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12 UNITED STATES DISTRICT COURT
13 CENTRAL DISTRICT OF CALIFORNIA
14

15 The CALIFORNIA INSTITUTE OF
16 TECHNOLOGY, a California
Corporation,

17 Plaintiff,

18 vs.

19 BROADCOM LIMITED,
20 BROADCOM CORPORATION,
AVAGO TECHNOLOGIES LIMITED,
21 APPLE INC., AND CYPRESS
SEMICONDUCTOR CORPORATION

22 Defendants.
23
24
25
26
27
28

CASE NO. 2:16-cv-3714-GW-AGR_x

**CALTECH'S MOTION FOR
SUPPLEMENTAL DAMAGES,
INTEREST, ATTORNEYS' FEES,
AND A PERMANENT
INJUNCTION OR ON-GOING
ROYALTIES**

REDACTED

Hon. George H. Wu
United States District Court Judge
Hearing Date: June 1, 2020
Time: 8:30 am
Place: Courtroom 9D

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1 Caltech respectfully moves for an award of supplemental damages, pre- and
2 post-judgment interest, attorneys' fees, and a permanent injunction or on-going
3 royalties.

4 **I. INTRODUCTION**

5 On January 29, 2020, after nearly four years of litigation culminating in a ten-
6 day trial, the jury in this case awarded Caltech over \$1.1 billion in running royalties
7 for Apple's and Broadcom's past infringement of three Caltech patents. The verdict
8 translates to per unit royalty rates of \$1.40 for Apple and \$0.26 for Broadcom – the
9 precise rates that Caltech's damages expert opined were appropriate. These royalty
10 rates were applied to Broadcom's sales of accused products from May 2010 through
11 August 2019 and Apple's sales of accused products from May 2010 through
12 September 2019.

13 Patentees are entitled to receive supplemental damages for infringing sales
14 that were not considered by the jury that precede entry of final judgment. At trial,
15 the jury did not consider Broadcom's infringing sales made after August 2019 or
16 Apple's infringing sales made after September 2019 because such sales data was not
17 available from Defendants. Accordingly, Caltech respectfully requests that the
18 Court order Defendants to provide an accounting of sales made from
19 August/September 2019 through the entry of judgment, and award Caltech
20 supplemental damages on those sales at the royalty rates determined by the jury.
21 Caltech further requests that the Court award pre-judgment interest on the damages
22 award at the prime rate compounded annually, and post-judgment interest at the
23 statutory rate. Supplemental damages and interest on the damages award are
24 necessary to fully compensate Caltech for the substantial risk it took in pursuing this
25 litigation, and the loss in royalty payments over the past ten years.

26 Furthermore, despite Caltech's convincing win at trial, Defendants have
27 shown no indication that they intend to cease their infringement of Caltech's
28 patents. To the contrary, Defendants' plan seems to be, as it has been over the past

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1 four years, to simply continue to capitalize on Caltech's technology without regard
2 to the consequences. Accordingly, Caltech requests that the Court exercise its
3 equitable power to permanently enjoin further infringement by Defendants or,
4 alternatively, to order the payment of ongoing royalties for future sales of the
5 accused products and any products that are not colorably different.

6 Finally, Caltech respectfully requests that the Court find this case was
7 exceptional under 35 U.S.C. § 285 and award Caltech its attorneys' fees.
8 Defendants' misconduct in this litigation was sweeping in scope, including the
9 inhibition of Caltech's discovery efforts, untimely disclosure of evidence and
10 contentions, and generally overzealous pursuit of a substantively weak case. For the
11 reasons discussed more fully herein, those tactics justify a finding that this case was
12 exceptional and an award of attorneys' fees.

13 **II. BACKGROUND**

14 Caltech filed this action on May 26, 2016 alleging, *inter alia*, that Apple and
15 Broadcom infringe Caltech's U.S. Patent Nos. 7,116,710, 7,421,032, and 7,916,781
16 ("patents-in-suit"). Caltech alleged that Apple's Wi-Fi enabled products, such as
17 the iPhone, iPad, and iMac, infringed the patents-in-suit and that certain Broadcom
18 802.11n and 802.11ac compliant chips infringed the patents-in-suit.

19 After the case was filed, Apple filed ten *inter partes* review petitions with the
20 Patent Trademark and Appeal Board ("PTAB") seeking to invalidate the patents-in-
21 suit. The PTAB instituted seven of the petitions and eventually determined that all
22 asserted claims of the patents-in-suit were patentable. Thereafter, the Court granted
23 Caltech's motions for summary judgment of IPR estoppel dismissing Defendants'
24 prior art-based invalidity defense in the litigation. Dkt. 1395.

25 On January 29, 2020, following a ten-day trial, the jury returned a verdict
26 finding that Defendants infringed all of the asserted claims. Dkt. 2114. The jury
27 awarded Caltech damages in the amounts of \$837,801,178 for Apple's infringement
28 and \$270,241,171 for Broadcom's infringement. *Id.*

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1 **III. MOTION FOR SUPPLEMENTAL DAMAGES AND INTEREST**

2 Caltech respectfully requests that the Court award supplemental damages,
3 prejudgment interest, and post-judgment interest. The precise amount of
4 supplemental damages and prejudgment interest will depend on the date the final
5 judgment is entered.

6 **A. Caltech Should Be Awarded Supplemental Damages**

7 Caltech requests supplemental damages on the sales made by the Defendants
8 up to the time of the entry of judgment, which were not included in the jury's
9 verdict.

10 Supplemental damages are awarded where "an infringer provides sales data
11 that does not cover all sales made before trial" and "where the jury did not consider
12 certain periods of infringing activity post-verdict." *Polara Eng'g, Inc. v. Campbell*
13 *Co.*, 237 F. Supp. 3d 956, 995 (C.D. Cal. 2017), *aff'd in part and vacated in part on*
14 *other grounds*, 894 F.3d 1339 (Fed. Cir. 2018); *see also EcoServices, LLC v.*
15 *Certified Aviation Servs., LLC*, 340 F. Supp. 3d 1004, 1034 (C.D. Cal. 2018)
16 ("Patentees are entitled to supplemental damage awards for infringing sales that a
17 jury does not consider."); *Hynix Semiconductor Inc. v. Rambus Inc.*, 609 F. Supp. 2d
18 951, 960-61 (N.D. Cal. 2009) (awarding supplemental damages for infringement
19 occurring between verdict and entry of judgment). Supplemental damages may be
20 assessed by the Court and are rooted in 35 U.S.C. § 284's requirement that patentees
21 be awarded damages adequate to compensate for the infringement. *See*
22 *EcoServices*, 340 F. Supp. 3d at 1034; *see also Hynix*, 609 F. Supp. 2d at 961
23 ("Permitting recovery of such supplemental damages serves section 284's expressed
24 interest in providing damages 'adequate to compensate for the infringement.'");
25 *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1212-13 (Fed. Cir. 2010)
26 (ordering supplemental damages to compensate patentee for uncompensated sales).

27 In awarding supplemental damages, "the Court may apply the reasonable
28 royalty rate found by the jury." *Polara Eng'g*, 237 F. Supp. 3d at 995; *see also*

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1 *Finjan*, 626 F.3d at 1212 (“The district court granted Finjan additional damages by
2 multiplying the jury’s royalty rates against previously uncalculated sales.”); *Presidio*
3 *Components Inc. v. Am. Tech. Ceramics Corp.*, No. 08-cv-335, 2010 WL 3070370,
4 at *1-2 (S.D. Cal. Aug. 5, 2010) (“supplemental damages are calculated consistent
5 with the damages awarded in the jury verdict”), *aff’d in part and vacated in part on*
6 *other grounds*, 702 F.3d 1351 (Fed. Cir. 2012); *Hynix*, 609 F. Supp. 2d at 964-65
7 (applying jury’s royalty determination to all infringement); *Mondis Tech. Ltd. v.*
8 *Chimei InnoLux Corp.*, 822 F. Supp. 2d 639, 642-43 (E.D. Tex. 2011) (awarding
9 supplemental damages at the same royalty rate determined by the jury for the period
10 of infringement not covered by the verdict). The Court should apply the jury’s
11 existing verdict without revisiting or reevaluating the jury’s methods or conclusions,
12 and any uncertainty regarding that calculation should be resolved against the
13 infringer. *See Apple, Inc. v. Samsung Elecs. Co., Ltd.*, 926 F. Supp. 2d 1100, 1106
14 (N.D. Cal. 2013) (“In most . . . cases, a jury determined what the appropriate royalty
15 rate would be, allowing the court to simply apply the jury’s stated methodology to
16 the proven or estimated post-verdict sales.”), *vacated on other grounds* 786 F.3d
17 983 (Fed. Cir. 2015); *Hynix*, 609 F. Supp. 2d at 964-65 (“The Court does not believe
18 [it] is proper” to “reexamine the reasonable royalty rates found by the jury”); *see*
19 *also Gyromat Corp. v. Champion Spark Plug Co.*, 735 F.2d 549, 554-55 (Fed. Cir.
20 1984) (doubts regarding amount of damages should be resolved against infringer).
21 Apple itself has sought and been awarded supplemental damages in precisely the
22 same scenario presented here. *See Apple*, 926 F. Supp. 2d at 1106 (assessing
23 supplemental damages by dividing number of infringing sales by the lump sum
24 damages amounts awarded by the jury).

