

Business Skills for Chemists Intellectual Property Case Study Questions

Developed by the University of Nottingham and Mewburn Ellis LLP

**This resource was produced as part of the National HE STEM
Programme**

Intellectual Property Case Study

Questions

Now complete the following questions (1 to 5) which cover various aspects of IP law

1. *The Scope of the Invention*

Defining the scope of a new invention accurately is the key aspect of a patent and requires all the skills of a qualified patent attorney. This is because the legal protection granted by the patent relies solely upon the claims defined by the patent attorney. The strength and scope of the claims will determine the extent to which the inventor(s)/owners can pursue the full financial value of the monopoly granted under the patent, and avoid other parties questioning the validity of the invention for their own financial benefit.

i) In broad terms, what is the invention UoEM are trying to patent?

- a) Compound **X** *per se*
- b) A method of producing Compound **X**
- c) The fact that the reaction went wrong and gave the unexpected Compound **X**
- d) Compound **X** for use as a drug
- e) Compound **X** for treating HIV/AIDS
- f) A method of treating HIV/AIDS
- g) Two or more of the above

Please circle the single best answer: (a) (b) (c) (d) (e) (f) (g)

ii) In broad terms, how should the patent attorney define Compound X?

- a) Compound **X** defined by its exact structure
- b) Compound **X** defined as broadly as possible by structure
- c) Compound **X** defined as broadly as possible by structure, but so as not to overlap with that described in the French Journal of Chemistry or the French patent
- d) Compound **X** defined by its application for the treatment of HIV/AIDS only
- e) Two or more of the above

Please circle the single best answer: (a) (b) (c) (d) (e)

2. Patentability of an Invention

In order for a patent to be granted it must be new and it must contain an 'inventive step'. An idea is considered 'inventive' when it is "non-obvious to someone who is skilled in the art." Someone who is 'skilled in the art' may include a trained technician or a research student.

i) **How could you argue that the claims of the UoEM patent application involve an 'inventive step'?**

- a) Compound **X** has unexpected use as a drug
- b) Compound **X** may be used to treat HIV/AIDS
- c) The structure of Compound **X** is similar to that described in the French patent
- d) The structure of Compound **X** was difficult to elucidate
- e) Two or more of the above

Please circle the single best answer: (a) (b) (c) (d) (e)

3. Inventorship and Ownership of an Invention

It is necessary to name the inventors in a patent application and these names are published on the patent. It is important that the inventors are correctly named.

i) **Who are the "actual devisers" of the invention (i.e. the inventors)?**

- a) Prof. Andrews (he is Mr. Evans' Ph.D. supervisor)
- b) Mr. Evans (he carried out the reaction to synthesise **X**)
- c) Prof. Andrews & Mr. Evans (who are both from the same research group at UoEM)
- d) Dr. Brown & Miss Fall (the undergraduate Miss Fall conducted the screening of Compound **X** against other drug targets, under the supervision of Dr. Brown)
- e) Prof. Andrews & Dr. Brown (who are the two UoEM supervisors for this work)
- f) Prof. Andrews, Mr. Evans, Dr. Brown, Miss Fall & Dr. Davies (without all of these people a new invention would not have taken place)
- g) Dr. Davis (he solved the structure of Compound **X**)

Please circle the single best answer: (a) (b) (c) (d) (e) (f) (g)

ii) **Who is the most likely owner of the intellectual property (i.e. the patent)?**

- a) Prof. Andrews (he is Mr. Evans' Ph.D. supervisor)
- b) Prof. Andrews & Dr. Brown (who are the two UoEM supervisors for this work)
- c) Prof. Andrews, Mr. Evans, Dr. Brown, Miss Fall & Dr. Davies (without all of these people a new invention would not have taken place)
- d) The University of the East Midlands

Please circle the single best answer: (a) (b) (c) (d)

iii) **What is the most important concern to UoEM regarding the correct identification of the inventors on this patent before the invention is licensed?**

- a) UoEM needs to know to whom it needs to give the profits of the license
- b) If UoEM does not correctly identify all of the inventors then it can invalidate the patent in Europe
- c) If UoEM does not correctly identify all of the inventors then it can invalidate the patent in the US
- d) Because UoEM knows that it is good for all of the named inventors to be able to claim recognition for being an inventor to further their careers and promote the University
- e) Because an unnamed inventor may file their own application

Please circle the single best answer: (a) (b) (c) (d) (e)

4. **Disclosure and Confidentiality**

Avoiding disclosure of a new invention or technology is of key importance. If the new invention is disclosed into the public domain or "made available to the public" this can affect whether a patent is granted.

