

# EXHIBIT Q

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF FLORIDA

DISNEY ENTERPRISES, INC.,  
TWENTIETH CENTURY FOX FILM  
CORPORATION, UNIVERSAL CITY  
STUDIOS PRODUCTIONS LLLP,  
COLUMBIA PICTURES INDUSTRIES INC.,  
and WARNER BROS. ENTERTAINMENT  
INC.,

Plaintiff,

v.

HOTFILE CORP., Anton Titov, and DOES 1-10,

Defendant;

HOTFILE CORP., Anton Titov, and DOES 1-10,

Counterplaintiff,

v.

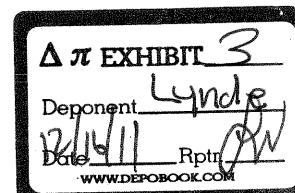
DISNEY ENTERPRISES, INC.,  
TWENTIETH CENTURY FOX FILM  
CORPORATION, UNIVERSAL CITY  
STUDIOS PRODUCTIONS LLLP,  
COLUMBIA PICTURES INDUSTRIES INC.,  
and WARNER BROS. ENTERTAINMENT  
INC.,

Counterdefendant.

Civil Action No. 1:11-cv-20427

**EXPERT REPORT OF MATTHEW R. LYNDE**  
***HIGHLY CONFIDENTIAL***  
***OUTSIDE ATTORNEYS EYES ONLY***  
***SUBJECT TO PROTECTIVE ORDER***

*HIGHLY CONFIDENTIAL – OUTSIDE COUNSELS' EYES ONLY*



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I, Matthew R. Lynde, submit this report of my opinions in the captioned matter, along with the bases and reasons in support of those opinions. It is my intent and belief that this report complies with the requirements for an expert report as set forth in Federal Rule 26. I am prepared to testify about the subject matter of this report in the present litigation if called upon to do so.

## **I. QUALIFICATIONS**

1. I am an economist specializing in applied economic, financial, and statistical analysis of complex business matters, including the calculation of damages involving intellectual property issues. I have over thirty years of experience as a practicing applied economist for the government, academia, and business. I am currently Vice President of Cornerstone Research, an economic and financial consulting firm with offices in Menlo Park, San Francisco, and Los Angeles, California, Boston, Massachusetts, Washington, D.C., and New York, New York.

2. I earned both a B.A. and a Ph.D. in Economics from the University of California at Berkeley. As an undergraduate at Berkeley, I studied Electrical Engineering in addition to Economics. During the interval between degrees, I worked in the federal government, attached to the President's Council on Wage and Price Stability, and at the Brookings Institution. Following my doctorate, I was on the faculty of the City University of New York where I taught corporate finance as well as microeconomics and econometrics courses. I then joined Price Waterhouse in New York, and eventually became the partner in charge of that firm's intellectual property practice in the San Francisco Bay Area. I was invited to join Cornerstone Research in 2001.

3. For more than fifteen years, I have been involved in analyzing and addressing damages and liability questions in complex commercial litigation, as well as advising companies on patent and copyright licensing issues. I have testified as an expert witness in arbitration,

deposition, and in both state and federal courts on patent, copyright, trademark, and trade secret damages, contract breach damages, and securities fraud damages. I have submitted expert reports and consulted on many more cases where testimony was not required or in support of the expert witness. In licensing consultations, I have advised clients in high-tech industries about portfolio management, exploitation and implementation strategies, licensing-in and licensing-out, and royalty examinations.

4. I am a member of the American Economics Association, the National Association of Business Economists, the American Statistical Association, and the Licensing Executives Society. My Curriculum Vitae, including my publications within the last ten years and testimony given in the last four years, is attached as Appendix I.

5. Cornerstone Research is being compensated at \$585 per hour for my time spent on this case. The compensation to Cornerstone Research is in no way based on the outcome of this litigation.

