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China Judicial Reforms Are Creating Opportunities For Technology Transfer And Licensing[1]

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Introduction

With the development of science and technology great distances in the past have been made unbelievably short. This is the achievement of the progress of human civilization. The historical experiences of both China and other countries have once again proved that culture needs exchanging, the legal theory and practice need exchanging also. Through exchange we can learn from each other and come to know each other better. Through exchange we can give full play to human wisdom and enjoy the common fruits of civilization.

IP has become more and more important in domestic and international competition. In 2015, the Courts accepted a total of 149,238 IP-related cases, including first and second instance cases, and retrial cases, and concluded 142,077 cases. The respective increases were 11.49 percent and 11.76 percent compared to 2014. The local courts accepted 109,386 and concluded 101,324 civil IP cases of first instance in 2015, and the year-on-year increases were 14.51 percent and 7.22 percent, respectively. Among the accepted cases, 11,607 were patent cases, an increase of 20.3 percent over 2014; 24,168 were trademark cases, a 13.14 percent increase; 66,690 were copyright cases, a 12.1 percent increase; 1,480 cases were related to technology contracts, a 38.19 percent increase; 2,181 cases were unfair competition cases (including 156 monopoly cases), a 53.38 percent increase; and 3,093 cases involving other IP disputes, a 22.45 percent increase. Among the concluded cases, 1,327 were civil IP cases involving foreign parties, a 22.67 percent decrease from last year; another 387 cases involved Hong Kong, Macau or Taiwan parties, a 9.15 percent decrease.[2] See Figure 1.

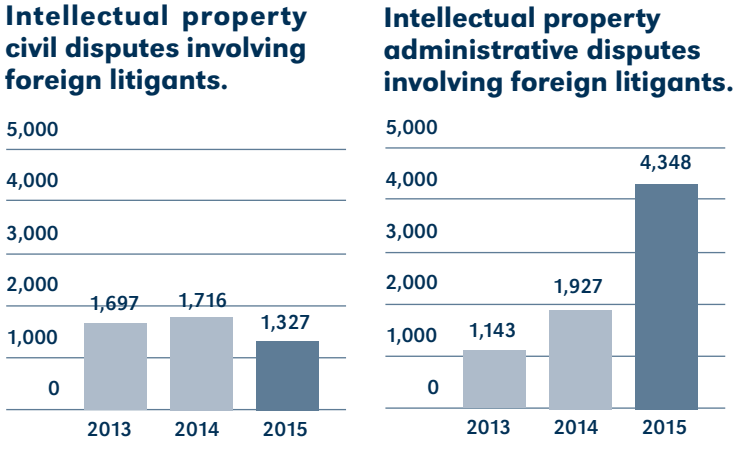
China has become a major market for foreign enterprises to develop IP innovation. With more frequent economic and trade exchanges, foreign related IP cases are a key area for IP tribunals in courts, especially administrative ones. Patent and trade mark cases are the largest. The number of civil and administrative IP disputes involving foreign litigants rose from 2,840 in 2013 to 5,675 in 2015.[3] Courts in China handled a total of 12,158 IP disputes in 2013-2015, including both civil cases and administrative appeals. New and tough cases are increasing. Some typical cases involve clarify the legal boundaries or to fill gaps in the law. For example, how to draw a line for lawful warning letter sent by IP right holder, and how to determine the nature of the Swiss-type claim in patent administrative cases.

Judicial Reform in China

A strong IP protection and enforcement system in China is not just a desire of foreign companies doing business in China, but also a need of many domestic Chinese companies. To build such a system, China has

Figure 1. Battling Over Intellectual Property

Chinese courts handled 12,158 IP disputes, including civil and administrative ones, between 2013 and 2015.



Source: Supreme People's Court

CHINA DAILY

1. This article is the presentation Judge LUO Xia delivered at the LESI Annual Conference in Beijing on May 16, 2017.

2. The figure comes from "IP Protection by Chinese Courts in 2015," *IP White Paper*.

3. Cao Yin, "Foreign IP Disputes on the Increase," *China Daily*, April 26, 2016.

an extensive judicial system for IP litigations. First of all, distribution of jurisdiction is an essential aspect involving rational allocation of adjudication resources, improving adjudication quality and efficiency, and serving the increasing need for judicial protection of IP. By the end of 2014, 87 intermediate courts have jurisdiction over patent cases, 46 intermediate courts have jurisdiction over new plant varieties cases, 46 intermediate courts have jurisdiction over integrated circuit layout design cases, and 45 intermediate courts have jurisdiction over cases involving the recognition of well-known trademarks. In addition, 164 district courts have jurisdiction over general IP cases, and 6 district courts have jurisdiction over the cases involving utility models and industrial designs. The IP tribunal of Supreme People's Court of China ("SPC") has concentrated on patent and technology-related civil cases in 2015, and has actively explored and exercised its cross regional jurisdiction over IP cases of first instance.

Second, China has established IP specialized courts in Beijing, Shanghai, and Guangzhou by the end of 2014 as part of the judicial reform. As of December 31, 2015, the three IP specialized courts have handled a total of 15,772 civil and administrative IP cases. They are also adding some reforms on judicial procedures for complicated patent cases, such as using technical experts in hearings and decision-making processes. Three courts undertake the mission of the pathfinder and pioneer. The system has seen some initial success and is off to a good start. Before 2001, the decisions made by the re-examination boards were final. Now all disputes concerning the validity of IP rights, a litigant can file a case to court to determine whether or not to grant IP rights, or concerned with maintaining or canceling the rights cases. The court which deals with the civil case (damages) still has the power to review all issues relating to the case, no matter whether an infringement has been determined by the administration or not, therefore, the courts play a vital role and hold the power of final decision-making.

Third, China has established the unique "three-in-one" adjudication system, it combines adjudication of civil, administrative and criminal cases to unify adjudicating standards, optimize allocation of judicial resources, and improve trial quality. As of November 2015, the pilot reform of "three-in-one" adjudication has been carried out in 6 high courts, 95 intermediate courts, and 104 district courts in China.

Fourth, Courts actively explore effective approaches to professional and technical fact-finding for IP cases. The SPC (Supreme People's Court) has issued "Provisional Regulations on Several Issues Concerning Technical Investigation Officers of Intellectual Property Courts Participating in Litigation Activities" in 2015. Such regulations promote the establishment of technical fact-finding systems within courts for IP cases, especially complicated patent cases. The investigation officers of the courts can play special and important roles in technical fact-findings and assist judges to make fair decisions. Technical fact-finding systems such as expert assessor, expert testimony, expert consultation, and technical investigation officers improve the scientific and neutrality of the court judgments.

Finally, the SPC strives for the openness and transparency to protect and enhance the credibility of the judicial protection of IP. Early in 2006, the SPC established Chinese IP right Judgments and Decisions website and started to publish the SPC's decisions on this website. Further, the SPC has established the Chinese courts' website (China Judgements Online) for publishing decisions of various courts. By the end of 2015, 154,532 IP decisions of various courts were published.

During the IP rights Protection Week in April 2016, the SPC released ten "Major Cases" and 50 "Typical Cases," which should assist lower courts in their decision-making processes. Under the Chinese legal system, the court has no power of law making; the doctrine of precedent does not exist in China. However, under the Constitution, the SPC is authorized to interpret laws when it is needed. The judicial interpretations, such as opinions, circulars and advice of the SPC, have a special position in the legal framework for IP protection. Once the judicial interpretation is adopted and announced by the judicial committee of the SPC. It shall take binding effect and must be observed by all the people's courts in China. Although the absence of the doctrine of precedent, precedent decisions in China are used as references for later cases in many occasions. The court at a lower level will generally follow or respect opinions or decisions made by its superior courts, especially those "Major Cases" and "Typical Cases" released by the SPC in China.

Case Study

There is one case study to show how the SPC made its decision in one of the top ten civil and administrative disputes in 2015. The disputes between Shuanghuan Co. Ltd. and Honda involve objections to jurisdiction, relevant patent infringement claims, and administrative procedures for invalidation of the design patent at issue. The first-instance trial lasted up to 12 years. The key is how to determine whether sending of an infringement warnings is a proper conduct or an unfair competition act.

Honda sent a warning letter to Shuanghuan for infringement on its vehicle design patent and filed a patent infringement lawsuit in the court of Beijing in 2003. Shuanghuan then filed a lawsuit for declaration of non-infringement in the court of Hebei province.

During the court hearing the infringement dispute and the non-infringement declaration dispute, Shuanghuan proposed a request for invalidation of the design patent to the PRB (Patent Re-examination Board) of the SIPO (State Intellectual Property Office), and the PRB declared the patent at issue invalid. After the Beijing High People's Court upheld the administrative judgment and the PRB decision, Shuanghuan made a claim for compensation of damages in the instituted action for declaration of non-infringement due to the warning letter sent by Honda spread harmful opinions that damaged the management right and reputation thereof. Honda filed a Request for Retrial with the SPC. After retrial the SPC revoked the judgments and the invalidation decision. Honda proceeded with the patent infringement case, claiming an increased amount of the monetary damages. Shuanghuan further increased the amount of damages to RMB 36,574 on the ground ofunfair competition against Honda.

The SPC issued the Judgement No. Minsanzhongzi 8/2014 on July 23, 2015, holding that the vehicle design of Shuanghuan does not fall within the scope of the design patent of Honda at issue, i.e., Shuanghuan does not infringe Honda's design patent. Thus, the SPC upheld the first-instance judgment of HeBei High People's Court, Shuanghua should not bear the infringement liability. In response to the declaratory judgement case that Shuanghuan filed against Honda, the SPC issued the Judgment No. Minsanzhongzi 7/2014 on December 8, 2015, and took a prudent step alteration of the cause of action as declaration of non-infringement and a damage dispute, then reconfirming that the vehicles manufactured and sold by Shuanghuan do not infringe the design patent of Honda at issue, and the decision of damage that Honda is liable for Shuanghuan's economic losses of RMB16 millions.

Specifically, the SPC divided two stages of Honda sending of the warning letter in the Judgment No. Minsanzhongzi 7/2014. In the first stage, Honda sending of the warning letter to the manufacturer Shuanghuan is a reasonable right-safeguarding act based on fact findings, explicit targets and stable right. The SPC pointed out that Honda's sending a warning letter is a reasonable enforcement action only at the first stage. But in the second stage, the SPC considered the fact that the warning letter was sent out after Shuanghuan had negotiated with Honda and intended to seek judicial remedies for a declaratory action of non-infringement and after Shuanghuan filed a request for Invalidation of Honda's design patent. Honda expanded the scope of the warning letter and sent it to dozens of Shuanghuan's distributors in China, but the warning letter merely recites the design patent at issue, without disclosing the specific grounds for infringement, necessary infringement comparison, or other facts that may help the distributers make reasonable and objective judgments on whether or not they should cease the warned acts. The SPC held that Honda's sending a warning letter is unfair completion act in the second stage.

In making the Judgment of No. Minsanzhongzi 7/2014, the SPC faced an issue: In what circumstances shall the IP right holder who sends a warning letter be liable to pay compensations to the party who suffered from the warning letter due to unfair competition? Based on the fact that the right holder had bad faith and know that the IP right is invalidated and no infringement conduct in the fact. OR the right holder's act of exercising his right of warning is illegal and no matter whether an infringement occurs.

The SPC focused on the "act" instead of the "consequence." One of major reasons, the SPC pointed out that because the judgment on whether the alleged act infringes the patent involves the specialization and complexity of technical fact-finding, after the grant of patent, there always remains a likelihood of invalidation within the effective patent term. It is impossible for the patentee alone to decide whether the patent may be eventually declared invalid. In general, an administrative litigation follows the declaration of invalidation. For instance, the patent has gone through the processes of declaration of invalidation, upholding of first-instance and second-instance administrative judgments, revocation of the invalidation decision after retrial and restoration of patent right in this case; therefore, we should not require a right holder to be quite certain about the extent of infringement constituted by his warning act, otherwise, the normal effect of the infringement warning system may be trammeled and the original intent of such a system may be undermined.

Furthermore, the SPC considered the conduct of the right holder is justified shall be evaluated on the basis of whether the conduct violate the fair competition order, instead of whether the warning act constitutes infringement. Where the patentee is justified and not at fault for sending an infringement warning, even if the warned act does not constitute infringement. Specifically, the patentee's act can be justified and the patentee is not liable for sending a warning letter of patent infringement, even if the warned act does not constitute patent infringement; and in this circumstance, the patentee's act does not pertain to an unfair competition act involving abuse of right; therefore, the patentee does not need to compensate for the loss suffered from the warning letter.

The SPC pointed out the infringement warning system as a self-rescuing act is a double-edged sword. The infringement warning system provides a self-rescuing opportunity for IP right holders for parties to resolving disputes via active communication and negotiations, and should not be premised on the infringement judge-

ment to be made by the court. Such a system reduces enforcement costs, increase efficiency of dispute resolution, and save judicial resources. The patentee's sending of an infringement warning to safeguard the rights and interests thereof is a lawful self-rescuing act and not premised on the infringement judgment made by the court. The IP right holder sends an infringement warning with an aim of informing the warned party of the potential infringement upon other's rights, in hope of ceasing infringement by itself or resolving disputes through active communication and negotiations with the right holder, by doing this, the advantage is to increase the efficiency of dispute resolution and save judicial resources, thereby enhancing economic benefits; moreover, according to Article 70 of the Patent Law in China that provides:

Where any person, for the purpose of production and business operation, uses, offers to sell or sells a patent-infringing product without knowing that such product is produced and sold without permission of the patentee, he shall not be liable for compensation provided that the legitimate source of the product can be proved.

In practice, after the patentee sends the warning letter, if the warned party does not stop infringement then the patentee may request the defendant to bear liabilities for damages due to its subjective maliciousness in a later infringement lawsuit. But the big disadvantage is the risk of unfair competition act.

Compare the warning letter with the court's pre-trial injunction, the alleged infringing act will not be certainly ceased by the warning notice, and it is up to the alleged parties to decide whether to settle patent infringement disputes on their own. So the SPC looked into the content of the warning letter. The content of the infringement warning plays an extremely vital role in making a reasonable judgment and deciding to take resulting commercial risks. Court may determine patentee's act of sending out a warning letter without subjective malice is reasonable and lawful patent enforcement action and the warned party can reasonably determine and consider the potential risks associated with it. If a warning letter is sent with subjective malice for disturbing the normal business of the competitors and winning customers and opportunities, such an act is not allowed.

The SPC further states that the IP right holder needs to base its warning on ascertained and specific infringing facts. The information involved in the warning shall be detailed and sufficient, such as disclosing the protection scope of the patent and the particulars suspected of infringement, and briefly summarizing the features of the alleged product and comparing the same with the patent, so as to clarify that the alleged product falls within the protection scope of the patent at issue. Other information necessary for determination and cessation of infringement shall also be disclosed in a sufficient manner.

To determine if the infringement warning is a lawful patent-safeguarding act instead of an unfair competition act is based on the content of the infringement warning letter, the SPC stressed that the right holder must send the infringement warning based on ascertained specific infringing facts after taking sufficient account of and proving the specific alleged infringing facts; therefore, the warned party can decide whether to stop the alleged infringing act, reasonably determine corresponding commercial risks, and judge whether infringement occurs upon the warning letter to ensure a stable trade order. As long as the patentee's conduct is justified and sent the explicit content of the infringement warning, the warned party shall make a judgment on their own. The loss caused by the warned party's acts shall be considered as commercial risks and shall be borne by the warned party itself.

The hard part is how to judge the sufficiency and explicitness of the warning letter. The right holder is not always obliged to fulfill the same duty of care at the time of sending the warning letter, and things get different where diverse warned parties and disputes are involved. The IP right holder has higher duty of care to customers, users, and importers, than to manufacturers, when a warning letter is sent out; the reason is manufacturers are different from users or sellers in terms of information awareness and the stake when facing the infringement warning act. For instance, manufacturers as the source of infringement are the primary targets. The right holders sending the warning letter hope can cease infringement or settle down the dispute through negotiations. For sellers and importers of the product, they are very weak in judging whether the suspected infringement on patents occurs. They know little about the circumstances of infringement, and are strongly aware of the risk and readily apt to be affected by the infringement warning. They tend to choose to remove the alleged infringing products from shelves or even return them so as to stop the warned acts and refuse to trade the products of the manufacturers avoiding their potential consequences brought by the warning letter.

Finally, the SPC states that the warning letter shall not be abused or impair the legitimate rights and interests of competitors. Such measures are taken not purely for safeguarding patents, but also for frustrating competitors and winning trading partners or opportunities, because an infringement warning can stop or even pre-emptively prevent infringement, without seeking public remedies for a lodged infringement lawsuit. The act of warning the users and sellers may directly give rise to the impossibility of sales on the part of manufacturers.

Another thing is the cause of action in this dispute. The cause of action is the declaration of non-infringement in the first instance. Because damages and declaration of non-infringement are two different litigation

pledges they shall be examined under different substantive laws. Infringement is judged in the light of relevant provisions of the Patent Law, whereas damages are examined in the light of relevant provision of the Anti-unfair Competition Law as the impairment consequences resulting from unfair competition acts. SPC based on the ascertained facts, in view of the first instant court that has actually conducted trials concerning declaration of non-infringement and damages and has guaranteed the right of both parties concerned in the procedure, as the first instant process has taken 12 years, if the case is remanded for the procedural flaw, it is not conducive to effective settle the dispute in a timely manner. Based on above factors, the SPC took a prudent step alteration of the cause of action as declaration of non-infringement and a damage dispute in the second instance.

Conclusion

Chinese IP system has been in continuous reform, providing more opportunities for technology transfer and licensing for domestic companies and foreign companies doing business in China. The Chinese economy has become an important part of the world economy. China has also become an important member of the international trade. China cannot develop in isolation from the rest of the world, nor can the world enjoy prosperity and stability without China. China will, as it always does, endeavor to build, together with other countries, a harmonious world of enduring peace and common prosperity. ■

Available at Social Science Research Network (SSRN): *https://ssrn.com/abstract=2901465*

Effective Royalty Rates In Biopharma Alliances: What They Are & Why Use Them In Negotiations

By Mark G. Edwards

I. Introduction

As a licensing professional in the biopharma industry for the past three decades, I'd argue that there is no component of a biopharma contract that is more heavily relied upon, and less rigorously analyzed, than the royalty rate.

Conceptually, a royalty is a series of payments based on a percentage of product sales, paid by a commercialization party to a product (or program) originator, wherein the royalty rate is intended to reflect the value of intellectual property and tangible research property that is (i) contributed by the originator and/or (ii) accumulated by the originator over a period of financial or other support by the commercialization partner.

Serious analysis of royalty rates in the biopharma sector is difficult for several reasons. First, a royalty is likely only one component of total consideration to the originator. Other components typically consist of upfront and/or annual fees, ongoing R&D reimbursement, development and regulatory milestones, deal expansion milestones (*e.g.* additional products or indications), and sales threshold milestones. Some agreements may additionally provide for an equity investment, profit splits in one or more regions, or payments in connection with product supply by the originator. Non-financial consideration may include limitations on fields of use or geographic markets, or cooperative assistance with respect to co-development or co-promotion.

Secondly, while most of the financial components listed above are readily (or eventually) disclosed by one or both parties to a biopharma alliance, royalty rates are typically withheld from public disclosure, or characterized in the most general of terms (*e.g.* "high single-digit to low double-digit royalties").

Thirdly, aside from some early stage or settlement agreements, most biopharma alliances utilize tiered royalties, such that the actual royalty payment owed for a payment period is a function of the annual product sales during that period, multiplied by the negotiated royalty rate for each tier of sales achieved. This means there isn't a single royalty rate, but rather 2-6 different rates, each associated with a specific range of product sales.

Fortunately, however, there is an approach that overcomes all three of these difficulties—the use of effective royalty rates (EFRs) in conjunction with analysis of unredacted biopharma agreements.

The concept of EFR entails the application of an agreement's specific royalty rate provision to three assumed annual sales levels, namely $200M, $500M and $1 billion. As shown in Table 1 below, consider a license that calls for an 8 percent royalty on the first $100M in annual sales, then a 10 percent royalty tier for sales between $100-500M, followed by a 15 percent royalty for sales between $500M and $1B, plus a 20 percent royalty on sales greater than $1B per year. Such royalty terms might be characterized as "8-20 percent" or perhaps as "maximum 20 percent royalty." However, by applying the specific royalty provision to the three assumed sales levels, one obtains a 9.0 percent EFR for $200M, 9.6 percent EFR for $500M and 12.3 percent EFR for $1B in assumed annual sales. For several of the analyses below, I'll track the EFR for $500M, though it's readily available at all three levels.

Using the BioSci deal database, *BioSciDB.com*, I assembled approximately 1,350 unredacted biopharma agreements commenced over the past three decades that contain one or more royalty rates expressed as a percentage of licensed product sales. Since most of these agreements were obtained via Freedom of Information Act (FOIA) requests, approximately 60 percent

Table 1. Effective Royalty Rates Are A Better Measure Of Sales Compensation Than Use Of Maximum Royalty

- **When evaluating comparable transactions, use effective royalty rate ("Efr") as the basis of comparison, rather than the maximum royalty Payable to the licensor.**
- **For example, if a license calls for 8% royalty on the first $100M in annual sales, then 10% to $500M, 15% on sales from $500M to $1 Billion per year, and 20% on sales greater than $1B/yr, the EFRs would be as follows:**

If $200M in Sales:	If $500M in Sales:	If $1B in Sales:
$8M on $100M	$8M on $100M	$8M on $100M
$10M on $100M	$40M on $400M	$40M on $400M
$18M = 9.0% EFR	$48M = 9.6% EFR	$75M on $500M
		$123M = 12.3% EFR

of the overall dataset consists of deals signed between January 1997 and December 2006, with the balance of the dataset fairly evenly divided between earlier (1987-96) and more recent (2007-16) cohorts.

For each of these unredacted agreements, BioSci's analysts have tagged the contract's actual royalty rate provision(s), along with any profit split or supply-related sales compensation provision. Other components of financial consideration are also noted and aggregated into "Deal Size" in several of the tables below. Most importantly, the tagged royalty and other sales compensation provisions, along with each component of additional financial consideration, are available for inspection by LES members on a deal-by-deal basis on the LESI website *https://tinyurl.com/hngcdnf*.

There are several notable findings of this study. First, biopharma EFRs range from 3-17+ percent, and increase on the basis of (i) corporate versus university licensor, (ii) exclusive versus nonexclusive license, and (ii) stage of development at signing. Secondly, as compared to worldwide alliances, preclinical and Phase I/II regional deals have higher EFRs but lower other financial consideration. Thirdly, although 18 Top Pharma outspent other licensee categories (*i.e.* Mid Tier Pharma, Japanese & 14 Major Biotechs), these other licensees paid higher EFRs for clinical stage deals. Fourthly, for biopharma alliances signed since 2007, average EFRs declined by 2-3 percent as compared to 1997-06 deals for compound deals involving worldwide rights. Finally, as compared to biopharma alliances signed from 1987-96, corporate preclinical deals signed since 2007 have 4-5 percent lower EFRs, while Phase III deals are 3 percent higher.

The remainder of this paper is divided into the following sections: Section II describes the methodology used in the selection, coding and analysis of biopharma alliances in the dataset; Section III discusses findings for the 60 percent cohort of deals signed from 1997-2006; Section IV discusses findings for the 20 percent cohort of deals signed from 2007-16; Section V discusses findings for the 20 percent cohort of deals signed from 1987-96; and Section VI presents conclusions and suggestions for additional research.

II. Methodology

All of the agreements used in this study were obtained from the BioSci deal database (*BiosciDB.com*). BiosciDB tracks biopharma alliances and acquisitions from the early 1980s to the present. The deal database currently consists of approximately 19,000 SEC-filed contracts and amendments, of which 7,000 are redacted and 12,000 are available on an unredacted basis.

For this study, I searched for deals signed since January 1987 which are coded by BioSci's analysts as having an EFR @ $200M sales of at least 0.5 percent. This selection criterion eliminated acquisition, supply and co-promotion agreements, as well as most distribution, joint venture and asset purchase agreements, since such deals generally don't utilize royalty-based sales compensation.

Selection on the basis of coded EFRs also effectively eliminated redacted deals, as royalty rates are the most commonly redacted deal terms. Consequently, the vast majority of deals in the dataset are FOIA-released unredacted contracts, although some SEC-filed contracts are included that were unredacted when initially filed. The selection cutoff date was mid-December 2016. 1,359 biopharma alliances are included in the dataset on this basis.

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Chart 1 shows six key elements that are useful in evaluating net sales compensation in biopharma alliances. Starting at the top and proceeding clockwise, it is important to distinguish deals wherein the product (or program) originator is a corporation versus a university or other research institution. Corporate licensors are profit-driven, whereas research institutions have multiple licensing objectives, including discharging Bayh Dole obligations. Similarly, it is important to distinguish exclusive from non-exclusive licenses, as well as worldwide versus regional deals. Stage of Develop-

Chart 1. What Are The Key Elements In Evaluating Net Sales Compensation In Biopharma Alliances?

ment at signing is an important basis for analysis, as deals signed at more advanced stages of development pre-suppose greater investment pre-signing, as well as a lower expected expenditure (and risk of failure) to commercialization. Deals having profit split or supply-based (so-called "transfer price") sales components are important to note, since these components may increase the total sales compensation above the EFR rate. Finally, deals wherein the originator has co-development funding obligations and/or co-promotion rights may also impact sales compensation, although these aspects are beyond the scope of this study.

III. EFR Analysis of 1997-2006 Deals

Chart 2 shows the average EFRs for 820 biopharma alliances signed between January 1997 and December 2006. 20 percent (163) of the deals in this cohort involve universities or other research institutions (including the NIH) as licensor. Average EFRs for these university deals are 3-4 percent, and only increase slightly based on exclusivity or higher assumed sales levels. By contrast, 80 percent (657) of the deals in this cohort involve corporate licensors. Approximately 10 percent (60) of the corporate deals are nonexclusive, and these have EFRs of 4.7-5 percent, increasing with higher assumed sales levels. 90 percent (596) of the corporate deals are exclusive, with EFRs approximately double the nonexclusive rates.

For the subset of 97-06 exclusive corporate deals involving compounds in preclinical or more advanced development at signing, Chart 2 shows that EFRs increase by approximately 1.5 percent from preclinical to Phase I/II stage deals, and again by about 5 percent from Phase I/II to Phase III. In each subset, "Max Share" refers to the impact of profit split or supply-based sales compensation on average EFRs due to deals with these elements.

Table 2 displays average and median EFRs, Max Share and Deal Size for 97-06 worldwide and regional corporate deals by development stage at signing. As might be expected, EFRs increase, on both an average and median basis, by stage at time of signing for worldwide and regional deals, as does Deal Size. Regional deals have lower non-royalty financial consideration

Chart 2. For Biopharma Alliances From 1997-2006, Average EFRs Vary From 3% To 17+%

For 820 Biopharma Alliances signed between 1997 and 2006, EFRs increased on the basis of (i) Corporate vs. University licensor, (ii) Exclusive* vs. Nonexclusive license & (iii) Clinical stage at signing.

		EFR $200M	EFR $500M	EFR $1B	Max Share
By Stage (Corp & Excl)	• Phase III (N=72)	15.83	16.91	17.68	26.76
	• Phase I/II (N=124)	11.03	11.67	12.31	17.65
	• Preclinical (N=87)	9.52	9.92	10.56	14.96
Corporate	• All (N=657)	8.97	9.45	9.94	14.36
	• Exclusive (N=596)	9.41	9.92	10.45	15.31
	• Nonexclusive (N=60)	4.71	4.91	5.02	5.01
University	• All (N=163)	3.59	3.64	3.69	3.87
	• Exclusive (N=146)	3.56	3.62	3.67	3.87
	• Nonexclusive (N=12)	3.41	3.42	3.43	3.45

* Corporate exclusive licenses include 25 semi-exclusive deals for data aggregation purposes.

Table 2. 1997-06 Regional Deals Have Higher EFRs But Lower Deal Size Than Worldwide Corporate Deals

	EFR $200M	EFR $500M	EFR $1B	Max Share	Deal Size $M
Discovery WW (N=142)	5.58 Average 5.00 Median	5.90 Average 5.30 Median	6.38 Average 6.00 Median	11.13 Average 7.13 Median	$60.6M Average $28.2M Median
Lead Stage WW (N=49)	6.32 Average 6.00 Median	6.73 Average 6.60 Median	7.33 Average 7.13 Median	10.15 Average 9.10 Median	$75.9M Average $33.5M Median
Preclinical WW (N=63)	9.10 Average 8.00 Median	9.50 Average 9.40 Median	10.25 Average 9.70 Median	14.66 Average 11.00 Median	$80.6M Average $44.7M Median
Regional (N=24)	10.61 Average 10.00 Median	11.01 Average 10.00 Median	11.37 Average 10.00 Median	15.73 Average 12.75 Median	$27.0M Average $16.4M Median
Phase I/II WW (N=76)	10.83 Average 10.00 Median	11.55 Average 11.10 Median	12.25 Average 11.78 Median	17.77 Average 15.00 Median	$140.1M Average $70.8M Median
Regional (N=48)	11.35 Average 11.00 Median	11.87 Average 11.30 Median	12.42 Average 11.55 Median	17.46 Average 15.00 Median	$62.3M Average $25.0M Median
Phase III WW (N=26)	16.43 Average 15.00 Median	17.75 Average 15.00 Median	18.50 Average 16.10 Median	27.88 Average 25.00 Median	$199.4M Average $100.0M Median
Regional (N=46)	15.50 Average 15.00 Median	16.43 Average 15.00 Median	17.21 Average 15.50 Median	26.13 Average 20.75 Median	$139.1M Average $47.5M Median

than worldwide deals, which is unsurprising, but higher EFRs for preclinical and Phase I/II stages, which is unexpected.

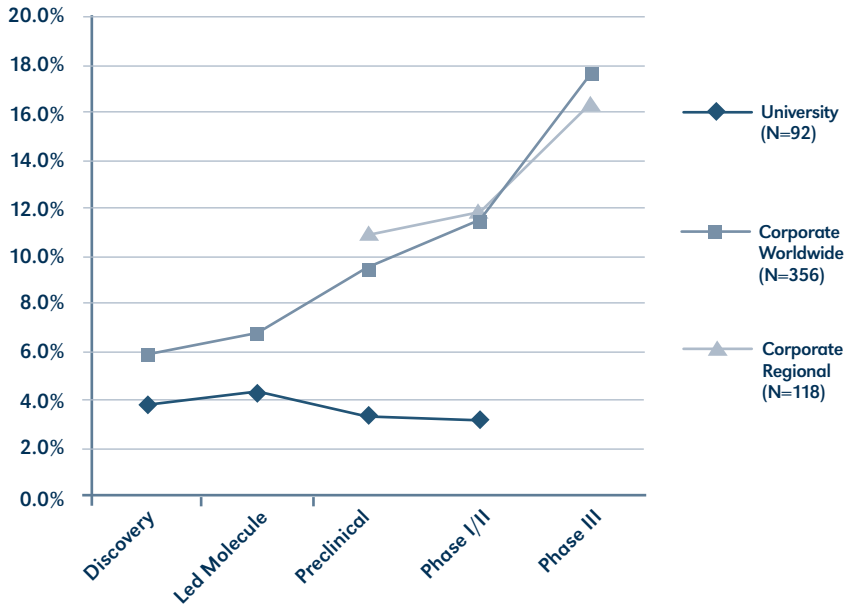
Chart 3 graphs average EFRs at assumed sales of $500M for 97-06 corporate worldwide and regional deals, as well as for university deals, by development stage at signing. Worldwide corporate deals show gains to EFR with each advance in stage at signing, with the biggest gain associated with deals commenced at Phase III. Regional corporate deals have higher EFRs than worldwide deals at preclinical and Phase I/II stages, but lower EFRs at Phase III (there are insufficient regional corporate deals at the discovery or lead stages to analyze). University deals, by contrast, show no gains to EFR associated with commencement at more advanced stages of development.

Finally with respect to the 97-06 cohort, Chart 4 shows that the average and median Deal Size for biopharma alliances involving 18 Top Pharma licensees is significantly higher than for other categories of commercialization partners, but that these other licensees agreed to higher EFRs for clinical stage deals.