25 The jury awarded Caltech damages in the form of a running royalty in the
26 exact amounts determined by Caltech’s damages expert, Dr. Teece. Dkt. 2114; Dkt.
27 2127, 1/23/2020 Trial Tr. (Teece) at 25:23-26:13. To arrive at the damages
28 amounts, Dr. Teece applied a rate of \$1.40 to Apple’s U.S. sales, and a rate of \$0.26

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1 to Broadcom's sales to Apple (not covered by Apple's U.S. sales) and Broadcom's
2 imports into the U.S. *Id.*

3 The jury's damages verdict was limited to sales made from May 2010 through
4 September 2019 for Apple and through August 2019 for Broadcom because this was
5 the sales data available from Defendants at the time of trial. Dkt. 2155, 1/22/2020
6 Trial Tr. (Lawton) at 136:12-19, 142:3-11; PTX-1471; PTX-1476; PTX-1480.
7 Caltech is thus entitled to an accounting of and supplemental damages for
8 Defendants' sales of infringing products from the end-dates of the prior sales data
9 up to the date the Court enters final judgment. *See EcoServices*, 340 F. Supp. 3d at
10 1034. Moreover, supplemental damages for this time period should include
11 Defendants' sales of both the specifically accused products considered by the jury
12 and products that are not colorably different, including products that Defendants
13 have admitted "contain the same encoders and decoders" and "fall under the
14 Representative Product Stipulation." Dkt. 2157, 12/30/2019 Pretrial Conf. at 67:6-
15 9.

16 Accordingly, Caltech requests that supplemental damages be calculated based
17 on the jury's awarded royalty rates up until final judgment. Caltech asks the Court
18 to order Defendants to produce a complete accounting of all infringing sales not
19 accounted for by the verdict through the entry of judgment. Caltech will then
20 submit a declaration from its expert Catharine Lawton calculating the precise
21 amount of supplemental damages so that the judgment can be amended to include
22 the total amount of damages.

23 **B. Caltech Should Be Awarded Prejudgment Interest**

24 Under 35 U.S.C. § 284, a prevailing patent holder is entitled to prejudgment
25 interest on damages. *Gen. Motors Corp. v. Devex Corp.*, 461 U.S. 648, 657 (1983)
26 ("[P]rejudgment interest should be awarded under § 284 absent some justification
27 for withholding such an award."). "The award of pre-judgment interest is 'the rule,
28 not the exception.'" *Energy Transp. Group, Inc. v. William Demant Holding*, 697

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1 F.3d 1342, 1358 (Fed. Cir. 2012) (citation omitted). The purpose of prejudgment
2 interest is to compensate the patent owner for the “use of [its] money between the
3 time of infringement and the date of the judgment.” *Gen. Motors*, 461 U.S. at 656.
4 Such interest is awarded from the date infringement began – which, in this case, is
5 May 26, 2010 – up to the date of entry of judgment. *See Nickson Indus. Inc., v. Rol*
6 *Mfg. Co., Ltd.*, 847 F.2d 795, 800 (Fed. Cir. 1988); *EcoServices*, 340 F. Supp. 3d at
7 1032.

8 The rate of prejudgment interest and whether it should be compounded are
9 within the discretion of the Court. *See Bio-Rad Labs., Inc. v. Nicolet Instrument*
10 *Corp.*, 807 F.2d 964, 969 (Fed. Cir. 1986). Courts “may award interest at or above
11 the prime rate,” including at the California statutory rate. *Uniroyal, Inc. v. Rudkin-*
12 *Wiley Corp.*, 939 F.2d 1540, 1545 (Fed. Cir. 1991); *see also EcoServices*, 340 F.
13 Supp. 3d at 1033 (awarding state statutory rate). In determining the rate, the Court
14 “must be guided by the purpose of prejudgment interest, which is to ensure that the
15 patent owner is placed in as good a position as he would have been had the infringer
16 entered into a reasonable royalty agreement.” *Bio-Rad Labs.*, 807 F.2d at 969
17 (internal quotation marks omitted); *EcoServices*, 340 F. Supp. 3d at 1032
18 (prejudgment interest is “necessary” “to ensure the patent owner is placed in as good
19 a position as he would have been in had the infringer entered into a reasonable
20 royalty rate”).

21 Although courts have awarded prejudgment interest at higher rates, Caltech
22 believes that the appropriate rate for calculating prejudgment interest in this case is
23 the prime rate compounded annually. The Federal Circuit has repeatedly endorsed,
24 and courts in the Ninth Circuit (and other circuits as well) have routinely used, the
25 prime rate to calculate prejudgment interest in patent cases. *See Uniroyal*, 939 F.2d
26 at 1545 (upholding award at the prime rate); *Lam, Inc. v. Johns-Manville Corp.*, 718
27 F.2d 1056, 1066 (Fed. Cir. 1983) (“The district court may ‘fix’ the interest and
28 select an award above the statutory rate, or select an award at the prime rate.”);

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1 *Polara Eng'g*, 237 F. Supp. 3d at 996 (“As the ‘rate charged by banks to its most
2 credit-worthy customers,’ the prime rate is frequently found to be the appropriate
3 rate for calculation of prejudgment interest in a patent case.”); *IMX, Inc. v.*
4 *LendingTree, LLC*, 469 F. Supp. 2d 203, 227 (D. Del. 2007) (“Courts have
5 recognized that the prime rate best compensate[s] a patentee for lost revenues during
6 the period of infringement because the prime rate represents the cost of borrowing
7 money, which is ‘a better measure of the harm suffered as a result of the loss of the
8 use of money over time.’”); *see also Sealant Sys. Int’l, Inc. v. TEK Global S.R.L.*,
9 No. 5:11-cv-00774-PSG, 2014 WL 1008183, at *6, 35 (N.D. Cal. Mar. 7, 2014)
10 (awarding prime rate), *aff’d in part and rev’d in part on other grounds*, 616 Fed.
11 Appx. 987 (Fed. Cir. 2015); *Fresenius Med. Care Holdings, Inc. v. Baxter Int’l,*
12 *Inc.*, No. C 03-1431 SBA, 2008 WL 928535, at *3 (N.D. Cal. Apr. 4, 2008)
13 (“Numerous other courts have also held that the prime rate is appropriate for
14 calculating prejudgment interest a patent case.”); *Atmel Corp. v. Silicon Storage*
15 *Tech., Inc.*, 202 F. Supp. 2d 1096, 1101 (N.D. Cal. 2002) (awarding prime rate). In
16 fact, Apple itself has advocated for use of the prime rate to calculate prejudgment
17 interest in patent cases. *See Apple Inc. v. Samsung Elec. Co., Ltd.*, No. 5:12-cv-
18 00630, Dkt. 1897-3 at 30 (N.D. Cal. May 23, 2014); *Apple*, No. 5:11-cv-1846, Dkt.
19 2002 at 29-30 (N.D. Cal. Sept. 25, 2012). In doing so, Apple noted that the prime
20 rate, “which reflects private borrowing rates for businesses,” “is a far better
21 indicator of the actual economic value of the delay in payment for [] infringement
22 than the T-Bill rate.” *Apple*, No. 5:12-cv-00630, Dkt. 1897-3 at 30. Apple
23 continued that “[t]here is no reason that [the infringer] should reap the advantage of
24 what is effectively a loan from [the patentee] with minimal interest for [] years.” *Id.*

25 In this case, Caltech was forced to engage in years of costly and highly
26 contentious litigation against Defendants. During that time, Caltech effectively
27 made what amounted to “a large, involuntary, unsecured loan to a debtor of
28 uncertain credit-worthiness that is doing its utmost to avoid paying.” *In re*

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1 *Mahurkar Double Lumen Hemodialysis Catheter Patent Litig.*, 831 F. Supp 1354,
2 1394 (N.D. Ill. 1993) (“Winners in litigation are not called ‘judgment creditors’ for
3 nothing.”). In view of the fact that the damages period in this case spans
4 approximately ten years, the prime rate, which is typically used for short term loans,
5 is particularly reasonable. *See Mobil Oil Corp. v. Amoco Chems. Corp.*, 915 F.
6 Supp. 1333, 1371 (D. Del. 1995) (“The prime rate is an interest rate on short term
7 debt.... [which is] generally recognized as debt that is for less than a year”); *see also*
8 *Gen. Motors*, 461 U.S. at 655 n. 10 (a prejudgment interest award should not
9 “undercompensates the patent owner”, thereby creating a “windfall to the infringer
10 and . . . an incentive to prolong litigation”).

