

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NANOCELLECT BIOMEDICAL, INC.,
Petitioner,

v.

CYTONOME/ST, LLC,
Patent Owner.

Case No. IPR2020-00550
Patent No. 9,011,797

PETITIONER'S PRE-INSTITUTION REPLY¹

¹ Authorization for this reply was given on June 12, 2020 via e-mail. EX1061.

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I. INTRODUCTION

Cytonome argues each factor from *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (“*Fintiv*”), favors denial, asserting the Delaware case has reached “an advanced state.” Cytonome is wrong on all counts. *Fintiv* creates no *per se* rule removing a panel’s discretion; rather it identifies non-exclusive factors for taking “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review” and seeks to balance “efficiency, fairness, and patent quality.” *Id.* at 5-6. Cytonome misapplies this analysis at every turn.

A. Differences in Issues Raised in IPR Favor Institution

This is not a case where “the same or substantially the same claims, grounds, arguments, and evidence” are presented in the IPR as in the district court proceeding. *Fintiv* at 12. Indeed, NanoCollect filed a stipulation eliminating the instituted grounds from the Delaware case, ensuring there is ***no overlap***. EX1048. This fact alone should be dispositive. Also, Dr. Weigl is not providing testimony in the district court. There will therefore be no overlap of the grounds, arguments, and evidence, which strongly favors institution.

There also are substantial differences in the claims and issues being litigated. As explained in the petition, Cytonome delayed reducing the asserted claims to a reasonable number, and NanoCollect filed the IPRs shortly after its motion to reduce the claims was denied. Since then, the court ordered Cytonome to cut the asserted claims even further to 20. EX2015, 112:8-25. This week, Cytonome

dropped at least one-third of the asserted claims from each patent, including all claims from the '283 patent, and all but one claim from the '188 patent. EX1049. Each IPR thus addresses claims that will not be adjudicated in the Delaware case and some patents will remain essentially unadjudicated unless the Board grants institution. The '283 patent (IPR2020-00547) has now been removed from the litigation entirely. The petition for the '797 patent challenges claims 2, 5 and 18 that will not be adjudicated in the Delaware case. The patentability question for each of these claims is distinct from that of the claims in the Delaware case and needs to be separately adjudicated. For example, claims 5 and 18 are so broad they can still be unpatentable even if the Delaware '797 patent claim are upheld.

The difference in claims at issue weighs strongly in favor of institution. *See, e.g., Illumina, Inc. v. Natera, Inc.*, IPR2019-01201, Paper 19 at 6 (efficiency favored institution where a subset of challenged claims will not be addressed in court because Patent Owner could assert them later and IPR would be unavailable under §315(b)); *Intel Corp. v. VLSI Technology LLC*, IPR2019-01198, Paper 19, at 10; *Precision Planting, LLC v. Deere & Co.*, IPR2019-01051, Paper 18, at 8-9; *Facebook, Inc. v. Blackberry Ltd.*, IPR2019-00899 Paper 15, at 12; *Puma North Am., Inc. v. Nike, Inc.*, IPR2019-01043, Paper 8, at 9-10. Cytonome urges denial based on circumstances it created, but its delay has now actually ensured there is substantial non-overlap in claims and issues. While more than half of the claims

challenged in the IPRs will not be adjudicated in the Delaware case, NanoCollect will be time-barred by Section 315(b) forever from challenging these claims through IPR in the future should institution be denied. Such denial would be highly prejudicial. Efficiency, fairness, and patent quality all thus favor institution.

B. Cytonome's Construction Gamesmanship Favors Institution

Cytonome has engaged in egregious gamesmanship. After prevailing in arguing the terms should be given their plain meaning, Cytonome now attempts to rewrite them to categorically exclude pressure pulses generated using hydrodynamic flow (or at least flow that does not return to the actuator), to require that the flow stream (as opposed to the pressure pulse it generates) cross the entire channel and enter the buffer/reservoir, and to require increasing *the* pressure within the channel instead of simply propagating a pulse of pressure (*i.e.*, transient application of force). Cytonome's new constructions are unsupportable. EX1043, ¶¶50, 54-55, 57 (pressure pulse is a wave/variation); EX2025, ¶¶2, 8, 15 (plain meaning of pressure pulse is transient wave of pressure or a "jolt" that travels away from its source). Even if Cytonome can abandon plain meaning for its new constructions, this merely demonstrates the Markman order does not fully resolve claim construction (*Fintiv* factors 3-4), and the Delaware case is not as advanced as Cytonome feigns. Cytonome's gamesmanship thus favors institution.