IV. EFR Analysis of 2007-2016 Deals

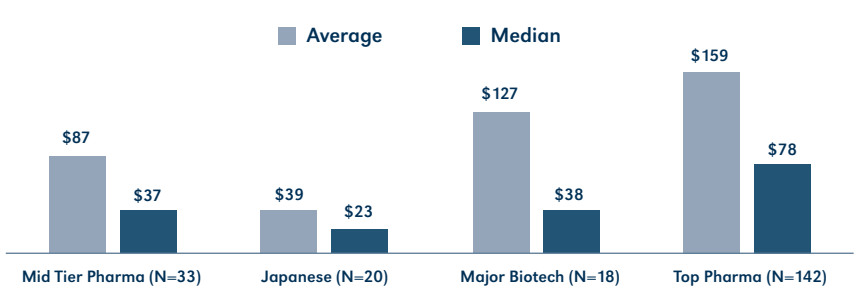
Chart 5 shows the average EFRs for 276 biopharma alliances signed between January 2007 and mid-December 2016. 34 percent (94) of the deals in this cohort involve universities or other research institutions as licensor. Average EFRs for these university deals are 3-3.5 percent, and only increase slightly based on exclusivity or higher assumed sales levels. By contrast, 66 percent (182) of the deals in this cohort involve corporate licensors. Approximately 9 percent (17) of

Chart 3. 1997-06 Average EFRs By Stage Of Development, Type Of Licensor & Licensed Territory*



* Average Effective Royalty Rate (EFR) calculated for assumed annual sales of $500M/yr.

Chart 4. 1997-06 Top Pharma Spent More Cash For Compound Alliances,But Others Paid Higher EFRs For Late Stage Deals *



	Mid Tier Pharma (N=33)		Japanese (N=20)		Major Biotech (N=18)		Top Pharma (N=142)	
	Average	Median	Average	Median	Average	Median	Average	Median
Preclinical	10.7%	10.0%	10.0%	11.0%	10.6%	10.0%	10.8%	10.0%
Phase I/II	12.2%	13.0%	15.0%	14.0%	12.4%	12.6%	12.2%	11.6%
Phase III	19.1%	15.0%	20.8%	23.5%	19.6%	20.0%	17.0%	15.0%

* Average & Median Effective Royalty Rate (EFR) calculated for assumed annual sales of $500M/yr.

the corporate deals are nonexclusive, and these have EFRs of 4.2 percent, with little increase at higher assumed sales levels. 91 percent (165) of the corporate deals are exclusive, with EFRs approximately 2.5x the nonexclusive rates.

For the subset of 07-16 exclusive corporate deals involving compounds in preclinical or more advanced development at signing, Chart 5 shows that EFRs increase by approximately 3 percent from preclinical to Phase I/II stage deals, and again by about 6 percent from Phase I/II to Phase III.

Table 3 displays average EFRs, Max Share and Deal Size for 97-06 versus 07-16 worldwide and regional corporate deals by development stage at signing. Surprisingly, other than for discovery stage deals, EFRs for 07-16 worldwide corporate deals are lower than for similar deals from 97-06. Regional deals have roughly the same EFRs for both cohorts at Phase I/II, and are higher for 07-16 deals at Phase III stage at signing. Deal Size, however, is consistently higher for the 07-16 deal cohort across all stages of development, and for both worldwide and regional deals.

Chart 6 graphs average EFRs at assumed sales of $500M for 97-06 versus 07-16 corporate worldwide and regional deals by development stage at signing. Worldwide corporate deals in the most recent cohort show lower EFRs then deals signed in 97-06 for all but discovery stage. 07-16 regional corporate deals have similar EFRs to the 97-06 cohort for Phase I/II and III stage alliances (there are again insufficient regional corporate deals at the early stages to analyze).

Finally with respect to the 07-16 cohort, Chart 7 shows that the average and median Deal Size for 07-16 biopharma alliances involving each category of commercialization partner is significantly greater than for the 97-06 cohort, and the increase is 3-fold with respect to the 18 Top Pharma licensees. Unfortunately, there are insufficient deals in each category of commercialization partner to analyze EFR by stage at signing for the 07-16 cohort.

Chart 5. For Biopharma Alliances From 2007-2016, Average EFRs Declined 2-3% For Preclinical & Phase I/II Deals

For 276 Biopharma Alliances signed between 2007 and 2016, EFRs also increased on the basis of (i) Corporate vs. University licensor, (ii) Exclusive* vs. Nonexclusive license & (iii) Clinical stage at signing.

		EFR $200M	EFR $500M	EFR $1B	Max Share
By Stage (Corp & Excl)	• Phase III (N=18)	15.29	16.54	17.57	22.06
	• Phase I/II (N=44)	9.73	10.36	11.23	14.49
	• Preclinical (N=28)	6.54	7.14	7.75	11.87
Corporate	• All (N=182)	9.39	9.93	10.50	13.58
	• Exclusive (N=165)	9.93	10.52	11.15	14.48
	• Nonexclusive (N=17)	4.19	4.22	4.24	4.44
University	• All (N=94)	3.40	3.41	3.45	3.64
	• Exclusive (N=82)	3.47	3.48	3.52	3.75
	• Nonexclusive (N=10)	3.10	3.10	3.10	3.10

* Corporate exclusive licenses include 3 semi-exclusive deals for data aggregation purposes.

Table 3. 2007-16 Worldwide Deals Have Much Bigger Payments, But Lower EFRs As Compared To 1997-06 Corporate Deals

	EFR $200M	EFR $500M	EFR $1B	Max Share	Deal Size $M
Discovery (N=142)/(N=9)	5.58 Av 97-06 6.61 Av 07-16	5.90 Av 97-06 6.89 Av 07-16	6.38 Av 97-06 7.44 Av 07-16	11.13 Av 97-06 9.22 Av 07-16	$60.6M Av 97-06 $154.4M Av 07-16
Lead Stage (N=49)/(N=9)	6.32 Av 97-06 4.61 Av 07-16	6.73 Av 97-06 4.70 Av 07-16	7.33 Av 97-06 5.00 Av 07-16	10.15 Av 97-06 9.94 Av 07-16	$75.9M Av 97-06 $177.0M Av 07-16
Preclinical (N=63)/(N=26)	9.10 Av 97-06 6.21 Av 07-16	9.50 Av 97-06 6.79 Av 07-16	10.25 Av 97-06 7.41 Av 07-16	14.66 Av 97-06 11.82 Av 07-16	$80.6M Av 97-06 $202.0M Av 07-16
Phase I/II (N=76)/(N=32)	10.83 Av 97-06 9.31 Av 07-16	11.55 Av 97-06 9.72 Av 07-16	12.25 Av 97-06 10.50 Av 07-16	17.77 Av 97-06 13.87 Av 07-16	$140.1M Av 97-06 $269.1M Av 07-16
(N=48)/(N=12)	11.35 Av 97-06 10.83 Av 07-16	11.87 Av 97-06 12.05 Av 07-16	12.42 Av 97-06 13.18 Av 07-16	17.46 Av 97-06 16.08 Av 07-16	$62.3M Av 97-06 $194.3M Av 07-16
Phase III (N=26)/(N=8)	16.43 Av 97-06 13.45 Av 07-16	17.75 Av 97-06 14.44 Av 07-16	18.50 Av 97-06 15.15 Av 07-16	27.88 Av 97-06 22.00 Av 07-16	$199.4M Av 97-06 $457.8M Av 07-16
Regional (N=46)/(N=10)	5.50 Av 97-06 16.76 Av 07-16	16.43 Av 97-06 18.02 Av 07-16	17.21 Av 97-06 19.27 Av 07-16	26.13 Av 97-06 22.10 Av 07-16	$139.1M Av 97-06 $195.3M Av 07-16

V. EFR Analysis of 1987-1996 Deals

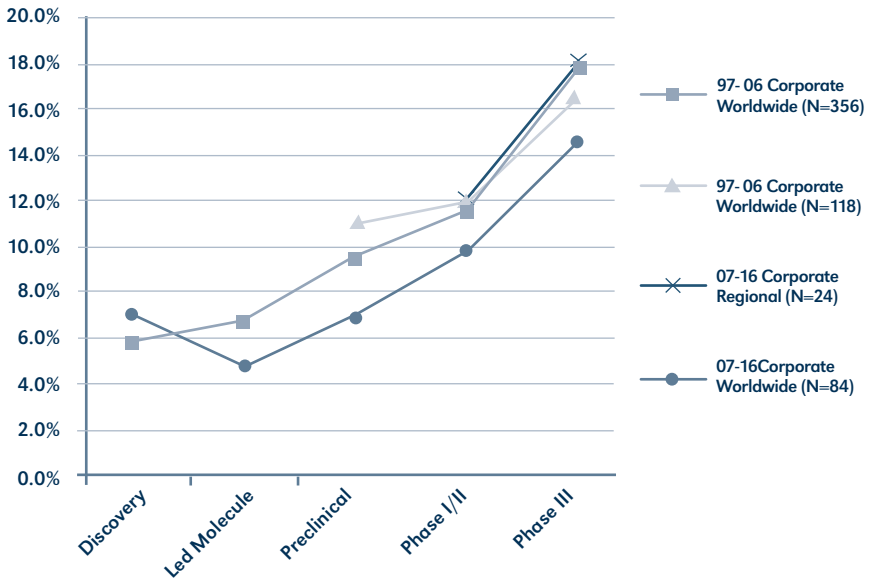
Chart 8 shows the average EFRs for 263 biopharma alliances signed between January 1987 and December 1996. 42 percent (110) of the deals in this cohort involve universities or other research institutions as licensor. Average EFRs for these university deals are 3.3-3.6 percent, and again only increase slightly based on exclusivity or higher assumed sales levels. By contrast, 58 percent (153) of the deals in

this cohort involve corporate licensors. Approximately 8 percent (12) of the corporate deals are nonexclusive, and these have EFRs of 5.5-5.7 percent, increasing slightly at higher assumed sales levels. 92 percent (141) of the corporate deals are exclusive, with EFRs approximately 4 percent higher than the nonexclusive rates.

For the subset of 87-96 exclusive corporate deals involving compounds in preclinical or more advanced development at signing, Chart 8 shows that EFRs increase only 2 percent from preclinical to Phase III. However, comparison of Charts 5 & 8 reveals that average EFRs for preclinical stage deals are approximately 4 percent higher for the 87-96 cohort as compared to the most recent deals of 07-16.

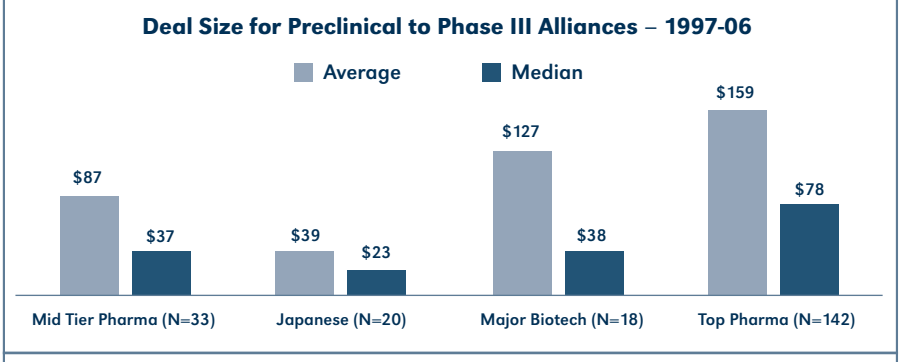
Finally, Chart 9 shows that the average and median Deal Size for 07-16 biopharma alliances has increased roughly 10-fold as compared to 87-96 deals for 18 Top Pharmas and 14 Major Biotechs, and 100-fold for Mid Tier and Japanese pharma. Again, there are insufficient deals in each category of commercialization partner to analyze EFR by stage at signing for the 87-96 cohort.

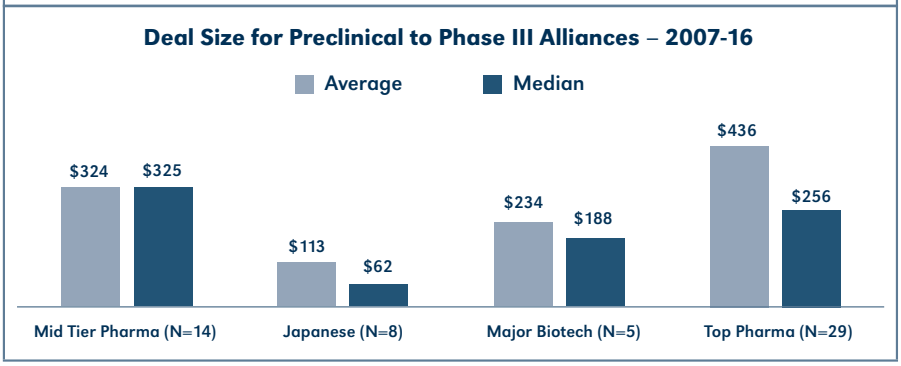
Chart 6. For Biopharma Alliances From 2007-2016, Average EFRs Declined 2-3% For All But Discovery & Regional Deals*



* Average Effective Royalty Rate (EFR) calculated for assumed annual sales of $500M/yr.

Chart 7. Top Pharma Spent 3x More Cash For Compound Alliances In 2007-16 & Other Licensees Spent More Also Vs. 1997-06





VI. Conclusion & Additional Research

As noted at the outset of this paper, royalty rates in biopharma alliances are a singularly important and frustratingly difficult element of total financial consideration to capture for benchmarking deal terms. Effective royalty rates (EFRs) provide an easily understood tool for rendering tiered royalty rates comparable across various deal structures without losing the specific financial implications of each deal's royalty provision. When combined with other components of total deal consideration, such as upfronts and milestones, obtained from unredacted agreements, EFRs become a cornerstone of reliable benchmarking for negotiation, transfer pricing and reasonable royalty determination purposes.

Admittedly, the royalty rate provisions of biopharma alliances are just the "base rates," and such rates are often subject to diminution on the basis of patent invalidity, generic entry, combination products and/or third party patent stacking. In addition, as noted earlier, an originator's co-development obligations and/or co-promotion entitlements may significantly impact total financial consideration when these elements are present. I look forward to addressing these and related issues in future studies. ■

Available at Social Science Research Network (SSRN): *https://ssrn.com/abstract=2904101*

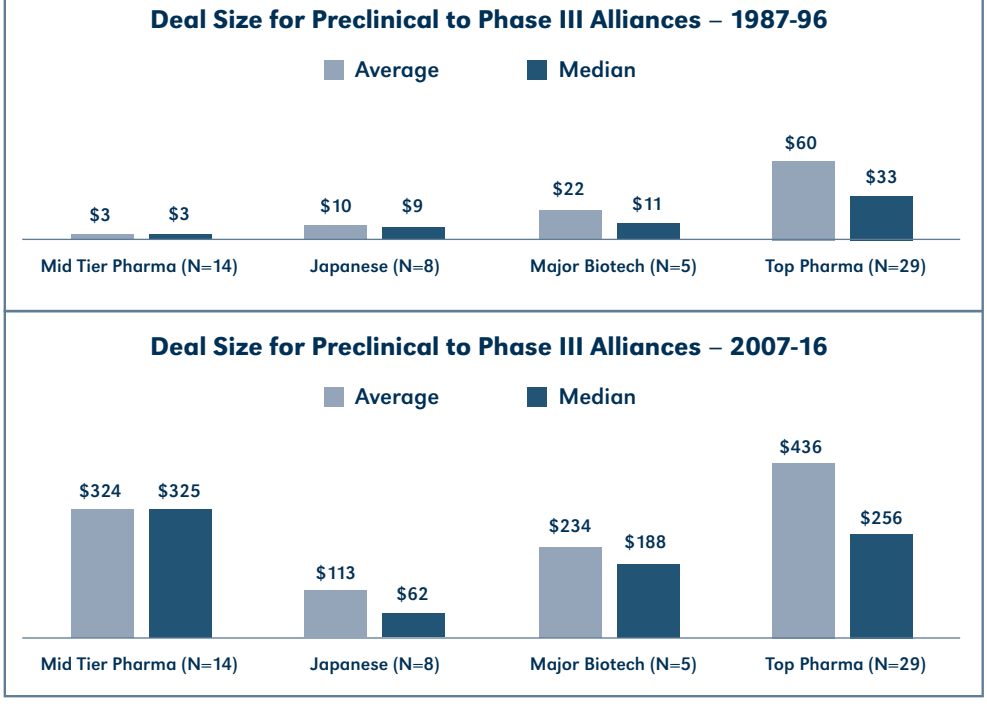
Chart 8. For Biopharma Alliances From 1987-1996, Average EFRs Ranged From 3 To 14%, With Small Gains For Later Stage Deals

For 276 Biopharma Alliances signed between 2007 and 2016, EFRs also increased on the basis of (i) Corporate vs. University licensor, (ii) Exclusive* vs. Nonexclusive license & (iii) Clinical stage at signing.

		EFR $200M	EFR $500M	EFR $1B	Max Share
By Stage (Corp & Excl)	• Phase III (N=14)	12.57	13.39	13.91	25.32
	• Phase I/II (N=14)	11.94	12.25	12.32	21.68
	• Preclinical (N=26)	10.69	11.58	12.03	15.35
Corporate	• All (N=153)	8.98	9.32	9.61	14.00
	• Exclusive (N=141)	9.27	9.63	9.94	14.71
	• Nonexclusive (N=12)	5.52	5.66	5.73	5.79
University	• All (N=110)	3.52	3.55	3.55	3.70
	• Exclusive (N=100)	3.55	3.57	3.57	3.73
	• Nonexclusive (N=10)	3.25	3.29	3.34	3.40

* Corporate exclusive licenses include 10 semi-exclusive deals for data aggregation purposes.

Chart 9. Lest We Forget ... Deal Payments Were MUCH Lower In The Early Days Of Biopharma Alliances



Unraveling The Conundrums Of Running Royalties In Cross-Border Patent License Agreements

By Mizuki Hashiguchi

Introduction

Adjacent to the glorious and delicate stained glass of Sainte-Chapelle stands the magnificent "Palace of Justice," currently housing the Court of Appeal of Paris.[1] The court encountered an enigma involving patent royalties and European competition law. A license agreement licensed three patents. One patent was subsequently revoked. The other two patents were later found not to be infringed by the licensee. Yet, the license agreement imposed an obligation on the licensee to pay running royalties throughout the contractual term. Is the imposition of this obligation permitted under Article 101 of the Treaty on the Functioning of the European Union?

The Court of Appeal of Paris referred this question to the Court of Justice of the European Union.[2] On July 7, 2016, the Court of Justice of the European Union issued a judgment answering the question in the affirmative.[3]

Analyzing the judgment in comparison with legal precedent in the United States evinces differing judicial approaches to interpreting license agreements and discerning the parties' commercial intent when royalty payments and patent monopoly are at issue. Similar cases in the United States, France, and Japan provide practical guidance concerning the licensees' obligation to pay royalties and whether licensees are entitled to a refund when the licensed patents are ultimately invalidated.

Genentech v. Hoechst: A Judgment by the Court of Justice of the European Union

License Agreement, Patents, and the Royalty Clause

On August 6, 1992, Behringwerke AG and Genentech executed a non-exclusive license agreement for a technology using a human cytomegalovirus enhancer.[4] The patents licensed under this agreement were (i) European Patent No. EP 0173 177 53,[5] (ii) United States Patent No. 5,849,522,[6] and (iii) United States Patent No. 6,218,140.[7] As consideration for the right to use the technology, the agreement set forth (i) a one-time fee of 20,000 Deutschmarks, (ii) a fixed annual fee of 20,000 Deutschmarks, and (iii) a running royalty equal to 0.5 percent of the net sales of "finished products" sold by Genentech, its affiliates, and sub-licensees.[8]

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Genentech allegedly used the licensed technology to market its pharmaceutical product Rituxan in the United States and the product MabThera in the European Union.[9] Genentech paid the one-time fee.[10] It also paid the fixed annual fee from 1992 to 2008.[11] However, it did not pay the running royalty.[12]

European Patent is Revoked, Arbitration Starts

In 1996, Behringwerke assigned its status as a patentee and licensor to Hoechst AG.[13] On January 12, 1999, the European Patent Office revoked European Patent No. EP 0173 177 53.[14] On June 30, 2008, Hoechst's subsidiary, Sanofi-Aventis Deutschland GmbH, inquired Genentech about the unpaid running royalty.[15]

The license agreement provided that "the licensee may terminate this agreement and the licenses

1. *See* Cour d'appel de Paris, Présentation de la Cour d'appel, *http://www.ca-paris.justice.fr/index.php?rubrique=10977*.

2. *See* Case C-567/14, *Genentech Inc. v. Hoechst GmbH*, ECLI:EU:C:2016:526, Opinion of Advocate General Wathelet *at paras*. 28-29 (Mar. 17, 2016). The original language of the case is French.

3. *See* C-567/14, *Genentech Inc. v. Hoechst GmbH*, ECLI:EU:C:2016:526, Judgment of the Court *at para*. 43.

4. *See id. at para*. 3.

5. *Id*.

6. *Sanofi-Aventis Deutschland GmbH v. Genentech, Inc.*, 716 F.3d 586, 588 (Fed. Cir. 2013).

7. *Id*.

8. *Id*. *at para*. 6; Sanofi-Aventis, 716 F.3d at 588-89.

9 Case C-567/14, Judgment of the Court *at para*. 4.

10. *Id*. *at para*. 8.

11. Sanofi-Aventis, 716 F.3d at 589.

12. Case C-567/14, Judgment of the Court *at para*. 8; Sanofi-Aventis, 716 F.3d at 589.

13. Case C-567/14, Judgment of the Court *at para*. 8; Sanofi-Aventis, 716 F.3d at 589.

14. Case C-567/14, Opinion of Advocate General Wathelet *at para*. 6.

15. Case C-567/14, Judgment of the Court *at para*. 9.

granted pursuant hereto by giving Behringwerke two (2) months' notice for that purpose, if the licensee decides to stop using the license rights conferred hereunder."[16] Pursuant to this clause, Genentech informed Sanofi-Aventis Deutschland on August 27, 2008, that Genentech will terminate the license agreement as of October 28, 2008.[17]

On October 24, 2008, Hoechst initiated arbitration against Genentech before the International Chamber of Commerce.[18] Hoechst asserted that Genentech used the licensed technology without paying the running royalties set forth in the license agreement.[19]

A Finding of Non-Infringement of the United States Patents

Three days later, Sanofi-Aventis Deutschland sued Genentech in the United States District Court for the Eastern District of Texas, alleging infringement of United States Patent Nos. 5,849,522 and 6,218,140.[20] On that same day, Genentech filed an action in the United States District Court for the Northern District of California, seeking a declaratory judgment of non-infringement and invalidity of the patents.[21]

The District Court for the Northern District of California consolidated these two cases.[22] The court found, on March 7, 2011, that Genentech did not infringe the patents.[23]

Arbitrator Awards Payment of Running Royalties

On September 5, 2012, the arbitrator determined that Genentech must pay the running royalty to Hoechst for the sales of Rituxan manufactured from the date that the United States Patent No. 5,849,522 was issued[24] up to the date on which the license agreement was terminated.[25]

Action for Annulment of the Arbitral Award

Articles 1518 and 1520 of the Code of Civil Procedure of France allow a party to bring an action for the annulment of an international arbitral award delivered in France if certain conditions are met.[26] On December 10, 2012, Genentech filed an action before the Court of Appeal of Paris, seeking annulment of the arbitrator's decision.[27]

The license agreement imposed an obligation on Genentech to pay running royalties when, in fact, one of the licensed patents was revoked and the other licensed patents were found not to be infringed. The Court of Appeal of Paris was uncertain whether such an agreement is permissible under Article 101 of the Treaty on the Functioning of the European Union.[28]

Question is Referred to the Court of Justice of the European Union

The European Union is based on the Treaty of the European Union and the Treaty on the Functioning of the European Union.[29] These treaties are considered to be the "primary law" of the European Union.[30] A court of a Member State of the European Union may refer a question to the Court of Justice to clarify an issue concerning the interpretation of European Union law.[31] In *Genentech v. Hoechst*, the Court of Appeal of Paris sought guidance from the Court of Justice of the European Union on the royalty provision's compatibility with Article 101.

The Court of Justice of the European Union interpreted the question as follows: When patents protecting the licensed technology are revoked or are not infringed, and the license agreement requires the licensee to pay royalties throughout the term of the license agreement, should Article 101, Section 1 of the Treaty on the Functioning of the European Union be construed as prohibiting the imposition of this payment obligation?[32]

Article 101 of the Treaty on the Functioning of the European Union prohibits certain anticompetitive agreements. In particular, Section 1 of Article 101 provides that:

> 1. The following shall be prohibited as incompatible with the internal market: all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect

16. *See* Case C-567/14, Opinion of Advocate General Wathelet at n. 4.

17. Case C-567/14, Judgment of the Court *at para*. 10.

18. *Id*. *at para*. 11; Sanofi-Aventis, 716 F.3d at 589.

19. Case C-567/14, Judgment of the Court *at para*. 11.

20. *Id*. *at para*. 12; Sanofi-Aventis, 716 F.3d at 589.

21. Case C-567/14, Judgment of the Court *at para*. 12; Sanofi-Aventis, 716 F.3d at 589.

22. *Id*. at 588.

23. *Id*.; *Sanofi-Aventis Deutschland GMBH v. Genentech, Inc.*, Nos. C 08–4909 SI, C 09–4919 SI, 2011 WL 839411, at *4-*7, *10-*11, *13-*14 (N.D. Cal. Mar. 7, 2011).

24. The United States Patent No. 5,849,522 was issued on December 15, 1998. The United States Patent No. 6,218,140 was issued on April 17, 2001.

25. Case C-567/14, Judgment of the Court *at para*. 14; Case C-567/14, Opinion of Advocate General Wathelet *at para*. 20.

27. Case C-567/14, Judgment of the Court *at para*. 15; Case C-567/14, Opinion of Advocate General Wathelet *at para*. 26.

28. Case C-567/14, Judgment of the Court *at para*. 18.

29. Dubowski, Tomasz. Constitutional Law Of The European Union 76 (Temida 2 2011).

30. *See Id*.

31. Court of Justice of the European Union, References for preliminary rulings, *http://curia.europa.eu/jcms/jcms/Jo2_7024/en/; JEFF KENNER, EUROPEAN UNION LEGISLATION 2011-2012 254* (Routledge 2012).

32. *See* Case C-567/14, Judgment of the Court *at para*. 35.

trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the internal market, and in particular those which:

(a) directly or indirectly fix purchase or selling prices or any other trading conditions;

(b) limit or control production, markets, technical development, or investment;

(c) share markets or sources of supply;

(d) apply dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;

(e) make the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.[33]

Genentech argued that the arbitrator's decision to require Genentech to pay royalties for selling products that do not infringe the licensed patents contravenes Article 101 because Genentech's competitors who are not bound to the license agreement need not pay these royalties, thereby placing Genentech at a competitive disadvantage.[34] Meanwhile, Hoechst argued that the link between the arbitral award of royalty payments and the trade between Member States of the European Union was tenuous.[35]

The Judgment by the Court of Justice of the European Union

The Court of Justice of the European Union applied its prior judgment in *Ottung*.[36] The Court in *Ottung* interpreted Article 85(1) of the Treaty Establishing the European Community,[37] which is the predecessor of Article 101(1) of the Treaty on the Functioning of the European Union. According to the *Ottung* judgment, if the licensee is free to terminate an exclusive license agreement by providing a reasonable notice, it is permissible under the Article to require the licensee to pay royalties throughout the term of the agreement, even after the licensed patents have expired.[38]

Based on *Ottung*, the Court concluded that the license agreement in *Genentech v. Hoechst* does not contravene Article 101(1). The Court stated that, even if the licensed patent has expired, and the patentee cannot enforce its patent rights against the licensee, royalty payments are due as long as two conditions are met.[39] First, the license agreement must still be in effect.[40] Second, the licensee must be capable of freely terminating the license agreement by giving a reasonable notice.[41] The Court observed that the royalty is a price that the licensee pays for commercially exploiting the licensed technology without any apprehension that the licensor will enforce its intellectual property rights against the licensee.[42]

Kimble v. Marvel: A Decision by the United States Supreme Court

The legality of a contractual provision for royalty payments was also at issue before the United States Supreme Court in *Kimble v. Marvel Entertainment, LLC,* 135 S.Ct. 2401 (2015). The Court concluded that compelling payments of royalties for use of the patented technology is unlawful *per se* if the use occurs after the expiration of the licensed patent. *"Per se"* means "in itself" or "inherently."[43]

The '856 Patent and the "Web Blaster"

Mr. Stephen Kimble obtained U.S. Patent No. 5,072,856 for a toy inspired by Spider-Man.[44] The toy is a glove that children can wear and pretend as if they are Spider-Men spinning spider webs from their palms.[45] The glove is designed to eject pressurized foam, which looks like spider webs.[46] Marvel Enter-

26. *Id*. *at paras*. 4-5; *See* C. CIV., art. 1518; C. CIV., art. 1520.

33. The Treaty on the Functioning of the European Union art. 101(1), May 9, 2008, 2008/C 115/01.

34. Case C-567/14, Judgment of the Court *at para*. 37.

35. Case C-567/14, Opinion of Advocate General Wathelet *at para*. 82.

36. *See* Case C-567/14, Opinion of Advocate General Wathelet *at para*. 89.

37. Case 320/87, *Ottung v. Klee & Weilbach A/S*, ECLI:EU:C:1989:195, Judgment of the Court *at para*. 1 (May 12, 1989).

38. *See* Case C-567/14, Judgment of the Court *at para*. 39 (citing Case 320/87, Judgment of the Court *at para*. 11); *See* also Case 320/87, Judgment of the Court *at para*. 13.

39. *See* Case C-567/14, Judgment of the Court *at para*. 40, "Aussi longtemps que le contrat de licence concerné demeure en vigueur et peut être librement résilié par le licencié, le paiement de la redevance est dû, et ce quand bien même les droits de propriété industrielle issus des brevets concédés à titre exclusif ne peuvent être mis en œuvre à l'encontre du licencié en raison de l'expiration de leur terme." ("As long as the licence agreement at issue is still valid and can be freely terminated by the licensee, the royalty payment is due, even if the industrial-property rights derived from patents which are granted exclusively cannot be used against the licensee due to the fact that the period of their validity has expired.")

40. *Id*.

41. *Id*. *at paras*. 40, 43.

42. *See* Case C-567/14, Judgment of the Court *at para*. 40, "…cette redevance constitue le prix à payer pour exploiter commercialement la technologie sous licence avec l'assurance que le concédant n'exercera pas ses droits de propriété industrielle." ("…that royalty is the price to be paid for commercial exploitation of the licensed technology with the guarantee that the licensor will not exercise its industrial-property rights.")

43. Legal Information Institute, *per se*, *https://www.law.cornell.edu/wex/per_se.*

44. *See Kimble v. Marvel Entm't, LLC,* 135 S.Ct. 2401, 2405 (2015).

45. *See* U.S. Patent No. 5,072,856 (filed May 25, 1990).

46. *See Id*.

tainment manufactured a similar toy called "Web Blaster," also inspired by Spider-Man.[47]

Agreement on Royalty for "Future Sales"

After Mr. Kimble sued Marvel Entertainment, the parties entered into a settlement agreement.[48] The agreement provided that Marvel Entertainment would pay Mr. Kimble a three percent royalty on its future sales of "Web Blaster" and other analogous products.[49]

Post-Expiration Royalties and the Precedent of Brulotte

Marvel Entertainment sought a declaratory judgment that it will not need to pay the royalty once U.S. Patent No. 5,072,856 expires.[50] The district court granted the request by following *Brulotte v. Thys Co.*, 379 U.S. 29 (1969).[51] *Brulotte* held that agreements requiring payments of royalties accruing after all the licensed patents have expired are "unlawful *per se*" under the patent laws.[52] The district court's declaratory judgment in *Kimble v. Marvel* was affirmed by the United States Court of Appeals for the Ninth Circuit, but with reluctance.[53] The Court of Appeals opined that *Brulotte's* decision is "counterintuitive." [54]

The Decision by the Supreme Court of the United States

The Supreme Court of the United States decided whether or not it should overrule Brulotte. The Supreme Court applied the principle of *stare decisis. Stare decisis* means that a court will adhere to authoritative precedent concerning the same issue.[55] The Supreme Court in *Kimble v. Marvel* stated that, "[a]s against this superpowered form of *stare decisis*, we would need a superspecial justification to warrant reversing *Brulotte.*"[56]

The Supreme Court concluded that there is no sufficient justification for overruling *Brulotte*.[57] Although *Brulotte* was decided 52 years ago, the Supreme Court explained that "the core feature of the patent laws on which *Brulotte* relied remains just the same."[58] Once a patent expires, the invention protected by that patent passes to the public domain.[59] Anyone is free to exploit the invention after the patent expires.[60] Therefore, "[a]ny attempt to limit a licensee's post-expiration use of the invention"[61] "runs counter to the policy and purpose of the patent laws."[62] Hence, under *Kimble v. Marvel,* a provision in a license agreement that requires the licensee to pay royalties for using the invention after the patent has expired is unenforceable.[63]

Comparative Analysis of European and United States Judicial Decisions involving Running Royalty Obligations under License Agreements

Adherence to precedent played a decisive role in both *Genentech v. Hoechst* and *Kimble v. Marvel*. The Court of Justice of the European Union reached its judgment by applying its prior judgment in *Ottung*. Similarly, the Supreme Court of the United States rendered its decision by following its precedent in *Brulotte*. Nonetheless, the judgment by the Court of Justice of the European Union differs from the decision by the Supreme Court of the United States in multiple respects.

