	Case 3:16-cv-00001 Documen	t 1 Filed 01/04/	/16 Page 1 of 26
1 2 3 4 5 6 7 8 9 10 11	JONATHAN E. NUECHTERLEIN General Counsel MICHELLE RUSK, DC Bar No. 384850 ANNETTE SOBERATS, FL Bar No. 0093934 MARY JOHNSON, DC Bar No. 455345 Federal Trade Commission 600 Pennsylvania Avenue, NW Mail Drop CC-10528 Washington, DC 20580 Email: mrusk@ftc.gov; asoberats@ftc.gov; mjo Tel: (202) 326-3148, -2921, -3115 Fax: (202) 326-3259 Attorneys for Plaintiff FEDERAL TRADE COMMISSION	hnson1@ftc.gov	
12	UNITED STATES FOR THE NORTHERN D		
13		sco Division	
14	FEDERAL TRADE COMMISSION,		
15	Plaintiff,	Case No	
16 17	v.		NT FOR PERMANENT ON AND OTHER LE RELIEF
18 19 20 21 22	LUMOS LABS, INC., a corporation d/b/a LUMOSITY and KUNAL SARKAR, and MICHAEL SCANLON, Individually and as officers of LUMOS LABS, INC.,		
23 24	Defendants.		
25 26	Plaintiff, the Federal Trade Commission ("Commission" or "FTC"), for its Complaint		
27 28	alleges:		
	COMPLAINT		

1. The FTC brings this action under Section 13(b) of the Federal Trade Commission Act ("FTC Act"), 15 U.S.C. § 53(b), to obtain permanent injunctive relief, rescission or reformation of contracts, restitution, the refund of monies paid, disgorgement of ill-gotten monies, and other equitable relief for Defendants' acts or practices, in violation of Sections 5(a) and 12 of the FTC Act, 15 U.S.C. §§ 45(a) and 52, in connection with the labeling, advertising, marketing, distribution, and sale of the "Lumosity Program," an online subscription-based "brain training" program that purports to: improve performance on everyday tasks; improve performance in school, at work, and in athletics; delay age-related decline in memory and other cognitive function; and reduce cognitive impairment associated with various health conditions.

JURISDICTION AND VENUE

2. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331, 1337(a), and 1345, and 15 U.S.C. §§ 45(a) and 53(b).

3. Venue is proper in this district under 28 U.S.C. §§ 1391(b)(1), (b)(2), (b)(3),
(c)(1), (c)(2), (c)(3), and (d), and 15 U.S.C. § 53(b).

PLAINTIFF

4. Plaintiff FTC is an independent agency of the United States Government created by statute. 15 U.S.C. §§ 41-58. The FTC enforces Section 5(a) of the FTC Act, 15 U.S.C. § 45(a), which prohibits unfair or deceptive acts or practices in or affecting commerce. The FTC also enforces Section 12 of the FTC Act, 15 U.S.C. § 52, which prohibits false advertisements for food, drugs, devices, services, or cosmetics in or affecting commerce.

5. The FTC is authorized to initiate federal district court proceedings, by its own attorneys, to enjoin violations of the FTC Act and to secure such equitable relief as may be

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appropriate in each case, including rescission or reformation of contracts, restitution, the refund of monies paid, and the disgorgement of ill-gotten monies. 15 U.S.C. § 53(b).

DEFENDANTS

6. Defendant Lumos Labs, Inc. ("Lumos Labs") is a Delaware corporation with its principal place of business at 140 New Montgomery Street, San Francisco, California. Lumos Labs transacts or has transacted business in this district and throughout the United States. At all times material to this Complaint, acting alone or in concert with others, Lumos Labs has advertised, marketed, distributed, or sold the Lumosity Program to consumers throughout the United States.

7. Defendant Kunal Sarkar is the co-founder and Chief Executive Officer of Lumos Labs. Sarkar is a member of the company's Board of Directors and a shareholder. Sarkar resides in this district and, in connection with the matters alleged herein, transacts or has transacted business in this district and throughout the United States.

8. At all times material to this Complaint, acting alone or in concert with others, Sarkar has formulated, directed, controlled, had the authority to control, or participated in the acts and practices set forth in this Complaint. Among other things, he actively participated in creating the overall marketing strategy for the Lumosity Program and developed specific plans to market the Lumosity Program through television, radio, email, social media, Google AdWords, and testimonials. Sarkar also oversaw the day-to-day marketing operations of Lumos Labs, including aspects of marketing spend, media buying, and product messaging. Sarkar regularly

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consulted with members of Lumos Labs' marketing and science teams to evaluate advertising claims about the Lumosity Program's benefits, including claims that form the basis of this Complaint.