Cytonome falsely accuses NanoCollect of actively concealing its district

court constructions from the Board. To the contrary, NanoCollect submitted court briefing discussing all claim constructions proposals, made deliberate efforts to present Cytonome's claim interpretations fairly, and fully accommodated both Cytonome's positions and the Delaware Court's actual claim interpretations in the prior art challenges here. EX1042; EX1045. The court's adoption of the plain meaning constructions used in the petition only strengthens the merits (factor 6).

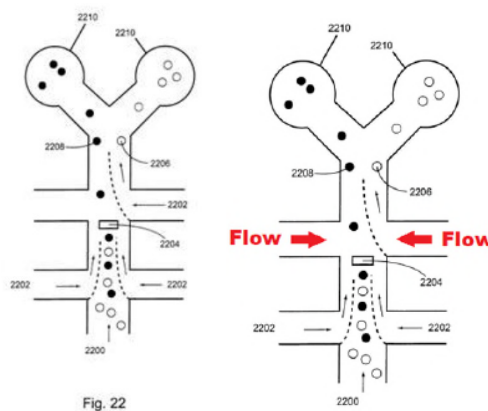
Cytonome's argument of non-compliance with Rule 104 is an irrelevant side-show. While the possibility of means-plus-function was raised at court, it is not being pursued and the court expressly determined it does not apply. At this point, neither party argues (in any forum) such an interpretation applies. Nothing in Rule 104 requires extensive analysis of a theory that neither party embraces and has already been determined inapplicable. The petition materials explain (*e.g.*, Petition at 7-8) where the reservoir is found in the specification, that the plain and ordinary meaning of "reservoir" applies in the IPRs (a position with which Cytonome agrees), and how the cited prior art applies to the claims whether one applies the construction that was advocated by Cytonome or ultimately adopted by the court. Nothing more is required by Rule 104.

NanoCollect took Cytonome at their word for what the claim terms meant for applying the prior art in the petitions as Cytonome construed them to try to apply them to NanoCollect's products, and these constructions were adopted by the

court. The petition provided the Board with all information needed to support the constructions used in the petition. Cytonome thus falsely accuses NanoCollect of gamesmanship, and for doing precisely what Congress authorized: identify and understand the claims relevant to the litigation. *Fintiv* at 11 & n.20.

C. The Merits of the Petition Favor Institution

Cytonome provides no persuasive rebuttal to the asserted art. This is illustrated by the fact that it attacks the references individually and attacks a false caricature of the references created by its lawyers. For example, Cytonome falsely argues that Wada is limited to sorting by providing continuous hydrodynamic flow and from both sides of the channel by ignoring the flow marking (2202) that is actually illustrated and described in Wada. To support this erroneous assertion, Cytonome’s attorneys attempt to rewrite Wada (right image) and then attacks this fabricated strawman. But Wada (left image) describes a pressure pulse from only one side in the downstream channel, unlike the opposing flow markings (2202) upstream. *See, e.g.*, EX1006, 8:6-23 (“individual or simultaneous fluid flow”); Petition, 24-26, 47; EX1002, ¶¶123-28, 135-37, 140-41. Cytonome’s conflation of Wada’s disclosure with that of the different Ramsey reference ignores that Wada Figs. 22-24 disclose sorting without constant flow from both sides.



Cytonome also ignores Wada’s disclosure that other means of generating the sorting pulse (including using a “pressure force modulator”) can be used as a fluid direction component and that “pressure” can be used to control particle flow, and Anderson’s disclosure of using micropumps to generate “positive pressure forces” to generate movement in microfluidic channels. *See, e.g.*, EX1006, 4:1-5, 12:12-14, 13:15-19, 19:9-13, 42:8-12, 43:5-8; Petition at 25-27, 42-43, 48-51; EX1002, ¶¶93, 129-31, 177-81, 191-92, 208-13. That Cytonome attempts to rewrite the art and the claims illustrates it lacks any meaningful response on the merits.

