

# Working with Patent Counsel and Managing the Patenting Process

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## Introduction

A primary mission of research institutions is to create knowledge through research and to transfer that knowledge to others through publications and teaching. When such knowledge has commercial applications, it is the responsibility of the technology transfer office to identify its value, convert it into a manageable form—intellectual property—and transfer it to industry where it can be developed into products and services that will ultimately benefit the general public. Technology transfer offices rely on patents as the primary form of intellectual property for capturing the value of such useful knowledge in the form of inventions and transferring that value to industry through licensing.

Obtaining a patent for a novel technology is a significant investment for universities. Patent protection for a single technology can easily cost \$15,000 to \$20,000 for just U.S. rights and more than \$100,000 to secure rights in just a few foreign countries. Universities make these investments *(a)* because it is necessary for the technology transfer process—companies typically will not invest in the commercialization of a technology unless they will have a period of exclusivity for marketing their product under the protection of a patent—and *(b)* because some patents have the potential to be worth millions of dollars in future licensing revenues. It is not unusual for the investment in patents to be the single greatest expense for a technology transfer office and far exceed an office's operating expenses.

## Securing and Working with External Patent Counsel

Due to the critical nature and significance of the investment in patents, technology transfer offices must pay particular attention to managing the patenting process. This involves selecting appropriate patent counsel, reviewing applications before they are filed, and monitoring prosecution to ensure that the full scope of the disclosed invention is captured in the final patent and that the costs of securing the patent are within a reasonable range. Moreover, the process for obtaining a patent is complex; it usually involves external patent counsel, takes a number of years, and involves many deadlines and a variety of documents. Technology transfer offices must allocate a significant amount of their internal resources to this process, including managing patent-related documentation and accounting for all related expenses.

### Selecting Patent Counsel

The person who ultimately has the greatest impact on the quality of a patent, other than the inventor, is the patent attorney, who is responsible for drafting the initial application and leading the prosecution. Finding and selecting the appropriate attorney and law firm is the first step in the patenting process.

Obtaining the name of a patent attorney can be very easy. Law firms make an effort to market their services by attending and sponsoring networking events and often directly contact technology transfer offices to solicit business. Typically, the problem is not getting the name of a patent attorney; rather, it is selecting the appropriate attorney from the many attorneys that you find or that might contact you. If, however, you are at a loss for an attorney's name, the U.S. Patent Office (<http://www.uspto.gov>) lists all attorneys and agents registered to file and prosecute patent applications. That being said, the best way to find an attorney is to ask your general counsel, other technology transfer offices, or other attorneys whom they would recommend.

## Checklist/Summary

Things to consider when selecting patent counsel:

- Technical expertise
- Legal experience
- Quality of customer service (if used previously)
- Conflicts check complete
- Size of the firm
- Location
- International practice
- One-firm-versus-many strategy

Once you have identified a number of attorneys that seem qualified, the next step is to request information about the attorneys and their firms so you can assess whether or not each attorney and firm are an appropriate match for you, your technology, and your inventor. There are several criteria to use when considering an attorney.

### *Technical Expertise*

The first thing to consider is the attorney's technical background. You want to have an attorney who can easily understand the invention that will be described in the patent application. For some inventions, this is more critical than others. A good understanding of the science related to the invention will help the attorney better interact with your inventor and he or she will have a better understanding of how to broaden the claims and make good arguments for broader claims with the examiner. Furthermore, you do not want to pay an attorney for the time it takes to educate himself or herself on the background of the related science if you can find an attorney who is already well-versed in the scientific discipline of your invention.

### *Legal Experience*

Legal experience is another factor to consider, especially when working with a sole practitioner or very small firm. In larger firms, less-experienced attorneys can rely on the counsel of more senior attorneys. In fact, a senior attorney will typically review the work of less-experienced attorneys before documentation is submitted to the patent office. The scope of the final patent is often a function of how well claims are drafted, the strength of arguments made in response to office actions, and the strategy pursued during prosecution; and experience is a key factor in performing these functions well.

