

## Fed. Circ. In Jan.: One Word Can Affect Claim Construction

By **Jeremiah Helm and Sean Murray** (January 30, 2024)

Patent proceedings are typically carried out in the shadow of claim construction. Determining the meaning of claim terms is often dispositive for validity, infringement, or both.

On appeal, challenging a claim construction provides a more favorable standard of review for the appellant.

The U.S. Court of Appeals for the Federal Circuit's Jan. 9 *Pacific Biosciences v. Personal Genomics* decision highlights how even construction of a simple term — "single" — can be dispositive.

The appeal in *Pacific Biosciences*, or *PacBio*, arose from two different inter partes review petitions filed by *PacBio* against the *Personal Genomics* patent, U.S. Patent No. 7,767,441.

In one of those inter partes reviews, the Patent Trial and Appeal Board held the challenged claims were patentable. In the other, which applied different art against a mainly different but partially overlapping set of claims, the board held the challenged claims unpatentable.

Ultimately the key to the patentability determination came from the claim's preamble, which recited an "apparatus for identifying a single biomolecule." The PTAB had construed "identifying a single biomolecule" as a capability required for the apparatus, irrespective of any other functions the apparatus might perform.

The board explained that "identifying a single biomolecule" "contemplates running myriad optical detection apparatuses in parallel to detect a single or individual biomolecule in each such apparatus."

The PTAB rejected *PacBio*'s argument that identifying a single biomolecule included within its scope creating copies of a single molecule, identifying those copies, and then deducing the original single molecule. *PacBio* quickly filed a notice of appeal for the claims held patentable, putting them in the role of the appellant. *Personal Genomics* later filed a notice of appeal for the claims held unpatentable, putting them in the role of cross-appellant.

The Federal Circuit started its analysis by noting that the outcome turned on the meaning of the word "single." Read in context, the court explained, there was no reason to include the word "single" unless it was to specify the capability of identifying a molecule using just one biomolecule.

The Federal Circuit referred to this as a striking feature of the claim language. This interpretation also tracked the description provided by the specification, which repeatedly indicated that the capacity of using a single biomolecule was critical to the invention.

The Federal Circuit found it particularly significant that the specification differentiated between single-molecule sensitivity systems, like those claimed, and systems that detected "a population-level signal" from amplified copies of a biomolecule.



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The Federal Circuit explained that because the specification identified problems with the detection approach that used amplified copies of biomolecules, and solved those problems via a detection approach that examined an individual biomolecule, it confirmed the correct understanding of the single claim language in dispute.

The court also noted that other claim language in other claims supported the understanding that "single" meant one biomolecule and not an amplified population of molecules. Claim differentiation is sometimes used to help define the scope of a term.

It stems from the axiom that an independent claim is broader than its dependent claims. When a dependent claim adds a limitation not present in the claim on which it depends, a court might view the added limitation in the dependent claim as evidence of the parent claim's scope being broader than that limitation.

Likewise, courts will also consider an added limitation in the dependent claim as evidence that the broader parent claim necessarily includes the dependent claim's subject matter within its scope.

In this instance, dependent claims to a method of using the apparatus added the limitations that a "nucleic acid is amplified" and "detecting" "one or more biomolecules." At first glance, these limitations might seem to suggest that the scope of the "single" biomolecule identification for the apparatus also included detection of amplified copies.

But the Federal Circuit explained there was no inconsistency because the parent claims lacked reference to multiple biomolecules and were therefore broader, only requiring the capability to identify a single biomolecule.

Those claims do not exclude additional capabilities for the apparatus, as long as the apparatus also included the capability of identifying a single biomolecule. Viewed through that lens, the dependent claims' requirement of amplifying the nucleic acid to create copies or detecting more than one biomolecule do not inform the scope of "identifying a single biomolecule."

Instead, the dependent claims add an additional required capability to the apparatus that was not otherwise required by the broader claim.

After the Federal Circuit confirmed the scope of "single," it easily affirmed the board's factual findings both for and against patentability. On appeal, factual findings are evaluated for substantial evidence support.

In applying this standard, the Federal Circuit noted that it would not reweigh the evidence considered by the board as long as the board's findings were reasonable. Under this extremely deferential standard, the court affirmed the PTAB's decisions.

Pacific Biosciences highlights a few points.

First, even simple words, such as "single," may be dispositive, and thus disputed, in view of the specific context provided by the surrounding claim language.

To the casual reader, it might be surprising that it took so much ink for the court to effectively confirm that "single" means one. But that term turned out to be the key distinction from the prior art that supported patentability and thus was a focus of the

dispute between the parties.

Second, most disputes before the board are factual in nature. But once the board issues a decision and makes factual findings, the Federal Circuit is likely to affirm those findings in view of the deferential standard of review.

Whether the board's findings are reasonably supported by the record is a different inquiry than whether the board's findings would be correct upon de novo review.

Finally, the Federal Circuit's decision emphasizes how claims directed to the capability of an apparatus may provide a patentable distinction, even if noted in the preamble.

In this instance, the prior art did not disclose — at least for some claims mainly directed to DNA sequences — the requisite capability for identifying single biomolecules.

The specification emphasized the distinction between single biomolecules and multiple biomolecules, and Personal Genomics' construction was consistent with the distinction drawn in the specification. As a result, at least some claims avoided unpatentability.

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