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 8

9
 10 UNITED STATES DISTRICT COURT
 11 NORTHERN DISTRICT OF CALIFORNIA
 12 SAN JOSE DIVISION
 13

14 BIO-RAD LABORATORIES, INC.,

15 Plaintiff,

16 v.

17 APPLERA CORPORATION - APPLIED
 BIOSYSTEMS, INC.,

18 Defendant.
 19

Case No. C02-5946 JW

**APPLERA’S NOTICE OF MOTION
 AND MOTION FOR SUMMARY
 JUDGMENT ON WHETHER BIO-RAD
 CAN ASSERT THE DOCTRINE OF
 EQUIVALENTS TO EXTEND CLAIM
 16’S MARKUSH GROUP TO REACH
 POLYACRYLAMIDE**

Date: October 25, 2004
 Time: 9:00 a.m.
 Dept.: Courtroom 8, 4th Floor
 Judge: Hon. James Ware

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26 **STATUTES**

27 35 U.S.C. § 134 8

1 **I. Notice of motion and motion.**

2 To Bio-Rad Laboratories, Inc. (“Bio-Rad”), and its counsel of record: Please take
3 notice that on October 25, 2004, at 9 a.m. or as soon thereafter as the matter may be heard, at the
4 United States District Court for the Northern District of California, 280 South 1st Street, San Jose,
5 CA 95113, defendants, Applera Corporation and Applied Biosystems (collectively “Applera”),
6 will and hereby do move this Court for an Order that for the purposes of the doctrine of
7 equivalents, polyacrylamide is *not* within the scope of “a substantially linear polymer selected
8 from the group *consisting of* [1] methyl cellulose, [2] hydroxypropyl methyl cellulose, [3]
9 hydroxyethyl methyl cellulose, and [4] hydroxybutyl methyl cellulose,” which is one of the
10 limitations of Claim 16 of U.S. Patent No. 5,089,111 – the patent-in-suit.

11 This motion will be and is based on applicable law, all of the papers, admissible
12 evidence, and argument submitted to the Court in connection with the Court’s resolution of this
13 motion, the complete files and records of this action, and all matters of which the Court must or
14 may take judicial notice. As explained more fully in the following Memorandum of Points and
15 Authorities (beginning with § 3, below), the material facts regarding this motion are undisputed:
16 they consist almost exclusively of the file history of the patent-in-suit, which by law is publicly
17 available. The issues that this motion presents are questions of law for the Court to resolve.

18 **II. Nature of relief sought.**

19 Claim 16 of the ‘111 patent contains the limitation “a substantially linear polymer
20 selected the group *consisting of* [1] methyl cellulose, [2] hydroxypropyl methyl cellulose, [3]
21 hydroxyethyl methyl cellulose, and [4] hydroxybutyl methyl cellulose.” The four specified
22 chemicals are what the patent law calls a “Markush group.” In its Final Infringement
23 Contentions, Bio-Rad does not assert that polyacrylamide was within the literal scope of Claim
24 16’s Markush group. In other words, Bio-Rad acknowledges that polyacrylamide is *not* [1]
25 methyl cellulose, [2] hydroxypropyl methyl cellulose, [3] hydroxyethyl methyl cellulose, or [4]
26 hydroxybutyl methyl cellulose. Instead, Bio-Rad asserts that the doctrine of equivalents extends
27 the scope of Claim 16’s Markush group to include polyacrylamide.

1 **III. Memorandum of points and authorities.**

2 In this patent case, the plaintiff, Bio-Rad Laboratories, Inc., alleges that Applera
3 Corporation infringes a patent that Bio-Rad obtained 12 years ago and applied for 15 years ago.
4 Bio-Rad's Final Infringement Contentions allege that Applera's asserted use of its POP polymers
5 to perform molecular sieving infringe Claim 16 of the patent-in-suit under the doctrine of
6 equivalents. This motion is directed at Bio-Rad's doctrine of equivalents assertion.

7 In particular, this motion presents two issues, both of which are issues of law for
8 the Court to resolve:

9 1. Under *Festo*,¹ when a patentee narrows requested patent coverage because
10 of the PTO's prior art rejection, he is presumed to have surrendered the rejected coverage for
11 purposes of the doctrine of equivalents. In a claim directed to a method of separating a mixture of
12 sample ions in a sample, Bio-Rad requested patent coverage for the use of a "a substantially linear
13 polymer" in that method. The PTO rejected Bio-Rad's requested patent coverage because a prior
14 artist had "successfully performed molecular sieving experiments using non-crosslinked linear
15 *polyacrylamide*." Bio-Rad did not object or appeal; instead, it narrowed the claim to avoid that
16 prior art. Now Bio-Rad asserts that under the doctrine of equivalents, its patent coverage of "a
17 substantially linear polymer" extends to the use of polyacrylamide for molecular sieving. Can
18 Bio-Rad now recapture what it is presumed to have surrendered?

19 2. Under *Johnston & Johnston*,² "when a patent drafter discloses but declines
20 to claim subject matter, [he] dedicates that unclaimed subject matter to the public." Before the
21 PTO, Bio-Rad initially took the position that the patent-in-suit's coverage of "a substantially
22 linear polymer" discloses the use of polyacrylamide in the claimed methods of molecular sieving.
23 Claim 16 lists four chemical groups, but not polyacrylamide, and Bio-Rad has conceded that
24 polyacrylamide is *not* literally within the scope of those four groups. However, Bio-Rad now
25 argues that under the doctrine of equivalents, Claim 16 extends the reach of "a substantially linear
26

27 ¹ *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 535 U.S. 722 (2002).

28 ² *Johnson & Johnston Associates, Inc. v. R.E. Services Co., Inc.*, 285 F.3d 1046 (Fed. Cir. 2002)
(en banc).

1 polymer” to covers polyacrylamide. Can Bio-Rad now recapture what it agrees it did not claim?
2

3 **IV. Undisputed material facts and additional background.**

4 Although there are two independent bases for this motion, the material facts
5 underlying each basis overlaps. The following facts are undisputed.

6 **A. In the first application in the file history of the patent-in-suit, Bio-Rad sought
7 patent coverage for the use of “a substantially linear polymer” as a molecular
8 sieving polymer.**

9 On January 27, 1989, Bio-Rad, as the assignee of named inventors Ming Zhu,
10 Jeng-Chyn Chen, and Stellan Hjerten (Bio-Rad and the named inventors are collectively
11 “Applicants” or “Bio-Rad”), filed U.S. Patent Application No. 07/303,174 (“the ‘174
12 Application”) with the United States Patent and Trademark Office.³ The ‘174 Application was
13 entitled “Electrophoretic Sieving in Gel-Free Media with Dissolved Polymers.”⁴

14 As initially filed, the ‘174 Application contained 27 claims, Claims 1 and 27 of
15 which were independent, with Claims 2-26 depending from claim 1.⁵ In the specification,
16 Applicants described their invention: “It has now been discovered that sample ions, and
17 particularly biomolecules, may be separated from each other on the basis of molecular size by
18 electrophoresis through an aqueous solution of a *non-crosslinked polymer* of a selected
19 molecular weight (or molecular weight range) and concentration. . . . [¶] The present invention
20 resides in the discovery that *dissolved linear polymers* in general produce a molecular sieving
21 effect when used in certain amounts.”⁶

22 There are two claims most relevant to the prosecution history estoppel issues in
23 this motion – initially filed claim 1 and initially filed claim 27. In initially filed Claim 1,

24 ³ Declaration of Alice Garber In Support Of Applera’s Motion On Whether Bio-Rad Can Assert
25 The Doctrine Of Equivalents To Extend Claim 16’s Markush Group To Reach Polyacrylamide,
26 (“Garber Decl.”), Exh. 1 at ABBR 065850-871 [‘111 Patent File History, Application No.
27 07/303,174 as filed (“‘174 Application”).