11 The prime rate is also warranted because during the damages period the prime
12 rate averaged 3.8%, which is historically low and well below the interest rates courts
13 have found appropriate in a variety of intellectual property cases. *See, e.g.,*
14 *EcoServices, LLC*, 340 F. Supp. 3d at 1033 (7% rate); *O2 Micro Int’l Ltd. v.*
15 *Monolithic Power Sys, Inc.*, 420 F. Supp. 2d 1070, 1076-77 & n. 1 (N.D. Cal. 2006)
16 (same); *see also Informatica Corp. v. Bus. Objects Data Integration, Inc.*, 489 F.
17 Supp. 2d. 1075, 1087 (N.D. Cal. 2007) (4.78% rate). In fact, the prime rate is lower
18 than the interest rate on Caltech’s taxable bonds obtained during the damages
19 period. Lawton Decl. ¶14. For example, in 2010 through 2012, Caltech borrowed
20 money at interest rates ranging from approximately 4.25% to 5.0%, slightly higher
21 than the prime rate at the time. Lawton Decl. ¶13.¹ Caltech also earned interest on
22 its endowment over the damages period at an average annual rate of return of 6.9%,
23 which is also much higher than the prime rate. Lawton Decl. ¶12.

24
25 ¹ In any event, it is “not necessary” for Caltech to “demonstrate that it borrowed
26 at the prime rate in order to be entitled to prejudgment interest at that rate.”
27 *Uniroyal*, 939 F.2d at 1545; *Fujifilm Corp. v. Motorola Mobility LLC*, No. 12-cv-
28 03587, 2016 WL 1622877, *21-22 (N.D. Cal. Apr. 25, 2016) (quoting *Uniroyal*);
Sealant Sys., 2014 WL 1008183, at *6 (same).

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1 Caltech further requests that the prejudgment interest be compounded
2 annually, which is consistent with the many cases in which Ninth Circuit courts
3 have awarded interest at the prime rate. *See, e.g., Polara Eng'g*, 237 F. Supp. 3d at
4 997 (“annual compounding is warranted” for prime rate); *Fujifilm Corp.*, 2016 WL
5 1622877, *21-22 (quarterly compounding for prime rate); *Atmel*, 202 F. Supp. 2d at
6 1101 (compounding interest quarterly and monthly). Courts “have recognized that
7 compounding is necessary to fully compensate the patentee.” *Sealant Sys.*, 2014
8 WL 1008183, at *6 (citation omitted). “Because a patentee’s damages include the
9 foregone use of money, compounding is needed to account for the time value of
10 money.” *Id.* (citation omitted). Thus, “courts have approved annual compounding
11 and even daily compounding.” *Id.* (citation omitted).

12 Ms. Lawton calculated prejudgment interest on the jury award by applying
13 the prime rate compounded annually, which results in prejudgment interest of
14 \$158,280,561 on the jury award through September 2019 for Apple and
15 \$64,511,475 on the jury award through August 4, 2019 for Broadcom. Lawton
16 Decl. ¶10. Ms. Lawton will calculate the prejudgment interest on supplemental
17 damages once Defendants provide the relevant sales data.

18 **C. Caltech Should Be Awarded Post-Judgment Interest**

19 An award of post-judgment interest at the federal statutory rate “shall be
20 allowed on any money judgment in a civil case recovered in a district court.” 28
21 U.S.C. § 1961(a). The Ninth Circuit has held that the award of post-judgment
22 interest is mandatory. *EcoServices, LLC*, 340 F. Supp. 3d at 1034 (*citing Barnard v.*
23 *Theobald*, 721 F.3d 1069, 1078 (9th Cir. 2013)).

24 Post-judgment interest is calculated “from the date of the entry of the
25 judgment, at a rate equal to the weekly average 1-year constant maturity Treasury
26 yield . . . for the calendar week preceding the date of the judgment.” 28 U.S.C. §
27 1961(a). Post-judgment interest is computed daily and compounded annually. *Id.* at
28 § 1961(b). Accordingly, at the time of entry of final judgment, the Court should

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1 include in its order post-judgment interest on the total money judgment (including
2 supplemental damages and pre-judgment interest) at the preceding week's weekly
3 average 1-year constant maturity Treasury yield, compounded annually. *See, e.g.,*
4 *Air Separation, Inc. v. Underwriters at Lloyd's of London*, 45 F.3d 288, 290-91 (9th
5 Cir. 1995) (“[I]t is well-established . . . that post-judgment interest also applies to
6 the prejudgment interest component of a district court's monetary judgment.”).

7 **IV. MOTION FOR PERMANENT INJUNCTION OR, IN THE**
8 **ALTERNATIVE, AN ONGOING ROYALTY**

9 Since the time of the jury's verdict on January 29, 2020, Defendants have
10 continued to infringe Caltech's patents by selling the accused products as well as
11 additional products that use the same infringing encoders and decoders. For
12 example, Apple has continued to sell the iPhone 8, iPhone 8+, and iPhone XR, each
13 of which were found by the jury to infringe. Briggs Dec. Ex. A.² Apple also has
14 continued to sell the iPhone 11, [REDACTED]

15 [REDACTED] are not colorably different than the accused
16 products. *Id.* at Ex. B; Ex. C.

17 Under 35 U.S.C. §283, the Court “may grant injunctions in accordance with
18 the principles of equity to prevent the violation of any right secured by patent, on
19 such terms as the court deems reasonable.” The Federal Circuit has found that the
20 district court's authority to “prevent the violation of any right secured by patent”
21 may take the form of either a permanent injunction, or an ongoing royalty. *See, e.g.,*
22 *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293 (Fed. Cir. 2007) (“Under some
23 circumstances, awarding an ongoing royalty for patent infringement in lieu of an
24 injunction may be appropriate.”). Accordingly, Caltech respectfully requests that
25 the Court prevent Defendants' continued violation of Caltech's patent rights either
26

27 ² “Ex.” cited herein refers to an Exhibit to the Declaration of Todd M. Briggs,
28 filed concurrently herewith.

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1 by issuing an injunction against the future sales of the accused products and any
2 products that are not colorably different, or by awarding Caltech an ongoing royalty
3 on the same products for the life of the patents-in-suit.

4 **A. Caltech Is Entitled to Entry of an Injunction**

5 “A party seeking a permanent injunction under the Patent Act must show: (1)
6 irreparable injury, (2) remedies available at law are inadequate, (3) the balance of
7 hardships favors an injunction, and (4) the public interest would not be disserved by
8 an injunction.” *Johnstech Int’l Corp. v. JF Micro. SDN BHD*, No. 14-cv-02864,
9 2018 WL 3036759, at *1 (N.D. Cal. June 19, 2018), *aff’d*, 773 F. App’x 623 (Fed.
10 Cir. 2019) (citing *eBay v. MercExchange, LLC*, 547 U.S. 388, 391 (2006)).

11 Defendants’ continued infringement of Caltech’s patents poses a risk of
12 irreparable harm that cannot be adequately remedied with monetary damages
13 because Caltech is a research institution, and unlicensed use of its inventions
14 deprive it of downstream opportunities to develop future technologies in ways that
15 are impossible to quantify. As Frederic Farina explained at trial, Caltech is a
16 research institution that disseminates the benefits of its research through licenses to
17 commercial entities. Dkt. 2123, 1/21/2020 Trial Tr. (Farina) at 62:21-63:4, 63:11-
18 25. The royalties generated from its patent licensing are “reinvested in research and
19 education such as helping students who can’t afford tuition at Caltech, putting the
20 money into new projects that can result in new inventions and again new knowledge
21 for the world to use and generally improving the infrastructure of Caltech for
22 research and education.” *Id.* at 76:10-14. Furthermore, Caltech competes with other
23 universities for funding, students, and faculty, and the strength of the intellectual
24 property that is developed by Caltech is one way in which Caltech advances its
25 position. *See, e.g.*, Dkt. 2155, 1/22/2020 Trial Tr. (Lawton) at 88:7-11
26 (“[U]niversities are ranked based on the number of patents that they obtain in each
27 year. And this is a key metric for the leading research universities because it's the
28 currency in which they operate. The patents are the means by which they can

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1 generate additional revenues.”)

2 In the absence of an injunction against Defendants, other potential infringers
3 will be encouraged to continue their infringement, knowing that they do not face the
4 risk of an injunction. If these potential infringers are dissuaded from taking a
5 license and Caltech is forced to again litigate to enforce its patent rights, more
6 money is diverted away from research and the development of future technologies,
7 which results in lost opportunities that are impossible to quantify.

8 The balance of hardships also favors entry of an injunction. Although there is
9 no evidence that Broadcom has ever even offered it to Apple, Defendants insisted at
10 trial that they have a non-infringing alternative [REDACTED]
11 [REDACTED] Dkt. 2156, 1/24/2020 AM Trial Tr.
12 at 25:4-27:2. If this is true, then issuance of an injunction will pose little or no harm
13 to Defendants as they can just switch [REDACTED]

14 Finally, an injunction is in the public’s interest. The research conducted at
15 Caltech is at the forefront of scientific development. Caltech’s faculty members and
16 students are routinely recognized as the world’s leading scientific minds, and their
17 research leads to the development of new products and processes that greatly benefit
18 society. Because of the significant benefits to the public from Caltech’s investment
19 in research, there is a public interest in protecting the rights of Caltech as a patent
20 holder.

