

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

PROCTER & GAMBLE COMPANY, et al.,
Plaintiffs,
v.
QUANTIFICARE INC.,
Defendant.

Case No. 17-CV-03061-LHK

**ORDER GRANTING IN PART AND
DENYING IN PART MOTION TO
DISMISS**

Re: Dkt. No. 35

Plaintiffs Procter & Gamble Co. (“P&G”) and Canfield Scientific, Inc. (“Canfield”) (collectively, “Plaintiffs”) filed a patent infringement suit against Defendant QuantifiCare Inc. (“QuantifiCare”). Plaintiffs allege that QuantifiCare infringes claims of U.S. Patent No. 6,571,003 (“the ’003 Patent”). Before the Court is QuantifiCare’s Motion to Dismiss, which contends that the asserted claims of the ’003 Patent fail to recite patent-eligible subject matter under 35 U.S.C. § 101. ECF No. 35 (“Mot.”). Having considered the submissions of the parties, the relevant law, and the record in this case, the Court GRANTS in part and DENIES in part QuantifiCare’s Motion to Dismiss.

I. BACKGROUND

A. Factual Background

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

1. The Parties

Plaintiff P&G is an Ohio corporation with its primary place of business in Cincinnati, Ohio. ECF No. 33 (“First Amended Complaint” or “FAC”) ¶ 1. P&G is the assignee of the ’003 Patent. *Id.* Plaintiff Canfield is a New Jersey corporation with its primary place of business in Parsippany, New Jersey. *Id.* ¶ 2. Canfield is the sole licensee of the ’003 Patent. *Id.* Defendant QuantifiCare is a California corporation with its primary place of business in San Mateo, California. *Id.* ¶ 3.

2. The ’003 Patent

The ’003 Patent is titled “Skin Imaging and Analysis Systems and Methods.” FAC, Ex. A (’003 patent). It was filed on June 14, 1999 and issued on May 27, 2003.

The ’003 Patent generally relates to “displaying information associated with a plurality of skin defects.” ’003 patent, col 1:7–8; *id.*, Abstract (describing a process for “analyz[ing] and display[ing] human skin images”). More specifically, the ’003 Patent describes and claims an apparatus and method for “determining and displaying the location of one or more analysis areas and defect areas associated with a digital image of human skin.” *Id.*, col. 1:8–10. Identifying and presenting the skin defects facilitates further analysis, including determination of the severity of the defects, recommendation of cosmetic or medical treatments, and simulation of an improvement or worsening of the defect areas. *Id.*, col. 1:47–50.

Figure 3 illustrates the steps of the overall operation of the process:

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

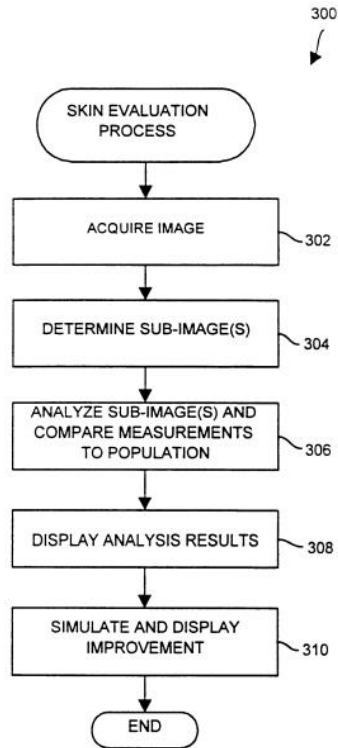


FIG. 3

Id., fig.3.

The specification provides details about implementing the steps in the process. First, at step 302, the controller in a computing device acquires a digital image of a person. *Id.*, col. 4:56–59. One technique is to have a human operator position the human subject and instruct a camera to take a photograph. *Id.*, col. 4:59–5:6. In order for the computing device to determine and display the skin defects associated with that image, the image must be digitized and the digital image data transferred. *Id.*, col. 5:6–9. The specification provides other ways to retrieve the digital image: it may be submitted by the human subject over the computer, accessed from a database, or created by scanning a physical photograph. *Id.*, col. 5:9–14.

Second, at step 304, the computing device determines a sub-image of the entire digital image for analysis. *Id.*, col. 6:12–18. This sub-imaging process can be done manually by a human operator or automatically by the computing device, and the decision about whether to use manual or automatic sub-imaging can also be automated. *Id.*, col. 6:29–42. When manual sub-image determination is selected, the human operator either draws the sub-image border or follows

1 prompts from the computing device to select particular landmarks (e.g., the corner of the mouth,
2 nose, or eye) that are used to draw the border. *Id.*, col. 6:43–59. When automatic sub-image
3 determination is selected, the system provides two options: semi-automatic and fully automatic
4 sub-imaging. *Id.*, col. 6:60–62. In semi-automatic sub-imaging, the user identifies the location of
5 some facial landmarks and the computing device determines the remaining landmarks
6 automatically by comparing the user-entered landmarks to a standard template. *Id.*, col. 6:63–
7 7:13. In fully automatic sub-imaging, the computing device determines all of the landmarks by
8 employing, for example, a facial feature recognition algorithm to search for particular patterns in
9 the digital image. *Id.*, col. 7:17–27. The border of the sub-image is formed by connecting the
10 landmarks. *Id.*, col. 7:13–16.

11 Third, at step 306, the computing device analyzes the previously determined sub-image to
12 locate skin defects and assign them a numerical severity. *Id.*, col. 7:58–66. According to the
13 specification, the system can be configured to locate multiple defect types, such as acne, liver
14 spots, freckles, moles, wrinkles, and pores. *Id.*, col. 8:4–10. Specifically, the computing device
15 uses known algorithms to locate the areas in the image that contain the type of defect desired. *Id.*,
16 col. 8:6–32. The system has the capability to create a new image that visually displays the skin
17 defects by changing the shade of the pixels in the defect areas or drawing a circle around the
18 defect areas. *Id.*, col. 8:33–46.

19 From there, the computing device determines a numerical severity associated with each of
20 the identified defect areas. *Id.*, col. 8:47–48. The specification describes two approaches for
21 calculating the numerical severity: (1) subtracting the color content of the pixels associated with
22 the skin defect from the color content of the pixels in the area surrounding the defect; and (2)
23 counting the total number of pixels associated with the skin defect. *Id.*, col. 8:48–60. The
24 numerical severity figures may be added or averaged, and the aggregated figure may be
25 normalized by taking into account human perception of different defects. *Id.*, col. 8:60–9:4.
26 Finally, the normalized severity figure is compared to data for persons with a similar age,
27 geography, or ethnicity to determine a percentile. *Id.*, col. 9:5–9. The specification provides an

1 example where a person is determined to be in the 55th or 56th percentile because “55% of [the]
2 sample group of people in the analyzed person’s age group had a normalized severity for the
3 current defect type below the analyzed person’s severity.” *Id.*, col. 9:9–14. The computing device
4 repeats the above analysis for all of the defect areas and defect types. *Id.*, col. 9:15–24. At the
5 end of that process, the numerical severities may also be aggregated and scored, and the
6 computing device may determine an overall skin severity by using one of several well-known
7 methods. *Id.*, col. 9:25–10:40.

8 Fourth, at step 308, the results of the foregoing analysis are displayed to the human
9 operator. *Id.*, col. 10:43–57. The specification offers a number of viewing alternatives. For
10 example, the user may select which defect types to display through a graphical user interface. *Id.*,
11 col. 10:58–11:3. Users have the option to see an electronic overlay that identifies each of the
12 defect areas and to alternate between the electronically overlaid image and the original image to
13 better comprehend the location of the defects. *Id.*, col. 11:4–13. Additionally, users may look at a
14 graphical representation, such as a bar chart, that visually presents a comparison between the
15 analyzed person’s severity and the average severity for a similar population. *Id.*, col. 11:14–33.

16 Finally, the specification discusses possible applications at step 310. *Id.*, col. 11:47–49.
17 Specifically, the computing device may output a simulated image that projects the improvement or
18 worsening of certain skin defects. *Id.*, col. 11:47–57. In general, simulating those changes
19 involves modifying the color of the pixels associated with the skin defect by way of a well-known
20 facial simulation or morphing algorithm. *Id.*, col. 11:65–12:24. The user may control which
21 defect types should be changed and the magnitude of the improvement or worsening. *Id.*, col.
22 12:25–41. Based on these simulations, the operator or the computing device may recommend
23 cosmetic products or treatments to eliminate, prevent, or hide the subject’s skin defects. *Id.*, col.
24 11:57–64, 12:42–48.

25 Plaintiffs currently assert claims 1–4, 8–9, 11–14, 30, and 32–41 of the ’003 Patent. FAC
26 ¶¶ 50, 54–73; Opp. at 4. Independent claims 1 and 30 recite:

27
28

1 1. A method for locating one or more visual skin defects of a portion of a person,
comprising:

2 acquiring a first digital image of the portion of the person;

3 electronically analyzing the first digital image of the portion of the person to
4 locate an area containing a skin defect;

5 determining a first numerical severity associated with the area containing the
skin defect; and

6 generating a comparison between the first numerical severity and a
7 predetermined value associated with a population of people.

8 30. A method for locating a plurality of visual skin defects associated with a face
of a person, comprising:

9 acquiring a first digital image of the face of the person, the first digital image
10 having a size and a skin color;

11 identifying a first plurality of landmarks located on the first digital image of
the face of the person, wherein at least one of the landmarks is selected from
12 the group comprising (a) a corner of an eye in the first digital image, (b) a
corner of a nose in the first digital image, and (c) a corner of a mouth in the
13 first digital image;

14 electronically determining a sub-image of the first digital image of the face of
the person based on the first plurality of landmarks; and

15 electronically analyzing the sub-image of the first digital image of the face of
the person to locate a plurality of defect areas, wherein each defect area
16 contains a visual skin defect and each defect area has a size that is less than
about 10% of the size of the first digital image of the face of the person.

17 '003 patent, col. 12:57–67, 15:11–29.

18 **B. Procedural History**

19 On May 26, 2017, Plaintiffs filed the instant patent infringement suit. ECF No. 1. They
20 amended their complaint on August 10, 2017. In their First Amended Complaint, Plaintiffs allege
21 that QuantifiCare “has infringed, and continues to infringe, the [']003 Patent.” FAC ¶ 45. The
22 products accused include QuantifiCare’s “LifeViz Infinity, LifeViz Mini[,] and DermaViz.” *Id.*
23 ¶ 44.

24 On August 22, 2017, QuantifiCare filed the instant Motion to Dismiss Plaintiffs’ First
25 Amended Complaint, ECF No. 35 (“Mot.”). On October 5, 2017, Plaintiffs filed an opposition to
26 QuantifiCare’s Motion to Dismiss, ECF No. 41 (“Opp.”), and on October 30, 2017, QuantifiCare
27

1 filed a reply, ECF No. 45 (“Reply”).

2 **II. LEGAL STANDARD**

3 **A. Motion to Dismiss Under Rule 12(b)(6)**

4 Pursuant to Federal Rule of Civil Procedure 12(b)(6), a defendant may move to dismiss an
5 action for failure to allege “enough facts to state a claim to relief that is plausible on its face.” *Bell*
6 *Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007). “A claim has facial plausibility when the
7 plaintiff pleads factual content that allows the court to draw the reasonable inference that the
8 defendant is liable for the misconduct alleged. The plausibility standard is not akin to a
9 ‘probability requirement,’ but it asks for more than a sheer possibility that a defendant has acted
10 unlawfully.” *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (citation omitted).

11 For purposes of ruling on a Rule 12(b)(6) motion, the Court “accept[s] factual allegations
12 in the complaint as true and construe[s] the pleadings in the light most favorable to the nonmoving
13 party.” *Manzarek v. St. Paul Fire & Marine Ins. Co.*, 519 F.3d 1025, 1031 (9th Cir. 2008).
14 Nonetheless, the Court is not required to “assume the truth of legal conclusions merely because
15 they are cast in the form of factual allegations.” *Fayer v. Vaughn*, 649 F.3d 1061, 1064 (9th Cir.
16 2011) (quoting *W. Mining Council v. Watt*, 643 F.2d 618, 624 (9th Cir. 1981)). Mere “conclusory
17 allegations of law and unwarranted inferences are insufficient to defeat a motion to dismiss.”
18 *Adams v. Johnson*, 355 F.3d 1179, 1183 (9th Cir. 2004). Furthermore, “[a] plaintiff may plead
19 [him]self out of court” if he “plead[s] facts which establish that he cannot prevail on his . . .
20 claim.” *Weisbuch v. Cty. of L.A.*, 119 F.3d 778, 783 n.1 (9th Cir. 1997) (quoting *Warzon v. Drew*,
21 60 F.3d 1234, 1239 (7th Cir. 1995)).

22 **B. Motion to Dismiss for Patent Eligibility Challenges Under 35 U.S.C. § 101**

23 QuantifiCare’s Motion argues that the asserted claims of the ’003 Patent fail to claim
24 patent-eligible subject matter under 35 U.S.C. § 101 in light of the U.S. Supreme Court’s decision
25 in *Alice Corp. Pty. Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014). Whether a claim
26 recites patent-eligible subject matter under § 101 is a question of law. *Intellectual Ventures I LLC*
27 *v. Capital One Fin. Corp.*, 850 F.3d 1332, 1338 (Fed. Cir. 2017) (“Patent eligibility under § 101 is
28

1 an issue of law[.]”); *In re Roslin Inst. (Edinburgh)*, 750 F.3d 1333, 1335 (Fed. Cir. 2014) (same).
 2 Accordingly, a district court may resolve the issue of patent eligibility under § 101 by way of a
 3 motion to dismiss. *See, e.g., Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 912
 4 (Fed. Cir. 2017) (affirming determination of ineligibility made on 12(b)(6) motion); *Content*
 5 *Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1345 (Fed. Cir.
 6 2014) (same); *see also buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1351 (Fed. Cir. 2014)
 7 (affirming determination of ineligibility made on motion for judgment on the pleadings).

