theoretical possibility of exploitation, if it was not already obvious from the nature of the invention or from the background art. It should not be left to the skilled reader to find out how to exploit the invention by carrying out a research programme.

Accordingly, a product whose structure was given (e.g. a nucleic acid sequence) but whose function was undetermined or obscure or only vaguely indicated might not fulfil the above criteria, in spite of the fact that the structure of the product per se could be reproduced (made) (see **T 870/04**). If a patent was granted, it might prevent further research in that area. On the other hand, a product which was definitely described and plausibly shown to be usable, e.g. to cure a rare or orphan disease, might be considered to have a **profitable** use or concrete benefit, irrespective of whether it was actually intended for the pursuit of any trade at all.

In **T 1450/07** the board referred to the principles established in **T 898/05** that industrial applicability is acceptable if the disclosure in the application as filed on the function of a claimed compound (i) is plausible to the skilled person, (ii) is later confirmed by post-published evidence, and (iii) provides a clear basis for an industrial application.

In **T 870/04** the board stated that a "practical" application of the invention had to be disclosed. Merely because a substance could be produced in some ways did not necessarily mean that this requirement was fulfilled, unless there was also some profitable use for which the substance could be employed.

The board noted that biotechnological inventions were quite often concerned with substances found in nature (e.g. a protein, a DNA sequence, etc.). If a function was well known to be essential for human health, then the identification of the substance having this function would immediately suggest a practical application in the case of a disease or condition caused by a deficiency, as was the case, for example, for insulin, human growth hormone or erythropoietin. In such cases, an adequate description would ensure that "the invention can be made or used in industry". In cases where a substance, naturally occurring in the human body, was identified, and possibly also structurally characterised and made available through some method, but either its function was not known or it was complex and incompletely understood; no disease or condition had yet been identified as being attributable to an excess or deficiency of the substance; and no other practical use was suggested for the substance, then industrial applicability could not be acknowledged. Even though research results may be a scientific achievement of considerable merit, they are not necessarily an invention which can be applied industrially.

In cases **T 338/00** and **T 604/04** the boards found the inventions industrially applicable despite the absence of actual experimental data, because a profitable use could readily be identified on the basis of the description, taking into account common general knowledge. Thus each case is decided on its own merits according to the particular technical circumstances, including extent of disclosure, background art and post-published evidence.

In **T 641/05** the board considered that no actual information regarding the function of the CEGPCR1a clone at any of the three particular levels of function referred to in decision