D. Evidence A Stay May Be Granted Favors Institution

Evidence the district court “*may* be willing to avoid duplicative efforts” favors institution. *Fintiv* at 6-7. Cytonome erroneously limits this factor to whether a motion was “granted or denied without prejudice.” Judge Andrews’s practice is to decide stays *after institution*. EX1051, 1-2 (“I usually like to see whether the PTAB will grant review before taking any action”); EX2015, 113:3-114:3 (noting the filing of the IPRs, with institution around Labor Day after fact discovery closes, is “a good piece of information” for later consideration). Judge Andrews has shown himself willing to await IPR decisions where they will remove the IPR grounds from the trial due to estoppel and where the plaintiff can be compensated by monetary damages, even post-Markman order and substantial completion of major portions of discovery. *See, e.g.*, EX1052, *1-4; *see also* EX1053, 3 (granting

stay upon stipulation to remove IPR prior art combinations). Damages would be adequate, as Cytonome alleges infringement began in 2016 but never sought a preliminary injunction. EX1044, ¶41. Should institution be granted, NanoCollect promptly will pursue a stay, which Judge Andrews likely will grant.

E. Trial Timing Favors Institution

Cytonome argues that the trial is currently scheduled to begin on April 26, 2021, four months before institution. Cytonome fails to mention it is a jury trial in the District of Delaware, which has already indefinitely delayed all jury trials scheduled between March 18, 2020 and June 30, 2020, due to the COVID-19 Pandemic. EX1054-EX1056. No jury trials will resume until phase II of a four-phase reopening plan, and they will not return to normal until phase IV, when COVID-19 has been suppressed within the US. EX1057. Experts estimate a vaccine will not be available to control the Pandemic for 12-18 months at the earliest. EX1058. The nearly four-month backlog of jury trials thus already eradicates any head start for the trial. This backlog is only destined to grow larger.

Even once jury trials begin, the backlog will take much longer to resolve because jury trials will not return to normal cadence during the Pandemic. EX1059, Sections VI.B-D, VIII.B.1, VIII.D, X.D, XII.A, XII.E-F, XII.H, XIII.F.1-3 and XIV.A-B (recommending limiting the number of jury trials because of the need to retrofit courtroom, to use more space for each trial, and to excuse more

potential and seated jurors). Judges thus are urged to consider continuance motions “more favorably” and to provide “special consideration” for “criminal cases.” *Id.*, Section XIII.C. Cytonome’s speculation that the jury trial will conclude before the IPRs is wishful thinking. EX1060 (delays of civil jury trials will be “lengthy” and “unavoidable,” alternatives to civil jury trials are needed).

Moreover, delays already occurring due to COVID in these matters underscore these concerns. The parties have already extended Delaware case deadlines once “in view of difficulties related to the COVID-19 pandemic.” EX2004. The mediation also was delayed. EX2010. Cytonome later reported significant COVID-related disruptions for which its lawyers needed extensions because they were unable to enter their offices or access files. EX1050.

The Board continues to be fully operational “even in the extraordinary circumstances” caused by the COVID-19 pandemic and adheres to the one-year statutory deadline for decision. *Sand Revolution II, LLC v. Continental Intermodal Group-Trucking LLC*, IPR2019-01393, Paper 24, at 8-9 (granting rehearing of discretionary denial despite 4-month gap between trial date and FWD because of “uncertainty in court schedules from COVID-19 Pandemic”). The timing certainty the PTAB provides and the uncertainty plaguing jury trials thus favor institution.

F. Investments in Delaware Favor Institution

Cytonome argues the Markman order disfavors institution but improperly

evaluates investment abstractly, untethered from efficiency. The Markman order preceded the bulk of fact and expert discovery and makes instituting more efficient because it adopted the constructions used and proposed in the petition. *See Fintiv* at 10 n.17; *Sand*, IPR2019-01393, Paper 24, at 10-12 (granting institution where Markman order primarily adopted plain meaning, the court had “invested little time into considering the merits of any invalidity positions,” and petitioner stipulated not to use IPR grounds in court). Under the adopted constructions, the challenged claims are clearly unpatentable.

Cytonome argues that invalidity expert reports will be served before the institution decision is expected (though expert discovery will not yet have begun). But the corresponding task (service of expert declarations from both sides) is already complete in the IPR. *See Sprint Spectrum L.P. v. Intellectual Ventures II, LLC*, IPR2018-01770, Paper 18, 60 (April 12, 2019) (instituted IPR provides an “assessment of the arguments and evidence presented” that will not come in court until dispositive briefing). Even without a stay, the parties will not complete dispositive motions briefing in Delaware until well after institution. EX2003, ¶11. There simply is no duplication of efforts created by instituting the IPR.