8 Although claim construction is often desirable, and may sometimes be necessary, to
 9 resolve whether a patent claim is directed to patent-eligible subject matter, the Federal Circuit has
 10 explained that “claim construction is not an inviolable prerequisite to a validity determination
 11 under § 101.” *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266,
 12 1273 (Fed. Cir. 2012). Where the court has a “full understanding of the basic character of the
 13 claimed subject matter,” the question of patent eligibility may properly be resolved on the
 14 pleadings. *Content Extraction*, 776 F.3d at 1349; *see also Genetic Techs. Ltd. v. Bristol-Myers*
 15 *Squibb Co.*, 72 F. Supp. 3d 521, 539 (D. Del. 2014), *aff’d sub nom. Genetic Techs. Ltd. v. Merial*
 16 *L.L.C.*, 818 F.3d 1369 (Fed. Cir. 2016).

17 **C. Substantive Legal Standards Applicable Under 35 U.S.C. § 101**

18 **1. Patent-Eligible Subject Matter Under 35 U.S.C. § 101**

19 Section 101 of Title 35 of the United States Code “defines the subject matter that may be
 20 patented under the Patent Act.” *Bilski v. Kappos*, 561 U.S. 593, 601 (2010). Under § 101, the
 21 scope of patentable subject matter encompasses “any new and useful process, machine,
 22 manufacture, or composition of matter, or any new and useful improvement thereof.” *Id.* (quoting
 23 35 U.S.C. § 101). These categories are broad, but they are not limitless. Section 101 “contains an
 24 important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not
 25 patentable.” *Alice*, 134 S. Ct. at 2354 (citation omitted). These three categories of subject matter
 26 are excepted from patent-eligibility because “they are the basic tools of scientific and
 27 technological work,” which are “free to all men and reserved exclusively to none.” *Mayo*

1 *Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71 (2012) (citations omitted). The
 2 U.S. Supreme Court has explained that allowing patent claims for such purported inventions
 3 would “tend to impede innovation more than it would tend to promote it,” thereby thwarting the
 4 primary object of the patent laws. *Id.* However, the U.S. Supreme Court has also cautioned that
 5 “[a]t some level, all inventions embody, use, reflect, rest upon, or apply laws of nature, natural
 6 phenomena, or abstract ideas.” *Alice*, 134 S. Ct. at 2354 (alteration, internal quotation marks, and
 7 citation omitted). Accordingly, courts must “tread carefully in construing this exclusionary
 8 principle lest it swallow all of patent law.” *Id.*

9 In *Alice*, the leading case on patent-eligible subject matter under § 101, the U.S. Supreme
 10 Court refined the “framework for distinguishing patents that claim laws of nature, natural
 11 phenomena, and abstract ideas from those that claim patent-eligible applications of those
 12 concepts” originally set forth in *Mayo*, 566 U.S. at 77. *Alice*, 134 S. Ct. at 2355. This analysis,
 13 generally known as the “*Alice*” framework, proceeds in two steps as follows:

14 First, we determine whether the claims at issue are directed to one of those patent-
 15 ineligible concepts. If so, we then ask, “[w]hat else is there in the claims before
 16 us?” To answer that question, we consider the elements of each claim both
 17 individually and “as an ordered combination” to determine whether the additional
 18 elements “transform the nature of the claim” into a patent-eligible application.
 19 We have described step two of this analysis as a search for an “‘inventive
 concept’”—*i.e.*, an element or combination of elements that is “sufficient to
 ensure that the patent in practice amounts to significantly more than a patent upon
 the [ineligible concept] itself.”

20 *Id.* (alterations in original) (citations omitted); *see also In re TLI Commc’ns LLC Patent Litig.*, 823
 21 F.3d 607, 611 (Fed. Cir. 2016) (describing “the now familiar two-part test described by the [U.S.]
 22 Supreme Court in *Alice*”).

23 **2. *Alice* Step One—Identification of Claims Directed to an Abstract Idea**

24 Neither the U.S. Supreme Court nor the Federal Circuit has set forth a bright-line test
 25 separating abstract ideas from concepts that are sufficiently concrete so as to require no further
 26 inquiry under the first step of the *Alice* framework. *See, e.g., Alice*, 134 S. Ct. at 2357 (noting that
 27 “[the U.S. Supreme Court] need not labor to delimit the precise contours of the ‘abstract ideas’

1 category in this case”); *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir.
2 2014) (observing that the U.S. Supreme Court did not “delimit the precise contours of the ‘abstract
3 ideas’ category” in *Alice* (citation omitted)). As a result, in evaluating whether particular claims
4 are directed to patent-ineligible abstract ideas, courts have generally begun by “compar[ing]
5 claims at issue to those claims already found to be directed to an abstract idea in previous cases.”
6 *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016).

7 Two of the U.S. Supreme Court’s leading cases concerning the “abstract idea” exception
8 involved claims held to be abstract because they were drawn to longstanding, fundamental
9 economic practices. *See Alice*, 134 S. Ct. at 2356 (claims “drawn to the concept of intermediated
10 settlement, *i.e.*, the use of a third party to mitigate settlement risk” were directed to a patent-
11 ineligible abstract idea); *Bilski*, 561 U.S. at 611–12 (claims drawn to “the basic concept of
12 hedging, or protecting against risk” were directed to a patent-ineligible abstract idea because
13 “[h]edging is a fundamental economic practice long prevalent in our system of commerce and
14 taught in any introductory finance class” (citation omitted)).

15 Similarly, the U.S. Supreme Court has recognized that information itself is intangible. *See*
16 *Microsoft Corp. v. AT & T Corp.*, 550 U.S. 437, 451 n.12 (2007). Accordingly, the Federal
17 Circuit has generally found claims abstract where they are directed to some combination of
18 acquiring information, analyzing information, and/or displaying the results of that analysis. *See*
19 *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1094–95 (Fed. Cir. 2016) (claims
20 “directed to collecting and analyzing information to detect misuse and notifying a user when
21 misuse is detected” were drawn to a patent-ineligible abstract idea); *Elec. Power Grp., LLC v.*
22 *Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (claims directed to an abstract idea because
23 “[t]he advance they purport to make is a process of gathering and analyzing information of a
24 specified content, then displaying the results, and not any particular assertedly inventive
25 technology for performing those functions”); *In re TLI Commc’ns LLC*, 823 F.3d at 611 (claims
26 were “directed to the abstract idea of classifying and storing digital images in an organized
27 manner”); *see also Elec. Power Grp.*, 830 F.3d at 1353–54 (collecting cases).

1 However, the determination of whether other types of computer-implemented claims are
2 abstract has proven more “elusive.” *See, e.g., Internet Patents Corp. v. Active Network, Inc.*, 790
3 F.3d 1343, 1345 (Fed. Cir. 2015) (“[P]recision has been elusive in defining an all-purpose
4 boundary between the abstract and the concrete[.]”). As a result, in addition to comparing claims
5 to prior U.S. Supreme Court and Federal Circuit precedents, courts considering computer-
6 implemented inventions have taken varied approaches to determining whether particular claims
7 are directed to an abstract idea.

8 For example, courts have considered whether the claims “purport to improve the
9 functioning of the computer itself,” *Alice*, 134 S. Ct. at 2359, which may suggest that the claims
10 are not abstract, or instead whether “computers are invoked merely as a tool” to carry out an
11 abstract process, *Enfish*, 822 F.3d at 1336; *see also id.* at 1335 (“[S]ome improvements in
12 computer-related technology when appropriately claimed are undoubtedly not abstract, such as a
13 chip architecture, an LED display, and the like. Nor do we think that claims directed to software,
14 as opposed to hardware, are inherently abstract[.]”). The Federal Circuit has followed this
15 approach to find claims patent-eligible in several cases. *See Visual Memory LLC v. NVIDIA*
16 *Corp.*, 867 F.3d 1253, 1259–60 (Fed. Cir. 2017) (claims directed to an improved memory system
17 were not abstract because they “focus[ed] on a ‘specific asserted improvement in computer
18 capabilities’—the use of programmable operational characteristics that are configurable based on
19 the type of processor” (quoting *Enfish*, 822 F.3d at 1336)); *McRO, Inc. v. Bandai Namco Games*
20 *Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (claims directed to automating part of a preexisting
21 method for 3-D facial expression animation were not abstract because they “focused on a specific
22 asserted improvement in computer animation, i.e., the automatic use of rules of a particular type”);
23 *Enfish*, 822 F.3d at 1335–36 (claims directed to a specific type of self-referential table in a
24 computer database were not abstract because they focused “on the specific asserted improvement
25 in computer capabilities (i.e., the self-referential table for a computer database)”).

26 Similarly, the Federal Circuit has found that claims directed to a “new and useful
27 technique” for performing a particular task were not abstract. *See Thales Visionix Inc. v. United*

1 *States*, 850 F.3d 1343, 1349 (Fed. Cir. 2017) (holding that “claims directed to a new and useful
2 technique for using sensors to more efficiently track an object on a moving platform” were not
3 abstract); *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1048, 1050 (Fed. Cir. 2016)
4 (holding that claims directed to “a new and useful laboratory technique for preserving
5 hepatocytes,” a type of liver cell, were not abstract); *see also Diamond v. Diehr*, 450 U.S. 175,
6 187 (1981) (holding that claims for a method to cure rubber that employed a formula to calculate
7 the optimal cure time were not abstract).

8 Another helpful tool used by courts in the abstract idea inquiry is consideration of whether
9 the claims have an analogy to the brick-and-mortar world, such that they cover a “fundamental . . .
10 practice long prevalent in our system.” *Alice*, 134 S. Ct. at 2356; *see, e.g., Intellectual Ventures I*
11 *LLC v. Symantec Corp.*, 838 F.3d 1307, 1317 (Fed. Cir. 2016) (finding an email processing
12 software program to be abstract through comparison to a “brick-and-mortar” post office);
13 *Intellectual Ventures I LLC v. Symantec Corp.*, 100 F. Supp. 3d 371, 383 (D. Del. 2015) (“Another
14 helpful way of assessing whether the claims of the patent are directed to an abstract idea is to
15 consider if all of the steps of the claim could be performed by human beings in a non-
16 computerized ‘brick and mortar’ context.” (citing *buySAFE*, 765 F.3d at 1353)).

17 Courts will also (or alternatively, as the facts require) consider a related question of
18 whether the claims are, in essence, directed to a mental process or a process that could be done
19 with pencil and paper. *See Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1147 (Fed.
20 Cir. 2016) (claims for translating a functional description of a logic circuit into a hardware
21 component description of the logic circuit were patent-ineligible because the “method can be
22 performed mentally or with pencil and paper”); *CyberSource Corp. v. Retail Decisions, Inc.*, 654
23 F.3d 1366, 1372 (Fed. Cir. 2011) (claim for verifying the validity of a credit card transaction over
24 the Internet was patent-ineligible because the “steps can be performed in the human mind, or by a
25 human using a pen and paper”); *see also, e.g., Mortg. Grader, Inc. v. First Choice Loan Servs.*
26 *Inc.*, 811 F.3d 1314, 1324 (Fed. Cir. 2016) (claims for computer-implemented system to enable
27 borrowers to shop for loan packages anonymously were abstract where “[t]he series of steps

1 covered by the asserted claims . . . could all be performed by humans without a computer”).¹

2 Regardless of the particular analysis that is best suited to the specific facts at issue in a
3 case, however, the Federal Circuit has emphasized that “the first step of the [*Alice*] inquiry is a
4 meaningful one, i.e., . . . a substantial class of claims are *not* directed to a patent-ineligible
5 concept.” *Enfish*, 822 F.3d at 1335. The court’s task is thus not to determine whether claims
6 merely involve an abstract idea at some level, *see id.*, but rather to examine the claims “in their
7 entirety to ascertain whether their character as a whole is directed to excluded subject matter,”
8 *Internet Patents*, 790 F.3d at 1346.

9 **3. *Alice* Step Two—Evaluation of Abstract Claims for a Limiting Inventive Concept**

10 A claim drawn to an abstract idea is not necessarily invalid if the claim’s limitations—
11 considered individually or as an ordered combination—serve to “transform the claims into a
12 patent-eligible application.” *Content Extraction*, 776 F.3d at 1348. Thus, the second step of the
13 *Alice* analysis (the search for an “inventive concept”) asks whether the claim contains an element
14 or combination of elements that “ensure[s] that the patent in practice amounts to significantly
15 more than a patent upon the [abstract idea] itself.” 134 S. Ct. at 2355 (citation omitted).

16 The U.S. Supreme Court has made clear that transforming an abstract idea to a patent-
17 eligible application of the idea requires more than simply reciting the idea followed by “apply it.”
18 *Id.* at 2357 (quoting *Mayo*, 566 U.S. at 72). In that regard, the Federal Circuit has repeatedly held
19 that “[f]or the role of a computer in a computer-implemented invention to be deemed meaningful
20 in the context of this analysis, it must involve more than performance of ‘well-understood, routine,
21 [and] conventional activities previously known to the industry.’” *Content Extraction*, 776 F.3d at
22 1347–48 (alteration in original) (quoting *Alice*, 134 S. Ct. at 2359); *see also Mortg. Grader*, 811
23 F.3d at 1324–25 (holding that “generic computer components such as an ‘interface,’ ‘network,’

24 _____
25 ¹ One court has noted that, like all tools of analysis, the “pencil and paper” analogy must not be
26 unthinkingly applied. *See Cal. Inst. of Tech. v. Hughes Commc’ns Inc.*, 59 F. Supp. 3d 974, 995
27 (C.D. Cal. 2014) (viewing pencil-and-paper test as a “stand-in for another concern: that humans
28 engaged in the same activity long before the invention of computers,” and concluding that test was
unhelpful where “error correction codes were not conventional activity that humans engaged in
before computers”).