9. Defendant Michael Scanlon is the co-founder of Lumos Labs, and until August 2013, served as its Chief Scientific Officer. Scanlon is a member of the company's Board of Directors and a shareholder. Scanlon resides in this district and, in connection with the matters alleged herein, transacts or has transacted business in this district and throughout the United States.

10. At all times material to this Complaint, acting alone or in concert with others, Scanlon has formulated, directed, controlled, had the authority to control, or participated in the acts and practices set forth in this Complaint. As Lumos Labs' co-founder, Scanlon oversaw activities related to public relations, research and development, and business strategy. He led Lumos Labs' research and development team until 2009. Since at least 2009, Scanlon has controlled a variety of the company's operations, including public relations and business development. Among other things, he has actively participated in promoting the Lumosity Program's benefits to the public, including through blog posts and other marketing. Scanlon's duties have included reviewing and approving marketing and promotional materials for the

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Lumosity Program, including materials with claims about the Program's benefits that form the basis of this Complaint.

COMMERCE

At all times material to this Complaint, Defendants have maintained a substantial course of trade in or affecting commerce, as "commerce" is defined in Section 4 of the FTC Act, 15 U.S.C. § 44.

DEFENDANTS' BUSINESS ACTIVITIES

12. Since 2007, Defendants have labeled, advertised, marketed, distributed, and sold the Lumosity Program directly to consumers via the Lumosity.com website, and as mobile apps through app stores. Subscription options vary, including monthly (\$14.95), yearly (\$79.95), two-year (\$129.95), and lifetime (\$299.95) subscriptions.

13. The Lumosity Program is intended for users of all ages and purportedly provides "brain training" through video games. Defendants have represented that brain training with the Lumosity Program will improve performance on everyday tasks; will improve school, work, and athletic performance; will delay age-related decline in memory and protect against other age-related conditions such as mild cognitive impairment, dementia, and Alzheimer's disease; and will reduce cognitive impairment associated with the side effects of chemotherapy, post-traumatic stress disorder, traumatic brain injury, attention deficit hyperactivity disorder, Turner syndrome, stroke, and other health conditions.

14. Each of the Lumosity Program's more than 40 games purports to target a specific brain area. Defendants recommend that users train with the Lumosity Program for approximately 10 to 15 minutes, several days per week.

PAGE 5

15. After signing up for the Lumosity Program, users personalize their brain training by selecting the specific aspects of each brain area that they seek to improve and the real-world skills they hope to sharpen. For example, for memory, users can select to improve their ability to learn new subjects quickly and accurately, remember names after the first introduction, and recall the location of objects. For attention, they can choose to improve productivity and precision at work or home and to maintain focus on important tasks all day. For flexibility, they can select to communicate clearly, and for problem solving, they can indicate that they want to be able to dissect complex arguments and calculate figures in their head.

16. Each training session typically involves playing five games that are either selected by the user or generated by an algorithm based on the user's training preferences and past performance. Most of the Lumosity Program's games are adaptive, growing increasingly difficult as a user's game performance improves. Users are able to track their performance on the games and compare their scores against other Lumosity Program users using the Lumosity Performance Index ("LPI"), formerly referred to as the Brain Performance Index ("BPI").

17. Defendants have widely advertised the Lumosity Program through the Lumosity.com website, mobile applications, short form television commercials, radio advertisements, and magazines. Television advertisements have aired nationally on 44 broadcast and cable networks, including CNN, Fox News, HGTV, and the History Channel. Defendants' radio campaign includes sponsorship advertisements on NPR, spots on internet and satellite radio services such as Pandora, Sirius XM, and Spotify, and endorsements on national radio shows and in podcasts by celebrity hosts, including Colin Cowherd, Adam Carolla, and Dr. Drew. Defendants have employed an extensive search engine campaign, including through Google AdWords, and have purchased hundreds of keywords, including many variations of words

