the course Medical Embryology.

III. Statement of Opinions and the Basis Therefore

(a) Pregnancy, Embryonic and Fetal Development in the Human Being

13. Human development is a continuous process that begins (being conception) when an **oocyte** (ovum) from a female is fertilized by a **sperm** (spermatozoon) from a male. *Moore et al: The Developing Human 9E, Clinically Oriented Embryology, 9th edition, 2013, Chapter 1, Introduction to the Developing Human*, page 1. Conception occurs and pregnancy thus commences and occurs in the menstrual cycle around cycle day 14 when ovulation occurs.

Following fertilization, the zygote (egg and sperm) undergoes division into the blastocyst which implants in the endometrium, usually on day 6 of the luteal phase (6 days after ovulation) or day 20 of the menstrual cycle in a classical 28 day menstrual cycle.

14. Calculation of the due date or Estimated date of Confinement (EDC) is based on Naegle's rule, which is a rule used as a means of estimating date of confinement (delivery) by counting back three months from the first day of the last menstrual period and adding seven days. Human gestation is completed in 266 days (38 weeks) following ovulation or 280 days (40 weeks) when using the first day of the last menstrual period (LMP). Most women know the first day of their last menstrual period (LMP) as opposed to their day of ovulation which is why Naegle's rule is utilized clinically. Human gestation is divided clinically in trimesters.

(b) *Detection of Heartbeat – Standard Medical Practice*

15. In embryological development, cardiogenesis involves the development of the heart and circulatory system. "The heart begins to beat at 22 to 23 days". *Moore et al: The Developing Human 9E, Clinically Oriented Embryology, 9th edition, 2013, Chapter 13, Cardiovascular System*, page 290. This represents 3 weeks, 2 or 3 days true gestational age or 5 weeks 2 or 3 days menstrual age.

16. Blood flow begins during the fourth week and can be visualized by Doppler ultrasonography. *Moore et al: The Developing Human 9E, Clinically Oriented Embryology, 9th edition, 2013, Chapter 13, Cardiovascular System*, page 290.

17. Detection of the unborn child's heart beat is accomplished clinically through ultrasound which is utilizing high frequency sound waves emitted by a transducer which is placed on the patient's abdomen or intravaginally. Abdominal ultrasound imaging will detect an unborn child's heart beat at approximately 6 – 8 weeks depending upon the body habitus of the

patient or as early as 5 ½ weeks with an intravaginal transducer. Intravaginal ultrasound imaging allows for earlier cardiac detection secondary to a higher frequency transducer and being placed anatomically closer to the developing embryo.

18. It is only natural that heart rate is used in society as the presence or absence of life. Indeed, for thousands of years man has declared another human being as alive or dead based on whether or not a heartbeat or pulse is present or absent. It is only in relatively recent modern times with the evolution of modern medical research that additional means, such as functional brain waves, have assisted in this determination.

(c) Viability

19. Viability is generally defined by Webster as "the quality or state of being viable: the ability to live, grow, and develop." Dictionary.com defines viability as 1. "ability to live, especially under certain conditions. 2. the capacity to operate or be sustained." The complexity of human development from its earliest stage of conception (the formation of a zygote from two gametes, ovum and sperm) is now well studied and furthermore, documented by media and research unknown 40 years ago. Please review "Conception to Birth – visualized", by Dr. Alexander Tsiaras, Associate Professor of Medicine, Yale University, hereto attached as Exhibit B.

20. North Dakota Century Code 14-02.1-02 defines the term viable to mean the ability of an unborn child to live outside the mother's womb, albeit with artificial aid. Also, as noted previously, this North Dakota statute defines the term "unborn child" to mean the offspring of human beings from conception until birth. There is no mention as to how long or when the unborn child must live outside the mother's womb, albeit with artificial aid, to be viable or to have viability.