Moreover, NanoCollect has filed a stipulation that eliminates the instituted grounds from the court case. EX1048. NanoCollect is also willing to move back the Delaware case deadlines for fact discovery, expert witness reports, and expert

discovery, none of which has been completed as of now. Any duplication of efforts regarding the instituted grounds is merely of Cytonome's own making.

Cytonome argues NanoCollect delayed its filings to receive Cytonome's final Markman submissions. This is incorrect. NanoCollect hoped to resolve its dispute early and the post-petition mediation request shows the IPRs moved Cytonome to return to the bargaining table. EX2020. NanoCollect also hoped to at least reduce the number of claims, but Cytonome delayed that too. NanoCollect's filing of seven petitions within weeks of the court's order was reasonable. *See, e.g., Intel Corp. v. VLSI Technology LLC*, IPR2019-01192, Paper 15, at 11-13 (filing within two months of narrowing claims was reasonable); *Fintiv* at 11 & n. 21 (citing *Intel*). Congress gave defendants an entire year to identify and construe the claims. *Fintiv* at 11 & n.20; *Precision Planting*, IPR2019-01051, Paper 18, at 9 (full year does not weigh against institution where many patents at issue). Denying institution here would not be promote efficiency, fairness, or patent integrity.

G. Identity of Parties Makes the IPR Efficient

This factor favors institution or is, at worst, neutral. Because the parties are the same, the claim constructions adopted in court and used in the petition will apply here, thereby increasing efficiency. Cytonome's unsupported application of this factor would tip the scale against a petitioner merely for being sued.

II. CONCLUSION

Petitioner requests that IPR be instituted.

Respectfully submitted,

Dated: June 19, 2020

/ Michael T. Rosato /

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III. APPENDIX – LIST OF EXHIBITS

Exhibit No	Description
1001	U.S. Patent No. 9,011,797 to Gilbert, <i>et al.</i>
1002	Declaration of Bernhard H. Weigl, Ph.D.
1003	<i>Curriculum Vitae</i> of Bernhard H. Weigl, Ph.D.
1004	Prosecution History of U.S. Patent No. 9,011,797 to Gilbert, <i>et al.</i>
1005	U.S. Patent No. 5,101,978 to Marcus (issued April 7, 1992)
1006	International PCT Publication No. WO 00/70080 to Wada, <i>et al.</i> (published November 23, 2000)
1007	U.S. Patent No. 4,936,465 to Zöld (issued June 26, 1990)
1008-11	<i>Intentionally left blank</i>
1012	International PCT Patent Publication No. WO 97/02357 to Anderson, <i>et al.</i> (published January 23, 1997)
1013	<i>Intentionally left blank</i>
1014	Chapman, <i>Instrumentation for flow Cytometry</i> , J. IMMUNOL. METHODS 243 (2000) 3-12
1015	<i>Intentionally left blank</i>
1016	U.S. Patent No. 3,508,654 to Glaettli (issued April 28, 1970)
1017	Figeys, <i>et al.</i> , <i>Lab-on-a-Chip: A Revolution in Biological and Medicinal Sciences</i> , ANAL. CHEM. (2000) 330-35
1018	Deshpande, <i>et al.</i> , <i>Novel Designs for Electrokinetic Injection in μTAS</i> , MICRO TOTAL ANAL. SYS. (2000) 339-42

Exhibit No	Description
1019	<i>Intentionally left blank</i>
1020	U.S. Patent No. 6,068,751 to Neukermans (issued May 30, 2000)
1021	<i>Intentionally left blank</i>
1022	Zeng, <i>Fabrication and characterization of electroosmotic micropumps</i> , SENS ACTUAT. B, 79 (2001) 107-14
1023	U.S. Patent Publication No. 2001/0054702 to Williams (published December 27, 2001)
1024-31	<i>Intentionally left blank</i>
1032	International PCT Publication No. WO 99/43432 to Dubrow, <i>et al.</i> (published September 2, 1999)
1033	Zengerle, <i>et al.</i> , <i>Simulation of Microfluid Systems</i> , J. MICROMECH. MICROENG. 4 (1994) 192-204
1034	International Patent Publication No. WO 02/29106 to Chou, <i>et al.</i> (filed October 2, 2001, published April 11, 2002)
1035	Veenstra, <i>et al.</i> , <i>The Design of an In-Plane Compliance Structure for Microfluidical Systems</i> , SENS. ACTUATORS B, 81 (2002) 377-83
1036-41	<i>Intentionally left blank</i>
1042	Plaintiff's Reply Claim Construction Brief, <i>Cytonome/ST, LLC v. NanoCollect Biomedical, Inc.</i> , C.A. No. 19-301 (RGA) (D. Del. filed Jan. 31, 2020)
1043	Exhibit A: Declaration of Giacomo Vacca, Plaintiff's Reply Claim Construction Brief, <i>Cytonome/ST, LLC v. NanoCollect Biomedical, Inc.</i> , C.A. No. 19-301 (RGA) (D. Del. filed Jan. 31, 2020)
1044	Complaint, <i>Cytonome/St, LLC v. NanoCollect Biomedical, Inc.</i> , C.A. No. 1:19-00301 (UNA) (D. Del., filed Feb. 12, 2019)