1 and ‘database’ . . . do not satisfy the inventive concept requirement”); *Bancorp Servs.*, 687 F.3d at
 2 1278 (“To salvage an otherwise patent-ineligible process, a computer must be integral to the
 3 claimed invention, facilitating the process in a way that a person making calculations or
 4 computations could not.”). Likewise, “[i]t is well-settled that mere recitation of concrete, tangible
 5 components is insufficient to confer patent eligibility to an otherwise abstract idea” where those
 6 components simply perform their “well-understood, routine, conventional” functions. *In re TLI*
 7 *Commc’ns LLC*, 823 F.3d at 613 (citation omitted); *see also id.* (ruling that “telephone unit,”
 8 “server,” “image analysis unit,” and “control unit” limitations were insufficient to satisfy *Alice*
 9 step two where claims were drawn to abstract idea of classifying and storing digital images in an
 10 organized manner).

11 In addition, the U.S. Supreme Court explained in *Bilski* that “limiting an abstract idea to
 12 one field of use or adding token postsolution components [does] not make the concept patentable.”
 13 561 U.S. at 612 (citing *Parker v. Flook*, 437 U.S. 584 (1978)); *see also Alice*, 134 S. Ct. at 2358
 14 (same). The Federal Circuit has similarly stated that attempts “to limit the use of the abstract idea
 15 to a particular technological environment” are insufficient to render an abstract idea patent-
 16 eligible. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (internal quotation
 17 marks and citation omitted); *see also Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792
 18 F.3d 1363, 1366 (Fed. Cir. 2015) (“An abstract idea does not become nonabstract by limiting the
 19 invention to a particular field of use or technological environment, such as the Internet.”).

20 In keeping with these restrictions, the Federal Circuit has found that claims “necessarily
 21 rooted in computer technology in order to overcome a problem specifically arising in the realm of
 22 computer networks” can be sufficiently transformative to supply an inventive concept. *DDR*, 773
 23 F.3d at 1257; *see also id.* at 1248, 1259 (concluding that claims that addressed the “Internet-
 24 centric problem” of third-party merchant advertisements that would “lure . . . visitor traffic away”
 25 from a host website amounted to an inventive concept).

26 In addition, a “non-conventional and non-generic arrangement of known, conventional
 27 pieces” can amount to an inventive concept. *BASCOM Glob. Internet Servs., Inc. v. AT&T*

1 *Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016). For example, in *BASCOM*, the Federal
2 Circuit addressed a claim for Internet content filtering performed at “a specific location, remote
3 from the end-users, with customizable filtering features specific to each end user.” *Id.* Because
4 this “specific location” was different from the location where Internet content filtering was
5 traditionally performed, the Federal Circuit concluded this was a “non-conventional and non-
6 generic arrangement of known, conventional pieces” that provided an inventive concept. *Id.* As
7 another example, in *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, the Federal Circuit held that
8 claims relating to solutions for managing accounting and billing data over large, disparate
9 networks recited an inventive concept because they contained “specific enhancing limitation[s]
10 that necessarily incorporate[d] the invention’s distributed architecture.” 841 F.3d 1288, 1301
11 (Fed. Cir. 2016), *cert. denied*, No. 17-136, 2017 WL 3191080 (U.S. Nov. 27, 2017). The use of a
12 “distributed architecture,” which stored accounting data information near the source of the
13 information in the disparate networks, transformed the claims into patentable subject matter. *Id.*

14 **4. Preemption**

15 In addition to these principles, courts sometimes find it helpful to assess claims against the
16 policy rationale for § 101. The U.S. Supreme Court has recognized that the “concern that
17 undergirds [the] § 101 jurisprudence” is preemption. *Alice*, 134 S. Ct. at 2358. Thus, courts have
18 readily concluded that a claim is not patent-eligible when the claim is so abstract that it preempts
19 “use of [the claimed] approach in all fields” and “would effectively grant a monopoly over an
20 abstract idea.” *Bilski*, 561 U.S. at 612. However, the inverse is not true: “[w]hile preemption may
21 signal patent ineligible subject matter, the absence of complete preemption does not demonstrate
22 patent eligibility.” *FairWarning*, 839 F.3d at 1098 (alteration in original) (citation omitted).

23 **III. DISCUSSION**

24 QuantifiCare’s Motion to Dismiss contends that the asserted claims of the ’003 Patent fall
25 within the patent-ineligible “abstract ideas” exception to § 101. The Court applies the *Alice*
26 framework described above to these claims.

27 **A. Scope of Analysis and Representative Claims**

1 Before turning to the substance of the parties’ eligibility arguments, the Court clarifies the
2 scope of the claims to be assessed. Currently Plaintiffs are asserting claims 1–4, 8–9, 11–14, 30,
3 and 32–41 of the ’003 Patent. FAC ¶¶ 50, 54–73; Opp. at 4.

4 Nevertheless, the Court need not individually analyze every claim if certain claims are
5 representative. *See generally Alice*, 134 S. Ct. at 2359–60 (finding 208 claims to be patent-
6 ineligible based on analysis of one representative claim). Often, parties will agree that certain
7 claims are representative for the purposes of a § 101 analysis. *See, e.g., Synopsys*, 839 F.3d at
8 1147 (parties agreed that certain claims were representative); *Intellectual Ventures I*, 838 F.3d at
9 1313 (parties agreed that certain claims were representative). However, when they do not, a
10 district court may make this determination on its own. *Content Extraction*, 776 F.3d at 1348
11 (endorsing district court’s conclusion that “addressing each claim of the asserted patents was
12 unnecessary” and upholding district court’s designation, “[a]fter conducting its own analysis,” of
13 certain claims as representative).²

14 Here, the parties dispute which claims are representative. QuantifiCare argues that the
15 Court should analyze claim 1 as representative of all of the asserted claims. Mot. at 6, 23; Reply
16 at 7. Plaintiffs disagree that claim 1 is representative of all of the asserted claims and instead
17 propose that the Court address: (1) claim 30, as representative of claims 9, 30, and 32–41; (2)
18 claim 13, as representative of claims 13–14, 36–37, and 40–41; and (3) claim 1, as representative
19 of claims 1–4, 8–9, 11–12, 30, 32–35, and 38–39. Opp. at 4–6, 23.

20 The Court need not resolve these arguments because the Court can address all the claims of
21

22 ² The district court may do this even when one party asserts that certain claims are not
23 representative. In *Content Extraction*, the plaintiff urged the district court to deny the defendant’s
24 § 101 motion because the defendant did not individually address the patentability of every claim.
25 *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, Nos. 12-CV-02501-
26 MAS-TJB, 12-CV-06960-MAS-TJB, 2013 WL 3964909, at *5 (D.N.J. July 31, 2013), *aff’d*, 776
27 F.3d 1343 (Fed. Cir. 2014). Nevertheless, the Federal Circuit upheld the district court’s decision
28 to “conduct[] its own analysis” and determine which claims were representative. *Content
Extraction*, 776 F.3d at 1348. The Federal Circuit also noted that the plaintiff could have
challenged the defendant’s characterization of certain claims as representative, but did not. *See id.*
 (“If CET disagreed with PNC’s or the district court’s assessment, CET could have identified
claims in its opposition brief that it believed would not be fairly represented by claims 1 of the
'855 and '416 patents for purposes of PNC’s § 101 challenge.”).

1 the '003 Patent. However, as discussed more fully below, the Court agrees with Plaintiffs that
2 materially relevant differences between the asserted claims make it helpful to treat groups of
3 claims separately. Accordingly, the Court proceeds by analyzing: (1) claim 1, as representative of
4 claims 1–4, 8, and 11–14; and (2) claim 30, as representative of claims 9, 30, and 32–41. After
5 assessing the patentability of the allegedly representative claim, the Court will then use that
6 analysis as a basis for evaluating the remaining claims.

7 **B. Claims 1–4, 8, and 11–14 of the '003 Patent**

8 The Court now turns to a determination of whether claims 1–4, 8, and 11–14 of the '003
9 Patent are patent-ineligible under § 101. The Court begins with claim 1, the claim for which the
10 parties have provided substantial briefing, and then turns to the remaining claims.

11 **1. Alice Step One for Claim 1 of the '003 Patent—Whether the Claim Is Directed to
12 an Abstract Idea**

13 Step one of the *Alice* framework directs the Court to assess “whether the claims at issue are
14 directed to [an abstract idea].” *Alice*, 134 S. Ct. at 2355. On this point, QuantifiCare contends
15 that claim 1 is directed to “electronic location and quantification of skin defects through taking
16 images and analysis to compare the defect severity with a predetermined population group.” Mot.
17 at 9. QuantifiCare argues that this concept is nothing more than acquiring and analyzing certain
18 types of information, which the Federal Circuit has deemed to be abstract. *Id.* at 11. QuantifiCare
19 also emphasizes that claim 1 recites this idea at a high level of generality without providing
20 concrete structures or implementation details. *Id.* at 16.

21 Plaintiffs respond with one paragraph at the end of their opposition. *See Opp.* at 23–24.
22 They argue that claim 1 is directed to “the acquisition of a digital image and the electronic analysis
23 of the digital image data to locate skin defects.” *Id.* at 23 (emphasis omitted). Plaintiffs contend
24 that the claim is “clearly rooted in computerized processing of pixelated, binary data of a digital
25 image” and incorporates the specific implementation details described in the specification. *Id.* at
26 23–24.

27 The step one inquiry “applies a stage-one filter to claims, considered in light of the

1 specification, based on whether ‘their character as a whole is directed to excluded subject matter.’”
 2 *Enfish*, 822 F.3d at 1335 (citation omitted). Thus, the Court conducts its step one inquiry by first
 3 identifying what the “character as a whole” of claim 1 of the ’003 Patent is “directed to,” and then
 4 discussing whether this is an abstract idea.

5 **a. Claim 1 of the ’003 Patent—“Directed to” Inquiry**

6 The Court begins by examining claim 1 of the ’003 Patent in its entirety to understand
 7 what its “character as a whole” is “directed to.” *Elec. Power Grp.*, 830 F.3d at 1353 (“[W]e have
 8 described the first-stage inquiry as looking at the ‘focus’ of the claims, their ‘character as a
 9 whole[.]’” (citation omitted)); *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728
 10 F.3d 1336, 1341 (Fed. Cir. 2013) (“[T]he court must first identify and define whatever
 11 fundamental concept appears wrapped up in the claim.” (internal quotation marks and citation
 12 omitted)). In distilling the character of a claim, the Court is careful not to express the claim’s
 13 focus at an unduly “high level of abstraction . . . untethered from the language of the claims,” but
 14 rather at a level consonant with the level of generality or abstraction expressed in the claims
 15 themselves. *Enfish*, 822 F.3d at 1337; *see also Thales Visionix*, 850 F.3d at 1347 (“We must
 16 therefore ensure at step one that we articulate what the claims are directed to with enough
 17 specificity to ensure the step one inquiry is meaningful.”).

18 Here, the Court finds that claim 1 of the ’003 Patent is “directed to” acquiring and
 19 analyzing a digital image of a person to locate and quantify skin defects. This formulation flows
 20 from the language of the claim. Claim 1 recites a method with four steps: (1) retrieving an image
 21 of a person, ’003 patent, col. 12:59; (2) performing electronic analysis on the image “to locate an
 22 area containing a skin defect,” *id.*, col. 12:60–62; (3) assigning a “numerical severity” to the defect
 23 area, *id.*, col. 12:63–64; and (4) comparing the “numerical severity” to a predefined value for a
 24 particular population, *id.*, col. 12:65–67. The first two steps are consonant with claim 1’s
 25 preamble, which recites “[a] method for locating one or more visual skin defects of a portion of a
 26 person,” *id.*, col. 12:57–58, and form much of the substance of the process. The last two steps go
 27 beyond the identification of a skin defect by defining the severity of the defect with a comparative

1 numerical figure. Thus, acquiring and analyzing a digital image of a person to locate and quantify
2 skin defects accurately captures what the “character as a whole” of claim 1 is “directed to.”

3 **b. Claim 1 of the ’003 Patent—Abstract Idea Analysis**

4 Having determined the “character as a whole” of claim 1, the Court turns to whether it is
5 directed to an abstract idea. *Enfish*, 822 F.3d at 1335 (citation omitted). As discussed above,
6 courts will generally compare the claims at issue to prior § 101 cases, as well as consult several
7 guideposts, including: (1) whether the claims are directed to an “improvement to computer
8 functionality”; (2) whether the claims are directed to a “new and useful technique”; (3) whether
9 the claims have an analogy to the brick-and-mortar world; and (4) whether the claims are directed
10 to a mental process or a process that can be performed with a pen and paper. *See* § II.C, *supra*.

11 For the reasons discussed below, the Court finds that a comparison to prior Federal Circuit
12 cases confirms that claim 1 is directed to an abstract idea. The Court therefore begins with a
13 discussion of prior case law, then turns to Plaintiffs’ remaining arguments, which all relate to the
14 “improvement to computer functionality” guidepost.

15 **i. Comparison to Case Law**

16 As discussed above, courts will generally begin the inquiry by “compar[ing] claims at
17 issue to those claims already found to be directed to an abstract idea in previous cases.” *Enfish*,
18 822 F.3d at 1334. This analysis alone can be “sufficient.” *Id.*; *see, e.g., Alice*, 134 S. Ct. at 2357
19 (concluding that the claims were directed to an abstract idea because “[i]t is enough to recognize
20 that there is no meaningful distinction between the concept of risk hedging in *Bilski* and the
21 concept of intermediated settlement at issue here”).

22 Here, the Court finds that what claim 1 is directed to—acquiring and analyzing a digital
23 image of a person to locate and quantify skin defects—falls within the realm of ideas that the
24 Federal Circuit has consistently found to be abstract. In particular, the Federal Circuit has
25 recognized that acquiring, analyzing, and displaying information is an abstract idea. Because
26 information itself is an intangible, amassing information produces an intangible, and applying
27 mathematical algorithms to sort or analyze that information is essentially a mental process. *Elec.*

1 *Power Grp.*, 830 F.3d at 1353–54. As a result, both acquiring and analyzing information are
2 regularly treated as within the realm of abstract ideas. *Id.* Moreover, presenting the results “is
3 abstract as an ancillary part of such collection and analysis.” *Id.* at 1354.