### *Customer Service*

It is important to work with attorneys who provide good customer service to your inventors and to your office. Patent attorneys are often perceived by inventors as an extension of your office, so any negative interactions between an attorney and your inventor will reflect poorly upon your office. You also want an attorney who is responsive to you and your inventor, keeps you well-informed regarding the status of the case, and provides you

with advice and recommendations for prosecution that enable you to make informed decisions. If you are not satisfied with the service that you are receiving from your patent attorney, do not hesitate to transfer the case to another attorney or law firm.

### *Conflicts Check*

When you indicate that you would like to engage a new law firm to file a patent application, the law firm will perform a conflicts check to ensure that it is not already representing a client in a way that could be perceived to be a conflict with representation of your institution. In the event that a conflict is identified, the law firm will so notify you and specify that it is unable to represent your institution. In some cases, however, when the conflict can be appropriately managed, the law firm will agree to represent you provided that you agree to waive any liability associated with the conflict. For cases in which the conflict is significant, you will be required to find representation from another law firm.

### **Selecting a Law Firm**

Since the patent attorney is typically part of a larger firm, it is necessary to take into account the nature of the law firm and consider a general strategy for selecting law firms.

#### *Small Versus Large Firm*

Size is one criterion that should be considered when selecting a law firm. As described above, larger firms typically have more support infrastructure to assist their attorneys. They also offer a wide range of expertise due to the large number of attorneys employed, so you might be able to use one firm for a variety of applications. Smaller firms that specialize in one technical area, also referred to as *boutique firms*, should be considered if your invention is in their area of expertise. Boutique firms often offer a higher level of experience that you would find in a large, more general firm (within a specific technical area), but also offer some of the benefits of a smaller firm such as flexibility and lower cost. Smaller firms are often looking for new business to grow, so they might be willing to make special deals that could save you money. Another thing to consider when selecting a law firm is the breadth of services that you want from the firm. Larger firms tend to have specializations in a variety of areas such as interference work, infringement actions,

and license negotiations that might not be offered by smaller firms. If you feel that you might need these services, you might want to consider working with a larger firm.

### *Location*

Another criterion to consider when selecting a law firm is its location. While it is not necessary for patent attorneys to have face-to-face meetings with your inventor, such meetings can be more productive than telephone conversations and e-mail correspondence. At times, patent attorneys request meetings with patent examiners to resolve issues quickly and in an efficient manner rather than continue through additional iterations of office actions and responses. For this reason, many firms have branches strategically located in Washington, D.C., and Northern Virginia around the U.S. Patent Office. Since it is expensive to pay attorneys to travel, selecting a firm that is close to you or to the U.S. Patent Office could improve the efficiency of filing and prosecution of an application and save you money.

### *International Connections*

Should you anticipate filing in foreign countries, you should consider a firm with a strong international practice. When you work with your firm to file international patent applications, e.g., at the national phase of the PCT (Patent Cooperation Treaty), your firm will work with a foreign associate for the country in which you want to file. Since your firm will be using a foreign firm to represent your interests, you should ask your law firm about its foreign associate firms. The foreign firm will be representing your interests in the patent application in the foreign country, so you should ensure that its attorneys are well-qualified to do so.

As an aside, you should understand that foreign countries often have a very different patenting process relative to the United States. Make sure that you are informed of the process in the foreign countries in which you file to ensure that you can make appropriate decisions about the foreign prosecution.

### *One Versus Many Firms*

There are various strategies for engaging law firms. One strategy is to minimize the number of law firms used for your patent portfolio. With more business being sent to fewer firms, you become a more important customer for those firms and often have more leverage when it comes to demanding flexibility, discounts, and service. If you are using fewer firms, you should consider larger firms that have a wide range of technical expertise for the variety of inventions for which you might want to have a patent application filed. The opposite approach is to use a larger number of firms placing more weight on finding the ideal attorney for a specific technology; provided, however, if your portfolio gets large, it can be difficult to manage the approval processes and associated administrative tasks for working with a large number of firms.

