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Centocor v. Abbott Labs: A patentee cannot claim what they have not invented

by

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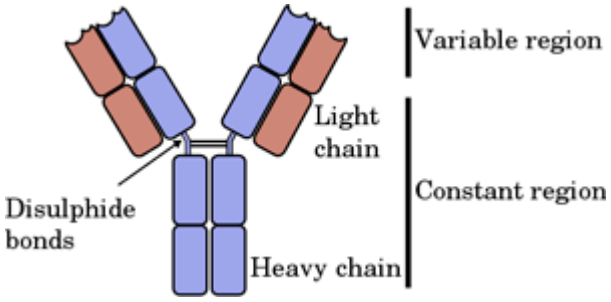
Prost, Bryson, Clevenger

Last week, the CAFC issued a decision relating to written description and striking a blow against any patentee attempting to assert claims which are broader than their disclosure, particularly in the unpredictable arts. In particular, merely mentioning a particular subject matter in a few passing phrases may not be sufficient to provide proper written description support. The technology relates to antibodies to the human protein TNF-α. Overproduction of TNF-α in humans can lead to diseases such as arthritis and other auto-immune diseases. Therefore, there was the desire to develop antibodies that would bind to a particular domain of human TNF-α, in order to neutralize its effects, thus treating the autoimmune diseases.

All antibodies consist of a variable region, which binds to the antigen, and a constant region. Centocor's strategy of developing an anti-TNF-α antibody consisted of starting with a mouse antibody which binds to TNF-α. However, such a mouse antibody is not an effective medicine, since human patients are likely to have an immune response to the foreign antibody. Thus, Centocor next developed an antibody with a human constant region and a mouse variable region—a so-called "chimeric antibody."



Meanwhile, Abbott's strategy was to develop a "fully human" antibody initially. Using a technique which identified important regions from a large library of possible variable regions, Abbott eventually developed a fully-human anti-TNF-α antibody. This antibody went on sale in the United States in 2002 as Humira®.

In 1991, Centocor applied for a patent claiming a mouse and a chimeric antibody. The USPTO rejected some claims, arguing that the 1991 application only supported a chimeric antibody having a variable region which is fully mouse-based. In 1994, Centocor filed a

continuation-in-part application including further information. However, Centocor did not add claims reciting a fully human antibody (including a human variable region) at that time.

In 1996 Abbott filed for a patent on its anti-TNF-α antibody. The patent was granted in 2000. As noted above, the antibody went on sale in 2002. At this time, Centocor still had a continuation in part pending. Centocor added the following representative claims to their CIP application, which was granted in 2006:

> 1. An isolated recombinant anti-TNF-α anti-body or antigen-binding fragment thereof, said antibody or antigen-binding fragment comprising **a human constant region**, wherein said antibody or antigen binding fragment (i) competitively inhibits binding of A2 (ATCC Accession No. PTA-7045) to human TNF-α, and (ii) binds to a neutralizing epitope of human TNF-α in vivo with an affinity of at least $1x10^8$ liter/mole, measured as an association constant (Ka), as determined by Scatchard analysis.
>
> 2. The antibody or antigen-binding fragment of claim 1, wherein the antibody or antigen binding fragment comprises **a human constant region and a human variable region**.

The question in this case turns on whether Centocor's 1994 CIP specification supported the claims above. Specifically, the CAFC looked to whether Centocor's specification complied with the written description requirement for these claims. In order to comply with the written description requirement, an applicant must convey "possession" of the invention, although a specific example is not required.

The CAFC focused on the fact that Centocor's disclosure includes minimal discussion of an antibody including a human variable region. Rather, Centocor's disclosure relates mostly to the mouse antibody and to a single embodiment of a chimeric human/mouse antibody. Centocor's disclosure mentioned an all-human antibody in passing, but not in significant detail. The evidence at trial showed that disclosure of the mouse variable region is "not a stepping stone to identifying the human variable region" having the claimed functional features. Further, the CAFC pointed out that while Centocor's disclosure states that fully human antibodies could potentially be produced using a disclosed method, it does not disclose any fully human antibodies which were actually produced.

Centocor's argument relied mostly on the 2008 USPTO Written Description guidelines, which include an example showing that disclosure of a protein is sufficient to provide written description support for an antibody to that protein. See Example 13, http://www.uspto.gov/web/menu/written.pdf. However, the CAFC distinguished the issue at

hand from this example. Specifically, the CAFC stated that this example only applies where the applicant is disclosing a novel protein, and claiming both the protein and antibody. Additionally, since the TNF-α protein and various less-effective anti-TNF-α antibodies were known, this example does not apply. Furthermore, the CAFC clarified that this example only applies where "generating the claimed antibody is so routine that possessing the protein places the applicant in possession of the antibody." Based on evidence presented at trial, the CAFC concludes that producing an antibody having the claimed functional binding characteristics was not conventional or routine in 1994.

In view of the above, the CAFC ruled that Centocor's 1994 specification did not provide sufficient written description to support claims which recite a human variable region or a fully human antibody. In the CAFC's view, Centocor did not invent the claimed antibody, but rather merely provided ***a wish or a plan*** for how to obtain such an antibody. As such, this case is a good reminder that although claims can be broader than what is specifically disclosed, one can only claim what they have invented and disclosed. A patentee should be careful to disclose as much information as possible in the Detailed Description, but must also recognize that merely including a few words corresponding to a desired embodiment might not be sufficient to provide written description support. Particularly in the unpredictable arts, it will be difficult to successfully claim subject matter which is not specifically explained in the specification. Furthermore, although a patentee should be realistic about only claiming what they have invented, they should still attempt to broadly claim variations on their invention. However, in order not to jeopardize the validity of specifically disclosed subject matter, a patentee should be careful to recite broad-to-narrow claim scope by including numerous dependent claims. This is the safest way for an applicant to balance a broad claim scope and compliance with the written description requirement of 35 U.S.C. §112.

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