## **II. ASSIGNMENT**

6. I have been informed that Disney Enterprises, Inc., Twentieth Century Fox Film Corporation (“Fox”), Universal Studios Productions LLLP (“Universal”), Columbia Pictures Industries, Inc. (“Columbia”), and Warner Bros. Entertainment Inc. (“Warner”) (collectively the “Studios”) have alleged that Hotfile Corporation, Anton Titov, and DOES 1–10 (“Hotfile”) directly and indirectly infringe the Studios’ copyrights, and also induce and contribute to copyright infringement by others. In its Counterclaim, Hotfile has alleged that Warner knowingly misrepresented that it owns the copyrights to materials on Hotfile, causing the wrongful deletion of files owned by Hotfile users. Hotfile also alleges that Warner specifically requested and misused Hotfile’s anti-piracy tool.

7. I have been asked by counsel for Hotfile to study the economic issues in this case and to render an expert opinion as to the amount of damages that would be due to Hotfile in the event that Hotfile proves Warner knowingly misrepresented that it owns the copyrights to materials on Hotfile that it wrongfully deleted by its use of Hotfile's anti-piracy tool. Accordingly, for purposes of my analysis, I have assumed that the Hotfile's allegations are true. A list of the materials I have reviewed in connection with my report is attached as Appendix II.

8. I may amend or supplement my opinions to address any issues by any experts of the Studios or resulting from any additional information or documents that become available, including any depositions that have yet to be taken. I may also testify about matters that are: (1) raised on direct or cross-examination at trial; (2) necessary to rebut any other matters that the Court allows the Studios to introduce or rely upon; or (3) otherwise raised at trial by counsel or the Court in relation to matters in this report.

### **III. SUMMARY OF CONCLUSIONS**

9. Based on my review of the documents and deposition testimony, confirmed through discussions with Hotfile senior staff, I have reached the following conclusions. Warner's misrepresentations and misuse of Hotfile's anti-piracy tool injured Hotfile and negatively affected and continues to affect Hotfile's revenues and profits. I estimate that Hotfile's damages related to Warner's actions are between \$9,100 and \$80,670 depending on the scenario.

### **IV. CASE OVERVIEW AND BACKGROUND**

10. Hotfile is a Panamanian corporation with its principal place of business located outside of the U.S. Hotfile operates a website, *hotfile.com*, which provides file hosting services

to users of its website. Hotfile offers network storage and access which allow its users to store and share digital files. Registered and non-registered users of Hotfile website may upload digital files to *hotfile.com*. Once the file is uploaded, a URL is generated. With this URL, other users may download linked files. Users can download the files for free, but they may also purchase premium memberships with Hotfile costing up to \$9 per month. These premium memberships carry benefits such as faster download speeds, access to simultaneous downloads, and no initial delays or download time restrictions in contrast to free downloads.<sup>1</sup>

11. Hotfile enables file sharing among users. According to the Cisco forecast, consumer file sharing is growing globally, and is expected to more than double by 2015 from its 2010 level.<sup>2</sup> Hotfile's mode of operation is sometimes described by the terms "cyberlocker" and "cloud computing." From the user's perspective, Hotfile provides a digital storage space for users, just like gym lockers provide storage for gym clothes and equipment or library lockers provide storage for books. The distinguishing characteristic of cyberlockers is that they can be accessed from anywhere by anyone with the correct link to the file on the Hotfile website. Because files on the Hotfile website may be uploaded and downloaded from anywhere by any user with an Internet access (and knowledge of the file's specific URL in case of downloads), it also fits with the definition of "cloud computing."<sup>3</sup>

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<sup>1</sup> Second Amended Answer, Affirmative Defenses and Counterclaim of Defendant Hotfile Corporation to Plaintiffs' Complaint, 10/27/11, Answer ¶24 ("Counterclaim").

<sup>2</sup> Cisco, "Cisco Visual Networking Index: Forecast and Methodology, 2010–2015," 6/1/11 (see Table 9).

<sup>3</sup> The National Institute of Standards and Technology defines "cloud computing" as "a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction." It notes that there are five essential characteristics of cloud computing: (1) on-demand self-service; (2) broad network access; (3) resource pooling (resources are pulled to serve multiple customers dynamically so that the customers do not control or even know the exact location of the provided resources); (4) rapid elasticity (capabilities can be rapidly and elastically provisioned so that to the user the capabilities available appear to be unlimited and can be purchased in any quantity in any time); and (5) measured service (resource use is measured so its usage may be monitored, controlled, and reported providing transparency to both the provider and the user). It appears that Hotfile's services have these characteristics. National Institute of Standards and Technology, "The NIST Definition of Cloud Computing," Version 15, 10/7/09, at <http://www.nist.gov/itl/cloud/upload/cloud-def-v15.pdf>.