4 In *Electric Power Group*, the Federal Circuit applied these principles to claims for
5 “detecting . . . and automatically analyzing the events on [an] interconnected electric power grid”
6 which involved (1) receiving “time stamped synchronized phasor” data from multiple electric
7 power grid and non-grid sources, (2) using the data to “detect[] and analyz[e] events in real-time,”
8 and (3) displaying the “event analysis results and diagnoses,” including by “concurrent
9 visualization” of two or more types of information. *Id.* at 1351–52. Although the claims were
10 lengthy and included power-grid-specific limitations, the Federal Circuit found their “character as
11 a whole” was “collecting information, analyzing it, and displaying certain results of the collection
12 and analysis.” *Id.* at 1353. This information-based focus was central to the Federal Circuit’s
13 determination that the claims were ineligible for patenting. *Id.* at 1351. Specifically, the Federal
14 Circuit held that the claims were directed to an abstract idea because “[t]he advance [the claims]
15 purport to make is a process of gathering and analyzing information of a specified content, then
16 displaying the results, and not any particular assertedly inventive technology for performing those
17 functions.” *Id.* at 1354; *see also In re TLI*, 823 F.3d at 610 (holding that method for recording
18 images on a cell phone, transmitting those images to a server, classifying those images, and
19 storing them on the server based on that classification constituted a patent-ineligible abstract idea).

20 More recently, in *FairWarning*, the Federal Circuit evaluated claims relating to a method
21 of “collect[ing] information regarding accesses of a patient’s personal health information,
22 analyz[ing] the information according to one of several rules . . . to determine if the activity
23 indicates improper access, and provid[ing] notification if it determines that improper access has
24 occurred.” 839 F.3d at 1093. The Federal Circuit held that the claims were directed to an abstract
25 idea because they simply involved “collecting and analyzing information to detect misuse and
26 notifying a user when misuse is detected.” *Id.* at 1094. That conclusion was not altered by the
27 fact that, in ascertaining whether there was improper access, the claims limited the universe of
28

1 rules to who accessed the information, when that information was accessed, and how much
2 information was accessed. *Id.* The Federal Circuit explained that the claimed rules—examining
3 who, when, and how much was accessed—replicated the same basic questions “that humans in
4 analogous situations detecting fraud have asked for decades, if not centuries.” *Id.* at 1095.
5 Therefore, the asserted technological improvement sprung not from choosing rules, but instead
6 from using a computer to acquire and analyze the information, and the claims were directed to an
7 abstract idea. *Id.*

8 Although the substance of claim 1 of the ’003 Patent is different from the claims at issue in
9 *Electric Power Group* and *FairWarning*, the Court finds that claim 1 presents an analogous
10 situation. As discussed above, claim 1 is directed to acquiring and analyzing a digital image of a
11 person to locate and quantify skin defects. Acquiring a digital image of a person is mere data
12 collection. Analyzing that digital image to locate and quantify the skin defects is simple analysis
13 of that information. Indeed, Plaintiffs’ own “character as a whole” formulation admits that claim
14 1 recites obtaining a “digital image” and performing electronic analysis of the “digital image *data*”
15 to find skin defects. *See* Opp. at 23 (emphasis added). Like in *Electric Power Group*, claim 1 is
16 “clearly focused on the combination of [the] abstract-idea processes” of “gathering and analyzing
17 information of a specified content” and does not identify any particular assertedly inventive
18 technology to perform these functions. 830 F.3d at 1354.

19 Claim 1 is even less descriptive than the claims found abstract in *FairWarning*. The
20 claims at issue there enumerated the fraud detection rules in the body of the claims. *See* 839 F.3d
21 at 1092. In contrast here, claim 1 lists the steps of “electronically analyzing” the digital image to
22 locate skin defects, “determining” the defects’ severity, and “generating a comparison” to a
23 baseline severity without defining the rules or providing any sense of how to accomplish each of
24 those tasks. *See* ’003 patent, col. 12:60–67. Notably, the last two steps do not indicate that they
25 are accomplished “electronically” and so broadly cover manual determination and comparison of
26 defect severity. Such use of purely functional language is indicative of abstractness. *See Elec.*
27 *Power Group*, 830 F.3d at 1356 (noting susceptibility of “claims so result-focused, so functional,

1 as to effectively cover any solution to an identified problem”).

2 Moreover, reference to the specification reinforces that claim 1’s analysis steps do no more
3 than “analyz[e] information by steps people go through in their minds, or by mathematical
4 algorithms.” *Id.* at 1354. For example, as to locating the skin defects, the specification identifies
5 that the “defect types” are “located using a variety of known algorithms.” ’003 patent, col. 8:4–
6 10; *see also id.*, col. 8:10–18 (providing specific examples of defect location algorithms). As to
7 quantifying the skin defects, the severity measure estimates the “degree to which humans perceive
8 one defect as being ‘worse’ than another,” and the specification does not specify that this function
9 must be performed electronically. *Id.*, col. 7:67–8:3. However, even when this step is
10 implemented on a computer, quantification proceeds by subtracting the differences between pixel
11 color content or summing the number of pixels and, if warranted, aggregating or normalizing the
12 severity figures. *Id.*, col. 8:47–9:4. As a general matter, the specification notes that “[s]everal
13 methods for determining an overall skin severity are well known to persons of ordinary skill in the
14 art.” *Id.*, col. 9:48–49. In the end, the final severity figure may be compared to another figure
15 indicative of a specific population to obtain a percentile. *Id.*, col. 8:60–9:14. As the Federal
16 Circuit has explained, “[a] process that start[s] with data, add[s] an algorithm, and end[s] with a
17 new form of data [is] directed to an abstract idea.” *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d
18 1322, 1327 (Fed. Cir. 2017).

19 The Court finds unpersuasive Plaintiffs’ argument that *Research Corp. Technologies v.*
20 *Microsoft Corp.*, 627 F.3d 859 (Fed. Cir. 2010), controls the outcome here. In that case, the
21 Federal Circuit found patent-eligible certain claims related to a process of simulating continuous
22 tone in digital images (called halftoning). *Id.* at 862. The relevant claim recited “[a] method for
23 the halftoning of gray scale images by utilizing a pixel-by-pixel comparison of the image against a
24 blue noise mask,” where the “blue noise mask is comprised of a random non-deterministic, non-
25 white noise single valued function which is designed to produce visually pleasing dot profiles
26 when thresholded at any level of said gray scale images.” *Id.* at 865. The Federal Circuit
27 reasoned that the claims did not fall into the abstract-idea category because they “present[ed]

28

1 functional and palpable applications in the field of computer technology.” *Id.* at 868. Though the
2 claims incorporated algorithms and formulas, they overcame an identified problem in the prior art
3 “with specific applications or improvements to technologies in the marketplace.” *Id.* at 868–69.
4 Thus, the Federal Circuit concluded that the claims were patent-eligible. *Id.* at 869.³

5 *Research Corp.* is different than the present case. As a preliminary matter, *Research Corp.*
6 was decided before the two-step framework was announced in *Mayo* and *Alice*, so there is a
7 question whether the outcome in *Research Corp.* remains good law. To be sure, many of the high-
8 level doctrinal points accurately reflect the current state of § 101 jurisprudence. For example,
9 since *Mayo* and *Alice*, the Federal Circuit has repeated *Research Corp.*’s observation that
10 “inventions with specific applications or improvements to technologies in the marketplace are not
11 likely to be so abstract that they override the statutory language and framework of the Patent Act.”
12 *BASCOM*, 827 F.3d at 1350 (quoting *Research Corp.*, 627 F.3d at 869). On the other hand, some
13 of *Research Corp.*’s methodology appears outdated. For instance, *Research Corp.* creates a
14 heightened standard for ineligibility in requiring that the abstract nature of the claims be exhibited
15 “so manifestly as to override the broad statutory categories of eligible subject matter and the
16 statutory context that directs primary attention on the patentability criteria of the rest of the Patent
17 Act.” 627 F.3d at 868. Similarly, *Research Corp.* appears to place significant weight on the fact
18 that the claim incorporated generic computer components—namely, a “memory” and “printer and
19 display devices”—to deem the claims patent-eligible. *Id.* at 869. At a minimum, because
20 *Research Corp.* was decided before the two-step *Alice* framework, it is difficult to ascertain
21 whether the reasoning is more aptly characterized as falling under step one or step two.

22 Regardless of whether *Research Corp.* is binding, the Court finds that case readily
23 distinguishable from the instant case. In particular, the claims at issue in *Research Corp.* recited
24

25 ³ Plaintiffs also cite a district court case, which heavily relies on *Research Corp.* to find patent-
26 eligible image-processing claims which undertook “to convert[] matrices of numbers representing
27 pixel intensities to other numbers” and to fill in missing pixels by a process of “interpolation.”
28 *See Oplus Techs. Ltd. v. Sears Holding Corp.*, No. 12-CV-05707-MRP, 2013 WL 1003632, at *7–
14 (C.D. Cal. Mar. 4, 2013). That case is distinguishable for the same reasons that *Research
Corp.* is distinguishable.

1 the steps in the process of rendering a halftone image, namely, “comparing, pixel by pixel, the
2 digital image against a blue noise mask.” *Id.* at 868. The claims also defined the features of the
3 mask, which had to be “a random non-deterministic, non-white noise single valued function . . .
4 designed to produce visually pleasing dot profiles when thresholded at any level of said gray scale
5 images.” *Id.* at 865. In this way, the claims in *Research Corp.* purported to cover a defined
6 process, not any process, of rendering a halftone image. Those claims stand in sharp contrast to
7 claim 1, which recites the process of analyzing a digital image to locate and quantify skin defects
8 but not any specific steps to take to accomplish the location and quantification. Indeed, claim 1’s
9 quantification steps do not appear to require any particular electronic process at all.

10 While Plaintiffs note that both the claims at issue in *Research Corp.* and claim 1’s
11 electronic analysis step involve “computerized processing of pixelated, binary data of a digital
12 image,” *Opp.* at 23, that comparison is superficial. The same could be said of all digital imaging
13 patents, but the Federal Circuit has already concluded that claims that focus on assembling and
14 manipulating data in the realm of image processing may be patent-ineligible. *See Digitech Image*
15 *Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014) (concluding that the
16 claims at issue were directed to “a process of combining two data sets into a device profile”). Put
17 another way, not every invention that automates a process or employs a computer is patent-
18 eligible. *See Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017)
19 (“[M]ere automation of manual processes using generic computers does not constitute a patentable
20 improvement in computer technology.”). The proper inquiry is not to generalize about classes of
21 claims, but to discern the focus of the claim at issue. For the reasons stated above, claim 1 is
22 directed to acquiring and analyzing information, and thus claim 1 is directed to an abstract idea
23 pursuant to *Electric Power Group* and *FairWarning*.

24 **ii. Improvement to Computer Functionality**

25 Plaintiffs nevertheless contend that claim 1 of the ’003 Patent is not directed to an abstract
26 idea because it is instead directed to an “improvement in computer functionality” under *Enfish* and
27 *McRO*. *Opp.* at 23–24. Specifically, Plaintiffs argue that claim 1 is “clearly rooted in

1 computerized processing of pixelated, binary data of a digital image, and tied to the apparatus and
2 specific algorithms described in the specification for that purpose.” *Id.* The Court disagrees.

3 A claim is not abstract if it “improve[s] the functioning of the computer itself” or
4 “improves an existing technological process.” *Alice*, 134 S. Ct. at 2358–59. Thus, *Enfish* held
5 that it is “relevant to ask whether the claims are directed to an improvement in computer
6 functionality versus being directed to an abstract idea, even at the first step of the *Alice* analysis.”
7 822 F.3d at 1335. In *Enfish*, the Federal Circuit held that the claims at issue were directed “to a
8 specific improvement to the way computers operate,” in the form of a data structure that used a
9 “self-referential table.” *Id.* at 1336. Rather than simply automating a process using a computer as
10 a tool, the claims involved “a specific type of data structure designed to improve the way a
11 computer stores and retrieves data in memory.” *Id.* at 1339.

12 Similarly, in *McRO*, the Federal Circuit held that a method for automating the animation of
13 lip movement and facial expressions, which replaced an animator’s subjective evaluation with
14 automated rules, was not a patent-ineligible abstract idea. 837 F.3d at 1313–16. The Federal
15 Circuit reasoned that because the method involved “a specific asserted improvement in computer
16 animation, i.e., the automatic use of rules of a particular type,” it did not just use a computer “as a
17 tool to automate conventional activity” but instead constituted an improvement to an existing
18 technological process itself. *Id.* at 1314.

19 However, the Federal Circuit has noted that “[a] patent may issue ‘for the means or method
20 of producing a certain result, or effect, and not for the result or effect produced.’” *Id.* at 1314
21 (quoting *Diehr*, 450 U.S. at 182 n.7). Accordingly, the Federal Circuit has declined to find that a
22 case falls under the principles of *Enfish* and *McRO* when “the claimed invention is entirely
23 functional in nature.” *See, e.g., Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253,
24 1258 (Fed. Cir. 2016), *cert. denied*, 137 S. Ct. 1596 (2017). Generally, claims that contain
25 improvements in computer functionality, and thus are patentable under *Enfish* and *McRO*, include
26 instructions on “how to implement” the abstract idea. *Id.*

27 Here, the Court finds that the character of the asserted claims is not itself an improvement

1 in the technology used for acquiring and analyzing a digital image of a person to locate and
 2 quantify skin defects. In both *Enfish* and *McRO*, the character of the claim as a whole was itself a
 3 technological advance that improved computer functionality. *See McRO*, 837 F.3d at 1314
 4 (character of claim was an improved means of performing computer animation); *Enfish*, 822 F.3d
 5 at 1335 (character of the claim was an improved database structure). Here, the process of
 6 acquiring and analyzing a digital image of a person to locate and quantify skin defects does not
 7 improve the functioning of a computer.