28 ⁴ *Id.* Exh. 1 at ABBR 065846 [PTO cover sheet with title], 065850 [‘174 Application, page 1
(title page)].

⁵ *Id.* Exh. 1 at ABBR 065864-868 [‘174 Application pages 15-19 (originally-filed claims)].

⁶ *Id.* Exh. 1 at ABBR 065851 [‘174 Application, page 2 at lines 6-11, 34-37].

1 Applicants requested patent coverage for a “substantially linear [unspecified] polymer”:

2
3 A method of separating a mixture of sample ions of varying molecular
4 weights in a simple into components, said method comprising
5 electrophoretically passing said sample through a separation column
6 containing a gel-free aqueous solution of a substantially linear polymer
7 having a molecular weight of about 10,000 to about 2,000,000, said
8 molecular weight being within a range of about 0.1 to about 200 times the
average molecular weight of said macromolecular species in said mixture,
the concentration of said polymer in said solution being sufficient to retard
the flow of said species through said molecular separation column to
degrees which vary with the molecular weights of said species.⁷

9 And in initially filed Claim 27, Applicants requested patent coverage for a specified linear
10 polymer – one selected from four identified chemical groups:

11 A method of separating a mixture of polynucleotide chains in a sample,
12 said polynucleotide chains each containing from about 10 to about 10,000
13 base pairs, said method comprising electrophoretically passing said
14 sample through a capillary column containing a gel-free aqueous solution
15 of a substantially linear polymer selected from the group consisting of [1]
16 methyl cellulose, [2] hydroxypropyl methyl cellulose, [3] hydroxyethyl
methyl cellulose, and [4] hydroxybutyl methyl cellulose, said polymer
characterized in terms of the viscosity of a 2% aqueous solution thereof
being within a range of about 1,000 centipoise to about 10,000 centipoise
at 25.degree. C., and the concentration of said polymer in said solution is
from about 0.1% to about 0.5% by weight.⁸

17 The referenced group of four chemicals (methyl cellulose, hydroxypropyl methyl
18 cellulose, hydroxyethyl methyl cellulose, and hydroxybutyl methyl cellulose) are what the patent
19 law calls a “Markush group.” A Markush group “is a listing of specified alternatives of a group
20 in a patent claim, typically expressed in the form: a member selected from the group consisting
21 of A, B, and C. . . . [A] Markush group, incorporated in a claim, should be ‘closed,’ i.e. it must
22 be characterized with the transition phrase ‘consisting of,’ rather than ‘comprising’ or ‘including.’
23 Thus, ‘members of the Markush group are used singly.’”⁹

24 Applicants submitted to the PTO the following references, in each case explaining

25 _____
26 ⁷ *Id.* Exh. 1 at ABBR 065864 [‘174 Application, page 15 (originally-filed claim 1)].

27 ⁸ *Id.* Exh. 1 at ABBR 065868 [‘174 Application, page 19 (originally-filed claim 27)] (emphasis
and brackets supplied).

28 ⁹ *Abbott Laboratories v. Baxter Pharmaceutical Products, Inc.*, 334 F.3d 1274, 1280-81 (Fed.
Cir. 2003).

1 “the relevance of each reference”:

- 2
- 3
- 4 • Tietz, Dietmar, et al., “Electrophoresis in Uncrosslinked *Polyacrylamide*:
5 *Molecular Sieving* and Its Potential Applications,” *Electrophoresis* 7, 217-220 (1986)
(hereafter “Tietz et al.”), which, according to Bio-Rad, was “relevant for its disclosure of
6 molecular sieving in a solution of uncrosslinked polymer”;
- 7 • Bode, “The Use of Liquid *Polyacrylamide* in *Electrophoresis*,” 204-210,¹⁰ which,
8 according to Bio-Rad, was “relevant for its discussion of the inclusion of uncrosslinked
9 polymer in a molecular sieving medium”; and
- 10 • Bode, “The Use of Liquid *Polyacrylamide* in *Electrophoresis*,” 83 *Analytical
11 Biochemistry*, 364-371 (1977), which, according to Bio-Rad, was “relevant for its
12 discussion of the influence of uncrosslinked polymer in a molecular sieving medium.”¹¹

13 As we next explain, the PTO rejected the coverage that Applicants sought, because
14 it was obvious from the prior art.

15 **B. The PTO rejected Applicants’ requested patent coverage because a reference
16 in the prior art regarding the use of polyacrylamide as a molecular sieving
17 polymer made the requested patent coverage unpatentable.**

18 The PTO rejected the coverage that Applicants sought – a molecular sieving claim
19 directed to the use of a “substantially linear polymer” – on multiple grounds. For present
20 purposes, however, the important rejection was the PTO’s rejection under 35 U.S.C. § 103 of the
21 coverage that Applicants sought because that coverage was “unpatentable over Tietz et al.”¹²
22 Under § 103, if a patent claim would have been obvious to one of ordinary skill based on a piece
23 of prior art or some combination of prior art, the patent must not issue – and, if it does, it is
24 invalid.¹³ In particular, the PTO concluded that “Tietz et al. report that they successfully
25 performed molecular sieving experiments using non-crosslinked linear *polyacrylamide* in the
26 concentration range of 5-20% wt/v. . . . [T]he *polyacrylamide* must inherently have had the

27 ¹⁰ Applicants omitted the journal title and date for this reference in the statement submitted to the
28 PTO.

¹¹ *Id.* Exh. 1 at ABBR 065872-4 [January 27, 1989 Disclosure Statement] (emphasis supplied).

¹² *Id.* Exh. 1 at ABBR 065889 [May 29, 1990 Office Action, page 3].

¹³ *See Graham v. John Deere Co.*, 383 U.S. 1, 15 (1966) (If difference between prior art and
subject matter for which the applicant seeks a patent is such that subject matter as a whole would
have been obvious at the time to a person skilled in the art, then subject matter cannot be
patented.)

1 characteristics recited in the claims, e.g., a molecular weight of about 10,000 to about
2 2,000,000.”¹⁴ In other words, the PTO thought that the application disclosed and claimed the use
3 of polyacrylamide for molecular sieving, and rejected Applicants’ attempt to claim such use.

4 Although the PTO reached that conclusion and made the appropriate rejection
5 based on it, the PTO did not reject initial Claim 27, which (like rejected Claim 1) was directed to
6 a method of molecular sieving and sought coverage for “a substantially linear polymer.” But
7 Applicants drew this limitation much more narrowly – it added the qualification that the
8 “substantially linear polymer” had to be “selected from the group consisting of [1] methyl
9 cellulose, [2] hydroxypropyl methyl cellulose, [3] hydroxyethyl methyl cellulose, and [4]
10 hydroxybutyl methyl cellulose.” As Bio-Rad does not assert that polyacrylamide is within the
11 literal scope of issued Claim 16’s Markush group, and thus concedes that polyacrylamide is not
12 literally within the four specified chemical types in that Markush group.¹⁵ That concession
13 squares with the conclusion that the PTO did not regard initial Claim 27 (which became issued
14 Claim 16) as covering polyacrylamide. We discuss this more below.