12. Hotfile allows the users “to store and access files of all kinds online” and also to share those files with others by providing them with URLs to those files.<sup>4</sup> Hotfile does not routinely monitor the content of the files uploaded or downloaded from Hotfile. Hotfile also does not offer the ability to search its file depository for specific files; the files are only accessible if the exact download link is known.

13. Hotfile offers an affiliate program where users who upload files to *hotfile.com* may receive payments from Hotfile based on the number of files placed on *hotfile.com* and how often those files are downloaded as well as the number of users who purchased premium access to download these files.<sup>5</sup> In addition, Hotfile offers payments to site owners who refer users to Hotfile.<sup>6</sup>

14. Hotfile's provision of internet services includes activities that are covered under the Digital Millennium Copyright Act (DMCA). In particular, Hotfile complies with the DMCA notice and takedown requirements in two ways. First, copyright owners may notify Hotfile via e-mail that a particular file stored on *hotfile.com* infringes their copyright and Hotfile's staff will take down the infringing content from its website. In addition, on request, Hotfile provides copyright owners with access to Hotfile's anti-piracy tool via a Special Rightsholder Account (SRA) on *hotfile.com*. SRA holders can directly and instantaneously delete or disable any number of files on *hotfile.com* where the file content infringes their copyrights, provided they represent under penalty of perjury that they are the owner or authorized by the owner to make the deletion and they have a good faith belief that use of the material in the manner complained of is not authorized by law.

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<sup>4</sup> <http://hotfile.com/terms-of-service.html>, accessed 11/17/11.

<sup>5</sup> <http://hotfile.com/affiliate.html>, accessed 11/17/11.

<sup>6</sup> <http://hotfile.com/affiliate.html>, accessed 11/17/11.



15. The Studios create and distribute filmed entertainment. They own or control the copyrights and/or exclusive reproduction and distribution rights to thousands of popular films and television programs.<sup>7</sup> The Studios allege that infringing copies of their copyrighted films and programs are uploaded to and downloaded from Hotfile servers.

16. Warner is a Delaware corporation with its principal place of business located in Burbank, California.<sup>8</sup> Warner uses Hotfile's SRA to remove content from Hotfile servers that they believe infringes its copyrights and I understand that in the past Warner has complimented Hotfile's efforts to protect copyrighted materials.<sup>9</sup>

17. When *hotfile.com* first started its operations, Warner submitted takedown notices to Hotfile by e-mail.<sup>10</sup> In April 2009, Warner asked Hotfile to provide a special anti-piracy tool which would allow Warner to directly remove its copyrighted materials from *hotfile.com* instead of sending e-mail notices to Hotfile and relying on Hotfile's staff to remove such files. In August 2009, Hotfile provided Warner with such a tool—access to Hotfile's SRA. The SRA use was registered to Michael.Bentkover@warnerbros.com e-mail.<sup>11</sup> Using this e-mail with its corresponding password, a user may login onto *hotfile.com* and command the Hotfile servers to block any file so that nobody can download it. Warner may enter one or several URLs to files it wishes to block, which will then be blocked immediately. Warner may also upload a batch file with a list of links, and all files corresponding to those links will be blocked. The SRA takedown

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<sup>7</sup> Complaint for Copyright Infringement, *Disney Enterprises, Inc., et al. v. Hotfile Corp. et al.*, 2/8/11, ¶15 ("Complaint").

<sup>8</sup> Counterclaim, ¶7.

<sup>9</sup> Answer and Defenses of Warner Bros. Entertainment, Inc. to Hotfile Corp.'s Second Amended Counterclaim, 11/7/11, ¶36 ("Warner Answer to Counterclaim").

<sup>10</sup> Warner Answer to Counterclaim, ¶12.

