Bruce G. Chapman (State Bar No. 164258)
bchapman@cblh.com
Manuel Nelson (State Bar No. 229590)
mnelson@cblh.com
Keith D. Fraser (State Bar No. 216279)
kfraser@cblh.com
CONNOLLY BOVE LODGE & HUTZ LLP
333 South Grand Avenue, Suite 2300
Los Angeles, California 90071
Telephone (213) 787-2500
Fax (213) 687-0498

Attorneys for Defendants and Counterclaimants COCHLEAR CORPORATION (n/k/a COCHLEAR AMERICAS) and COCHLEAR LTD.

UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

WESTERN DIVISION

ALFRED E. MANN FOUNDATION FOR SCIENTIFIC RESEARCH,

Plaintiff,

v.

COCHLEAR CORPORATION, COCHLEAR LTD., and ADVANCED BIONICS, LLC,

Defendants.

AND RELATED COUNTERCLAIM

Case No. CV 07-08108 GHK (SHx)

COCHLEAR'S OPPOSITION TO AMF'S OBJECTIONS AND MOTION TO MODIFY AND ADOPT THE SPECIAL MASTER'S REPORT AND RECOMMENDATION ON CLAIM CONSTRUCTION

Date: January 23, 2012
Time: 9:30 a.m.
Place: Courtroom of the Honorable George H. King Courtroom 650 – Roybal

TABLE OF CONTENTS

Page

I. INTRODUCTION 1

II. AMF'S OBJECTION 2

A. The Whereby Clause Was Critical To The Patentability Of The Claim 2

B. The Special Master Correctly Identified The Meaning Of "The Results Of The Measurements Made Within The Implanted Stimulator" 5

C. The Special Master's Recommendation Is Clear 9

III. CONCLUSION 9

TABLE OF AUTHORITIES

Page

Cases

Hoffer v. Microsoft Corp.,
405 F.3d 1326 (Fed. Cir. 2005) 2, 5

Minton v. National Ass'n. of Securities Dealers, Inc.,
336 F.3d 1373 (Fed. Cir. 2003) 2

O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Ltd.,
521 F.3d 1351 (Fed. Cir. 2008) 5

Phillips v. AWH Corp.,
415 F.3d 1303 (Fed. Cir. 2005) 5

SRI Int'l. v. Matsushita Elec. Corp. of Am.,
775 F.2d 1107 (Fed. Cir. 1985) 7

Cochlear Corp. (n/k/a Cochlear Americas) and Cochlear Ltd. (collectively "Cochlear") hereby submit their response and opposition to the Objection to, and Motion to Modify and Adopt, the Special Master's Report and Recommendation on Claim Construction of Alfred E. Mann Foundation for Scientific Research ("AMF").

I. INTRODUCTION

Claim 10 of U.S. Patent No. 5,609,616 ("the '616 patent") ends with the step of "displaying the processed status indicating signals, whereby the status of the implanted stimulator, *including the results of the measurements made within the implanted stimulator*, may be made known." (Emphasis added.) The "measurements made" refers to "voltage associated" with one pair of electrodes as determined in the monitoring step of claim 10.

Contrary to AMF's assertion, the requirement for the external display of measured voltage was absolutely critical to the U.S. Patent and Trademark Office's allowance of claim 10. AMF added this requirement to distinguish the claimed invention from prior art implants. Even more significantly, the Patent Office specifically identified this requirement as the reason for allowing the claim, ruling that the claim was "allowable over the prior art of record since the prior art does not show or suggest the *measuring of the electrode voltage for external display*."[1]

By its objection, AMF asks the Court to completely ignore the language regarding external display of voltage because it is in a phrase that begins with the word "whereby" – a "whereby clause". If the Court is unwilling to do that, AMF at least wants the Court to refuse to construe the disputed language so that it can argue broad meanings to the jury. Either approach would improperly eliminate the very limitation that secured AMF a patent in the first place. The Special Master's recommended construction of this term should be sustained.

[1] D.I. 60-20 at B-285 (emphasis added).

II. AMF'S OBJECTION

The Special Master's Report and Recommendation on Claim Construction ("R&R") finds that the phrase "the results of the measurements made within the implanted stimulator" recited in claim 10 of the '616 patent means "the voltage measurement across the pair of tissue-stimulating electrodes." R&R at 165. AMF objects to this recommendation from the Special Master arguing first that the phrase is not a limitation because it is in a "whereby clause" and second that, if the disputed phrase is a limitation, it should be given a "plain ordinary meaning" and not any particular construction. The Special Master's recommended claim construction is, however, correct.

A. The Whereby Clause Was Critical To The Patentability Of The Claim

If a "whereby clause" merely expresses what is inherently already required by the claim or is merely laudatory, it does not further limit the claimed invention. *Minton v. National Ass'n. of Securities Dealers, Inc.*, 336 F.3d 1373, 1381 (Fed. Cir. 2003). Nevertheless, when a "'whereby' clause states a condition that is material to patentability, *it cannot be ignored* in order to change the substance of the invention." *Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1329-1330 (Fed. Cir. 2005). Here, the phrase "whereby the status of the implanted stimulator, including the results of the measurements made within the implanted stimulator, may be made known" was critical to the patentability of claim 10. Indeed, it was the reason the claim was allowed.