15 The PTO’s rejection of patent coverage for “a substantially linear polymer” was a
16 rejection related to patentability – specifically, an obviousness rejection because of prior art.
17 Applicants did not challenge the PTO’s conclusion that the requested coverage was obvious in
18 light of the prior art.¹⁶ Applicants did not, for example (as one often sees in file histories) argue
19 that the examiner was wrong in concluding that the claimed invention was invalid in light of the
20 prior art. Alternatively, they could have appealed to the Board of Patent and Trademark
21

22 ¹⁴ Garber Decl. Exh. 1 at ABBR 065889 [May 29, 1990 Office Action, page 3].

23 ¹⁵ *Id.* Exh. 2 [Bio-Rad’s April 22, 2004 Local Rule 2-6(a) Final Infringement Contentions –
24 cover page (“Claim 16 has been amended to indicate that the solutions containing POP in the
25 capillaries infringe the claim under the doctrine of equivalents” and “claim 1 has been amended to
26 remove POP”), page 3 (claim 1 not asserted against Applied Biosystems’ polyacrylamide-
containing “POP” polymers) and page 10 (only claim 16 is asserted against Applied Biosystems’
polyacrylamide-containing “POP” polymers, and then only under “Doctrine of Equivalents” as to
the Markush group)].

27 ¹⁶ *Id.* Exh. 1 at ABBR 065894-898 [Applicants’ July 16, 1990 Response to the May 29, 1990
28 Office Action (no challenge to the Examiner’s rejection of claim 1 over the Tietz polyacrylamide
paper; claim 1 amended to recite “substantially linear water-soluble cellulose derivative
polymer”) (underlining in original)].

1 Appeals.¹⁷ But they didn't do that, either. Instead, Applicants narrowed the scope of the patent
2 coverage they sought. In particular, they limited the scope of "a substantially linear polymer" to
3 make clear that they did not seek coverage for the use of polyacrylamide as a molecular sieving
4 agent.

5 **C. Bio-Rad did not appeal. Instead, Bio-Rad amended its requested patent**
6 **coverage to avoid the prior art reference that disclosed the use of**
7 **polyacrylamide as a molecular sieving polymer.**

8 In a mailing on July 13, 1990, "in response to Office Action of May 29, 1990"
(that is, in response to the PTO's rejection of original Claim 1 of the '174 Application),
9 Applicants narrowed the patent coverage they sought. In particular, they amended the limitation
10 in question here – "a substantially linear polymer" – to disclaim the use of polyacrylamide¹⁸

11 On July 20, 1990, after Applicants had made that amendment to disclaim the
12 rejected patent coverage, the PTO mailed Applicants a Notice of Allowance and Issue Fee Due,"
13 advising that "[t]he application identified above has been examined and is allowed for issuance as
14 a patent. Prosecution on the merits is closed."¹⁹ However, on December 26, 1990 (twelve years
15 to the day before Bio-Rad filed this lawsuit), the PTO mailed a "Notice of Abandonment" of the
16 '174 Application because of Applicants' failure to pay the required issue fee within three months
17 after the Notice of Allowance.²⁰

18 On September 27, 1990, Applicants filed U.S. Patent Application No. 07/589,915
19 ("the '195 Application") with the PTO, asserting that the '915 Application was a continuation-in-
20 part of the '174 Application.²¹ ("A continuation-in-part is an application filed during the lifetime
21 of an earlier nonprovisional application . . . , repeating some substantial portion or all of the

22 _____
23 ¹⁷ 35 U.S.C. § 134 (statutory basis for right to appeal); Garber Decl., Exh. 1 at ABBR 065846-926
['174 Application file history (no appeal taken)].

24 ¹⁸ *Id.* Exh. 1 at ABBR 065895 [Applicants' July 16, 1990 Response to the May 29, 1990 Office
25 Action (no challenge to the Examiner's rejection of claim 1 over the Tietz polyacrylamide paper;
claim 1 amended to recite "substantially linear water-soluble cellulose derivative polymer")
(underlining in original)].

26 ¹⁹ *Id.* Exh. 1 at ABBR 065900 [July 20, 1990 Notice of Allowability].

27 ²⁰ *Id.* Exh. 1 at ABBR 065904 [December 26, 1990 Notice of Abandonment].

28 ²¹ *Id.* Exh. 3 at ABBR 065932-956 ['111 Patent File History – Application No. 07/589,915 as
filed (" '915 Application")].

1 earlier nonprovisional application and adding matter not disclosed in the said earlier
2 nonprovisional application.”²²) The ‘915 Application’s title was identical to the ‘174
3 Application’s title (“Electrophoretic Sieving in Gel-Free Media with Dissolved Polymers”), and
4 so was its abstract.²³

5 In Claim 16 of the ‘915 Application, Applicants sought patent coverage for a
6 specified substantially linear polymer – a polymer from four specified chemical groups:

7 A method of separating a mixture of polynucleotide chains in a sample,
8 said polynucleotide chains each containing from about 10 to about 10,000
9 base pairs, said method comprising electrophoretically passing said
10 sample through a capillary column containing a gel-free aqueous solution
11 of a substantially linear polymer selected from the group consisting of [1]
12 methyl cellulose, [2] hydroxypropyl methyl cellulose, [3] hydroxyethyl
13 methyl cellulose, and [4] hydroxybutyl methyl cellulose, said polymer
14 characterized in terms of the viscosity of a 2% aqueous solution thereof
15 being within a range of about 1,000 centipoise to about 10,000 centipoise
16 at 25.degree. C., and the concentration of said polymer in said solution is
17 from about 0.1% to about 0.5% by weight.²⁴

18 On September 20, 1991, the PTO issued a Notice of Allowance and Issue Fee Due,
19 together with the “Examiner’s Statement of Reasons for Allowance” (“Statement of Reasons”).
20 The PTO includes a Statement of Reasons in the file histories of certain patents (such statements
21 are not required) in order “to improve the quality and reliability of issued patents by providing a
22 complete file history which should clearly reflect, as much as is reasonably possible, the reasons
23 why the application was allowed. Such information facilitates evaluation of the *scope* and
24 strength of a patent by the patentee and the public and may help avoid or *simplify litigation of a*
25 *patent.*”²⁵

26 In the Statement of Reasons, the PTO emphasized the reasons why it allowed
27 Claim 16, which claims the use of “substantially linear polymer” as a molecular sieving agent,
28 despite its earlier rejection (in light of Tietz *et al.* and other references) of requested coverage for

24 ²² Garber Decl., Exh. 4 [MPEP 5th Ed. (Rev. 13, Nov. 1989) Section § 201.08].

25 ²³ *Id.* Exh. 3 at ABBR 065933 [‘915 Application, page 1 (title page)] and 065954 [‘915
Application, page 22 (abstract)].