Exhibit No	Description
1045	Plaintiff's Opening Claim Construction Brief, <i>Cytonome/St, LLC v. NanoCollect Biomedical, Inc.</i> , C.A. No. 1:19-00301 (RGA) (D.Del.)
1046-1047	<i>Intentionally left blank</i>
1048	NanoCollect Biomedical, Inc.'s Stipulation of Invalidity Contentions, Case No. 1:19-cv-00301-RGA, D.I. 92 (June 18, 2020).
1049	June 16, 2020 Letter from Daniel Moffett to Adam Burrowbridge re Reduced List of Asserted Claims
1050	May 14, 2020 Letter from Daniel Moffett re COVID-19 Extension
1051	Memorandum Order, <i>Miics & Partners Am., Inc. v. Toshiba Corp.</i> , No. 14-cv-00803-RGA, D.I. 82 (D. Del. Aug. 11, 2015).
1052	<i>Huvepharma EEOD v. Associated British Foods, PLC</i> , No. 18-cv-00129-RGA, 2019 U.S. Dist. LEXIS 139034, at *1-4 (D. Del. Aug. 12, 2019).
1053	Memorandum Order, <i>Callwave Commun's, LLC v. AT&T Mobility, LLC</i> , No. 12-cv-1701-RGA (D. Del. Mar. 18, 2015)
1054	Standing Order, In re: Court Operations under Exigent Circumstances Created by COVID-19 (D. Del. March 18, 2020), available at https://www.ded.uscourts.gov/sites/ded/files/StandingOrder-03-17-20-Courthouse%20Access.pdf (last visited June 16, 2020).
1055	Revised Standing Order, In re: Court Operations under Exigent Circumstances Created by COVID-19 (D. Del. April 17, 2020), available at https://www.ded.uscourts.gov/sites/ded/files/news/Revised%20Standing%20Order%20April%2017%202020%20%281%29.pdf (last visited June 16, 2020).

Exhibit No	Description
1056	Revised Standing Order, In re: Court Operations under Exigent Circumstances Created by COVID-19 (D. Del. May 27, 2020), available at https://www.ded.uscourts.gov/sites/ded/files/Modified%20Standing%20Order%20May%2027%202020.pdf (last visited June 16, 2020).
1057	District of Delaware Re-Opening Guidelines (June 15, 2020), available at https://www.ded.uscourts.gov/sites/ded/files/news/Reopening%20Guidelines%20District%20of%20Delaware.pdf (last visited June 16, 2020).
1058	Mukherjee, S., Can a Vaccine for Covid-19 Be Developed in Record Time?, NY TIMES (June 9, 2020), available at https://www.nytimes.com/interactive/2020/06/09/magazine/covid-vaccine.html (last visited June 13, 2020).
1059	Report of the Jury Subgroup: Conducting Jury Trials and Convening Grand Juries During the Pandemic, United States Courts' Covid-19 Judicial Task Force (June 4, 2020), available at https://www.uscourts.gov/sites/default/files/combined_jury_trial_post_covid_doc_6.10.20.pdf (last visited June 16, 2020).
1060	Scheidlin, S., 2 Tested Alternatives to Unavoidable Court Delays, Law360 (June 4, 2020), available at https://www.law360.com/commercialcontracts/articles/1278447/2-tested-alternatives-to-unavoidable-court-delays (last visited June 16, 2020).
1061	June 12, 2020 Email Authorizing Additional Briefing.

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing Petitioner's Pre-Institution Reply and accompanying Exhibits 1048-1061 were served on June 19, 2020, at the following electronic service addresses:

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Respectfully submitted,

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