<sup>11</sup> Warner Answer to Counterclaim, ¶¶12–13.

process is fully automated and requires no further action by Hotfile staff. Subsequently, Warner requested five additional SRAs to remove files from *hotfile.com*.<sup>12</sup>

18. Warner relies on a robot to identify potentially infringing works on Hotfile servers.<sup>13</sup> The robot does not identify infringing works precisely, which results in some false positives. According to Warner's internal documents, the false positive rate for its robot is almost 10% on average.<sup>14</sup> Warner is well aware that its robot may erroneously identify some files as infringing on Warner's copyrights when in fact they do not.<sup>15</sup> However, Warner still relies on the robot's analysis to take down files on Hotfile servers by using the SRA tool. As a result, and as acknowledged by Warner, some files removed by Warner have content that does not infringe Warner copyrights.<sup>16</sup> For example, Warner has acknowledged that it removed from Hotfile a software program and gaming software for which Warner does not hold copyrights.<sup>17</sup>

19. Hotfile's SRA requires the SRA account holder to agree to "certify under penalty of perjury that I am owner or an authorized legal representative of the owner of the copyrights to this material. I have a good faith belief that use of this material is not authorized by the copyright owner, the copyright owner's agent, or the law. The foregoing information is accurate as to this material" prior to taking down files on Hotfile servers.<sup>18</sup> This request is presented every time the SRA is used to delete files on Hotfile servers.

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<sup>12</sup> Warner Answer to Counterclaim, ¶16.

<sup>13</sup> Warner Answer to Counterclaim, ¶27.

<sup>14</sup> Deposition of David Kaplan, 10/12/11 ("Kaplan Deposition") (see Exhibit 11 at WARNER072191).

<sup>15</sup> Kaplan Deposition, p. 91.

<sup>16</sup> Warner Answer to Counterclaim, ¶¶22–32.

<sup>17</sup> Warner Answer to Counterclaim, ¶¶22–23.

<sup>18</sup> Kaplan Deposition, Exhibit 6 and pp. 87–88. See also Warner Answer to Counterclaim, ¶15.

## **V. DAMAGES ANALYSIS**

### **A. The Damages Period**

20. Following Warner's April 2009 request for an automated takedown tool, Hotfile made such a tool available via SRA to Warner and other copyright owners in August of 2009. On April 5, 2011, Hotfile provided Warner with a list of files that were removed by Warner in February 2011 even though these files appear not to infringe on Warner's copyrights.<sup>19</sup> To date, Warner continues its use of the SRA and, as described in Hotfile's Counterclaim, continues to take down files for which it does not own copyrights. Hence, I consider the following damages periods that begin either: (1) in February 2011, the first date for which improperly removed files were identified in the Counterclaim; or (2) on April 5, 2011, when Hotfile provided Warner with the list of files erroneously removed by Warner. Both damages periods end in September 2011 (the last period for which data are available). Hence, the corresponding damages periods are eight or six months in duration.

### **B. Damages Analysis**

21. Because the SRA access allows the SRA holder to remove any file on the Hotfile servers, misuse of this tool can have harmful consequences. For example, when a file is deleted by the SRA holder, the Hotfile system automatically blocks uploading of the same file or any other copy of the file with the same hash value.<sup>20</sup> Hence, even if the SRA holder mistakenly removes a file from Hotfile, all copies of this file will be blocked from being uploaded to Hotfile in the future.

22. Given the power of the SRA, it needs to be used responsibly. Hotfile granted Warner SRA access to its anti-piracy tool to remove only those files to which Warner owns

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<sup>19</sup> Kaplan Deposition, Exhibit 3, Attachment A.