Claim 10 of the '616 patent (numbered as claim 12 in the patent application) did not have the whereby clause when first submitted to the Patent Office. Instead, it read as follows:[2]

[2] D.I. 60-19 at B-211.

> A method of testing an implantable tissue stimulating system comprising:
>
> …
>
> applying the stimulation signals to a plurality of tissue stimulating electrodes;
>
> selectively monitoring at least one of the electrodes to measure voltages/currents associated with the stimulation signals applied thereto;
>
> generating stimulator status indicating signals representative of the measurements made within the implanted stimulator;
>
> transmitting the stimulator status indicating signals to the external transmitter; and
>
> receiving and processing the status indicating signals in the external transmitter to produce processed status indicating signals.

The Patent Office rejected this claim as unpatentable.[3]

In response to the rejection, AMF amended the claim by adding the underlined (and deleting the strike-out) language below, including the "whereby clause":[4]

> A method of testing an implantable tissue stimulating system comprising:
>
> …
>
> applying the stimulation signals to <u>at least one pair of the multiplicity of</u> [~~a plurality of~~] tissue stimulating electrodes;
>
> selectively monitoring <u>the</u> at least one <u>pair</u> of the <u>multiplicity of</u> electrodes to measure <u>a voltage associated therewith at the same time</u>

[3] D.I. 60-20 at B-263 to B-264.

[4] D.I. 60-20 at B-270 to B-271 (underlining indicating additions, brackets and strikethroughs indicating deletions, all in original).

[~~voltages/currents associated with~~] the stimulation signals are applied thereto;

generating stimulator status-indicating signals representative of the measurements made within the implanted stimulator;

transmitting the stimulator-status indicating signals to an external receiver coupled to the external transmitter; [~~and~~]

receiving and processing the status indicating signals [~~in the external transmitter~~] to produce processed status-indicating signals which convey information regarding the status of the implanted stimulator, including the measurements made within the implanted stimulator; and

displaying the processed status-indicating signals, whereby the status of the implanted stimulator, including the results of the measurements made within the implanted stimulator, may be made known.

AMF told the Patent Office that "[b]y way of the present amendment, some of the key differences between a pacemaker and a cochlear stimulator have been added to the independent claims *to clearly limit the claimed invention* …."[5] AMF further stated that the "present invention … deals with a physician's tester (or method of using such a tester) … to make a measurement of a selected parameter in the ICS, e.g., the voltage across a selected pair of electrodes …. The sensed parameter [e.g., the voltage] is sent back to the physician's tester … where it is displayed …."[6] The Patent Office then allowed the claim, expressly stating that the claim

[5] D.I. 60-20 at B-278 (emphasis added).

[6] D.I. 60-20 at B-279.

> … as amended, [is] allowable over the prior art of record since the prior art does not show or suggest the *measuring of the electrode voltage for external display*.[7]

The "whereby clause" could not have been more material to patentability. It was, in AMF's own words, added to claim 10 as part of the language necessary "to clearly limit the claimed invention" to distinguish from prior art pacemakers. It was, even more significantly, the sole reason why the Patent Office allowed the claim. The "whereby clause" cannot be ignored. *Hoffer*, 405 F.3d at 1329-1330.

B. The Special Master Correctly Identified The Meaning Of "The Results Of The Measurements Made Within The Implanted Stimulator"

Because the "whereby clause" constitutes a limitation material to patentability, and because the meaning of that clause is disputed, it must be construed by the Court. *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1361 (Fed. Cir. 2008) ("When the parties present a fundamental dispute regarding the scope of a claim term, it is the court's duty to resolve it.").

The analysis of the phrase "the results of the measurements made within the implanted stimulator" begins by focusing on the claim language itself. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (the claim itself "provide[s] substantial guidance as to the meaning of particular claim terms").

Claim 10 reads:

> A method of testing an implantable tissue stimulating system comprising:
>
> transmitting data-containing signals to an implanted stimulator from an external transmitter;

[7] D.I. 60-20 at B-285 (emphasis added).

selectively controlling the data-containing signals as they are thus transmitted;

receiving the data-containing signals within the implanted stimulator, the implanted stimulator having a multiplicity of tissue-stimulating electrodes;

processing the data-containing signals within the implanted stimulator to generate stimulation signals;

applying the stimulation signals to at least one pair of the multiplicity of tissue stimulating electrodes;

selectively monitoring the *at least one pair of the multiplicity of electrodes to measure a voltage* associated therewith at the same time the stimulation signals are applied thereto;

generating stimulator status-indicating signals *representative of the measurements* made within the implanted stimulator;

transmitting the stimulator status-indicating signals to an external receiver coupled to the external transmitter;

receiving and processing the status-indicating signals to produce processed status-indicating signals which convey information regarding the status of the implanted stimulator**,** *including the measurements made* within the implanted stimulator; and

displaying the processed status-indicating signals, whereby the status of the implanted stimulator, including *the results of the measurements made* within the implanted stimulator, may be made known.

