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To the Honorable Maria Caulfield, Chair, Hon. Lord Alton of Liverpool, Hon Fiona Bruce, and Hon Mary Glindon,

Thank you for your interest in this very important area of study of the neuroanatomy and physiology of the developing human. I have considered carefully your question of what should be done to address the pain that could be experienced by a pre-born child during abortion. Due to the absence of medical necessity for elective abortions, and the understanding that, in the context of abortion, there is an expectation that the life of at least one human being will be ended, I cannot make a recommendation of how to humanely take an innocent person's life. Physicians are guardians of life, not agents of death.

### **Assessment of the RCOG 2010 paper**

There are multiple medical journal articles that repeat critical errors in addressing the question of pain perception in the developing human. A closer look at the RCOG 2010 Fetal Awareness reveals an attempt to build a hypothesis on a foundation of subjective definition and factual error. Misleading concepts include the suggestion that the anatomical location of pain perception is found in the cortex of the brain (p7-10). The application of an unprovable, psychological definition (p6) instead of an objective, basic science explanation of pain misdirects effective study of the subject of pain perception.

The psychological evaluation of pain is an unreliable predictor for adults because life experiences complicate and alter their responses and interpretations of perceived pain. Imposing this definition on the unborn child creates an impossible framework for study. An objective study of pain perception using physiological data demonstrates that pain is directly related to tissue damage (Guyton). The unborn child, equipped with a well-developed and functioning system of pain perception, is capable of perceiving pain when harmed.

The RCOG paper attempts to make inferences about human development from data gathered in animal research such as the EEG study on lamb fetuses (p10). One statement compares the human fetus to fruit fly larvae (p6). These comparisons might be interesting, but they will not yield useful information about the growth and development of the human being. It is well established that people develop from uniquely human fertilized ova, and that fruit fly larvae and lamb fetuses are not acceptable comparisons for understanding of human development. Evidence must be derived from the developing human.

The statements found on page viii, p3, and p5 of the RCOG paper suggest that the cortex is not connected to the rest of the nervous system, or that it is developed at some later time. The human cortex is not fully developed for over 20 years after birth, but this development is an elaboration of a structure that has been functioning since its formation. The function of developing structures is an observation which is supported by the histological evidence. (Blechsmidt)

The developing human is a whole being from the time of conception. The various organs and structures that appear are not separated functionally or relationally from the rest of the body. The nervous system develops as an intact unit and is functioning at the time that it is formed. (Blechsmidt) The idea that parts of the human nervous system are developed as separate pieces and connected at a later time is not supported by observable data.

The pre-born child is treated with disregard and medical neglect in the context of abortion, which is inconsistent with the treatment of other persons by the medical profession. The effort by the medical profession to justify this results in a cold, utilitarian discussion of the neurology of the developing human that is utterly devoid of the compassion and concern for humanity that is at the heart of a noble profession.

### **We can anticipate that a pre-born child would feel more intense pain than an adult**

The pain fibers in an infant are more numerous and dense than that of an adult. (Gleiss, Anand). These pain fibers terminate in the reticular activating system and have the capacity to summate. (Guyton) This means that when signals from multiple fibers reach the RAC simultaneously due to damage to large areas of the body, the summation will create the most intense suffering of the human experience. In the case of dismemberment abortions, the pre-born child is being grasped by forceps that crush and tear at her limbs and sometimes disembowel her, triggering an overwhelming pain signal.

After birth, there are countless pathways in the brain that continue to be added, elaborated, or fine-tuned. One of these is the descending inhibitory pathways that mitigate or stop pain signals at the spinal cord and lower brain levels. These are still immature at birth and not fully elaborated in the pre-born phase of development of the human nervous system. (Meyers) The absence of these pathways leaves a defenseless pre-born human vulnerable to intense pain. The combination of increased density of pain fibers, capable of summation, and under-developed mitigating pathways can result in unimaginable pain for the pre-born.

### **The Question of Junk Science**

Those who make accusations that the concept of fetal pain is fake news or junk science are misled by erroneous statements. There is no circumstance I know of in the practice of medicine in which substantial tissue damage is inflicted, yet treatment for pain is withheld until some proof is provided.

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