<sup>20</sup> Counterclaim, ¶14.

copyrights. However, Warner deleted thousands of files from Hotfile without ever downloading them, and thus without ever verifying whether the file content in fact infringed on Warner's copyrights.<sup>21</sup> Warner also acknowledges that some of the files deleted by Warner did not infringe Warner's copyrights.<sup>22</sup>

23. When Warner received SRA access, Warner stopped sending takedown requests by e-mail and relied on the SRA alone.<sup>23</sup> Since that date, Warner has taken down approximately 750,000 files from *hotfile.com* using its SRA access.<sup>24</sup> On average, in the year prior to February 2011 when this litigation commenced, Warner was responsible for approximately 20 percent of all SRA takedowns. According to Warner's internal documents, Warner has a 10 percent false positive rate for takedown requests, so approximately 10 percent of Warner's takedowns affected files for which Warner does not own copyrights.<sup>25</sup>

24. In February 2011, Hotfile announced on its website that it would be more aggressive in terminating accounts for users who repeatedly upload files containing copyrighted materials to which they do not hold rights.<sup>26</sup> Hotfile then proceeded to terminate the accounts of users who repeatedly uploaded files that were subject to takedown requests.

25. Hotfile's only source of revenues is payments for premium accounts. Because users may download files from *hotfile.com* for free, they do not need premium accounts to access files on the Hotfile servers. Users may choose to pay for premium access to obtain faster download speeds and access to simultaneous downloads, as well as no initial delays or download time restrictions. To generate premium accounts, Hotfile needs to attract users to its site.

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<sup>21</sup> Warner Answer to Counterclaim, ¶¶22.

<sup>22</sup> Warner Answer to Counterclaim, ¶¶22–32.

<sup>23</sup> Kaplan Deposition, Exhibit 7.

<sup>24</sup> Users\_cowner\_upload.csv.

<sup>25</sup> Kaplan Deposition, Exhibit 11 at WARNER072191.

<sup>26</sup> <http://hotfile.com/news.html>, accessed 11/17/11.

Hotfile's affiliate program aims to attract premium accounts through users who can direct internet traffic to Hotfile's website, which is a common practice in online advertising.

Additional traffic to Hotfile's site increases the likelihood that at least some of the visitors might sign up for premium account access, thereby increasing Hotfile's revenues. Historically, approximately 45 percent of all the files uploaded to Hotfile have been downloaded at least once, with approximately 25 percent via premium access. Approximately 1% of these files generated premium subscriptions; that is, a user purchased a premium subscription to download that file.<sup>27</sup>

26. Wrongful takedowns have several adverse effects on Hotfile and its business. First, wrongful takedowns may lead to termination of a premium account and therefore loss of all future revenues associated with that account.

27. Second, reduction in the number of files available to users for download reduces the value of the premium account to users. This in turn lowers their incentive to pay for premium access, which leads to a reduction in Hotfile's revenues.

28. Third, wrongful takedowns negatively affect Hotfile's affiliates and the revenues associated with the traffic they generate. Takedowns may lead to termination of affiliate accounts. Even if an account is not terminated, wrongful takedowns reduce affiliates' earnings and lower their incentive to direct traffic to Hotfile. More broadly, wrongful takedowns are likely to adversely affect Hotfile's business reputation and goodwill. As a result, affiliates may decide to leave Hotfile because there are many other competing file hosting service providers to choose from.<sup>28</sup> A loss of an affiliate means a loss of all the traffic generated by that affiliate and the associated revenues via premium subscriptions at the time and in the future. This is the

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<sup>27</sup> Uploaddownloads.csv.

<sup>28</sup> Mahanti, A., C. Williamson, N. Carlsson, M. Arlitt, and A. Mahanti, "Characterizing the File Hosting Ecosystem: A View from the Edge," 2011, forthcoming *Performance Evaluation Journal*.

traffic that is unlikely to be recaptured. Hence, damages will continue to accumulate into the future.

29. Hotfile also benefits from informal advertising where users may learn about Hotfile's existence or popularity from other users. Conversely, negative feedback from other users harms Hotfile. Wrongful takedowns create negative publicity for Hotfile. Negative reputation effects create lasting damages that continue into the future.

30. Indeed, Hotfile revenues declined sharply following the introduction of the more aggressive account termination policy, and continue to decline to this day.<sup>29</sup> Reduction in revenues associated with takedowns of infringing materials is to be expected. However, reduction in revenues attributable to wrongful takedowns causes economic harm to Hotfile. Because reputational effects take time to manifest themselves, it is not surprising that the slowdown of Hotfile revenues continued past February 2011.