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	related to memory, attention, intelligence, brain, cognition, dementia, and Alzheimer's disease.	
2	Defendants have also engaged in an extensive email marketing campaign to subscribers and free-	
3	trial users.	
4 5	Advertising Claims	
6	18. To induce consumers to purchase the Lumosity Program, Defendants have	
7		
8	disseminated, or caused to be disseminated, advertisements, including, but not limited to, the	
o 9	attached Exhibits A through N. These advertisements contain the following statements and	
10	depictions, among others:	
11	A. Rowan TV ad (Exhibit A)	
12	MALE SPEAKER: I can tell a big difference, decisions come quicker,	
13	I'm more productive. It's serious brain training, it just feels like games.	
14	Well, Lumosity.com is based on neuroscience, so I figured if I want to get smart, I have to start smart, you know.	
15	VOICEOVER: No matter why you want a better brain, Lumosity.com can	
16	help. It's like a personal trainer for your brain, improving your performance with the science of neuroplasticity, but in a way that just	
17 18	feels like games. Start training with Lumosity.com right now and discover what your brain can do.	
19	B. Website capture, June 14, 2013 (Exhibit B)	
20	Harness your brain's neuroplasticity	
21	and train your way to a brighter life	
22	Lumosity turns neuroscience breakthroughs into fun,	
23	effective games. Stimulate your brain today.	
24	* * *	
25	Scientifically designed games	
26	Research shows that your brain creates new neural	
27	circuitry when challenged—our scientists have turned those challenges into cognitive games that	
28	improve core cognitive functions.	
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1	* * *			
2	Built on t	nroven neuro	oscience rese	arch
3				
4	Lumosity is based on the science of neuroplasticity —your brain's ability to strengthen and grow. Multiple research papers have been published on Lumosity's			olished on Lumosity's
5	effectiveness—and with its ongoing research collaborations, Lumosity continues to improve its ability to change your brain.			
6				
7	LEARN MORE ABOUT THE SCIENCE			E
8	Trusted by over 35 million users			sers
9	READ MORE STORIES			
10	Playing Lumosity has improved	Lumosity help	os me to feel I	Lumosity has made me aware
11	my concentration and mental	mentally agile	. My mental	of the areas I need to improve
12	activity, helping me to be a better programmer.	math has gotte I'm more prod		on. When I see progress, I eel energized and positive.
13		work.		
	T D			
14	Jason P.	Meliss	a W.	Cory V.
14 15	Jason P.	Meliss * * *	a W.	Cory V.
		* * *		
15	Jason P. Build your Pers	* * *		
15 16		* * *		
15 16 17	Build your Pers	* * *		
15 16 17 18	Build your Pers	***	aining Progra	am
15 16 17 18 19	Build your Pers * * * 1. Memory Select all aspects of	* * * sonalized Tra	aining Progra at you want to tra	am
15 16 17 18 19 20	Build your Pers * * * 1. Memory Select all aspects of [image of keys] [image of contact icc	* * * sonalized Tra your memory tha Recalli on] Remen	aining Progra at you want to tra ing the locations nbering names at	am ain of objects fter the first introduction
15 16 17 18 19 20 21	Build your Pers * * * 1. Memory Select all aspects of [image of keys] [image of contact ico [image of books]	* * * sonalized Tra your memory tha n] Recalli Learnin	aining Progra at you want to tra ing the locations nbering names at ng new subjects	am ain of objects fter the first introduction quickly and accurately
15 16 17 18 19 20 21 22	Build your Pers * * * 1. Memory Select all aspects of [image of keys] [image of contact icco [image of books] [image of checklist]	* * * sonalized Tra your memory tha n] Recalli Learnin	aining Progra at you want to tra ing the locations nbering names at ng new subjects	am ain of objects fter the first introduction
15 16 17 18 19 20 21 22 23	Build your Pers * * * 1. Memory Select all aspects of [image of keys] [image of contact ico [image of books]	* * * sonalized Tra your memory tha n] Recalli Learnin	aining Progra at you want to tra ing the locations nbering names at ng new subjects	am ain of objects fter the first introduction quickly and accurately
15 16 17 18 19 20 21 22 23 23 24	Build your Pers * * * 1. Memory Select all aspects of [image of keys] [image of contact ico [image of books] [image of checklist] * * * 2. Attention	*** sonalized Tra your memory tha Recalli on] Remen Learnin Keepin	aining Progra at you want to tra ing the locations nbering names at ng new subjects ng track of severa	am ain of objects fter the first introduction quickly and accurately al ideas at the same time
15 16 17 18 19 20 21 22 23 24 25	Build your Pers * * * 1. Memory Select all aspects of [image of keys] [image of contact ico [image of books] [image of checklist] * * *	*** sonalized Tra your memory tha Recalli on] Remen Learnin Keepin	aining Progra at you want to tra ing the locations nbering names at ng new subjects ng track of severa	am ain of objects fter the first introduction quickly and accurately al ideas at the same time
15 16 17 18 19 20 21 22 23 24 25 26	Build your Pers * * * 1. Memory Select all aspects of [image of keys] [image of contact ico [image of books] [image of checklist] * * * 2. Attention	*** sonalized Tra your memory tha on] Recalling Learning Keeping	at you want to training the locations nbering names at ng new subjects ng track of severa	am ain of objects fter the first introduction quickly and accurately al ideas at the same time

