IP Management at Chinese Universities

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ABSTRACT

For the People's Republic of China, intellectual property (IP) is a new legal and social concept. Formal legislation was first introduced in the 1980s and was later strengthened. Due to recent publicity, however, social awareness of IP rights in China has grown. Following a series of ministerial and commission rules concerning technology transfer, universities now usually own the IP resulting from government-funded research. Not surprisingly, the number of patent applications filed by Chinese universities has increased rapidly, exceeding 13,000 in 2004. But such numbers may reflect a trend for researchers and institutions to use patents as a way of enhancing their reputations, rather than for actually transferring or commercializing technology. Most universities still lack institutional IP policies and independent offices responsible for IP management. Rates of technology transfer and commercialization, while difficult to observe, remain low. Still, some world-class universities, such as Tsinghua University and Beijing University, have become adept at IP management. These are both an exception to and an example for other universities in China, having successfully adapted IP management policies and practices to the country's legal and economic circumstances.

1. A BRIEF LEGISLATIVE HISTORY OF IP LAW IN CHINA

The formulation of laws and regulations to govern IP rights in China began in the early 1980s. The protection of trademarks and copyright has, to some extent, existed in China for a long time, but a formal Chinese trademark law wasn't promulgated until 1982. The enactment of the trademark law was a milestone for the establishment of a modern IP rights regime in China. A Chinese patent law followed 1984, and a Chinese copyright law was adopted in 1990.

These three laws have been amended several times to improve the protections they provide. The first amendment of the patent law, in 1992, expanded the scope of patent protection to chemical products and extended the term of utility patents to 20 years and design patents to ten years. In 2001, the patent law was amended again to offer new judicial and administrative protections, improved application procedures, and simplified enforcement procedures. The trademark law has been amended twice since its adoption; the copyright law has been amended once. The latest amendments of these three laws have offered stronger protection of IP rights in line with the requirements of the World Trade Organization (WTO) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).

In an effort to bring its IP protection into accord with international systems, China has actively participated in most of the major international IP organizations and treaties since 1980. It is now a member of the World Intellectual Property Organization (WIPO), the Paris Convention for the Protection of Industrial Property, the Madrid Agreement Concerning the International Deposit of Industrial Designs, the Berne Convention for

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the Protection of Literary and Artistic Works, the Patent Cooperation Treaty (PCT), and WTO, including TRIPS.

In all of Chinese legislative history, no laws have received more attention than those concerning IP. The Chinese government has tried to establish a legal system that meets the current level of IP protection in the world system. Of all the laws in China, these IP laws are the closest to corresponding laws in developed countries. In other words, China has tried, in 20 years' time, to reach the level of IP protection that it took developed countries more than 100 years to reach. One result of such rapid progress is that the resulting laws actually go beyond the common recognition and practice of society. In the past 20 years, China has been transitioning from a planned economy to a market economy. For the Chinese, IP is something of a new phenomenon, and all issues involving IP in China should be understood in the light of this. Under the centrally planned economic system, typically only a few patent applications were filed, and they had little meaning. With the new legislation and the publicity associated with it in recent years, social awareness of IP rights in the country has gradually increased.

2. REGULATING ENTITLEMENT OF IP RIGHTS

In Chinese patent and copyright law, only general definitions are given of an employee's invention or work.

2.1 *Patent law*

2.1.1 *Article 6*

An invention made by a person during the execution of tasks for an employer, or involving the use of materials and technical means belonging to, or provided by, the employer is considered to be a service invention, or *work for hire*. For a service invention, the right to apply for a patent in China belongs to the employing entity. After the patent application is approved, the employing entity shall be the patentee.

For an invention that is not a service invention, the right to apply for a patent belongs to the inventor. After the patent application is approved, the inventor shall be the patentee.

With respect to an invention made by a person using the material and technical means of the employer, where the employer and the inventor have entered into a contract that provides for the right to apply for and own patents, the terms of the negotiated provision shall apply.

