Expert Report of Jeffrey A. Dubin, Ph.D.
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1. I, JEFFREY A. DUBIN, am a co-founding member of Pacific Economics Group, a Limited Liability Company (PEG) headquartered in Pasadena, California. I co-founded PEG in 1996. PEG is located at 301 North Lake Ave, Suite 330 Pasadena, California 91101. I am also a tenured Professor of Economics at the California Institute of Technology ("Caltech") in Pasadena, California. Pursuant to Nevada Evidence Code NRCP RULE 16.1(a) (2) (B), I offer the following expert testimony on behalf of the Defendants Dr. Dennis P. Gordon, Marilyn Miglin and Duke Miglin.

2. For nearly twenty-five years, I have taught both undergraduate and graduate level courses at Caltech. I regularly use econometric and statistical methods in my empirical work. Currently, I am on leave of absence from Caltech and was Visiting Professor of Economics at Occidental College, Los Angeles for Fall 2005 and was Visiting Professor of Economics at the University of California, Santa Barbara for Winter 2006.

3. Some of my current research topics include discrete-choice econometrics, energy economics, tax compliance, sampling and survey methods, valuing intangible assets, and studying ballot proposition voting. In addition, I have provided testimony before various courts and regulatory Commissions.

4. A true and correct copy of my *Curriculum Vita* is attached hereto as Exhibit A, which includes a representative list of my current research assignments and past testimony.

5. I was awarded a Bachelor of Arts degree in Economics from the University of California, Berkeley, in 1978, with highest honors and great distinction, and was awarded a Ph.D. in Economics by the Massachusetts Institute of Technology (MIT) in 1982. Prior

to co-founding PEG in 1996, I was the Director of Statistics and Econometric Analysis with Arthur Andersen Economic Consulting (AAEC), an Arthur Andersen and Co. LLP division. Prior to joining AAEC in 1992, I was a senior economist at Putnam, Hayes and Bartlett from 1989 to 1992.

6. I have published four books, entitled respectively, *The California Electricity Crisis What, Why and What's Next* (2004), *Empirical Studies in Applied Economics* (2001), *Studies in Consumer Demand: Econometric Methods Applied to Market Data* (1998), and *Consumer Durable Choice and the Demand for Electricity* (1985). I have also authored many articles and papers. A complete publications list is also included in my Curriculum Vitae attaches as Exhibit A.

7. My billing rate in this matter is $450 per hour.

8. I have reviewed the Complaints in these matters and am familiar with their allegations. I have also reviewed Dr. Kenneth Lehrer's expert reports dated March 10, 2006 and March 13, 2006 with respect to Plaintiffs Landes and Siggelkow.

9. I was a designated expert in a collateral legal action in the State of California regarding the Defendants in this case. I provided a summary of my opinions in rebuttal to Dr. Lehrer in that case and also provided deposition testimony.

10. I have been retained to provide my expert opinion regarding the opinions and conclusions reached by Dr. Kenneth Lehrer in his reports dated March 10, 2006 and March 13, 2006.

11. Dr. Lehrer's damage analysis in this matter is based upon a contractual royalty amount alleged to be due to Plaintiffs for each APN needle sold by the Defendants. Dr. Lehrer bases his damage analysis on the faulty premise that, but-for the actions of

Defendants, some one million APN needles would have been sold. Irrespective of whether the Defendants' actions affected APN needle sales, there is no plausible or demonstrated scenario in which one million APN needles would have been sold. This unproven premise is simply assumed by Dr. Lehrer and is apparently based on his expert report produced in the California litigation, to which Dr. Lehrer makes reference in his current reports as the source of his opinions.

12. I have reviewed the market for the APN needle. I also reviewed the WMD business plan, Dr. Lehrer's expert report, various deposition transcripts, and the trial testimony from the California litigation. In the California litigation, I also extensively studied the scheleratherapy and laser methods and markets for treating Spider Veins. I have formed opinions with respect to the potential size of the APN needle market.

13. I have attached a detailed summary of my opinions Exhibit B. This summary correctly states the basis upon which, in my opinion, Dr. Lehrer has grossly inflated the potential size of the APN market and hence the basis for potential lost royalty or lost profit damages in this case. I also have attached a list of documents that I reviewed and relied on in Exhibit C.

14. I find that the WMD business plan on which Dr. Lehrer bases some of his analysis to be inherently flawed with respect to the likely size of the APN market. I further find that Dr. Lehrer has misunderstood this business plan and incorrectly extrapolated the potential APN market from this misunderstanding.