8 This conclusion is underscored by the fact that claim 1 of the '003 Patent is described in
 9 functional terms. As noted above, claim 1 recites a process that acquires an image of a person,
 10 analyzes that image to find areas containing skin defects, and then quantifies the severity of the
 11 defects and relates the severity to a particular population. '003 patent, col. 12:59–67. The claim
 12 does not indicate or provide details about how to carry out the analysis to locate the defects or
 13 enumerate their severity; claim 1 simply describes the “effect or result,” not the “specific means or
 14 method” of producing the desired result. *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*,
 15 874 F.3d 1329, 1337 (Fed. Cir. 2017) (citing *McRO*, 837 F.3d at 1314); *RecogniCorp*, 855 F.3d at
 16 1326 (same); *Affinity Labs*, 838 F.3d at 1258 (noting that the claims did not designate “how to
 17 implement” the abstract idea). That is, claim 1 describes that a digital image of a person will be
 18 acquired and analyzed but does not describe how those processes will function or focus on any
 19 particular tool that achieves the desired result.

20 Accordingly, the Court finds that claim 1 of the '003 Patent is directed to an abstract idea
 21 because claim 1 is analogous to claims found to be directed to an abstract idea in prior Federal
 22 Circuit cases and claim 1 does not recite improvements in computer functionality.

23 **2. Alice Step One for Claims 2–4, 8, and 11–14 of the '003 Patent—Whether the**
 24 **Claims Are Directed to an Abstract Idea**

25 Having determined that claim 1 of the '003 Patent is directed to an abstract idea, the Court
 26 turns to the claims that depend on claim 1 (claims 2–4, 8, and 11–14) to determine whether they
 27 too are directed to abstract ideas. Plaintiffs do not provide any additional analysis for claims 2–4,

1 8, and 11–12 beyond the one paragraph at the end of their opposition that the Court has already
 2 rejected in its analysis of claim 1. *See* Opp. at 23–24. Nevertheless, the Court provides an
 3 overview of all of these claims. The Court first addresses claims 2, 3, and 12; then addresses
 4 claims 4, 8, and 11; and finally addresses claim 13 and 14.

5 **a. Claims 2–3 and 12**

6 Claims 2, 3, and 12 all depend on claim 1. All three claims introduce additional steps for
 7 accomplishing one portion of what claim 1 is directed to: analyzing the digital image to quantify
 8 skin defects.⁴ As such, claims 2, 3, and 12 clarify this aspect of claim 1 and do not substantially
 9 shift its “character as a whole.” Indeed, the Court’s observations regarding how claim 1 is
 10 directed to the process of acquiring and analyzing information also hold true for claims 2, 3, and
 11 12, as the additional steps in these claims fit the same paradigm. For example, the step of
 12 “electronically analyzing the first digital image of the face of the person to determine an overall
 13 skin characteristic” in claim 12 is very similar to the informational analysis step of “determining a
 14 first numerical severity associated with the area containing the skin defect” in claim 1. *See* ’003
 15 patent, col. 12:57–67, 13:57–60. Accordingly, the “character as a whole” of claims 2, 3, and 12 is
 16 substantially the same as claim 1, and they are directed to an abstract idea for the same reasons.

17 **b. Claims 4, 8, and 11**

18 Claim 4 depends on claim 1, and claims 8 and 11 both depend on claim 4. Claim 4
 19 introduces additional steps for electronically creating and displaying a second digital image that
 20 shows the defect area. *Id.*, col. 13:10–13. The specification explains that this result may be
 21 accomplished by, for example, changing the shade of the pixels in the defect areas or drawing a
 22 circle around the defect areas. *Id.*, col. 8:33–46. Claim 8 adds a step of alternating between
 23 displaying the first and second digital images, *id.*, col. 13:32–36, and claim 11 specifies the range
 24

25 ⁴ In particular, claim 2 additionally defines the predefined severity value by age, geography, or
 26 ethnicity. ’003 Patent, col. 13:1–4. Claim 3 requires storing the calculated numerical severity
 27 value for purposes of future tracking. *Id.*, col. 13:5–9. Claim 12 additionally requires
 28 electronically analyzing the entirety of digital image to determine an overall skin characteristic.
Id., col.13:57–60.

1 of possible skin defects to be detected, *id.*, col. 13:53–56. In comparison to claim 1, claims 4, 8,
2 and 11 recite further manipulation of data and display of the results. Those limitations are equally
3 abstract. As previously noted, analyzing data via mathematical algorithms is an abstract idea, and
4 presenting the results of the informational analysis is also “abstract as an ancillary part of [the]
5 collection and analysis.” *Elec. Power Grp.*, 830 F.3d at 1354. Thus, claims 4, 8, and 11 are also
6 directed to an abstract idea.

7 **c. Claims 13–14**

8 Claims 13 and 14 both depend on claim 1. These two claims respectively recite an
9 “apparatus adapted to perform” and a “tangible medium storing program instructions adapted to
10 perform” the method of claim 1. *See* ’003 patent, col. 13:61–64. Because on a motion to dismiss
11 the Court must “construe the pleadings in the light most favorable to the nonmoving party,”
12 *Manzarek*, 519 F.3d at 1031, the Court accepts Plaintiffs’ contention that claims 13 and 14 should
13 be construed as means-plus-function claims. *See Content Extraction*, 776 F.3d at 1349 (approving
14 the district court’s construction of a claim in the manner most favorable to the patent owner).

15 Under 35 U.S.C. § 112 ¶ 6 (now codified as § 112(f) under the America Invents Act), a
16 patentee may express a claim element “as a means or step for performing a specified function
17 without the recital of structure, material, or acts in support thereof.” Such means-plus-function
18 claiming, however, involves a tradeoff: in exchange for the flexibility in claim drafting, means-
19 plus-function claims are construed to cover only “the corresponding structure, material, or acts
20 described in the specification and equivalents thereof.” *Id.*; *see Media Rights Techs., Inc. v.*
21 *Capital One Fin. Corp.*, 800 F.3d 1366, 1371 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1173
22 (2016). Thus, accepting Plaintiffs’ contention that claims 13 and 14 are properly understood as
23 means-plus-function claims, their scope is confined to the corresponding structures in the
24 specification and equivalents. More specifically, at this stage of the proceedings, claims 13 and 14
25 are limited to the specification-provided means for “acquiring a . . . digital image,” “electronically
26 analyzing,” “determining a . . . numerical [figure],” and “generating a comparison.”

27 Before turning to the merits of the abstract-idea inquiry, the Court first addresses two

1 procedural arguments raised by Plaintiffs. First, Plaintiffs identify a district court case in which
2 the court denied a § 101 motion to dismiss based on the defendants’ failure to show that “the
3 scope of the means-plus-function claims . . . [was] similar to the scope of the non-means-plus-
4 function claims.” *Uniloc USA, Inc. v. AVG Techs. USA, Inc.*, No. 16-CV-00393-RWS, 2017 WL
5 1154927, at *4 (E.D. Tex. Mar. 28, 2017). Here, the Court deems the proper course to be to fully
6 scrutinize each claim, including by determining each claim’s appropriate scope. Second, Plaintiffs
7 argue that QuantifiCare has waived any contentions about claim 13 because those arguments were
8 not raised in the Motion to Dismiss. ECF No. 47 at 2–3. Although QuantifiCare does not
9 explicitly mention claim 13 in its Motion to Dismiss, the Motion makes clear QuantifiCare’s belief
10 that all asserted claims are invalid under § 101 for the reasons that claim 1 is invalid. *See* Mot. at
11 6 (“All claims asserted against [QuantifiCare] are basically premised on claim 1.”). QuantifiCare
12 brought up nearly identical claim 14, and QuantifiCare’s arguments in the Motion to Dismiss and
13 Reply are of the same nature—that the patent does not reveal anything more than a non-inventive
14 abstract idea. *See* Reply at 12. Under these circumstances, Plaintiffs had a sufficient opportunity
15 to present their response, and QuantifiCare’s claim 13 arguments are not waived.⁵ Thus, the Court
16 turns to the merits of the abstract-idea inquiry.

17 Plaintiffs assert that incorporating the implementation details from the specification shifts
18 the “character as a whole” of claims 13 and 14 from acquiring and analyzing information. *Opp.* at
19 16, 19. For purposes of the § 101 abstract-idea inquiry, though, the U.S. Supreme Court and the
20 Federal Circuit have often treated method claims in the same manner as apparatus and media
21 claims that are “configured to implement the same idea” as the method claims. *Alice*, 134 S. Ct. at
22 2360; *CyberSource*, 654 F.3d at 1374 (treating an apparatus claim with means-plus-function
23 language as a method claim). In this case, too, the Court fails to see how the focus of claims 13
24 and 14 is anything different than the abstract processes of acquiring and analyzing information at
25

26 ⁵ For this reason, and because the Court finds it unnecessary to consider the other material in
27 QuantifiCare’s Reply to which Plaintiffs object, the Court rejects Plaintiffs’ objections to
28 QuantifiCare’s Reply. ECF No. 47.

1 issue in claim 1. That result is not changed even if the Court considers Plaintiffs’ submitted
2 declaration of Sachin Patwardhan, which merely spells out the algorithmic processes in more
3 detail. ECF No. 42. In particular, as noted above, resort to the specification’s description of each
4 step demonstrates the abstractness of the claims because the implementation involves “analyzing
5 information by steps people go through in their minds, or by mathematical algorithms.” *Elec.*
6 *Power Group*, 830 F.3d at 1354. Plaintiffs make no headway by referring to the Federal Circuit’s
7 decision in *Amdocs*, 841 F.3d 1288. There, the court did not make a step one determination at all,
8 but instead decided it was appropriate to bypass the step one analysis and evaluate the claims
9 under step two. *Id.* at 1300. Moreover, as discussed more fully below, the claims in *Amdocs*
10 employed generic computer components “in an unconventional distributed fashion to solve a
11 particular technological problem.” *Id.* at 1300–01. In contrast, the specification here makes clear
12 that the processes are well-known and the components are not arranged in an unconventional way
13 that solves some particular technological problem. The Court therefore concludes that claims 13
14 and 14 are directed to an abstract idea.

15 Accordingly, claims 2–4, 8, and 11–14 are directed to an abstract idea for essentially the
16 same reasons that claim 1 is directed to an abstract idea.

17 **3. *Alice* Step Two for Claim 1 of the ’003 Patent—Evaluation of Abstract Claim for**
18 **an Inventive Concept**

19 Having found that claims 1–4, 8, and 11–14 of the ’003 Patent are directed to an abstract
20 idea under step one of *Alice*, the Court proceeds to step two. Here too the Court begins its analysis
21 with claim 1 of the ’003 Patent. At step two, the Court must “consider the elements of each claim
22 both individually and ‘as an ordered combination’ to determine whether the additional elements
23 ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355
24 (quoting *Mayo*, 566 U.S. at 78–79). The U.S. Supreme Court has described this as a “search for
25 an “‘inventive concept’”—*i.e.*, an element or combination of elements that is ‘sufficient to ensure
26 that the patent in practice amounts to significantly more than a patent upon the [ineligible concept]
27 itself.’” *Id.* (alteration in original) (citation omitted).

1 Here, QuantifiCare argues that claim 1 of the '003 Patent does not recite an inventive
2 concept because it simply recites the conventional use of existing electronic components. Mot. at
3 20. QuantifiCare also observes that claim 1 does not go beyond acquiring and analyzing
4 information because it “simply require[s] acquiring an image, generating rules regarding locating
5 and scoring skin defects, applying the rule, comparing against a portion of the database and
6 storing/displaying the results.” *Id.* at 23.

7 Plaintiffs respond that claim 1 of the '003 Patent recites an inventive concept because it
8 includes “detailed image-processing steps, the determination of a numerical severity[,] and, most
9 importantly, the generation of a comparison between that severity and a predetermined value
10 associated with a population of people.” Opp. at 21. According to Plaintiffs, the combination of
11 steps is an improvement because claim 1 produces accurate, comprehensible information about
12 individual cosmetic conditions relative to others that enables predictive analysis of future skin
13 conditions. *Id.*

14 In assessing whether a claim recites an inventive concept, the Court, under *Alice*, must
15 consider the claim elements “both individually and ‘as an ordered combination.’” 134 S. Ct. at
16 2355 (citation omitted). The Court addresses each in turn.

17 **a. Individual Claim Elements**

18 Considering the elements of claim 1 individually, the Court discerns nothing that supplies
19 an inventive concept. As discussed above, the U.S. Supreme Court has held that “generic
20 computer implementation” is insufficient to transform a patent-ineligible abstract idea into a
21 patent-eligible invention. *Alice*, 134 S. Ct. at 2352, 2357. Such “generic computer
22 implementation” includes “computer functions [that] are ‘well-understood, routine, conventional
23 activit[ies]’ previously known to the industry.” *Id.* at 2359 (alteration in original) (quoting *Mayo*,
24 566 U.S. at 73). Accordingly, the Federal Circuit has consistently declined to find that an
25 individual claim element supplies an inventive concept where it requires nothing more than a
26 generic computer component or a recitation of a routine or conventional computer function. *See*,
27 *e.g.*, *Intellectual Ventures I*, 850 F.3d at 1341 (no inventive concept where “the claims recite both

1 a generic computer element—a processor—and a series of generic computer ‘components’ that
2 merely restate their individual functions—i.e., organizing, mapping, identifying, defining,
3 detecting, and modifying”); *Affinity Labs*, 838 F.3d at 1263 (no inventive concept where the claim
4 “simply recites that the abstract idea of remote delivery will be implemented using the
5 conventional components and functions generic to cellular telephones”); *Content Extraction*, 776
6 F.3d at 1348 (no inventive concept where claim recites “storing information” into memory and
7 using a computer to “translate the shapes on a physical page into typeface characters”).

8 None of the elements of claim 1, assessed individually, amount to anything more than
9 generic computer implementation. Indeed, Plaintiffs do not argue that any individual element of
10 claim 1 encompasses such an inventive concept. Opp. at 24. The steps of claim 1 recite four
11 functions: “acquiring a . . . digital image,” “electronically analyzing,” “determining a . . .
12 numerical [figure],” and “generating a comparison.” ’003 patent, col. 12:57–67. All of these
13 functions, when performed electronically, are routine computer functions. *See Alice*, 134 S. Ct. at
14 2359. Moreover, claim 1 does not recite any electronic components—let alone nonconventional
15 computer, network, or display devices—to perform the claimed functions of acquiring and
16 analyzing information.