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1		ving productivity and precision at work or
2	² [image of laptop] home Concent	ntrating while learning something new
3		ng distractions
4	4 ***	
5	Designed by neuroscientists	
6	Lumosity exercises are designed by	
7	neuroscientists and continually	roh
8 9	studies at institutions such as Harvard	
10	0 ***	
11		1 T 1.
12	² Completed Research behind	l Lumosity
13		
14	4 Lumosity can improve key skills affect quality of life	s that
15	5 * * *	
16	⁶ Lumosity game performance is 1	linked
17		
18	8 ***	
19	8	nts
20	^o can benefit from Lumosity	
21	1 1204 students from 40 different school of Lumosity in the classroom. Students	ols participated in a semester-long study the supplemented their regular
22	² curricula with Lumosity training impr	
23	battery of cognitive assessments.	
24		ortov
25	⁵ Lumosity increases prefrontal co activity in cancer survivors	υπσλ
26		
27	shows that Lumosity can improve cog	er of Stanford University Medical School gnition in childhood cancer survivors. 23
28	8 pediatric cancers survivors completed combat "chemofog"—and they signific	• •
	COMPLAINT	PAGE 9

cognitive flexibility, and memory recall. In addition, brain imaging results showed increased activity in the prefrontal cortex, a part of the brain associated with the ability to plan, organize information, and focus attention. **Read more**

* * * Healthy adults can benefit from Lumosity training * * * Lumosity gives students a boost in classrooms worldwide 1,392 students from 43 different schools took part in an investigation of Lumosity's effect on academic performance as part of the Lumosity Education Access Program (LEAP). Students aged 6 to 18 took standardized assessments of cognitive performance before and after Lumosity training to measure baseline improvement. After several weeks, the trained group improved significantly over the education-as-usual control group on these standardized assessments. And the more training, the larger the improvements. Read more * * * Lumosity can enhance brain function and math skills in girls with Turner syndrome Training with Lumosity can enhance cognitive function and change the way the brain processes math, according to a study by Dr. Shelli Kesler. Kesler worked with 18 girls with Turner syndrome--a genetic disorder known to disrupt cognitive functioning and produce deficits in math ability. Participants used special math-focused Lumosity training over the course of 6 weeks and experienced clinically significant improvements in processing speed, cognitive flexibility, visual attention, and math skills on tests. fMRI brain scans revealed changes in brain activity in the frontal and parietal regions related to executive control and attention. Read more * * * Lumosity improves sustained attention in study of mild cognitive impairment Researchers at the University of New South Wales in Sydney, Australia published research showing that Lumosity training improved cognition in older adults with mild cognitive impairment (MCI)--a disease linked to COMPLAINT **PAGE 10**

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Alzheimer's. The study's 16 participants completed 30 sessions of Lumosity training over the course of 8-10 weeks and improved at a visual sustained attention test. Another group of participants served as controls and received regular treatment without cognitive training. **Read more**

Lumosity improves math skills in teens

Lumosity training transfers to multiple measures of cognitive performance

Your brain is amazing. Learn just how much it can do.

Over the last few decades, neuroscientists have learned that your brain has the amazing ability to grow and change at any point in your lifetime. This breakthrough has opened the door to myriad possibilities, from increasing intelligence and memory in daily life to recovering from traumatic injuries.

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A study of over 2,000 elderly adults in 2002 suggests that even older brains have plenty of room to improve and learn. (Ball, et al., 2002). After 10 hours of training over the course of six weeks, elderly participants gained **skills that transferred to real-world abilities** –they experienced fewer declines in their ability to perform basic daily activities.

* * *

Brain training has the potential to change lives

Neuroplasticity can have wide-ranging applications if properly and carefully explored.
Researchers have used brain training to rehabilitate patients with brain trauma, chemofog, Mild Cognitive Impairment, and more. But healthy people have also used brain training to sharpen their daily lives and ward off cognitive decline. You, too, can harness the power of neuroplasticity to remember more,

every aspect of life. The benefits may well be

2	think faster, and achieve your full potential in endless.
3	* * *
4	Developed by neuroscientists
5	Lumosity's groundbreaking program is based on extensive research
6	in the field of neuroplasticity. Our in-house R&D team works with researchers from Berkeley, Columbia, and more to create the most
7	effective training possible.
8	Read more about the science >>
9	* * *
10	Duessen han efite
11	Proven benefits
12	Multiple studies have been published on Lumosity's ability to improve key abilities such as working memory, visual attention, fluid
13	intelligence, and executive function. No matter what your age,
14	improving these core cognitive abilities can improve real-life abilities.
15	Read more about the proven benefits >>
16	* * *
17 18	Collaborators
	Maurice Finn and Skye McDonald, PhD
19	University of New South Wales
20	Lumosity training to improve cognition in patients with mild cognitive
21	impairment (MCI)
22	***
23	Shelli Kesler, PhD
24	Stanford University
25	Improving cognitive outcomes in cancer survivors and children with genetically based learning disabilities
26	***
20	Chris Johnson, PhD
27	University of California, San Diego
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COMPLAINT