26 ²⁴ *Id.* Exh. 3 at ABBR 065952 [‘915 Application, page 20 (claim 16)].

27 ²⁵ Garber Decl., Exh. 5 [MPEP 5th Ed. (Rev. 13, Nov. 1989) Section § 1302.14]; *see also* 37
28 C.F.R. § 1.109 (1989) (“If the examiner believes that the record of the prosecution as a whole
does not clear that his or her reasons for allowing a claim or claims, the examiner may set forth
such reasoning”) (C.F.R. section since superseded).

1 the use of “substantially linear polymer” as a molecular sieving agent. The PTO wanted to make
2 clear that the fact that because Applicants had *limited* the claim to four specific Markush groups,
3 it avoided the prior art that taught the use of a polyacrylamide as a molecular sieving polymer. In
4 particular, the PTO’s Statement of Reasons explained – with emphasis in original – that its
5 “search of the prior art failed to reveal any reference(s) which . . . teach explicitly or fairly
6 suggest a method of separating a mixture of polynucleotide chains in a sample . . . , said method
7 comprising electrophoretically passing said sample through a capillary column containing a gel-
8 free aqueous solution of a substantially linear polymer selected *from the group consisting of [1]*
9 *methyl cellulose, [2] hydroxypropyl methyl cellulose, [3] hydroxyethyl methyl cellulose, and [4]*
10 *hydroxybutyl methyl cellulose, . . .*”²⁶

11 The PTO invited comments from Applicants on the PTO’s Statement of Reasons,
12 but Applicants failed to submit any.²⁷ The PTO issued the ‘915 Application as U.S. Patent No.
13 5,089,111 – the patent in this lawsuit, which Bio-Rad filed the day after Christmas 2002.²⁸

14 **D. Now Bio-Rad asserts that under the doctrine of equivalents, the reach of “a**
15 **substantially linear polymer” extends to include polyacrylamide – the PTO’s**
16 **rejections notwithstanding.**

17 Bio-Rad’s infringement contentions have been something of a moving target in
18 this case. Its Final Infringement Contentions were its fourth iteration of its position. In those
19 Final Infringement Contentions, Bio-Rad does *not* assert that the asserted use of Applera’s POP
20 polymers literally infringe Claim 16’s patent coverage for “a substantially linear polymer selected
21 from the group consisting of [1] methyl cellulose, [2] hydroxypropyl methyl cellulose, [3]
22 hydroxyethyl methyl cellulose, and [4] hydroxybutyl methyl cellulose.” In other words, Bio-
23 Rad’s Final Infringement Contentions concede that polyacrylamide is *not* literally “a substantially
24 linear polymer selected from the group consisting of [1] methyl cellulose, [2] hydroxypropyl

25 ²⁶ Garber Decl., Exh. 3 at ABBR 065974-975 [Examiner’s September 20, 1991 Statement of
Reasons for Allowance](emphasis in original as double underlines; brackets supplied).

26 ²⁷ *Id.* Exh. 3 at ABBR 065975 [Examiner’s September 20, 1991 Statement of Reasons for
27 Allowance (“any comments considered necessary by the applicant must be submitted no later
than the payment of the Issue Fee”) and ABBR 065978-986 [issue fee transmittal documents (no
28 comments submitted regarding Examiner’s Statement of Reasons for Allowance)].

²⁸ *Id.* Exh. 6 [U.S. Patent No. 5,089,111 (with issue date of February 18, 1992)].

1 methyl cellulose, [3] hydroxyethyl methyl cellulose, and [4] hydroxybutyl methyl cellulose.”
2 Instead, Bio-Rad contends only that the doctrine of equivalents extends Claim 16’s reach to cover
3 polyacrylamide.²⁹

4 This motion is directed to that assertion, and to it we now turn.

5 **V. Discussion.**

6 In this lawsuit, Bio-Rad has attempted to expand the reach of Claim 16 beyond the
7 Markush group that it claimed. Bio-Rad now wants polyacrylamide included in that Markush
8 group – not literally, but under the doctrine of equivalents. There are two independent but related
9 reasons why Claim 16’s reach does not extend so far: prosecution history estoppel (discussed in
10 § V(A), below) bars expansion under the doctrine of equivalents. So does the disclosure-
11 dedication (discussed in § V(B), below).

12 **A. Prosecution history estoppel bars expansion, under the doctrine of**
13 **equivalents, of the patent coverage that the PTO allowed.**

14 **1. The purpose, general rules, presumptions, and burdens in assessing**
15 **prosecution history estoppel issues.**

16 As the Supreme Court explained in *Festo*, patent rights are property rights, and
17 “like any property right, its boundaries should be clear. This clarity is essential to promote
18 progress, because it enables efficient investment in innovation. A patent holder should know
19 what he owns, and the public should know what he does not. For this reason, the patent laws
20 require inventors to describe their work in ‘full, clear, concise, and exact terms,’ . . .”³⁰ The
21 Supreme Court also explained in *Festo* that “[u]nfortunately, the nature of language makes it
22 impossible to capture the essence of a thing in a patent application.”³¹ Hence the doctrine of
23 equivalents: the doctrine that “[t]he scope of a patent is not limited to its literal terms but instead
embraces all equivalents to the claims described.”³²

24 But the “doctrine of equivalents exists in some tension with other core tenets of the

25
26 ²⁹ See note 13, *supra*.

27 ³⁰ *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 535 U.S. 722, 730-31 (2002).

28 ³¹ *Festo*, 535 U.S. at 731.

³² *Festo*, 535 U.S. at 732.

1 patent law, perhaps most notably the requirement that the patentee ‘particularly point[] out and
2 distinctly claim [] the subject matter which the applicant regards as his invention,’ and the
3 function of patent claims to provide notice to competitors regarding the scope of the patent
4 grant.”³³ So the law imposes restraints on the range of permissible “equivalents” in assessing a
5 patentee’s efforts to expand a claim’s reach beyond the scope of what the PTO actually issued.

6 For example, a patentee cannot claim, through the doctrine of equivalents, subject
7 matter existing in the prior art.³⁴ The doctrine of equivalents can extend the reach of the patent
8 claim only to those differences that are ‘not insubstantial’; “the question which thus emerges is
9 whether . . . under the circumstances the change was so insubstantial that the . . . invocation of the
10 doctrine of equivalents [is] justified”³⁵ The “doctrine of equivalents cannot be used to vitiate an
11 element from the claim in its entirety.”³⁶ And, immediately relevant here, “prosecution history
12 estoppel will exclude from the doctrine of equivalents any subject matter that was, by amendment
13 or argument during prosecution, relinquished.”

14 Based on the undisputed facts of record contained in the file history that Bio-Rad
15 created before the PTO, the focus here is amendment-based prosecution history estoppel.
16 “Estoppel arises when an amendment is made to secure the patent and the amendment narrows
17 the patent's scope.”³⁷ “A patentee who narrows a claim as a condition for obtaining a patent
18 disavows his claim to the broader subject matter.”³⁸ In particular, “[a] rejection indicates that the
19 patent examiner does not believe the original claim could be patented. While the patentee has the
20 right to appeal, his decision to forgo an appeal and submit an amended claim is taken as a
21 concession that the invention as patented does not reach as far as the original claim.”³⁹

22 The various legal limitations on the application of the doctrine of equivalents are

23 _____
24 ³³ *K-2 Corp. v. Salomon S.A.*, 191 F.3d 1356, 1366 (Fed. Cir. 1999).

