

Book Review

Intellectual Property Management In Health And Agriculture Innovation: A Handbook Of Best Practices

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This IP Handbook is a very significant contribution to the knowledge and practice of technology transfer, particularly for early stage technology. Although it focuses on technology coming out of universities, research organizations and other public sector institutions, the information in the Handbook will be useful for those in the private sector.

“Handbook” is really a misnomer. This is a massive work. Just short of 2,000 pages in the two volume printed version. All available online at www.iphandbook.org. The handbook was published by The Centre for the Management of Intellectual Property and Health Research and Development (“MIHR”) and Public Intellectual Property Resources for Agriculture (“PIPRA”) and sponsored by the Rockefeller Foundation and the Ewing Marion Kauffman Foundation.

MIHR focus on health and PIPRA on agriculture. Both want to promote accessibility to technologies for humanitarian purposes. One of PIPRA’s primary strategies is to “improve access to technologies and to...support the development of IP management best practices and capacity enhancement in developing countries.”

The goal of the Editorial Board of the Handbook is to broaden and accelerate access—especially in developing countries—to life-saving and poverty-alleviating innovations in health and agriculture. They hold the following visions:

- Intellectual property is a tool to foster innovation
- Put intellectual property to work for the public sector and the public interest
- IP rights are a compromise and an imperfect solution
- Genius can flourish anywhere, and the emerging global systems of innovation in health and agriculture open up new prospects for innovation everywhere
- Policies to promote the *creation* and *management* of intellectual property by public sector institutions should give first priority to advancing the mission of those institutions
- Insufficient attention has been paid by the public

sector to managing intellectual property

This social purpose comes through very strongly in Volume One—thus the work will have strong interest for universities and research institutions in the developed and developing countries. This work endeavours to codify best practices, recognizing that in some cases it is not even clear what are the appropriate *ethical* practices let alone the *best* practices. Since the Handbook offers so many “best practices” that apply universally, it will be of interest to those in the for-profit sector, especially those with emerging technologies. I read the Handbook from the latter point of view so this review will have a bias for practice in the private for-profit sector.

This Handbook has an interesting design. There are Sections for the various main topics which then consist of a number of Chapters, each starting off with the Section number. Each chapter starts with an abstract. Then there is the article itself, often containing “Boxes” with checklists or easy to read “bulleted” items. These abstracts are published separately but I recommend the full Handbook.

Section 1, made up of five chapters, sets the stage for IP management in the context of making IP accessible to the developing countries. John Fraser, 2006 President of AUTM, gives a new twist to “ROI”—“Return on Imagination—Let Me Show You What is Possible.” His idealism, reflected by other authors, is “as a technology transfer professional, I help make the world a better place” [p.21].

There has not yet developed the common practice of reserving rights to ensure access by those in developing countries to new health/agricultural



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technology in a license from a research institution to a commercial entity, so best practices obviously are still some way behind as well (Chapter 1.4). But Section 2 does give some guidance as to what could be best practices. Chapter 2.1 gives two examples of the reservation of rights used by PIPRA and by UC Davis. Here is UC Davis's:

Box 3: Reservation of Rights for Humanitarian Use: University of California, Davis

1.40 "Humanitarian Purposes" means (a) the use of Licensed Products covered under Compound Patent Rights ("Compound Products") for research and development purposes by any organization or other third party, anywhere in the world that has the express purpose of developing the Compound Products for use in an Economically Disadvantaged Country, and (b) the use of the Compound Products by any organization or other third party for Commercial Purposes in an Economically Disadvantaged Country.

1.41 "Commercial Purposes" means to make, have made, use, have used, import, or export a product, good, method, or service for the purpose of selling or offering to sell such product, good, method, or service.

1.42 "Economically Disadvantaged Country" ("EDC") means all countries listed on the United Nations Conference on Trade and Development list of "Least Developed Countries" in effect as of the Effective Date of this Agreement which are set forth on Appendix I hereto.

2.14 In any license to the Licensee, Licensee's commercial use of the Compound Patent Rights to make, use, sell, offer for sale and import Compound Products in EDCs will be royalty free and the Licensee will be required to give away the Compound Products for free or at cost.