21 **B. Alternatively, the Court Should Award an Ongoing Royalty**

22 If the Court determines that a permanent injunction is not justified here,
23 Caltech respectfully requests that the Court award Caltech an ongoing royalty for
24 Defendants’ sales of infringing products and products that are not colorably
25 different from the adjudged infringing products, from the date of entry of final
26 judgment through expiration of the patents-in-suit.

27 **1. Legal Standard for Ongoing Royalties**

28 As an alternative to a permanent injunction, courts routinely order payment of

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1 an ongoing royalty for any future infringement. *See Bard Peripheral Vascular, Inc.*
2 *v. W.L. Gore & Assocs.*, 670 F.3d 1171, 1192 (Fed. Cir. 2012)(“The award of an
3 ongoing royalty instead of a permanent injunction to compensate for future
4 infringement is appropriate in some cases.”); *see also Arctic Cat, Inc. v. Bombardier*
5 *Recreational Prods., Inc.*, 876 F.3d 1350, 1370 (Fed. Cir. 2017)(affirming award of
6 ongoing royalties); *EcoServices*, 340 F. Supp. 3d at 1028 (awarding ongoing
7 royalties); *Opticurrent v. Power Integrations, Inc.*, 17-cv-03597-EMC, 2019 WL
8 2389150, at *17-18 (N.D. Cal. June 5, 2019)(same); *Telcordia Tech. Inc. v. Cisco*
9 *Sys., Inc.*, No. 04-876-GMS, 2014 WL 1457797, at *5 (D. Del. Apr. 14,
10 2014)(same). “An ongoing royalty is a form of equitable relief authorized under 35
11 U.S.C. § 283.” *Soverain Software LLC v. J.C. Penny Corp.*, 899 F. Supp. 2d 574,
12 588 (E.D. Tex. 2012). Ongoing royalties are necessary in the absence of an
13 injunction because “[a] damages award for pre-verdict sales of the infringing
14 product does not fully compensate the patentee because it fails to account for post-
15 verdict sales.” *Opticurrent*, 2019 WL 2389150, at *17 (quoting *Fresenius USA,*
16 *Inc. v. Baxter Intern., Inc.*, 582 F.3d 1288, 1303 (Fed. Cir. 2009)). As one court
17 noted,

18 [e]ven though a permanent injunction may no longer be proper in
19 many patent cases in light of *eBay*, an ongoing royalty rate must still
20 adequately compensate a patentee for giving up his right under the
21 law to exclude others from making, using, selling, offering for sale or
22 importing his invention. That is, the law must ensure that an adjudged
23 infringer who voluntarily chooses to continue his infringing behavior
24 must adequately compensate the patent holder for using the patent
holder's property. Anything less would be manifestly unjust and
violate the spirit, if not the letter, of the U.S. Constitution and the
Patent Act.

25 *Paice LLC v. Toyota Motor Corp.*, 609 F. Supp. 2d 620, 630 (E.D. Tex. 2009).
26 Indeed, Apple itself has acknowledged on multiple occasions that courts should
27 award ongoing royalties if an injunction is not entered. *See, e.g., Ex. D* (Apple's
28 Motion for Ongoing Royalties, *Apple v. Samsung*, No. 12-cv-00630, Dkt. 1958 at 1

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1 (N.D. Cal. Sept. 3, 2014)) (“The law is clear that when a court denies a permanent
2 injunction an ongoing royalty is appropriate to compensate, at least in part, for
3 ongoing and future infringing sales.”); Ex. E (Apple’s Opposition to WARF’s
4 Motion for Equitable Relief, *Wisconsin Alumni Research Foundation v. Apple Inc.*,
5 No. 14-cv-00062, at p. 30 (W.D. Wis. Dec. 21, 2015)) (“Apple does not dispute that
6 WARF is entitled to an ongoing royalty for any infringement occurring after the
7 entry of final judgment.”).

8 In determining a post-judgment ongoing royalty rate, “the rate the jury
9 adopted is ‘significant as a starting point,’ but the court ‘cannot simply apply the
10 jury’s pre-verdict royalty award to the post-verdict infringement, without
11 considering the impact of changed circumstances.’” *Ecoservices*, 340 F. Supp. 3d at
12 1028. The Federal Circuit has been clear that “[t]here is a fundamental difference
13 . . . between a reasonable royalty for pre-verdict infringement and damages for post-
14 verdict infringement.” *Amado v. Microsoft Corp.*, 517 F.3d 1353, 1361 (Fed. Cir.
15 2008); *XY, LLC v. Trans Ova Genetics*, 890 F.3d 1282, 1297 (Fed. Cir.
16 2018) (“When patent claims are held to be not invalid and infringed, this amounts to
17 a ‘substantial shift in the bargaining position of the parties.’”). In particular, “[o]nce
18 judgment is entered, ongoing infringement by the adjudged infringer is willful.”
19 *Paice*, 609 F. Supp. 2d at 626; *Affinity Labs of Tex., LLC v. BMW N. Am., LLC*, 783
20 F. Supp. 2d 891, 899 (E.D. Tex. 2011). Accordingly, “when calculating an ongoing
21 royalty rate, the district court should consider the ‘change in the parties’ bargaining
22 positions, and the resulting change in economic circumstances, resulting from the
23 determination of liability.” *XY, LLC*, 890 F.3d at 1297; *ActiveVideo Networks, Inc.*
24 *v. Verizon Communications, Inc.*, 694 F.3d 1312, 1343 (Fed. Cir. 2012) (“[A]n
25 assessment of prospective damages for ongoing infringement should ‘take into
26 account the change in the parties’ bargaining positions, and the resulting change in
27 economic circumstances, resulting from the determination of liability.’”)

28 “To determine an ongoing royalty, a modified *Georgia-Pacific* analysis can

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1 be conducted, which focuses on the changed circumstances from the original
2 hypothetical negotiation and the negotiation that would occur post-judgment.”
3 *VirnetX v. Apple Inc.*, No. 13-CV-211, 2014 U.S. Dist. LEXIS 159013, at n.2 (E.D.
4 Tex. Mar. 6, 2014); *see also Internet Machines LLC v. Alienware Corp.*, No. 6:10-
5 cv-23, 2013 WL 4056282, at *19 (E.D. Tex. Jun. 19, 2013)(“The appropriate
6 starting point for determining post-judgment damages lies with the jury's verdict.
7 The Court will then address any changed circumstances in light of the *Georgia-*
8 *Pacific* factors. Thereafter, the Court determines whether the continued
9 infringement is willful and calls for enhanced damages.”). “[T]he Court must
10 consider the change in the legal relationship between the parties to avoid
11 incentivizing defendants to fight each patent case to the bitter end because without
12 consideration of the changed legal status, there is essentially no downside to losing.”
13 *Fractus, S.A. v. Samsung Electronics Co.*, 876 F. Supp. 2d 802, 855 (E.D. Tex. June
14 28, 2012).

15 **2. Changed Circumstances Since The Time Of The**
16 **Hypothetical Negotiation Relevant to Determination of the**
Ongoing Royalty Rates

17 The jury awarded Caltech \$837,801,178 in past damages from Apple and
18 \$270,241,171 in past damages from Broadcom, and determined that damages should
19 be in the form of a running royalty. The amounts awarded by the jury correspond
20 exactly to the amounts calculated by Caltech’s expert, Dr. Teece, based on per unit
21 royalty rates of \$1.40 for Apple and \$0.26 for Broadcom. The jury did not award
22 damages for Defendants’ continuing and future infringement. Accordingly, to the
23 extent the Court does not issue an injunction, ongoing royalties are appropriate.

24 The jury’s rates, which reflect analysis of the *Georgia-Pacific* factors at the
25 time of first infringement in December 2009, should be the starting point for the
26 determination of appropriate ongoing royalty rates. *Soverain*, 899 F. Supp. 2d at
27 589 (“The jury’s implied royalty rate provides a starting point for determining the
28 ongoing post-judgment royalty rate.”). Although they provide an appropriate

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1 starting point, certain circumstances have changed since December 2009 that
2 suggest the jury's rates are, if anything, too low.

3 First, over the past ten years the established profitability of the accused
4 products, their commercial success, and their popularity have greatly increased
5 (*Georgia-Pacific* Factor 8), as has the extent of Defendants' use of the patented
6 inventions (*Georgia-Pacific* Factor 11).³ [REDACTED]

7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED] Ex. G; Ex. C.

12 Accordingly, every chip sold by Broadcom to Apple today, and nearly every WiFi
13 enabled product sold by Apple includes Caltech's patented technology. The
14 tremendous growth in use of Caltech's patents by Defendants provides further
15 evidence of the importance and value of the technology.