25 ³⁴ *K-2 Corp.*, 191 F.3d at 1367.

26 ³⁵ *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 399 U.S. 605, 610 (1950).

27 ³⁶ *K-2 Corp.*, 191 F.3d at 1367.

28 ³⁷ *Festo*, 535 U.S. at 736.

³⁸ *Festo*, 535 U.S. at 737.

³⁹ *Festo*, 535 U.S. at 734.

1 to be determined by the court as a matter of law.⁴⁰ “The standard for determining whether
2 particular subject matter was relinquished is an objective one that depends on what a competitor
3 reasonably would conclude from the patent's prosecution history.”⁴¹ “The application of
4 prosecution history estoppel is a question of law.”⁴² As a question of law, it is appropriately
5 resolved on summary adjudication.⁴³ Moreover, it is not Applera’s burden to show that the
6 estoppel applies. Instead, the Supreme Court and the Federal Circuit have both instructed that *the*
7 *patentee (here, Bio-Rad) must show that the estoppel does not apply*: “the patentee should bear
8 the burden of showing that the amendment does not surrender the particular equivalent in
9 question.”⁴⁴

10 As explained below, Bio-Rad cannot meet its burden here.

11 **2. Bio-Rad is presumed to have disclaimed the territory between “a**
12 **substantially linear polymer” (the rejected limitation) and “a**
13 **substantially linear polymer consisting of” the Markush group.**

14 When Bio-Rad filed the application to which it claims priority for the ’111 Patent,
15 it tried to obtain coverage for “a substantially linear polymer.” The PTO rejected the coverage
16 that Applicants sought, concluding that in light of prior art, that claim would have been obvious
17 to one of ordinary skill in the art. Applicants had a number of options in light of that rejection.
18 If, for example, they believed that the PTO was wrong, they could have responded to that
19 objection (or “traversed” it, as patent prosecutors would say) in writing, given reasons why they
20 thought that the claimed invention was not obvious in light of the prior art that the PTO cited.⁴⁵

21 ⁴⁰ *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 39 n.8 (1997).

22 ⁴¹ *Mark I Marketing Corp. v. RR. Donnelley & Sons Co.*, 66 F.3d 285, 291 (Fed. Cir. 1995).

23 ⁴² *Mark I*, 66 F.3d at 291.

24 ⁴³ *See Texas Instruments v. United States ITC*, 988 F.2d 1165, 1173 (Fed. Cir., 1993)
25 (“Prosecution history estoppel is a policy oriented limitation to the range of equivalents available
26 to the patentee, a limitation that we review as a question of law.”).

27 ⁴⁴ *Festo*, 535 U.S. at 740; *see also, Talbert Fuel Sys. Patents Co. v. Unocal Corp.*, 347 F.3d
28 1355, 1359 (Fed. Cir., 2003) (Patentee must rebut the presumption of surrender from a narrowing
amendment during prosecution.).

29 ⁴⁵ Garber Decl., Exh. 7 [MPEP 5th Ed. (Rev. 6, Oct. 1987) Section 714.02 (citing and quoting 37
C.F.R Section 1.111) (“after the office action, if adverse in any respect, the applicant . . . , if he or
she persists in his or her application for a patent . . . , must reply thereto and may request
reconsideration or further examination, with or without amendment”)].

1 Or, if for any reason they thought they could not change the examiner's conclusion, they could
2 have appealed the rejection to the Board of Patent and Trademark Appeals.⁴⁶ But Applicants
3 didn't try either route. Instead, they narrowed the patent coverage they sought, changing the "a
4 substantially linear polymer" limitation, thereby effectively agreeing with the PTO that the
5 coverage they sought was not patentable.

6 More than effectively agreed, actually; as a matter of law Applicants are *presumed*
7 to have agreed. The Supreme Court emphasized in *Festo* that an applicant's "decision to forgo an
8 appeal and submit an amended claim is taken as a concession that the invention as patented does
9 not reach as far as the original claim."⁴⁷

10 We turn, then, to what apparently are Bio-Rad's rationale (thus far they have not
11 provided one) for its assertion that although (a) they conceded to the PTO that their request for
12 patent coverage for "a substantially linear [unspecified] polymer" was invalid in light of prior art
13 that disclosed the use of polyacrylamide, and (b) they subsequently narrowed that coverage to
14 avoid that prior art, they are still free, in this litigation filed some twelve years after they obtained
15 the patent, to argue that their patent coverage for "a substantially linear polymer selected from the
16 group consisting of" four chemicals (which Bio-Rad concedes are not literally polyacrylamide)
17 nonetheless includes polyacrylamide.

18 **3. Bio-Rad will be unable to rebut the presumption that it disclaimed**
19 **the patent coverage between "a substantially linear polymer" and**
20 **"substantially linear polymer consisting of" the Markush group.**

21 It is important to understand that as the patentee Bio-Rad, *not Applera*, bears the
22 burden regarding whether Bio-Rad's choices before the PTO bar Bio-Rad's attempt to use the
23 doctrine of equivalents.⁴⁸ Bio-Rad will not be able to meet that burden.

24 Bio-Rad may, for example, argue that because the patent coverage it requested got

25 ⁴⁶ *Id.* Exh. 8 [MPEP 5th Ed. (Rev. 13, Nov. 1989) Sections 1201, 1205 (citing and quoting 35
26 U.S.C. Section 134 and 37 C.F.R. Section 1.191 ("An applicant . . . dissatisfied with the primary
27 examiner's decision in the second or final rejection of his or her claim may appeal to the Board
28 for review of the examiner's rejection")].

⁴⁷ *Festo*, 535 U.S. at 734.

⁴⁸ *Festo*, 535 U.S. at 740 ("we hold here that the patentee should bear the burden of showing that
the amendment does not surrender the particular equivalent in question").

1 narrowed in a parent application that it abandoned, Claim 16 is somehow exempt because it
2 issued from is a continuation-in-part. That argument would be wrong. Prosecution history
3 estoppel cannot be avoided by filing a continuation or continuation-in-part, as the Federal Circuit
4 has noted in *Mark I* and other cases.⁴⁹ Indeed, *Mark I* is instructive on prosecution history
5 estoppel issues in this case, so we briefly turn to it.

6 There, the patentee plaintiff submitted a “broadly claimed a process for
7 reproducing color images by printing with two printing plates and two inks.”⁵⁰ But the PTO
8 rejected those claims because of prior art that suggested replicating a color image using two
9 printing plates and two inks. Instead of responding to the rejection, Mark I filed a continuation-
10 in-part application with new claims, narrowing the initial claims to require that the first printing
11 plate be made by sequentially interposing filters.⁵¹ After further interaction with the PTO, the
12 plaintiff filed another continuation-in-part, requiring that both plates be made by sequentially
13 interposing colored filters.⁵² The latter continuation issued and became the patent-in-suit. The
14 defendant argued that the prosecution history, and in particular the narrowing amendments made
15 to the predecessor applications, “shows that Mark I surrendered claim coverage for a process not
16 involving sequential interposition of colored filters.”⁵³ The patentee argued that the fact that the
17 narrowing amendments occurred in a predecessor application precluded the doctrine of
18 equivalents.