21. As pointed out in Paragraphs 26-28 below, the use of viability as the standard to determine when a woman's choice to abort an unborn child outweighs the state's interests is medically invalid. However, assuming viability is the standard, the United States Supreme Court, consistent with the North Dakota statutory definition, has stated an unborn child is considered viable if the unborn child is "potentially able to live outside the mother's womb, albeit with artificial aid." *Colautti v. Franklin*, 439 U.S. 379, 387 (1979). The United States Supreme Court has also stated for there to be viability "there must be a potentiality of 'meaningful life . . . not merely momentary survival. *Colautti v. Franklin*, 439 U.S. 379, 387 (1979). However, the United States Supreme Court went on to explain that an unborn child is viable when there is "potential, rather than actual survival" of the unborn child outside the womb. *Anders v. Floyd*, 440 U.S. 445 (1979). Ultimately, the determination of whether an unborn child is viable is a medical judgment. *Colautti v. Franklin*, 439 U.S. 379, 388 (1979).

22. In rendering the opinions expressed herein, I reviewed the October 13, 2013 declaration of Plaintiff's expert Dr. Iverson that was filed with the Court (being Court document 42-2). I have reviewed the transcript from her deposition that was taken on December 6, 2013. I understand the deposition transcript is being submitted by the State of North Dakota in response to the Plaintiffs' motion for summary judgment. It is my opinion and conclusion, that the opinions and conclusions expressed by Dr. Iverson found in her declaration and explained in her deposition regarding when an unborn child is viable are not medically valid.

23. Dr. Iverson testified that her definition of viability, found at Paragraph 6 of her October 13, 2013 declaration, was no different than the definition of viable found in North Dakota Century Code section 14-02.1-02. Iverson Deposition, pp. 41-42. Dr. Iverson explained that viability of an unborn child, as she described in Paragraph 6 of her October 13, 2013

declaration, occurs "when you have an opportunity to survive to adulthood." Iverson Deposition, p. 55. Dr. Iverson then explained that her conclusion, found in Paragraph 6 of her October 13, 2013 declaration, that viability does not occur until approximately twenty-four weeks last menstrual period (LMP), is based on the following information she provides to parents: being that viability exists when the unborn child has a 10% chance of surviving intact to adulthood. Iverson Deposition, p. 55.

24. I disagree with Dr. Iverson's conclusion and opinion that an unborn child is not viable unless it has a chance – whether a 10% or greater – to survive to adulthood, and in my opinion, these conclusions and opinions of Dr. Iverson as to when an unborn child is viable are medically and legally without merit and are unsound.

25. To begin, in contrast to Dr. Iverson's opinion, the United States Supreme Court has not stated an unborn child, to be medically judged to be viable, must have some percent of survival to adulthood. There exists nothing in the North Dakota statute that requires an unborn child have a chance to live to adulthood for the unborn child to be medically judged to be viable. Rather in order for an unborn child to be medically judged to be viable, it does not require survival, let alone survival to adulthood as Dr. Iverson has concluded, but instead the unborn child must have potential for survival. Thus, in my opinion, to a reasonable degree of medical certainty, Dr. Iverson's opinions and conclusions – that to be medically judged to be viable the unborn child must have some chance to survive intact to adulthood – lack merit.

26. In addition, Dr. Iverson's opinion that viability requires a percent chance the unborn child will survive to adulthood is medically erroneous. Viability in Obstetrics and Human Reproduction has vastly changed over the past decades. Viability was once thought to mean or be defined as only the ability of the unborn child to survive outside the uterus, albeit

under the sophisticated care of the Neonatologist in the highly complex medical environment of the Neonatal Intensive Care unit (NICU). In modern and current medical and clinical practice, the embryo is able to survive as a human being independently at conception. This occurred for the first time in 1978 with the successful birth of Louise Brown and was known as the "test tube baby". Dr. Robert G. Edwards, the physiologist who developed the technology to successfully achieve this goal, was awarded the Nobel Prize in Medicine in 2010. Today in vitro fertilization (IVF) is commonly practiced and actually, Reproductive Endocrinology and Infertility (REI) has evolved into a well recognized subspecialty of the field of Obstetrics and Gynecology. It is my medical opinion that the development of Reproductive Technology has caused and allowed an embryonic unborn child to live outside the human uterus (womb) for 2 – 6 days after conception – which is viability as defined by the United States Supreme Court and in the North Dakota statutes because this embryonic unborn child is not just potentially but is in fact living outside the woman's womb, albeit through artificial means. This viable unborn child is then transferred into the human uterus (womb) to continue its gestation. Once a heartbeat is detected in this implanted or any other unborn child within the womb, there exists a medically recognized 98% rate of survival and live birth for the unborn child and this medically recognized rate of survival and live birth drops only slightly to 82% when the woman has a history of recurrent pregnancy loss (being three or more consecutive spontaneous losses of the unborn child). See *Predictive value of the presence of an embryonic heartbeat for live birth: comparison of women with and without recurrent pregnancy loss. Hyer, et al, Sterility and Fertility, vol 82, no 5, November, 2004.* Since in vitro fertilization (IVF) or "test tube baby" – a colloquial term for babies conceived as the result of IVF, first occurred in 1978, 5 years after the decision of Roe vs. Wade, this information was unavailable to the United States Supreme Court for deliberation. However,