Lumosity training to improve outcomes in combat veterans suffering from traumatic brain injuries

* * * C. Brain Trainer mobile app capture, April 8, 2013 (Exhibit C) **Brain Trainer by Lumosity.com** * * * Results indicate that Lumosity can improve a wide variety of core cognitive skills - from attention and memory to intelligence and math skills. These improved abilities can help people do better in school, perform more effectively at work, and live a more productive life. Learn more about the science behind Lumosity in the Science section. * * * "Reach New Heights" email (Exhibit D) D. **Reach New Heights with Lumosity** Lumosity training has had positive results for several populations - and the below Mensa Research Journal study shows that Lumosity can help healthy adults improve too. * * * Lumosity Training Really **Transfers, New Study Says** * * * Lumosity's neuroscience team, in collaboration with researchers from Stanford and San Francisco State University, published an important new study in Mensa Research Journal in 2011. This was the first peer-reviewed, controlled trial to demonstrate that web-based cognitive training can enhance cognitive

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performance in healthy adults.

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Why this study matters

* * *

This study shows that Lumosity training is something that can stick with you beyond the games. Whether at home, at work, or at play, the benefits of Lumosity training can enhance certain cognitive functions that you rely upon in different aspects of life. You use working memory to juggle complex ideas at work, and visual attention to focus on important information.

* * *

E. "Lumosity in the Classroom Can Positively Impact Students" blog post, June 4, 2003 (Exhibit E)

Lumosity in the classroom can positively impact students

* * *

So far, results are promising: LEAP students who trained with Lumosity improved scores on standardized tests of cognitive ability.

The link between Lumosity and classroom learning

In any learning process, strong core cognitive abilities provide students of all ages with the mental scaffolding to support more complex activities such as formulating an argument, writing a creative story, and navigating social situations. Researchers have found that core cognitive abilities such as working memory and processing speed are factors for educational achievement in math, science, and reading.

* * *

How Lumosity impacted student performance

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After analyzing data from 45 LEAP schools in 6 countries, we found that students who trained with Lumosity for a semester showed significant improvements in assessment scores compared to students who kept to a standard academic schedule.

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F. "Lumosity's Athlete Testimonial Contest" blog post, June 25, 2012 (Exhibit F)

Lumosity's Athlete Testimonial Contest!

STRONG MIND, STRONG BODY

"Lumosity helps me stay focused during the last mile of the race."

Show us how Lumosity has helped take your athletic abilities to the next level for the chance to win a Lifetime Subscription, the new iPad, and more!

* * *

The best athletes don't just have strong bodies. They also have strong minds equipped with excellent attention, great memory for routines, incredible flexibility for adapting to new situations, and reaction speeds quick enough to handle any incoming ball, puck, or challenge. No matter what kind of athlete you are, it's possible to enhance these skills using Lumosity!

Has Lumosity training helped YOU become a better athlete? Then enter the Lumosity Athlete Testimonial Contest by sharing your story and a photo of you engaged in an athletic pursuit!

* * *

 G. "How Brain Training Can Improve Your Athletic Game" blog post, August 30, 2011 (Exhibit G)
 How Brain Training Can Improve Your Athletic Game

* * *

With seasons starting for football, basketball, and other sports, we've received many inquiries from our users about how cognitive training with tools like Lumosity can help people become better athletes.

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With athletes and coaches looking for every possible edge, it's no surprise that there are dozens of studies devoted to cognitive training and sports performance that target everything from soccer and cricket to golf and tennis.

* * *

H. "Improve Your Job Performance, Attitude, and Ratings" blog post, January 17, 2012 (Exhibit H)

Improve Your Job Performance, Attitude, and Ratings

EMPLOYEE OF THE MONTH <u>You</u>!

The New Year marks changes in many areas of our lives, and work is no exception. We may resolve to get a more exciting job, finally earn that big promotion, or win a major deal. There are several ways for us to prepare for the challenges associated with achieving these goals: we rehearse interviews, conduct research, and burn the midnight oil at the office.

Here at Lumosity we're deeply interested in the real-world applications of cognitive training, and we often hear from users who wonder whether cognitive training may improve their performance on the job. So far, there are just a few examples of cognitive interventions targeted to improve job performance.

* * *

Multiple studies have found Lumosity training to be effective in improving core cognitive capacities such as working memory and attention. Proficiency in these crucial functions has been correlated to manager ratings of workplace performance

So if a new job or promotion is on your wish list for 2012, why not put in some training time with popular working memory exercises like Memory Matrix or Playing Koi? And if you've found that Lumosity has given you a boost in your job search or workplace performance, comment and tell us your story!