(1) Expiration, Invalidation, and Non-Infringement

First, in *Kimble v. Marvel*, the United States Supreme Court examined royalties for sales made after the patent had expired. Meanwhile, the licensed patents in *Genentech v. Hoechst* did not exactly expire. One of the licensed patents was revoked, and the others were held not to be infringed. The decision of non-invalidity was affirmed on appeal.

Despite this distinction, the propriety of imposing patent-based royalties on licensees becomes an issue in each of these circumstances because the licensed patent no longer endows the licensor with the authority to limit the licensee's use of the licensed technology.[64]

(2) The Public is Free to Use the Invention Once the Patent Expires

Second, the principle that a patented invention enters the public domain upon the patent's expira-

47. *Kimble*, 135 S.Ct. at 2406.

48. *Id*.

49. *Id*.

50. *Id*.

51. *Id*.

52. *Id*. at 2407.

53. *Id*. at 2406.

54. *Kimble v. Marvel Entm't*, 727 F.3d 856, 857 (9th Cir. 2013).

55. *See* Trevor W. Morrison, Stare Decisis in the Office of Legal Counsel, 110 COLUM. L. REV. 1488, 1499 (2010); Martin Shapiro, Toward a Theory of Stare Decisis, 1 J. LEGAL STUD. 125 (1972); Jack Knight & Lee Epstein, The Norm of Stare Decisis, 40 AM. J. POL. SCI. 1018, (1996).

56. *Kimble*, 135 S.Ct. at 2410.

57. *Id*.

58. *Id*.

59. *Kimble*, 135 S.Ct. at 2408.

60. *Id*.

61. *Kimble*, 135 S.Ct. at 2407.

62. *Kimble*, 135 S.Ct. at 2407 (quoting *Brulotte v. Thys Co.*, 379 U.S. 29, 31 (1969) (quoting *Scott Paper Co. v. Marcalus Mfg. Co.*, 326 U.S. 249, 256 (1945))).

63. *Kimble*, 135 S.Ct. at 2407, 2411.

64. This may explain why the Court of Justice of the European Union applied Ottung in *Genentech v. Hoechst*. Unlike the patents in *Genentech v. Hoechst*, the patents in Ottung had expired, and post-expiration royalties were at issue. Case 320/87, Report for the Hearing, *Ottung v. Weilbach A/S*, 1989 E.C.R. 1177 at 1179.

tion was at the core of the United States Supreme Court's decision in *Kimble v. Marvel*. The Court emphasized that "when the patent expires, the patentee's prerogatives expire too."[65]

The licensee in *Ottung* made the same argument before the European Court of Justice. The licensee asserted that "Mr. Ottung's right to the royalty ceased upon the expiry of the patents, the factual and legal basis for the payment of royalties."[66] However, this argument was not discussed in the judgment of the Court of Justice of the European Union in *Ottung*.

(3) Issue in *Genentech v. Hoechst* was Limited to the Compliance with Article 101

Third, the issue before the Court of Justice of the European Union in *Genentech v. Hoechst* was confined to whether Article 101 of the Treaty on the Functioning of the European Union precludes the royalty clause at issue.

On the contrary, the United States Supreme Court's analysis in *Kimble v. Marvel* was not limited to any particular statutory provision. It determined that the royalty clause at issue was unlawful *per se*.

(4) Determining the Parties' Commercial Intent

Fourth, the Court of Justice of the European Union in *Ottung* made a finding on why the parties added a clause to their license agreement requiring the licensee to pay royalties. The judgment in *Ottung* stated that:

The possibility cannot be ruled out that the reason for the inclusion in a licensing agreement of a clause imposing an obligation to pay royalty may be unconnected with a patent. Such a clause may instead reflect a commercial assessment of the value to be attributed to the possibilities of exploitation granted by the licensing agreement.[67]

The United States Supreme Court's decision in *Kimble v. Marvel* was devoid of any conjecture about the parties' purpose for establishing the obligation for paying running royalties.

This dissimilarity may be explained by the fact that German law governed the license agreement between Genentech and Hoechst. According to the arbitrator in *Genentech v. Hoechst*, under German law, license agreements are interpreted not only based on the literal provisions set forth in the agreement, but also based on their origin, context, and commercial purpose.[68]

(5) Interpreting the Definitions Set Forth in License Agreements

Fifth, there is a difference in the weight given to literal interpretations of contractual clauses. In general, courts in the United States place greater emphasis on the literal terms of a license agreement. Comparing a United States court's decision in *Miotox v. Allergan*[69] with the European Court of Justice's judgment in *Genentech v. Hoechst* shows a clear distinction. Both involved an interpretation of definitions provided in the license agreement.

Miotox v. Allergan involved an invention for treating migraine headaches with Botox products. The parties agreed that the licensee would pay royalties on "Net Sales" defined as "[t]he actual selling price of Licensed Product sold by [the licensee]. …"[70] The license agreement defined "Licensed Product" as "[a]ny medical product containing Botulinum Toxin or other toxin made, used, or sold by [licensee] … whose use is covered by a Valid Patent Claim."[71] Nonetheless, the licensor sought payment of royalties on all Botox products regardless of whether it is covered by a valid patent claim.[72] The licensee refused, asserting that the definitions tied royalty payments to a valid patent claim.[73] The United States District Court for the Central District of California found that the licensee's position is "clearly supported by the explicit language of the License Agreement."[74]

The license agreement in *Genentech v. Hoechst* contained analogous definitions. Article 3.1 of the agreement provided that the running royalty was to be paid for the net sales of "finished products." The agreement defined "finished products" as "commercially marketable goods incorporating a licensed product…"[75] "Licensed products" were defined in the agreement as "the materials (including organisms), the manufacture, use or sale of which would, in the absence of the present agreement, infringe one or more unexpired claims [of] the licensed patents."[76]

Genentech argued during arbitration that it did not need to pay running royalties because the contractual terms provided that the royalties are

65. *Kimble*, 135 S.Ct. at 2407.

66. Case 320/87, Report for the Hearing at 1179.

67. Case 320/87, Judgment of the Court *at para*. 11.

68. Case C-567/14, Opinion of Advocate General Wathelet at n. 11.

69. *Miotox LLC v. Allergan, Inc.*, No. 2:14-cv-08723-ODW(PJWx) (C.D. Cal. Oct. 5, 2015).

70. *Id*.

71. *Id*.

72. *Id*.

73. *Id*.

74. *Id*.

75. Case C-567/14, Judgment of the Court *at para*. 7.

76. *Id*.

due if Genentech's products infringe an unexpired patent claim.[77] Unlike *Miotox v. Allergan*, the arbitrator in *Genentech v. Hoechst* rejected this argument as being a "literal interpretation" of the license agreement.[78]

(6) Licensee's Ability to Terminate the License Agreement

Sixth, the Court of Justice of the European Union in *Genentech v. Hoechst* emphasized that a licensee must be able to terminate the license agreement in order for the royalty obligations to comply with Article 101 of the Treaty on the Functioning of the European Union. The reasoning underlying this judgment is that, as long as the licensee can terminate the license agreement, the expiration of the licensed patent would not place the licensee at a competitive disadvantage in the market[79] because terminating the license agreement would relieve the licensee of the obligation to pay running royalties.

In contrast, the United States Supreme Court in *Kimble v. Marvel* did not consider the licensee's ability to terminate the license agreement because it did not regard the issue of post-expiration royalty obligation as an antitrust issue.[80]

Whether Licensees are Entitled to Refunds of Royalty Payments

An issue concerning royalty obligations and the timing of terminating a license agreement is whether royalty payments may be refunded to the licensee. When a court or a tribunal declares that a licensed patent is invalid or that the licensee does not infringe the patent, the licensee might have already paid running royalties up to the termination of the agreement even though, in retrospect, the patent was invalid or not infringed. If so, are licensees entitled to a refund of the royalties? The answer varies among jurisdictions, for example, the United States, France, and Japan.

United States:

Royalties Paid Before Challenging Patent Validity Cannot be Refunded

In the United States, a licensee is responsible for paying royalties under a license agreement up until the date on which the licensee first challenges the validity of the licensed patent.[81] Federal courts in the United States have held that a subsequent invalidation of the licensed patent does not allow the licensees to recover royalties that they previously paid, unless the patent was procured by fraud.[82]

In *St. Regis Paper Co. v. Royal Industries,* 552 F.2d 309 (2d Cir. 1977), Mr. Gerald Bower obtained U.S. Patent No. 2,767,113 for a plastic strip that could be used to bundle fresh vegetables.[83] Mr. Bower assigned his patent rights to Royal Industries.[84] The plastic strip was also suitable for packaging bakery products.[85] St. Regis Paper Co., a company supplying wrapping paper to the bakery industry, sought to manufacture and sell the plastic strips.[86]

On May 1, 1963, Royal Industries and St. Regis Paper Co. entered into a license agreement.[87] The agreement required St. Regis Paper Co., the licensee, to pay royalties equal to 10 percent of its sales.[88] The licensee paid royalties from 1963 to 1967.[89] However, the licensee found evidence suggesting that U.S. Patent No. 2,767,113 was invalid.[90] The licensee stopped paying royalties after July 19, 1967.[91] On April 24, 1968, the licensee filed a lawsuit, seeking a declaration that the licensed patent is invalid. The licensee also sought recovery of the royalties that it had paid.[92]

The United States Court of Appeals for the Ninth Circuit held that the licensed patent is invalid for obviousness.[93] Yet, the Court of Appeals held that the licensee is not entitled to a refund of the royalties that it paid before challenging the validity of the licensed patent.[94] The Court of Appeals' concerns were based on the policies of federal patent law:

77. C-567/14, Judgment of the Court *at para*. 32.

78. *Id*.

79. *See* Case C-567/14, Judgment of the Court *at para*. 40 "En effet, des circonstances de cette nature, en particulier celle selon laquelle le contrat de licence peut être librement résilié par le licencié, permettent d'exclure que le paiement d'une redevance porte atteinte à la concurrence en restreignant la liberté d'action du licencié ou en entraînant des effets de verrouillage du marché." ("In the light of such circumstances, in particular the fact that the licence may be freely terminated by the licensee, the contention may be rejected that the payment of a royalty undermines competition by restricting the freedom of action of the licensee or by causing market foreclosure effects.")

80. *See* Kimble, 135 S.Ct. at 2413.

81. *Esoterix Genetic Labs. LLC v. Qiagen Inc.*, 133 F.Supp.3d 349, 361 (D. Mass. 2015) (citing *Studiengesellschaft Kohle, M.B.H. v. Shell Oil Co.*, 112 F.3d 1561, 1567-68 (Fed.Cir.1997)). *See* also *Go Medical Indus. v. Inmed Corp.*, 471 F.3d 1264, 1273 (2006).

82. *See*, *e.g., St. Regis Paper Co. v. Royal Indus.*, 552 F.2d 309, 314 (2d Cir. 1977); *Troxel Mfg. Co. v. Schwinn Bicycle Co.*, 465 F.2d 1253 (6th Cir.1972); *Transitron Elec. Corp. v. Hughes Aircraft Co.*, 649 F.2d 871 (1st Cir. 1981).

83. St. Regis Paper Co., 552 F.2d at 310.

84. *Id*.

85. *Id*.

86. *Id*.

87. *Id*.

88. *Id*. at 311.

89. *Id*.

90. *Id*.

91. *Id*.

92. *Id*.

93. *Id*. at 312.

94. *Id*. at 314.

The possibility of obtaining a refund of all royalties paid might induce a manufacturer to accept a license based on a patent of doubtful validity, derive the benefits of suppressed competition which the patent affords, and challenge validity only after the patent's expiration. The licensee would have a chance to regain all the royalties paid while having enjoyed the fruits of the license agreement.[95]

France:

Royalties Paid for Licensee's Privileges Cannot be Refunded

In France, the invalidation of a patent will invalidate a license that is based on the patent.[96] Despite the invalidation, royalties which were paid in consideration for the privileges enjoyed by the licensee will not be annulled retroactively.[97]

For example, in a case ultimately decided by *La Cour de Cassation of France*,[98] the owner of a patent for agricultural technology sued an equipment manufacturer for infringing claim 52 of the patent. A court of appeal in France found the defendant liable for patent infringement. The parties then entered into a settlement and licensing agreement on February 16, 1990. Under the agreement, the defendant was required to pay damages up to the date of the court's decision on infringement. Furthermore, to enable the defendant to manufacture the equipment in the future, the patentee granted a non-exclusive license to exploit the patent. Defendant agreed to pay royalties.

Approximately five years later, on January 24, 1995, an appeals court in France invalidated claim 52 of the patent for lack of inventiveness. The licensee demanded restitution of the payments made under the agreement.

On December 8, 1999, the Court of Appeal of Paris annulled the agreement of February 16, 1990, upheld the validity of the damages payments, and granted the licensee's request for restitution of the royalty payments made before the patent was held to be invalid. The parties appealed.

On January 28, 2003, *La Cour de Cassation* of France determined that it was proper to void the license agreement because Article L. 613-27 of the French Intellectual Property Code provides that the decision to invalidate a patent has an absolute effect. *La Cour de Cassation* also affirmed the Court of Appeal's decision that the payment of damages should remain undisturbed. The Court of Appeal's decision on the restitution of royalty payments, however, was overruled. *La Cour de Cassation* stated that the invalidation of the patent and the resulting annulment of the contract do not trigger the restitution of the royalties that the licensee paid for the privileges under the contract during the period before the court's judgment declaring the invalidity of the patent. Hence, the licensee was not able to obtain a refund of the royalties.

Japan:

Presence of Clauses on Royalty Refunds and Licensor's Assurance are Examined

In Japan, the expiration of a Japanese patent or its invalidation extinguishes the rights granted under a license agreement based on the patent.[99] The prevailing view is that when the licensee entered into the license agreement, it assumed the risk that a patent will be invalidated.[100] Japanese courts examine if the license agreement explicitly provided whether the licensee is entitled to a refund of royalty payments once the licensed patent is invalidated. Courts also query whether the licensor guaranteed the validity of the patent.

For instance, in a case[101] involving Japanese Utility Model No. 909305, the future licensee expressed misgivings about the validity of the utility model. In response the owner of the utility model said, "No problem. Don't worry. We won't cause you any hassle." The license agreement contained a clause stating that royalties paid by the licensee will not be refunded for any reason. The parties signed the agreement. The licensee paid royalties from October 1974 to June 1976. However, the utility model was invalidated on July 19, 1976, and the invalidation was affirmed on January 24, 1980.

The licensee demanded a refund of the royalty payments pursuant to Article 95 of the Civil Code of Japan. The licensee argued that there was a mistake in the signing of the contract because the licensee had assumed that the utility model would remain valid.

The District Court of Tokyo rejected this argument. The district court noted that the contractual language explicitly denied any entitlement to a refund of the royalties paid by the licensee. The district court also found that the licensee accepted these terms while recognizing a reasonable possibility that the utility model might

95. *Id*.

96. Laure Marino, Droit De La Propriété Intellectuelle 89 (Presses Universitaires de France 2013).

97. *See Id*. (citing Cass. com. 28 janv. 2003, n° 00-12149: Propr. industr. 2003, comm. 36, note J. Raynard).

98. Cass. com. Jan. 28, 2003, Bull. civ. IV N° 11, p. 12.

99. NOBUHIRO NAKAYAMA, TOKKYO-Hō 498, 508 (Kōbundō 2016) (1993).

100. *See*, *e.g., Nihon Sōgō Kikaku Kabushiki Gaisha v. M.F.I. Net (S) Pte Ltd.*, 2168 HANREI JIHŌ 74 (Tokyo D. Ct., July 18, 2012) (finding that there was no deception on the part of the patentee during the formation of a contract with the licensee when the licensed patent was later invalidated).

101. *Toyo Suisan Kabushiki Gaisha v. Nissin Food Products Co., Ltd.*, 1070 HANREI JIHŌ 94 (Tokyo D. Ct., Nov. 29, 1982).

be invalidated. The district court added that the licensor's oral assurance does not override the contractual agreement that royalties are not refundable.

Scholars in Japan are divided as to whether the licensee is entitled to a refund of the royalties when the contract is silent on the subject.[102] The decision of the District Court of Tokyo is viewed as a confirmation that Japanese courts will generally give effect to contractual clauses concerning the licensee's ability to obtain a refund of the royalties.[103]

Conclusion

Running royalties present multiple levels of intricacies. Principles of patent and antitrust laws are intertwined. Running royalties may be viewed as being premised on the validity of the licensed patents, while they can also be viewed as consideration for the licensee's rights, paid under the assumption that the patents might be invalidated. Case law from various jurisdictions provides clarity to issues involving running royalties. *Genentech v. Hoechst* indicates that running royalties are due under Article 101(1) of the Treaty on the Functioning of the European Union as long as the license agreement is effective and the licensee can terminate the agreement with reasonable notice. *Kimble v. Marvel* teaches that patent-related royalties cannot be charged for use occurring after the patent's expiration. These judgments provide a helpful guidance for future negotiations and the drafting of cross-border license agreements. ■

Available at Social Science Research Network (SSRN): *https://ssrn.com/abstract=2896187*

102. Kazuhiko Yoshida, 100 Kenri Mukō no Baai no Kibarai Jittshiryō Henkan no Yōhi (100 Whether Royalties Already Paid Must Be Refunded When Rights Are Invalidated), JURIST NO. 170 TOKKYO HANREI HYAKU SEN 206, 207 (Yūhikaku 3d Ed. 2004).

103. *Id.*

To What Extent Are University IP Policies Legally Binding?

Part 3: Visiting Scientists

By Philip Mendes

Introduction

In Part 1 of this paper (September 2016 issue of *les Nouvelles*) the extent to which a university IP policy was binding upon university staff was considered. In Part 2 (December 2016 issue of *les Nouvelles*), that question was considered in relation to students.

Part 3 concludes this series by considering the question of the extent to which a university IP policy is binding upon a visiting scientist, that is, a scientist employed by one university (the employer university) who visits and undertakes research at another university (the host university).

The IP policies of universities and research organizations (for brevity, the term "university" is employed, and refers not just to a university, but to all forms of not-for-profit research organizations) seek, by force of the policy alone, to change where the ownership of IP lies. A university that hosts a visiting scientist, by the force of its IP policy alone, seeks to expropriate the ownership of IP, either by:

1. The policy itself divesting that ownership from where it lies, and vesting it in the host university, or
2. The policy creating an obligation to execute an assignment by which the ownership of the IP vests in the host university.

The host university's IP policy seeks therefore to have a legal effect, just as a contract has legal effect, by creating legal rights and obligations. But unlike a contract which is consensual in nature, an IP policy, by itself, is a unilateral non-consensual document.

A policy document, being a unilateral document, cannot of itself be legally binding upon a visiting scientist. Something more is needed for such a unilateral policy document to have a legal status, and a binding legal effect. This Part 3 considers:

1. What that "something more" is, in the United States, the United Kingdom, and Australia, in relation to visiting scientists, and
2. A related question: if it is binding upon the visiting scientist, whether the visiting scientist has the capacity to in fact assign ownership of IP from the visiting scientist to the host university.

A legal basis for IP policies

There are two ways that an IP policy can be legally binding, and that is if:

1. It forms part of a legally binding contract, or
2. It has legislative force.

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United States–IP Policy with legislative force

The IP policies of many state universities in the United States are not just policy documents, but are enshrined as laws of the state where the university is located (See Part 1 of this paper). Where that is so, the IP policy is a law, and legally binding upon the persons in the relevant state, which will include the visiting scientist during the time that the visiting scientist is visiting the host university.

However, the visiting scientist's employer, the employer university, being located most likely in a different state, or another country, and therefore not being located within the host university's state, is not bound by the laws of the state where the host university is located, and not bound therefore, by the host university's IP policy.

This can lead to a conflict in who owns the IP created by a visiting scientist. More than that, it can lead to potential liabilities.

This occurred in *DuPont v. Okuley* 344 F.3d 578 (6th Cir. 2003). Okuley was a researcher at Washington State University ("WSU"), which had entered into a collaboration agreement with DuPont. The terms of the collaboration agreement were that all IP arising under the collaboration would be owned by DuPont.

In the course of undertaking research under that agreement, Okuley helped in the discovery of the FAD2 gene, which was one of the genes encoding a fatty acid desaturase enzyme.

The WSU Faculty Manual provided that all intellectual property created by WSU's staff would be owned by WSU.

DuPount claimed that it owned the gene pursuant to the combined effect of the Faculty Handbook, under which intellectual property created by Okuley was owned by WSU, and the collaboration agreement between WSU and DuPont, under which the intellectual property arising from the collaboration was owned by DuPont.

Okuley argued that at the time of the discovery of the gene he was working in a laboratory at Ohio State University ("OSU"), where he was a visiting scientist, and where he had continued to undertake research pursuant to the WSU—DuPont Collaboration Agreement, and that this led to a different ownership result. § 3345.14(B) of the *Ohio Rev. Code* provided:

"All rights to and interests in discoveries, inventions, or patents which result from research or investigation conducted in any...facility of any state college or university, ...shall be the sole property of that college or university."

He argued, therefore, that the intellectual property created by him in OSU's lab was initially owned by OSU.

Examining the facts at this point, the conclusion reached is that:

1. As the IP was created by Okuley while undertaking research under the DuPont collaboration agreement in OSU's laboratories, under § 3345.14(B) of the *Ohio Rev. Code*, the IP is owned by OSU,
2. OSU owning that IP, not WSU, WSU is unable to vest the ownership of that IP in DuPont, in contravention of its obligations under the Collaboration Agreement, and
3. WSU accordingly is liable to DuPont for DuPont's loss arising as a result of that breach.

This highlights the potential for legal liabilities to arise when a statutory IP policy contains sweeping provisions that IP arising from research undertaken in the laboratories of a host university is owned by the host university.

Provisions such as these operate without regard to the origin of the research project that a visiting scientist undertakes at a host university.

If a visiting scientist, while at the host university, works on a research project that originates from the host university, it may well be compelling that the host university should own the IP that arises. An argument could be put that the employer university, continuing to pay the visiting scientist's salary even while at the host university, should, as employer, own the IP created by its employee, even if created in the course of working upon the host university's research project, while visiting the host university.

If a visiting scientist, while visiting a host university, works on a research project which originates at the employer university, as occurred in *DuPont v. Okuley,* provisions in a statutory IP policy that operate to automatically vest IP in the host university will fragment the ownership of the IP that arises in that research project. That IP will cease to be solely owned by the employer university, whose research project it is, and will be either solely owned by the host university, or jointly owned by the employer university and the host university. Both possibilities may involve the employer university in liabilities where the employer university is subject to contractual obligations in relation to that research project. Even if the project is not subject to contractual obligations, at the least it will cause the employer university to either have no ownership of the IP arising in its research project, or to have to share the ownership of that IP with the host university.

A statutory IP policy that provides that IP created by a visiting scientist will be owned by the host university presumes that this is the most equitable result, and is justified because the visiting scientist makes "significant" use of the host university's laboratories and other facilities, as such policies usually say.

When IP policies refer to "significant" use of a university's equipment, laboratories, and other facilities as triggering the vesting of IP in the university, the question that is begged is what amounts to "significant" use. Even if there is what can be described as "significant" use, there is likely to be a disproportionate relationship between the value of the use made, which most often is modest, and the value of the IP created. Even if the use is more than modest, which has the greater value—the use of the equipment to conduct an experiment, or the conception of the IP before the experiment was conducted?

Perhaps the criteria for the ownership of IP created by a visiting scientist should not be based on whose facilities or equipment was used, but instead based on whether the IP was created in the course of a research project that originates from the employer university, with the employer university owning it, or in the course of a research project that originates from the host university, with the host university owning it in that case.

To complete the discussion of *DuPont v. Okuley*, while OSU could have insisted on retaining its ownership of the FAD2 gene, as that IP was created by Okuley when undertaking the research project at OSU, it instead decided to waive its rights under Ohio Rev. Code § 3345.14(B), assigning the intellectual property to Okuley. Okuley being the owner as a result of that assignment from OSU, the IP now vested in WSU pursuant to the Faculty Handbook, and in turn vested in DuPont pursuant to the terms of the Collaboration Agreement.

Thought provokingly, the Court remarked that had OSU decided not to waive its rights, "interesting, but quite different, litigation could have ensued involving WSU and OSU and including questions of the statute's (that is, Ohio Rev. Code § 3345.14(B)) constitutionality under the Takings Clause (that is, the last clause of the Fifth Amendment)."

United States—IP Policy Incorporated by Reference & Visiting Scientist's Assignments

A visiting scientist will be bound by an IP policy if the visiting scientist is contractually bound. This can occur when a visiting scientist signs a contract a term of which incorporates the host university's IP policy by reference.

The requirements for an IP policy to be incorporated by reference in the United States were considered in Part 1. As was concluded in Part 1, those requirements are sometimes not so easily met, and so the risk remains that the IP policy may not be successfully incorporated by reference, with the result that the visiting scientist will not be bound by it.

This risk is generally well managed by universities in the United States, where the common practice is that visiting scientists are asked to sign a "Visiting Scientist's Agreement" or some other similarly named document. This document will achieve what the IP policy requires. So, if the host university's IP policy is that the host university will own the IP created by the visiting scientist while undertaking research at the host university, the Visiting Scientist's Agreement will give effect to that by including an assignment of IP by the visiting scientist to the host university.

This common practice in the United States relies upon the visiting scientist having the capacity to assign IP to the host university.

In the United States, the first owner of an invention is the inventor (*United States v. Dubilier Condenser Corp* 289 U.S. 178 (1933)). The visiting scientist inventor therefore has the capacity to assign IP to the host university, unless there is a prior assignment to the employer university.

This is illustrated by *Stanford University v. Roche Molecular Systems, Inc.,* 563 U.S. 776 (2011). Holodniy was a researcher employed by Stanford. When his employment at Stanford commenced, he signed a document called a "Copyright and Patent Agreement" by which he "agree[d] to assign" to Stanford his "right, title and interest in" inventions resulting from his employment at Stanford. To better perform his research at the university, Stanford arranged for Holodniy to learn the PCR technology developed at Cetus Corporation, by spending time at Cetus' laboratories. When Holodniy arrived at Cetus he was asked to sign a "Visitor's Confidentiality Agreement" by which he agreed that he "will assign and do[es] hereby assign" to Cetus his "right, title and interest in each of the ideas, inventions and improvements" made "as a consequence of [his] access" to Cetus.

While located at Cetus, Holodniy invented a PCR-based test by which the amount of HIV in a patient's blood could be quantified. In proceedings between Stanford and Cetus to determine the ownership of that invention, the Court noted that Stanford's "Copyright and Patent Agreement" was not a present assignment, but an agreement to assign in the future. It also noted that Cetus' "Visitor's Confidentiality Agreement," which was later in time, was a present assignment of future created IP.

The Stanford "Copyright and Patent Agreement" being merely an agreement to assign in the future, at the time of signing the Cetus document, Holodniy had not yet assigned anything to Stanford. At the time of signing the Cetus document Holodniy therefore had the capacity to presently assign the future created IP. The result was that Cetus was held to own the invention.

Stanford University v. Roche Molecular Systems illustrates that subject to the terms of any assignment signed by a visiting scientist with his or her own employer university, the visiting scientist will have the capacity to validly assign IP to a host university, under the host university's Visiting Scientist's Agreement.

If Stanford's "Copyright and Patent Agreement" had been not merely an agreement to assign in the future, but a present assignment of future created IP, Holodniy would have lacked the capacity to assign again, under Cetus' "Visitor's Confidentiality Agreement." In that case, Stanford would have owned the IP. But as well in that case, Holodniy would be exposed to liabilities to Cetus, for purporting to assign something to Cetus which he had already assigned to Stanford.

Suppose a scientist on commencing employment with a university executes a Patent Assignment Agreement by which the scientist "does hereby assign to the university all present and future inventions made by the employee in the field or discipline in which the employee is employed, during the term of the employee's employment by the university." The employee's appointment being as a biomedical researcher, all inventions in that field will be owned by the employer university. Suppose now that the scientist becomes a visiting scientist at a host university, whose IP policy states that the host university will own the IP created by visiting scientists. Pursuant to that policy, the host university presents to the visiting scientist a Visiting Scientist Agreement under which the visiting scientist assigns to the host university all inventions made in the course of research that the visiting scientist undertakes at the host university. Suppose now that the visiting scientist makes a biomedical related invention while at the host university. Who will own that invention? Clearly, the assignment to the employer university being broad enough to cover inventions made at locations other than the employer university's campus, for example, at the scientist's home, and elsewhere, it is the employer university that will own that invention.

The assignment being effective to capture the future invention (unlike Stanford's assignment in *Stanford v. Roche*) there is nothing left which the visiting scientist has the capacity to assign to the host university. Under this scenario, the unfortunate visiting scientist will unwittingly be in breach of the assignment made to the host university, and may be exposed to liabilities to the host university.

This will be the result, even if the invention that the visiting scientist made related to a project that originated with the host university, where the host university might reasonably have expected that the fragmentation of ownership of IP arising from its project should be avoided, and that it should own all of the IP arising from a project that originates with it.

Perhaps the criteria for the ownership of IP created by a visiting scientist should not be based on the wording of the employer university's assignment and whether it operates as an agreement to assign in the future, or as a present assignment, but instead be based on whether the IP was created in the course of a research project that originates from the employer university, with the employer university owning it, or in the course of a research project that originates from the host university, with the host university owning it in that case.

United Kingdom

In the United Kingdom, quite different results can be obtained on this question: a host university's IP policy that purports to vest (or to create an obligation to vest) in the host university any IP created by a visiting scientist that is employed by another university, will be ineffective.

Under section 39 of the *Patents Act* 1977, a university will always own the intellectual property created by its employees in the course of their employment.

No assignment document signed by an employee is necessary for the IP created by the employee to vest in the employer. In the United Kingdom there is no such rule as in *United States v. Dubilier Condenser Corp* 289 U.S. 178 (1933) that an employed inventor is the first owner of an invention. An assignment signed by the employed researcher is therefore not required for the ownership of future inventions made in the course of employment to vest in the employer university. In the United Kingdom, ownership vests in the university employer by virtue of the employment relationship. If the scenario in *Stanford University v. Roche Molecular Systems, Inc.*, 563 U.S. 776 (2011) had occurred in the United Kingdom, the university would have clearly owned the invention, since the work undertaken by the scientist (Holodniy) at the host (Cetus) was work undertaken in the course of the scientist's employment by the university (to learn the PCR technology). This result would be unaffected by whether or not the employee had previously signed an assignment document assigning to the employer the IP created in the course of employment.

If a host university's IP policy states that the host university will own the IP created by a visiting scientist while at the host university, even if the visiting scientist has signed a document that successfully incorporates the host university's IP policy by reference, the IP created by the visiting scientist at the host university will be owned, pursuant to section 39 of the *Patents Act* 1977, by the employing university. The employing university is not contractually bound by the host university's IP policy. The visiting scientist would not have actual or apparent authority to bind the employer university to the host university's IP policy when signing any document presented by the host university.

What determines the matter is that the visiting scientist's participation in a project at a host university is activity in the course of the visiting scientist's employment by the employer university.

But that should not necessarily always be the case. When a visiting scientist visits a host university and undertakes research in relation to a project that originates with the employer university, the employer university will own that IP. When a visiting scientist visits a host university, and undertakes research in relation to a project that originates with the host university, the employer university will again own that IP, although the host university might reasonably have expected that it should own that IP.

Perhaps not all IP created by a visiting scientist should be owned by the visiting scientist's employing university. Perhaps instead ownership should be based on whether the IP was created in the course of a research project that originates from the employer university, with the employer university owning it, or in the course of a research project that originates from the host university, with the host university owning it in that case.

The comments about statutory IP policies in the United Kingdom made in Part 1 make it unnecessary to consider statutory IP policies here.

Australia

The situation in Australia is different again. Because Australia does not have a statutory provision like section 39 of the United Kingdom's *Patents Act* 1977, the ownership of IP created by a visiting scientist will depend upon the terms of the employment contract between the university and its employee, and the terms of a Visiting Scientist's Agreement, if any, between the visiting scientist and the host university.

In Australia, the ownership of intellectual property created by a university employee will depend upon the

employee's duties. If those duties include the duty to invent, either expressly or impliedly, then IP created by the university employee, within the scope of that duty, will be owned by the university employer (Case 1).

But there is scope for the IP created by a university employee to be owned by the employee. If a university in Australia neglects to expressly include a duty to invent in its employee's employment contract, and such a duty cannot otherwise be implied, the IP created by the employee will be owned by the employee (Case 2).