15. I further find that Dr. Lehrer has conducted a fundamentally flawed analysis of the APN market that grossly inflates the sales of this device. Dr. Lehrer's errors include: (i) incorrectly combining national survey statistics regarding the number of laser and

scheleratherapy procedures; (ii) misunderstanding the difference between procedures and patients and the number of needles needed per patient versus the number needed per procedure; (iii) incorrectly assuming a very large adoption rate for a new and unproven technology; and (iv) incorrectly projecting the likely sales path of the APN given the market it was designed to penetrate.

16. Dr. Lehrer's opinion regarding how many APN needles would have been sold is fundamentally based on his unproven assumption that the APN needles would take away five percent of the existing procedure market. However, the size of the existing procedure market was grossly misestimated by Dr. Lehrer. Further, Dr. Lehrer has not offered any evidence to explain why a five percent adoption rate would occur for this product. Hence, his market analysis is ultimately merely a guess. It is my opinion that a five percent adoption rate is totally inconsistent with the facts of this market and that, at best, the APN might have garnered one percent of the existing procedure market if the product had been properly marketed.

17. It is my opinion that the APN needle had a very small potential to sell as a competing method for the treatment of spider veins. In a best case scenario, roughly 7,000 APN needles would be sold per annum in the United States. Limiting the market to California and Kaiser, this figure would be no higher than 1,000 APN needles per annum. Additionally, there are various reasons that these levels would never have been reached. These include: (1) the high price assumed by Dr. Lehrer forth APN needle; (2) the state of product development for the APN; (3) the apparent efficacy of the APN procedure; and (4) the limited market that the APN needle was likely to have penetrated. If design issues had been overcome, the APN needle was likely to have been used only as a

salvage therapy or for a portion of the human body where other treatment modalities typically had low success rates. Further, Dr. Lehrer's analysis assumes that the APN needle would successfully supplant laser procedures and would apply to a base figure for national procedures that includes scheleratherapy for veins other than spider veins. Neither of the assumptions is valid.

18. At the level of 1,000 or 7,000 APN needles per annum, there is no basis for Dr. Lehrer's assumption that one million APN needles would be sold in a few years. Dr. Lehrer's analysis is faulty and riddled with errors. Hence, Dr. Lehrer's expert reports in this matter are flawed and grossly overstate the potential damages in this case.

Dated: July ____, 2006.

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Jeffrey A. Dubin, PH.D.

APPENDIX B

Opinions of Dr. Jeffrey A. Dubin

1. Plaintiff's expert opinions regarding baby-boomers are irrelevant as the relevant procedure counts are estimable through survey estimates. Considering the treatment of spider veins, the number of procedures is not the same as the number of patients who seek treatment nor is it the same as the number of individuals who are afflicted. A procedure is synonymous with a treatment and represents a billable event for the physician.

2. Plaintiff expert combines (adds) the procedure counts from two surveys. There is no basis to add the ASPS survey and the ASCPS survey information. As the statistical margin of errors in the surveys are similar, and as they estimate the same number for the population, the best estimate of the number of procedures is a simple average of the two estimates.

3. Using a pooled estimate of procedures from the ASPS and ASAPS surveys yields the following sclerotherapy procedures: (1) 2000: .695m; (2) 2001: .623m; (3) 2002: .403m; (4) 2003: .463m; (5) 2004: .516m; and (6) 2005: .572m. Overall, the total number of procedures (laser plus sclerotherapy) is rising which I estimate to be fewer than 750,000 in 2005 whereas Plaintiff's expert incorrectly assumes 2,000,000 procedures (treatments) in 2005. Based on 2005 ASAPS figures, the

national number of schlerotherapy and laser procedures is roughly 700,000 while the number of schelrotherapy procedures (spider vein and other) is roughly 554,000.

4. The APN is an invasive procedure (using needle) and likely to compete more against the traditional sclerotherapy (using needle) rather than laser treatments (non-invasive without needle). Physicians with lasers are more likely to use their lasers to treat spider veins. Plaintiff's assumption that the APN will capture an equal percentage of both laser and sclerotherapy procedures is inaccurate and biased upward. If the APN is, in fact, a close substitute to sclerotherapy procedures then Plaintiff has inflated damages by roughly a factor of **1.30** (671,979/516,443) using 2004 combined survey estimates or as much as **1.26** (721,520/572,010) using 2005 combined survey estimates.

5. Plaintiff's expert has misread the ASPS and ASAPS surveys and misunderstands that the laser procedures and sclerotherapy procedures listed in these surveys pertain to spider veins alone. Procedures listed in these surveys pertain to vein treatments generally and are not specific to spider vein procedures. This error biases upward Plaintiff's damages. Additionally, the APN needle was designed as an adjunctive or salvage treatment modality. Success rates for sclerotherapy are roughly 75% and 90% or better for laser. Patients for whom traditional therapies fail may or may not return for a salvage technique. This further the limits the market potential and reveals another upward source of bias in Plaintiff's damage

calculation. Damages are inflated by a factor of **4** or possibly a factor of **10** as a result of these considerations.