### **Engaging an Attorney/Law Firm**

Once an appropriate attorney and his or her law firm have been identified, the next step is to engage, or hire, the new attorney to draft and prosecute an application. For some institutions, especially state or federal institutions, hiring a patent attorney is the same as hiring any service provider, and purchasing rules require that a bid process be performed. There are pitfalls to selecting an attorney solely by lowest cost, which is often how the bidding process is won, so you need to ensure that you are not sacrificing quality for a little less cost. Less-experienced attorneys might be cheaper, but their work might not be as good. On the other hand, experienced attorneys could quote you a price for an application and then use that quote as a constraint for the amount of time that they will devote to the application. In both cases, you could make a significant investment in a patent that does not achieve the quality that you desire. Many university systems have a mechanism by which you can make a *sole source* justification, thereby avoiding the pitfalls of a bidding process. In addition to purchasing considerations, some institutions must have new attorneys or their law firms approved by their general counsel or attorney general before a new attorney or law firm may be engaged. It is important to understand the contracting process at your institution before you contact a law firm.

## Engagement Letter

Asking the attorney that you have selected to draft an application can at times be as easy as picking up the phone, especially when the law firm or attorney is one that you have used in the past or one with which you already have a pre-established relationship. While this is the easiest way to engage an attorney, it could limit the control that you have over the process. It is better to have a clear understanding how your institution and the firm will work together. This understanding is often documented in an *engagement letter*. When you hire a law firm for the first time, it is likely that the law firm will ask you to sign an engagement letter prior to doing any work. These letter agreements are often fairly standard, but they typically do not include details that address the specific interests or requirements of your institution. While not required, you might want to consider using your own letter of engagement regardless of whether or not the law firm asks you to sign one or modifying the attorney's letter to ensure that it appropriately addresses any issues that you might have.

There are a number of things that you should consider incorporating into your engagement letters including requirements for budget estimates, details about invoicing, and the role of the inventor in the application and prosecution processes.

### *Requirement for a Budget Estimate*

It is a good idea to agree upfront on estimates for the anticipated costs for drafting new applications and to include this requirement in an engagement letter. The cost of a new application will depend on a variety of things including the nature of the technology and the amount and quality of the information that will be provided to the attorney. If you know what would be considered a reasonable cost for filing a patent application in a specific technology area, you might want to propose a specific budget to have an application

## Checklist for Engaging an Attorney

- Engagement letter *complete*
- Documented instructions for patent attorney sent
- Budget estimate
- Prior art search requested (Yes or No)
- Inventorship determination requested (Yes or No)
- Deadline for draft application provided
- Information/documents provided

drafted and then ask if the attorney can agree to draft it for that price. It is also prudent to include a clause in the engagement letter that requires the attorney to obtain your approval prior to exceeding the estimate by more than 5 percent. If an attorney cannot agree to an estimate that you feel is reasonable, consider finding another attorney who can give you a reasonable price. As previously stated, while it is important to keep in mind the costs of the patent, it is important not to sacrifice quality for a slightly lower cost.

### *Invoicing Procedures*

Information about billing and terms for payment are typically addressed in engagement letters provided by law firms, but you might have specific requirements that are not addressed in a law firm's letter. For this reason, you should state any such requirements in the engagement letter that you send to an attorney or have it included in the law firm's letter. You should require that invoices contain sufficient detail so you can determine if you are being charged appropriately. Such detail should include a description of the work performed, the name of the attorneys or other individuals performing the work, their billing rates, and a listing of all fees and charges included. With this information, you can review invoices to ensure that you are not charged twice for the same thing and that the time spent for each task is reasonable. Experience with reviewing invoices will help you to determine what is considered *reasonable*. You will also see how much time was spent by the attorney you hired compared with other attorneys or technical advisers who might have assisted with the application. If your office uses an invention reference or patent docket number, you should require that all invoices include your reference. This will save time with processing the invoices once they are received by your office.