(Emphasis added.)

The language of claim 10 requires that the tissue stimulating electrodes be monitored "to *measure a voltage* associated" with a pair of electrodes. After that, "stimulator status-indicating signals" are sent to an external receiver where they are

processed to produce processed status-indicating signals that convey information regarding the implanted stimulator, "*including the [voltage] measurements made*." The processed status-indicating signals are then displayed to make known the "*the results of the [voltage] measurements made*."

The only measurement required by claim 10 is the voltage measurement across a pair of electrodes. The phrase "the results of the measurements made within the implanted stimulator" must inherently refer to (*i.e.* mean) the voltage measurement across the pair of tissue-stimulating electrodes, as the Special Master found. R&R at 165. The prosecution history of the '616 patent confirms this meaning, as the Patent Office specifically allowed claim 10 because of "the measuring of the electrode voltage for external display."[8]

Despite the clarity of the language and the prosecution history, AMF argues that "voltage and impedance are interchangeable ways to display similar information about electricity moving through a medium." That argument is, however, irrelevant to what the language of the claim requires. AMF is essentially asking the Court to rewrite the claim to cover the additional step of calculating impedance described in the patent's specification (written description). Cochlear does not dispute that the '616 patent describes measuring a voltage and using Ohm's law to calculate an impedance. However, those steps are not what *claim 10* of the '616 patent requires. Other claims address impedance. *See e.g.* '616 patent claim 6 ("means for computing impedance").

The only measurement in claim 10 is voltage, not impedance. By reference to Cochlear's accused product's display of impedance, AMF is essentially asking the Court to construe the claim in an attempt to cover that product, which is improper at claim construction. *SRI Int'l. v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1118 (Fed. Cir. 1985). ("A claim is construed in the light of the claim language, the other

[8] D.I. 60-20 at B-285.

claims, the prior art, the prosecution history, and the specification, *not* in light of the accused device."). Using the allowable techniques of claim construction, the Special Master was correct in his recommendation.

AMF also confusingly argues that the "results of the measurement" means something different than "the value of the measurement." AMF would like to interpret "result" to mean "a calculation" or "a computation." That argument is at odds with ordinary English and unsupported by anything in the '616 patent. To use an everyday example, measuring a person's weight "results" in a specific numerical value of the weight (for example, 180 lbs.). Likewise, the results of the measurement of voltage is simply a quantification of the voltage measured, not some other variable derived in part from that measurement.

Indeed, AMF's analogy regarding temperature measurement misses the mark. In addition to the expansion of a liquid, there many other ways to measure temperature, including thermocouples, thermistors, resistance temperature detectors, and infrared.[9] Regardless of the method, though, it is temperature, not something else, that is being measured. And the result of the temperature measurement is the numerical value of that temperature in units of temperature (whether Fahrenheit or Celsius). In contrast, impedance is not a value of voltage and it cannot be used interchangeably with voltage. Instead Ohm's law is a relationship between impedance, voltage and current.[10] Knowing just one value, the other two cannot be determined. The result of the measurement of voltage must be a numerical value of voltage.

The Special Master was correct when he found that the phrase "the results of the measurements made within the implanted stimulator" recited in claim 10 of the

[9] *See* http://en.wikipedia.org/wiki/Temperature_measurement.

[10] V=IZ, where V is voltage, I is current and Z is impedance. *See* http://en.wikipedia.org/wiki/Electrical_impedance#Ohm.27s_law.

'616 patent means "the voltage measurement across the pair of tissue-stimulating electrodes." That construction should be affirmed by the Court.

C. The Special Master's Recommendation Is Clear

AMF seeks another bite at the proverbial claim construction apple by trying to interpret the Special Master's Report and Recommendation by giving a tortured meaning to the Special Master's use of "refers." The Special Master unambiguously found as follows:

> In view of the foregoing, therefore, the master recommends that the Court conclude that "the results of the measurements made within the implanted stimulator" refers to the voltage measurement across the pair of tissue-stimulating electrodes.

DI 200, at 165. In context, the phrase "refers to" is synonymous with "means." Any other interpretation of "refers to" would render the Special Master's recommendation incomprehensible.

III. CONCLUSION

The Special Master properly found and recommended that "the results of the measurements made within the implanted stimulator" recited in claim 10 of the '616 patent refers to (*i.e.* means) "the voltage measurement across the pair of tissue-stimulating electrodes." Cochlear requests that the Special Master's Report and Recommendation on Claim Construction be adopted as to this recommendation. Cochlear further requests that the Report and Recommendation on Claim

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Construction be modified as set out in Cochlear's Objection to the Report and Recommendation on Claim Construction (D.I. 203) before adoption.

DATED: January 9, 2012

Respectfully submitted,

Connolly Bove Lodge & Hutz LLP

By: */s/ Bruce G. Chapman*
Bruce G. Chapman

Attorneys for Defendants and Counterclaimants Cochlear Corporation (n/k/a Cochlear Americas) and Cochlear Ltd.