This is the result of the decision in *University of Western Australia v. Gray* [2008] FCA 498. (See Part 1 for the facts and a lengthy discussion of this case.)

Against these principles we can now overlay what occurs when a university employee is a visiting scientist at a host university.

In Case 1 the situation will be not unlike the situation in the United Kingdom. The employer university owns the IP created by the visiting scientist while at the host university, since the work undertaken at the host university is part of the visiting scientist's duty to invent under the terms of the employment agreement with the employing university. If the visiting scientist signs a document agreeing to be bound by the host university's IP policy, which is successfully incorporated by reference, and it claims ownership of IP created by visiting scientists, the situation is unchanged. The IP will still be owned by the employer university, which is not bound by the host university's IP policy, and is not bound by any document that the visiting scientist may have signed, since the visiting scientist lacks any actual or apparent authority to bind the employer university to the host university's IP policy.

In Case 2, the situation is not unlike the situation in the United States. The visiting scientist in this case does have the capacity to assign to a host university the IP created in the course of research undertaken by the visiting scientist at the host university. The host university's IP policy, which claims ownership of IP created by a visiting scientist, will not by itself be effective to vest the ownership of IP in the host university. But if the host university has the visiting scientist sign a document which successfully incorporates the IP policy by reference, or has the visiting scientist sign a document by which the IP created at the host university is assigned to the host university, the host university will own that IP.

In Australia, whether IP created by a visiting scientist will be owned by the employer university or the host university will depend on how well prepared the employer university's staff contract of employment happens to be. A well prepared employment contract, appropriately expressing the employee's duty to invent, will ensure that the employer university will own the IP created by a visiting scientist at a host university. A not so well prepared employment contract may result in the host university owning that IP.

But the ownership of IP created by a visiting scientist at a host university, whether it is owned by the employer university or a host university, should not depend on how well an employment contract was drafted by the employer university.

Perhaps instead the ownership of IP created by a visiting scientist at a host university should be based on whether the IP was created in the course of a research project that originates from the employer university, with the employer university owning it, or in the course of a research project that originates from the host university, with the host university owning it in that case.

The comments about statutory IP policies in Australia made in Part 1 make it unnecessary to consider statutory IP policies here.

Conclusion: Is a Visiting Scientist Bound by an IP Policy?

Visiting scientists in the United States may be bound by a host university's IP policy, either because the IP policy is enshrined in a state law, or because the IP policy is successfully incorporated by reference, for example, into a Visiting Scientist's Agreement, which a host university will generally present to a visiting scientist.

However, if a visiting scientist in the United States has already assigned to his or her employer university the future IP to be created, the visiting scientist will not own, and therefore will not have the capacity to assign IP created at a host university, even if bound by the host university's IP policy. In this case, a visiting scientist is not bound by a host university's IP policy. If the host university seeks to own the IP created by a visiting scientist, it will in this case have to obtain an assignment from the employer university.

A visiting scientist in the United Kingdom will not be bound by a host university's IP policy. Even if a visiting scientist in the United Kingdom is presented with a Visiting Scientist's Agreement which incorporates the IP policy by reference, or even contains a provision by which the visiting scientist assigns IP to the host university, the visiting scientist will still not to be bound. The IP created by a visiting scientist is owned by the visiting's scientist's employer. That being so, the visiting scientist has nothing to assign to the host university. The visiting scientist lacks any capacity to vest the ownership of IP in the host university.

In Australia, if an employer university has prudently framed its staff employment contracts by recording an employee's duty to invent, the situation will be the same as in the United Kingdom. The IP created by a visiting scientist will be owned by the employer university, and the visiting scientist accordingly has nothing to assign to a host university. The visiting scientist is therefore not bound by a host university's IP policy,

even if the visiting scientist signs a Visiting Scientist's Agreement that successfully incorporates by reference the host university's IP policy.

If a visiting scientist participates in a research project at a host university, which originates from the host university, and the host university seeks to ensure that it has ownership of the IP created by the visiting scientist, in the United Kingdom and Australia, the host university needs to obtain an assignment, not from the visiting scientist, but from the visiting scientist's employer university.

A university must be cautious when seeking to ascertain what best practice is in relation to IP policies. IP policies need to operate within a country's legal system. The laws of one country cannot be presumed to be the same as the laws of another country. For the example, the law that an inventor is the first owner of an invention, not the inventor's employer, is a US law (*United States v. Dubilier Condenser Corp* 289 U.S. 178 (1933)). This is not necessarily the law in other countries. A university in one country that indiscriminately imports the principles in the IP policy of a university in another country will risk, in its different legal system, having an IP policy which is ineffective, or even one that operates inconsistently with its own national laws. When ascertaining best practice in relation to IP policies it is necessary to consider the legal and cultural landscape in which what is sought to import or duplicate works, and it is also necessary to assess whether what is intended to import can be done with or without any adjustment or customisation.

Conclusion—Should a Host University Own the IP Created by a Visiting Scientist?

Universities expect to own the IP created in the course of projects that originate from the university. They do not expect that their ownership may become fragmented when their staff are visiting scientists visiting a host university, and at that host university, not unexpectedly, continue working on their projects which originated from the employer university.

Yet, IP policies enshrined as legislation at state universities in the United States may cause a different result, as may Visiting Scientist Agreements in the United States. A different result may also occur in Australia when a Visiting Scientist Agreement is effective, but this will only occur if the visiting scientist's employer university has a poor employment agreement with its staff members that has failed to record a duty to invent.

Similarly, a host university expects to own the IP created in the course of projects that originate within the host university. It does not expect ownership to become fragmented if a visiting scientist should participate in the host university's projects. Yet, in the United Kingdom, a visiting scientist's employer university will always own the IP created by the visiting scientist at a host university. That will also be the case in Australia when the employing university has properly drafted its staff employment agreement.

The ownership of the IP created by a visiting scientist at a host university has mostly little to do with the host university's IP policy. That ownership, instead of depending upon the host university's IP policy, will often depend on the way that employee's assignment documents or employments contracts have been prepared by its employer university, and in the United Kingdom, on section 39 of the Patents Act 1977. It almost seems like where the ownership of the IP created by a visiting scientist lies will be accidental.

It might be asked whether it really matters if the IP arising under a research project that originates with an employer university is owned partly by a host university, given that under an inter institutional agreement the host university can license its share of the IP connected to that project, to the employer university.

An employer university, in relation to the IP arising from a project that originates at the employer university would respond that it would matter, when:

1. The fragmented ownership of IP might put the employer university in breach of contractual obligations (as occurred on the facts of *DuPont v. Okuley* 344 F.3d 578 (6th Cir. 2003)), or
2. A host university overvalues the IP created at the host university, and undervalues the IP created at the employer university.

What influences where the ownership of IP created by a visiting scientist should lie should not be the accidental factors that depend upon the drafting of an employee's assignment (such as in *Stanford v. Roche*), whether the visiting scientist is British (when section 39 of the *Patents Act* 1977 will apply) or the drafting of the university's staff employment contract, where the visiting scientist is Australian.

The most important factor that should influence where the ownership of IP created by a visiting scientist should lie is what the employer university and the host university would have agreed to be an equitable result if they had specifically directed their attention to the matter. That is most likely to be that the employer university should own the IP created by a visiting scientist at a host university, when it arises from projects that originate from the employer university, and that the host university should own the IP created by the visiting scientist that arises from projects that originate from the host university. ■

Available at Social Science Research Network (SSRN): *https://ssrn.com/abstract=2896185*

Royalties For Unpatented Technology

By Richard Binns and Nicola Walles

Summary

The Court of Justice has ruled that a licensee could be obliged to pay past royalties under a patent licence agreement even after a patent has expired or been deemed invalid, provided that the licensee has the ability to terminate the licence agreement for convenience.

The Court of Justice's response to the question posed by the Paris Court of Appeal in *Genentech Inc. v. Hoechst and Sanofi-Aventis*[1] suggests that, if a licensee does not have the option to terminate for convenience, requiring it to pay past royalties due under the licence could be anti-competitive, amounting to a violation of Article 101 of the Treaty on the Functioning of the European Union (TFEU).[2]

This ruling reflects the *status quo* in some jurisdictions, but highlights the importance of careful drafting in respect of royalty obligations.

Royalties in Dispute

In 1992, Genentech entered into a German law governed licence agreement under which it took a non-exclusive, worldwide licence for a patent that covered the use of a human cytomegalovirus enhancer (HMCV enhancer). Originally owned by Behringwerke, the patent was later transferred to Hoechst, of which Sanofi-Aventis is a subsidiary. The licence related, in particular, to a European Patent and two U.S. patents. Under the licence agreement, Genentech undertook to pay:

- A one-off licence fee;
- A fixed annual research fee; and
- A running royalty fee of 0.5 percent of the net sales of relevant finished products.

Genentech made the first two payments but did not make any royalty payments in respect of net sales.

In 1999 the European Patent was revoked, but the two U.S. patents remained in force. In 2008, Genentech gave notice that it was terminating the licence. Hoechst and Sanofi-Aventis believed that Genentech had used the HMCV enhancer to manufacture Rituxan (for the treatment of non-Hodgkin's lymphoma and rheumatoid arthritis) and that the running royalty on Genentech's sales of the drug remained due and unpaid.

There followed action brought by Sanofi-Aventis in the U.S., alleging Genentech's infringement of the two U.S. patents, and before the International Court of Arbitration (ICC), seeking the payment of outstanding royalties. The U.S. courts found in favour of Genentech, but Genentech was found liable by the ICC for the payment of the running royalties. The arbitral award meant that payments already made by Genentech under licence could not be reclaimed, and that payments due to Sanofi-Aventis were payable whether or not the patent had been revoked or infringed (despite the invalidity of the European patent), on the basis that the licence had been granted to allow Genentech to use the HMCV enhancer for the production of proteins without incurring risk of infringement action. (An interesting aside worth mentioning here is the ICC's consideration of the appropriate test for contractual interpretation. Genentech's arguments were rejected by the ICC on the basis that Genentech's reasoning followed a literal interpretation of the licence agreement, which was contrary to the parties' commercial objectives, namely to allow Genentech to use the technology without the risk of litigation.)

Genentech brought its own action before the Paris Court of Appeal, claiming that an obligation to pay for the use of technology available freely to its competitors left Genentech at a competitive disadvantage, and contravened Article 101 TFEU. A difficulty for Genentech was that the licence agreement was premised on the patent being treated as valid even after it had been found to be invalid, which meant that Article 101 TFEU was at issue. It was on this point that the Paris Court of Appeal asked the Court of Justice to decide the following question:

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1. Case C-567/14 *Genentech Inc. v. Hoechst GmbH and Sanofi-Aventis Deutschland GmbH*.

2. Available at: *http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:12008E101&from=EN.* Accessed 21 September 2016.

Must the provisions of Article 101 TFEU be interpreted as precluding effect being given, where patents are revoked, to a licence agreement which requires the licensee to pay royalties for the sole use of the rights attached to the licensed patents?

Court of Justice's Response

Referring to established case law,[3] the Court of Justice decided that, where a licensee may freely terminate a licence agreement by giving reasonable notice, an obligation to pay a royalty throughout the validity of the licence agreement cannot fall within the scope of the prohibition set out in Article 101(1) TFEU (which broadly prohibits all agreements that affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the internal market).

Parties to a licence agreement can therefore agree that royalties are payable to a licensor even after a patent is declared invalid, revoked or non-infringing (or, analogously, once the patent term has expired), provided that the licensee is also able to terminate the licence agreement for convenience. Provided it can, such an arrangement does not injure competition in the internal market, and is permissible under Article 101 TFEU.

Whilst not explicit in its reasoning, the Court of Justice's opinion suggests that if a licensee does not have the right to terminate a licence agreement for convenience, an obligation to pay royalties in respect of an invalid, revoked or non-infringing patent would constitute a breach of Article 101, and such licence agreement would be (at least partially) void as a consequence.

For reasoning not dissimilar to that in *Ottung*, whether or not it constitutes a distortion of competition within the market to require a licensee to pay royalties where that licensee has gained the distinct benefit of a period of exclusivity (whether or not such period extends beyond the patent's period of validity and whether or not the licensee has the option to terminate for convenience), particularly in the life sciences sector where first-mover advantage permitted by such exclusivity can confer significant financial and commercial benefits, remains open to challenge.

Impact Across Europe (and the Position Beyond…)

Genentech confirms what the European Commission has already asserted in its Technology Transfer Guidelines,[4] namely that parties may agree to extend royalty payment obligations beyond the expiry date of a patent without breaching competition law. The Court of Justice's response therefore reinforces that such agreements do not distort competition if the licensee has the right to terminate for convenience, and gives some measure of comfort to EU patent holders and licensors in this regard. But how has the decision affected the position across Europe? Prior to the Court of Justice's decision, did local law permit licensors to collect royalties and other fees accruing under licence agreements: (i) after patent expiry; (ii) where the relevant patent was revoked; or (iii) where there has been a finding of non-infringement (against the licensee)? The table below sets out a high level summary of the position in seven EU jurisdictions. (See Table 1.)

Beyond the EU, in the U.S. for example, typically a licensor cannot collect royalties from a licensee after the expiry of the patent's term. U.S. law does not permit licensors to collect royalties that accrue after patent expiry, and any such post-expiry patent royalty obligations are unlikely to be enforceable.[5] However, much like in the EU, careful drafting that captures the parties' intentions expressly might enable parties to get around the legal roadblocks which may, for example, allow royalty payments to extend beyond a fixed period.

Looking further afield, in China for example, licensors are not permitted to charge royalties on expired or revoked patents, but may be permitted to charge licensees a reasonable "technical service fee" if the licensor is providing technical services to implement the licence, even if the licensed IP has entered into the public domain. The position on non-infringement is less clear.

Strategic Challenge?

In the EU at least, licensees are generally free to challenge the validity of licensed IP, although exclusive licence agreements are frequently expressed to terminate as a consequence. If the requirement to pay royalties under a licence is not expressed to survive termination, then a strategic challenge by a licensee could, in effect, enable a licensee to circumvent unwanted royalty obligations. That said, a licensee adopting a tactical approach should consider carefully the potential commercial and financial impact of an unsuccessful challenge.

It is worth mentioning here that, when amending the Technology Transfer Block Exemption Regulation[6] (TTBER) in 2014, the European Commission initially

3. Case 320/87 *Kai Ottung v. Klee & Weilbach A/S and Thomas Schmidt A/S.*

4. Available at: *http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XC0328(01)&from=EN.* Accessed 21 September 2016.

5. Case 11-15605 *Kimble v. Marvel Entertainment LLC.*

6. Available at: *http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0316&from=EN.* Accessed 21 September 2016.

Jurisdiction	Table1. Prior To *Genentech*, Did Local Law Permit Licensors To Collect Royalties/Other Fees Accruing Under Licence Agreements?		
	(I) After Patent Expiry?	(Ii) After Patent Revocation?	(Iii) After A Finding Of Non-Infringement?
UK	In practice, these issues are usually avoided by careful drafting of the contract. If the term of the licence is not itself tied to patent expiry, licensors can (in general) continue to collect royalties/fees under the licence beyond the term of the patent's validity. A court is unlikely to permit a licence to persist perpetually without implying a voluntary termination clause.	If the only consideration in the contract required the validity of the patent (for a certain term), then the licensor may be in breach of the licence agreement, and as consideration will have partially failed, the licensee may be able to reclaim royalties already paid as "unjust enrichment."	Under English law, a bad bargain is still a bargain. Depending on how the licence is worded, the licensee may still be bound to pay royalties, even if it never needed to license the patent.
Italy	No, save in respect of 'hybrid' licences that cover other IP as well as patents (such as know-how), and where the licensee is free to terminate the agreement.	No—save in respect of 'hybrid' licences that cover other IP as well as patents (such as know-how) or where there has been partial revocation of the patent, and where the licensee is free to terminate the agreement. Upon request of the licensee, courts may grant a reimbursement of the fees already paid.	Only if the licensee is free to terminate the licence agreement.
Netherlands	Yes—broadly, parties to a licence agreement are free to agree on any royalty arrangement (subject to competition law requirements).		
Germany	No, save in respect of 'hybrid' licences that cover other IP as well as patents (such as know-how), and absent an explicit agreement between the parties, there is no contractual claim for royalties once a patent has expired under German law (and a licence agreement that provides for an obligation to pay royalties after expiration of the patent may be contrary to the German cartel prohibition).	No, save in respect of 'hybrid' licences that cover other IP as well as patents (such as know-how). Broadly, the obligation to pay royalties ends on a finding of invalidity (if a patent is partially invalid, a claim for royalties exists until the patent is finally revoked).	Depends on the construction of the licence (as parties are generally free to determine for which acts a royalty should be due). However, German case law has been critical (on grounds of competition law) of arrangements that seek to impose on a licensee an obligation to pay royalties for unpatented technology.
Belgium	No, save in respect of 'hybrid' licences that cover other IP as well as patents (such as know-how).	No, to the extent that invalidity undermines the subject matter and purpose of the licence agreement, but this can depend on the construction of the licence agreement. Royalties (and other fees) paid by the licensee under a patent licence should be reimbursed by the licensor (subject to limited exceptions).	There is no specific rule or case-law in this regard.
France	Once the patent has expired, the requirement to pay future royalties generally falls away.	In general, the requirement for the licensee to pay future royalties falls away and, in principle, the licensor should return the royalties already paid, subject to whether it could be argued that the licensee has benefitted from "peaceful enjoyment of the licensed invention" during the period prior to revocation.	Non-infringement proceedings are not available under French law.
Spain	There appears to be no authority on point.	Broadly, agreements concluded prior to the finding of invalidity shall not be affected, however, licensees may be entitled to reimbursement of fees paid in certain circumstances (such as bad faith).	Declarations of non-infringement are available under Spanish law. Although it is not clear what effect such a finding has, one might expect that it would have the same effect as revocation.

proposed that *any* restriction on a licensee's ability to challenge licensed IP should fall outside of the TTBER. However, taking account of concerns voiced in consultation, the EC provided instead that "no-challenge" clauses in non-exclusive licence agreements only would fall outside of the TTBER and be assessed on a case by case basis. A non-exclusive licensee therefore has the option to exploit the licence and simultaneously challenge the validity of the underlying IP.

Similarly in the U.S., the court in *Medimmune v. Genentech* (2007) held that the licensee did not have to cease paying royalties in order to bring invalidity proceedings in respect of licensed IP, which arguably goes beyond the position under *Lear Inc v. Adkins* (1969), that licensees of U.S. technology could challenge licensed IP only if they had ceased paying royalties and had put the licensor on notice as to why royalties were being withheld. However, judicial opinion on the enforceability of U.S. licences that contain "no-challenge" provisions which prevent a licensee from bringing an invalidity action without at the same time breaching the contract, has not been entirely uniform. The position in China is less ambiguous, where the Supreme Court has held that a licence provision that prohibits a licensee from challenging the validity of licensed IP is invalid.

Practical Considerations

Many of the issues in *Genentech* can be circumvented by careful drafting. In the life sciences sector (and elsewhere), for example, royalty payment obligations in licence agreements are expressed, typically, to be payable until the last to expire of the licensed patents. Thereafter, a reduced royalty rate may kick in for the use of relevant know-how or trademarks, to extend royalty payments beyond the life of the licensed patents (albeit at a lower rate). The reimbursement of milestone and/or royalty payments for the use of patented technology during the life of patent can also be addressed in the drafting.

Following *Genentech*, parties negotiating royalty obligations in licence agreements may want to consider the following:

- Patent licence agreements should provide expressly for the parties' intentions in the event of patent revocation and/or non-infringement.
- Licence termination provisions should include a right for the licensee to terminate the licence agreement by giving reasonable notice, which renders an obligation to pay royalties throughout the validity of the agreement outside of the scope of Article 101(1) TFEU. Onerous termination provisions run the risk of scrutiny under competition law if they disadvantage licensees in relation to their competitors.
- Licensors should avoid including terms that restrict a licensee's use of the licensed technology following expiry of the licence agreement, which may be deemed to distort competition.
- Royalty payment obligations in agreements that grant licensed rights in respect of both patents and other forms of IP (*i.e.* hybrid licences) should be allocated separately in respect of patent and any non-patent IP rights.
- Licensors could consider stating in the licence agreement that any licence fees, royalties and milestone payments are non-refundable under any circumstances.
- It may be appropriate to include terms providing for an adjustment of the royalty rate applicable where no patent subsists, or where a patent is revoked (or where there has been a patent term extension) in a particular country or territory.
- Care should be taken when drafting licence agreements governed by U.S. law, which does not permit licensors to collect royalties that accrue after patent expiry. ■

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Beyond Hybrid Licenses—Strategies for Post Patent Expiration Payments in the United States[1]

By Patrick Gattari, Steven Ferguson, David Crichton and Bryan Helwig

I. Introduction

The United States patent system grants patent holders exclusive rights in their invention for 20 years from the application filing date.[2] During the period of exclusivity patent holders often elect to offer licenses in exchange for royalty payments. At the end of the patent term the invention is dedicated to the public and post-patent expiration royalty payments are "unlawful per se" under the 1964 United States Supreme Court holding in *Brulotte v. Thys. Co.*[3]

In the 2015 case *Kimble v. Marvel Entm't, LLC* the Court had the rare opportunity to overturn the controversial restriction on post-patent expiration payments.[4] The Court, relying on *stare decisis* and defaulting to Congressional authority, reaffirmed the *Brulotte* decision.[5] Often misunderstood, the holding prohibits royalty payments in the post-patent period calculated from post-patent sales period, but not collection of royalties based on pre-patent expiration sales. As a result, this manuscript will explore strategies for licensing agreements that extend into the post-patent expiration period. This article, focused on the United States patent system, will discuss the *Kimble* and *Brulotte* decisions, application of the decisions to traditional licensing arrangements, and licensing agreements that do not violate *Brulotte* including amortized royal payments.

II. The *Brulotte* and *Kimble* Decisions

A. *Brulotte v. Thys Co.*

Brulotte is oft-criticized as "unduly limiting the right to negotiate financial terms in a license agreement."[6] In *Brulotte*, Thys sold a hop-picking machine to Brulotte that required pre- and post-patent royalty payments.[7] Brulotte refused to pay post-patent royalty payments and Thys sued.[8] The Court sided with Brulotte, holding that a royalty agreement that extends beyond the expiration date of the patent is unlawful *per se*.[9] Thys, by charging the same rate and enforcing the same restrictions in the pre- and post-expiration periods, attempted to artificially extend the patent term.[10] In response, the majority held that the patent terms were "[a] monopoly power in the post-expiration period when …the patent has entered the public domain."[11]

B. *Kimble v. Marvel Entertainment, LLC*

In 1990 Stephen Kimble was awarded U.S. Patent No. 5,072,856 for a toy comprised of a glove attached to a pressurized container containing foam string delivered to the glove by flexible tubing. Kimble noted in his patent application that the Toy Web Shooting Glove "allows children (and young-at-heart adults) to role-play as a 'spider person' by shooting webs—really pressurized foam string—'from the palm of the hand.'"[12]

Kimble met with Marvel Entertainment, makers of Spider-Man products, seeking to sell or license the '856 patent but the parties failed to execute a licensing agreement.[13] Instead, Marvel began selling the "Web Blaster," its own web-shooting glove, absent any license or contract.[14] Kimble sued and was granted breach of contract but not patent infringement.[15]

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1. The content of this manuscript was first presented by the authors at the 2015 Licensing Executives Society (USA and Canada), Inc. Annual Meeting.

2. 35 U.S.C 154.

3. 85 S. Ct. 176, 179 (1964).

4. 135 S. Ct. 2401 (2015).

5. *Id*. at 2415.

6. D. Crichton, *Post-Patent Term Royalty Amortization After Kimble* (forthcoming).

7. 85 S.Ct. at 177.

8. *Id*. at 177-78.

9. *Id*. at 179.

10. *Id*. at 176.

11. *Id*. at 179-80.

12. *Kimble v. Marvel Entm't, LLC,* 135 S. Ct. 2401, 2405 (2015).

13. *Id*. at 2406.

14. *Id*.

15. *Kimble v. Marvel Enterprises Inc.*, 727 F.3d 856, 858 (9th Cir. 2013), aff'd sub nom. *Kimble v. Marvel Entm't, LLC*, 135 S. Ct. 2401 (2015).

Both sides appealed and settled, with Kimble agreeing to sell Marvel the '856 patent for a $500,000 lump sum and a three percent royalty on Marvel's future sales of the Web Blaster and related products.[16] The parties, unaware of *Brulotte*, set no end date for royalty payments, instead agreeing royalties would continue "for as long as kids want to imitate Spider-Man."[17]

Shortly after establishing the royalty agreement Marvel uncovered *Brulotte*, discovering that binding precedent meant prohibited royalty payments beyond the 2010 patent expiration date.[18] The District Court of Arizona agreed with Marvel that the "royalty provision was unenforceable after expiration of the Kimble patent."[19] The Court of Appeals for the Ninth Circuit reluctantly affirmed, criticizing *Brulotte* as "counter-intuitive [with] rationale [that] is arguably unconvincing."[20] In response Kimble petitioned the Supreme Court to overrule *Brulotte* and was granted certiorari.[21]

Kimble, and his *amici*, argued that *Brulotte* should be overruled because 1) the holding rests on a mistaken view of the competitive effects of post-expiration royalties and 2) *Brulotte* suppresses technological innovation and as such harms the nation's economy.[22] The Court, in a 6-3 decision, was not convinced a "special justification" or something significantly more than a belief "that the precedent was wrongly decided" was offered that justified overturning *Brulotte*.[23] Justice Kagan, writing for the majority, acknowledged that "a broad scholarly consensus supports Kimble's view of the competitive effects of post-expiration royalties, and we see no error in that shared analysis."[24] She continued, "[I]t is usually 'more important that the applicable rule of law be settled than it be settled right,'" subtly hinting that *Brulotte* may provide a less than ideal economic solution. In the end the Court dismissed any negative economic-impact of *Brulotte* and defaulted to *stare decisis* writing that "Kimble's reasoning may give Congress cause to upset *Brulotte*, but does not warrant this Court's doing so."[25]

Important to the outcome, Kimble failed to provide any empirical evidence that *Brulotte* negatively impacted innovation or licensing arrangements. As a result, the Court re-emphasized that "*Brulotte* leaves open various ways, involving both licensing and other business arrangements to accomplish payment deferral and risk-spreading."[26] The Court continued, "[although the] alternatives may not offer parties the precise set of benefits and obligations they would prefer, they might still suffice to bring [parties] together…and ensure that inventions get to the public."[27] Finally, the Court provided examples of licensing arrangements allowed under *Brulotte*, including business arrangements other than royalties, deferred payments in the post-expiration period for pre-expiration use of a patent, royalties in patent packages, and post-expiration royalties not tied to a patent-right.

In dissent, Justices Alito, Thomas and Roberts agreed with Kimble noting, "*Stare decisis* does not require us to retain this baseless and damaging precedent."[28] Justice Alito, writing for the dissent criticized *Brulotte* as not "based on anything that can plausibly be regarded as interpretation of the Patent Act . . . instead on an economic theory that has been debunked."[29] The dissent was adamant that *Brulotte* unnecessarily "erects an obstacle to efficient patent use" while interfering with negotiation of licensing agreements that "reflect the true value of a patent."[30]

In summary, *Kimble* maintains precedent that licensing agreements cannot include royalty payments after patent expiration. Interestingly, although the Court appears to recognize that such a rule makes little sense, the majority was unwilling to challenge. Instead, the Court implied other types of "business arrangements" allowed for compensation to be paid in the post-patent expiration period. However, such arrangements must be free of anti-trust law violations such as *per se* tying (*i.e.* patent owner ties the purchase a separable, staple, non-patented good to purchase of the patented good) and within the rule of reason (*i.e.* agreement doesn't restrain trade).

III. *Brulotte* and Traditional Licensing Agreements

Under *Brulotte* a number of licensing agreements, referred to here as traditional licensing agreements, were invalidated. In large-part, the agreements failed to clearly identify pre- and post-patent expiration terms. The courts, as a result, held that the terms effectively extended patent rights into the post-patent expiration period. Traditional licensing agreements including con-

16. *Id*.
17. *Kimble*, 135 S. Ct. at 2406.
18. *Id*.
19. *Kimble v. Marvel Enterprises, Inc.*, 692 F.Supp.2d 1156, 1161 (D. Ariz. 2010).
20. *Kimble* 727 F.3d at 857.
21. *Kimble v. Marvel Enterprises, Inc.*, 135 S. Ct. 781(2014).
22. *Kimble*, 135 S. Ct. at 2412.
23. *Id*. at 2409.
24. *Id*.
25. *Id*.
26. *Id*. at 2414.
27. *Id*.
28. *Id*. at 2415.
29. *Id*.
30. *Id*.

tracts signed prior to patent issuance, patent packages and hybrid agreements have all been invalidated for lack of clarity in contract language.

A. Agreements Prior to Patent Issuance & Deferred Payments

The Sixth Circuit invoked *Brulotte* to prevent enforcement of an agreement that called for immediate filing of a patent application in exchange for royalty payments for 25 years by the defendant, regardless of patent issuance.[31] The parties eventually disagreed over calculation of royalties and Kenner, in counter-suit, claimed that they were no longer obligated to pay royalties.[32] The Sixth Circuit overruled the District Court, invoking *Brulotte*, and holding patent misuse when a pending patent is used as leverage to extend contracted patent royalties beyond the term of the patent.[33] Importantly, the *Brulotte* Court noted that identical payment terms in the pre- and post-expiration periods signify an attempt to collect royalties payments that violate the *per se* rule.[34]

B. Patent Packages

In contrast to *Bogglid, in Schieber v. Dolby Laboratories Inc.* the parties agreed to establish a lower royalty rate for a patent package that would extend until all patents in the package expired.[35] The Seventh Circuit reluctantly invalidated the agreement, noting the vagueness of the language and *Brulotte*.[36] However, in his writing, Judge Posner challenged the economic principles of *Brulotte*, noting that "charging royalties beyond the term of the patent does not lengthen the patentee's monopoly; it merely alters the timing of royalty payments."[37] In the end the majority invalided the agreement because "[The Seventh Circuit] has no authority to overrule a Supreme Court decision no matter how dubious its reasoning [appears to be]."[38]

C. Hybrid Licenses (Patent and Non-Patent Right)

Hybrid licensing agreements contain provisions for patents and non-patent assets such as trade secrets. Under *Brulotte*, a single royalty payment negotiated for both patented and non-patented assets is unenforceable once the patent expires.[39] Instead, aligning with *Brulotte*, the courts seek evidence that the non-patented assets are offered at a discounted rate, indicating a lack of patent leverage that would extend the patent life.[40]

For instance, in *Chromalloy Am. Corp. v. Fischmann,* the Plaintiff acquired patent license, related know-how and business assets needed to produce the "Scorpion," a carpet cutting machine.[41] In exchange Chromalloy agreed to pay royalties of three percent on future sales of the "Scorpion" and two percent on accessory equipment within the scope of the patent. Chromalloy sought declaratory judgment and the Ninth Circuit held that if the original transaction had only involved the patent, Chromalloy's obligation to pay would have ended after filing the invalidity claim.[42] However, because know-how and business assets were also included in the hybrid-agreement, the case was remanded to determine damages owed Fischmann to compensate for the non-patent assets.[43]

D. Summary of Traditional Licensing Agreements

In summary, under *Brulotte,* courts invalidate licensing agreements that seek to extend patent life. Thus, traditional licensing agreements require clear and concise terms for pre- and post-patent expiration periods or risk being invalidated by the court. This is especially important in hybrid agreements where patents leverage can artificially extend the life of a patent.

This presents a hurdle with long to fruition technologies such as biomedical research. The *Kimble* Court suggested the answer in long to fruition fields is a joint venture arrangement that shares the risks and rewards of commercializing long-to-market technologies.[44] However, risk-sharing in the early stages of biomedical research is rarely a preferred investment strategy. As a result, traditional biomedical licensing must expand to meet the unique licensing needs of biomedical research.

IV. *Brulotte*, Biomedical Research and Alternative Licensing Aggrements

Biomedical research is burdened by delayed clinical and regulatory lead times, difficulty in licensing early stage technology and a 20-year, filing date based patent term. This translates into sales of products that often occur near the end, or after, a patent expires. As a result, academic and federal biomedical research facilities face a revenue "patent cliff."

For example, at the National Institutes of Health (NIH), 18 of the top 20 revenue generators disclosed on their website are based on IP largely set to expire in the next few years. Financially, the result looks to

31. *Bogglid v. Kenner Products* 776 F.2d 1315, 1316-17 (6th Cir. 1985).

32. *Id* at 1317.

33. *Id*. at 1320.

34. 85 S. Ct at 32.

35. 293 F.3d 1014 (7th Cir.).

