UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BLUEBIRD BIO, INC.,
Petitioner

v.

SLOAN KETTERING INSTITUTE FOR CANCER RESEARCH,
Patent Owner

Patent No. 7,541,179

DECLARATION OF JÖRG BUNGERT, Ph.D.

Table of Contents

Page

List of Materials Considered[1]

Ex. 1001	U.S. Patent No. 7,541,179 to Sadelain *et al.* ("the '179 patent")
Ex. 1004	May, "Therapeutic Hemoglobin Synthesis in Beta-Thalassemic Mice Expressing Lentivirus-Encoded Human Beta-Globin," Cornell University (2001) ("the *May Thesis*")
Ex. 1005	May, *et al.*, "Therapeutic Haemoglobin Synthesis in β-Thalassaemic Mice Expressing Lentivirus-Encoded Human β-globin," Nature, 406:82-86 (2000) ("the *May Article*")
Ex. 1006	May, *et al.*, "Lentiviral-Mediated Transfer of the Human β-Globin Gene and Large Locus Control Region Elements Permit Sustained Production of Therapeutic Levels of β-Globin in Long-Term Bone Marrow Chimeras," Mol. Therapy, 1(5):S248-49 (2000) ("the *May Abstract*")
Ex. 1007	Perutz, *et al.*, "Hemoglobin Structure and Respiratory Transport," Sci. Am., 239(6): 92-125 (1978)
Ex. 1008	Thein & Rochette, "Disorders of Hemoglobin Structure and Synthesis," *in* Principles of Mol. Med. 179 (Jameson, ed., 1998)
Ex. 1009	Bank, *et. al*, "Disorders of Human Hemoglobin," Science, 207:486-93 (1980)

[1] Non-patent publication citations are to the original page numbers of the publication, and citations to U.S. patents are to the column:line number of the patents. The only exception concerns to Exs. 1032 and 1037-39, as Petitioner utilizes an asterisk (*) to denote citation to the exhibit page.

DOCKET ALARM

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts

Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research

With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips

Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS
Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS
Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS
Sync your system to PACER to automate legal marketing.