2.15 Notwithstanding other provision of rights granted under this Agreement, The Regents [the university] hereby reserves the right to license the Compound Patent Rights to any third parties for solely Humanitarian Purposes. Such licenses for Humanitarian Purposes will expressly exclude the right of the third party licensee to export or sell the Compound Products from an EDC into a market

outside of the EDC where Licensee has introduced or will introduce a Compound Product and where Patent Rights exist. In any such license, the third party licensee's commercial use of the Compound Patent Rights to make, use, sell, offer for sale and import Compound Products in EDCs will be royalty free and the third party licensee will be required to give away the Compound Products for free or at cost. For avoidance of doubt, the third party licensee may be permitted to export Compound Products from the EDC of origin to other EDCs and all other countries mutually agreed to by The Regents and Licensee.

Part of Chapter 2.6 addresses the broader topic of freer access, but not totally free: open source. It offers an interesting discussion on open source licensing strategy.

Chapter 2.8 discusses patent pools. The following table offers an example of the practical style used throughout by the contributors to the Handbook.

Table 2: Summary And The Pros And Cons Of Patent Pools

PROS	CONS
Integrates complementary technologies	Difficult to agree on the value of individual patents contributed to a pool
Reduces transaction costs	Complex to set up and avoid antitrust problems (collusion and price fixing)
Clears blocking positions	
Avoids costly infringement litigation	May inflate licensing costs through nonblocking or unnecessary patents
Promotes the dissemination of technology	Complex when many patents are under litigation, as is the case with biotechnology
Levels the playing field	Many shield invalid patents and thus prevent much technology from entering the public domain

Section 3 will be of interest to those in developing countries who are setting up technology transfer offices. Chapter 3.13 is of broad interest and includes a discussion on university spinouts and the conflict of issues that arise from these spinouts. Here is MIT's conflict of interest rules for spinout companies:

Box 1: M.I.T.'s Conflict-of-Interest Rules for Spinout Companies (Last Revised February 2005)

1. Faculty member may consult but not be a line officer in any company. Consulting activities should not use university resources and should not use students.

2. Faculty member must distinguish direction of re-

search at university from responsibilities at company in which he/she owns equity.

3. *The university will not accept sponsored-research grants from the company if the faculty member owns equity.*

4. *No confidentiality of research results (anytime). All research must be publishable.*

5. *Only patents, copyrights and tangible property can be licensed for compensation (no knowhow or trade secret licensing can be done since this would preclude open publication).*

6. *Faculty members may not conduct the license negotiations (nor attend the negotiations).*

7. *Consulting is third-party, between the faculty member and the company. No tie-in with the license.*

8. *Only very minimum commitment of future inventions (those dominated by previously licensed patents). No pipelining of improvements.*

9. *Faculty member/founder who holds equity signs Conflict Avoidance Statement promising:*

- *Not to accept research support from company*
- *Not to suppress dissemination of research findings*
- *Not to use students on company-related work at M.I.T.*

10. *Arm's length relationship between the university and the company*

- *No M.I.T. monetary investment in the company*
- *No board seat*
- *Equity managed by Treasurer of M.I.T.—not the Technology*

Licensing Office

11. *Technology Licensing Office enforces diligence terms, payment of patent costs, other license obligations just like any other company. No special status for M.I.T. spinouts.*

12. *Yearly departmental overview of faculty outside professional activities.*

Common sense: Emphasis on the spirit (not just the letter) of the rules, administered by people with judgment and authority.

Section 4 is of broader interest: The IP Toolbox. It starts off with setting out in a very readable format the statutory IP toolbox (patents, copyright, etc.). There is an excellent introductory level table on p.339 “What is the Intellectual Property of Your Business?” There are several chapters on

how to read a patent.

In Section 5 we get to IP Policies and Strategies. Examples of IP policies of some research institutions are provided.

Section 6, like Section 3, will be of interest to those establishing or operating technology transfer offices for universities, research institutions, etc. Section 2 focuses on IP management. Chapter 6.6, for example, describes the organization and management of Stanford’s office of technology licensing. Likewise Chapter 6.7 provides details for training staff in a technology transfer office in IP management. Both of these chapters are loaded with practical guidelines.

Section 7 gets into contracts and agreements to support partnerships. Chapter 7.1 offers the basics in the appropriate contracts. Chapter 7.4 is “How to Draft a Collaborative Research Agreement”—excellent material. Chapter 7.5 covers the same topic from a different point of view.

Section 8 covers “Investors and Inventions,” again, with a focus on university and research institutions. Chapter 8.2 covers the lab notebook, Chapter 8.3 are the records and Chapter 8.4 invention disclosures.