36. *Id*. at 1016-18.

37. *Id*. at 1018.

38. *Id*.

39. 85 S.Ct. at 178-81.

40. *Kimble* 727 F.3d at 857.

41. 716 F.2d 683, 684 (9th Cir. 1983).

42. *Id*.

43. *Id*. at 685.

44. 135 S. Ct. at 2408.

be a likely staggering drop in annual royalty income. Moving forward, biomedical licensing arrangements must diversify, striking a balance between sharing commercial proceeds while still adhering to federal guidelines, as well as university and business practices. Fortunately, companies recognize the contributions of biomedical research institutions and often seek to license patented and non-patented contributions through technology transfer agreements.[45] As a result, a patent-only licensing portfolio can be potentially diversified with biomaterial licenses, know how licenses, reach-through licenses to later expiring patents, and equity in lieu of royalties.

A. Biomaterial Licenses

Biomaterials are "those materials—be it natural or synthetic, alive or lifeless, and usually made of multiple components—that interact with biological systems and are used in medical applications to augment or replace a natural function."[46] Often defined by their application, the materials are created during biomedical discovery. The value of biomaterials is material dependent and because they are produced during development of or even in lieu of the primary IP, royalties for biomaterials can be collected over a longer term than a traditional patent term. Biomaterial licensing agreements are traditionally five to seven years after the first commercial sale but can extend into the post-patent expiration period if a reduced royalty rate is often charged.

Biomaterial licensing has *caveats*. First, not all biomedical discoveries produce useable materials. The ability to separate commercially valuable biomaterials from the large number of biomaterials typically generated by research institutions poses a challenge. Second, advances in science and technology means that some once novel materials, such as peptides, are now easy to make and thus carrying little commercial value as materials themselves. Third, clinical grade materials while often more desired by licensees are typically the most difficult for research institutions to generate due to their cost and difficulty of production despite having the most significant financial values in license agreements. Furthermore, the goals and policies of public research institutions concerning biomaterial licensing will be different than that from a private company. As a result, academic institutions may favor non-exclusive, over exclusive, licenses to encourage wider distribution and utilization rather than trying to maximize the immediate financial return. Finally, academic institutions rarely have the production capabilities of commercial organizations. As a result, academic institutions may have limited opportunities for biomaterial licensing by simply not having materials in excess of those needed and consumed in their own laboratories.

B. Licensing of "Know-How"

Licensing "know-how," or subject matter expertise, offers a second alternative biomedical licensing strategy. In these agreements the licensing arrangement centers on the knowledge and expertise of a particular researcher or laboratory. The licenses are executed in similar manner to biomaterial licenses. These agreements, however, can be invaluable for recipient laboratories in uncovering methodology-based nuances. As with biomaterials, exclusive "know-how" licenses from academic institutions are generally not possible as wide dissemination of such information is again the goal of these institutions. In addition, despite having some of the most valuable "know-how," federal laboratories lack legal authority to enter into licensing agreements for their intellectual aptitude alone. Finally, the "publish or perish" environment of academia may mitigate licensing efforts as the "know-how" will eventually reach the public domain via conferences, academic papers, student theses or other forms of dissemination. Despite this, licenses for "know-how" can be used to leverage research collaboration and IP agreements.

C. "Reach-Through" Licensing

In a reach-through licensing agreement, a patent holder grants current use of a research tool in exchange for a "reach-through" to future royalty payments based on a percentage of sales or usage of a downstream product created with the patented technology.[47] For example, under a reach-through agreement, a patentee would allow use of the patented technology to identify lead-drug candidates absent an upfront or ongoing use payment. Instead, they would then "reach-through" and receive a royalty based on future sales of the drug.[48] The agreement is independent of the tool patent term, and instead based on the term of the resultant drug company patent.

Reach-through agreements are hypothetically advantageous, as low value research tools in theory could be used to generate high value end products with huge potential revenues.[49] In addition, validation of the tool technology can generate benchmark payments for the patentee and benefits the licensee with limited up-

45. Shinae Kim-Helms, "Review of Key Clauses in University/Biotechnology Industry Licensing Agreements," *les Nouvelles* (2007).

46. Biomaterials, *http://www.nature.com/subjects/biomaterials* (last visited June 9, 2016).

47. U.S. Department of Justice and The Federal Trade Commission, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition 1, 94 (2007). *https://www.justice.gov/sites/default/files/atr/legacy/2007/07/11/222655.pdf.*

48. *Id*. 93-94.

49. *Id*.

front funds.[50] Finally, licensing agreements in concept could be structured to allow the patentee to license back the final product generated using the patented tool or technology.[51]

Patentees must construct reach-through agreements carefully, with awareness of other licensors. Royalty-stacking, or when royalties are owed to multiple licensors, can impede collection of royalty payments and impair downstream market innovation. Further, the patentee may encounter difficulty in collecting such royalty payments from products with long development cycles. In response to these and other competitive concerns the NIH (through its Research Tool Policy) discourages, and large companies also similarly disfavor, reach-through license agreements.

D. Equity in Lieu of Royalties

Equity in lieu of upfront royalties is independent of patent term and thus advantageous. Further, in contrast to reach-through agreements, which are based on the success of a single product, the value of an equity payment would be based on the eventual (hopefully) overall success of a company.

Equity in lieu of royalties is commonly utilized by early stage companies with little capital. The shares are often high risk because they are offered by companies with no profit history and small, non-liquid current equity values. In contrast, established companies have little reason to provide equity. Noteworthy, federal and academic institutions often have difficulty in holding and dealing with equity and will typically sell at the first opportunity if they handle it all. Further, critics note that equity agreements: (1) increase risk for the institution, (2) move the institution away from a role as a knowledge generator, and (3) subject the institution to adverse publicity.[52]

E. Summary of Alternative Licensing Agreements

Biomedical science patentees have multiple options for navigating potential post-patent expiration payments. Materials licenses, "know-how" licenses, reach-through licensing, and equity in lieu of royalty payments are a few of these alternatives. Each has its own set of risks and benefits that must be assessed prior to entering into an alternative licensing agreement. In addition to the alternative licenses noted above, the Court in *Kimble* expressly approved amortizing royalty payments.[53] The practical considerations of royalty amortization are discussed below.

50. *Id*.

51. *Id*.at 94.

52. Maryann Feldman, Irwin Feller, Janet Bercovitz, Richard Burton, "Equity and the Technology Transfer Strategies of American Research Universities." *Management Science* 48:105, 107 (2002). (2002).

53. *Kimble*, 135 S. Ct. at 2408.

V. *Brulotte*, Patent Royalties And Amortization

Critics of *Brulotte* argue that agreements that extend into the post-patent expiration period allow cash-limited licensees to license technology at a lower royalty rate…"[54] Critics further maintain that post-patent expiration agreements help balance risk and reward allocation in fields where long-term development is required to bring a patented product to market.[55] *Brulotte* (and *Kimble*) do not restrict payment timing, but require that post-patent expiration royalty-payment licenses be clearly defined. Specifically, *Brulotte*-friendly licensing agreements should include a deferral schedule and terms, payment terms, a market royalty rate, a deferred royalty rate, and interest rate for deferred payments.[56]

The courts refer to agreements that defer payments in exchange for extending payments beyond the patent expiration date as patent amortization.[57] Consistent with this, the terms of the royalty payments must be structured to ensure the terms comply with *Brulotte*. Payment timing is largely discretionary and can be made (1) before or after patent expiry, (2) using a series of fixed term bonds, (3) in installment payments, or (4) through an accelerated–payment arrangement.[58]

A. Annual Royalty Payments

Annual royalty payments can be collected exclusively before or after expiration of the patent. If collected in the post-patent expiration period, annual royalties during the patent term are deferred to the corresponding year in the post-patent expiration period. Frequently, as the patent matures more sales will be generated and as a result, royalty payments will start low and end high. Financial foresight, by the licensor, is required in order to adjust to the change in royalties that is likely to occur at the start or end of the patent term. Critical to royalties paid in the post-patent expiration period, a clear distinction must be made between accruals and payments to ensure payments are based on royalties only accruing prior to patent expiration.[59]

B. Fixed-Term Bond Payments

Fixed-term bonds provide a second mechanism for payment of deferred royalties. Assuming 10 years are left on the patent, the deferred royalties would be

54. *Id*.

55. *Id*.

56. D. Crichton, *Post-Patent Term Royalty Amortization After Kimble* (forthcoming).

57. *Id*.

58. Further explanation and detailed examples of payment timing are provided in D. Crichton, *Post-Patent Term Royalty Amortization After Kimble* (forthcoming).

59. *Brulotte* 85 S. Ct. at 179.

made as a series of 10 year bonds.[60] The deferred royalties in year one of the patent term would serve as the principal bond amount. The current prime interest rate would be applied to the bond, the maturity date in 10 years, or in year one of the post-patent expiration period. Nine additional 10 year bonds would be established in the same manner over the remainder of the patent term. Royalty payments would occur exclusively in the post-patent expiration period. The nature of a bond makes the creditor a stakeholder in the company which provides advantage in terms of creditor repayment.

C. Installment Payments

Installment payments, or straight line amortization, spread the costs evenly over the post-patent expiration term. In this payment scheme, the cumulative deferred royalties plus interest expense constitute the principal. The total balance is then divided by the contractual established term of deferred royalty payments to establish payment terms.[61]

D. Accelerated Payments

Accelerated payments using a double declining amortization schedule, provide higher payments early in the post-patent expiration period with payments declining over the subsequent years.[62] Briefly, the straight line depreciation rate is calculated based on the number of payments in the post-patent expiration period.[63] The depreciation rate is doubled and applied to the total deferred royalties plus interest in the post-patent expiration period. Because the total royalties owed will decrease, the depreciation rate is applied to smaller total value every year. The result is larger repayments in the initial years and smaller repayments near patent expiration.

The licensee benefits from lower upfront costs associated with amortization of royalties. This is especially beneficial to start-ups and other licensees with limited capital.[64] The licensor benefits from being able to commercialize their product while simultaneously enlarging the amount of royalties accrued up to expiration of the patent.[65] Licensor due diligence should assess that: (1) the licensee remains an ongoing concern during the term of the contractual agreement, and (2) the licensee maintains a sales level that supports royalty payments.

E. Summary of Patent Royalty Payment Amortization

In summary, amortization provides the licensor a mechanism to collect royalties in the post-patent expiration period in exchange for the licensee delaying initial royalty payments when working capital may be limited. The four amortization payment methods described offer differing royalty profiles. Annual royalty payments start low and steadily increase, peaking in later years when demand for the patented technology is expected to peak.[66] 10 year bond payments have a similar royalty payment profile.[67] The bond payments in the post-patent expiration period are equal to the royalties plus interest from the corresponding year of the patent term.[68] Installment royalty payments are calculated on total royalties, resulting in constant payments throughout the post patent-expiration term.[69] Finally, accelerated payments, because they use a double amortization rate, provide high initial post-patent expiration payments that fall rapidly in subsequent years.[70] Clear contract language, including deferral methodology terms, is critical to ensure payment terms are not associated with post-patent expiration sales. [71]

VI. Conclusion

The Court in *Kimble* invoked *stare decisis* noting there is "no special justification" for departing from *Brulotte*.[72] Although royalty payments cased on post-patent expiration sales violate *Brulotte*, multiple alternatives exist for collection of royalties once the patent expires. The biomedical sciences have multiple unique licensing alternatives to patent-based royalties. These include licensing of biomaterials, know-how, reach-through licensing and equity in lieu of royalties.

If structured correctly, *Brulotte* does not prevent collection of patent royalties in the post-patent expiration period. Royalty amortization can take the form of annual royalty payments, bonds, constant royalty amortization, and accelerated amortization payments. Amortization agreements require clearly defined financial details including deferral term, payment term, interest rates, deferment method utilized and amortization schedule in order to comply with *Brulotte*. Finally, costs of royalty amortization and the long-term fiscal position of the licensee must be evaluated. ■

Available at Social Science Research Network (SSRN): *https://ssrn.com/abstract=2896190*

60. D. Crichton, *Post-Patent Term Royalty Amortization After Kimble* (forthcoming).
61. *Id.*
62. *Id.*
63. *Id.*
64. *Id.*
65. *Id.*
66. *Id.*
67. *Id.*
68. *Id.*
69. *Id.*
70. *Id.*
71. *Id.*
72. 135 S. Ct. at 2415.

Shifts In Big Oil Patent Landscape: Capturing Value From Intellectual Property For National Transformation

By Paul Germeraad, Rashid Khan and Deepa Ravindranath

1. Introduction

This paper highlights the emerging trends in energy sources and in particular the effect of these trends upon the traditional oil and gas industry and the oil rich nations of the world. Particular attention is paid to emerging countries which have vast oil and gas assets but who have now expressed the intent to transform themselves from their traditional oil and gas commodity based economies into knowledge-based societies. As part of this transformative process, companies and nations around the world are taking a closer look at the monetary value and economic use of IP.

2. Rise of Renewable Energy and Potential Impacts on Fossil Based Economy

During the last two centuries the world has shifted from wood to coal to natural gas as part of an overall trend to decarbonize fuel sources. As an example, in 2003, President Bush launched the Hydrogen Fuel Initiative, a program on the "Hydrogen" economy which has yet to deliver a commercially viable hydrogen fuel solution.[1, i]

Data gathered from Bloomberg supports these trends. Shown in Figure 2.1 are the documented declines in the use of oil, gas and coal and the synchronous increases in energy production from renewable sources. Climate and general environmental concerns, as well as changing cost structures, are reported to be the cause of such large-scale economic disruptions.

Also purported to be driving such change is the advent of portable electric power on a cost and performance adjusted basis competing favorably with traditional oil or coal powered power. Having the most impact is the transition from gasoline powered automobiles to electric powered automobiles as shown in Figure 2.2.

Although everyone agrees change is coming, the pace at which change will set in is highly debated. On one side of the argument, there are proponents of the view that the pace of change will be quite slow and the related impact on the oil market as slight. With respect to EVs, the Bloomberg prediction discussed previously estimates that by 2040, 25 years from now, despite all the publicity about solar cars, only 35 percent of new cars worldwide will have a "plug," to run on electric energy. Moreover, the energy for the EV may not be derived from renewables, keeping in mind that in the northern United States there is no or little sun, and wind energy is still growing. Even outside the vehicle industry, proponents of slow change cite the rapid growth of the aviation industry which is now a very popular mode of transport global-

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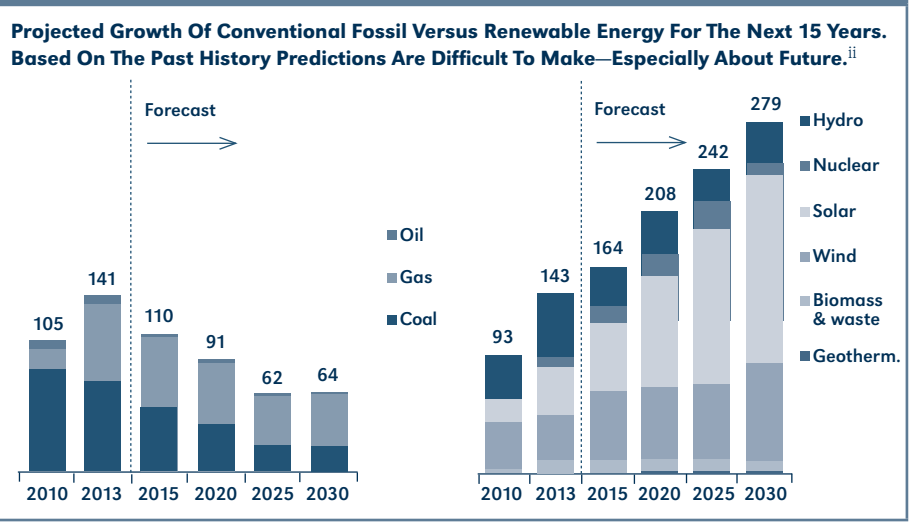
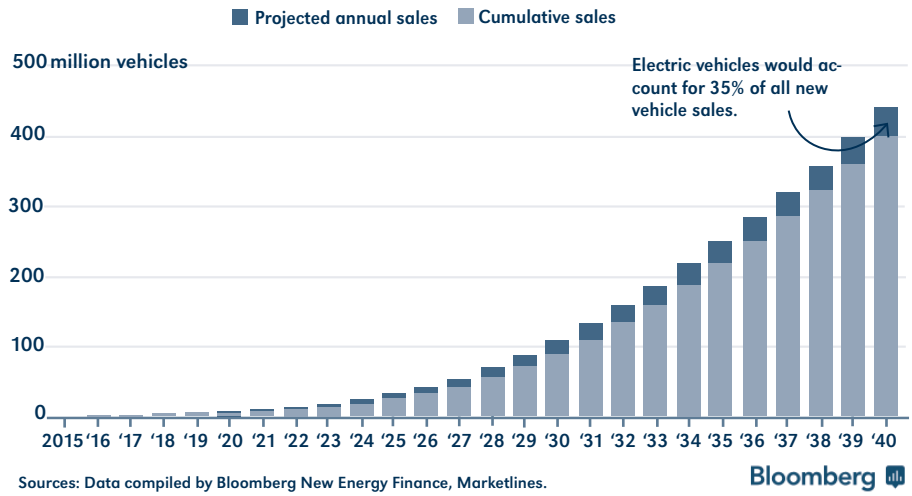
Figure 2.1: Projected Growth Of Conventional Fossil Versus Renewable Energy For The Next 15 Years.



1. The so-called hydrogen economy lacked serious analysis regarding logistics related to hydrogen generation (by product of fossil), storage (high pressure needs), transport (safety issues) and many other economic and social issues were not considered when the hype of Hydrogen Economy was launched.

Figure 2.2: The Expected Rise Of Electric Cars.[iii]



ly. They note that aviation energy is entirely dependent on oil, and there is very little developmental work on alternatives.[iv]

ConocoPhillips CEO Ryan Lance stated that EVs won't have a material impact for another 50 years—probably not even in his lifetime.[v] Supporting his view is Figure 2.2 showing that the penetration of electric vehicles into the market will, in fact, be slow.

On the other side of the argument, there are proponents of the view that the pace of change will be rapid and the impact to the oil market as significant. Tesla, Chevy, and Nissan have announced plans to start selling long-range electric cars in the $30,000 range.[vi] Other carmakers and tech companies are investing billions on dozens of similar new models. The aim would be to match the success of Tesla's Model S, which now outsells its competitors in the large luxury class in the U.S.

Further to this point, futurist Lars Thomsen thinks that electric cars are such a disruptive technology that they will make gasoline cars obsolete—starting in 2016, or much earlier than most other analysts suggest.[vii] In September 2015, at the 25th International AVL Conference "Engine & Environment" in Graz, Austria, Thomsen suggested that electric cars are a sufficiently disruptive technology that will lead to quick behavior changes by consumers in the market for automobiles. He uses the example of Nokia as a cautionary tale, noting that less than 10 years ago, that company dominated the world market for mobile phones. In June 2007, Apple released its first-generation iPhone. The iPhone was such a radical rethinking of what a phone should be and how it should operate—essentially a small Internet-connected computer, operated via a touchscreen that also provided voice calls—that it completely reset the market's vision of what a "mobile phone" should be.

And if consumer behavior isn't enough, current legislation by some countries will push the transformation along. In June 2016, Norway passed legislation that will ban the sale of all fossil fuel-based cars by 2025, continuing its trend towards becoming one of the most ecologically progressive countries on the planet.[viii] During the same month, The Netherlands announced it is also likely to pass similar legislation.

Other futurists, such as Stanford University's Tony Seba, have concluded in his book (Clean Disruption of Energy and Transportation) that both energy and transportation as known today will be history by 2030.[ix] This moves past the view that it is just the automobile industry that will be transformed. Tony believes Silicon Valley will make oil, nuclear, natural gas, coal, electric utilities and conventional cars obsolete by 2030. And Australia—with its high solar penetration—will lead the way.

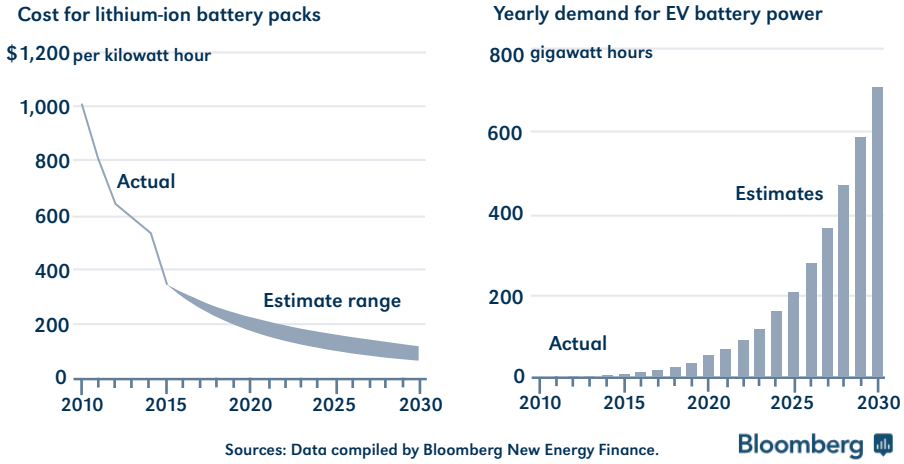
Part of Tony's optimism comes from reports that the world is now adding more capacity for renewable power each year than coal, natural gas, and oil combined. Adding to the viability of renewable energy sources is the price of energy from solar is falling so fast that solar will soon undercut even the cheapest fossil fuels, coal and natural gas. In the few places oil and solar compete directly, oil doesn't stand a chance, as shown in Figure 2.3.

As impressive as this may be, however, proponents of slower change point out that the percent contribution to the overall energy use is still relatively small. With respect to the shift from oil to solar, they point out that much of the growth is the result of government subsidies which are drying up at least in the U.S. As subsidies disappeared so did many companies. Bankruptcies among solar-based companies were large only a few years ago and have been widely highlighted in the media.

So while there are many sides to the story of how fossil fuels will migrate to renewable energy sources, one thing is clear, change is upon us. Some oil companies and oil-producing nations have recognized this

Figure 2.3: The Cost Of Lithium Battery Packs And The Corresponding Anticipated Demand To 2030

The cost of lithium battery packs and the corresponding anticipated demand to 2030. Batteries contribute to the third of the cost of an EV, as cost falls, the demand rises. To sustain the improvements and further disruptions in storage, new battery chemistries will be needed to shift to other source materials, making packs lighter, smaller, and cheaper.[x]



Sources: Data compiled by Bloomberg New Energy Finance.

Bloomberg

and are now in the process of changing their strategies for the future.

3. Company Strategies in Response to Energy Trends

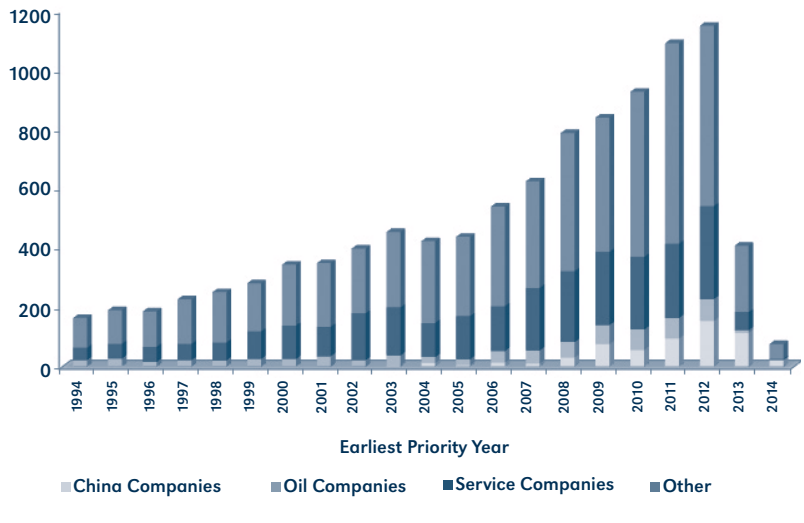
Given the developments in the renewable energy market and the diverse set of opinions on the future of oil, the authors thought leaders in the field of patent data analytics study the emerging strategies of oil and service companies.

R&D strategies are highly visible when one looks at patent information as investment decisions. Patents provide a way to track the size of investment and strategic direction of a corporation. When doing this for large oil and service companies, what is apparent is that these organizations are continuing their investment in E&P. They have not pulled back. Renewables are a minor part of investment, their portfolio. Figure 3.1 shows this trend for the larger international and national oil companies.

Of note in this graphic is both the overall size and increasing velocity of oil service company investments. These organizations use patents as leverage to obtain business and become partners in E&P projects. They, too, are continuing to invest heavily and increasingly in fossil fuel extraction.[2]

The strategies also vary by international versus national oil companies. Figure 3.2 indicates that individual international oil companies have had a steady-as-she-goes philosophy and in some cases have actually decreased their investment.

Figure 3.1: Patent Velocity Of E&P Focused Companies



National oil companies by contrast have overall increased their investment through the recent years. Petrochina has the highest recent growth. Aramco and Petronas have grown too, but their overall investment rates were too low to see in this graphic.

When one studies the portfolios of the oil companies in detail, one sees in Figure 3.3 that both international and national oil companies alike are seeking to gain patent coverage for all E&P technologies across the board without one front-and-center approach.

Looking closely at the investments,

2. Because of the lag in patent information the drop in all oil and gas exploration investment due to the 2015-2016 collapse in the price of a barrel of oil is not yet reflected.

national oil companies have specialized in either the type of exploration specific to their region of operation, or in areas where their technical core competencies can be leveraged to make them a valued contributing partner. Outside of the patent derived information is the insight that national oil company investment is being used as part of an economic development program (in particular China and Saudi Arabia).

Missing from this investment picture are investments (patents) in renewable energy sources. These are not showing up because when one looks closely at the investment activity of oil companies, we find this is done through external M&A activity versus internal R&D spending (which shows up in patent information). This M&A approach occurs because oil companies lack sufficient core competence in the new renewables technology areas at this point in time. Thus, to play in these areas, energy companies are using open innovation from outside their walls to experiment and gain knowledge in renewables areas.

4. Evolving National Strategies in Response to Energy Trends

For the national oil companies the renewables technologies are so different from those required for fossil fuel extraction that their governments have become involved in charting the transition away from fossil fuels. This is because it is clear that in addition to some overlapping core technologies of national oil companies and business competencies, renewable energy production requires different technology and business competencies such as ability to influence a new group of regulatory agencies and participating directly in consumer installations subject to local, in addition to national, regulation. Adding to this challenge is that the pace of renewables innovation is so rapid that is not clear whether the traditional oil companies can make the transition to this agile vs. stage-gate type of development. As such, at least for the national oil companies, it leads to the conclusion that such redirection of investment is best done at the national versus corporate level.

Figure 3.2: Company's Investment In R&D Activities, Expressed As Patent Activity

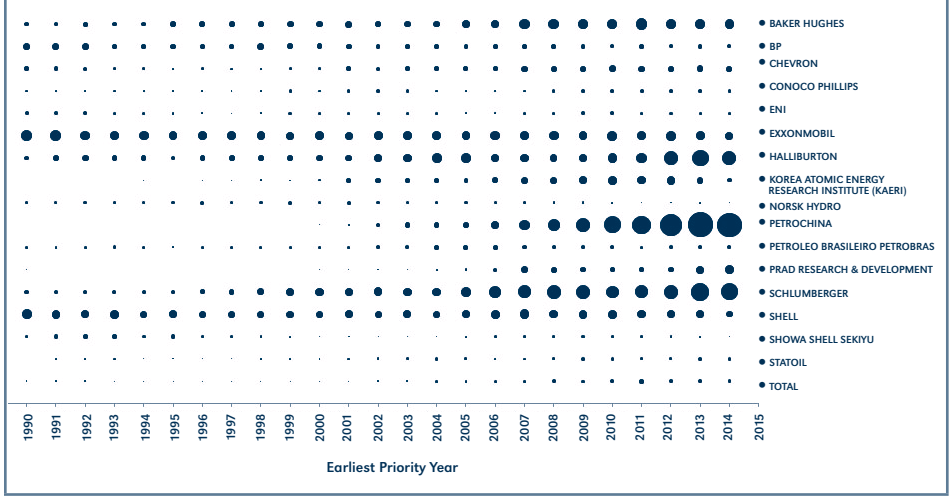
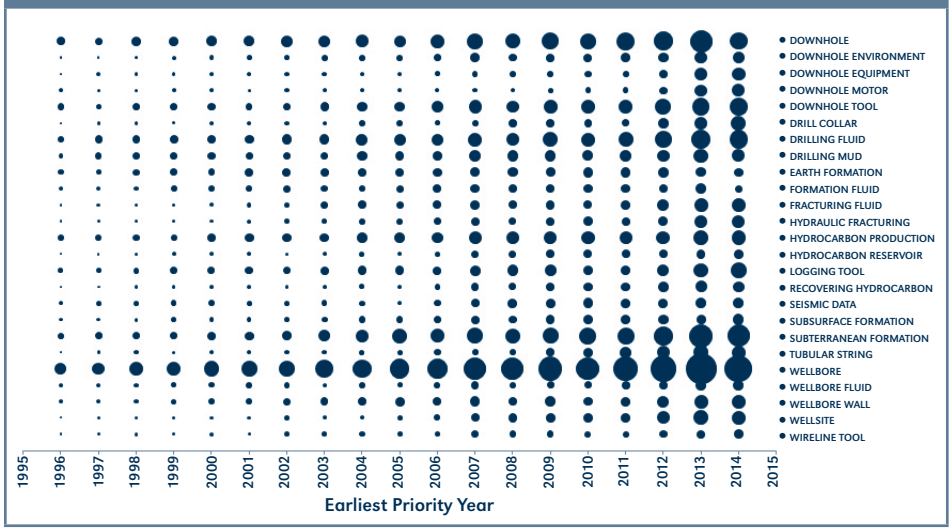
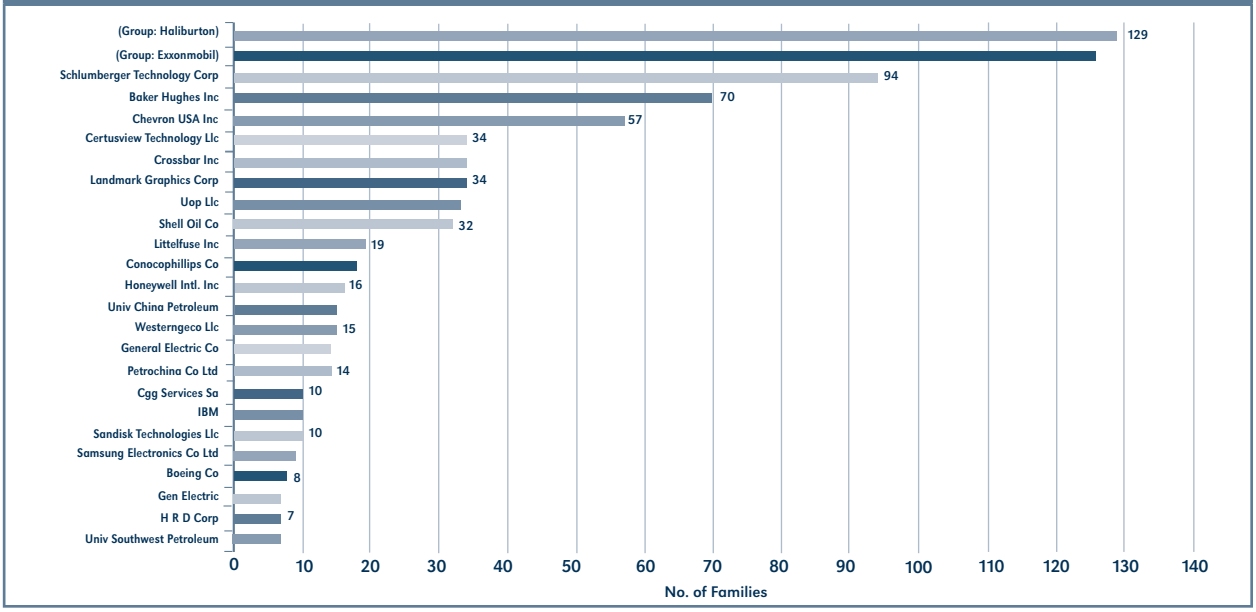


Figure 3.3: Company's Investment By R&D Area



Examples of how change in the oil and energy industry is being influenced by government policy are Saudi Aramco in Saudi Arabia and PetroChina in China. In the case of Saudi Arabia, it is known that the economy of the Kingdom of Saudi Arabia (KSA) has been dependent on petroleum production and petrochemicals—and the government policy is easier to see. Saudi Aramco has been developing a rich patent portfolio which is

Figure 4.1: Key citing entities of Saudi Aramco patents (~800 patent families shown out of over 2000 total).



growing in size and scope in such a manner that other companies are now following the inventions processed by Saudi Aramco, as shown in Figure 4.1.