2.1.2 *Article 8*

For an invention made by an entity or an individual working under commission or contract for another entity or individual, the right to apply for a patent belongs, unless otherwise agreed upon, to the entity or individual that made the invention. After the patent application is approved, the entity or individual who made the application shall be the patentee.

2.2 *Copyright law*

2.2.1 *Article 16*

Work created by an individual in the fulfillment of tasks assigned to him or her by a legal entity or organization shall be deemed to be a work created in the course of employment. The author shall hold the copyright to such work, provided that the employing legal entity or organization shall have a priority right to exploit the work within the scope of its professional activities. For the two years after the completion of the work, the author shall not, without the consent of the employing legal entity or organization, authorize a third party to exploit the work in the same way as the employing legal entity or organization does.

The author of a work created in the course of employment shall enjoy the right of authorship, while the employing legal entity or organization shall enjoy other rights included in the copyright and may reward the author, as in the following cases:

- drawings of engineering designs, product designs, and maps, computer software, and other works are created in the course of employment mainly with the material and

technical resources of the legal entity or organization and under its supervision
- works created in the course of employment, in accordance with laws, administrative regulations, or contracts, enjoyed by the legal entity or organization.

2.3 *Ownership of IP created under government funding*

Before 1994, there was no uniform government policy regarding IP created with government funding, and the government took title to all IP rights resulting from work that it funded. In China, almost all universities and research institutes undertaking government projects were legally considered state-owned entities. The government was thus entitled de jure to IP rights from them. However, rights were held de facto by the universities or research institutes. Because there was no government policy regarding the entitlement and transaction of IP made under government funding, universities had no impetus to engage in IP management. In addition, few universities or institutes understood the importance of IP. Accordingly, IP management in universities and research institutes was virtually nonexistent.

In 1994, the former National Commission of Science and Technology issued a regulation titled *Measures for Intellectual Property Rights Made under the Governmental Funding of the National High Technology Program*. It provided specific rules for the ownership of intellectual property rights to inventions developed with government funding and contains several important provisions:

- When the government signs a contract with the university or institute, the ownership of the IP rights should be provided for.
- Unless otherwise stipulated in the contract, the university or research institute is entitled to all IP rights pertaining to inventions funded by the government.
- The university or institute should disclose the results to the funding government agency within 30 days after completing the project, and decide whether to file a patent application. In addition, the university or institute has the option to keep the results as a trade secret.
- The university or institute must submit a report with a plan for utilizing the invention to the funding government agency within six months after completing the project.
- The university or institute is entitled to the copyright on the work, including software funded by the government.
- The university or institute can use, assign, and exclusively license IP or trade secrets funded by the government.

Although this is only a ministerial rule, it is the first uniform government policy in China regarding the ownership of IP on inventions funded by the government.

In 2002, the Ministry of Science and Technology and the Ministry of Finance jointly issued Measures for Intellectual Property Made under Government Funding, which are often called the "Chinese Bayh-Dole Act." Based on the previous regulation, it goes even further:

- The university or institute is entitled to IP made under government funding.
- The funding government agency may decide, for compelling reasons (such as the security of the state, other vital interests of the state, or vital interest of the public), that title to the IP should be vested in the government.
- The university or institute can use the results or IP by itself or can assign or exclusively license them to a third party.
- The government retains a nonexclusive, royalty-free license to practice inventions made under government funding.
- The university or institute is entitled to receive revenue from commercializing the IP, but the university or institute must share with the inventor(s) a portion of any revenue received.
- Under certain circumstances, the government can require the university or institute to grant a license to a third party.
- Universities or institutes must give preference to the inventor when commercializing an invention.

- When a university or institute applies for government research funding, the application should contain an analysis of the feasibility of obtaining a patent.
- IP costs are to be borne by the university or institute.

