

## **Annex A - Proposed amendments to IPOS's patent examination guidelines on isolated products from nature**

**Note: The proposed changes to the patent examination guidelines are indicated by the tracked changes in this document.**

### **i. Discoveries**

8.1 The Singapore Court of Appeal has drawn a distinction between discovery and invention in *Merck & Co Inc v. Pharmaforte Singapore Pte Ltd* [2000] SGCA 39 at [63], referencing *Lane Fox v. Kensington & Knightsbridge Electric Lighting Co* [1892] 3 Ch 424:

*“In this regard, we must also point out that the fact that a discovery is made does not mean there is an invention. The latter does not necessarily follow from the former. This distinction was brought out by Lindley LJ in Lane Fox (supra) at page 429 where he said:*

*‘An invention is not the same thing as a discovery. When Volta discovered the effect of an electric current from his battery on a frog’s leg he made a great discovery, but no patentable invention. Again, a man who discovers that a known machine can produce effects which no one before him knew could be produced by it, may make a great and useful discovery; but if he does no more, his discovery is not a patentable invention: ... He has added nothing but knowledge to what previously existed. A patentee must do something more; he must make some addition, not only to knowledge, but to previously known inventions, and must so use his knowledge and ingenuity as to produce either a new and useful thing or result, or a new and useful method of producing an old thing or result.’”*

8.2 From the above quotation that was referenced by the Singapore Court of Appeal, it is clear that discoveries are not inventions. As Section 13(1) of the Patents Act provides for the grant of patents for inventions, discoveries are not patent eligible subject matter under Section 13(1) of the Patents Act.

- 8.3 ~~The difference between invention and discovery can be unclear.~~ Many inventions are based on a discovery, but there must be “something more” to constitute an invention. The discovery of a particular property of a material will add to the stock of knowledge in relation to that particular substance. However, if that property results in the application of that substance in a new use then it may constitute an invention.
- 8.4 ~~For example, the mere isolation of~~To find a ~~naturally occurring~~ material or microorganism ~~without a specific use~~that already exists in nature would represent a ~~mere~~ discovery and therefore an isolated or purified material or microorganism from nature is not an invention. However if a new use of ~~that~~the isolated or purified material or microorganism is found, then the new use ~~can~~could be claimed, ~~as well as the new isolated material or microorganism.~~ Nevertheless, if ~~In the case of an isolated~~ the material or microorganism per se ~~which has been modified~~ such that the modified material or microorganism can be ~~is not~~ clearly distinguished from the isolated or purified prior art naturally occurring material or microorganisms, then ~~an objection will be raised under novelty~~not only can the modified material or microorganism be claimed but also any new use of the modified material or microorganism. The scope of the claim, however, must not encompass the isolated or purified naturally occurring material or microorganism.
- 8.5 Likewise, a claim directed at a process that occurs in nature ~~is not new~~would not be allowable but if a new application of the process is found, then the specific application can be claimed~~unless it is clearly distinguishable from the natural process.~~ For example, a method of growing a plant with a particular trait comprising selection and breeding steps would be considered as directed to a ~~naturally occurring~~ process that is found in nature~~and lack novelty~~, despite the selection and breeding being performed by man. However, it may be possible to claim the process of selection if the claimed process is a new application comprising ~~ing~~ technical steps that clearly distinguishes the process from the natural process. In the same way, an in vitro diagnostic method based on novel biomarkers performed on blood samples obtained from a patient is an invention if it represents a specific application of a discovery which allows the diagnosis of a disease to be made.
- 8.6 Similarly, the synthesis of a new compound would not constitute an invention in patent

law, as it would represent no more than a chemical curiosity. However if the compound could be used in an industrial process or a new and useful property was discovered then it would constitute an invention. In *Kirin-Amgen v Hoechst Marion Roussel* [2005] RPC 9, the invention related to the production of erythropoietin by recombinant DNA technology. In this case, erythropoietin had been a particularly elusive goal because it had been difficult to obtain sufficient quantities to carry out the necessary research. The prior art disclosed the N-terminal sequence of erythropoietin (with two incorrect base residues). The application in question claimed a DNA sequence, a recombinant polypeptide and a process of making the polypeptide. The Court considered that the invention did not lie in the DNA sequence – this was considered to provide information only – or the polypeptide but the invention was in the process of making recombinant erythropoietin.