Saudi Arabia is not the only country evolving their national strategy. The author's data from Figure 3.2 suggests that Petrochina/China are likely doing the same. However, these efforts are more difficult to ascertain in the Petrochina/China case as the Chinese economy is so large and policy changes less transparent. As such, shifts in oil investment and policy is not as easy to identify, although it is very apparent from the patent data that Chinese companies other than oil are investing heavily in renewables technologies with government supported university and IP programs.

From government policy statements it is seen that the KSA goal in 2020 is to be oil independent.[xi] The impact of KSA's economic development policies is large. KSA is ready to raise and invest $2 trillion so the Kingdom will be totally independent of oil by 2020. This initiative is base somewhat on the Global Innovation Index (GII) study that showed that "innovation" serves as a key driver of economic growth and societal well-being metrics.

The GII 2015 study, which covers 141 economies including MENA nations around the world and uses 79 indicators across a range of themes, identified economies that consistently over perform when compared with those of a similar level of development.[xii] The top three economies in the GII rankings in Northern Africa and Western Asia were Israel, Cyprus, and Saudi Arabia. Based on some of the indicators, it is noted that scaling by GDP (required for comparability across countries) distorts the situation of the relatively wealthy, resource-rich countries of the Gulf Cooperation Council (GCC) like KSA. Important for the future is that such GCC countries often exhibit relative shortcomings in important areas such as institutions, market sophistication, and business sophistication. This phenomenon is called the 'resource curse' or the 'paradox of plenty'. These GCC countries, however, are uniquely positioned with their cash cows to diversify towards innovation-rich sectors for the future.

Other countries in the MENA region initiated similar vision for economic diversification. The GDP of economy of Dubai is already essentially based on non-oil sectors. Solar energy projects are abundant in the region and growing rapidly. A big cultural change is on the horizon as historically, oil-rich countries have not diversified their economies away from oil. Now, however, with the competitive entry of renewable energy sources these countries are rapidly entering a new area. The national leadership has realized that to sustain their standard of living they will need to shift their economy away from hydrocarbons and achieve economic diversity (a knowledge-based economy) as has the Kingdom of Saudi Arabia.

Investment by KSA universities in renewables energy is one of many economic opportunities being investigated by the KSA leadership. Other technical and economic opportunities compete with investment resources, as from a KSA standpoint it is about building and maintaining a thriving economy, not just an ecological/socially responsible issue. To enable this transition KSA is looking to build its own internal human

Figure 4.2: Growth In KSA IP Filings

Growth in KSA IP filings (filed in KSA by residents and non-residents), indexed to base year 2000. The number of patent applications filed was 186 during 2000 while the number increased to 4123 during 2014.[xiii]

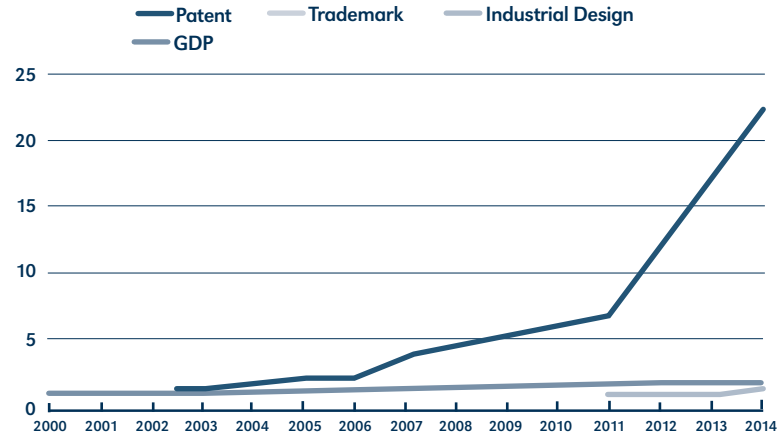
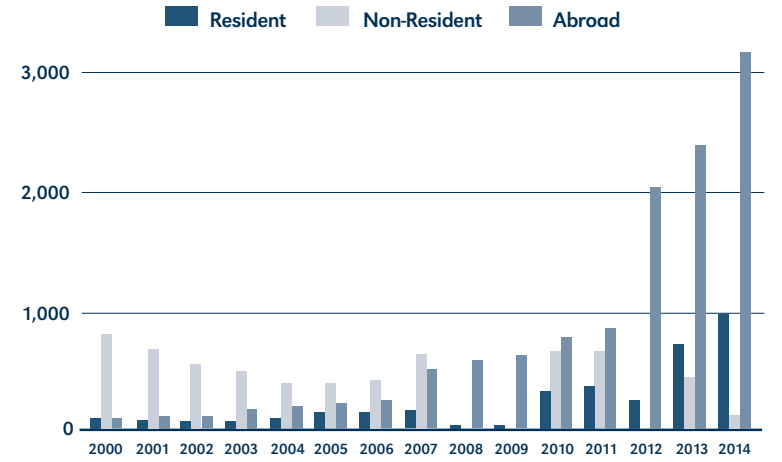


Figure 4.3: Number Of Patent Application Filings Occurring Inside And Outside Of KSA

Figure 4.3: Number of patent application filings occurring inside and outside of KSA (Resident = domestic filings, non-resident = filings coming into KSA from other countries, Abroad = filings going out from KSA to other countries).[xiv]



competencies. As such, the KSA technology/innovation philosophical approach is to be more M&A centered (acquire all assets—capital and knowhow). In doing so they force a higher rate of adoption and learning than if they engaged primarily in licensing.

To ensure this investment will pay off over the long run, development of an IP-based industry appears to be becoming a key part of the KSA's new developmental agenda. For example, in Saudi Arabia there is explosive growth (25x as compared to year 2000 levels) in patent and industrial design filing, as shown in Figure 4.2.

In another study, the World Intellectual Property Organization (WIPO) reported that most KSA created patents are being filed abroad (USA), (Figure 4.3). It is interesting to see that the participation by the local residence inventors is also increasing significantly. Consistent with the national policy, inventions are being filed in diversified areas including basic materials, as well as in chemical, civil, environmental and other engineering fields.

Participation by the regional companies in the national strategy is investment in renewables technologies and other high technology areas that can be investigated, developed and commercialized via the Kingdom's universities, so that new companies can start-up and power future economic wealth for the Kingdom.

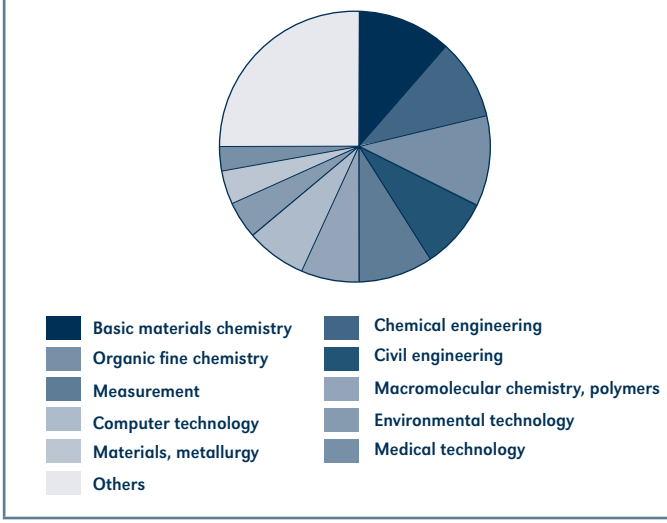
It is clear that the transition has started because in addition to E&P technologies, renewable energy production and other high technologies are being patented in the Kingdom (Figure 4.4).

KSA national strategy appears to (1) support the Kingdom in training personnel in IP and commercialization processes and facilitating start-up friendly funding processes, so that (2) commerce based on new technologies thrives. This follow-on role for regional integrated global companies such as Saudi Aramco is required because the challenge is now one of transforming the basic science and engineering inventions into commercially valuable innovations.

This IP training is crucial in today's emerging markets and economies because small and medium size companies and universities, especially in Asia and the Middle East, are not aware of the true potential of their IP. The idea of protecting innovations and inventions in a knowledge-based economy and using a better means for raising finance by owners of patent portfolios is not yet well understood or practiced. Growing the awareness of IP's importance is thus a major issue especially for emerging countries of MENA in order to "spawn whole new industries or to transform existing industries" consistent with the national strategy.[xvi]

By providing training for economic development, research, innovation and IP-based businesses in Saudi

Figure 4.4: Patent Applications Filed In KSA By Top Fields Of Technology.[xv]



Arabia, it will make significant contributions towards realizing a competitive knowledge-based economy, in addition to being the world's leading supplier of oil.

5. Summary and Concluding Remarks.

Today oil companies are in the midst of large technology and market changes. The large international oil companies are reacting by slightly slowing their internal R&D expenditures in E&P technologies and by investing comparably limited amounts of internal R&D in renewable energy technology areas, supplemented by Merger & Acquisition of renewable energy companies. In contrast large oil service companies are reacting by continuing their investment (internal R&D and external acquisition) in E&P related technologies.

The national oil companies are reacting to change by continuing to invest their internal R&D in specialized E&P areas advantageous to extraction of oil and gas in their own geographic regions and by M&A activities in renewable energy technology companies. Some are additionally involved in supporting their nation's economic development plans.

The opportunity for licensing professionals to participate in such large scale investment change is immense, ranging from using IP information to guide oil and service companies strategies' to participation in brokering licensing and supporting M&A team activities. ■

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What Is An Intellectual Property Strategy For Oil And Gas Industry?

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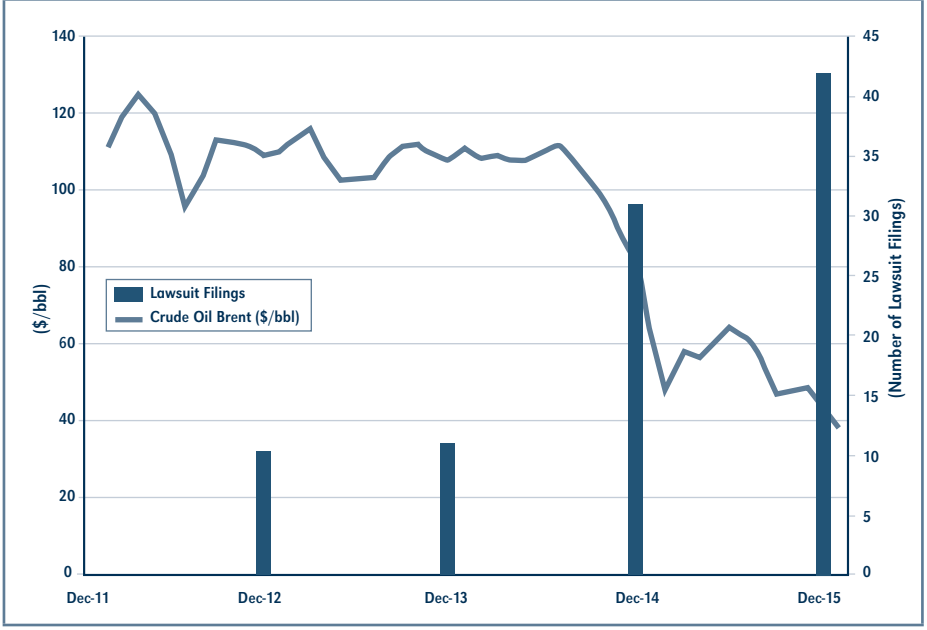
In recent years, intellectual property (IP) has become increasingly strategic. The increasing importance of IP raises questions about how to best protect and use them to achieve certain organizational objectives. It has become "imperative" that companies have well-defined strategies that capitalize on maximizing the value of the IP assets. Over a decade ago, Bill Gates stated that IP "is no longer simply the legal department's problem. CEOs must now be able to formulate strategies that capitalize on and maximize the value of their company's intellectual property assets to drive growth, innovation and cooperative relationships with other companies." IP strategy is the development of various imperatives that utilizes IP to enable a company to be sustainable in the domain it operates and achieve its broader objectives. For the hydrocarbon-based industry, there is no single strategy that applies for all organizations or within the same organization in the industry, which often can have diverse interests, *e.g.*, upstream, downstream, chemicals, pipelines and aviation—just to name a few. Furthermore, the strategic objectives of an international oil company (IOC) can be different from a national oil company (NOC). Depending on a company's role within the value chain, different considerations may apply. This short brief is limited to oil and gas companies—producers and service providers, modes of protection (patents vs. trade secrets or defensive publication), related collaboration and start-ups, and any threat from non-practicing entities. IP strategy often also includes many other vital topics such as strategies related to best modes of protection, geographical jurisdictions, and value creation versus legal costs of protection. These topics are beyond the scope of this discussion.

IP Challenges in Traditional Oil and Gas Industry:

Patents were increasingly used in the oil and gas industry. In 2013, over 12,000 oil and gas patent applications—three times the number filed 10 years ago. This surge was largely driven by innovations in fracking technology, with companies seeking protection over improvements to fracturing fluid, composition, method, apparatus and applications. In addition, many NOCs had increased presence in IP domain (China, Saudi Arabia, etc.). Patent applications covering methods for assessing the fracture size, systems to provide power to isolated wells and methods for preparing fracking fluids also have been filed. The most recent bust in oil prices had many impacts in oil and gas industry. One interesting development is that during the period crude oil prices decreased threefold, patent litigation within the sector increased more than fourfold (1).

Many oil and gas producers had to implement cost-savings and other measures to offset decreased revenues, but their expenditures on patent infringement litigation increased. In many cases, the entire company had to file for bankruptcy or downsize dramatically. Yet the patent ligation increased. Why is this? Could it be out of desperation of companies to

Figure 1. Litigation Activity vs. Crude Oil Prices



resort to litigation as a way to recover lost investment for technologies which were infringed by a third party? Smaller players in the industry may derive a great deal, if not all, of their revenue from patented technology. Thus, patent-litigation can often be critical to the success of their businesses. The correlation, whether incidental or consequential, is noteworthy as patent litigation can be expensive. Nearly all patent litigation involves two related questions: Is the patent valid, and is the patent being infringed? The cost of defending a patent infringement averages $2.2 million in 2015; the risk varies between $1 million to $10 million (4), but many examples of triple damage amounting to hundreds of millions of dollars exist. Many companies are realizing that if they are to stop others from using their IP, they must litigate. This alone demonstrates that there is no easy time to be relaxed about IP, even for the oil and gas companies during the low-price environment. IP strategy is strongly linked to business strategy, and is paramount for the companies' well-being during good and bad times.

IP Strategy for Oil and Gas Producing vs. Service Companies

IP strategies for oil and gas producers are different from service companies based on the distinctions where they operate, the type of the technology solutions they develop, and the associated risks/rewards with deployment. These factors often direct IP protection strategy. As the number of competitor's increases, it becomes more difficult to maintain "first-mover" technology leader advantages. Under these circumstances, it is likely there will be an increase in patenting and enforcing patents moving forward in the industry.

Most large producers have relatively strong Research and Development (R&D) departments, which are focused on new technology development. Much of the focus of the filing the patent is "freedom to operate." Many producers generally do not develop technologies related to core service areas, *e.g.*, drilling or well completion service or maintenance. Subsequently, the interests of many big producers may overlap with that of the service companies, *i.e.*, ExxonMobil or Saudi Aramco have been active in drilling and well completion areas.

In general, the service companies generally develop technologies to address problems of producers. Solutions to these problems sometimes take years of "know-how" developed through many practical field applications. Typically, these solutions yield significant commercial rewards, thereby rendering it easier to justify the initial investment in R&D, which reflects in their patenting strategies. By patent protecting a developed technology, a service company secures a tool to block replicating competitors, and thereby attempts to preserve the competitive edge in the marketplace. Consequently, it is equally important to gain benefits from the "know-how," during deployment of a technology by a service company, especially for an NOC. Therefore, trade secrets have a place to retain significant know-how by a producer.

Strategy Related to Patents vs. Trade Secrets or Defensive Publication

When deciding between patent protection and trade secret protection, the latter—trade secret—is generally a relatively more realistic option for big producers. Producers are better able to control outside access to their own information, and are thereby better at preserving trade secrets. It is easier to control access to information in one's own territory or field; however, with increasing collaboration, employee moves, and the need to disclose to regulatory authorities, trade secrets may be difficult to maintain, even for producers.

There is a saying that "trade secrets go home every night." Therefore, in the extreme, the trade secret protecting organization is vulnerable to a patent infringement claim by a new developer that may independently patent the same technology. The risk for loss of trade secret protection and possible infringement discounts the trade secret alone as protection strategy option for most producers. From a defensive perspective, it is preferable to protect a key technology that creates value via a patent, as a opposed to protecting it as a trade secret. Selective defensive publication is an excellent avenue to disclose a technology rendering it potentially patentable for the competition. The IP vehicle of choice for service companies is more likely to be patent protection rather than trade secret protection. This is because it is more difficult to control information flow and trade secrets, when technology is used by multiple customers in many places.

Most large companies have a large IP portfolio, and in many cases much of these IPs are not used. Leveraging an IP can be pursued by many options such as sale or assignment, licensing (even to competitors), collaboration to enhance profit margin (with competitors, suppliers, customers, or the developers) and even donation (*e.g.*, to entrepreneurs) to derive other benefits. None of these strategies alone is ideal for every circumstance. The appropriate mode varies by context and subject. Choosing among them requires careful weighing of short- and long-term benefits. Making such strategic assessments require a high degree of understanding the complicity associated with the costs and benefits and details governing patents, copyrights, trademarks, and trade secrets.

Collaborations

Companies that employ IP protection hope to leverage market power by increasing prices above their competitive level, and/or by maintaining a monopoly

over others. In many circumstances, IP holders also rely on market power to price—differentiate among customers. This ambition can have serious strategic drawbacks. There are mechanisms that can turn exclusive rights into a liability for the innovative company: changes in the nature of competition, rivals' increased incentives for innovation, and potentially smaller markets. When present, each of these mechanisms can raise the attractiveness of sharing IP with competing companies through licensing, collaborating, or even donating IP. The long-term success of collaboration depends on defining IP rights from the outset. For potentially disruptive technologies where development carries significant risk and the rewards are not necessarily immediate, a partnership appears to be the appropriate strategy. Such a partnership offers more substantial resources to fund development and also results in the sharing of associated risks. As a necessary prerequisite for creating such a relationship, however, is clearly defining how the parties own and use IP, based on the strategic objectives. Otherwise, the parties' expectations may be disappointing, and the objectives of collaboration may not be fully achieved.

Start-ups (by Leveraging Partnerships)

Start-ups often do not have a well-defined IP strategy. In fact, many entrepreneurs are pressed just to keep afloat and, with routine demanding tasks, IP protection is often considered a luxury that cannot be afforded in many parts of the world. Trade-secret is an avenue used by many start-ups. This option may be better suited to smaller players who do not intend on licensing their innovation to third parties. The size of the organization makes it easier to control how the information is used and shared. As stated elsewhere, IP can often serve as a 'Lifeline' in the 'Valley of Death" (2). It is difficult for an inexperienced start-up to enter into the oil and gas service marketplace for many reasons, including lack of insight into a customer's problems, track record, customer relationships, and the associated commercial risks. Start-ups may develop IP protected technologies, including potentially disruptive ones, *e.g.*, related to discovery or recovery or better reliability related to, for example, better upgrading or extraction that the big oil industries may find of commercial value. Under the shadow of big companies, start-ups can benefit from big producers to validate their technology, *e.g.*, by field testing, and scale-ups and thereby minimize the risks in the "valley-of-death." Patent flow, however, can occur in both ways. Start-ups may also leverage patents from companies that are not used, at a marginal costs, creating a "win-win" situation by developing the technologies that may not be economical for larger players to develop, deploy and service to multiple parties. From a defensive perspective, large producers and integrated oil companies already grow a large patent portfolio. Much of these patents often require on-going assessment to determine alignment with strategic objectives, leaving behind a portfolio of marginal value that difficult to scale-up and deploy within the scope of large companies, but may be suitable for donation or licensing to small and medium size enterprises, which have the needed competencies and appetite to risk such ventures. Growing a valuable patent portfolio facilitates cross-licensing arrangements. In addition, the part of the impactful patents can be assigned to regional start-up companies for further development and marketing, which enables the big companies to enjoy the benefit of the technology by internal deployment, while mitigating the risk of failure by the start-ups (2).

For smaller companies, there is yet another reason to prefer a patent, which is hoped to be acquired by the larger companies. Technology's value and investment in the start-ups by a venture capital is dependent on whether the start-up company has successfully protected the invention, as previously discussed (1). The NOCs also have a national development and local job creation agenda, which reflect their IP activities, unlike most IOCs. Yet there are cases where IOCs and larger companies have created an ecosystem for startups. Houston is an example of a recent start-up valley or ecosystem. The Kauffman Index for Entrepreneurial Activity ranked Houston among the top big cities for entrepreneurial activity in 2011, better than that of Boston, San Francisco and Seattle (3). In the last few years, there was a boom in specialized organizations such as incubators, accelerators, hackathons, and meetups, many of which found opportunities in the oil and gas industries. Houston's long tradition as an energy hub—home to about 5,000 energy-related companies—has assisted to pave the way for what happened. The Medical Center of Texas is the largest medical center in the world and a center of research and healthcare ventures. Although with declining oil prices, much of the support from big oil disappeared, and the individuals with a "golden handshake" from big oil ventured into start-up opportunities in many other areas, sustaining the start-up ecosystem in the region.

Non-practicing Entities ("NPEs") are business organizations that own patents for technologies they have no intention of using for commercial purposes. Because NPEs do not make, use or sell technologies, they cannot be easily sued for patent infringement. As such, when an NPE claims for patent infringement vs. an oil and gas company, the NPE is often untouchable to counter assertion threats by the supposedly infringed producer. This further magnifies the power imbalance beyond what is typically present in a patent dispute between marketplace competitors. Producing companies should be alert to business failures and IP that may become available for purchase and acquisition, as a result of such business failures, if only to render these unavailable to NPEs.

Concluding Remarks

IP strategy ideally should reflect the corporate strategy to enable a company to create maximum value and be sustainable in the domain it operates, while achieving its broader objectives, *e.g.*, national development, from the perspective of an emerging nation. Many of the big integrated companies file patents to maintain the "freedom to operate" in the domain where they operate. There is no single strategy that can apply for all organizations. The strategic objectives of an IOC can be different from a NOC. This short article is limited to oil and gas companies—producers and service providers, modes of protection, related collaboration and start-ups, and any threat from NPEs. From a defensive perspective, it is preferable to protect via a patent, as opposed to trade secrets, although a trade secret has its place to retain significant "know-how." The IP vehicle of choice for service companies is often patent protection rather than trade secret protection. Proactive disclosure by defensive publication is an excellent avenue to disclose a technology making it potentially not patentable for the competition. The fundamental point to always consider is the cost of patent protection vs. the value of the underlying technology being protected, and the benefits derived from a protected technology. As part of IP strategy, organizations must continuously be vigilant, and monitor their IP assets to create maximum value. ■

Available at Social Science Research Network (SSRN): *https://ssrn.com/abstract=2896210*

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*The views expressed by the article reflects that of the author and not his former employers—Saudi Arabian Io Company. However, review and approval of the article by Public Relations Dept of the Company was appreciated. For further information, please contact: *Global.IP.Network@gmail.com* or *rushkhan2015@gmail.com.*

Standard Development: Opportunities For SMEs

By Matteo Sabattini and Alessandra Mosca

Standards allow companies of all sizes to actively contribute to a collaborative and yet challenging ecosystem by making new technologies widely accessible through interoperability and providing several benefits to all users. Small and Medium Enterprises(SMEs), however, require a tailored standardization strategy that can leverage their key strengths, exploit their assets and access new markets and opportunities.

Standardization and Innovation Lifecycle

The 21st century will be driven by the ability to foster the creation, dissemination and use of knowledge. In our article titled "Standard Essential Patents and Licensing," we have described a successful innovation framework that companies of all sizes should embrace: the open standard approach. In said article, we have explained how licensing revenues based on the FRAND compromise (the so-called "two way street) can create a parallel revenue stream that can fund further R&D activities and thus create a self-sustaining "innovation loop." In this context, IP has become a crucial, strategic asset for most corporations.

Consistent with this approach, in March 2015, the European Commission stated:

> *The benefits of standards for European industry are extensive. Standards help manufacturers reduce costs, anticipate technical requirements, and increase productive and innovative efficiency. The European Commission recognises the positive effects of standards in areas such as trade, the creation of Single Market for products and services, and innovation. (European Commission)*

Innovation critical for society should always be facilitated by a standardization effort, as standards allow different platforms, services and devices to interoperate, enable core and strategic services for the public and governments alike, avoid lock-ins into competing, proprietary solutions, and ensure a shorter time to market for new technologies.

"In an internationally connected marketplace, we need industry standards and interoperability to encourage new developments. This is especially true in fields where many small companies are involved," says Gerard Owens, co-ordinator for public policy issues at the EPO.

The OECD, Organisation for Economic Co-operation and Development, estimates that standards issues impact 80 percent of world commodity trade.[1] By participating in standardization activities, entities of all sizes can get exposure to best practices while de-risking R&D activities. Reputable standard setting organizations (SSOs) like ETSI or ISO give participants access to a wealth of standardization opportunities, spanning innovative sectors such as Information and Communications Technology (ICT), industrial automation, energy, healthcare.

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SSOs and SMEs: Unnoticed Factor for Business Results

It has been shown that companies of all sizes can gain substantial strategic advantage by following and actively participating in standardization activities. Some of these advantages include:[2]

- Participation increases market share;
- Avoid costs by being informed early;
- Gain market share through influence in standardization;
- Savings on product testing;
- Transaction costs reduction through standardization;
- Formation of strategic alliances;
- Increase product safety and decrease participants' liability.

> *"Businesses not only reduce the economic risk of their R&D activities by participating in standardization, but can also lower their own R&D costs. The businesses surveyed responded that these costs increase at a considerably slower rate when they participate in standardization than if they do not […]. The expense of R&D can be reduced when the participants in standards work make their results generally available, and research need not be duplicated."*
>
> *Economic Benefits of Standardization, Beuth Verlag*

Case studies based on the experiences of 11 companies operating in a variety of business sectors in 10

1. OECD, "Standards and conformity assessment in trade: minimising barriers and maximising benefits."

2. HJ de Vries, "International standardization as a strategic tool," RSM Erasmus University.

countries shows that implementing standards can provide economic benefits from between one-half percent and four percent of their annual sales revenue.[3] In a recent survey of several SMEs published by ETSI,[4] some of the principal benefits of participation as reported by SMEs have been identified. These include:

- Increased reputation of the company;
- Greater networking opportunities;
- Increased contact with potential customers;
- Increased partnership possibilities;
- Exposure to new ideas;
- Competitive advantage over companies not present;
- Exposure to industry best practice;
- Better competitive intelligence.

The major benefits of participation are strongly related to visibility, reputation and networking from one side, and to technical advantage on the other side.

In addition to products and services, strategic alliances, etc., transfer of standardized technologies to the market through patent licensing is one complementary avenue that enterprises have to recoup investments in R&D and active participation to standardization activities.

IP Strategy for SMEs and the Need for a Diversified Portfolio

Patent strategy is complementary to, and yet very different from, product/service strategy. It involves looking broadly at the technology landscape, identifying white spaces while protecting the business, thinking very long term while optimizing limited financial resources. On the other hand, product strategy requires laser-focused efforts to differentiate, improve, and accelerate time to market. This is even more important for smaller companies.

It has also been shown that IP is crucial when it comes to raising money or attracting investors.[5] Not only IP solidifies the business and create some barriers to entry. It is also key to risk mitigation and valuation. It is no secret that several high-tech newcomers that started with little or no IP—companies such as Facebook, Uber, Xiaomi—are now aggressively growing their portfolios through acquisitions and investments in R&D.

SMEs should also look at diversification strategies that would allow them to build balanced portfolios. The primary goal should be, of course, to protect the products or services that are at the core of the business model. However, building a "defensive" portfolio is no longer enough. Investors and customers want to see a full-fledged patent strategy that aims at diversifying the portfolio and ultimately hedging risk. Patenting activities should extend to adjacent verticals, track major competitors, identify and cover white spaces, leverage participation to international standards in order to build a SEP portfolio,[6] etc.

Indeed, all the activities conducted within SSOs to promote and disseminate technologies require huge investments by all participants (in terms of R&D spending, but also for active participation to standardization meetings, presentation and discussion of proposals, pre-meeting preparations, etc.). For this reason, it is a common practice to build a coherent set of proposals, from different companies working together on the same standard that can be jointly presented at SSOs like MPEG or ETSI.

In addition, SMEs and universities could lower the barriers to entry (hence reducing risks) seeking external services from partners offering their knowledge in order to help them build a solid IP strategy, protecting and monetizing technology and ideas. These outsourced patent departments are able to guide the generation of IP with a comprehensive scope supporting the whole innovation lifecycle: from inception, through protection, and later to monetization. By leveraging the expertise in standardization of specialized companies, SMEs could position themselves as active participants to international standards. The goal is to foster an ecosystem that can focus on innovating, while offloading some of the burdens to outside service providers.

The views, opinions and positions expressed by the authors in this article are theirs alone, and do not necessarily reflect the views, opinions or positions of the Sisvel Group or any employee thereof. ■

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3. "ISO standards—What's the bottom line?," 2012, link.

4. Franck Le Gall, Martin Prager, "Participation of SMEs in Standardization," *ETSI White Paper No. 6*, 2011.

5. Bijan Khosravi, "Why You Want IP For Your Startup," *Forbes* 2014, link.

6. Refer to our previous article for a definition of SEP.

Are We There Yet? Recent Obstacles On The Rocky Road To The Unitary Patent

By Patricia Cappuyns and Jozefien Vanherpe

Following the Brexit vote on 23 June 2016, chances of the UK ratifying the Agreement on a Unified Patent Court (UPCA) appeared slim. Since such ratification is required for the entry into force of the Unitary Patent system, including the Unified Patent Court (UPC), this meant that the future of the Unitary Patent was hanging in the balance. At the end of November 2016, the UK government relieved anxious proponents of the Unitary Patent system by confirming that it would be proceeding with preparations to ratify the UPCA. In December 2016, Germany followed suit and also resumed its preparations for UPCA ratification. While this seemed to bring us closer to the Unitary Patent, any unbridled optimism was soon thwarted when UK Prime Minister Theresa May announced in January 2017 that her government's Brexit will be a "hard" one, involving a clear departure by the UK from the EU single market as well as the UK's withdrawal from the jurisdiction of the Court of Justice of the European Union (CJEU). This could jeopardise the possibility for the UK to remain part of the Unitary Patent system in a post-Brexit world.

The Unitary Patent—a Brief History

The European Patent Convention, signed in Munich in 1973, set up an autonomous legal system through which innovators may acquire a so-called "European patent." Contrary to what the term suggests, a European patent does not confer a unitary right upon its holder. Instead, the patent owner is granted a bundle of national patents, each subject to applicable national patent law rules and procedures. This leads to a number of issues, such as excessive costs due to unharmonized national validation requirements and renewal fees, as well as a fragmented patent court system leading to significant disparity in the case law. Therefore, attempts were made since the 1970s to overcome the bundle-like nature of a European patent and set up a truly unitary patent system. For a long time, these attempts were unsuccessful.

In December 2010, the Unitary Patent project found its way back into the spotlight, when a group of EU Member States made a request to the European Commission about a possible enhanced cooperation[1] in relation to the envisaged Unitary Patent protection. Two years later, this resulted in two much-anticipated Regulations of December 2012 (Regulation 1257/2012[2] and Regulation 1260/2012).[3] In February 2013, these Regulations were supplemented by the UPCA,[4] which committed the 25 participating EU Member States (all except Spain, Poland and Croatia) to establish a court with exclusive jurisdiction for the future Unitary Patents. However, the finish line for the Unitary Patent proved to be further away than initially hoped. Remaining obstacles included the decision on where the UPC would be located,[5] several legal challenges to the Court of Justice of the European Union (CJEU) filed by Italy (in 2011)[6] and Spain (together with Italy in 2011 and alone in 2013)[7] as well as the need for elaborate rules of procedure, requiring a grand total of 18 drafts.[8] All these obstacles were eventually overcome, and the road to the Unitary Patent appeared wide open. Then the UK voted for Brexit and all bets were off again.

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1. For more information regarding the possibility for EU Member States to establish "enhanced cooperation" between them, see *http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=URISERV%3Axy0015.*

2. Regulation (EU) No 1257/2012 of the European Parliament and of the Council of 17 December 2012 implementing enhanced cooperation in the area of the creation of unitary patent protection (OJ L 361, 31.12.2012, p. 1).

3. Council Regulation (EU) No 1260/2012 of 17 December 2012 implementing enhanced cooperation in the area of the creation of the unitary patent protection with regard to the applicable translation arrangements (OJ L 361, 31.12.2012, p. 89.