### *Role of the Inventor*

At times, confusion about the inventor's role in the application and prosecution process can create problems; therefore, it is necessary to clarify the roles of the inventor and the technology transfer office in the engagement letter. During the application process and during prosecution, it will be necessary for the patent attorney to have discussions directly with the inventor. This is the most efficient way to ensure that the patent is comprehensive and accurate. This could, however, lead to problems if the technology transfer office is not kept informed about the process. Inventors often build a relationship with the patent attorney handling their application and start making decisions that might not

be consistent with the strategy of the technology transfer office. It is important to let the attorney know that all relevant decisions about the application process will be made by the technology transfer office and not the inventor. It is also important to be kept informed of discussions and to be copied on all documentation being transferred directly between the inventor and the attorney. Specify in the engagement letter that you will be copied and informed of all interactions between the attorney and the inventor.

### **Instructions for the Patent Attorney**

Once you and your patent attorney have reached agreement and executed an engagement letter, you will need to provide specific instructions to your attorney for each application that you want filed including an agreed budget estimate. This is especially true when you use an attorney for many years because that attorney might draft and prosecute several applications for you, and each of those applications might require different instructions. Instructions for attorneys can be provided by phone once an engagement letter is in place but should be followed up in writing via a letter or e-mail along with the agreed budget estimate.

Filing for a patent involves more than just drafting an application. It involves a number of other tasks including prior art searches and inventorship determinations. It is important to make sure that you are clear with your attorney with respect to the tasks that should be performed.

#### *Prior Art Searches*

When you send an invention disclosure to a patent attorney, do not assume that a prior art search will be performed unless it is specifically requested. If you provide some prior art documents with the description of your invention, your attorney may assume that you have already performed an appropriate prior art search and will not conduct another search. If you want a more complete search performed by your attorney, specifically request it.

#### *Inventorship Determination*

It is not uncommon for situations to arise in which faculty are included as inventors for political reasons or because faculty members equate their name on a patent to having

their name on a scientific paper. In either case, it might be difficult for the technology transfer office to make an inventorship determination; moreover, inventorship is a function of the claims that are included in an application so a determination cannot be made until claims are drafted by the patent attorney. Attorneys will often assume that the inventors listed on the disclosure are the true inventors on the associated application unless advised otherwise. Having the incorrect inventors listed can invalidate a patent, so if you want the inventorship checked, your engagement letter should specify that you want an inventorship determination made once claims have been drafted for your application.

### *Deadlines*

Deadlines are a key feature of filing a patent application. You will always want to indicate a deadline for the filing of a patent application. If, for example, you request the conversion of a provisional application to a utility application or there is an upcoming publication bar date, the attorney will need to be made aware of the required filing date for the utility application. In all cases, you should request an earlier due date for a first review of a draft application. Without such a deadline, attorneys often wait until what seems to be the last minute to work on an application. The problem arises when the inventor, who might be traveling or working against a grant deadline, is not available or does not have sufficient time to review the application and provide proper comments before the required filing date. It is better to specify an initial draft by a date at least a couple of weeks prior to the deadline, so there is sufficient time for the attorney to work with the inventor to revise the application.

## **Monitoring the Application and Prosecution Process**

Once the engagement letter has been signed, specific instructions have been provided, and the attorney begins drafting the application, it is important to monitor the process to control costs and ensure quality. The best way to control costs is to agree to a reasonable estimate before the work begins, as described above, but other steps can also be taken to control costs including performing prior art searches in house, providing the patent attorney with a sufficient description of the invention and prior art, avoiding unnecessary fees, and questioning unreasonable charges.

## Prior Art Searches

Prior art searches are searches of the relevant scientific literature and prior patents and patent applications, and they are an important step for making the decision to even file an application. It is recommended that such searches be first performed by the technology transfer office or by a search service, which will likely be less expensive than having your patent attorney perform the search. Searches can be performed through the U.S. Patent Office's Web site (<http://www.uspto.gov>), i.e., for patents and patent applications, or through a search service or your institution's library for technical articles. The results of such a search should be reviewed by the technology transfer office to determine if the invention is truly novel and not obvious before making a decision to file a patent application. You do not want to waste money having an application drafted and filed just to find out during the prosecution phase that the invention is not novel.