16 Second, the utility and advantages of the patented invention over old modes
17 has been more firmly established since December 2009 (*Georgia-Pacific* Factor 9).⁴
18 Defendants have continually used Caltech's inventions for over 10 years. Although
19 Defendants claimed at trial that their next generation products would utilize a non-
20 infringing [REDACTED] (Dkt. 2156, 1/24/2020 AM Trial Tr. at 25:4-27:2),
21 Defendants offered no evidence that this alternative has been implemented in any

22 _____
23 ³ *Georgia Pacific* Factor 8 is "[t]he established profitability of the product made
24 under the patent; its commercial success; and its current popularity," and *Georgia-*
25 *Pacific* Factor 11 is "The extent to which the infringer has made use of the
26 invention; and any evidence probative of the value of that use." *Georgia-Pacific v.*
27 *U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970).

28 ⁴ *Georgia-Pacific* Factor 9 is "The utility and advantages of the patent property
over the old modes or devices, if any, that had been used for working out similar
results." *Id.*

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1 Apple products, or that it has even been offered as an alternative to Apple. In fact,
2 Defendants' damages expert claimed in his August 2018 expert report that this
3 alternative could be [REDACTED]
4 [REDACTED] Ex. H at 43-44. Yet, seventeen months later at trial,
5 Defendants still had not done so.⁵ In *Apple v. Samsung*, Apple argued that
6 "Samsung's ongoing infringement despite access to what Samsung alleges is an
7 easy and essentially costless design-around option reveals Samsung's belief that
8 Apple's patent has substantial economic value, such that Samsung would prefer to
9 continue infringing rather than remove the infringing feature." Ex. I (Apple's Brief
10 Regarding Ongoing Royalty Rates, *Apple v. Samsung*, No. 12-cv-00630, Dkt. 2116-
11 3 at 4 (N.D. Cal. Dec. 22, 2014)). The same is true here. Defendants' choice to
12 continue infringing in the face of the jury's verdict, rather than switching to a
13 purportedly acceptable low-cost alternative, justifies an increase in the royalty rate.
14 See *Creative Internet Adver. Corp. v. Yahoo! Inc.*, 674 F. Supp. 2d 847, 861 (E.D.
15 Tex. 2009)("[W]here the adjudged infringer chooses to continue to infringe, this
16 decision supports a higher ongoing royalty rate.").

17 Finally, Caltech's bargaining position post-verdict (*Georgia-Pacific* Factor
18 15) has been substantially strengthened by the jury's findings on infringement and
19 damages. This change in bargaining strength, particularly in light of the fact that
20 Defendants' infringement is now willful (as discussed further below), justifies an
21 increase in royalty rates going forward. Indeed, courts have routinely found that
22 post-judgment royalties should be higher, and in many cases substantially higher.

23 _____
24 ⁵ Mr. Thomas even claimed in his report that [REDACTED]

25 [REDACTED]
26 [REDACTED] Ex. H at p. 45. Yet
27 Defendants did not present any evidence at trial [REDACTED]
28 [REDACTED] r that it would be commercially viable to do so.

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1 *See, e.g., Creative Internet*, 674 F. Supp. 2d at 861 (noting “[t]he Federal Circuit has
2 instructed that post-verdict infringement should typically entail a higher royalty rate
3 than the reasonable royalty found at trial”) (citing *Amado*, 517 F.3d at 1361 (Fed.
4 Cir. 2008)); *see also Telcordia*, 2014 WL 1457797, at *5 (awarding royalty at nearly
5 twice the jury’s rate); *Affinity Labs*, 783 F. Supp. 2d at 901 (noting that courts “have
6 commonly awarded post-trial premiums in the range of 33% to 50% of the royalty
7 rate for past damages found by the jury”); *Bard Peripheral Vascular, Inc. v. W.L.*
8 *Gore & Assocs.*, No. CV-03-597, 2010 U.S. Dist. LEXIS 144259, at *13-14 (D.
9 Ariz. Sept. 8, 2010) (awarding royalty up to twice the jury’s rate), *appeal dismissed*,
10 346 Fed. Appx. 580, 592 (Fed. Cir. 2009); *Paice*, 609 F. Supp. 2d at 630 (awarding
11 royalty at four times the jury’s rate).

12 **3. Defendants’ Willful Infringement Supports Enhancement of**
13 **the Royalty Rates**

14 “Following a jury verdict and entry of judgment of infringement and no
15 invalidity, a defendant's continued infringement will be willful absent very unusual
16 circumstances.” *Affinity Labs*, 783 F. Supp. 2d at 899. No such unusual
17 circumstances exist here. Any belief that Defendants may have had that Caltech’s
18 patents were invalid or not infringed has been unambiguously eliminated by the
19 Court and jury, and thus Defendants’ decisions to continue selling the accused
20 products are at a minimum “willful, wanton,” “deliberate, consciously wrongful,
21 [and] flagrant.” *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S.Ct. 1923, 1932
(2016).⁶

22 To determine whether and how much the royalty rate should be enhanced
23 based on Defendants’ willful infringement, courts often consider the factors set forth
24

25
26 ⁶ The fact that the jury found that Defendants were not liable for pre-judgment
27 willful infringement does not prevent an enhancement of the royalty rates for post-
28 judgment acts of willful infringement. *See, e.g., Affinity Labs*, 783 F. Supp. 2d at
(footnote continued)

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1 in *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 827 (Fed. Cir. 1992). *See VirnetX*, 2014
2 U.S. Dist. LEXIS 159013, at *14. The *Read* factors are:

3 (1) whether the infringer deliberately copied the ideas or design of
4 another; (2) whether the infringer, when he knew of the other's patent
5 protection, investigated the scope of the patent and formed a good-
6 faith belief that it was invalid or that it was not infringed; (3) the
7 infringer's behavior as a party to the litigation; (4) the infringer's size
8 and financial condition; (5) the closeness of the case; (6) the duration
9 of the infringer's misconduct; (7) any remedial action taken by the
infringer; (8) the infringer's motivation for harm; and (9) whether the
infringer attempted to conceal its misconduct.

10 *Id.* In this case, factors 1 and 8-9 are neutral, but factors 2-7 each favor
11 enhancement of the royalty rates.

12 Factors 2 and 5 strongly favor enhancement. Defendants' invalidity defense
13 was rejected by the PTAB and by the Court on summary judgment, and the jury
14 rejected Defendants' defenses of non-infringement. Following the jury's verdict
15 "Defendants cannot assert a good-faith belief of non-infringement or invalidity, and
16 the case is no longer a close one." *Soverain*, 899 F. Supp. 2d at 589; *see also*
17 *Internet Machines*, 2013 WL 4056282 at *20. Indeed, the jury rendered its verdict
18 after just a few hours of deliberation, further reflecting that this was not a close case.

19 Factors 3 and 4 also favor enhancement. As discussed further in Section V
20 below, Defendants engaged in significant litigation misconduct, which included
21 efforts to inhibit Caltech's discovery and repeated attempts to introduce untimely
22 evidence in violation of the Court's scheduling order. Defendants' scorched earth
23 approach to litigation was fueled by their tremendous size and wealth. In at least
24 some quarters Apple has earned an average of approximately \$1 billion in revenues
25 *per day*. Ex. J. And Broadcom is one of the largest semiconductor companies in the

26
27 899-906 (enhancing ongoing royalty based on willful infringement even where pre-
28 judgment infringement was not determined to be willful).

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1 world, posting 2019 revenues of over \$22 billion. *Id.* at Ex. K. Even putting aside
2 Defendants' litigation conduct, the disparity in size and wealth between Defendants
3 and Caltech alone justifies enhancement. *Internet Machines*, 2013 WL 4056282 at
4 *20 ("Defendants are large companies while Internet Machines is considerably
5 smaller by comparison. This alone would balance in favor of enhanced royalties.")

6 Finally, Factors 6 and 7 also justify enhancement. Defendants have been
7 infringing Caltech's patents for over a decade, and have done so with full
8 knowledge of Caltech's patents and allegations of infringement for nearly four
9 years. In all of that time, Defendants did nothing to avoid infringement. And now
10 that the jury has determined that Defendants are in fact infringing, Defendants' plan
11 seems to be to just continue with the same conduct. Such wanton disregard for
12 Caltech's rights justifies enhancement of the royalty rates going forward.

13 In view of the changed circumstances since the time of the hypothetical
14 negotiation, and the fact that Defendants' ongoing infringement is willful, Caltech
15 respectfully requests that the Court order Defendants to pay ongoing royalties at two
16 times the rates determined by the jury (\$0.52 for Broadcom and \$2.80 for Apple).
17 Such an enhancement is consistent with what other courts have done in similar
18 situations. *See, e.g., Fresenius USA, Inc. v. Baxter Int'l, Inc.*, No. C 03-1431 PJH,
19 2012 WL 761712, at *14 (N.D. Cal. Mar. 8, 2012) (awarding ongoing royalty at
20 twice the jury's implied rate); *Telcordia*, 2014 WL 1457797, at *5 (awarding royalty
21 at nearly twice the jury's rate); *VirnetX*, 2014 U.S. Dist. LEXIS 159013, at *15
22 (awarding ongoing royalty at nearly twice the jury's implied rate); *Bard Peripheral*
23 *Vascular*, 2010 U.S. Dist. LEXIS 144259, at *13-14 (awarding royalty up to twice
24 the jury's rate), *appeal dismissed*, 346 Fed. Appx. 580, 592 (Fed. Cir. 2009); *Paice*,
25 609 F. Supp. 2d at 630 (awarding royalty at four times the jury's rate).