since 1973, tremendous medical advancements have occurred throughout all areas of Medicine, including the development of completely new areas such as the field of Reproductive Medicine.

27. Therefore based on the foregoing, it is my opinion, to a reasonable degree of medical certainty, an unborn child is viable or viability occurs, as medically defined as well as legally defined, from the time of conception.

(d) *Viability at a time other than at conception is not a medically valid basis to determine whether state's interests to preserve life of unborn child are sufficiently strong to preclude an abortion.*

28. It behooves the legal profession to acknowledge the medical developments and advancements, and in turn appropriately act upon the current medical standards to change existing law, which is based on either old, outdated medical science, or previously unknown medical science and fact, or both. Viability now determined to occur at conception (see Paragraphs 19-27 above) provides a solid basis that will stand the test of time because it is not based on the ever shifting and changing neonatal definition, which currently plagues the legal and medical profession. For example, some like Dr. Iverson now conclude viability only can occur at 22-24 weeks last menstrual period (LMP) when only a few years ago, these same parties concluded viability could only occur at 28-30 weeks last menstrual period (LMP). This standard of viability occurring at any time other than conception, being not only medically unsound, plagues the medical profession because of the uncertainty and vagueness when rendering a medical judgment as to whether viability is present for ongoing clinical decision making. Viability at conception is based on medical science and fact and is in alignment with natural law. It is clearly and succinctly defined.

29. Furthermore, the following sets forth the medically recognized attributes that exist in an unborn child demonstrate the framework of viability, at a time other than at conception, is no longer a medically valid basis:

(i) At the moment of conception, an unborn child has a unique set of DNA that never previously existed in the history of the world. Also, the hair and eye color, along with facial features are established at conception.

(ii) By 22 days after conception, the unborn child's heart was already beating and for some, with a different blood type than the unborn child's mother.

(iii) At 6 weeks after conception, an unborn child has brain function because the unborn child has detectable brain waves. Neurological development of the unborn child begins as early as the fourth week of development. The processes involved in the formation of the neural plate and neural folds and closure of the folds to form the neural tube constitute neurulation. Neurulation is completed by the end of the fourth week. *Moore et al: The Developing Human 9E, Clinically Oriented Embryology, 9th edition, 2013, Chapter 4, Third Week Of Human Development*, page 61. Neurological development not only involves the development of the central nervous system (brain and spinal cord), but the peripheral nervous system as well (sensory and motor (muscle)).

(iv) By the 8th week of development, the unborn child experiences pain in any capacity. (Testimony of Maureen L. Condic, PhD, University of Utah, School of Medicine, Department of Neurobiology and Anatomy, before the Subcommittee on the Constitution and Civil Justice, Committee on the Judiciary, U.S. House of Representatives, May 23, 2013 (*judiciary.house.gov/hearings/113th/05232013/Condic%2005232013.pdf).* Therefore, by the 8th week of development, at the latest, the unborn child has brain function.

(v) Further, by 8 weeks after conception, every major organ of the unborn child is in place.

30. Therefore, in my opinion, to a reasonable degree of medical certainty, establishing viability of an unborn child at a time other than at conception is not a medically valid basis to determine whether the state's interests to preserve the life of an unborn child are sufficiently strong to preclude an abortion. Rather, viability being established at conception, and precluding

the ending of the life of the unborn intentionally thereafter, is consistent with the state's and the medical profession's obligation to protect the health of the woman and the life of the unborn child and avoids the uncertainty and vagueness that exists with the current standard that will be ever evolving and changing.