17 The specification confirms the generic nature of these elements. With regard to the
18 individual method steps, the specification states many times that the necessary programming is
19 conventional and well-known and does not utilize a new technique for analyzing digital images.
20 For example, the specification teaches that acquiring the digital image may involve taking a photo
21 and digitizing the picture “in a known manner,” such as by using a flatbed scanner, then
22 transferring the digital image data to the computing device for analysis. ’003 patent, col. 4:56–
23 5:14. Similarly, the specification notes that skin-defect location may be accomplished by “using a
24 variety of known algorithms” and incorporates a number of such algorithms from prior-art
25 sources. *Id.*, col. 8:4–18; *see also id.*, col. 7:21–22 (“Many facial feature recognition algorithms
26 are well known to persons of ordinary skill in the art.”). As to determining defect severity, the
27 specification uses tallying of pixels and recognizes that the methods “are well known to persons of

1 ordinary skill in the art.” *Id.*, col. 8:48–60, 9:48–49; *see also id.*, col. 9:49–10:40 (listing well
2 known methods of “surface area density,” “fractal texture measurement,” and “pixel intensity
3 variance”). The final step is to normalize the severity figure for comparison—the specification
4 proposes doing so by using mathematical operations like addition, subtraction, and multiplication.
5 *Id.*, col. 8:60–9:14. None of these steps, considered alone, significantly differentiates the process
6 from acquiring and analyzing information of a particular type.

7 The same conclusion holds for the components on which claim 1’s functions are
8 performed. Specifically, the specification confirms that the claimed method may be run on “a
9 general purpose computer.” ’003 patent, col. 4:2–4. As the specification describes, the computing
10 device may include basic computer components including a “data memory,” such as random-
11 access memory (RAM), *id.*, col. 4:8–9; a “program memory,” such as a read-only memory
12 (ROM), *id.*, col. 4:10–11; and a “microprocessor,” *id.*, col. 4:11–12. Thus, none of the individual
13 claim elements amount to anything more than “generic computer implementation” and do not
14 provide an inventive concept.

15 **b. Ordered Combination**

16 Turning to the ordered combination of elements of claim 1, the Court also finds that claim
17 1 fails to recite an inventive concept. Claim 1’s combination of elements does not differentiate the
18 process from the abstract idea of acquiring and analyzing information. Contrary to Plaintiffs’
19 suggestion, claim 1 does not offer a “non-conventional and non-generic arrangement of known,
20 conventional pieces.” *BASCOM*, 827 F.3d at 1350. Instead, all of the elements are arranged in a
21 conventional and generic way. Claim 1 does not require a new technique for analyzing
22 information, but rather follows the familiar progression of acquiring and analyzing information of
23 a desired type to extract certain results from that information. In fact, as the specification
24 acknowledges, beauty counselors have long followed the same series of steps that appear in claim
25 1. ’003 patent, col. 1:26–27. In particular, beauty counselors examine clients to identify skin
26 defects, then communicate information about the “type, quantity, and location of those defects”
27 and recommend treatments to reduce or eliminate those defects. *See id.*, col. 1:27–33. Claim 1’s

1 automation of some of these straightforward steps does not provide an inventive concept either.
2 To the extent that claim 1 invokes computers, nothing in the claim, understood in light of the
3 specification, requires anything other than conventional computers and components for gathering
4 and analyzing the desired information.

5 Plaintiffs nevertheless contend that claim 1’s ordered combination of elements
6 encompasses an inventive concept. First, Plaintiffs argue that claim 1 as a whole provides for the
7 comprehensible display of accurate information about individual cosmetic conditions. *See* Opp. at
8 21. However, the Federal Circuit has already rejected the notion that selecting and manipulating
9 information “to provide a humanly comprehensible amount of information useful for users” is
10 itself sufficient to “transform the otherwise-abstract processes” of acquiring and analyzing
11 information. *Elec. Power Grp.*, 830 F.3d at 1355 (internal quotation marks and citation omitted).
12 That holding disposes of Plaintiffs’ first argument about an inventive concept.

13 Second, Plaintiffs suggest that claim 1’s combination of elements “enables predictive
14 analytics through which the invention may forecast and simulate future skin conditions specific to
15 a subject’s particular demographic,” Opp. at 21, but Plaintiffs’ description does not accurately
16 capture the claim. Importantly, “an inventive concept must be evident in the claims.”
17 *RecogniCorp*, 855 F.3d at 1327; *see also Two-Way Media*, 874 F.3d at 1338 (“The main problem
18 that Two-Way Media cannot overcome is that the *claim*—as opposed to something purportedly
19 described in the specification—is missing an inventive concept.”). Here, claim 1 does not focus
20 on any advance in predictive analytics. More specifically, claim 1 neither claims simulating the
21 improving or worsening of skin conditions, nor recites what particular steps are taken to enable
22 such functionality. *See* Opp. at 23 (asserting only that claims “made possible” computerized
23 display of the simulation of improved or worsened skin conditions). The Federal Circuit has
24 declined to find an inventive concept in similar cases where, even if a claim purports to solve a
25 particular technological problem, it does not specifically recite detail for how it is accomplished.
26 *See Intellectual Ventures I*, 850 F.3d at 1342 (no inventive concept where “[n]othing in the claims
27 indicate[s] what steps are undertaken to overcome the stated incompatibility problems”);

28

1 *Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1331–32 (Fed. Cir. 2017)
2 (“Without an explanation of the ‘mechanism’ for ‘how the result is accomplished,’ this purported
3 feature of the invention cannot supply an inventive concept.” (citation omitted)).

4 Third, and finally, Plaintiffs hone in on claim 1’s comparison step and argue that its
5 inclusion in the overall process renders the combination of elements inventive. *See Opp.* at 21–22.
6 At their core, Plaintiffs’ arguments imply that claim 1’s combination of elements encompass an
7 inventive concept because the elements have never before been combined. That methodology
8 misapprehends the scope of the inventive-step inquiry. Whether a claimed series of steps is new is
9 a novelty question that is analyzed under 35 U.S.C. § 102, not under § 101. *See Diehr*, 450 U.S. at
10 190 (“The question therefore of whether a particular invention is novel is ‘wholly apart from
11 whether the invention falls into a category of statutory subject matter.’” (citation omitted)). The
12 same is true for whether a claimed series of steps would have been obvious at the time of the
13 invention. *See id.* at 191 (noting that a § 103 rejection “does not affect the determination that [the]
14 claims recited subject matter which was eligible for patent protection under § 101”). Instead, the
15 question is whether the combination of elements “amounts to significantly more than a [claim]
16 upon the [abstract idea] itself.” *Alice*, 134 S. Ct. at 2355 (citation omitted). Regardless of whether
17 the steps in claim 1 have previously been combined, they do not amount to significantly more than
18 acquiring and analyzing information. Thus, the ordered combination of elements in claim 1 does
19 not provide an inventive concept.

20 Plaintiffs’ cited authority actually demonstrates why claim 1 fails to recite an inventive
21 concept. For example, Plaintiffs point to the Federal Circuit’s decision in *Amdocs*. There, the
22 Federal Circuit held that claims related to solutions for managing accounting and billing data over
23 large, disparate networks recited an inventive concept because the claims contained “specific
24 enhancing limitation[s] that necessarily incorporate[d] the invention’s distributed architecture.”
25 841 F.3d at 1301. Although the claims required generic computer components, the claims
26 employed those components “in an unconventional distributed fashion to solve [the] particular
27 technological problem” of “massive record flows which previously required massive databases.”

1 *Id.* at 1300–01. The Federal Circuit distinguished cases in which the claimed method was some
 2 form of acquiring and analyzing information and the “recited components and functions were
 3 well-understood, routine, conventional activities previously known in the industry.” *Id.* at 1296–
 4 97. Claim 1 here falls into the latter category: it recites generic computer components performing
 5 the well-worn functions of acquiring and analyzing information in the realm of skin imaging.
 6 Rather than espousing an arrangement of components “in an unconventional . . . fashion to solve a
 7 particular technological problem,” *id.* at 1301, the ’003 Patent embraces the use of a general-
 8 purpose computer to execute routine functions and identifies no technological problem that is
 9 overcome by the claimed process of acquiring and analyzing digital-image data.

10 Plaintiffs’ reliance on *Ameritox, Ltd. v. Millennium Health, LLC*, 88 F. Supp. 3d 885 (W.D.
 11 Wis. 2015), fails for many of the same reasons. In *Ameritox*, the district court addressed claims
 12 related to collecting and testing urine samples, which required normalizing the urine drug
 13 concentration based on the patient’s hydration and urinary output volume. *Id.* at 911. The court
 14 found that coupling this normalization step with steps for detecting and comparing drug
 15 concentration in urine provided an inventive concept that “allow[ed] for more accurate assessment
 16 of aberrant drug use.” *Id.* at 912. In particular, the specification noted that the addition of the
 17 normalization step overcame an identified problem in prior-art systems: those systems could test
 18 for the presence or absence of drugs but could not compare drug quantity amounts because of the
 19 variation in drug concentrations in urine. *Id.* at 912–13. While claim 1 here could be construed to
 20 also contain a normalization step, the ’003 Patent nowhere suggests that this addition is a unique
 21 solution addressed to a unique problem in skin-defect location or quantification. Rather, the
 22 specification reflects the basic nature of these steps and fails to distinguish them from the normal
 23 process of analyzing information. Thus, unlike the claim limitations in *Amdocs* and *Ameritox*,
 24 claim 1’s “limitations, analyzed alone and in combination, fail to add ‘something more’ to
 25 ‘transform’ the claimed abstract idea of collecting and analyzing information to detect [skin
 26 defects] into ‘a patent-eligible application.’” *FairWarning*, 839 F.3d at 1095 (citation omitted).

27 In sum, neither the individual elements of claim 1 of the ’003 Patent nor their ordered

1 combination recite an inventive concept. Accordingly, claim 1 fails to recite patent-eligible
2 subject matter under § 101.

3 **4. Alice Step Two for Claims 2–4, 8, and 11–14 of the '003 Patent—Evaluation of**
4 **Abstract Claims for an Inventive Concept**

5 Plaintiffs have not separately identified an inventive concept for claims 2–4, 8, and 11–12
6 of the '003 Patent apart from those already discussed above. Thus, the Court need not address
7 whether any of the additional limitations in these claims provide an inventive concept. *Shakur v.*
8 *Schriro*, 514 F.3d 878, 892 (9th Cir. 2008) (litigants waive arguments by failing to raise them in
9 an opposition to a motion to dismiss); *accord John–Charles v. California*, 646 F.3d 1243, 1247
10 n.4 (9th Cir. 2011) (holding party “failed to develop any argument on this front, and thus has
11 waived it”). Accordingly, for the same reasons discussed with respect to claim 1, claims 2–4, 8,
12 and 11–12 of the '003 Patent also fail to recite an inventive concept. Thus, they also do not recite
13 patent-eligible subject matter under § 101.

14 To the extent that Plaintiffs raise distinct arguments about an inventive concept in claims
15 13 and 14, the Court rejects these arguments. As noted previously, at the motion to dismiss stage,
16 the Court accepts Plaintiffs’ assertion that claims 13 and 14 are means-plus-function claims that
17 are limited to the corresponding structures in the specification and equivalents. *See See Content*
18 *Extraction*, 776 F.3d at 1349. However, the Court has already detailed above how the
19 specification confirms the generic nature of claim 1’s elements. With regard to the analytical
20 steps, the specification acknowledges that the means to accomplish these functions are well-
21 known mathematical methods and algorithms. *See, e.g.*, '003 patent, col. 4:56–5:14 (“acquiring”
22 step proceeds by taking a photo and digitizing the picture “in a known manner”); *id.*, col. 8:4–18
23 (“electronically analyzing” step proceeds by “using a variety of known algorithms”); *id.*, col.
24 8:48–60, 9:48–49 (“determining . . . numerical severity” step proceeds by methods that “are well
25 known to persons of ordinary skill in the art”); *id.*, col. 8:60–9:14 (“generating a comparison” step
26 proceeds by mathematical operations and calculation of a percentile). With regard to the
27 components, Plaintiffs’ submission that claims 13 and 14 require a special-purpose computer,

1 Opp. at 16, is contradicted by the specification’s statement that the claimed method may be run on
2 “a general purpose computer,” *id.*, col. 4:2–4. The Court determines that claims 13 and 14 too fail
3 to contain an inventive concept and hence do not recite patent-eligible subject matter.

4 For the foregoing reasons, the Court concludes that each of claims 1–4, 8, and 11–14 of the
5 ’003 Patent is directed to a patent-ineligible abstract idea, and that the claim limitations do not
6 provide an “inventive concept” sufficient to transform these claims into patent-eligible subject
7 matter. Accordingly, the Court GRANTS QuantifiCare’s Motion to Dismiss as to claims 1–4, 8,
8 and 11–14 of the ’003 Patent. Because these claims are directed to patent-ineligible subject matter
9 under 35 U.S.C. § 101, a defect which cannot be cured through amendment of the complaint,
10 Plaintiffs’ claims for infringement as to claims 1–4, 8, and 11–14 of the ’003 Patent are
11 DISMISSED WITH PREJUDICE.

12 **C. Claims 9, 30, and 32–41 of the ’003 Patent**

13 The Court next turns to a determination of whether claims 9, 30, and 32–41 of the ’003
14 Patent are patent-ineligible under § 101. The Court begins with claim 30, the only claim for which
15 either party has provided substantial briefing, and then turns to the remaining claims.

16 **1. *Alice* Step One for Claim 30 of the ’003 Patent—Whether the Claim Is Directed to
17 an Abstract Idea**

18 As set forth above, step one of the *Alice* framework directs the Court to assess “whether
19 the claims at issue are directed to [an abstract idea].” *Alice*, 134 S. Ct. at 2355. Here,
20 QuantifiCare contends that claim 30 is directed to the abstract idea of “creating and analyzing a
21 sub-image of the [first] image, using the *same* method of analysis as is described for the first
22 image in claim 1.” Reply at 5. According to QuantifiCare, claim 30’s addition of “making a
23 second, more focused image” and “restricting analysis to a sub-area of the face” are not an
24 improvement, so claim 30 should be treated the same as claim 1. *Id.* at 5–6. QuantifiCare also
25 argues that determining the sub-area of the face is abstract because it is an operation humans have
26 always performed. *Id.* at 6.