31. To determine the reduction in revenues that is attributable to wrongful takedowns, I first estimate the decline in Hotfile revenues since February 2011 relative to the level of revenues in January 2011 for each month starting with February 2011 onward. This decline is driven by the takedown activity and related account terminations. Because Warner is responsible for only a fraction of takedown activity on the Hotfile servers, I calculate Warner's share of Hotfile's takedown activity.

32. Takedown requests on Hotfile are made either via an e-mail request or the use of the SRA. SRA takedowns account for approximately 40 percent of all Hotfile takedowns.<sup>30</sup> As described above, when Warner received SRA access, Warner stopped sending takedown requests

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<sup>29</sup> Defendants' Supplemental Responses to Plaintiffs' Interrogatory Nos. 6 and 9, 9/12/11, pp. 6-7.

<sup>30</sup> Interview with Mr. Vasil Kolev, who does server administration for Hotfile, 11/16/11.

by e-mail and relied on the SRA access alone.<sup>31</sup> Because the SRA gives copyright owners direct control over content removal, it is likely that owners most concerned with unauthorized distribution would rely on the SRA. On average, in the year prior February 2011 when this litigation commenced, Warner was responsible for approximately 20 percent of all SRA takedowns.

33. Most of Warner's takedown requests have been fair, but as many as 10 percent were in error. According to Warner's internal documents, Warner has a 10 percent false positive rate for takedown requests, so approximately 10 percent of Warner's takedowns removed files for which Warner does not own the copyright.<sup>32</sup> Through careful examination and diligence, Hotfile has managed to identify over 800 specific errors as set forth in Counterclaim Exhibits A through D.<sup>33</sup> These files were removed during the February 2011–August 2011 time period.<sup>34</sup> During this period, Warner took down over 66,500 files from the Hotfile servers. Thus, with over 800 specific errors identified by Hotfile for this period, more than one percent of all Warner's takedowns were identified by Hotfile as wrongful. However, as described above, by Warner's own estimates, 10 percent of its takedowns are likely to be wrongful.

34. Hence, at least 1 percent and possibly as much as 10 percent of Warner's takedowns are wrongful. Therefore, the associated decline in Hotfile revenues is wrongful as well, and harms Hotfile.

35. As I understand it, the DMCA law provides for recovery of any damages incurred by a service provider such as Hotfile injured by misrepresentation, including economic harm in

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<sup>31</sup> Kaplan Deposition, Exhibit 7.

<sup>32</sup> Kaplan Deposition, Exhibit 11 at WARNER072191.

<sup>33</sup> Counterclaim, Exhibits A–D.

<sup>34</sup> Wrongful takedowns prior to 2011, as well as any takedowns that appear to be duplicates, have been excluded. By its nature, a wrongful deletion will normally result in the destruction of the content of the file and it is therefore difficult to verify what was deleted; since the filing of the lawsuit in February, the content of files have generally been preserved making content verification possible.

the form of lost profits due to wrongful takedown notices. I estimate Hotfile's profit rate using Hotfile's historic gross revenues and gross expenses from March 2009 to January 2011, i.e. from the time period prior to the damages period, and apply that profit rate to revenue figures to calculate how profits declined given the decline in revenues.<sup>35</sup>

36. I find that the economic harm to Hotfile that can be conservatively attributed to Warner's actions is:

- at least \$10,511 for the wrongful takedowns listed in the Counterclaim, and possibly as high as \$80,670 for Warner's self-reported 10 percent wrongful takedowns, for the damages period February 2011–September 2011 (see Schedules 1 and 2); or
- at least \$9,100 for the wrongful takedowns listed in the Counterclaim, and possibly as high as \$69,839 for Warner's self-reported 10 percent wrongful takedowns, for the damages period April 5, 2011–September 2011 (see Schedules 1.1 and 2.1).

#### VI. PREJUDGMENT INTEREST

In the event Hotfile prevails at trial, and should the Court determine that prejudgment interest be awarded, I am prepared to supply a calculation of such damages in accordance with the guidelines put forward by the Court.

Date: November 15, 2011

  
Matthew R. Lynde, Ph.D.

<sup>35</sup> Defendants' Supplemental Responses to Plaintiffs' Interrogatory Nos. 6 and 9, 9/12/11, pp. 6-7.