In 2002, the Commission on Science, Technology, and Industry for National Defense issued a regulation titled Measures for Intellectual Property Rights Made under Governmental Funding of Defense Technology Projects. It states that:

- Unless separately provided for in a contract, the contractor is entitled to IP contained in inventions developed as defense technology projects and made under government funding.
- The funding government agency may decide, for compelling reasons (such as the security of the state, other vital interests of the state, or vital interest of the public) that title to the IP should be vested in the government.
- Under certain circumstances, the government can require the contractor to grant a license to a third party.

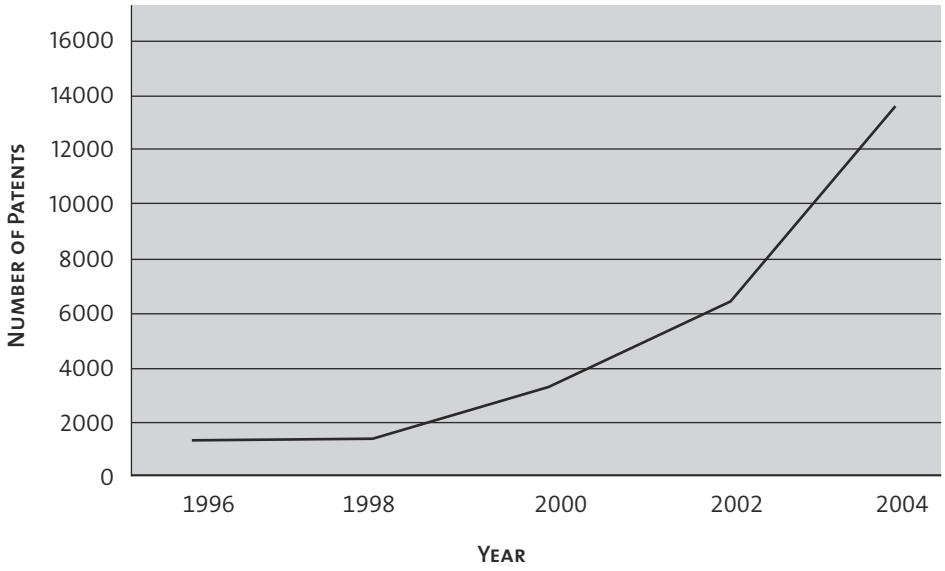
According to the above measures, IP resulting from research funded by the government is in practice usually owned by universities. However, there is still no law in China specifically covering the ownership of IP rights created under governmental funding.

3. IP MANAGEMENT AT CHINESE UNIVERSITIES

3.1 *Growth of patent applications by Chinese universities*

After ministerial and commission rules were issued and IP rights enforcement was strengthened, the number of patent applications filed by universities increased rapidly. Figure 1 shows statistics on patent applications by Chinese universities.

Figure 1: Patent Filings by Chinese Universities



Source: China Education Online

This increase is mostly due to Chinese universities' growing awareness and recognition of the value of IP and has been accompanied by a growing acceptance of the idea of IP in Chinese society. Still, the rapid increase of university patent applications is also partly due to government policy. Recently, with regard to a university's reputation or an individual faculty member's chances at promotion, the number of patent applications has become almost equal in importance to outside reviews and number of publications. For some universities and their faculty, patent applications have become a substitute for publications (patent applications are considerably easier to obtain than publications). Additionally, in some universities students are required to submit a publication or patent application to graduate. Recently, the Ministry of Education has ranked universities based on the number of patent applications filed. Universities have begun to pay significant attention to patents because they closely correlate with institutional reputation. But because patents now garner institutional prestige, universities are filing patent applications for inventions that are not patentable or have little commercial value. In fact, despite this surge in the number of patent applications, some real problems with IP management in Chinese universities remain.