## Provide Sufficient Information

Before making a decision to file a patent application, make sure that you have sufficient information to provide to the attorney, including a detailed description of the invention and all relevant prior art that you might have obtained during a search. Ideally, you will have a manuscript in electronic form that you can send to the attorney. Electronic manuscripts save you the costs associated with having the law firm retype the invention's description. It is not unreasonable for technology transfer offices to require the inventor to draft a manuscript, or equivalent, before deciding to file a patent application. This will ensure that the invention is fully conceived before beginning the application process and minimize the costs associated with the attorney extracting the invention from the inventor. If you request that an attorney draft an application from scratch, it will add significant costs.

## Steps for Monitoring the Application/ Prosecution Processes and Controlling Costs

- Perform prior art search prior to sending to your attorney
- Provide sufficient information to your attorney
- Avoid extension fees
- Question unreasonable charges
- Review applications before they are filed
- Monitor the inventor's relationship with your attorney

## **Avoid Extension Fees**

After an application has been filed and examined by the patent examiner, the examiner will send an office action to the patent attorney of record. The attorney will review the action and draft a response. The response is due back to the patent office within three months from the date that is issued. This time can be extended for an additional period of up to three months by filing a petition and paying a number of extension fees. There are two reasons that you want to make sure that you avoid any extensions of the due date for office actions, or any other responses due to the U.S. Patent Office. First, they cost money. Attorneys and your inventor will likely not be concerned with delays because the money is not coming out of their pockets. To minimize costs, the technology transfer office must keep track of these deadlines and ensure that the inventors work with the patent attorney so a response can be filed in time to avoid the extension fees. Second, delays could limit the life of the patent if prosecution takes longer than three years. When prosecution takes longer than three years due to delays in the U.S. Patent Office, patent terms can be extended for a period of time up to a maximum term of seventeen years from the date of issue. This patent term extension will be reduced by the number of days that prosecution was extended by you, including deadline extensions.

## **Question Unreasonable Charges**

It is important to review all of the invoices that you receive from a law firm. In the event that you identify unreasonable charges on your invoices, you should contact your attorney and question the charges. Law firms process a large number of bills and, from time to time, do make mistakes in billing. If you raise a concern about the appropriateness of questionable charges, often the attorney will make an adjustment to the bill. Furthermore, the attorney will know that you are conscious of the charges and will be more likely to ensure that he or she is working within the limits of the agreed budget.

## **Review Applications before They Are Filed**

As emphasized earlier, the quality of the patent application is of primary importance. Technology transfer offices rely on the expertise of the patent attorney who is hired to ultimately ensure a quality patent, but it is in the best interest of the technology transfer

office to monitor the process to ensure that the patent covers the applications of the technology envisioned by the office. This should begin with a careful review of the patent application and its claims before it is submitted to the U.S. Patent Office. You will want to review the claims to make sure that they are well-drafted and that they cover the scope of the applications of the technology that you envision.

Reviewing the patent application is also important to get a sense of the amount of work done by the attorney. You might want to compare the application with the manuscript that you provided to the attorney. A good attorney will take the description of an invention, which might be narrowly focused, and expand on the potential applications. For example, a manuscript that describes a novel gene sequence should be embellished by an attorney to cover, not only the gene sequence, but possibly the protein encoded by the sequence, an antibody to the protein, a diagnostic kit using the antibody, etc.

### **Monitor the Inventor's Relationship with the Attorney**

Throughout the application-and-prosecution process, monitor your inventor's relationship with the patent attorney. You will want to make sure that your inventor is happy with the attorney to ensure that they will continue to work together in a productive manner. You must also ensure that your inventor cooperates with the attorney. At times, inventors can be very busy and unresponsive to requests for information and comments made by an attorney. It is important to avoid situations where an unresponsive inventor is a cause for increased costs or a lower quality application.