19 The Federal Circuit disagreed, holding that “[t]he fact that the claims of the '659
20 application were not themselves rejected by the Patent Office or amended by Mark I does not call
21 for a different result. . . . [A]n estoppel is not avoided by failing to respond to a rejection and
22 instead meeting the substance of the rejection by filing a narrower continuing application.”⁵⁴

24 ⁴⁹ *Mark I*, 66 F.3d at 291-92; see also *Desper Products, Inc. v. Osound Labs, Inc.*, 157 F.3d
1325, 1338 (Fed. Cir. 1998).

25 ⁵⁰ *Mark I*, 66 F.3d at 291.

26 ⁵¹ *Id.*

27 ⁵² *Id.* at 291-92.

28 ⁵³ *Id.* at 292.

⁵⁴ *Id.*

1 So, too, of this case. The PTO rejected the claim coverage that Bio-Rad initially
2 sought because prior art rendered the claimed coverage – “a substantially linear polymer” –
3 obvious in light of prior art that disclosed a method of molecular sieving using polyacrylamide.
4 In response, Bio-Rad amended that requested coverage, adding additional language and thereby
5 narrowing it. (Both the Supreme Court and the Federal Circuit have held that by adding
6 additional language, an applicant narrows the limitation in question and thus raises the *Festo*
7 presumption of surrender as a matter of law; indeed, the Federal Circuit has observed that “[t]hat
8 the addition of a claim limitation constitutes a narrowing amendment is manifest in the language
9 of [the Supreme Court decisions in] both *Warner-Jenkinson* and *Festo*.⁵⁵) By conceding that
10 patent coverage for “a substantially linear polymer” did not include polyacrylamide, Bio-Rad is
11 presumed to have surrendered patent coverage for that limitation.

12 Bio-Rad may also argue that because issued Claim 16 was not amended during
13 prosecution, prosecution history estoppel cannot apply to it – in other words, that the fact that
14 issued Claim 16 was not amended insulates it from prosecution history estoppel. In the post-
15 *Festo* case of *Glaxo Wellcome, Inc. v. Impax Laboratories, Inc.*, this Court (Patel, J.) rejected this
16 very kind of argument.⁵⁶ That case involved a patent on sustained-release tablets; as this Court
17 emphasized, “[n]otably, the ‘798 patent is titled ‘Controlled Sustained Release Tablets Containing
18 Bupropion.’ Sustained release is the clear focus of the invention.”⁵⁷ There, in claim 18, the
19 patentee initially tried to claim patent coverage for

20 A sustained release tablet containing a mixture of (a) 100 mg of bupropion
21 hydrochloride and (b) means for releasing between about 25 and 45% of
22 bupropion hydrochloride in one hour, between 60 and 85% in 4 hours and
23 not less than 80% in eight hours in distilled water.⁵⁸

24 The PTO, however, “rejected [this claim] under 35 U.S.C. § 112 as being non-enabled” – in other
25 words, for a reason related to patentability.⁵⁹ In response, the patentee added a limitation (in

26 ⁵⁵ *Honeywell Int’l, Inc. v. Hamilton Sundstrand Corp.*, 370 F.3d 1131, 1140-41 (Fed. Cir. 2004);
27 *Warner-Jenkinson*, 520 U.S. at 33-34 (“introduc[ing] a new element” to the claims at issue raises
28 presumption of surrender); *Festo*, 535 U.S. at 741.

⁵⁶ 220 F.Supp.2d 1089 (N.D. Cal. 2002).

⁵⁷ *Id.* at 1096.

⁵⁸ *Id.* at 1091.

⁵⁹ *Id.* at 1094.

1 italics as follows) specifying that the means would be HPMC:

2 A sustained release tablet containing a mixture of (a) 100 mg of bupropion
3 hydrochloride and (b) means for releasing between about 25 and 45% of
4 bupropion hydrochloride in one hour, between 60 and 85% in 4 hours and
not less than 80% in eight hours in distilled water *said means comprising
hydroxypropyl methylcellulose [HPMC]*.⁶⁰

5 Both at the time of filing and at the time of the amendment, claim 1 mentioned HPMC:

6 A controlled sustained release tablet comprising 25 to 500 mg of
7 bupropion hydrochloride and hydroxypropyl methylcellulose [HPMC], the
8 amount of hydroxypropyl methylcellulose to one part of bupropion
9 hydrochloride being 0.19 to 1.1 and said tablet having a surface to volume
10 ratio of 3:1 to 25:1 cm⁻¹ and said tablet having a shelf life of at least one
year at 59 degrees to 77 F. and 35 to 60% relative humidity[.], *said tablet
releasing between about 20 and 60 percent of bupropion hydrochloride in
water in 1 hour, between about 50 and 90 percent in 4 hours and not less
than about 75 percent in 8 hours.*⁶¹

11 The patentee then sued Impax, alleging that a chemical known as “HPC” was the
12 equivalent of HPMC and that Impax infringed claim 1 (and others) under the doctrine of
13 equivalents.⁶² This Court rejected that assertion as follows.

14 As an initial matter, the patentee argued that “Claim 1 is distinct from the other
15 challenged claims because it mentioned HPMC from the inception. For this reason, plaintiff
16 summarily contends: ‘NO AMENDMENT, NO ESTOPPEL.’”⁶³ This Court noted that such an
17 argument is wrong, and exalts form over substance: “Barring estoppel because a patentee never
18 amended a particular claim, however, ‘exalts form over substance.’ Contrary to plaintiff’s
19 assertion, estoppel may apply to unamended [claim] terms.”⁶⁴ This Court concluded that the
20 patentee was *not* entitled to claim equivalents of HPMC for purposes of claim 1, even though the
21 HPMC limitation of claim 1 was never amended during prosecution:

22 Plaintiff is estopped from claiming infringement by equivalents of claim 1
23 because of amendments to claims 14, 15, 18 and 19. Although HPMC
was not added to claim 1 during prosecution, it was added to these other

24 ⁶⁰ *Glaxo*, 220 F. Supp at 1091 (brackets supplied).

25 ⁶¹ *Id.* at 1091 (italics represent the amendment); *id.* at 1096 (“Claim 1 . . . mentioned HPMC
from the inception”).

26 ⁶² *Id.* at 1092 (“Plaintiff does not contend that HPMC is literally present in the IMPAX product.
27 Instead, plaintiff alleges infringement under the doctrine of equivalents”).

27 ⁶³ *Id.* at 1096.

28 ⁶⁴ *Id.* (internal citations omitted).