4. Agreement on a Unified Patent Court of 19 February 2013 (2013/C 175/01), OJ C 175, 20.06.2013, p. 1.

5. See for more information in this regard *https://www.unified-patent-court.org/locations*.

6. The Court of Justice of the European Union rejected this challenge in its Judgment of 16 April 2013, *Kingdom of Spain and Italian Republic v. Council of the European Union*, Joined Cases C-274/11 and C-295/11, EU:C:2013:240.

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8. These Rules of Procedure of the Unified Patent Court are available on *https://www.unified-patent-court.org/sites/default/files/UPC-Rules-of-Procedure.pdf*.

The Unitary Patent—Consequences for Patentees

Before delving into the impact of the Brexit vote, let's examine what the actual entry into force of the Unitary Patent system would imply for present and prospective patent owners.

First, the application procedure for a Unitary Patent will be the same as for the currently existing European Patent. As is the case for European Patents, a Unitary Patent will be granted by the European Patent Office (EPO), if the conditions of patent validity listed in the European Patent Convention (EPC) are met. The opposition and appeal proceedings at the EPO will also remain unaffected.

In essence, the difference will lie in the granted patent's "*unitary character*."[9] Instead of a European Patent that must be validated in each of the individual countries concerned, resulting in a bundle of national patents, the proprietor of a Unitary Patent will obtain a unitary title: a single object of property with a single renewal fee,[10] a single court (the UPC) and uniform protection throughout the participating countries.[11] The UPC will decide centrally on revocation and infringement actions, which will do away with the fragmented jurisdiction of national courts in the current European Patent system. It is important to note, however, that a Unitary Patent may not only be licensed in respect of the entire unitary territory, but also in relation to a part thereof.[12]

The Unitary Patent system is optional, it is not mandatory. To obtain a Unitary Patent, the applicant must file a request for unitary effect with the EPO within one month of the date of publication of the grant of the patent in the European Patent Bulletin. It is also possible to request unitary effect for European Patent applications that were filed *before* the entry into force of the Unitary Patent system and granted *after* this entry into force, but only if the European Patent on which it is based was granted with the *same* claims in *all* the participating states. When the unitary effect is awarded, the classical European Patent will retroactively be turned into a Unitary Patent.

It will still be possible to obtain a European Patent without unitary effect, or a national patent. The three types of patents will simply co-exist. Patent proprietors will be able to combine the three options *e.g.* by supplementing a Unitary Patent for the participating countries with a classical European Patent taking effect in one or more EPC Contracting States that are not EU Member States and/or which have refrained from participating in the Unitary Patent project.[13]

A final important point for patent owners is the Unitary Patent system's language regime and translation requirements. The language regime has consistently proved to be an obstinate hurdle, playing a key role in Spain and Italy's legal challenges before the CJEU. Traditionally, the official languages of the EPO are English, French and German, a choice made decades ago which has remained unaffected by the negotiations regarding the Unitary Patent project.[14] A European Patent application—with or without the intention of obtaining unitary effect—is to be filed in one of these official languages or, if filed in any other language, translated into one of the official languages in the course of the application proceedings.[15] The official language that is chosen will become the go-to language in all communication before the EPO. As for translation requirements, during a transitional period of up to twelve years following the entry into force of the Unitary Patent system, the patent owner will have to provide a translation of the patent in one additional language.[16] After this transitional period, *"no further translations shall be required"*[17] in order to obtain a valid Unitary Patent.[18] Instead, use will be made of 'Patent translate'—the EPO's machine translation programme which it developed together with Google. As for the language of the UPC, the UPCA provides that the language of proceedings will be the official language of the contracting state hosting the local or regional UPC Division at issue.[19]

Brexit Vote

For the two aforementioned Regulations to come into force, the UPCA needs to be ratified by 13 EU Member States, including at least the United Kingdom, France and Germany, since the residents of these three countries own the most European patents.[20] Each of these countries therefore has a veto

9. Article 3, §2, first subsection, Regulation 1257/2012.

10. *See* Articles 11 and 12 Regulation 1257/2012.

11. *See* in relation to this 'uniform protection' Article 5 Regulation 1257/2012.

12. Article 3, §2, third subsection, Regulation 1257/2012.

13. Such as Spain, Switzerland, Turkey, Norway, Iceland, etc. See *https://www.epo.org/law-practice/unitary/faq.html.*

14. Article 14, §1 EPC.

15. Article 14, §2 and 3 EPC.

16. If the patent is granted in German or in French, this translation must be in English, as provided in Article 6, §1 Regulation 1260/2012.

17. Article 3, §1 Regulation 1260/2012.

18. Different rules apply in the event of a dispute. See in more detail Article 4 Regulation 1260/2012.

19. See in more detail Article 49 UCPCA.

20. In addition, a number of EU Member States signed a 'provisional protocol' to the UPCA in October 2015, which also needs to be approved by 13 Member States in order to enter into force. So far, 9 Member States, including France, have done this.

right and can effectively block the whole Unitary Patent system.

In February 2017, 12 EU Member States had already ratified the UPCA, including France. Both Germany and the United Kingdom have yet to ratify. It is furthermore reported that Slovenia and Lithuania are on the verge of ratifying.

In the beginning of 2016, it was anticipated that the UPC would be able to open its doors in May 2017. However, chances of that 'deadline' being met grew very slim on 23 June 2016, when a majority of the British people voted to leave the European Union.

Following the Brexit vote, legal scholars and practitioners suggested several options to move the Unitary Patent project forward anyway. The question arose whether the Unitary Patent project could in fact be realised without the UK, by amending the UPCA and removing the need for the UK to ratify. Richard GORDON QC and Tom PASCOE of Brick Court Chambers, supported herein by CIPA,[22] the IP Federation and the Intellectual Property Lawyers Association, took the alternative position that the impending Brexit actually does not pose any legal obstacles for the UK to participate in the Unitary Patent system.[23] However, not everyone is convinced: recently, one specialist took the view that "*(t)he Gordon/Pascoe Opinion (…) seems to be dedicated to justifying desired results instead of providing a legally founded analysis*."[24]

Green Light from the UK Government and Recent Developments

Since the Brexit vote of June 2016, it appeared highly unlikely from a political perspective that the United Kingdom would ratify the UPCA. However, the UK government surprised friend and foe by announcing on 28 November 2016 that it would proceed with preparations to ratify the UPCA.[25] The UK started working with the UPC Preparatory Committee[26] in a bid to get the UPC up and running as soon as possible. The UK Government's decision was eagerly welcomed by the Preparatory Committee[27] as well as CIPA.[28]

The then UK Minister of State for Intellectual Property, Baroness Neville Rolfe, explained that the UK wishes to continue to play a full and active role in the European Union for as long as it is an EU Member State. Furthermore, Baroness Rolfe expressed the UK government's wish to provide British companies with the maximum freedom to trade with and operate in the Single Market and, furthermore, let European businesses do the same in the UK. Baroness Rolfe expressly cautioned that the decision to proceed with ratification should not be seen as pre-empting the UK's objectives or position in the forthcoming negotiations with the EU. Since then, her successor Mr. Jo Johnson MP, who was appointed the new UK Minister for Intellectual Property in January 2017, has reiterated the UK government's wish to participate in the Unitary Patent system, noting that this is possible because the UPC is not an EU institution and that the ratification of the UPCA does not depend on the UK's status as an EU Member State.[29] The question remains how the UK would then get around the jurisdiction of the CJEU, which is of course an EU institution and sits at the pinnacle of the UPC system.

In the meantime, possibly encouraged by the UK's announcement, Germany also resumed preparations for the ratification of the UPCA. On 9 December 2016, a draft bill for the implementation of the UPCA was published on the website of the German Ministry for Justice.[30] Indeed, it appears that the pessimism and lethargy following the unexpected Brexit vote for a time at least gave way to a cautious optimism.

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21. Up-to-date ratification details in relation to the UPCA may be found on *http://www.consilium.europa.eu/en/documents-publications/agreements-conventions/agreement/?aid=2013001*.

22. The Chartered Institute of Patent Attorneys, *http://www.cipa.org.uk/*.

23. Opinion *re* the effect of 'Brexit' on the Unitary Patent Regulation and the Unified Patent Court Agreement, 12 September 2016, *http://www.eip.com/assets/downloads/gordon-and-pascoe-advice-upca-34448129-1-.pdf*.

24. Dr. I.B. Stjerna, ""Unitary Patent" And Court System—The Gordon/Pascoe Opinion And The Upca's Incompatibility With Union Law," 12 January 2017. *http://www.stjerna.de/index_htm_files/Unipat_GordonPascoe.pdf*.

24. Press release, "UK Signals Green Light To Unified Patent Court Agreement," 28 November 2016, *https://www.gov.uk/government/news/uk-signals-green-light-to-unified-patent-court-agreement.*

25. *See re* the composition and tasks of this Preparatory Committee *https://www.unified-patent-court.org/*.

26. Press Release, "Update on UPC ratifications—UK signals green light," 28 November 2016, *https://www.unified-patent-court.org/news/update-upc-ratifications-uk-signals-green-light*. *See* for CIPA's updated position the recent "Guide To The Impact Of Brexit On All IP Rights," dating from 19 December 2016 and available on *http://www.cipa.org.uk/policy-and-news/latest-news/guide-to-the-impact-of-brexit-on-all-ip-rights/*.

27. Press Release, "CIPA Comments Government For Agreeing To Ratify The UPC Agreement," 29 November 2016, *http://www.cipa.org.uk/policy-and-news/latest-news/cipa-commends-government-for-agreeing-to-ratify-the-upc-agreement/*.

28. It should be noted that this statement is very optimistic indeed and ignores the considerable uncertainty which exists in this respect, see below. *See* in relation to Mr. Johnson's appointment in more detail *https://www.twobirds.com/en/news/articles/2017/uk/uk-government-appoints-new-ip-minister#1*.

29. *See https://www.bmjv.de/SharedDocs/Gesetzgebungsverfahren/DE/Uebereinkommen_Einheitliches_Patentgericht.html*.

30. *See* full text on *https://www.unified-patent-court.org/sites/default/files/ppi_final_ii_en_clean.pdf*.

The first clear result of the UK's preparation process became evident on 14 December 2016. On this day, the UK signed the Protocol on Privileges and Immunities of the Unified Patent Court[31] (PPI), which gives legal personality to the UPC and privileges and immunities to the court and its staff in the UK territory. While the UK still needs to pass national legislation to confirm the signature of the PPI, it is seen as an important step in the UK's ratification process. In a further step, the UK Intellectual Property Office (IPO) established a project team charged with ensuring that "the necessary legislative requirements and logistics are in place for the entry into force of the UPC system."[32]

Prospects for the Unitary Patent?

In mid-January 2017, the UPC Preparatory Committee confirmed that it is working under the assumption that the UPCA can enter into force and the UPC will be operational in December 2017.[33] One cannot help but wonder whether this envisaged timeline is realistic. While it is true that the Unitary Patent project recently regained some momentum, a significant number of questions and uncertainties remain, prompting some specialists to question the very desirability of pushing the system to enter into force as it currently stands.[34] As Prof. T. JAEGER of the University of Vienna argues: "*Brexit provides the opportunity to step back, reset the table and start afresh.*"[35]

Moreover, Unitary Patent believers should bear in mind that the ratification of the PPI still needs to pass muster with the UK House of Commons and House of Lords, as well as the Scottish Parliament. While the PPI only constitutes a limited part of the Unitary Patent package that is arguably not the most problematic, one thing is clear: without the agreement of the Parliaments, the UK cannot ratify the UPCA. Given the current stormy state of the UK political climate, further delays are to be expected.

Considerable uncertainty also remains regarding the long-term participation of the UK in the Unitary Patent system. UK Prime Minister Theresa May reinforced these doubts in her speech of 17 January 2017 where she said the UK would opt for a "hard" (or "clean") Brexit, adding that the UK "cannot possibly" remain within the European single market, as staying in it would mean *"not leaving the EU at all."*[36] Importantly, the PM also added that the UK intended to remove itself from the jurisdiction of the CJEU. This could be a serious setback for the UPC project in view of Opinion 1/09,[37] which the CJEU handed down in 2011. In this Opinion, the CJEU stressed that the Unitary Patent system may in no case jeopardise the system of preliminary rulings,[38] in which the CJEU provides binding judgments on questions of interpretation. As a result of this Opinion 1/09,the Unitary Patent system is widely thought to require all participants to be (and remain) EU Member States, since only EU Member States resort under the jurisdiction of the CJEU. Prime Minister May's express rejection of the CJEU's jurisdiction in a post-Brexit scenario therefore casts serious doubts on the long-term viability of the UK's participation in the Unitary Patent system and the UPC.

A further complicating factor was added by the UK Supreme Court, who, in a judgment dated 24 January 2017, decided that the UK government may not trigger the UK's withdrawal from the European Union without an act of the UK Parliament.[39] As a result, any predictions regarding the nature and the timeline of the impending Brexit appear rather premature.

Conclusion

While the patent community eagerly anticipates a short-term entry into force of the Unitary Patent system, it is unclear whether the UK will be a part of this system in the long run, or indeed at all. The current cliff-hanger is whether the UK will ratify the UPCA before leaving the EU, as was promised in November 2016. If the UK wishes to participate in the Unitary Patent system post-Brexit, this will require a web of complex exit and continuation arrangements. Also, the UK will have to accept the jurisdiction of the CJEU, or the entire Unitary Patent system will have to be renegotiated.

In essence, while the end of the rocky road to the Unitary Patent system might be in sight, there are still a number of roadblocks along the way. We are by no means "there yet." ■

Available at Social Science Research Network (SSRN): *https://ssrn.com/abstract=2908335*

31 E. NODDER, "New UK IPO project team works to bring the UPC into operation as soon as possible," 15 December 2016, *http://www.bristowsupc.com/latest-news/new-uk-ipo-project-team/*.

32. Press Release, "UPC—Provisional Application," 16 January 2017, *https://www.unified-patent-court.org/news/upc-provisional-application*.

33. *See* for a recent detailed analysis in this regard T. JAEGER, "Reset and Go: The Unitary Patent System Post-Brexit," *SSRN Discussion Paper*, 13 December 2016, p. 28, available at *SSRN: https://ssrn.com/abstract=2884671*.

34. T. JAEGER, cited above, p. 28.

35. *See e.g. http://www.bbc.com/news/uk-politics-38641208*.

36. Opinion 1/09 of the Court of Justice of the European Union (Full Court) of 8 March 2011, EU:C:2011:123.

37. *See* Article 267 of the Treaty on the Functioning of the European Union, OJ 115, 09.05.2008, p. 164.

38. *See* full text of the Judgment of 24 January 2017, *R v Secretary of State for Exiting the European Union,* [2017] UKSC 5, on *https://www.supremecourt.uk/cases/docs/uksc-2016-0196-judgment.pdf*.

Recent U.S. Court Decisions And Developments Affecting Licensing

By John Paul and D. Brian Kacedon

The cases in this quarter's report address recent developments on the following issues:

Claims of Patent Infringement

1. Pleading patent infringement based on continued production of licensed products.
2. Divided patent infringement based on customer software use.

Standing to Sue

3. Covenants not to sue and standing to challenge patent validity.
4. Retroactive patent license insufficient to cure defect in standing to sue for patent.

Remedies

5. Reasonable royalty for patent infringement based on incremental value of patented features.
6. Willful patent infringement claim on day of patent issuance.
7. Preliminary injunctions against patent infringement—harm to licensees insufficient to show required irreparable harm.
8. Limitations on total profit damages for design patent infringement.

Interpretation

9. Anti-assignment provisions—distinguishing assignment of agreement versus licensed IP.
10. License agreement commercialization provisions as a later obstacle to license defense.

Inter Partes Review

11. Patent assignor as inter partes review petitioner.
12. Stay of patent infringement litigation in view of inter partes review instituted for similar patent claims.

Deetz Family, LLC v. Rust-Oleum Corp.

1. Infringement Complaint Based Solely on Continued Production of a Previously Licensed Product Fails to Meet Minimum Pleading Standards

To meet the minimum standards for pleading a complaint must provide sufficient notice of the claims being alleged. In particular, a patent infringement complaint must allege a claim that plausibly entitles the plaintiff to relief, identifying the accused products and the patent claims being infringed.

In *Deetz Family, LLC v. Rust-Oleum Corp.*, rather than alleging such facts, the patent owner asked the court to draw inferences of such allegations from the fact that Rust-Oleum licensed the patents and continued manufacturing accused products after the license agreement was terminated. Finding this insufficient, a Massachusetts court concluded that Deetz's complaint should be dismissed as insufficiently pleading a claim for patent infringement.

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Background

Deetz and Rust-Oleum entered into a license agreement granting Rust-Oleum non-exclusive rights to Deetz's patents for magnetic paint additives. Under the terms of the license agreement, Rust-Oleum paid an upfront fee and royalties based on a percentage of net sales each year. The license also required Rust-Oleum to pay minimum royalties in the event that its actual royalties fell below certain thresholds. Rust-Oleum made the upfront payment and paid part of the actual royalties due from 2006 to 2009, but the payments made didn't meet the minimum royalties required under the license. In 2010, Rust-Oleum stopped making any royalty payments under the license agreement.

Deetz subsequently terminated the license agreement and filed a complaint against Rust-Oleum for breach of contract, breach of the implied covenant of good faith and fair dealing, and patent infringement, seeking the remainder of minimum royalty payments due under the agreement and to enforce the terms of the agreement.

For the breach of the implied covenant of good faith and fair dealing, the complaint alleged that Rust-Oleum's failure to pay fees due under the license agreement and its continued use of the patented technology violates Deetz's "reasonable expectations of performance" and breaches the implied covenant of good faith and fair dealing that is inherent to all contracts.

For patent infringement, the complaint alleged that Rust-Oleum infringed Deetz's patents based on the license agreement and a YouTube video posted by Rust-Oleum purportedly showing that Rust-Oleum still manufactured an alleged infringing product.

Deetz also claimed to have additional facts to support its claims, which it did not include in its complaint to

avoid disclosing trade secret paint formulations—Rust-Oleum and Deetz both acknowledged that they were negotiating the terms of a protective order that would keep those trade secrets confidential.

Rust-Oleum filed a motion asking the court to dismiss Deetz's claims for breach of the implied covenant of good faith and fair dealing, and claims for patent infringement. Rust-Oleum argued that by failing to identify the accused products, which patent claims those products infringed, and how the allegedly infringing products practiced the claims, Deetz's complaint failed to provide enough facts to meet established minimum pleading standards.

The *Deetz Family* Decision

The district court examined whether Deetz's complaint included sufficient facts to plausibly support its allegation that Rust-Oleum breached its implied covenant of good faith and fair dealing, and its allegation that Rust-Oleum infringed Deetz's patents. In its evaluation, the court separated conclusory legal statements from factual allegations in the complaint and considered whether the factual conclusions alone supported a plausible claim to relief.

For the claim related to the implied covenant, the court stated: "To establish a breach of the duty of good faith and fair dealing, the complaining party must show that the contract vested the opposing party with discretion in performing an obligation under the contract and the opposing party exercised that discretion in bad faith, unreasonably, or in a manner inconsistent with the reasonable expectations of the parties." The court concluded that the complaint "failed to allege what, if any, terms of the license agreement required Rust-Oleum to exercise its discretion, or how it abused that discretion. Even the proposed amendment makes the conclusory assertion that Rust-Oleum's actions violated Deetz's "reasonable expectation of performance." A mere failure to perform is simply a breach of contract, not a breach of the implied duty of good faith."

For the claim of patent infringement, Rust-Oleum argued that Deetz's complaint failed to identify the accused products, which claims they are infringing, how the allegedly infringed claims read on the accused products, or the composition of the accused products. Instead, Deetz asked the asked the court to infer direct infringement from the fact that Rust-Oleum licensed the patents and then continued making magnetic primer products after the License Agreement was terminated. The court, however, found this insufficient. In the court's view, by seeking to draw inferences from the existence and content of a license agreement from a time period before the alleged infringement occurred, Deetz only further confused which actions or products made by Rust-Oleum infringed which claims of Deetz's patents.

The court held that the failure to provide any facts to support the claims in the complaint for breach of the implied covenant and patent infringement warranted dismissal of those claims. However, because Deetz argued that it did have facts to support its claims, the court granted Deetz an opportunity to amend the complaint to allege facts sufficient to show an abuse of discretion by Rust-Oleum and to allege facts connecting Rust-Oleum's potentially infringing products with specific patent claims.

Strategy and Conclusion

This case shows a variety of claims and the varying range in detail required in alleging claims to obtain relief from a former licensee who failed to pay under a license agreement and is believed to continue to produce products after the license is terminated. The allegation of breach of contract was relatively simple and was not challenged by the former licensee. However, the allegation of breach of an implied duty of good faith and fair dealing, and the allegation of patent infringement required more detail, and they were successfully challenged by the former licensee.

As well, this case shows the value in considering the various claims that can be asserted and the elements that are required to be pled in the complaint, and it demonstrates the value of explicitly alleging the facts needed to support a claim of patent infringement rather than relying on inferences of infringement to be drawn by the court from alleging that the defendant continued to produce a previously licensed product.

Further Information

The *Deetz Family* opinion can be found here: *https://tinyurl.com/jzobby3*

PerDiem Co. LLC v. Geotab Inc.

2. Court Dismisses Divided Infringement Claim Because Customer's Data Entry Steps Were Not Attributable to the Defendant Software Vendor

Direct infringement of a method patent occurs when all steps of a claimed method are performed by a single entity or when all steps are attributable to a single entity, such as when that entity directs or controls the performance of others or when the actors form a joint enterprise. In *PerDiem Co. LLC v. Geotab Inc.*, a Texas Court dismissed an infringement claim because the seller of software did not have "direction or control" over customers using the software.

Background

PerDiem sued Geotab for infringing a patented method on a system for locating and tracking objects using a location source, such as a GPS satellite, that conveys location information about an object to one or more users.

Geotab's telematics system allows companies to manage different aspects of their fleet vehicles using devices placed in vehicles that collect and transmit vehicle data

to servers, which in turn, process, store, and forward the data to Geotab servers upon request. Geotab admitted that it performed certain limitations of the patent claims, but it contended that two steps were performed by Geotab's customers rather than Geotab itself.

The *PerDiem v. Geotab* Decision

PerDiem argued that even if Geotab's customers performed the two steps, the performance of those steps should be attributable to Geotab because: (1) Geotab "directs or controls" the customers' performance of the steps because Geotab's software establishes what data customers can enter and how they can enter it; (2) Geotab "conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance"; and (3) Geotab does not provide the full benefit of the accused fleet-tracking services unless customers enter the requisite data.

The court found that these facts did not show the requisite direction or control by Geotab over its customer to establish that the customer's performance of these steps were attributable to Geotab. The court reasoned that while a user's benefit from using software will increase as the user explores additional functionality, this is not conditional participation as required by the Federal Circuit in *Akamai* to establish direction or control sufficient to attribute the actions of a customer to its supplier. In *Akamai*, the accused infringer required customers to sign a standard form contract that delineated which claimed steps the customers "must perform."

Strategy and Conclusion

A customer's mere use of software provided by a vendor accused of infringement may not necessarily be attributable to the vendor and therefore may not necessarily support a claim for divided infringement against the vendor based on the activities of the customer.

Further Information

The *PerDiem* decision is available here: *https://tinyurl.com/j6jlg8u.*

Esoterix Genetic Laboratories LLC v. Qiagen In

3. Patent Validity Challenge May Proceed Despite Covenant Not to Sue for Patent Infringement

To avoid requiring courts to render opinions that are merely advisory or preside over matters that have already been resolved, the U.S. Constitution provides Federal courts with jurisdiction only over live cases or controversies. Sometimes, but not always, a covenant not to sue may eliminate the ability to bring a patent validity challenge, such as when it extinguishes the case or controversy in a patent infringement suit. In *Esoterix Genetic Laboratories LLC v. Qiagen Inc.*, a Massachusetts court found that a covenant not to sue for patent infringement did not eliminate the ability to bring a patent validity challenge because it did not extinguish the case or controversy in a breach of contract suit arising from a patent license agreement.

Background

The patents at issue, which are directed to methods and test kits for determining the effectiveness of pharmaceutical compounds for treating lung cancer, were originally owned by Genzyme. Genzyme granted DxS, Ltd. a nonexclusive license to manufacture and sell products practicing the patents in exchange for royalties on those sales. In particular, the license allowed sales of diagnostic kits for non-commercial, research use only, until the kits achieved regulatory approval for commercial use. Qiagen acquired DxS and assumed DxS's rights as licensee under the license agreement. Genzyme sold its rights to the patents and its rights under the license agreement to LabCorp. LabCorp, in turn, created Esoterix, which owned the patents and served as the licensor under the license agreement.

Having respectively acquired the patent rights and a license, Esoterix sued Qiagen for breach of contract and patent infringement, alleging that Qiagen exceeded the scope of the parties' license agreement by selling diagnostic kits for commercial, non-research use before obtaining regulatory approval. The court granted part of a motion to dismiss by Qiagen, holding that one of the licensed patents was directed to ineligible subject matter and was therefore invalid. Qiagen then asserted counterclaims seeking a declaratory judgment of invalidity of four additional licensed patents.

In response, Esoterix attempted to moot Qiagen's counterclaims and prevent the patent validity challenge from proceeding by giving Qiagen a covenant not to sue on the patents-in-suit as to sales of test kits "for clinical diagnostic purposes or research purposes." The covenant further provided that it did not extend to rights under the license agreement and did not bar Esoterix from upholding the validity of the patents in response to a challenge by Qiagen. Esoterix argued that the covenant had the effect of eliminating any case or controversy between the parties regarding the licensed patents, including any case or controversy as to Qiagen's invalidity counterclaims, relying on the constitutional requirement that the facts alleged must show there is a substantial, real, and sufficiently immediate controversy between parties having adverse legal interests for a court to have jurisdiction over a declaratory judgment action.

The *Esoterix* Decision

The court considered Esoterix's argument that its covenant not to sue on the patents-in-suit removed any risk that Qiagen would be sued for infringement and thus eliminated any case or controversy supporting Qiagen's counterclaims for declaratory judgment. As the court explained, however, the covenant not to sue did not

eliminate the primary dispute raised by Qiagen's counterclaims regarding whether it was obligated to pay royalties under the parties' license agreement.

The court's reasoning relied on the Supreme Court's *Medimmune* decision, holding that a court has jurisdiction to consider claims by a licensee in good standing seeking a declaratory judgment that licensed patents are invalid or that the licensee is not required to make payments under the license because its products do not infringe. Although *Medimmune* did not involve a covenant not to sue, the court in Esoterix reasoned that Esoterix's covenant promised nothing more than the license's grant of immunity from infringement claims during the term of the license.

As the court further observed, the dispute over validity was "still very much alive" because the covenant explicitly reserved Esoterix's ability to assert its rights under the license agreement and to defend against an invalidity challenge brought by Qiagen.

The court distinguished the present case from cases with patent infringement claims that do not involve related license agreements between the parties or claims for breach of contract. In those cases, a covenant not to sue for patent infringement divests the trial court of subject matter jurisdiction over claims that the patent is invalid because the covenant eliminates any controversy between the parties.

The court also distinguished the present case from another rather unique case where a licensor's covenant not to sue failed to eliminate a case or controversy as to contractual claims, but the federal court found that it lacked statutory subject matter jurisdiction over the state law contract claims because there was no diversity of citizenship between the parties. In contrast, in this case, the court found that there was diversity between Esoterix and Qiagen and that the amount in controversy exceeded $75,000.

Strategy and Conclusion

This case illustrates that the effect of a covenant not to sue on the ability to raise validity challenges and other issues may depend on the situation and the express terms of the covenant not to sue, and that a covenant not to sue for patent infringement will not necessarily extinguish all related claims. In particular, while a covenant not to sue for patent infringement may eliminate patent invalidity challenges in some instances where no case or controversy remains, it may not eliminate patent validity challenges if the litigation also involves a breach of contract claim based on a license agreement where a case or controversy remains.

Further Information

The *Esoterix* decision can be found here: *https://tinyurl.com/gt5ue8h.*

CTP Innovations

4. Retroactive Assignment Fails to Bring into Force Earlier Ineffective Assignments and Fails to Cure Break in Chain of Title

CTP Innovations filed over seventy-five lawsuits, alleging infringement of two patents pertaining to systems and methods related to the printing industry. In a consolidated action involving twenty-six of those suits, a Maryland court ruled that CTP had no standing to sue due to a defect in the chain of title to the asserted patents.

Background

CTP based its claim of ownership in the asserted patents on a series of transactions:

1. The inventors assigned their rights to Banta Corporation.
2. Banta became a subsidiary of R.R. Donnelley.
3. R.R. Donnelly purported to assign its rights in the patents to Media Innovations.
4. Media purported to transfer its rights in the patents to CTP.
5. Banta executed a *nunc pro tunc* written assignment to R.R. Donnelley, seeking to retroactively assign the patents as of an effective date before R.R. Donnelley's purported assignment to Media.
6. CTP sued for patent infringement.

The *CTP Innovations* Decision

Constitutional standing to sue for patent infringement requires that the plaintiff have valid legal title to the patents being asserted as of the filing date of the action. In *CTP Innovations*, the court found that CTP did not have title to the asserted patents when it sued for infringement.

The court examined the series of transfers of the asserted patents and observed that a corporate parent does not automatically have title to the subsidiary's assets. Therefore, an assignment of patent rights owned by a subsidiary needs to be made by the subsidiary, rather than the corporate parent, because an attempted assignment by a corporate parent to transfer patents owned by its subsidiary does not result in an assignment of those rights.

In this case, when R.R. Donnelley acquired Banta, R.R. Donnelley did not become an owner of Banta's patents. Rather, Banta retained ownership of the patents. R.R. Donnelley's failure to acquire rights in the patents owned by Banta prevented R.R. Donnelley from being able to transfer any rights in the patents. Therefore, R.R. Donnelley's attempted assignment to Media, and Media's subsequent attempted assignment to CTP, failed to effectively transfer ownership in the patents to CTP.

The court also found that a *nunc pro tunc* assignment does not necessarily have a retroactive effect on bringing

into force earlier assignments that were ineffective.

In this case, Banta attempted to cure the defect in R.R. Donnelley's attempted transfer of patent rights by executing a *nunc pro tunc* assignment of its patent rights to R.R. Donnelley to be retroactively effective at an effective date prior to the assignments by R.R. Donnelley to Media, and Media to CTP.

However, rather than curing CTP's standing deficiency, the retroactive assignment demonstrated a recognition that R.R. Donnelley did not have legal title to the patents when it purportedly assigned them to Media. And the retroactive assignment did not bring into force the earlier assignments from R.R. Donnelley to Media, and Media to CTP, that were ineffective because R.R. Donnelley had no rights to transfer.

The court discussed several ways CTP could have acquired good title to the patents prior to filing a patent infringement litigation. For example, CTP could have received a direct assignment from Banta. Or if R.R. Donnelley's original assignment to Media assigned future or expectant interests in the patents, the *nunc pro tunc* assignment could have effectively transferred those rights from R.R. Donnelley to Media. However, the language of the original assignment from R.R. Donnelley to Media only used present-tense language, transferring only rights it had at the time of the assignment, rather than rights it would have later acquired from the *nunc pro tunc* assignment.

Because the retroactive assignment did not cure the defect in CTP's ownership in the patents, CTP did not have constitutional standing to sue for infringement of the patents.

Strategy and Conclusion

This case demonstrates the importance of confirming valid title to asserted patents before filing suit and illustrates issues that can arise when related companies may be involved in the chain of title. Where defects are discovered in a multiparty transfer, it can be useful to consider whether they can be best addressed through direct assignment from the party actually holding title rather than merely attempting to redo the defective portion of the transfer.

Further Information

The *CTP Innovations* decision is available here. *https://tinyurl.com/gqv9tfp.*

Visteon Global Technologies Inc. v. Garmin International, Inc.

5. Reasonable Royalty Depends on Incremental Price of a Product Attributable to Its Patented Features Rather than the Value of the Patented Features in a Vacuum

In *Visteon Global Technologies Inc. v. Garmin International, Inc.*, a Michigan federal court excluded expert opinions on damages for patent infringement as improperly based on the value of specific claimed features in isolation from their incremental value to consumers in the products accused of infringement, rather than the incremental value of the claimed features relative to the value of the accused products as a whole.

Background

Visteon accused Garmin's navigation products of infringing four patents related to four specific features of navigation systems and calculated what it believed Garmin owed in reasonable royalty damages in two steps.

First, Visteon hired an expert who conducted a choice-based conjoint (CBC) consumer survey to determine the consumer value of the four features allegedly claimed in Visteon's patents. A CBC survey offers respondents hypothetical products that include a combination of different product features. Through the respondents' selections, economists can assign relative values to each of those features. Visteon's expert's CBC survey sought to determine the values of the four claimed features relative to each other.

