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SWEENEY, DAVIDIAN, & GREENE LLP James F. Sweeney (SBN 124527) Ben Davidian (SBN 94965) Stephen J. Greene, Jr. (SBN 178098) Stephen R. McCutcheon, Jr. (SBN 191749) 8001 Folsom Boulevard, Ste. 101 Sacramento, CA 95826 Telephone: (916) 388-5170 Facsimile: (916) 388-0357 6 Attorneys for Real Parties In Interest SUPERIOR COURT OF THE STATE OF CALIFORNIA COUNTY OF SACRAMENTO UNLIMITED JURISDICTION PAUL BERG, Ph.D; ROBERT N. KLEIN; and Case No. 04CS01015 11 LARRY GOLDSTEIN **DECLARATION OF DR. STUART A.** 12 NEWMAN, PH.D. IN OPPOSITION TO Petitioners. PETITION FOR WRIT OF MANDATE 13 AND ALTERNATIVE WRIT OF v. MANDATE/ORDER TO SHOW CAUSE 14 KEVIN SHELLEY, Secretary of State of Hearing Date: August 4, 2004 15 California. Time: 1:30 p.m. Dept.: 11 16 Judge: Hon. Gail Ohanesian Respondent. 17 GEOFF BRANDT, State Printer; TOM MCCLINTOCK; H. REX GREENE; JOHN M. 18 MORLACH; JUDY NORSIGIAN; FRANCINE COETAUX; TINA STEVENS; DOES I through 19 X. inclusive: 20 Real Parties in Interest 21 22 23

## I, STUART A. NEWMAN, depose, declare, and state as follows:

- I am a member of the faculty in the Department of Cell Biology and Anatomy at 1. the New York Medical College in Valhalla, New York. I am not party to the instant proceeding. If called as a witness, I could competently testify to the following from own personal knowledge.
- 2. I received an A.B. from Columbia University and a Ph.D. in chemistry from the University of Chicago. I have been a visiting professor at the Pasteur Institute, Paris, the Centre à

l'Energie Atomique-Saclay, Gif-sur-Yvette, the Indian Institute of Science, Bangalore, the University of Tokyo, and was a Fogarty Senior International Fellow at Monash University, Australia. I am a founding member of the Council for Responsible Genetics, Cambridge, MA and am currently a fellow of the Institute on Biotechnology and the Human Future at the Illinois Institute of Technology, Chicago, IL. I have worked for three decades on the stem cells that specify the skeletal and connective tissues of the vertebrate limb. I have published more than two dozen research articles and reviews on this subject. My current research interests center around three program areas: cellular and molecular mechanisms of vertebrate limb development, physical mechanisms of morphogenesis, and mechanisms of morphological evolution. I have contributed to several additional scientific fields, including protein folding and assembly of tissue matrices. I have also written on the social and cultural aspects of biological research and technology.

- 3. Until Stanford University decided in the last year to stop using the terms "embryo cloning" and "cloned embryos" to describe the technique of producing human embryos by nuclear transfer and the products of this technique, these were the terms used virtually exclusively by scientists for these items.
- 4. The term "cloned embryos" is still the term of art in this field of research for the products of nuclear transfer. A Medline search using this phrase turned up 42 uses of this term in article titles or abstracts during 2003-2004. In 2003, Ian Wilmut, the first scientist to clone a mammal, published an editorial in the journal *Cloning and Stem Cells* titled "Human Cells from Cloned Embryos in Research and Therapy."
- 5. The assertion that the viable product of nuclear transfer is not an embryo is equivalent to the assertion that organisms that develop from these products, such as Dolly the sheep, are not animals.
- 6. Cloned mammalian embryos, the products of nuclear transfer, if permitted to develop to full term, are very likely to give rise to biologically abnormal or very sick individuals. This has been used by some to suggest that these entities are not genuine embryos. Following this line of argument leads to the proposition that human fetuses affected by Tay Sachs disease or

Down Syndrome are not genuine human fetuses, or the children they give rise to are not genuine human beings.

- 7. Whether or not a scientist or physician intends to implant a cluster of cells does not determine whether or not it is an embryo. If it is a cluster of liver cells, for example, the intention to implant it does not make it an embryo. Correspondingly, if it is a blastocyst capable of giving rise to embryo stem cells, the lack of intention to implant it does not cause it not to be an embryo.
- 8. To believe that the material nature of a biological entity changes depending on the intention of the investigator is an example of magical thinking, which is antithetical to modern science.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed this 2<sup>nd</sup> day of August, 2004 at Valhalla, New York.

STUART A. NEWMAN