1 claims. Prosecution history estoppel extends to unamended claims where
2 the challenged element was amended elsewhere in the patent.⁶⁵

3 In particular, in reasoning that resonates given the issues in this case, this Court reasoned that:

4 Plaintiff added HPMC to claims 18 and 19 during prosecution to avoid a
5 section 112 enablement rejection. As originally drafted, these claims
6 arguably included every sustained-release formulation. By replacing the
7 general means-function language with a more-specific claim limitation,
8 plaintiff surrendered all equivalents. The amendments indisputably
9 narrowed the patent with respect to sustained release. Plaintiff must accept
10 the consequences of these amendments.⁶⁶

11 *Glaxo* governs the prosecution history estoppel issues here. In *Glaxo*, the patentee
12 did not amend the claim at issue: “[a] controlled sustained release tablet comprising 25 to 500 mg
13 of bupropion hydrochloride and hydroxypropyl methylcellulose [HPMC].” Nor did Bio-Rad:
14 Claim 16, which claims “a substantially linear polymer selected the group *consisting of* [1]
15 methyl cellulose, [2] hydroxypropyl methyl cellulose, [3] hydroxyethyl methyl cellulose, and [4]
16 hydroxybutyl methyl cellulose,” issued without amendment. In *Glaxo*, the patentee had in a
17 different claim tried to obtain broad coverage with general language: claim 18, which sought to
18 obtain coverage for “[a] sustained release tablet containing a mixture of (a) 100 mg of bupropion
19 hydrochloride and (b) means for releasing” So did Bio-Rad: initial claim 1, which had the
20 broad language “a substantially linear polymer.” In *Glaxo*, that broad language “arguably
21 included every sustained-release formulation”⁶⁷; here, Applicants’ broad language in initial claim
22 1 arguably included every substantially linear polymer. In *Glaxo*, the PTO rejected the requested
23 broad coverage for a reason related to patentability.⁶⁸ So did the PTO here: it concluded that a
24 prior art reference entitled “Electrophoresis in Uncrosslinked *Polyacrylamide*: Molecular Sieving
25 and Its Potential Applications” made the requested coverage obvious.

26 All of this led this Court to conclude in *Glaxo* that “[b]y replacing the general
27 [claim] language with a more-specific claim limitation, plaintiff surrendered all equivalents. The
28

25 ⁶⁵ *Id.* at 1096-7.

26 ⁶⁶ *Id.* at 1094 (internal citations omitted).

27 ⁶⁷ *Glaxo*, 220 F.Supp.2d at 1094.

28 ⁶⁸ *Id.* at 1094 (“[t]he PTO originally rejected claims 18 and 19 under 35 U.S.C. section 112 as being non-enabled”).

1 amendments indisputably narrowed the patent with respect to sustained release. Plaintiff must
2 accept the consequences of these amendments.”⁶⁹ This Court must reach that same conclusion
3 here. Bio-Rad replaced a general claim limitation with a more-specific claim limitation. It
4 thereby surrendered all equivalents with respect to electrophoretic sieving in gel-free media with
5 dissolved polymers.

6 The Federal Circuit’s decision in *Builders Concrete*, upon which this Court relied
7 in *Glaxo*, confirms the above analysis.⁷⁰ There, Builders Concrete had added a “passage”
8 limitation to independent claim 1 during the review process. Claim 10, which included the
9 passage limitation from the inception, was ‘allowable as is’ – just like initial Claim 27 (which is
10 textually identical to issued Claim 16) of Bio-Rad’s patent. After the patent issued, Builders
11 Concrete brought an infringement action against a competing marine float, arguing that the
12 competing product infringed claim 10 under the doctrine of equivalents. But, as this Court noted
13 in *Glaxo*, “the Federal Circuit rejected this argument, applying prosecution history estoppel to the
14 passage limitation in claim 10 because of amendments made to claim 1 during prosecution.”⁷¹
15 The Federal Circuit “encouraged consideration of the prosecution history of all claims when
16 assessing the ‘fair scope’ of the claim in suit.”⁷²

17 Which brings up an additional pointer: “the prosecution history of all claims when
18 assessing the ‘fair scope’ of the claim in suit.” As noted above, in certain – by no means all – file
19 histories the PTO includes a Statement of Reasons in order “to improve the quality and reliability
20 of issued patents by providing a complete file history which should clearly reflect, as much as is
21 reasonably possible, the reasons why the application was allowed. Such information facilitates
22 evaluation of the *scope* and strength of a patent by the patentee and the public and may help avoid
23 or *simplify litigation of a patent*.”⁷³ In the Statement of Reasons of the file history in this case,

24 ⁶⁹ *Glaxo*, 220 F.Supp.2d at 1094.

25 ⁷⁰ *Builders Concrete, Inc. v. Bremerton Concrete Products Co.*, 757 F.2d 255 (Fed. Cir. 1985).

26 ⁷¹ *Glaxo*, 220 F.Supp.2d at 1097 (citing *Builders Concrete*, 757 F.2d at 260).

27 ⁷² *Id.* (citing *Builders Concrete*, 757 F.2d at 260).

28 ⁷³ Garber Decl., Exh. 5 [MPEP 5th Ed. (Rev. 13, Nov. 1989) Section § 1302.14]; *see also* 37
C.F.R. § 1.109 (1989) (“If the examiner believes that the record of the prosecution as a whole
does not clear that his or her reasons for allowing a claim or claims, the examiner may set forth

1 the PTO specifically commented on Claim 16, emphasized that it was allowing Claim 16 in light
2 of the Markush group.⁷⁴ The best reading of the file history is that the PTO included that
3 statement of reasons because of its rejection of initial Claim 1 (which included the limitation
4 “substantially linear polymer”) based on the reference that taught the use of polyacrylamide but
5 its allowance of initial Claim 27 (which included the limitation “substantial linear polymer
6 consisting of” the Markush group). As the MPEP and applicable regulations require it to, the
7 PTO wanted to ensure that the public understood that the PTO did not consider polyacrylamide to
8 be within the scope of the Markush group – that is the reason why the PTO allowed initial Claim
9 16. Indeed, Bio-Rad has not provided any other plausible explanation as to why the PTO
10 emphasized the Markush group in its Statement of Reasons. The above explanation is the only
11 one that is consistent with the file history.

12 And even if it were not, there is another reason that prevents Claim 16’s reach
13 from being extended beyond what Bio-Rad claimed and what the PTO allowed: the disclosure-
14 dedication rule confirmed in *Johnson & Johnston* and its progeny. To that we now turn.

15 **B. The dedication-disclosure rule confirmed in *Johnson & Johnston* and its**
16 **progeny bars expansion of Claim 16 beyond what Bio-Rad claimed and what**
17 **the PTO allowed.**

18 It is a “well-established rule that ‘subject matter disclosed but not claimed in a
19 patent application is dedicated to the public.’”⁷⁵ This rule applies here, because during
20 prosecution Bio-Rad behaved as if the use of polyacrylamide was disclosed.

21 In the specification, Bio-Rad described its invention as encompassing a wide range
22 of potential polymers:

23 It has now been discovered that sample ions, and particularly
24 biomolecules, may be separated from each other on the basis of molecular
size by electrophoresis through an aqueous solution of a non-crosslinked
polymer of a selected molecular weight (or molecular weight range) and
concentration. . . . The polymers used herein are generally non-

25 such reasoning”) (C.F.R. section since superseded).

26 ⁷⁴ See note 24, *supra*.

27 ⁷⁵ *Maxwell v. J. Baker, Inc.*, 86 F.3d 1098, 1106 (Fed. Cir. 1996); *see also Johnson & Johnston*
28 *Associates, Inc. v. R.E. Services Co., Inc.*, 285 F.3d 1046, 1051 (Fed. Cir. 2002) (en banc); *PSC*
Computer Products, Inc. v. Foxconn International, Inc., 355 F.3d 1353, 1360 (Fed. Cir. 2004)
(citations omitted).