26 **4. The Ongoing Royalties Should Apply To The Adjudicated**
27 **Products And Products That Are Not Colorably Different**

28 Where a court orders an ongoing monetary award in lieu of an injunction, the
award of ongoing royalties extends not only to infringing products but also to

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1 products not more than colorably different from the infringing products. *See I/P*
2 *Engine, Inc. v. AOL Inc.*, No. 2:11-cv-512, 2014 U.S. Dist. LEXIS 7876, at *9-11
3 (E.D. Va. Jan. 21, 2014) (applying ongoing royalty to adjudicated product and any
4 new products “not more than colorably different”); *Mondis Tech., Ltd. v. Chimei*
5 *Innolux Corp.*, No. 2:11-cv-378-JRG, 2012 U.S. Dist. LEXIS 60004, at *6-8 (E.D.
6 Tex. Apr. 30, 2012) (same); *Creative Internet*, 674 F. Supp. 2d at 855 (same);
7 *Bianco v. Globus Medical, Inc.*, No. 2:12–CV–00147–WCB, 2014 U.S. Dist. LEXIS
8 89777, at *36–37 (E.D. Tex. July 1, 2014) same); *VirnetX*, 2014 U.S. Dist. LEXIS
9 159013, at *16 (same), *rev’d in part*, 767 F.3d 1308 (Fed. Cir. 2014); *Hynix*
10 *Semiconductor, Inc. v. Rambus Inc.*, No. 5:00-cv-20905-RMW, ECF No. 3911, slip
11 op. at 5 (N.D. Cal. Mar. 10, 2009) (same).

12 In *Apple v Samsung*, Apple argued that “[a]s with injunctive relief, any
13 ongoing royalties extend not only to ongoing sales of products found to infringe by
14 the jury, but also to products ‘not more than colorably different’ therefrom.”
15 Apple’s Motion for Ongoing Royalties, *Apple v. Samsung*, No. 12-cv-00630, Dkt.
16 1958 at 1 (N.D. Cal. Sept. 3, 2014). The court there agreed, finding that “[s]everal
17 district courts have used [the not colorably different] language when imposing
18 ongoing royalties.” *Apple v. Samsung*, No. 12-cv-00630, Dkt. 2074 at p. 20 (N.D.
19 Cal. Nov. 25, 2014). The same standard should apply here.

20 **V. MOTION FOR AN AWARD OF ATTORNEYS’ FEES**

21 This case is “exceptional” under 35 U.S.C. § 285. Throughout the case,
22 Defendants repeatedly and unreasonably pursued extreme and unsupportable
23 positions. These actions forced both the Court and Caltech to unnecessarily expend
24 significant resources re-litigating the same issues. Moreover, as demonstrated by
25 the fact Defendants lost virtually all of their substantive motions before this Court
26 and their IPRs on the asserted claims before the PTAB and Federal Circuit,
27 Defendants’ legal positions were weak. Defendants nonetheless continued to take
28 unreasonable positions and disregard Court orders rejecting those positions.

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Defendants' unreasonable approach and overly-aggressive legal positions in this case spanned all phases of the case – impacting discovery, briefing, and trial. Examples of the exceptional circumstances that justify an award of attorneys' fees in each of those three areas are set forth below. Defendants' conduct in any one of these areas alone was egregious, but taken together are truly egregious and warrant a finding of exceptionality. Findings on exceptional cases under Section 285 are fact-intensive and focused on whether, in view of the totality of the circumstances, the case "stands out from others" with respect to the "substantive strength" of Defendants' litigation positions and the "unreasonable manner in which the case was litigated." *See Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 572 U.S. 545, 554 (2014); *see also SRI Int'l v. Cisco Systems*, 930 F.3d 1295, 1310 (Fed. Cir. 2019) (§ 285 awards reviewed under "highly deferential" abuse of discretion standard). In this district, facts similar to those present here have been found to warrant the award of fees. *Munchkin, Inc. v. Luv N' Care, Ltd.*, No. CV 13-06787 JEM, 2018 WL 7504404, at *6 (C.D. Cal. Dec. 27, 2018) (finding case exceptional where the non-prevailing party was "objectively unreasonable in persisting in all out litigation" in the face of a substantively weak case); *Tannas v. Multichip Display, Inc.*, No. SACV1500282AGJCGX, 2018 WL 1033219, at *4 (C.D. Cal. Feb. 21, 2018) (finding exceptional case award warranted due to party "prevail[ing] on nearly every substantive issue" and the non-prevailing party's litigation "actions have forced [its adversary] to commit significant additional time and resources in this case."), *appeal dismissed*, No. 18-55527, 2018 WL 5099246 (9th Cir. Aug. 22, 2018).

A. Defendants' Unreasonable Conduct During Discovery

Throughout discovery, Defendants unreasonably impeded Caltech's efforts to establish its case by using improper litigation tactics, including coaching witnesses to feign an inability to understand basic questions and consume deposition time with long pauses and excessive review of exhibits, obstructing third-party discovery, and

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1 withholding evidence only to belatedly produce it long after the applicable
2 deadlines. Examples of this conduct, which occurred throughout discovery, are
3 detailed below.

4 *First*, the deposition of Alvin Lin, one of the two engineers who created
5 Broadcom's infringing error correction source code, is emblematic of Defendants'
6 unreasonable and overzealous litigation tactics. Mr. Lin met with Wilmer Hale
7 attorneys five times prior to his deposition, including for two full days with two
8 partners immediately before his deposition. Ex. N at 39:24-45:16. At the
9 deposition, he nonetheless refused to answer basic questions,⁷ sat silently for long
10 periods of time before answering even basic questions, and spent excessive time
11 reviewing documents (including lengthy reviews of blank pages).⁸

12 Instead of encouraging Mr. Lin to be forthcoming, Defendants' counsel did
13 the opposite. For example, Defendants' counsel improperly instructed Mr. Lin not
14 to answer the simple question "Mr. Lin, when did you first learn about Cal Tech's
15 patents?" and then litigated the merits of the objection at trial. Dkt. 2119, 1/16/2020
16 PM Trial Tr. at 6:15-7:23; 7:6-13 ("THE COURT: I can't imagine why you raised
17 that objection. It was wrong. Simple. . . . It was a really bad objection."). This was
18 not an isolated occurrence. Defendants' counsel improperly instructed Mr. Lin not
19

20 ⁷ Accordingly, the complete deposition video is separately lodged as Exhibit L.

21 ⁷ *See, e.g.*, Ex. N [Lin Dep. Tr.] at 10:25-11:9, 11

22 [REDACTED]

23 [REDACTED]

24 [REDACTED]

25 [REDACTED]

26 ⁸ The full deposition transcript is attached as Exhibit N. The transcript,
27 however, does not capture the repeated delays and evasive tactics engaged in by Mr.
28 Lin. Accordingly, the complete deposition video is separately lodged as Exhibit L.

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1 to answer non-privileged questions, including questions about scheduling conflicts
2 with the trial date and his college GPA, throughout his deposition.⁹

3 Defendants' counsel also encouraged Mr. Lin's obstructive behavior by
4 repeatedly advising him, in the midst of excessive delays, to take additional time to
5 respond. For example, Mr. Lin was asked to review a single page in a 25-page
6 presentation, but refused to answer any questions relating to this one page for nearly
7 20 minutes while purportedly reviewing the presentation. Nearly 15 minutes into
8 Mr. Lin's review of a single document, rather than encouraging the witness to
9 cooperate and timely respond, Mr. Dowd encouraged the witness to delay further,
10 stating:

11 [REDACTED]
12 [REDACTED]
13 Ex. N at 55:20-56:1; *see also id.* at 53:23-54:4, 55:3-9. This occurred
14 multiple times throughout Mr. Lin's deposition.¹⁰ In total, Mr. Lin wasted over
15 three and a half hours of deposition time through excessive time reviewing exhibits
16

17 _____
18 ⁹ *See, e.g.* Ex. N [Lin Dep. Tr.] at 105:16-107:24 [REDACTED]
19 [REDACTED]
20 [REDACTED]
21 [REDACTED]
22 [REDACTED]
23 [REDACTED]

24 ¹⁰ *See, e.g.*, Ex. N at 22:20-22 [REDACTED]
25 [REDACTED]
26 [REDACTED]
27 [REDACTED]
28 [REDACTED]

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(only review beyond two minutes was counted) and responding to questions (only pauses longer than 15 seconds were counted).