What effect might the following scenarios have on the likelihood of UoEM's patent being granted or on them finding a licensing partner?

i) **Prof. Andrews discussed his work relating to Compound X with Dr. Brown and Dr. Davies at a UoEM staff Christmas lunch in December 2006**

- a) The patent may be invalid
- b) The patent may be invalid since Prof. Andrews and Dr. Brown are from different departments within UoEM
- c) The disclosure has no effect on patent validity since all of the above are contracted employees of UoEM
- d) The disclosure has no effect on patent validity because the disclosure was in an informal setting

Please circle the single best answer: (a) (b) (c) (d)

ii) The conference in L.A. at which Prof. Andrews discussed Compound X with Dr. Cairns took place in February 2007 before the exact structure of Compound X had been determined

- a) The patent may be invalid
- b) The disclosure has no effect on patent validity because the patent attorney was already preparing the patent application at this time, even though the application was not yet filed
- c) The disclosure has no effect on patent validity because Dr. Cairns would have known to keep the information secret
- d) The disclosure has no effect on patent validity because the conference was in L.A.
- e) The disclosure has no effect on patent validity because Prof Andrews was unable to tell Dr. Cairns the structure of Compound X.

Please circle the single best answer: (a) (b) (c) (d) (e)

iii) The conference in L.A. at which Prof. Andrews discussed Compound X with Dr. Cairns took place in March 2007 after the exact structure of Compound X had been determined

- a) The patent may be invalid
- b) The disclosure has no effect on validity because Dr. Cairns is Australian and does not live in the UK
- c) The disclosure has no effect on validity because other people (the wives) who did not understand the discussion were present
- d) The effect of the disclosure on patent validity depends on what was said

Please circle the single best answer: (a) (b) (c) (d)

iv) The conference in L.A. at which Prof. Andrews discussed Compound X with Dr. Cairns took place in May 2007

- a) The patent may be invalid
- b) The disclosure has no effect on patent validity since the UK patent application was in place by this date
- c) The patent is invalid because the disclosure took place before the PCT application was filed
- d) The disclosure has no effect on the patent validity because Prof. Andrews and Dr. Cairns often collaborate on projects

Please circle the single best answer: (a) (b) (c) (d)

v) **How would a public disclosure of the invention affect the value of the licence UoEM may agree with a pharmaceutical company?**

- a) It would have no effect on the licence
- b) It would increase the value of the licence since more people will be aware of the invention and want the new drugs produced
- c) It would decrease the value of the licence since the patent may no longer be valid
- d) It would depend on the timing of the public disclosure
- e) It would remove all value of the licence

Please circle the single best answer: (a) (b) (c) (d) (e)

5. **Freedom-to-Operate**

A patent is a negative right (i.e. it stops others from using the technology detailed in the patent claims). As such, you may not in fact be able to use your own invention or technology since parts of your invention may rely upon using other people's patented technology. This is called your 'freedom to operate'.

i) **As a potential licensee, what would concern you most about your freedom to commercialise Compound X in the future?**

- a) The fact that Dr. Cairns could file another patent in this area
- b) The fact that UoEM could file another patent in this area
- c) The content of the French patent
- d) The content of the paper published in the French Journal of Chemistry

Please circle the single best answer: (a) (b) (c) (d)

ii) **What is your best option to ensure that you have freedom to operate?**

- a) Obtain an infringement opinion from a patent attorney
- b) Try and invalidate the French patent
- c) Approach the French patent holders to ask for assignment of their patent rights
- d) Approach the French patent holders to ask for a licence
- e) Do nothing and hope the owners of the French patent don't find out about your activities
- f) Wait for the French patent to expire in 2022

Please circle the single best answer: (a) (b) (c) (d) (e) (f)