

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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BLUEBIRD BIO, INC.  
Petitioner

v.

SLOAN KETTERING INSTITUTE FOR CANCER RESEARCH,  
Patent Owner

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Patent No. 8,058,061

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**REPLY IN SUPPORT OF PETITION FOR *INTER PARTES*  
REVIEW OF U.S. PATENT NO. 8,058,061**

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Ex.1002	Declaration of Jörg Bungert, Ph.D.
Ex.1003	Curriculum Vitae of Jörg Bungert, Ph.D.
Ex.1004	May, “Therapeutic Hemoglobin Synthesis in Beta-Thalassemic Mice Expressing Lentivirus-Encoded Beta-Globin,” Cornell University (2001) (“the <i>May Thesis</i> ”)
Ex.1005	May, <i>et al.</i> , “Therapeutic Haemoglobin Synthesis in $\beta$ -thalassaemic Mice Expressing Lentivirus-Encoded Human $\beta$ -globin,” <i>Nature</i> , 406:82-86 (2000) (“the <i>May Article</i> ”)
Ex.1006	May, <i>et al.</i> , “Lentiviral-Mediated Transfer of the Human $\beta$ -Globin Gene and Large Locus Control Region Elements Permit Sustained Production of Therapeutic Levels of $\beta$ -Globin in Long-Term Bone Marrow Chimeras,” <i>Mol. Therapy</i> , 1(5):S248-249 (2000) (“the <i>May Abstract</i> ”)
Ex.1007	Perutz, <i>et al.</i> , “Hemoglobin Structure and Respiratory Transport,” <i>Sci. Am.</i> , 239(6): 92-125 (1978)
Ex.1008	Thein & Rochette, “Disorders of Hemoglobin Structure and Synthesis,” <i>in Principles of Mol. Med.</i> 179 (Jameson, ed., 1998)
Ex.1009	Bank, <i>et. al.</i> , “Disorders of Human Hemoglobin,” <i>Science</i> , 207:486-93 (1980)
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Ex.1011	Bunn, “Pathogenesis and Treatment of Sickle Cell Disease,” <i>N. Engl. J. Med.</i> , 337(11):762-69 (1997)

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Ex.1014	High, “Gene Therapy in Haematology and Oncology,” <i>Lancet</i> , 356:S8 (2000)
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Ex.1017	Mishima, <i>et al.</i> , “The DNA Deletion in an Indian $\delta\beta$ -thalassaemia Begins One Kilobase From the $\Delta\gamma$ Globin Gene and Ends in an L1 Repetitive Sequence,” <i>Br. J. Haematol.</i> , 73:375-79 (1989)
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Ex.1020	Zufferey, <i>et al.</i> , “Multiply Attenuated Lentiviral Vector Achieves Efficient Gene Delivery <i>in Vivo</i> ,” <i>Nature Biotech.</i> , 15:871-75 (1997)
Ex.1021	Miyoshi, <i>et al.</i> , “Transduction of Human CD34 <sup>+</sup> Cells that Mediate Long-Term Engraftment of NOD/SCID Mice by HIV Vectors,” <i>Science</i> , 283:682-86 (1999)
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