3.2 *Lack of institutional IP policies and understanding*

Despite the numbers, the loss of potential IP by universities is a serious problem. Most universities do not have a clear IP policy. While Chinese patent and copyright laws articulate, in principle, what constitutes an employee's invention and a work for hire, most Chinese universities lack clear interpretations and policies to implement. There is often no definition in place for what constitutes an employee invention or a work for hire, and no common procedure for disclosing inventions or for filing patent applications. Clauses related to IP appear seldom in employment contracts between universities and faculty, and many universities lose IP due to the mobility of faculty members, students, and visiting scholars among universities and between universities and industry. Even at universities that do have an established employee IP policy, it is often unclear to whom that policy applies. With the increasing recognition of the value of IP, more and more issues are arising about who owns patents or software.

While growing, faculty and student awareness of IP issues still falls short of what is needed, and even basic concepts are not always understood. While many Chinese universities offer some form of IP education to faculty members and students, it is seldom systematic or regular and, in most cases, has little effect.

Most faculty members do not have a concept of a publication bar. Patent applications are often filed at the same time or even after results are published or disclosed publicly. Many patent applications are therefore rejected because of the publication bar[1] or because of a lack of novelty.

3.3. *Lack of institutional offices of IP management or technology transfer*

Most universities lack an independent office responsible for IP management or technology transfer. Such functions usually fall to the office of research and technology. The primary responsibilities of this office are to apply for government research funding, supervise projects, report the results of projects to the funding agency, and facilitate publication of articles based on the projects by faculty. Typically, there is not even a single full-time staff member responsible for IP management.

Under the past, centrally planned economic system, the most important duty of the office of research and technology was to report on a project's results to the corresponding committee of experts at the government agency that funded the project. Even now, such reporting is still common in most Chinese universities and research institutes. All project results are appraised for awards through a process of review and discussion by the agency's committee. Prizes are awarded to those projects whose results were determined to be sufficiently advanced. These prizes have a significant impact on the reputation of universities and the promotion of individual faculty members, as do publications. Publications and award appraisals emphasize final outputs. Indeed, in administering research

projects, most attention is generally focused on the final stages and outputs of the research process. In most universities, there is almost no administrative oversight of the early stages of research projects.

Since the university office of science and technology, which is in charge of IP management, focuses its work on the outputs of the research process, not much thought is given to the patentability of a technology when applying for project funding. And during the course of research, little attention is paid to prior art as it is articulated in patent law. For most projects, assessing patentability and prior art is only done after the work is completed.

Since the office of research and technology concentrates most of its efforts on project administration, members of that office are called upon to manage IP only as a part-time job. As a result, IP management is a secondary consideration compared with the daily work of the office. The lack of professionals who specialize in IP at Chinese universities partly reflects the rarity of professionals with expertise in IP in China.

3.4 *Growth in patent applications does not mean growth in technology transfer*

For most Chinese universities, IP management essentially means making patent applications. Most Chinese universities do not have anyone specifically responsible for technology transfer. Without a technology transfer office (TTO) or anyone in charge of technology commercialization efforts, little effort is made to promote the actual transfer or commercialization of the resulting patents. In many cases, patents and commercially valuable research results are simply left on the shelf. Little is done to publicize them, making it hard for industry to learn about new technologies. Even when an entrepreneur might be informed and interested in licensing a patent, it is often unclear who in the university has the authority to negotiate.

Some universities authorize external IP agencies to manage their IP, but usually such agencies merely concentrate on filing patent applications. The available external agencies likewise lack professionals with expertise in IP transactions.

Another reason for the low level of technology transfer is that patents are often applied for without any investigation into the market demand for the invention, which means that much of the university's IP lacks commercial value.

The very low commercialization rate at Chinese universities produces insufficient revenues to cover patent costs, and this, in turn, affects the university's ability to obtain and maintain patents. Patent costs are covered exclusively by the universities and usually come out of research funding lines. Many patents are not being maintained because universities lack funds to pay maintenance fees. As patent costs increase in China, and because it is much more expensive to file in foreign countries, universities may increasingly hesitate to file patent applications because of budget concerns. Unless it is backed up by viable technology transfer, patenting alone will be unsustainable.

