Selection inventions: a powerful strategy for protecting chemistry-based innovations

What is a selection invention?

To be patentable, an invention must be novel. This means that the invention must not have been disclosed in any form, anywhere in the world, before a patent application is filed. This does not however mean that a patentable invention cannot fall within the general disclosure of a previous disclosure (termed the "prior art").

Inventions that fall within the general disclosure of the prior art are known as "selection inventions".
Selection inventions are especially common in the chemical field. For example, selection inventions can occur when a specific compound or narrow group of compounds are found to have special properties even though they fall within a class of compounds known in the prior art. This may be the case, for instance, where the prior art teaches that fatty acids are useful for a particular purpose but it is later found that linoleic acid is especially beneficial. Another example is the selection of a narrower numerical subrange of a particular parameter that falls within a previously disclosed broader range. For example, the prior art may teach that a temperature above 60 °C is necessary but a temperature of from 72 to 78 °C may later be found to achieve a highest yield.

Defining a selection invention narrowly and away from the examples and specific values disclosed in the prior art should satisfy the novelty requirement.

For a patent to be granted, it is usually also necessary to establish an inventive step, meaning that the invention is not obvious over the prior art. For a selection invention it is usually necessary to show that there is something special about the selection made, for example by establishing that a new technical effect is provided that does not occur outside the narrow selection. It is often helpful to include data in the patent application, for example that compares the selection to the prior broader disclosure and to demonstrate the technical effect. It is sometimes also possible to file further supporting data later, during patent prosecution.

Use of selection inventions to enhance patent protection
In some cases filing patent applications directed to selection inventions can effectively extend the term of patent protection for chemical compounds or compositions that are already protected by a patent.

For example if you currently have a patent application or patent covering a broad class of compounds but have subsequently found that a narrow subset of these compounds, or even a single compound, is particularly effective beyond what has been disclosed, you could obtain another patent for this subset or compound. In this way the narrow subset or compound would then be protected by both your existing and new patents.

Filing a new (selection) patent application can effectively extend your term of patent protection because the patent term runs from the filing date of the patent application, so that the later filed (selection) patent will expire later than the original broader patent.

Of course, this strategy can also be used to obtain selection patents within the scope of existing competitor patents and thus to potentially affect the freedom to operate of competitors.

Action can be taken when drafting patent specifications to minimise the risk of competitors pursuing patents to selection inventions, especially if you know the route that your research might take after filing the initial patent application. For example, you may wish to disclose potential commercially important selection inventions in your original patent specification, to try to prevent a competitor from pursuing patents to these. This will however also prevent you from pursuing further patents and so a careful balance must be struck. A patent attorney can assist with such filing strategies, which require an understanding of the art and the commercial aims.

Patentability of selection inventions
Different patent offices around the world assess selection inventions differently. The European Patent Office (EPO) has established guidelines and case law for dealing with selection inventions, and routinely grant such that patents. The recent case law has been favourable to the granting of patents relating to selection inventions such that the chances of success at the EPO are good.

To find out more about selection inventions and how IP can bring value to your business, please contact Kate Hickinson, Partner, Appleyard Lees.