(e) *Duty of Care and Ethical Duty of Physician to Unborn Child*

31. I would be remiss if the concept of physician-patient relationship is not understood. In the field of Obstetrics (being any care provided by any and all healthcare providers to a pregnant woman) unlike any other specialty in Medicine, the health care provider has two patients simultaneously. The Obstetrician cares for the adult woman as well as the developing embryo or fetus, depending upon the gestational age being discussed. This concept is taught to all medical student clerks in their third year of medical school education. Many times, interventional clinical decisions are made to solely benefit the unborn child. This includes medications given to the mother, such as tocolytics, which are medications to treat preterm contractions, to continue the pregnancy as long as possible. Surgical procedures are likewise carried out to benefit the unborn child. Such an example includes cerclage placement, which is tying the cervix shut to prevent preterm delivery. In this critical and sacred (Webster definition: highly valued and important <a *sacred* responsibility>) relationship between the Obstetrician, mother, and the unborn child, a human being in its earliest stage of life, at no time is the unborn child ever referred to as "tissue, in utero contents," or other such minimizing attempts to address the evolving human being.

32. My opinion that viability commences at conception also reflects the duty of a state or government to protect the constitutional rights of its citizens, regardless of age. It is perhaps, even more so, the duty of a state or government to protect the rights of its citizens who

are unable, incapable, or are not given the opportunity to fend for themselves, as in the case of the very old, physically and mentally incapacitated, and certainly the unborn, in my medical opinion. In fact, this principle of protection of citizens who are unable to fend for themselves is practiced consistently in medicine through beneficence, a principle of medical ethics, according to which, a physician should do good to others, especially when one has a professional duty to do so. The Oath of Hippocrates (Hippocrates of Cos (470 – 380 BC), delineated in the 5th century BC, recited by contemporary medical students in their White Coat ceremony at the very beginning of their medical education, continues to play a central role in preserving the sanctity of the patient-physician relationship in the practice of private medicine. Another familiar precept, *First, to do no harm* ("Primum non nocere"), is used in the concept of non-maleficence, also central to the practice of medicine. These longstanding, time tested, and ongoing medical principles continue to provide the basis on which difficult medical decisions are made on a daily basis in the best interest of the patient or the ***two*** patients in Obstetrics.

33. It is my medical opinion a physician or any other clinician who performs an abortion to end the life of an unborn child, is in violation of his or her duty of care to the unborn child, as well as violating his or her ethical duties and responsibilities. Further, HB 1456 is a reasonable and necessary regulation of such said procedures to promote the State of North Dakota's substantial interest, recognized by the United States Supreme Court, of protecting the integrity and ethics of the medical profession and ensuring the medical profession and its members "be viewed as healers, sustained by a compassionate and rigorous ethic and cognizant of the dignity and value of human life, even life which cannot survive without the assistance of others." Stenberg v. Carhart, 530 U.S. 914, 962 (2000).

(f) Harm to Women from Abortion

34. It is well documented that there is a deep bond between a woman and the developing unborn child within the uterus. Important biochemical, physiologic, and emotional changes occur during pregnancy such that when pregnancy loss occurs, a time of grief occurs. When grief does not successfully provide closure, significant physical, psychological, and emotional harm occurs, oftentimes, for months to years. Even when the 5 stages of grief are successfully completed, developed by Dr. Elizabeth Kubler-Ross, On Death and Dying, 1969, pregnancy loss remains permanently and forever in the mind and heart of the woman who suffers this loss. In my practice, I have many patients who remember the "birthday" of their pregnancy loss, a solemn reminder of "their child". Many patients have named their baby. Many patients suffer from Posttraumatic Stress Disorder (PTSD) and suffer pregnancy loss symptoms, including depression, anxiety, guilt, remorse, helplessness, and loneliness surrounding their loss. These patients are at increased risk for developing self-degrading behaviors, including eating disorders, drug or alcohol abuse, promiscuity, promoting loss of self-esteem and impairment of mental and physical health. *A Solitary Sorrow, Paul C. Reisser, MD, Teri Reisser, M.S., M.F.T (Marriage and Family Therapy), Shaw books, 2000*. Additionally, Priscilla K. Coleman, PhD, developmental Psychologist and Professor of Human Development and Family Studies (HDFS) at Bowling Green State University (BGSU) in Ohio, has conducted extensive research on the psychology of abortion. Please refer to these findings in her expert report.