I. Pandora radio ad (Exhibit I) ANNOUNCER: Hey, Pandora listener. Can you remember the name of that song you just heard? Most people find that memory declines with age. But your memory doesn't have to. Control and improve your memory with Lumosity.com, the personal trainer for your brain. Designed by neuroscientists and used by 25 million people, Lumosity employs the science of neuroplasticity to improve your memory and attention. Try a quick brain workout today. Visit Lumosity.com. J. "Select Your Subscription" website capture (Exhibit J) **Benefits Everyone** In 2007, we learned that my mother had early onset Alzheimer's. I joined Lumosity at first for my mother. I now use this site not only for her, but for my brain as well. K. "The Benefits of Cognitive Reserve" blog post, January 24, 2011 and "Cognitive Reserve and the Effects of Aging" email to Lumosity users (Exhibit K) The Benefits of Cognitive Reserve By Joe Hardy Exercising your brain at a young age can protect your cognitive abilities as you get older, a team of researchers at the University of California, San Francisco recently reported in the Journal of American Medical Association. Led by Dr. Kristine Yaffe, the researchers followed a group of close to 1,000 individuals for nine years, measuring brain function and taking blood samples along the way. They found that levels of several compounds in the bloodstream - called beta-amyloids – predicted subsequent cognitive decline. These compounds are related to Alzheimer's Disease, so this relationship is not entirely surprising. The protective effects of brain exercise were more interesting. The researchers found that people with high levels of cognitive reserve – as measured by previous experiences with cognitively stimulating activities like education - were relatively protected against cognitive decline associated with these chemical changes. In other words, if you take two people with the same levels of blood plasma beta-

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	brain exercise) is likely to have bet The message is clear: cognitively s	gnitive reserve (built up through prior ter cognitive fitness down the road. timulating activity is critical for brain xercise your brain now, the better off
	you'll be later.	xereise your orann now, the better on
L.	"Lumosity ADHD" website captur	e (Exhibit L)
	Courses · Medical Conditions · I	umosity ADHD
	Lumosity ADHD SCIENTIFICALLY DESIGNED	
	• Specifically designed brain training for ADHD	
	• Develop sustained attention and	d focus
	• Targets improvement of working	ng memory
	• Fun and easy: full workout in le	ess than 10 minutes/day
	Enroll	
	* * *	
	More courses	
	Lumosity TBI	Lumosity Cancer Recovery II
	Lumosity Cancer Recovery I	Lumosity PTSD
	Other Course Categories	
	• Student	
	• Core Brain Training	
	Peak Performance	
	* * *	

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Lumosity User Stories

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I'm a 20-year old college student studying bioengineering, and as it turns out, I also have fairly severe ADHD, inattentive subtype – my test results say my processing speed and memory are on the low end of average, and that my visual attention is literally borderline I have noticed that after about two weeks of intensive memory, attention, and speed training, I'm able to read almost twice as fast as I was able to before, and my reflexes and spatial abilities seem to have improved enough that my martial arts performance (I spar competitively in Tae Kwon Do) has suddenly become much better. These effects seem to be entirely independent of my medication usage. I'm glad I found your site – I'm hoping that with enough persistence and diverse training, I'll be able to improve my visual attention and processing speed enough to at least reduce my medication dosage. Keep up the great work!

M. "We Want To Hear Your Story!" blog post, September 28, 2009 (Exhibit M)

We Want to Hear Your Story!

* * *

Here's an example of a touching testimonial that we recently received from Dr. David Darbro. Dr. Darbro suffered from a stroke in 2005, and he now uses Lumosity to regain lost mental function.

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N. "Cognitive Training Improves Executive Function in Breast Cancer Survivors" press release, May 14, 2013 (Exhibit N)

> **Cognitive Training Improves Executive Function in Breast Cancer Survivors**

Randomized Controlled Study on Cancer-Related Cognitive Impairment Published in Peer-Reviewed Journal Clinical Breast Cancer

* * *

The most common quality-of-life complaint from breast cancer survivors is the cognitive effect of cancer treatments," said Joe Hardy, Ph.D., VP of Research & Development at Lumosity. "These results are interesting

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because they suggest that online cognitive training shows promise as an intervention for cognitive difficulties in breast cancer survivors, and even long-term survivors can benefit.

* * *

We're committed to helping people from all walks of life improve their core cognitive abilities, and we're excited that this study has shown very promising results for a real-world clinical application of cognitive training for cancer survivors," said Hardy. "We've created Lumosity to be an accessible tool for anyone who wants to train their brain, as well as researchers who want to study the effects of cognitive training on specific populations.