27 Plaintiffs contend that claim 30 is not directed to an abstract idea because it is instead

1 directed to a specific improvement in technological capabilities. Opp. at 12. Specifically,
2 Plaintiffs argue that claim 30 is directed to “[t]he electronic determination of a sub-image of a
3 digital image and the electronic location within that sub-image of skin defects or the determination
4 of overall skin conditions.” *Id.* (emphasis omitted). According to Plaintiffs, the sub-image
5 determination prevents errors that normally occur in facial image processing and therefore effects
6 an improvement in the functioning of facial image processing systems. *Id.* at 13.

7 To evaluate step one, the Federal Circuit instructs the Court to “appl[y] a stage-one filter to
8 claims, considered in light of the specification, based on whether ‘their character as a whole is
9 directed to excluded subject matter.’” *Enfish*, 822 F.3d at 1335 (citation omitted). Thus, the Court
10 first identifies what the “character as a whole” of claim 30 of the ’003 Patent is “directed to,” and
11 then discusses whether this is an abstract idea.

12 **a. Claim 30 of the ’003 Patent—“Directed to” Inquiry**

13 The Court begins by examining claim 30 of the ’003 Patent in its entirety to understand
14 what its “character as a whole” is “directed to.” *Elec. Power Grp.*, 830 F.3d at 1353 (citation
15 omitted). At the motion to dismiss stage, courts interpret claims in the manner most favorable to
16 the nonmoving party, here Plaintiffs. *See Manzarek*, 519 F.3d at 1031; *Content Extraction*, 776
17 F.3d at 1349 (approving the district court’s construction of a claim in favor of the patent owner on
18 a motion to dismiss).

19 Claim 30 recites a method for “locating a plurality of skin defects associated with a face of
20 a person.” ’003 patent, col. 15:11–12. The method itself consists of four steps: (1) “acquiring” a
21 digital image of “the face of the person,” *id.*, col. 15:13–14; (2) “identifying” facial landmarks—
22 including either the corner of an eye, a nose, or a mouth—in that digital image, *id.*, col. 15:15–20;
23 (3) using those facial landmarks to “electronically determin[e]” a sub-image of the digital image,
24 *id.*, col. 15:21–23; and (4) “electronically analyzing” the sub-image to locate skin defect areas, *id.*,
25 col. 15:24–29. The end result is identification of multiple defect areas which contain “a visual
26 skin defect” and are less than about one-tenth the size of the digital image. *Id.*, col. 15:26–29.

27 Reading the entirety of claim 30 for its character as a whole in the light most favorable to

1 Plaintiffs, the Court finds that claim 30 is “directed to” electronically determining a sub-image of a
2 digital image by reference to facial features and electronically locating skin defects within that
3 sub-image. The sub-image of the digital image is central to claim 30. The bulk of the claim
4 centers on the determination of that sub-image. The first two steps are preparatory steps in that
5 determination, first obtaining a digital image and then recognizing facial landmarks in that digital
6 image to create the sub-image. The third step carries out the electronic determination of the sub-
7 image. Lastly, the fourth step’s electronic analysis is performed on the sub-image in order to
8 locate skin defect areas within the sub-image. Thus, electronically determining a sub-image of a
9 digital image by reference to facial features and electronically locating skin defects within that
10 sub-image meaningfully captures what the “character as a whole” of claim 30 is “directed to.”

11 **b. Claim 30 of the ’003 Patent—Abstract Idea Analysis**

12 Having determined the “character as a whole” of claim 30, the Court turns to whether it is
13 directed to an abstract idea. *Enfish*, 822 F.3d at 1335 (citation omitted). As discussed above,
14 courts will generally compare the claims at issue to prior § 101 cases, as well as consult several
15 guideposts, including: (1) whether the claims are directed to an “improvement to computer
16 functionality”; (2) whether the claims are directed to a “new and useful technique”; (3) whether
17 the claims have an analogy to the brick-and-mortar world; and (4) whether the claims are directed
18 to a mental process or a process that can be performed with a pen and paper. *See* § II.C, *supra*.

19 Because on a motion to dismiss the Court must “construe the pleadings in the light most
20 favorable to the nonmoving party,” *Manzarek*, 519 F.3d at 1031, the Court agrees with Plaintiffs’
21 at this stage of the proceedings that claim 30 is directed to an improvement in computer
22 functionality and not an abstract idea. The Court focuses its analysis on the “improvement to
23 computer technology” guidepost and reaches other considerations only as necessary to rebut the
24 parties’ arguments.

25 **i. Improvement to Computer Functionality**

26 A claim is not abstract if it “improve[s] the functioning of the computer itself” or
27 “improves an existing technological process.” *Alice*, 134 S. Ct. at 2358–59. Thus, *Enfish* held

1 that it is “relevant to ask whether the claims are directed to an improvement in computer
2 functionality versus being directed to an abstract idea, even at the first step of the *Alice* analysis.”
3 822 F.3d at 1335. When considering claims purportedly directed to “an improvement of computer
4 functionality,” the Court must “ask[] whether the focus of the claims is on the specific asserted
5 improvement in computer capabilities . . . or, instead, on a process that qualifies as an ‘abstract
6 idea’ for which computers are invoked merely as a tool.” *Id.* at 1335–36.

7 The Federal Circuit applied these principles in *McRO* to hold that claims for automating
8 part of a preexisting method for 3–D facial expression animation were not directed to an abstract
9 idea because they “focused on a specific asserted improvement in computer animation, i.e., the
10 automatic use of rules of a particular type.” 837 F.3d at 1314. The court found that these rules
11 constituted an improvement in computer animation because they “automate[d] a task previously
12 performed by humans” through an entirely “distinct process” that was different from how humans
13 had performed that same task. *Id.* at 1314–15. In particular, the traditional process was “driven
14 by subjective [human] determinations rather than specific, limited mathematical rules.” *Id.* at
15 1314. Thus, the claimed method operated in a fundamentally different manner from the traditional
16 process and improved animation technology by “allowing computers to produce ‘accurate and
17 realistic lip synchronization and facial expressions in animated characters’ that previously could
18 only be produced by human animators.” *Id.* at 1313.

19 In applying *Enfish* and *McRO*, the Federal Circuit has carefully distinguished between
20 claims directed to a disembodied “function”—even if one relating to computer technologies—and
21 claims directed to “a particular way of performing that function.” *Affinity Labs*, 838 F.3d at 1258.
22 The first generally falls into the abstract-idea category, while the latter generally does not. *Id.*
23 The Federal Circuit illustrated this concept in *Affinity Labs*, where it found that claims directed to
24 “providing out-of-region access to regional broadcast content” were directed to an abstract idea
25 because “providing out-of-region access to regional broadcast content” was a “broad and familiar
26 concept concerning information distribution that is untethered to any specific or concrete way of
27 implementing it.” *Id.* Thus, claims that are “entirely functional in nature” or recite a “general

1 concept . . . without offering any technological means of effecting that concept” are not
2 comparable to the claims in *Enfish* and *McRO*. *Id.* at 1258, 1262.

3 Applying these principles and construing the pleadings in the light most favorable to
4 Plaintiffs, the Court finds that claim 30 is directed to a specific improvement in a type of computer
5 technology—specifically, facial image processing technology. As the specification of the ’003
6 Patent explains, while beauty counselors have long provided consultations, those consultations are
7 “very subjective.” ’003 patent, col. 1:34. Beauty counselors do not always “identify the same
8 type or number of skin defects” and may have trouble “communicat[ing] the defects she is seeing
9 to the client.” *Id.*, col. 1:34–40. Additionally, automated systems were susceptible to making
10 errors—for example, the system might consider an eye or a nose and conclude that “a large
11 discoloration of the skin is present.” *Id.*, col. 6:20–23. What claim 30 is directed to—
12 electronically determining a sub-image of a digital image by reference to facial features and
13 electronically locating skin defects within that sub-image—seeks to solve these problems by
14 having a computerized system determine the area for analysis and perform the analysis. The use
15 of electronic determination and analysis purports to eliminate or reduce the subjective nature of
16 the consultations previously executed by humans. Moreover, the errors that can occur by using an
17 electronic system are purportedly avoided by incorporating a step that identifies facial landmarks
18 (including the corner of the eye, nose, or mouth) so that they can be excluded from analysis. *Id.*,
19 col. 15:15–23; *see also id.*, col. 6:19–20 (“By eliminating [those] portions of the acquired image
20 . . . from the analysis process, fewer errors occur.”). Overall, claim 30 can reasonably be
21 understood as an improvement to facial image processing technology itself.

22 Additionally, claim 30 purportedly provides a specific implementation of this
23 improvement. *See Affinity Labs*, 838 F.3d at 1258 (holding a patent to be abstract because the
24 asserted claims were “entirely functional in nature” and “untethered to any specific or concrete
25 way of implementing [that function]”). As discussed above, claim 30 is directed to electronically
26 determining a sub-image of a digital image *by* reference to facial features and electronically
27 locating skin defects within that sub-image. These two functions—electronically determining a

1 sub-image and electronically locating skin defects within that sub-image—are specific technical
2 implementation details that shift the focus of claim 30 beyond a disembodied, functional goal.
3 With respect to the first function, claim 30 requires that the electronic determination of the sub-
4 image be based on a separate identification of landmarks, which must include at least the corner of
5 an eye, a nose, or a mouth. That setup permits the second function to be more meaningful because
6 the electronic location of skin defects is limited to those within the sub-image. *See* ’003 patent,
7 Abstract (“[T]he system determines which area(s) of the image to analyze using landmarks such as
8 the corner of the eye.”). In this way, “[t]he claimed process uses a combined order of specific
9 rules that renders information into a specific format that is then used and applied to create desired
10 results,” namely, an accurate identification within the sub-image of defect areas containing a
11 visual skin defect that are less than about 10% of the size of the original digital image. *See McRO*,
12 837 F.3d at 1315.

13 The specification adds further technical contour, as it describes each of these steps in
14 detail. *See, e.g.*, ’003 patent, col. 6:12–7:27 (describing four different methods for electronically
15 determining a sub-image by using facial landmarks); *id.*, col. 7:41–54 (describing alternative
16 embodiment where the sub-image is determined by examining the color values of multiple pixels);
17 *id.*, col. 7:58–8:46 (describing what constitutes a skin defect and how the system electronically
18 locates that skin defect). In addition, the specification underscores that these features are
19 significant because they enable specific capabilities within the system. For example, using a
20 portion of the original image that has eliminated certain facial landmarks—like the corner of the
21 nose, mouth, and eye—enables more accurate image analysis by avoiding the discolorations
22 associated with those areas. *Id.*, col. 6:20–23. As another example, employing algorithms related
23 to various skin defects enables consistent determination of the location and number of skin defects
24 within the sub-image. *Id.*, col. 8:4–18. As such, claim 30’s recitation of these two functions,
25 electronically determining a sub-image and electronically locating skin defects within that sub-
26 image, appears to provide meaningful restrictions on *how* the larger goal of enabling accurate
27 identification of skin defects in facial image processing is accomplished. Accordingly, taking

1 these two features together, claim 30 is directed to a specific implementation of an improvement to
2 facial image processing technology.

3 So stated—and construing the pleadings in the light most favorable to Plaintiffs, as the
4 Court must on a motion to dismiss—claim 30 here arguably parallels the claims at issue in *McRO*.
5 In *McRO*, as noted above, the Federal Circuit found that the claims at issue did not “simply use a
6 computer as a tool to automate conventional activity,” but instead “focused on a specific asserted
7 improvement” of using rules of a particular type to automate lip-synchronization of 3-D
8 characters. 837 F.3d at 1314. The court relied heavily on the fact that the traditional method
9 involved subjective human decisions, so that the choice of automation rules created a distinct
10 process not previously performed by humans. *Id.* The same can be said for claim 30. The
11 features of (1) electronically determining a sub-image by reference to facial features and (2)
12 electronically locating skin defects within that sub-image are not directed to any form of enabling
13 accurate and consistent location of skin defects in facial image processing, but a specific variant of
14 this function. In addition, the specification suggests that this variant works differently than
15 conventional approaches, as it chooses a particular set of automation rules designed to determine
16 and analyze a sub-image, whereas the traditional approach requires subjective determinations by
17 human beauty counselors observing a client. *See* ’003 patent, col. 1:34–40. The invention’s
18 “combined order of specific rules” also “renders information into a specific format that is then
19 used and applied to create desired results,” *McRO*, 837 F.3d at 1315, namely, accurate
20 identification of skin defect areas within a sub-image which facilitate treatment analysis, *see* ’003
21 patent, col. 12:44–48. Moreover, the claimed method purportedly avoids the recognized error rate
22 associated with automation by eliminating from consideration the facial landmarks likely to cause
23 such errors. *Id.*, col. 6:19–23, 15:15–23. As such, it qualifies as a “specific asserted improvement
24 in [facial image processing]” instead of “a result or effect that itself is the abstract idea and merely
25 invoke[s] generic processes and machinery.” *McRO*, 837 F.3d at 1314.