6. Plaintiff's expert has misread both the ASPS survey and the ASAPS surveys. Plaintiff's expert thus falsely concludes that the survey represents only their membership. Plaintiff's expert mistakenly adds the estimates of procedures. For instance, each survey points to a similar number of combined laser and sclerotherapy procedures in 2004. Analysis of Botox statistics employed by the U.S. Government confirms Plaintiff's expert "double-counting".

7. Plaintiff's expert has misread the ASPS and ASAPS survey instruments, and assumes that these surveys miss dermatologists. Plaintiff's expert therefore erroneously concludes that the survey misses the number of procedures performed by dermatologists. This misstep inflates damages by a factor of (1.5m/0.7m) **2.14**. Plaintiff's expert has also incorrectly increased the number of APN needles sold in his 2005 update from 225,000 (3 needles * 5% * 1.5 million) to 300,000 (3 needles * 5% * 2.0 million) in the base year. The actual rate of growth between 2003 and 2005 for vein procedures was roughly half that assumed by Plaintiff's expert.

8. Plaintiff's expert uses too low a discount rate for his present discounted value analysis. The correct discount rate is likely to be l5% or higher. Plaintiff's expert has inflated damages by roughly a factor **1.14** due to this error.

9. Plaintiff's expert has mistakenly assumed that three needles are used per procedure, instead of per patient in three separate procedures. Plaintiff's damages are inflated by **3.0** from this error. Plaintiff's expert has not appreciated the potential reusability of the APN needle.

10. Plaintiff's expert has assumed a rate of adoption of 5% for the APN. There is no basis, analysis, or evidence for this conclusion. Plaintiff consequently offers no proof of his damages beyond pure conjecture. A 5% rate of adoption does not appear to be realistic considering the proposed price point, *de facto* product efficacy, and limited procedure market. Plaintiff's assumption is also inconsistent with the IHWorks Business & Marketing Plan (IBMP) (Section Q, Page 4).

11. Plaintiff's expert has eliminated the royalty payment included in the IBMP analysis, which would flow from WMD to AMP. This royalty payment is roughly 20% according to the IBMP. The consequence of this error is to inflate damages by a factor of roughly **1.82.**

12. Plaintiff's expert falsely assumes that the adoption of the needle would occur at 5% beginning with the first year the product sells, rather than following a typical product life cycle form.

13. Plaintiff's expert has not considered the validity of the patent or the barriers to entry in this market.

14. Plaintiff's expert has ignored the start-up costs for selling any APN product.

15. Plaintiff's expert has assumed a high price for the needle, which will yield a low margin to physicians relative to standard treatments. The needle would not be adopted at this price. Product adoption is unlikely to be even 1%. Plaintiff's expert has ignored that the cost of a reusable micro-phlebectomy hook instrument is roughly $60.

16. Plaintiff's expert has ignored the state of product development for the APN needle. The APN has not been demonstrated to be a product that is superior or even equivalent to traditional sclerotherapy.

17. California is approximately 53.4 percent of ASPS Region 5 (148,344 * 0.534), or 79,215, sclerotherapy procedures. (2005 ASPS). The national procedure rate is 589,768/296.4m patients. Non-California Kaiser patients make up 2.0 m patients (8.2m – 6.2m). At the national procedure rate, this is an additional 3,979 procedures not covered by a California exclusive distribution agreement under the WMD contract with AMP. There are 83,194 (79,215+3,979) total procedures in California and non-California Kaiser. This is 14.1% (83,194/589,768) or roughly 1/7. Plaintiff incorrectly inflates damages by a factor of **7.0** by using the national

procedure counts instead of the WMD territory procedure count. Plaintiff further incorrectly inflates damages by extending his U.S. analysis to the rest of the world. Extending damages to non-exclusive territory is speculative.

18. If the needle was adopted, and maintaining Plaintiff's pricing assumptions, the likely lost sales are, at best, 7,000 per annum (and approximately 1,000 per annum if limited to California and Kaiser). Lost profit is roughly $43,000. Even this estimate is too high because the product would have extremely low adoption rates at $70 per needle and because the corrections I have made to Plaintiff's damage calculation under-estimate start-up and fixed costs. There is no basis to assume (as does Plaintiff's expert) that 1,000,000 APN needles would have been sold but-for the actions of Defendants in this matter. Lost royalties, if any, should be based on roughly 1,000 needles sold per annum.

19. Most new products and new companies fail. I view the likelihood of the APN succeeding, based upon the existing evidence, at no more than 10/100. There is likely a 90% chance that lost profits and lost royalties are zero in this case. Plaintiff's damage theories are based on pure speculation and assumption.