35. In addition to the psychological discord and experienced grief, as reviewed in the previous paragraph, physical complications occur with pregnancy loss. To begin, there are significant biochemical and physiological physical changes that occur to a pregnant woman, and an abortion adversely impacts the health and well-being of the woman because of these changes

are now abruptly terminated. Further, complications occur secondary to surgical procedures, such as dilation and curettage (D&C), dilation and evacuation (D&E), and associated blood loss with either surgical or medical approaches. Surgical complications include uterine perforation (surgical instruments passing through the uterus, injuring intestines) as well as lacerating major pelvic blood vessels, resulting in catastrophic hemorrhage, including exsanguination and subsequent death. In addition to acute complications, long term risk exposure is present. In one recent study, a 44% increase in the risk of acquiring breast cancer occurs with one pregnancy loss with a dose effect also noted (risk increases as more losses occur). *A meta-analysis of the association between induced abortion and breast cancer risk among Chinese females*, Yubei Huang, et al. *Cancer Causes and Control, November, 2013.* Other long term consequences include uterine scarring resulting in the surgical condition of Asherman's syndrome, weakening of the cervix resulting in the inability of the cervix to hold subsequent pregnancies in place (incompetent cervix), resulting in miscarriage or preterm delivery.

36. Based upon the foregoing, it is my opinion, to a reasonable degree of medical certainty, that abortions have a significant and profoundly adverse effect upon the health and well-being of women.

IV. Conclusions

37. In conclusion, based upon the foregoing, I offer the following opinions, that are to a reasonable degree of medical certainty and based on my professional and ongoing education in Obstetrics and Gynecology, ongoing practice of 22 years as an Attending Obstetrician, and Medical educator as Clinical Professor and Vice Chairman in the Department of Obstetrics and Gynecology, University of North Dakota School of Medicine:

(a) An unborn child is viable or viability occurs, as medically defined as well as legally defined, from the time of conception. It is based on medical science and fact, not yet elucidated in 1973, having occurred in 1978 with the first "test tube baby", Louise Brown, and continuing to the present in the now well developed field of Reproductive Medicine and in vitro fertilization (IVF). Additionally, new media and research capabilities clearly reveal the developing unborn child – please see the work of Dr. Alexander Tsiarias – Exhibit B.

(b) Viability, that some currently feel to be somewhere between 22-24 weeks last menstrual period (LMP), previously has been and will continue to be a "moving target on shifting sand," and problematic both in the legal definition and in clinical management for physicians. Therefore, in my opinion, to a reasonable degree of medical certainty, establishing viability of an unborn child at a time other than at conception is not a medically valid basis to determine whether the state's interests to preserve the life of the unborn child are sufficiently strong to preclude an abortion.

(c) It is the duty of every health care provider that provides any medical services to a pregnant woman to provide care to both patients, which is the mother and unborn child for previously cited reasons. Not providing care to the unborn child is violation of duty to the second person. Therefore, in my opinion, to a reasonable degree of medical certainty, a physician or any other health care provider who performs an abortion to end the life of an unborn child, is in violation of his or her duty of care to the unborn child, as well as in violation of his or her ethical duties and responsibilities.

(d) It is my opinion, to a reasonable degree of medical certainty, that abortions have a significant and profoundly adverse effect upon the health and well-being of women, which not only does the state have an obligation to protect against, but also the medical profession has an

obligation to protect against and not perform procedures, like abortions, that have an adverse effect upon the health and well-being of their patients.

(e) For the foregoing reasons, it is my opinion HB 1456 is medically and scientifically sound and reasonable.

V. Expert Testimony: Fees and Recent Experience

38. Fees for expert services: $350 per hour for all in-office work, including record review, attorney consultation, client interviews, scientific literature searches, report-writing, affidavit construction, and testimony preparation, and $4,000 per day for depositions and courtroom testimony.

39. I have not been deposed or testified at trial as an expert witness.

I declare under penalty of perjury that the foregoing is true and correct.

Dated this 19th day of December, 2013.

/s/ Jerry M. Obritsch, MD