1 crosslinked polymers. Branched or linear polymers may be used, linear
2 polymers being preferred for many applications. In addition, the polymers
3 may be neutral or charged, neutral being preferred in applications where
4 charge interaction between the sample ions and the polymer is sought to
5 be avoided. . . . [¶] Within these parameters, the particular type of
6 polymer may vary widely. . . . [¶] Specific examples of water-soluble
7 cellulose derivatives useful in this invention are . . . [1] methyl cellulose,
8 hydroxypropyl methyl cellulose, [2] hydroxyethyl methyl cellulose, [3]
9 hydroxybutyl methyl cellulose, and [4] hydroxyethyl ethyl cellulose. . . .
10 Methyl cellulose is particularly preferred. . . . With this in mind, and
11 depending on the size of the sample ions sought to be separated, the
12 cellulose derivative may vary widely in terms of this viscosity
13 characterization.⁷⁶

14 When the PTO concluded that Bio-Rad was not entitled to patent coverage for a
15 claim to “a substantially linear [unspecified] polymer” because an article in the prior art entitled
16 “Electrophoresis in Uncrosslinked *Polyacrylamide*: Molecular Sieving and Its Potential
17 Applications,” Bio-Rad did not respond, in words or substance, that polyacrylamide was outside
18 the scope of “a substantially linear [unspecified] polymer.” To the contrary, Bio-Rad responded
19 by narrowing the scope of the patent coverage that it requested. Hence Bio-Rad behaved as if it
20 had claimed polyacrylamide (and thus necessarily described it) but needed to, and did, disclaim
21 such coverage in order to avoid prior art.

22 As the Federal Circuit explained in *Johnson & Johnston*, “a patentee cannot
23 narrowly claim an invention to avoid prosecution scrutiny by the PTO, and then, after patent
24 issuance, use the doctrine of equivalents to establish infringement because the specification
25 discloses equivalents.”⁷⁷ *Johnson & Johnston* and its progeny prohibit the extension of Claim 16
26 to reach polyacrylamide.

27 There are strong policy reasons for the dedication-disclosure rule, and those policy
28 reasons also prohibit the result sought by the patentee here. Most fundamentally, the dedication-
disclosure rule ensures that patents are not given broader coverage than was actually allowed by
the PTO: “[b]y enforcing [that] rule, the courts avoid the problem of extending the coverage of
an exclusive right to encompass more than that properly examined by the PTO.”⁷⁸ As explained

⁷⁶ Garber Decl., Exh. 1 at ABBR 065934, 065936 [‘174 Application, page 2, lines 11-15 and 25-30, and page 4, lines 13-14, 20-26, 29, and 32-35].

⁷⁷ *Johnson & Johnston*, 285 F.3d at 1054.

⁷⁸ *Johnson & Johnston*, 285 F.3d at 1055.

1 above, the only fair reading of the prosecution history in this case is that the PTO did not consider
2 polyacrylamide to be within the scope of Claim 16’s coverage for “a substantially linear polymer
3 selected from the group consisting of” the Markush group. In addition, “[t]he patentee, as the
4 author of the claim language, may be expected to draft claims encompassing readily known
5 equivalents.”⁷⁹ If, as Bio-Rad now claims, polyacrylamide is an equivalent of the Markush group
6 in Claim 16, it was surely within Applicants’ power to try to claim it: after all, the file history’s
7 prior art references all concern the use of polyacrylamide in molecular sieving.

8 Moreover, the dedication-disclosure rule serves the public notice function that
9 patents provide, because “[w]ere the patentee allowed to reclaim some specifically-disclosed-but-
10 unclaimed matter under the doctrine of equivalents, the public would have no way of knowing
11 which disclosed matter infringed and which did not.”⁸⁰ Here the file history shows that the PTO
12 did not consider polyacrylamide to be within the patentable scope of a claim directed to “a
13 substantially linear polymer,” and it would turn the public notice function on its head now to
14 conclude that polyacrylamide is, after all, within that scope.

15 Finally, not to have the dedication-disclosure rule “would merely encourage a
16 patent applicant to present a broad disclosure in the specification of the application and file
17 narrow claims, avoiding examination of broader claims that the applicant could have filed
18 consistent with the specification.”⁸¹ Which is precisely what the patentee here seeks to achieve:
19 avoid examination of the broader claim – a claim in which polyacrylamide is within the scope of
20 “a substantially linear polymer selected from the group consisting of” the Markush group.

21 And in the context of this case, there is a much stronger reason for this rule.
22 “Every day that passes after the issue of the patent adds to the strength of [the public's right to use
23 unclaimed matter], and increases the barrier against subsequent expansion of the claim by reissue
24 under a pretense of inadvertence and mistake.”⁸² The patent-in-suit issued some *twelve years*

25
26 ⁷⁹ *Festo*, 535 U.S. at 740-1; *see also PSC Computer Products*, 355 F.3d at 1360-61.

27 ⁸⁰ *PSC Computer Products*, 355 F.3d at 1360.

28 ⁸¹ *Johnston & Johnston*, 285 F.3d at 1054-55.

⁸² *PSC Computer Products*, 355 F.3d at 1361 (citation omitted; brackets in original).

1 before Bio-Rad brought this suit. Insofar as Bio-Rad has disclosed in discovery, Bio-Rad has
2 *never* asserted against any company at any time in those twelve years that polyacrylamide is
3 within Claim 16's scope. It is far too late in the day for Bio-Rad now to seek the expansion of the
4 claim that it seeks from this Court.

5 **VI. Conclusion.**

6 Bio-Rad has the burden on this motion. It must show that, despite the file history
7 created by those who appeared of record in the prosecution of the patent (its General Counsel, its
8 outside patent counsel, and its inventors), polyacrylamide is within the reach of Claim 16's
9 "substantially linear polymer selected from the group consisting of" limitation. But the file
10 history points, and points hard, to the opposite conclusion. The PTO concluded that a claim
11 directed to a "substantially linear polymer" did not include polyacrylamide – and *could not*
12 include polyacrylamide, because the prior art rendered such a claim unpatentable. When the PTO
13 allowed issued Claim 16, it took extra care to emphasize that it was doing so because of the
14 Markush group – emphasis that makes sense only in light of the prior rejection of the
15 "substantially linear polymer" limitation. As this Court's decision in *Glaxo* confirms, Bio-Rad's
16 choice to narrow the coverage it sought does not allow it, now and some twelve years later, to
17 recapture what it surrendered. Finally, to the extent that Bio-Rad now takes the position that the
18 specification discloses the use of polyacrylamide, *Johnson & Johnston* and its progeny prohibit
19 Bio-Rad from recapturing what it dedicated to the public.

20 For all of these reasons, Applera respectfully asks that the Court grant summary
21 adjudication that Claim 16 of the patent-in-suit does not extend, for purposes of the doctrine of
22 equivalents, to polyacrylamide. Applera has submitted a proposed Order herewith, and asks that
23 the Court issue it.

24 Dated: September 20, 2004

Respectfully submitted,
Weil, Gotshal & Manages LLP

26 By: _____ /s/
27 Alice Garber
28 Attorneys for Defendant,
Applera Corporation -
Applied Biosystems