* * *

Incentives for Consumer Testimonials

19. The Lumosity website and other online marketing materials, including emails to trial users and paid subscribers, featured 160 testimonials by users of the Lumosity Program. Defendants used these testimonials to promote a wide range of benefits for the Lumosity Program, particularly improved school, work, and athletic performance. Forty-six of these testimonials were not spontaneously generated by consumers but instead were solicited by Defendants as part of contests where consumers received significant prizes such as an iPad, a trip to San Francisco, and a lifetime subscription to the Lumosity Program. This fact was not adequately disclosed to consumers and would materially affect the weight and credibility consumers assigned to such testimonials.

20. Consumers visiting the Lumosity.com website could click on "User Stories," which featured 34 consumer testimonials or "Lumosity Stories." The following statements and depictions appeared on the User Stories page:

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1	Excerpt from the Lumosity.com website capture (Exhibit B)	
2	Here are a few reasons why people play Lumosity	
3	There are a reasons why people play Lamosty	
4	[34 pictures of people at work or engaged in sports, accompanied by one-sentence testimonials called "Lumosity Stories"]	
5 6	* * *	
7	21. If a consumer clicked on a particular Lumosity Story, they would view	
8	testimonials such as the two below, which failed to disclose that Defendants had solicited the	
9		
10	testimonials through contests offering substantial prizes.	
11	Excerpt from the Lumosity.com website (Exhibit B)	
12	Lumosity stories	
13	John P. FAIRFAX	
14	* * *	
15		
16	When I saw the commercial for Lumosity, I joined right away. I had been slow in making decisions, slow in adapting to changing situations in my everyday life, and forgetful. I've been	
17 18	practicing mixed martial arts (thai boxing, muay thai, wrestling, jiu jitsu, grappling) since early April and I'm not surprised that my most significant progress has been since early June, when I started doing Lumosity.	
19	* * *	
20		
21	Lumosity's Speed and Attention games have helped things slow down for me when I'm fighting an opponent. As soon as he moves, I can see what he's doing and effectively react. The Memory	
22	programs have helped me remember my combinations so I can be really loose and not try to think so hard. The Flexibility programs (mainly Brain Shift) have challenged me the most	
23	because I've had a problem with getting really tense and panicking as my brain "shifts," but the game has helped me to relax; so if I go from muay thai, to wrestling, to jiu jitsu, back to muay	
24	thai, I can effectively react and use the right techniques.	
25	* * *	
26	Kade A. BOISE	
27		
28	I play goalie, which requires fast reflexes in order to stop 80 mph balls coming at me. I'm heading to college soon for lacrosse, most likely at Princeton. Lumosity has helped my reaction	
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time, attention in class, and my test scores! Without Lumosity I wouldn't be this successful! I'd recommend it to anyone and everyone!

VIOLATIONS OF THE FTC ACT 3 4 22. Section 5(a) of the FTC Act, 15 U.S.C. § 45(a), prohibits unfair or deceptive acts 5 or practices in or affecting commerce. 6 23. Misrepresentations or deceptive omissions of material fact constitute deceptive 7 acts or practices prohibited by Section 5(a) of the FTC Act. 8 9 24. Section 12 of the FTC Act, 15 U.S.C. § 52, prohibits the dissemination of any 10 false advertisement in or affecting commerce for the purpose of inducing, or which is likely to 11 induce, the purchase of food, drugs, devices, services, or cosmetics. 12 25. For the purposes of Section 12 of the FTC Act, the Lumosity Program is a service 13 or a "device" as defined in Section 15(d) of the FTC Act, 15 U.S.C. § 55(d). 14 15 COUNT I 16 FALSE OR UNSUBSTANTIATED REAL-WORLD PERFORMANCE CLAIMS 17 26. Through the means described in Paragraph 18, Defendants have represented, 18 directly or indirectly, expressly or by implication, that training with the Lumosity Program 19 20 provides real-world benefits for users by: 21 A. Improving performance on everyday tasks; 22 B. Improving performance in school: 23 C. Improving performance at work; and 24 25 D. Improving athletic performance. 26 27. The representations set forth in Paragraph 26 are false or were not substantiated at 27 the time the representations were made.

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28. Therefore, the making of the representations as set forth in Paragraph 26 constitutes a deceptive act or practice and the making of false advertisements, in or affecting commerce, in violation of Sections 5(a) and 12 of the FTC Act, 15 U.S.C. §§ 45(a) and 52.

COUNT II

FALSE OR UNSUBSTANTIATED CLAIMS FOR AGE-RELATED CONDITIONS

29. Through the means described in Paragraph 18, Defendants have represented, directly or indirectly, expressly or by implication, that training with the Lumosity Program delays age-related decline in memory and other cognitive function, including protecting against mild cognitive impairment, dementia, and Alzheimer's disease.