Second, Visteon enlisted another expert to build on the findings of the first, factoring in product costs and competition with the relative consumer values determined from the results of the CBC survey. Visteon's second expert considered factors such as Garmin's profit margins and the parties' relative positions in the marketplace. Based on the principle that accused patent infringers in every negotiation seek to pay "as little as possible," Visteon's second expert concluded that Garmin would be willing to pay just under $5 per device, which amounted to a royalty of over $80 million over the relevant time period.

The *Visteon* Decision

A reasonable royalty award for patent infringement must be based on the incremental value that the patented invention adds to the end product as a whole. The value of the invention cannot be divorced from the product in which it is incorporated. In other words, determining a reasonable royalty requires determining the actual price a consumer would be willing to pay for a product with the patented features over an otherwise equivalent product that lacked those features.

In assessing the credibility of Visteon's experts and reliability of their testimony, the Court noted that Visteon's burden was to tie its reasonable royalty to the incremental real-world value of the claimed features. Further, the Court observed, since at least 2009, the Federal Circuit has reiterated the requirement that infringement damages must be apportioned in relation to the patented features alone, separate and apart from any value attributable to any unpatented features.

Visteon's experts, however, did not determine the actual value of either the four claimed features or the myriad unclaimed features. Critically, the CBC survey conducted

by Visteon's first expert did not attempt to determine (1) a "real world" price for any of the claimed features or (2) the value of those features relative to the non-patented features in the accused navigation systems. Visteon's second expert never attempted to determine the price that consumers would pay for the individual technology provided by the infringing features. Nor did he attempt to determine the value of all of the features of the accused navigation system (i.e., the combined value of the patented and non-patented features). The Court ruled that considering the relative values of the claimed features alone, without assessing the value those features added to accused device, made it impossible to determine the profit attributable to those features, and therefore what a reasonable royalty would be. Accordingly, the Court excluded the testimony and reports of Visteon's experts.

Strategy and Conclusion

This case confirms that in determining the proper base for reasonable royalty calculations, it is important to show the actual incremental price consumers are willing to pay for a device including the claimed features, compared with the price they would be willing to pay for an otherwise identical device without the claimed features (assuming claims do not cover the device as a whole). Simply assigning a value to the patented technology is typically insufficient to calculate a reasonable royalty. In arriving at a reasonable royalty, parties and experts should show how much (or how little) the patented technology affects the actual price consumers are willing to pay.

Further Information

The *Visteon* decision is available here: *https://tinyurl.com/za96zce.*

Malibu Boats, LLC v. Mastercraft Boat Company, LLC

6. Willful Patent Infringement May Be Alleged in Suit Filed on the Same Day the Patent Issues Based on Prior Notice of Allowance

Damages for patent infringement may be enhanced up to three times the amount found or assessed in cases where the infringer has committed "willful infringement." Willful patent infringement requires, among other things, that the infringer had knowledge of the patent before the lawsuit was filed. In *Malibu Boats, LLC v. Mastercraft Boat Company, LLC*, the district court for the Eastern District of Tennessee considered whether a patent owner could seek enhanced damages where the infringement suit was filed on the same day the patent issued. The court concluded that the patent owner could allege willful infringement because the complaint alleged that the accused infringer had knowledge of the patent's allowance prior to issuance. The court made clear, however, that its decision extended only to the patent owner's ability to seek enhanced damages for willful infringement—the ultimate issue of whether infringement was willful would be decided by a jury and the court could then exercise its discretion to determine whether or not to award enhanced damages.

Background

Malibu accused Mastercraft of infringing a patent directed to a system for modifying a boat's wake, in a complaint filed on the same day that the patent issued. Malibu's complaint included an allegation that Mastercraft willfully infringed the patent because Mastercraft had knowledge of the patent prior to its issuance, including by way of a Notice of Allowance and Issue Notification. A Notice of Allowance informs patent applicants that the application is entitled to a patent under the law. Shortly before a patent actually issues, an Issue Notification informs the applicants of the patent number and issue date assigned to the patent. Malibu also provided actual knowledge of the Notice of Allowance and Issue Notification via a letter from Malibu's patent prosecution counsel to Mastercraft thirteen days before the patent issued. At the time, Malibu and Mastercraft were also engaged in a separate litigation involving a related patent. Mastercraft filed a motion to dismiss Malibu's willful infringement allegations, arguing that it could not have pre-suit knowledge of a patent when the patent issued the same day the suit was filed.

The *Malibu Boats* Decision

The district court examined whether Malibu could legally allege willful infringement in its complaint, assuming all allegations in the complaint to be true. Although the court noted that infringement could not begin until the patent actually issued, it concluded that knowledge of a patent before it issued could form a basis for alleging willful infringement.

At the outset, the district court looked at the standard for proving enhanced damages and focused on how it is evaluated based on the totality of the circumstances. It observed that Mastercraft's motion to dismiss relied on the Federal Circuit's Seagate decision, which was largely abrogated by the Supreme Court in *Halo Electronics*. The court noted, however, that even under *Halo Electronics*, "enhanced damages should generally be 'reserved for egregious cases typified by willful misconduct'" and knowledge of the asserted patent continues to be a prerequisite for willful infringement and is decided by a jury based on the "totality of the circumstances." The court rejected Mastercraft's assertion that willful infringement is categorically excluded when the lawsuit is filed the same day a patent issues, explaining that Mastercraft's assertion was inconsistent with this totality of the circumstances test.

Next, the court examined the facts of this case to determine whether Malibu's complaint included allegations that Mastercraft had knowledge of the patent before

it issued and pointed to the USPTO's Notice of Allowance and Issue Notification, Malibu's patent counsel's correspondence with Mastercraft, and Malibu and Mastercraft's ongoing litigation involving a patent related to the '161 patent, which "could conceivably contribute to a finding of willfulness." Taking Malibu's assertions in its complaint as true, the court determined that Malibu had set forth a plausible complaint for willful infringement.

The court distinguished the cases relied on by Mastercraft, noting that in those cases there was no evidence that the defendant received notice of the patent's impending issuance. The court also distinguished cases where a defendant only had knowledge of a patent application, but not the patent's issuance, noting that patent applications are often amended during prosecution and do not provide the same knowledge as a Notice of Allowance and Issue Notification.

The court also observed that the position taken by Mastercraft—precluding enhanced damages based on conduct and knowledge before a patent issued—would require patent owners to delay infringement suits to develop a willfulness case, even where the alleged infringer had knowledge of the patent's impending issuance. The court found that this contradicted precedent, which does not require delaying an infringement suit to assert willfulness.

Lastly, the court noted that an award of enhanced damages is within the discretion of the court, so even if the jury returns a finding of willfulness, the court is not required to exercise its discretion to award enhanced damages.

Strategy and Conclusion

Patent owners may file suit on the day a patent issues and allege willful infringement if they notify infringers of the Notice of Allowance or Issue Notification beforehand. But ultimately, the court has discretion to determine whether and how much to enhance damages.

Further information

The *Malibu Boats* opinion can be found here:

https://tinyurl.com/gv3meu3.

Finjan's v. Blue Coat Systems, LLC

7. Harm to Licensees Does Not Justify Preliminary Injunction to Protect Plaintiff's Licensing Business

A California court denied Finjan's motion for a preliminary injunction to prevent the alleged infringer, Blue Coat Systems, LLC, from selling its accused product before trial. Although Finjan was likely to prevail in its infringement suit, and although Finjan's licensees may have competed with Blue Coat, the court nevertheless found that Finjan was not entitled to a preliminary injunction because it failed to prove that it would suffer irreparable harm if Blue Coat were allowed to continue its activities. In particular, it found that harm to Finjan's licensees did not create irreparable harm to Finjan or justify Finjan's request for a preliminary injunction.

Background

When issued by a court, preliminary injunctions prevent an accused infringer from performing infringing activities until a final judgment issues after trial. As such, they are considered "drastic or extraordinary" remedies "for preserving the status quo," preventing "irreparable loss of rights before the judgment." A party seeking a preliminary injunction must prove four elements: (1) that it is likely to succeed on the merits of the case; (2) that it is likely to suffer irreparable harm if the injunction is not granted; (3) that the balance of the hardships on the parties imposed by an injunction weighs in its favor; and (4) that an injunction is in the public interest.

Based on expert testimony and the judgment that Finjan won against Blue Coat during the previous litigation, Finjan argued it would likely win the current case against Blue Coat. Citing its own expert testimony, Blue Coat argued that Finjan would not win the case because its products did not infringe Finjan's patents, and because the asserted patent was probably invalid given that the USPTO had instituted IPR proceedings against it.

The parties also disagreed about whether Finjan would be irreparably harmed without a preliminary injunction. Finjan argued that its licensees directly competed with Blue Coat, and that by not taking a license, Blue Coat was decreasing the value of Finjan's patents. Blue Coat argued that any harm caused to Finjan's licensees did not constitute irreparable harm to Finjan itself.

Order

1. Likelihood of Success on the Merits

As to whether Finjan would succeed in the suit against Blue Coat, the court found that that there was a "high likelihood" that Finjan would prevail in demonstrating infringement of at least one asserted patent claim. The court observed that the asserted claims were similar to claims that Finjan had already proven Blue Coat infringed in the earlier litigation, and that Finjan would likely succeed in proving infringement a second time. The court also determined that Blue Coat was unlikely to successfully show that the asserted patent was invalid.

2. No Irreparable Harm

But as to the second factor, the court found that Finjan would not likely suffer irreparable harm without an injunction. Finjan asserted several theories of irreparable harm, including that the parties are both direct and indirect competitors in the mobile security software market, as well as that Blue Coat's infringement harmed its goodwill and reputation in the industry.

a. Not Direct Competitors in the Industry

The court first found that the parties are not direct competitors in the mobile security software industry

because Finjan's software was a free mobile app for consumers while Blue Coat's software was sold to enterprise customers who purchased its product suite. The court observed that the parties' products "seem to operate in different segments of the market," and noted that there was no evidence that Finjan's software had lost any market share because of the customers' choice to install Blue Coat's product over its own.

b. Not Direct Competitors as Technology Licensors.

The court also found that the parties were not in direct competition as technology licensors, because Blue Coat sold licenses to its anti-malware engines, while Finjan sold licenses to its patents. The court observed that Finjan presented no evidence that any prospective licensees declined to license its patents because they licensed Blue Coat's services instead.

c. Indirect Competitors Through Their Licensees but No Direct Harm.

The court agreed that the parties were indirect competitors through Finjan's licensees, but found that Finjan failed to show that it stood to suffer immediate irreparable harm. The court emphasized that its analysis turned on whether Finjan itself would suffer harm, and stated that whether Finjan's licensees would suffer harm was not relevant to the inquiry. Although Finjan could suffer harm based on the impact of Blue Coat's alleged infringement on its licensees, the court concluded that Finjan failed to offer specific evidence showing that the value of its patents declined as a result of Blue Coat's actions, despite Finjan's argument that Blue Coat's infringement undermined the value of its licenses.

d. Harm to Reputation and Goodwill is Speculative.

The court next found that the purported harm to Finjan's reputation and goodwill as a result of infringement was speculative, as Finjan provided no evidence that Blue Coat's alleged misrepresentations actually hurt Finjan's reputation. The court concluded that Finjan's arguments regarding irreparable harm, taken together, did not justify the "extraordinary relief" of a preliminary injunction.

e. History of Granting Non-Exclusive Licenses

The court also found that other factors weighed against a finding of irreparable harm. The court noted Finjan's long history of granting non-exclusive licenses to its patents, including executing licenses with 12 companies and entering into licensing discussions with many more. The court concluded that these actions weighed against a finding of irreparable harm, because Finjan had shown itself willing to accept payment in exchange for not asserting its exclusive rights under the patents. Thus, any injury caused by infringement would be compensable in quantifiable damages, whereas a preliminary injunction is better suited to situations where money alone cannot make the plaintiff whole.

f. Delay in Moving for a Preliminary Injunction and Lack of Causal Nexus.

The court also noted Finjan's delay in moving for the injunction. Finjan waited a year after it filed the suit to seek the preliminary injunction, and such a delay weighed against a finding of an immediate, irreparable injury. The court also found that Finjan did not sufficiently demonstrate the required causal nexus between the alleged harm and the alleged infringement, as it did not link Blue Coat's accused product to the alleged harm.

3. Balance of Hardships Favored Accused Infringer.

For the third factor of its analysis, the court held that the balance of hardships caused by a preliminary injunction weighed in Blue Coat's favor. The asserted patent was set to expire in two months, so the harm that Finjan would suffer would simply be two more months of patent infringement (when it had already waited a year to seek the injunction). In contrast, the court noted that Blue Coat could suffer substantial hardship due to the potential disruption to its businesses if it were forced to comply with an injunction.

4. No Public Interest in Injunction.

For the fourth factor, the court determined that the public's interest in an injunction did not affect the outcome of the case. While the court recognized the public's interest in protecting patent rights, it concluded that that interest alone did not justify an injunction. The court also noted that the injunction would take Blue Coat's product off the market, thereby slightly harming the public by restricting consumer choice.

Strategy and Conclusion

This case illustrates that a party seeking a preliminary injunction must be prepared to provide concrete evidence that it would be irreparably harmed if the injunction is not granted, and that merely showing possible harm to licensees arising from indirect competition is insufficient. Generalized, speculative assertions of harm, without adequate supporting evidence, will likely not convince a court to issue a preliminary injunction.

Further Information

The *Finjan* decision can be found here: *https://tinyurl.com/zhw7qor.*

Samsung v. Apple

8. Design Patent Damages May Be Limited to the Profits Attributable to the Infringing Component of a Product, Rather than the Whole Product

Apple owns design patents covering smartphone features including a grid of icons on a black screen, a black

rectangular front face with rounded corners, and a rectangular front face with rounded corners and a raised rim. A jury found several Samsung smartphones include these features and infringe Apple's design patents. And it awarded Apple $399 million in damages based on the entire profit Samsung made from its sales of the infringing smartphones.

The Federal Circuit affirmed the damages award, reasoning the damages for infringing a design patent on a smartphone should be based on the all the profits Samsung made from selling its accused smartphones because consumers could not separately purchase the specific smartphone components with the infringing designs.

The Supreme Court disagreed and held that damages for infringing a design patent may be limited to the profits attributable to the infringing component of a multicomponent product, such as a smartphone, rather than the total profits obtained for the entire product.

Background

U.S. design patents protect new ornamental designs for an article of manufacture, and infringers are liable for profits resulting from manufacturing or selling articles having the infringing design, or $250, whichever is greater. The article of manufacture with the infringing design may be a single component product, such as a dinner plate with a patented design, or a multicomponent product, such as a smartphone, where the infringing design is included in only a component of the product rather than the whole product.

The Federal Circuit upheld the jury's finding that Apple's design patents cover certain design features of Samsung's smartphones and affirmed the damages award based on Samsung's total profits from sales of those smartphones. In doing so, the Federal Circuit reasoned that the entire smartphone was the only permissible "article of manufacture" for purposes of calculating design-patent damages, because consumers could not separately purchase the individual components of the smartphones with the infringing designs.

On appeal, the Supreme Court addressed this question of whether the relevant "article of manufacture" in the case of a multicomponent product can be a component of that product, or whether the "article of manufacture" must always be the end product sold to the consumer.

The Samsung Decision

In a unanimous decision, the Supreme Court held that, for design patents, an infringing "article of manufacture" can be a component of a multicomponent product and need not always be the end product itself. Applying this interpretation in the Samsung case, the court found that damages should have been based on the total profits attributed to only those components with the infringing designs in Samsung's smartphones, which may be less than all profits from sales of the smartphones. Accordingly, the Supreme Court reversed the judgment of the Federal Circuit and remanded the case for a new damages determination under the proper standard.

The Supreme Court found the lower court's damages calculation was inconsistent with the meaning of an "article of manufacture" in the patent law statutes and precedential decisions of the courts. To determine design-patent damages, a court must first identify the "article of manufacture" to which the infringed design has been applied, and then it must calculate the infringer's total profit made on that article of manufacture. Based on its analysis of statutory construction and precedent, the court concluded the relevant "article of manufacture" may be either the end product sold to a consumer or a component of that product.

Based on dictionary definitions and prior decisions of the courts and the Patent Office, the Supreme Court found the plain meaning of an "article of manufacture" is simply a thing made by hand or machine, which may be either a product or a component of a product. The Court rejected the Federal Circuit's interpretation that would require an "article of manufacture" to be a separately sold product or component.

While the Supreme Court concluded that design-patent damages may be calculated as the total profits from an "article of manufacture" that is only a component of a multicomponent product, the Court declined to further provide a test for identifying the relevant "article of manufacture."

Strategy and Conclusion

This case illustrates that damages for infringing a design patent covering a design applied to fewer than all components of a multicomponent product may be limited to the total profits attributed to those components with the infringing design, or $250, whichever is greater. The apportionment of total profits to only those components with the infringing designs may be complicated if the components do not have an assigned commercial value or are not easily separable within the product. As a result, while it still may be straightforward to determine design-patent damages for designs applied to a single component product, the Samsung decision may make it more difficult to determine damages when a design patent is infringed by a multicomponent product.

Further Information

The Samsung opinion can be found here:

https://tinyurl.com/jozgx28.

Au New Haven, LLC v. YKK Corporation

9. Prohibitions on Assigning a Patent License Agreement and Interests Under the Agreement Do Not Prohibit Assigning Patents Licensed Under the Agreement

A patent license agreement's anti-assignment clause did not restrict the assignment of the licensed patent because it did not mention the patent expressly and the patent was not an "interest" under the license agreement. As a result, the assignment was valid and the patent assignee had standing to sue for patent infringement.

Background

YKK obtained an exclusive license to a patent on water-resistant zippers, the '214 patent, in exchange for agreeing to pay royalties for zippers it sold incorporating the patented technology. The license agreement contained an anti-assignment provision, which stated:

Neither party hereto shall assign, subcontract, sublicense or otherwise transfer this Agreement or any interest hereunder, or assign or delegate any of its rights or obligations hereunder, without the prior written consent of the other party. Any such attempted assignment, subcontract, sublicense or transfer thereof shall be void and have no force or effect. This Agreement shall be binding upon, and shall inure to the benefit of the parties hereto and their respective successors and heirs.

The patent owner assigned the '214 patent to Uretek in June 2006, obtaining YKK's consent to the assignment after the fact. Uretek then assigned the '214 patent to Trelleborg in October 2014. Uretek asked for YKK's consent to this assignment in May 2015, and YKK refused. Au New Haven and Trelleborg then filed suit for infringement of the '214 patent and breach of the licensing agreement against YKK.

YKK filed a motion to dismiss the lawsuit, arguing that Uretek's assignment of the '214 patent to Trelleborg was void under the licensing agreement because Uretek did not obtain YKK's consent to the patent assignment. Thus, according to YKK, Trelleborg did not have standing to sue for patent infringement, requiring dismissal of the case.

The *Au New Haven* Decision

In New York, an assignment of a license agreement is valid even where the agreement generally prohibits assignment, unless the agreement also specifies that any assignment would be invalid or void. Although the anti-assignment provision at issue in *Au New Haven* included such language declaring assignments invalid, the court in *Au New Haven* considered whether it extended to assignments of the '214 patent, which was licensed under the agreement.

The Court first considered the license agreement's provision that prohibited the assignment of the agreement—"Neither party hereto shall assign…this Agreement"—and found it did not prevent assignments of the '214 patent or render assignments of the '214 patent void because it did not expressly mention the '214 patent. The Court noted that the parties could have drafted the anti-assignment clause of the licensing agreement to expressly reference the '214 patent, but did not do so.

The Court then went on to consider whether the license agreement's provision that prohibited the assignment of any interest under the agreement—"Neither party hereto shall assign…any interest hereunder."—and found it did not prevent assignments of the '214 patent. The Court concluded that the '214 patent was not an unassignable "interest" under the license agreement because the '214 patent did not originate from the licensing agreement. The patent itself did not arise "under the written statement" of the agreement and was not "created in accordance with the terms" of the agreement.

The Court reached this finding by relying on the plain language meaning of "hereunder" and the narrow reading of anti-assignment clauses required under New York law, finding that "hereunder" means "under this written statement" or "in accordance with the terms of this document."

As a result, Uretek's assignment to Trelleborg of the '214 patent was thus not void, and Trelleborg had standing to sue YKK for patent infringement.

Strategy and Conclusion

This case demonstrates the difference between prohibiting assignment of a license agreement and prohibiting assignment of patents licensed under the agreement. To prevent assignments of the patents licensed under the agreement, the parties should expressly mention that the agreement prohibits assignment of the patents under the agreement.

Further Information

The *Au New Haven* decision can be found here: *https://tinyurl.com/zk92opl.*

Intel Corp. v. Future Link Systems, LLC

10. License Defense Fails Due to Interpretation of License Agreement's Provisions on Commercialization and Importation

Future Link acquired patents originally owned by Philips and asserted that Intel's products infringed those patents. In response, Intel asked a Delaware court to find Intel's products were licensed under a prior license agreement between Intel and Philips.

In *Intel Corp. v. Future Link Systems, LLC*, the court analyzed the scope of several provisions in the license agreement and found Intel had not proven its products were licensed because Intel had not shown its products satisfied a "commercialization requirement" in the agreement, and had not shown it had been granted a right to import the accused products.

Background

In a cross-license agreement dating back to 1990, Philips granted Intel a non-exclusive license under certain "Philips Patents" to "make, to have made, to use, to lease, and to sell or otherwise dispose of" semiconductor products described in the agreement. The license

did not, however, grant Intel a right to import products into the U.S. In 2006, Philips spun off its semiconductor business, including related patents and products, to NXP Semiconductors. NXP assigned some of the Philips patents to another entity, which later assigned them to Future Link.

The Intel/Philips license agreement included several definitions and provisions pertaining to what was covered by the license. For example, the agreement identified certain processes and technology that were expressly not covered by the license agreement. It also contained a requirement that Intel's circuitry products were only licensed if a "commercialization" requirement was satisfied by a member of a defined "Philips Group of Companies." In addition, the agreement included an anti-assignment provision in which neither party could assign its patent rights if the assignment would "adversely affect" the rights and licenses granted to the other party.

In 2014, Intel filed a declaratory judgment action in Delaware district court seeking, among other things, a summary judgment finding that its products were licensed under the Intel/Philips agreement. Applying New York law, as required by a choice-of-law provision in the license agreement, the court analyzed the scope of several definitions and provisions and found Intel had not proven its license defense under the standards for summary judgment.

The *Intel* Decision

The court analyzed several provisions of the Intel/Philips license agreement in reaching its conclusion. Among the provisions it considered, the court discussed the commercialization, importation, and anti-assignment provisions in its summary-judgment decision.

The Intel/Philips agreement required commercialization of Philips' patented circuitry by a member of the "Philips Group of Companies" as a condition for any Intel products with that circuitry to be licensed. Future Link argued that Intel had to prove its products and Philips' products contained "identical" circuitry for Intel to satisfy the commercialization requirement of the license agreement. While the court disagreed with that position, it found Intel needed to show every element of Future Link's asserted patent claims covered the Philips and Intel products, even though the license agreement itself did not expressly specify such a claim-mapping requirement.

The court concluded Intel's license defense was deficient because Intel had not mapped the product structures and functionalities to every element of Future Link's asserted patent claims. Had Intel done so to support the license defense, it would essentially have been admitting infringement. However, the court noted that discovery was still ongoing, and that Intel could maintain its non-infringement defense in the alternative, despite an apparent inconsistency with its license defense.

The court also found Intel's license defense deficient because it was not clear if the license grant in the Intel/Philips license agreement should be interpreted to include a right of importation into the United States. The license agreement did not expressly grant a right to "import" products, but the court found the parties nevertheless may have intended to include this right in view of extrinsic evidence, including previous cross-license agreements between Philips and Intel. If a right to import Intel products was not included within scope of the license grant, Future Link could argue the importation of Intel's products into the United States would constitute patent infringement.

The parties also disputed the meaning of the anti-assignment clause in the Intel/Philips agreement. Future Link argued the assignment of patents from Philips to NXP violated the anti-assignment clause because the spun-off NXP entity was no longer part of the "Philips Group of Companies" subject to the license agreement, and therefore, the license agreement must be deemed terminated due to the assignment to NXP before Future Link acquired its patents. The court disagreed, finding that the anti-assignment clause only prevented assignments that would "adversely affect" the rights and licenses granted to the other party, and that the assignment to NXP did not violate the anti-assignment clause because it did not extinguish or otherwise change the rights and licenses granted to Intel.

Strategy and Conclusion

This case illustrates how disputes arise over the meaning of provisions in patent license agreements—in this case, disputes dealing with commercialization, anti-assignment restrictions, and importation rights. It also demonstrates how the presence or absence of details and examples about the intentions of the parties may impact whether disputes arise and whether they may be resolved on summary judgment—if, of course, the parties are willing and able to negotiate and agree to such details and examples.

Further Information

The *Intel* opinion can be found here: *https://tinyurl.com/zqwqse7.*

Husky Injection Molding Systems, Ltd. v. Athena Automation Ltd.

11. Assignor May Challenge Validity of a Patent It Assigned by Using Patent Office IPR Proceedings Despite Being Precluded from Challenging Validity in Court

The America Invents Act permits any person who is not the owner of a patent to challenge the validity of the patent using an inter partes review (IPR) proceeding at the U.S. Patent and Trademark Office (PTO). The law further provides that the PTO's determination whether to insti-

tute the proceeding is final and non-appealable. In contrast, the legal doctrine of "assignor estoppel" prevents an assignor who assigned a patent from later attempting to invalidate that patent in court.

In *Husky Injection Molding Systems, Ltd. v. Athena Automation Ltd.,* an assignee of a patent appealed the PTO's final written decision finding claims in the patent were invalid, arguing that the PTO should not have instituted the IPR proceeding in the first place because the challenge to the patent's validity was filed by a company formed by the assignor. The Federal Circuit held it did not have jurisdiction to review the institution decision relative to assignor estoppel.

Background

U.S. Patent No. 7,670,536, directed to a molding machine with a clamp assembly, names two co-inventors, one of whom was the owner and president of Husky Injection Molding Systems, Ltd. The inventors of the '536 patent assigned their patent rights to Husky, which is the original assignee on the patent. One of the inventors was also the owner and president of Husky. He sold the Husky business to a private equity group and formed a new company, Athena Automation Ltd.

Athena then filed an IPR petition at the PTO, challenging the validity of all claims in the '536 patent. Husky responded that the doctrine of assignor estoppel barred Athena from filing its petition for inter partes review. The PTO's Patent Trial and Appeal Board ("Board") disagreed and instituted the IPR proceeding. In a final written decision, the Board found most of the claims were invalid over prior art. Husky appealed the final written decision with respect to the Board's failure to apply the doctrine of assignor estoppel to bar institution of the IPR proceeding.

The *Husky* Decision

The Husky decision provides a test for determining whether the Federal Circuit may review a particular challenge to the Board's IPR institution decision. According to the test, the Federal Circuit may review a challenge to the institution decision if it (1) implicates constitutional questions, (2) depends on other less closely related statutes, or (3) presents other questions of interpretation that reach well beyond this section of the statute. However, the Federal Circuit may not review the challenge if it is closely related to the application and interpretation of statutes related to the PTO's decision to initiate inter partes review, unless it is directed to the Board's ultimate invalidation authority with respect to a specific patent.

In this case, the Federal Circuit concluded it did not have jurisdiction to review the Board's decision to institute the IPR despite Husky's argument that assignor estoppel should apply because (1) Husky's appeal did not implicate any constitutional questions; (2) assignor estoppel is a doctrine created by the courts, not by statutes, and its application depends on an interpretation of a closely-related America Invents Act statute for determining who may file IPR petitions; (3) the relevant statutory section pertains to arguments concerning patentability and the strength of such arguments, and the question of assignor estoppel does not present questions of statutory interpretation that reach well beyond those same concerns; and (4) assignor estoppel does not impact the Board's ultimate invalidation authority for the patent, since the patent could be challenged by petitioners who are not subject to assignor estoppel.

Strategy and Conclusion

This case illustrates a useful defense strategy for an assignor that has been sued for infringing a patent it had previously assigned. The assignor may use an IPR proceeding in the U.S. Patent and Trademark Office to challenge the validity of the patent it assigned even though the assignor may be precluded from challenging the patent's validity in court under the doctrine of assignor estoppel.

Further Information

The *Husky* opinion can be found here: *https://tinyurl.com/zw4xrhl.*

DNA Genotek Inc. v. Spectrum Solutions LLC et al.

12. IPR Validity Challenge on Related Patent Prevents Preliminary Injunction

Patent owners can ask a court to order accused infringers to cease alleged infringing activities during a litigation. Courts will grant one of these motions for a "preliminary injunction" where a patentee successfully demonstrates that they are likely to win the case, and that even after winning, the patent owner will likely be unable to recapture market share, customers, or goodwill lost if the accused infringer is allowed to continue the accused activities.

In *DNA Genotek Inc. v. Spectrum Solutions LLC et al.*, a patent owner asked the District Court for the Southern District of California to prevent an accused infringer from selling the accused products, arguing that if the accused infringer's sales continued, it would suffer serious and irreparable losses. The court denied the patentee's motion, finding that there was a substantial question as to the validity of the patent at issue. In reaching this conclusion, the court relied on the fact that the Patent Trial and Appeal Board ("PTAB") had instituted an Inter Partes Review (IPR) petition on similar claims in another of the patentee's patents even though the PTAB had not yet instituted an IPR on the actual claims at issue in the case.

Background

DNA Genotek ("DNAG") brought a patent infringement suit against Spectrum Solutions LLC ("Spectrum") in the Southern District of California alleging infringement of a patent related to saliva collection devices for DNA testing. DNAG also asked the court to issue an order

for preliminary injunction to prevent Spectrum from selling its allegedly infringing products.

In a different litigation, DNAG accused Ancestry.com ("Ancestry") of infringing a similar patent. Ancestry responded to DNAG's lawsuit by filing IPR petitions against multiple DNAG patents, including a petition for review of the patent DNAG asserted against Spectrum.

The *DNA Genotek* Decision

To obtain a preliminary injunction, DNAG must show, among other things, a likelihood of success on the merits, which means that DNAG is likely to win if the case proceeds to trial. If Spectrum raised a substantial question as to the validity of the patent at issue, however, DNAG could not demonstrate such a likelihood of success.

Spectrum argued that the IPR petitions filed by Ancestry raised a substantial question as to the validity of DNAG's patent. DNAG disagreed, arguing that the IPR petition related to the asserted patent hadn't even been granted yet. In response, Spectrum pointed to the similarities between the claims in the present case and a separate IPR petition filed by Ancestry on a related DNAG patent, which was already instituted. The court agreed with Spectrum, finding that even though the claims were not identical to the claims under IPR, they were sufficiently similar to raise a substantial question of validity.

Finally, the court found the answer to the likelihood of success question sufficient alone in denying DNAG's motion, and further, no other factors weighed in favor of granting a preliminary injunction.

Strategy and Conclusion

This order shows that courts may be unwilling to issue orders preventing an accused infringer from continuing allegedly infringing activity where a patent's validity is called into question by an IPR filing, even where the PTAB has not yet granted the petition for IPR. Parties should consider the possibility of an IPR challenge when evaluating whether to bring a motion for preliminary injunction. Similarly, a prior-filed IPR petition may serve as a useful defense against such motions.

Further Information

The *DNA Genotek* opinion can be found here: *https://tinyurl.com/hhgwmrk.*

Available at Social Science Research Network (SSRN): *https://ssrn.com/abstract=2910499.*

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September 11-12
LES Scandinavia Annual Conference 2017
Copenhagen, Denmark

September 15-16
5th Pan-European LESI YMC Event
Budapest, Hungary

October 22–25
LES (USA & Canada) 2017 Annual Meeting
Chicago, Illinois U.S.A.

2018

February 26-27
The 2018 IP100 Executive Forum
Arizona Biltmore,
Phoenix, AZ U.S.A.

April 26–May 02
LESI 2018 Annual Meeting
San Diego, California U.S.A.

October 14-17
LES (USA & Canada) 2018 Annual Meeting
Boston, Massachusetts U.S.A.

2019

October 20–23
LES 2019 Annual Meeting
Marriott Desert Ridge Resort & Spa
Phoenix, AZ U.S.A.

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1977 M. Okano	1991 F. Noetinger	2005 W. Manfroy
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1983 H. Hodding	1997 S. Layton Jr.	2011 A. Lewis
1984 F. Pombo	1998 R. DeBoos	2012 J. Malackowski
1985 M. Ariga	1999 P. Mandros	2013 K. Nachtrab
1986 L. Mackey	2000 H. Goddar	2014 Y. Chua
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