26 Further—again construing the pleadings in the light most favorable to Plaintiffs, as the
27 Court must on a motion to dismiss—claim 30 cannot be deemed to be directed to an abstract idea

1 under *Affinity Labs* and similar cases because it is not “entirely functional in nature” or
 2 “untethered to any specific or concrete way of implementing [that function].” 838 F.3d at 1258.
 3 As discussed above, claim 30 is “directed to” a specific implementation of an improvement to
 4 facial image processing technology—specifically, the functions of electronically determining a
 5 sub-image of a digital image by reference to facial features and electronically locating skin defects
 6 within that sub-image. Both features are or include specific technical implementation details that
 7 shift the focus of claim 30 beyond a disembodied, functional goal. Accordingly, these functions
 8 provide what was missing in *Affinity Labs*: “details regarding the manner in which the invention
 9 accomplishes the recited functions.” *Id.* at 1259. It is true that these requirements do not
 10 eliminate all design choices for a person of skill in the art. For example, the specification states
 11 that the computing device may be “a general purpose computer programmed to implement the
 12 method” or “an application specific device designed to implement the method,” ’003 patent, col.
 13 4:2–8; the determination of the sub-image border may proceed by four methods, *id.*, col. 6:24–25;
 14 and the skin defects may be located by multiple algorithms, *id.*, col. 8:4–18. Nonetheless, many of
 15 the same design choices remained open in *McRO*. See 837 F.3d at 1314 (noting that the rules at
 16 issue were “embodied in computer software that is processed by general-purpose computers”); *id.*
 17 at 1315 (noting that the specification described “one set of rules” but nothing suggested that this
 18 set was the *only* set of rules). The claim limitations appear to be specific enough to confine
 19 implementation to a concrete universe of technical features that fall within a certain class. For all
 20 the reasons stated above, claim 30 is directed to “an improvement in [a] technology or technical
 21 field.” *Alice*, 134 S. Ct. at 2359; *Enfish*, 822 F.3d at 1335 (claims “directed to an improvement to
 22 computer functionality [instead of] being directed to an abstract idea”).

23 **ii. Human Processes**

24 QuantifiCare contends that claim 30 is directed to an abstract idea because it encompasses
 25 activities that humans have always performed. In particular, with regard to identifying facial
 26 landmarks to determine an appropriate sub-image, QuantifiCare argues that using anatomical
 27 landmarks “is an operation humans have always performed” and that drawing lines connecting

1 these landmarks is something that a human can do. Reply at 6; *see also* Mot. at 24 (“Humans do
2 that visually.”). In other words, QuantifiCare argues that claim 30 simply applies generic
3 computers to long-prevalent human activity. QuantifiCare’s arguments are forceful, but they do
4 not carry the day at this stage of the proceedings.

5 QuantifiCare notes that human perception of the face is guided by prominent anatomical
6 landmarks (such as the eye, nose, and mouth). The ’003 Patent’s specification acknowledges the
7 conventionality of each step within the process. However, the specification can also be read as
8 providing a sufficient basis to conclude that claim 30 accomplishes the task in a distinct way. As
9 noted above, the specification explains that beauty counselors traditionally performed the process
10 of locating skin defects and made several subjective judgments about the type and location of
11 different skin defects. ’003 patent, col. 1:34–40. Claim 30 seeks to automate that process, reciting
12 a series of rules that are used to accurately and reliably locate skin defects, in particular by
13 creating a suitable sub-image for analysis. Indeed, claim 30’s identification of facial landmarks
14 and use of those landmarks to create the sub-image are related to a specific problem encountered
15 in automating the process. These sub-image limitations are also what distinguishes claim 30 from
16 claim 1, which merely reflects the longstanding process of acquiring and analyzing information.
17 Claim 30 thus can be understood as going beyond the traditional process.

18 **iii. Conclusion**

19 The Court acknowledges that this case presents an extremely close call as to whether claim
20 30 “improve[s] the functioning of the computer itself,” *Alice*, 134 S. Ct. at 2359, or instead
21 invokes computers “merely as a tool” to carry out an abstract process, *Enfish*, 822 F.3d at 1336.
22 The ’003 Patent’s specification acknowledges that even the algorithms used to determine the sub-
23 image are well-known to persons of ordinary skill in the art. ’003 patent, col. 7:21–27 (“Many
24 facial feature recognition algorithms are well known to persons of ordinary skill in the art. One
25 such algorithm is detailed in M. Lievin, F. Luthon, “Lip Features Automatic Extraction”,
26 Proceedings of the 1998 IEEE International Conference on Image Processing, WA05.03, Chicago,
27 October 1998, which is incorporated herein by reference.”); *id.*, col. 7:41–54 (describing alternate

1 embodiment in which “sub-image is electronically determined by comparing a plurality of color
2 values of a plurality of pixels to a predetermined threshold indicative of skin color” and
3 acknowledging “[t]his well known technique” is described in two publications incorporated by
4 reference).

5 However, on a motion to dismiss the Court must “construe the pleadings in the light most
6 favorable to the nonmoving party.” *Manzarek*, 519 F.3d at 1031; *see also Content Extraction*, 776
7 F.3d at 1349 (approving the district court’s construction of a claim in the manner most favorable
8 to the patent owner). In light of the Federal Circuit’s recognition that “processes that automate
9 tasks that humans are capable of performing are patent eligible if properly claimed,” *McRO*, 837
10 F.3d at 1313, and this Court’s obligation to construe the pleadings in the light most favorable to
11 Plaintiffs, the Court concludes that claim 30 is not directed to an abstract idea because it is instead
12 directed to an improvement to computer functionality.

13 **2. Alice Step One for Claims 9 and 32–41 of the ’003 Patent—Whether the Claims**
14 **Are Directed to an Abstract Idea**

15 The Court now turns to the remaining asserted claims of the ’003 Patent (claims 9 and 32–
16 41) and determines whether, in light of the conclusion that claim 30 is not directed to an abstract
17 idea, these remaining claims are also not directed to an abstract idea. QuantifiCare does not fully
18 develop an argument that claims 9 and 32–41 are distinct from claim 30 but instead suggests that
19 all of these claims should be evaluated together. *See* Reply at 5 (noting that claims 9 and 32–41
20 are “of essentially the same character as [claim] 30”). Nevertheless, the Court proceeds to analyze
21 these claims. The Court first addresses claim 9; then addresses claims 32–37; and finally
22 addresses claim 38–41.

23 **a. Claim 9**

24 Claim 9 depends on claim 1. As noted earlier, claim 1 recites the steps of retrieving a
25 digital image of a person, performing electronic analysis on the image “to locate an area
26 containing a skin defect,” assigning a “numerical severity” to the defect area, and comparing the
27 “numerical severity” to a predefined value for a particular population. *Id.*, col. 12:59–67. Claim 9

1 adds the steps of identifying facial landmarks and electronically determining a sub-image of the
2 digital image and confines claim 1’s electronic analysis step to the sub-image. *Id.*, col. 13:38–45.
3 Claim 9’s modifications of claim 1 render claim 9 substantially similar to claim 30. Like in claim
4 30, the determination of the sub-image is essential to claim 9, and the subsequent analysis to
5 detect skin defects is limited to that sub-image. Thus, claim 9’s “character as a whole” is similar
6 to claim 30’s, and claim 9 is not directed to an abstract idea for the same reasons.

7 **b. Claims 32–37**

8 Claims 32–37 depend on claim 30. Claims 32–33 introduce additional steps for
9 accomplishing one portion of what claim 30 is directed to: identifying facial landmarks. In
10 particular, claims 32 and 33 recite semi-automatic sub-image determination and fully automatic
11 sub-image determination, respectively. *Id.*, col. 15:37–16:3; *see also id.*, col. 6:60–7:27
12 (describing the processes of semi-automatic and fully automatic sub-image determination). As
13 such, claims 32–33 clarify this aspect of claim 30 and do not substantially shift its “character as a
14 whole.” Indeed, the Court’s observations regarding how claim 30 is directed to the process of
15 electronically determining a sub-image of a digital image by reference to facial features and
16 electronically locating skin defects within that sub-image also hold true for claims 32–33. Thus
17 claims 32–33 are not directed to an abstract idea.

18 Claims 34–35 append extra steps to the process in claim 30. Claim 34 claims the steps of
19 “electronically creating” and “displaying” a second digital image that identifies skin defects by
20 “altering the color” of the pixels. *Id.*, col. 16:4–15. Claim 35 claims the steps of “determining a
21 first numerical severity” of the defect area and “generating a comparison” to the score for a similar
22 population. *Id.*, col. 16:16–22. These additions appear to be substantive, augmenting the
23 electronic determination and analysis of claim 30. However, these steps do not override the
24 functions claimed in claim 30 but instead provide further implementation of claim 30’s
25 technological improvement. Indeed, claims 34–35 appear to also advance the ’003 Patent’s
26 claimed benefits of “allowing an operator to recommend cosmetic products and/or medical
27 treatments and to simulate an improvement and/or worsening of the skin.” *Id.*, col. 12:44–48.

1 Therefore, the Court concludes that claims 34–35 are also not directed to an abstract idea.

2 Finally, claims 36–37 recite an “apparatus adapted to perform” and a “tangible medium
3 storing program instructions adapted to perform” the method of claim 30. *Id.*, col. 16:24–27. As
4 noted earlier, apparatus and media claims for the methods are often indistinguishable from the
5 method claims for § 101 purposes. *See Alice*, 134 S. Ct. at 2360; *CyberSource*, 654 F.3d at 1374.
6 The Court has not been pointed to any difference between claims 36–37 and claim 30, and so
7 concludes that claims 36–37 should be treated the same as claim 30.

8 Accordingly, the “character as a whole” of claims 32–37 are substantially the same as
9 claim 30, and they are not directed to an abstract idea for the same reasons.

10 **c. Claims 38–41**

11 Claim 38 is an independent claim, and claims 39–41 depend on claim 38. Claim 38
12 comprises four steps that blend some of the steps from claims 1 and 30: (1) “acquiring” a digital
13 image of “the face of the person,” *id.*, col. 16:30; (2) “electronically determining” a sub-image of
14 the digital image, *id.*, col. 16:31–32; (3) “electronically analyzing” the sub-image to determine an
15 overall skin characteristic, *id.*, col. 16:33–37; and (4) “determining a comparison” to a predefined
16 value for a particular population, *id.*, col. 16:38–40. Although claim 38 provides fewer details
17 than claim 30 about how to determine the sub-image, claim 38 incorporates the sub-image
18 determination step. Like claim 30’s “electronically analyzing” step, claim 38’s “electronically
19 analyzing” step is restricted to the sub-image. In contrast to claim 30, claim 38 does not locate
20 individual skin defects but instead determines an overall skin characteristic for the defects within
21 the sub-image. Finally, similar to claim 1, claim 38 ends with a comparison of the overall skin
22 characteristic to a relevant population. Thus, an apt characterization of claim 38’s “character as a
23 whole” is electronically determining a sub-image of a digital image and electronically quantifying
24 an overall skin characteristic within that sub-image.

25 The Court concludes that claim 38 is not directed to an abstract idea because it is
26 substantially similar to claim 30 in all critical respects. Crucially, claim 38 requires a
27 determination of a sub-image upon which the subsequent analysis is to be performed. As

28

1 described above, the sub-imaging process is purportedly distinct from the traditional process and
 2 addresses a particular concern related to automation of facial image processing. That fact is
 3 countenanced by the specification, which also provides details for how to implement the sub-
 4 image determination. While the output of claim 38 is slightly different than the output of claim
 5 30, the two outputs are meaningfully similar in that they both involve improved functioning of
 6 facial image processing related to skin defects. Rather than identifying particular defect areas,
 7 claim 38 produces an overall skin characteristic for the sub-image that can be compared against
 8 another figure. These steps appear to go beyond claim 1’s bare recitation of acquiring and
 9 analyzing digital image data. Thus, claim 38 is not directed to an abstract idea.

10 The Court reaches the same conclusion as to claims 39–41. Claim 39 recites auxiliary
 11 steps for “generating” and “displaying” a second digital image based on claim 38’s analysis. *Id.*,
 12 col. 16:41–47. Those extra steps complement claim 38 by further implementing the technological
 13 improvement. Claims 40 and 41 recite an “apparatus adapted to perform” and a “tangible medium
 14 storing program instructions adapted to perform” the method of claim 30. *Id.*, col. 16:48–51. The
 15 Court has not been pointed to any difference between claims 40–41 and claim 38, so the Court
 16 concludes that claims 40–41—which are the apparatus and media claims implementing claim 38’s
 17 method—should be treated the same under § 101 as claim 38. *See Alice*, 134 S. Ct. at 2360;
 18 *CyberSource*, 654 F.3d at 1374. Accordingly, the “character as a whole” of claims 38–41 are
 19 materially similar to claim 30, and they are not directed to an abstract idea.

20 **3. *Alice* Step Two for Claims 9, 30, and 32–41 of the ’003 Patent—Evaluation of**
 21 **Abstract Claims for an Inventive Concept**

22 As discussed above, claims 9, 30, and 32–41 of the ’003 Patent are not directed to an
 23 abstract idea. Thus, they pass step one of *Alice*. In light of this conclusion, the Court follows the
 24 approach taken by the Federal Circuit and other courts in similar situations and does not reach step
 25 two. *Visual Memory LLC*, 867 F.3d at 1262 (“Because we conclude that the claims . . . are not
 26 directed to an abstract idea, we need not proceed to step two of the *Alice* test.”); *Thales Visionix*
 27 *Inc.*, 850 F.3d at 1349 (“Because we find the claims are not directed to an abstract idea, we need

1 not proceed to step two.”); *Enfish*, 822 F.3d at 1339 (“[W]e think it is clear for the reasons stated
2 that the claims are not directed to an abstract idea, and so we stop at step one.”).

3 For the foregoing reasons, the Court finds that, construing the pleadings in the light most
4 favorable to Plaintiffs, claims 9, 30, and 32–41 of the ’003 Patent recite patent-eligible subject
5 matter. Accordingly, the Court DENIES QuantifiCare’s Motion to Dismiss Plaintiffs’ claims for
6 patent infringement as to claims 9, 30, and 32–41 of the ’003 Patent.

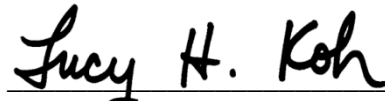
7 **IV. CONCLUSION**

8 For the foregoing reasons, the Court GRANTS WITH PREJUDICE QuantifiCare’s Motion
9 to Dismiss with respect to claims 1–4, 8, and 11–14 of the ’003 Patent and DENIES
10 QuantifiCare’s Motion to Dismiss with respect to claims 9, 30, and 32–41 of the ’003 Patent.

11 **IT IS SO ORDERED.**

12

13 Dated: December 19, 2017



LUCY H. KOH
United States District Judge

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28