30. The representations set forth in Paragraph 29 are false or were not substantiated at the time the representations were made.

31. Therefore, the making of the representations as set forth in Paragraph 29 constitutes a deceptive act or practice and the making of false advertisements, in or affecting commerce, in violation of Sections 5(a) and 12 of the FTC Act, 15 U.S.C. §§ 45(a) and 52.

COUNT III

FALSE OR UNSUBSTANTIATED CLAIMS FOR OTHER HEALTH CONDITIONS

32. Through the means described in Paragraph 18, Defendants have represented, directly or indirectly, expressly or by implication, that training with the Lumosity Program reduces cognitive impairment associated with health conditions, including Turner syndrome, post-traumatic stress disorder, attention deficit hyperactivity disorder, traumatic brain injury, stroke, and side effects of chemotherapy.

33. The representations set forth in Paragraph 32 are false or were not substantiated at the time the representations were made.

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34. Therefore, the making of the representations as set forth in Paragraph 32 constitutes a deceptive act or practice and the making of false advertisements, in or affecting commerce, in violation of Sections 5(a) and 12 of the FTC Act, 15 U.S.C. §§ 45(a) and 52. COUNT IV FALSE PROOF CLAIMS 35. Through the means described in Paragraph 18, Defendants have represented, directly or indirectly, expressly or by implication, that scientific studies prove that training with the Lumosity Program will provide the following real-world benefits to users: A. Improved performance on everyday tasks; B. Improved school performance; C. Improved work performance; D. Improved athletic performance; E. Delay in age-related decline in memory or other cognitive function, including protection against mild cognitive impairment, dementia, and Alzheimer's disease; F. Reduction in cognitive impairment associated with Turner syndrome; and G. Reduction in cognitive side effects of chemotherapy. 36. The representations set forth in Paragraph 35 are false. 37. Therefore, the making of the representations as set forth in Paragraph 35 constitutes a deceptive act or practice and the making of false advertisements, in or affecting commerce, in violation of Sections 5(a) and 12 of the FTC Act, 15 U.S.C. §§ 45(a) and 52.

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COUNT V

DECEPTIVE USE OF TESTIMONIALS

38. Through the means described in Paragraphs 19 through 21, Defendants have represented, directly or indirectly, expressly or by implication, that the consumer testimonials featured on the Lumosity.com website and in other marketing represented the experiences of users of the Lumosity Program.

39. Defendants failed to disclose, or disclose adequately, that they solicited the testimonials as part of a contest with prizes including a free iPad, a lifetime subscription to the Lumosity Program, and a round-trip to San Francisco.

40. This fact would be material to consumers in their decision to subscribe to the Lumosity Program. The failure to disclose this fact, in light of the representation made, was, and is, a deceptive act or practice, in or affecting commerce, in violation of Section 5(a) of the FTC Act, 15 U.S.C. § 45(a).

CONSUMER INJURY

41. Consumers have suffered and will continue to suffer substantial injury as a result of Defendants' violations of the FTC Act. In addition, Defendants have been unjustly enriched as a result of their unlawful acts or practices. Absent injunctive relief by this Court, Defendants are likely to continue to injure consumers, reap unjust enrichment, and harm the public interest.

THIS COURT'S POWER TO GRANT RELIEF

42. Section 13(b) of the FTC Act, 15 U.S.C. § 53(b), empowers this Court to grant injunctive and such other relief as the Court may deem appropriate to halt and redress violations of any provision of law enforced by the FTC. The Court, in the exercise of its equitable jurisdiction, may award ancillary relief, including rescission or reformation of contracts,

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restitution, the refund of monies paid, and the disgorgement of ill-gotten monies, to prevent and 2 remedy any violation of any provision of law enforced by the FTC.

PRAYER FOR RELIEF

Wherefore, Plaintiff FTC, pursuant to Section 13(b) of the FTC Act, 15 U.S.C. § 53(b), and the Court's own equitable powers, requests that the Court:

Enter a permanent injunction to prevent future violations of the FTC Act by A. Defendants;

Β. Award such relief as the Court finds necessary to redress injury to consumers resulting from Defendants' violations of the FTC Act, including, but not limited to, rescission or reformation of contracts, restitution, the refund of monies paid, and the disgorgement of illgotten monies; and

C. Award Plaintiff the costs of bringing this action, as well as such other and additional relief as the Court may determine to be just and proper.

Dated: January 4, 2016 Respectfully submitted, JONATHAN E. NUECHTERLEIN General Counsel /s/ Michelle Rusk MICHELLE RUSK ANNETTE SOBERATS MARY JOHNSON Attorneys for Plaintiff Federal Trade Commission

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