3.5 *Lack of policies on revenue sharing, conflict of interest, and sponsored research*

Most Chinese universities lack clear policies about how revenue from IP will be shared with the inventor. And for those that do have such policies, the proportion of revenues shared often does not accurately reflect the inventor's effort or contribution. With no definition provided by university policy about what *hired to invent* or *work for hire* means, or to whom these terms should be applied, and with no restrictions imposed by the employment contract, many faculty members prefer to increase their personal advantage by collaborating directly with industry. Recently, faculty members have engaged more and more in part-time employment or contracting with industry. Resulting conflicts of interest between faculty obligations to the university and to industry are very common. Still, most Chinese universities lack any policy regarding faculty conflict of interest.

In collaborative research agreements between industry and universities that are funded by the industry partner, universities often give up the rights to ownership of IP made under such sponsorship. IP clauses in industry sponsored research agreements can sometimes be interpreted as inequitable to the university, especially when

the contract is with a large or influential company. Typically, the company will not give ownership of resulting IP to the university, nor will it share revenue with the university. In some cases, the company may even seek to include a nonexclusive license to background IP that it did not fund. Some companies seek guarantee clauses in research agreements governing collective projects that place on the university all responsibility for the infringement of other's IP rights. Additionally, some companies will not agree to give the university rights to use the resulting IP for teaching or research purposes. There is no university association in China to advocate for the interests of universities. Not surprisingly, outside of a few famous universities, most Chinese universities are in an inferior position when negotiating sponsored research agreements with large companies. They have to accept any adverse contract terms in order to obtain the research funding.

3.6 *Regional imbalances*

Finally, there is significant imbalance among Chinese universities in terms of IP management. Economic development in China is proceeding at very different rates in different regions. In some of the most developed regions, like Shanghai and Beijing, there are world-class universities that do quite a good job managing their IP.

4. CASE STUDY: IP MANAGEMENT AT TSINGHUA UNIVERSITY

Tsinghua University has an IP committee that consists of a university vice president and managers drawn from the university's functional departments. The committee oversees an office simply called the Intellectual Property Office, which is in charge of the university's IP policy and management. The specific responsibilities of the office include:

- drafting university policies regarding IP
- monitoring policy implementation
- establishing systems and procedures for IP management
- educating faculty
- examining IP clauses in contracts between the university and industry

More recently, the Intellectual Property Office has also begun providing services in patent searching and infringement consulting. The intellectual property office appoints at least one member of each department to manage IP as part of his or her daily work.

Tsinghua University created its IP policy about ten years ago. The policy applies to all university employees, including faculty and nonfaculty researchers, provisionally hired employees, students, post-docs, and visiting scholars. All employees to whom it applies sign a pledge that they will comply with the policy. IP is defined under the policy to include patents, trade secrets, know-how, trademarks, copyrights, and any related rights. It clearly defines what constitutes employee work. It also states that when a project is completed, the investigator should disclose all results to the administrative department first, and the administrative department should then decide whether to apply for a patent. Publication and any public appraisals that would trigger the publication bar are forbidden before filing a patent application. If results appear to have commercial value but are not suitable for a patent, it is to be kept as a trade secret, and measures to maintain confidentiality are to be taken. An industry-sponsored research agreement must have a clause on ownership of resulting IP, allocation of patent costs, sharing of revenue made from the IP, and so on, and the contract must be examined by the intellectual property office before it becomes effective. When a faculty member or other employee goes to another domestic or foreign university or institute and does research, any IP resulting from that research should be assigned, or at least jointly assigned, to Tsinghua University, unless there is an agreement between that researcher and the other university or institute. Under the university policy, at least 25% of revenue generated by a piece of IP is to be shared with the inventor(s) as cash or equity.

