United States District Court,
N.D. California.

APPLERA CORPORATION-APPLIED BIOSYSTEMS GROUP, a Delaware corporation,
Plaintiff.
v.
ILLUMINA, INC., a Delaware corporation, Solexa, Inc., a Delaware corporation, and Stephen C. Macevicz, an individual,
Defendants.

No. C 07-02845 WHA

Jan. 23, 2009.

Anders Tingulstad Aannestad, David C. Doyle, Steven Emerson Comer, Brian Matthew Kramer, Morrison & Foerster, LLP, San Diego, CA, Bryan Joseph Wilson, Eric Chingyun Pai, Morrison & Foerster, LLP, Dara Tabesh, Attorney at Law, Palo Alto, CA, Kurtis David MacFerrin, Applera Corporation, Foster City, CA, for Plaintiff.

Gregory E. Stanton, Attorney at Law, John Randolph Labbe, Thomas Irving Ross, Cullen Nelson Pendleton, Jeffrey H. Dean, Kevin Michael Flowers, Mark H. Izraelewicz, Marshall, Gerstein & Borun, LLP, Chicago, IL, Kimberly K. Dodd, George C. Best, Foley & Lardner, LLP, Palo Alto, CA, for Defendants.

MEMORANDUM OPINION RE CLAIM CONSTRUCTION OF CLAIM 1 OF THE '341 PATENT

WILLIAM ALSUP**, District Judge.**

This memorandum opinion sets forth the essence of a ruling and reasons made earlier in the trial on the record.

Claim 1 of the '341 patent begins with a first step as follows:

(a) providing a probe-target duplex comprising an *initializing oligonucleotide probe hybridized to a target polynucleotide,* said probe having an extendable probe terminus.

As shown by the italicized passage, this step requires that the "initializing oligonucleotide probe" be hybridized to a "target polynucleotide," rather than to a "binding region." As used in the specification of the patent, the term "target polynucleotide" was used differently from the "binding region." For example, the specification stated that the term "template" comprised, meaning included, a polynucleotide (**50**) of unknown sequence and a binding region (**40**), all of which is then attached to a solid phase support, *i.e.,* the "bead."

Specifically, column 4 lines 43 to 48 stated:

The general scheme of one aspect of the invention is shown diagrammatically in FIG. 1. As described more fully below, the invention is meant to be limited by the particular features of this embodiment. Template (**20**) comprising a polynucleotide (**50**) of unknown sequence and binding region (**40**) is attached to solid phase support (**10**).

The numbers in bold refer to the numbers in the figures, such as Figure 1, reproduced below:

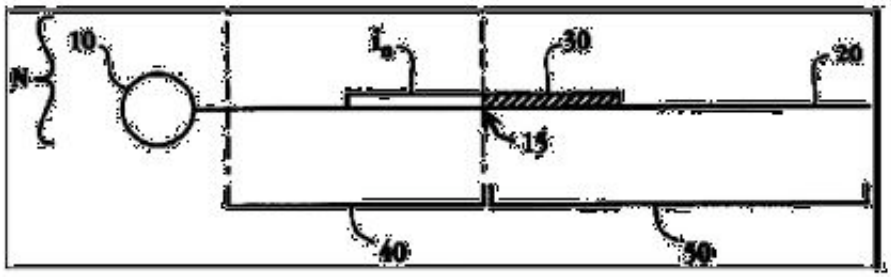

Fig. 1

The binding region (40) was presented as distinct from the polynucleotide of unknown sequence. Similarly, the specification also stated with respect to a preferred embodiment:

Preferably, a target polynucleotide is conjugate to a binding region to form a template, and the template is attached to a solid phase support, such as a magnetic particle, polymeric microsphere, filter material, or the like, which permits the sequential application of reagents without complicated and time-consuming purification steps. The length of the target polynucleotide can vary widely; however, for convenience of preparation, lengths employed in conventional sequencing are preferred. For example, lengths in the range of a few hundred base pairs, 200-300, to 1 to 2 kilobase pairs are preferred.

This appears at column 8 lines 8 to 18. In short, the specification drew a distinction between the "binding region" and the "target polynucleotide." They were not the same thing. Rather, they were two separate items which were then joined together, end to end, to form what the specification called a "template."

Turning back then to the language of the claim, to repeat step one, it says:

(a) providing a probe-target duplex comprising an initializing oligonucleotide probe hybridized to a target polynucleotide, said probe having an extendable probe terminus.

Claim 1 requires that the oligonucleotide probe be hybridized *to a target polynucleotide, not a binding region*. To prove literal infringement, the patent holder must prove that the accused method includes hybridization to a target nucleotide rather than to the binding region. Even if the specification taught hybridrizing to the binding region, among other alternatives, the specific alternative on which the examiner allowed the claim required that the initializing oligonucleotide probe be hybridized to the target polynucleotide and, to prove literal infringement, this must be literally satisfied and it would not be enough

to prove hybridization to the binding region.

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