Second, Defendants' unreasonable and obstructionist conduct pervaded discovery, including document discovery and third-party depositions as well. For example, the Wi-Fi Alliance ("WFA"), a third-party organization of which both Defendants were active members with board representatives, had documents that established the importance and value of the LDPC feature in Defendants' products. *See, e.g.*, PTX-378. Knowing these documents were harmful to their case, Defendants attempted to block Caltech's discovery and use of these documents at every turn. Caltech had to obtain these documents from WFA because Defendants refused to produce them, even though, as the Court noted, "the information submitted by the parties suggests that at least a few of Defendants' employees were involved in WFA and had access to the WFA document databases." Dkt. 673 at 6, n.2. Defendants then sought to bar Caltech from using WFA documents and to prevent Caltech from deposing a representative from the organization and moved to strike Caltech's expert's opinions relating to WFA documents. Dkts. 563, 608. Both motions were denied. *See* Dkt. 673 at 4-6 (denying both motions). After the WFA produced documents, Defendants refused to stipulate to their admissibility, forcing Caltech to depose the WFA. In what should have been an uncontroversial authentication deposition, Defendants' counsel injected *over 300 meritless objections* over the course of Caltech's 1 hour and 40 minutes of questioning to simply authenticate WFA documents and obtain basic background information.¹¹

¹¹ *See, e.g.*, Ex. O [WFA Dep. Tr.] at 36:121-37:1

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1 *Third*, Defendants played games with the documents they did produce. For
2 example, Defendants failed to produce the purported prior art evidence from their
3 paid technical experts until the morning of those experts’ depositions, in March and
4 April 2019, despite receiving subpoenas and document requests that undisputedly
5 covered those documents at least two years prior to the depositions¹² and
6 acknowledging their relevance. As the Court recognized, Defendants’ failure to
7 produce all responsive documents from those experts’ files during fact
8 discovery¹³—despite having access to and selectively producing other documents
9 from those same files—was “very problematic.” *See* Dkt. 1470, 6/17/2019 Hearing
10 Tr. at 68:2-14 (“[T]he failure to disclose his knowledge on this particular point, it is
11 just so mind-boggling.”).¹⁴ Instead, Defendants belatedly produced them to bolster
12 their new, and equally belated, “known or used” theory. After examining several
13 rounds of briefing on the issue, the Court concluded Defendants’ conduct with
14 respect to the documents was “highly prejudicial,” and concluded Defendants “have
15 known for quite some time” that the documents were “relevant - indeed, central - to
16 some of Defendants’ invalidity arguments.” Dkt. 1929-1 at 15. Despite a clear
17 order excluding these materials, Defendants nonetheless included them on their trial
18 exhibit list and invalidity proffer. *See* Dkt. 2008 at 173-176; Dkt. 1763.

21 ¹² *See, e.g.*, Dkt. 1024-12 (Caltech’s First Set of Common Requests for
22 Production of Documents and Things, served September 2016) at Request No. 20
23 (“All Documents and Things concerning the validity or invalidity of the Asserted
Patents.”).

24 ¹³ Defendants produced documents from Dr. Pfister’s files during discovery
25 under Defendants’ own Bates label, DEF-CAL, confirming that they controlled and
26 had access to Dr. Pfister’s files. *See* Dkt. 1040-3.

27 ¹⁴ *See also id.* at 64:7-17 (“That basically impacts the entire case. . . .
28 [S]upposedly you guys knew it way before and never disclosed it to them earlier
on.”).

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**B. Defendants’ Unreasonable Pursuit of Defenses Lost on Summary
Judgment**

Defendants pled and pursued nearly every possible defense in this action, long past the point at which it became clear that the vast majority of those defenses were not tenable. By the time this case was tried, Defendants had one remaining defense – non-infringement. Defendants did so to make litigation as expensive and complex as possible for Caltech (and burdensome to the Court) as a litigation tactic to delay trial and pressure Caltech to abandon its case. The three examples below illustrate the frivolous nature of Defendants’ positions on their defenses.

First, years into this litigation, Defendants contrived a brand new, undisclosed “known or used” invalidity theory when it became clear that the *inter partes* review challenges (“IPRs”) would be rejected and potentially estop them from asserting prior art-based invalidity defenses at trial. Defendants spent nearly a year claiming that this “known or used” theory was disclosed and different from the printed publication theories rejected in the IPRs (and later on summary judgment of IPR estoppel), but refusing to identify those differences or where the theory was disclosed.¹⁵ As noted above in the discovery discussion, Defendants also played games in discovery with alleged evidence supporting those theories by belatedly producing hundreds of pages of purported supporting evidence on the morning of depositions, despite having access to the information for years. Defendants’ conduct, detailed below, was sufficiently egregious that in rejecting Defendants’ purported “known or used” theories, the Court stated expressly in its order that the issue “will be on the Court’s mind if this case reaches the point of requiring an exceptionality determination under 35 U.S.C. § 285.” Dkt. 1929-1 at 11-12.

¹⁵ See Dkt. 1929 at 12 (noting that Defendants “were suggesting” their “known or used” theories “[a]s early as May 2018” but “did not meaningfully disclose” them).

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1 In December 2018, the Court already “voiced concerns” with Defendants’
2 “failure to present a meaningful ‘known or used’ theory.” Dkt. 1929-1 at 13 (citing
3 Dkt. 828); *see also* Dkt. 828 at 17 (“Defendants’ position regarding the status of its
4 prior art as falling under the ‘known or used’ prong of § 102(a) is slightly
5 specious.”). Defendants nonetheless continued to assert the theory, but continued to
6 evade identifying the underlying facts and alleged differences for another eight
7 months of briefing and discovery. Defendants took a kitchen-sink approach to
8 identification, thereby “obscur[ing]” the issue (and the lack of any meaningful
9 disclosure). Dkt. 1929-1 at 17. For example, after reviewing Defendants’ original
10 lengthy proffer on their “known or used” theory, the Court ordered Defendants to
11 “file a new listing of particularized evidence.” Dkt. 1172 at 1. Instead of submitting
12 a straightforward chart “focused specifically on showing how evidence related to
13 [the ‘known or used’ theories] would be used” (Dkt. 1929-1 at 17), Defendants
14 expanded their 57-page “proffer” (Dkt. 1118) to over 850 pages of tables that relied
15 largely on the printed publications (Dkt. 1186). Defendants’ revised submission
16 defied the Court’s instructions, complicated resolution of this issue, and required the
17 Court and Caltech to sort through what the Court itself called “irrelevant and indeed
18 unhelpful” submissions to attempt to ascertain their theories. Dkt. 1929-1 at 17-18.

19 Ultimately, the Court concluded, as it had observed eight months earlier, that
20 “the invalidity expert report that Defendants served in August 2018 did not
21 meaningfully disclose a ‘known or used’ theory of invalidity separate and apart from
22 a review of the prior art documents themselves” (Dkt. 1929-1 at 12), nor did the
23 supplemental Frey report which simply included “three perfunctory sentences that
24 reference a ‘known or used’ theory” and “focuse[d] on the disclosure within the text
25 of the documents themselves” (*id.* at 13). Defendants’ pursuit of this “known or
26 used” theory, including their claims that this theory was adequately disclosed in
27 their expert’s report, their attempt to support this theory by belatedly producing
28 documents from their own experts that they had access to for years, and their

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1 attempts to obfuscate the lack of support for their theory in multiple voluminous
2 submissions, weighs heavily in favor of an exceptionality finding. Defendants’
3 “doggedness in the face of almost certain defeat was unreasonable and makes this
4 case stand out from other cases.” *Munchkin*, 2018 WL 7504404, at *6.

5 *Second*, Defendants continued to litigate their inequitable conduct defense—
6 including theories they never pled— long past the point of viability, going so far as
7 to amend their answer to assert a brand new theory *after* the Court found summary
8 judgment against them was appropriate on that same theory. Defendants’ pled
9 inequitable conduct theories lost all viability after the PTAB issued final decisions
10 determining that the asserted references were not material to patentability. Yet
11 Defendants continued to pursue those theories until they were eliminated at
12 summary judgment.¹⁶ Defendants also pursued unpled inequitable conduct theories
13 for years—a strategy that the Court itself observed was “not appropriate” and was
14 an effort to circumvent “pleading obligations under Rule 9(b).” Dkt. 1305 at 4.
15 After the Court issued its tentative order granting summary judgment of no
16 inequitable conduct on both Defendants’ pled and unpled theories (Dkt. 1207),
17 Defendants attempted to circumvent summary judgment and revive their unpled
18 theories by filing a belated motion for leave to amend their answer—and in doing
19 so, violated the Court’s express order not to file additional motions without leave.
20 Dkt. 1289. The Court struck the motion *sua sponte*, finding that Defendants’ delay
21 was unwarranted and would cause undue prejudice. Dkt. 1301 at 2.