### **Alternative to Using External Counsel**

The alternative to hiring outside counsel is for the technology transfer office to hire a staff attorney who is dedicated to drafting and prosecuting applications. While this can reduce patent costs for technology transfer offices that file a significant number of applications per year, there is still the challenge of finding a staff attorney with technical expertise in the various technical areas in which invention disclosures are made. For this reason, hiring this type of professional is really only an option for larger offices that file a large number of applications in a limited number of technical fields.

## Special Issues Related to Jointly Owned Patents

When a patent is owned by more than one party, extra steps must be taken to ensure that your interests are protected. This is especially the case when a company or licensee is a joint owner in a patent and wants to take the lead with prosecution. Additional steps must also be taken when an invention is owned by more than one university or research institution.

### When a Company/Licensee Is the Joint Owner

When a licensee takes the lead with filing a patent application, it is important to ensure that the application will be prosecuted as broadly as possible. First, you want to ensure that you are timely copied on all patent-related correspondence and that all documents filed with the U.S. Patent Office meet with your approval. A licensee might have an interest in limiting claims to minimize the royalties that it would have to pay, while it is in your best interest to ensure that the patent is drafted as broadly as possible. Second, you should ensure that you have the right to hire separate counsel to represent your interests in the application in the event that you cannot reach agreement on the strategy for prosecution or if you feel that the application is not being prosecuted in your best interests. This situation should only arise when a patent is jointly owned by your institution and the company. For solely owned inventions, the owning entity should always take the lead with prosecution to avoid these issues.

### When another Institution Is a Joint Owner

Difficulties can also arise when more than one institution is an owner of a patent application. Typically, the institutions involved will enter into an interinstitutional agreement that will designate one institution that will take the lead with regard to patent prosecution and specify how costs and revenues will be allocated. To maintain appropriate files, it is again important that you are copied on all patent-related correspondence and have an opportunity to provide comments. It is often easiest to have the law firm provide copies to all of the parties. This costs a little bit more than having one institution make the copies and mail the documents to the other institutions, but it is often more efficient.

## Managing Patent Documentation and Accounting

You now have some basic guidelines for working with patent counsel and monitoring the patent process. As you go through this process, you will accumulate draft applications, invoices, and other correspondence related to the prosecution of your patent applications. You will need to set up a filing system to store and organize all relevant documentation and an accounting system to track patent-related expenses.

### Patent Filing Systems

Each technology transfer office has a different system for organizing its patent files. Some offices use special three-fold folders for patent-related documents and correspondence while others use basic expanding files. Some offices keep their invention-disclosure files together with their patent files and others keep them in separate locations. There is no perfect system. The various options and the advantages and disadvantages of each are presented here in an effort to enable the reader to choose a system that works the best for his or her institution.

When setting up a filing system for a new office, the first thing you must decide is how to track each patent. Most technology transfer offices use their disclosure reference number for tracking corresponding patent applications. The challenge with this approach occurs when multiple patent applications result from a single disclosure as a result of continuation or divisional applications. An alternative approach is to use a separate patent reference system that identifies each patent in a patent family. Numbering schemes can range from very basic to very detailed. The more detailed numbers obviously give you more information, but long strings of letters and numbers can be easily mixed up.

After choosing a specific naming convention, the type of file folder to use for patent-related documents and correspondence is the next decision to be made. Some offices use the special three-fold patent folders, which help keep things very organized but are more expensive than other options. Other offices use multipart folders with fasteners or basic expanding (pocket) folders. These options are less expensive but require more effort to ensure proper organization. Whichever type of folder you choose, it should be durable

and it should have at least one section where important documents, such as original assignments, can be fastened down for safekeeping. You should have another section in your folder where you can keep all patent-related correspondence in chronological order. This should also be fastened down so you can easily review the prosecution history by looking at one place in the file.