Section 9 is on Valuation. In Chapter 9.3 we get an update of the valuation material Richard Razgaitis did for AUTM some time ago. Classic Raz—great material. The other Valuation chapters will be of particular interest to the health and agricultural practitioners. Like all the material in the IP Handbook it is now freely accessible to all. You no longer need the secret handshake or a membership number.

Section 10 is on “Patents and Patenting: Balancing Protection with the Public Domain.” The issue of the benefits of public domain versus private monopolistic use have not been well developed or refined in practice elsewhere. Here we get some discussion in a very balanced way. Yet, like most of this book, there is a good balance between idealism and practicalities. Right away in Chapter 10.1 of this section we get a good discussion on defensive publishing that can be used by any practitioner. Chapter 10.7 offers guidance for PCT filing and figure 2 on p.946 well illustrates the PCT Time Limits.

Ten pounds later of “heavy reading,” we are now onto Volume Two starting with Section 11 “Technology and Product Licensing.” This section sets the tenor for all of Volume Two—very practical guidelines and checklists.

Licenses for Biotech (Chapter 11.1), agricultural Biotech (11.2), plant varieties (Chapter 11.3), and trade secrets (Chapter 11.5) are discussed with

samples provided. For example, Box 1 in Chapter 11.5 provides an initial patent/trade secret evaluation questionnaire which is well annotated—it is too long for this book review but right now go to www.iphandbook.org. On the top left hand side you will see a search icon. Type in “Chapter 11.5” and pick item 2 “Trade Secrets and Trade Secret Licensing” by Carl F. Jorda and select “PDF.” Then go to p.7 on your screen (p.1049 of the Handbook) and you get the Initial Patent/Trade Secret Evaluation Questionnaire, followed by the annotations for the questions. This is a fair example of the excellent material in the Handbook. Part of Chapter 11.7 offers practical guidelines dealing with options in commercialization agreements and sample option agreement. Chapter 11.8 gets into “Field of Use Licensing” (including comments on “royalty stacking” and “royalty packing”). Chapter 11.11 will be of interest to all practitioners—a 20-page checklist for negotiated license agreements.

Section 12 covers deal making and marketing. Chapter 12.3 even gives “cold-call transcripts” [p.1187]. Chapter 12.5 covers “rifle-shot marketing” and “shot-gun marketing.”

Section 13 will be of more interest to those at universities, research institutions and public sector entities. This section is entitled “The Public Sector and Entrepreneurship”—examples of spinouts, conflicts of interest (see the 3 pages of examples of conflict of interest guidelines in Chapter 13.2). Chapter 13.6 discusses business incubators.

Section 14 covers “Freedom to Operate and Risk Management.” Chapters 14.1, 14.2 and 14.4 provide freedom to operate guidelines and tactics. Chapter 14.3 gives “know-where”—where to search online for IP information. Chapter 14.5 moves on to risk management of liability for genetically modified foods.

Section 15 covers monitoring, enforcement and resolving disputes. Chapter 15.2 is very practical—policing IP.

Section 16 covers “Bioprospecting, Traditional Knowledge and Benefit Sharing.” Chapter 16.3 offers

a sample materials transfer agreement.

Section 17 gives examples of IP at work around the world. Really interesting real life examples.

You can see by this time this reviewer is on overload—how can I review all this good material and do justice to all these examples? I’ve got to get back to practice! Yes—right. At the end of Volume Two there are 80 pages of sample agreements. Good material for the busy practitioner. No Dreadful Drafting Here!

I got this book to review in November in time to include several chapters in the new Energy Technology Law course that I am teaching at the University of Calgary, Law School. I referred to the Handbook when I was recently part of a group setting the exam questions for the Licensing Executive Society’s certified licensing program. In both cases I found the material highly valuable.

Like any compendium, the Handbook suffers from duplication of material. I found the repetition of IP basics frustrating—the basics were well developed in Section 4. Some authors in other Sections spent too much time duplicating this material and too little time on developing their specialty topic. The authors had so much more to teach us! Yes, 2000 pages and I am still not satisfied!

As a practitioner, reader, teacher and author, I thank you for sharing your knowledge and making it so freely accessible.

This is an immense contribution to the knowledge of technology transfer written by experienced and passionate writers. What a great gift they and the editors have made to all of us.

Can you imagine all this first class material online? No expensive books or subscriptions. No exclusivity for the privileged. Available to all of us with Internet access for free at www.iphandbook.org. The book costs \$150 plus shipping for the hard cover edition. I like having the physical book, so I can browse easily. They did it for free to those in low and middle income countries—their idealism in practice.

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