22 *Third*, Defendants’ continued pursuit of 35 U.S.C. § 101 defenses against the
23 ’032 and ’710 patents, after Defendants, as the Court recognized, “essentially did
24

25
26 ¹⁶ Defendants continued to argue that the Luby97 and Luby98 references were
27 “but-for” material *after* the PTAB’s ruling establishing that these references were
28 not material. Dkt. 1518 at 9. Similarly, Defendants maintained their argument that
Richardson99 was material even though they admitted this reference “provides a
(footnote continued)

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1 everything short of saying the explicit phrase “the asserted claims of the ’710 and
2 ’032 Patents are not drawn to an abstract idea,” was similarly frivolous. Dkt. 1923
3 at 9 (granting § 101 summary judgment motion on the ’032 and ’710 patents).
4 Defendants originally moved for summary judgment that the asserted claims of the
5 ’781 patent were invalid under § 101 and in those motions made admissions that the
6 Court itself recognized essentially conceded that if the ’781 patent is patent eligible,
7 then the ’032 and ’710 patents must be as well. *See* Dkt. 108 (’781 motion); Dkt.
8 1923 at 9 (in view of “Defendants’ statements” regarding the ’032 and ’781 patents,
9 “the Court’s § 101 analysis as to the ’781 Patent would mandate the same outcome
10 as to the ’710 and ’032 Patents”). After multiple rounds of briefing, the Court
11 issued a final order denying Defendants’ motion (*see* Dkt. 849), but Defendants
12 unreasonably maintained their § 101 defenses against the ’032 and ’710 patents,
13 forcing another round of summary judgment.

14 The above tactics resulted in a resource-intensive and “frustrating game of
15 Whac-A-Mole” that increased the litigation burden on Caltech and make this case
16 exceptional. *See Oplus Techs., Ltd. v. Vizio, Inc.*, 782 F.3d 1371, 1374–76 (Fed.
17 Cir. 2015); *see also, e.g., Tannas*, 2018 WL 1033219, at *4 (“This case stands out as
18 exceptional. Plaintiff has prevailed on nearly every substantive issue. More
19 importantly, Defendants have continuously engaged in poor litigation conduct
20 resulting in prolonged and unnecessary litigation.”).

C. Defendants’ Unreasonable Conduct During Trial

22 At trial, Defendants had one remaining defense: non-infringement. Despite
23 clear instructions from the Court to abide by the Court’s orders entering judgment
24 against them on invalidity and only assert properly disclosed non-infringement
25 positions, Defendants nonetheless sought to introduce invalidity arguments at trial
26 that were specifically barred by the Court and advanced non-infringement theories

27 _____
28 similar disclosure” to Luby98. *Id.* The Court rejected both of these unreasonable
(footnote continued)

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1 that were not disclosed prior to trial, were not included in any expert report, and
2 expressly violated the Court's prior rulings. *See SRI*, 930 F.3d at 1310-11
3 (upholding exceptional case finding where defendant pursued defense contrary to
4 the court's rulings). The three examples below illustrate Defendants' flagrant
5 disregard for Court orders during trial.

6 *First*, throughout this case, the Court repeatedly rejected Defendants'
7 proposed constructions of the claim term "random," intended to prop up untenable
8 non-infringement theories. *See, e.g.*, Dkt. 213 at 23 (finding Defendants' proposed
9 construction "frivolous on its face"); Dkt. 1639 at 9 (finding Defendants "did not
10 have evidence in the record to support th[eir] assertion" regarding "random
11 permutation"). Defendants nonetheless attempted to elicit testimony from Dr.
12 Shoemake at trial based on those rejected constructions. Dkt. 2154, 1/21/2020 AM
13 Trial Tr. at 100:23-101:6 ("Q: Sir, you don't even know how the left-hand side of
14 these matrices were constructed, do you. A: That's irrelevant to my analysis. ... Q:
15 But -- but you -- ... Q: -- don't even know whether they were selected randomly or
16 with a particular purpose."). The Court sustained Caltech's objection to this line of
17 questioning, finding that it had already ruled on the issue. *Id.* at 103:18-24 ("I made
18 a ruling in this area. The question you're asking him is whether he knows how the
19 particular item was, I guess, developed. . . . [W]e already made the ruling insofar as
20 randomness is concerned."). Defendants' conduct violated the Court's clear
21 instructions to the parties not to attempt to raise previously-rejected arguments and
22 theories during trial. Dkt. 1853 at 3 n.1 ("The Court will consider sanctions for
23 repeated insistence of explicitly-rejected arguments and theories, including attempts
24 to inject them into a trial presentation.").

25 *Second*, Defendants attempted to elicit testimony from Dr. Blanksby to
26 present non-infringement theories based on expert opinions that were not disclosed
27 _____
28 arguments. *Id.*

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1 in his expert report. Critically, the Court had previously ordered Defendants to
2 submit an expert report from Dr. Blanksby disclosing all of his expert opinions.
3 Dkt. 746 at 3 (striking Dr. Blankby’s expert disclosure and requiring, among other
4 things, Dr. Blanksby to provide an expert report disclosing opinions). After it
5 became apparent that Defendants intended to offer non-infringement opinions
6 beyond the scope of Dr. Blanksby’s report at trial, Caltech sought the Court’s
7 assistance, and the Court repeatedly instructed Defendants that all non-infringement
8 arguments raised at trial must be disclosed in expert reports. *See, e.g.*, Dkt. 1691,
9 12/9/2019 Hearing Tr. at 9:2-6 (“If the stuff is not included as listed specifically, I
10 will not allow it to be litigated in front of the jury. In other words, this has to be
11 contained. If it is not contained, I will not allow it to be presented to the jury,
12 because I will have deemed it waived”); *id.* at 55:14-21 (“THE COURT: . . . Well,
13 let me ask defense counsel to show at some point, not today obviously, but at some
14 point in time where it is in the expert report, and if it's in, then the plaintiff loses. If
15 it's not in, then the plaintiff wins.”).

16 Despite these instructions, Defendants attempted to elicit undisclosed non-
17 infringement opinions from Dr. Blanksby. After Caltech objected, Defendants’
18 counsel (violating the Court’s rule that objections were not to be addressed before
19 the jury absent the Court’s express request for a response) falsely represented to the
20 Court and the jury that the undisclosed opinion was found in 25 cites in the expert
21 report. *See* Dkt. 2127, 1/23/2020 Trial Tr. at 152:21-23 (“MR. MUELLER: At the
22 start, there is about 25 there. I'll keep -- if I may, Your Honor, they can check those
23 and I can keep going.”). At sidebar, the Court concluded the opinion was not
24 disclosed and chastised Defendants for “wasting time” by providing numerous
25 inapplicable cites. *Id.* at 153:23-154:10; 157:14-22. When the Court enforced its
26 prior orders and sustained Caltech’s objection to the undisclosed theory, Defendants
27 went so far as to threaten to move for a mistrial. *Id.* at 157:23-24 (“MR.
28 MUELLER: If you don't let us testify about this, I'm moving for a mistrial.”);

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1 166:11-15 (“THE COURT: Well, let me put it this way. . . if you are going to
2 explain it through expert testimony, it's supposed to be included in an expert report,
3 and if you fail to include it in an expert report, then you have lost the case prior to it
4 being started.”).

5 *Third*, Defendants sought to resurrect and backdoor their invalidity defenses
6 at trial, violating multiple Court orders. For example, Defendants included prior art
7 references this Court specifically excluded in its orders on their exhibit list and in
8 their list of invalidity references for trial, necessitating supplemental pre-trial
9 briefing. Dkt. 2008; Dkt. 1763. In that briefing, Defendants failed to clearly
10 disclose and identify their positions, instead citing dozens of inapplicable references
11 already rejected by the Court. *See, e.g.*, Dkt. 2157, 12/30/2019 Hearing Tr. at 38:2-
12 10 (“[THE COURT]: You cited to so many different things . . . you threw a bunch
13 of stuff up. I resent that.”). Similarly, during trial, Defendants disclosed references
14 that were the poster children for IPR estoppel as exhibits to use with Dr. Hassibi, the
15 first witness at trial, and introduced one of those references before the jury without
16 leave from the Court. *Compare* Dkt. 2118, 1/15/20 PM Trial Tr. at 104:14-22
17 (introducing Luby97 as a prior art reference) *with* Dkt. 1919 (adopting prior order
18 prohibiting use of Luby97 and holding “permitting Defendants to introduce their
19 main invalidity references to a jury is inappropriate under FRE 402 and 403.”). The
20 Court struck the reference, but only after Defendants presented it as prior art to the
21 jury in direct violation of numerous prior Court orders. *See, e.g.*, Dkt. 2118, 1/15/20
22 PM Trial Tr. at 106:1-107:14.

23 * * *

24 Defendants litigated this case in an unreasonable manner by advancing
25 positions of ever-worsening merit, obstructing discovery, treating Court orders as
26 compliance-optional, requiring multiple rounds of briefing on nearly every issue,
27 and presenting evidence to the jury that Court orders excluded. For these reasons,
28

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1 this case should be deemed exceptional and Caltech should be awarded attorneys'
2 fees and associated costs under § 285.

3 **VI. CONCLUSION**

4 For the reasons set forth above, Caltech respectfully requests that the Court
5 award supplemental damages, pre- and post-judgment interest, attorneys' fees, and a
6 permanent injunction or on-going royalties.

7 DATED: April 6, 2020

Respectfully submitted,

8
9
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