

# Patenting research outputs – identifying your true invention

Before making the leap into patent law as part of WP Thompson's chemical and life sciences team, Dr Ian Wilson worked and studied in academia for over a decade. In the third part of our series highlighting the key considerations for researchers thinking about patenting an invention, Ian investigates how to identify which features of your chemistry-based invention truly set it apart from the crowd.

## Frame and focus

In this series, we have discussed early intellectual property (IP) considerations and the role quantitative data play in supporting a patent application. Now we must consider how to frame and focus an application. There may be existing products or processes similar to your invention but, if you can identify and focus on the features that make your invention unique, you can make the process of acquiring a patent considerably easier.

## Prior art searches

Inventions often arise when nothing pre-existing in the public domain meets the inventor's needs. Similarly, an invention may be stumbled upon by considering a new application for an existing technique or product. It is therefore common for only parts of an invention to be novel and inventive. For example, if someone claims to have invented a method of extracting a naturally occurring compound from plant tissue, they might be the first person to have developed that extraction technique, or merely the first person to have used it for that specific application. Searching materials in the public domain – be they in scientific journals, patent databases, books or blogs - prior to filing a patent application can help identify the truly novel and inventive features of your invention. This will help a patent attorney construct the narrative of the patent specification and direct the claims to protect the core invention and reduce the likelihood of surprises when the Patent Office conducts its own prior art search.

## Considerations in chemistry

Chemistry-based patent applications come with their own unique requirements. For example, disclosure of a compound at any purity is generally considered a disclosure of that compound at every purity, unless it can be shown that certain purities could not be achieved by conventional means. However, in other scenarios, where a subset of a known disclosure is shown to provide a non-obvious technical effect, patent protection for that specific variant may be obtainable. For example, a previous disclosure relating to the use of "metal" may not prevent subsequent patenting of a largely

equivalent product or process which specifically claims the use of "iron" if it has an unforeseen technical effect. Such concepts ensure fairness and encourage genuine innovation, and appropriate legal advice in the early stages can help identify patentable subject-matter.

## Excluded matter

As well as identifying inventive features, it is important to know that there are certain types of subject-matter that are formally excluded from patentability. These include scientific theories, mathematical methods, rules for games or doing business, and mere scientific discoveries, i.e., the simple act of finding a new naturally occurring substance without considering its isolation or technical application. Additionally, certain acts, such as methods of treating human or animal bodies by surgery or therapy, diagnostic methods performed on such bodies, and plant and animal varieties (or essentially biological processes used to produce them) are also excluded from patentability. These restrictions seek to limit any potentially negative health and/or socioeconomic consequences which could arise from the misuse of patent protection. Such excluded subject-matter may still be patentable if it has a technical application or implementation in the physical world and is claimed in an appropriate manner, but this is not always a simple barrier to overcome. This is, therefore, an important factor to consider when contemplating your IP strategy.

## Preparation is key

As you can see, understanding the hurdles to be overcome and what makes your invention unique are important first steps in identifying its inventive features. Yet they are steps that can easily be overlooked in the rush to gain patent protection. Again, as we have discussed throughout this series, the importance of preparation and planning in the world of IP cannot be understated.

*To find out more, including how IP could benefit your work, please visit <https://www.wpt.co.uk> or contact Stuart Forrest at [sfo@wpt.co.uk](mailto:sfo@wpt.co.uk)*