The type of folders that you choose might also be influenced by whether you want to store patent documents and its corresponding invention disclosure together in one location or whether you want to store patent documents in one location and disclosure information in another. The issue of individual file location is a matter of preference and also a matter of how patent matters are handled in your office. Offices that have a dedicated staff to manage all patenting activity for an office are more likely to have a patent filing system separate from their disclosure filing system. You might also consider separate filing systems if your patent folders are a different size, i.e., legal, than your disclosure folders, i.e., letter. Special provisions should be considered for storing the ribbon copy of issued patents. Storing this important document in a fireproof vault or safe is recommended.

As your office grows, you will no doubt want to inactivate cases and you will eventually run out of space to store all of the materials. In this case, you should consider an archive strategy such as offsite storage. Alternatively, some technology transfer offices are attempting to store everything, including inactive case files, electronically. This is a growing trend and something to consider when setting up a new filing system.

### **Tracking Attorney Correspondence and Patent Expenses**

Most technology transfer offices use a database system to track pertinent information about disclosures, related patent filings, and all associated costs. Ideally, the same database will track correspondence from patent attorneys, such as office action response due dates and the like. Alternatively, you could choose to use a separate docketing database system, spreadsheet, or calendar to keep track of response dates. Such automated systems are necessary as patent portfolios grow. Having a dedicated person, who is responsible for patent-related matters, manage these systems seems to be the norm in large offices, but will probably not be possible for a small office. Small offices need an automated system

because they are not likely to have a dedicated person to monitor deadlines and follow up with inventors and attorneys. In either case, it is important to monitor patent activity and its associated deadlines.

Tracking patent expenses is critical to every technology transfer office. The basic idea is to assign all such expenses to a related disclosure or patent reference number and then track those expenses to be reimbursed by a licensee or to recoup the patent expenses from license payments and running royalties. The ability to track expenses in this manner is an important feature of any patent database system. Selecting a database management system for your technology transfer office is one of the most important decisions that you will make. There are basically two types of systems, those that are custom-built and those that are purchased. Many factors will influence your choice, including your budget; your internal technical support, especially if you develop your own system; and the support and training that a vendor will provide if you decide to purchase a commercial system.

As mentioned above, tracking patent expenses is important. Transactions entered into a database are the easiest to monitor. The person monitoring the database is quite often the person who is responsible for ensuring that the bills are paid. After an invoice is approved for payment, the responsible person will then forward it to the financial services group within the institution for payment. Invoices can be processed in batches or just as they come in.

If the expenses are to be reimbursed by a licensee, the responsible person, again quite often the same person managing the database, should give notice to the licensee that this expense has to be reimbursed. Licensee payments for reimbursed patent costs should be monitored as closely as royalty payments. If the invention is jointly owned with another institution that is sharing patent costs, the other institution should be notified of the invoice just as you would with a licensee.

### **Maintenance Fees and Annuities**

Several options exist for tracking maintenance fees and annuities, which accumulate for issued patents and foreign applications. Some patent firms will track those payment dates

for you, but there are also annuity services available, such as Computer Packages Inc. Annuity service firms charge by the case and will give volume discounts. The more cases that you have, the less you pay per item. Patent firms often contract with annuity service firms, so if you have enough volume, it will probably be less expensive to deal directly with an annuity service. For small offices, annuity service firms are usually not a cost-saving option.

Regardless of the external tracking system used, most technology transfer offices still maintain some type of internal docket system for monitoring maintenance fees and annuities. If you pay the maintenance fee directly rather than having your attorney or a service pay, you will save money, but your institution will be liable if rights are lost because an annuity was not paid. It is still recommended that fees and annuities be tracked by a law firm or annuity service. This is especially important if the patent is licensed, in which case, there is more risk associated with missing an annuity deadline.

## Conclusion

Patents are the main assets on which all technology transfer offices rely for their operations. Not only do technology transfer offices spend a large portion of their budget on external patent expenses, but significant internal resources are allocated to managing the patent process and tracking expenses. It is a complex process amounting to a significant investment by institutions, and technology transfer offices must be diligent with managing it and have an appropriate infrastructure established so they can manage it effectively.