Tsinghua University has spared no effort to educate its faculty members and students about IP and the university's IP policy. The policy is printed as a brochure. All members and students get one on their first day of joining the university. The university also propagates information about IP on its Web site. The intellectual property office

periodically reports news, IP-related laws, and updates on its work. IP is also covered in a course called Fundamentals of Law, which is taught by Tsinghua Law School and required for all students. All appointed faculty members in charge of IP management for each department receive training periodically.

The intellectual property office has also set up procedures and rules for examining collaborative research agreements and sponsored research agreements between the university and other institutions or companies. Taking into consideration past contract disputes, the office has designed a standard contract for research agreements. There is also a special fund to pay patent costs, including application fees, examination fees, agency fees, and maintenance fees for the first three years after a patent is issued.

Together, the above measures have resulted in Tsinghua University owning the most patents of all Chinese universities. From 1985 to 2000, Tsinghua University filed 1,587 patent applications. Since 2001, the average annual growth rate of the university's patent filings has been 26%. In 2004, the university filed 43 foreign applications (including Patent Cooperation Treaty filings). The numbers of patents issued to the university were 121 in 1999, 187 in 2001, 501 in 2003, and 537 in 2004. Other universities with a similar level of IP management include Peking University (University of Beijing) and the Chinese University of Technology.

5. UNIVERSITY TECHNOLOGY TRANSFER AND ECONOMIC DEVELOPMENT

Given that China has only a limited number of high-tech companies, there is limited industry demand for the technology generated by universities. Most Chinese companies have neither sufficient R&D capabilities nor sufficient commitment to the long duration and great expenses of developing new products from patents. As stated above, most university inventors do not consider market demand but, instead, file patent applications to bolster the university's reputation or to assure the inventor's promotion. Taken together, these factors negatively affect the rate of technology transfer from Chinese universities.

Because the R&D capabilities of most Chinese companies are so low, when they do get involved, they tend to simply *acquire* patented technologies from universities. Ownership of IP rights is usually included up front as an assignment or licensing clause in a research agreement. There usually is no additional negotiation or contract for licensing between the university and an industry sponsor. Therefore, the exact data on rates of technology transfer cannot be found. But based on interviews with the faculty of Tsinghua University, it appears that the transfer rate of the university's IP is not high. The contract value of industry-sponsored research agreements and collaborative research agreements might proxy for the level of technology commercialization to some extent. For Tsinghua University, the contract value of industry-sponsored and collaborative research agreements was US$31.5 million in 1999 and US$45 million in 2004.

In 1999, the Ministry of Education issued a plan to develop Chinese higher education for the 21st century. One highlight of the plan was to accelerate the transfer of university technologies by encouraging universities to set up high-tech companies. Noticing the tendency for high-tech companies to advance the local economy, many local and regional governments within China supported this plan by providing their local universities with low interest or interest-free loans, housing, land, and tax concessions. The most developed city in China, Shanghai, provides interest-free loans of about US$15 million each year to local universities. Many local governments also adopt policies to encourage local university faculty members to start up companies and to encourage universities to take part in establishing technology parks. There are now about 40 technology parks associated with universities throughout China. A large number of the companies in these technology parks are startups founded by university faculty members based on their own technologies.

In one prominent example, a US$50,000 investment by Peking University in 1986 started Founder Group.[2] The technological basis of Founder Group,

protected under a patent named Laser typesetting system, was invented under government funding at Peking University. After successfully developing products from this patent, Founder Group revolutionized printing technology in China. Founder Group now dominates about 85% of the domestic print market, and their products are exported to over 30 countries. Flush with capital, Founder Group has built up a strong R&D department. Founder Group now acts as an IP incubator for Peking University. Founder Group is committed to developing its own IP, transferring Peking University's IP, and sponsoring research at the university based on market demand. Founder Group now owns, or jointly owns with Peking University, 128 Chinese patents in the fields of print technology and information technology, as well as copyrights on software in the fields of digital information management, multimedia, and the Internet. With a total staff of over 20,000, Founder Group now owns five companies listed on the securities exchanges of Shanghai, Shenzhen, Malaysia, and Hong Kong, as well as more than 20 companies wholly funded by Founder Group or through joint-ventures. It achieved revenues of almost U.S. $3 billion in 2004.

