

DECLARATION OF GLENN D. PRESTWICH, Ph.D.

I, Glenn D. Prestwich, Ph. D., residing at 166 Downwind Drive, Eastsound, WA 98245, do hereby declare as follows:

1. I have been asked by Panitch Schwarze Belisario & Nadel LLP to provide my opinion concerning the validity of U.S. Patent No. 8,450,475 (the '475 patent) in connection with their petition for inter partes review (IPR) of the '475 patent (IPR Petition). I am being compensated for my time at the rate of \$700 per hour for consulting, \$400 per hour for travel, and \$900 per hour for oral testimony. My opinion is not influenced in any way by the compensation that I receive and my compensation will not be affected by the outcome of this matter.

Education, Experience, Publications and Awards

2. I am Presidential Professor of Medicinal Chemistry and Special Presidential Assistant for Faculty Entrepreneurism at the University of Utah in Salt Lake City, UT. I also currently hold the titles of Research Professor of Biochemistry, Adjunct Professor of Chemistry and Adjunct Professor of Bioengineering at the University of Utah. I have set out my background experience below, further particulars of which are set out in my curriculum

vitae, which is attached to this Declaration. A complete list of my educational experience, work history, honors/awards, lectures and publications can be found in my curriculum vitae.

3. I obtained a Bachelor of Science Degree (Honors) in Chemistry from the California Institute of Technology in Pasadena, California (1970) and a Ph.D. degree in Organic Chemistry from Stanford University in Palo Alto, California (1974).
4. After obtaining my Ph.D., I worked for two and one-half years as a research scientist in Nairobi, Kenya on insect chemical communication, with the goal of identifying compounds in termites, ticks, tsetse flies, mosquitoes, and armyworms that would be useful for control of insect agricultural pests and insect disease vectors.
5. From 1977 to 1996, I was appointed first as an Assistant Professor and, subsequently, Associate Professor, and then Full Professor of Chemistry at the State University of New York at Stony Brook, NY. From 1992-1996, I was also appointed as Professor of Biochemistry and Cellular Biology, and I was the Director of the New York State Center for Advanced Technology in Biotechnology, also called the Center for Biotechnology, at SUNY Stony Brook.

6. From 1996-2002, I was the Chair of the Department of Medicinal Chemistry at the University of Utah. In addition, from 1997-2002, I directed the Center for Cell Signaling, a Utah Center of Excellence dedicated to launching new start-up companies based on faculty technologies in cell signal research; three new companies were formed. From 2002-2006, I directed a second Utah Center of Excellence, the Center for Therapeutic Biomaterials, from which five new companies emerged.

7. My academic duties have included teaching undergraduate and graduate courses in bioorganic chemistry, structural organic chemistry, medicinal chemistry, chemical ecology and site-targeted drug delivery. I have also been active in research directing graduate students, technicians, postdoctoral fellows and visiting faculty members. My university research and other scholarly duties have resulted in the publication of over 572 original scientific papers and over 60 book chapters and books. Of these, about 22% of the refereed publications and 28% of the books/book chapters are related to hyaluronic acid or hyaluronan. I am also a named inventor on some 66 patents and patent applications in many areas, including the control of insect pests, cholesterol lowering agents, labeled phospholipids and phosphoinositides in drug discovery assays, anti-cancer and anti-angiogenic agents, signal transduction modifiers, mercury sensing chemicals, and the

compositions and uses for a wide variety of chemically modified hyaluronan (HA) derivatives. About half of my patent and patent application portfolio covers compositions of matter, methods of making, and methods for using chemically-modified HA derivatives as biomaterials for wound repair, adhesion prevention, drug delivery, tissue engineering, 3-D cell culture, and cell therapy or as anti-inflammatory compounds for treatment of inflammatory diseases of the eye, skin, bladder, gingiva, kidney, and other tissues.

8. Since 1980, I have been a consultant for a wide variety of pharmaceutical and companies specializing in the development of lipid kinase inhibitors, squalene epoxidase and oxidosqualene cyclase inhibitors, insect juvenile hormone antagonists, insect pheromone analogs, and biomaterials. My research activities in HA began in approximately 1989, and my first company, Clear Solutions Biotech, was launched with Jim Hayward, President of Collaborative Laboratories, in 1994 based on the hydrazide modification technology discovered in my laboratories. Since moving to Utah in 1996, I have co-founded and held management positions with several biotechnology start-up companies, as well as serving as a consultant for others. I founded and served as a Director, Chief Scientific Officer

(CSO), Chief Scientific Adviser, or Chief Executive Officer (CEO) for a number of these start-up companies.

9. These companies include: Clear Solutions Biotech (Stony Brook, NY) (1994-2001); Echelon Biosciences, Inc. (CSO, 1997-2003; Science Advisor 2004 - current); Sentrx Surgical, Inc. (Salt Lake City, UT)(CSO, 2004-2005); Carbylan Biosurgery, Inc. (Palo Alto, CA)(Science Advisor, 2005-2009); Sentrx Animal Care, Inc. (Salt Lake City, UT)(Science Advisor, 2006-current); Glycosan BioSystems, Inc. (Salt Lake City, UT) (CSO, 2006-2011); GlycoMira Therapeutics (Salt Lake City) (CSO, 2008 - current); Metallosensors (Salt Lake City) (CEO, 2011 – 2014); Brickell Biotech (Ft. Lauderdale, FL) (Director, 2011 – 2013); OrthoCyte/BioTime (Alameda, CA)(Scientific Advisor, 2011 – current); Organovo (Scientific Advisory Board (SAB), 2008 – current); Modern Meadow (SAB, 2012 – current). Of these, the technologies for Clear Solutions Biotech, Sentrx Surgical, Carbylan Biosurgery, Sentrx Animal Care, Glycosan, GlycoMira, Brickell Biotech, and BioTime all involve technology for the chemical modification of HA that was licensed from my university laboratories and is the subject of pending, published or issued patents.

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.