In another prominent example, Tsinghua Tong Fang Co., Ltd., was floated in an IPO (initial public offering) in 1997 on the Shanghai Stock Exchange with Tsinghua University as the main shareholder. The company acts as an incubator of Tsinghua University's IP in two ways. One way is by attracting capital for the commercialization of university inventions; the other is by sponsoring research at the university related to the company's understanding of market demand. The company now owns more than 300 Chinese patents in information technology, energy resources and the environment, and applied radiation technologies, as well as 44 copyrights on software. In just the first half of 2005, the company achieved sales of about US$450 million.

6. SUGGESTIONS FOR IMPROVING IP MANAGEMENT AT CHINESE UNIVERSITIES

Given the difference between the present status of IP management in most of China's universities and the much more successful cases mentioned above, the following proposals and suggestions might be usefully implemented by those universities with less-successful IP management policies:[3]

1. Constitute an institutional IP policy that provides for at least the following key points:
   - a definition of *employee invention* and *work for hire*
   - identification of parties for whom the institution's IP policy is applicable
   - procedures ranging from disclosure of inventions to filing of applications
   - measures to avoid publication bar
   - terms for the sharing technology transfer revenues with university inventor(s)
2. Establish an independent IP management office staffed with full-time professionals familiar with IP.
3. Educate the university's faculty and students on the IP policy.
4. Establish companies to incubate technologies and accelerate technology transfer. Given circumstances in China, this is often more effective than just a licensing strategy. ■

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1 A "publication bar" or "bar date" means the date beyond which patent rights are lost due to a prior "enabling" publication. In the United States, if the inventor has a potentially patentable invention and publishes the enabling information describing that invention (say, on 1 January), the inventor has a one-year period to filing a patent application (in this case until 31 December of the same year). In China and in most countries outside the United States, patent rights are lost upon publication.

2 www.founder.com.

3 *For further reading on the topic of IP management in China see the following:*

Zhao Chunsahan. 1999. IP Management at Tsinghua University. *Technology and Law* (May).

Inglis-San K, LL Laureate, C Au-Yeung and TM Frow. 1996.

Intellectual Property Protection in China: The Law. Asia Law and Practice: Hong Kong.

Wang Pinhua and Cheng Xiaoxia. 2005. Research Project Management in Chinese Universities. *Investment and Technology in China* (May).

Yan Rusong. 2005. Present Status of Intellectual Property Management in Chinese Universities. *Intellectual Property Protection*, vol. 26.

Zhao Shuru. 2005. Intellectual Property Protection and Management in Chinese Universities. *Investment and Technology in China* (May).

Zhu Xianguo and Tang Daisheng. 2005. Exploration of Intellectual Property Management Modes in Chinese Universities. *University Management* (May).

Wang Ximei and Li Zihe. 2006. Technology Transfer Analysis in Chinese Universities. Sciencepaper Online. www.paper.edu.cn/ztlw/download.jsp?file=Jishu05-07.

Mei Yuanhong and Zheng Yongping. 2006. Limiting Factors to Technology Transfer in Chinese Universities and Countermeasures. Sciencepaper Online. www.paper.edu.cn/ztlw/download.jsp?file=Jishu05-05.

For further reading on the topic of statistics on university patenting, see the following:

China Education Online. 2006. *Scientific and Technological Activities*. www.edu.cn/ke_ji_huo_dong_1832/index.shtml (last accessed October 30, 2006).

For further reading on Chinese law as it regards intellectual property rights, see the following:

Copyright Law of the People's Republic of China §16 (2001); Patent Law of the People's Republic of China §6, §8 (2001); Trademark Law of the People's Republic of China (2001).