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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/774,073	07/06/2007	William Sweat	PB0526-US02	2539
24994	7590	03/04/2013	EXAMINER	
Terumo BCT, Inc Intellectual Property Law department 10811 WEST COLLINS AVE LAKEWOOD, CO 80215			BASS, DIRK R	
			ART UNIT	PAPER NUMBER
			1779	
			NOTIFICATION DATE	DELIVERY MODE
			03/04/2013	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* WILLIAM SWEAT, JEREMY KOLENBRANDER,  
and JOHN R. LINDER

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Appeal 2011-003912  
Application 11/774,073  
Technology Center 1700

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Before CHUNG K. PAK, BEVERLY A. FRANKLIN, and DEBORAH  
KATZ, *Administrative Patent Judges*.

KATZ, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants<sup>1</sup> seek our review, under 35 U.S.C. § 134(a), of the Examiner's decision to reject claims 1-3, 5, and 7-17. (App. Br. 5.) We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

The Examiner rejected all of the pending claims under 35 U.S.C. § 102(b) over Carter.<sup>2</sup> (Ans. 3-5.) Appellants do not present separate arguments for any of the rejected claims. (See App. Br. 9.) We focus on claim 1, the only independent claim, in our review of the rejection. See 37 C.F.R. § 41.37(c)(1)(vii).

Appellants' claim 1 recites:

A centrifuge blood processing system for separating fluid components comprising:

a separation chamber rotating about a central rotation axis, said separation chamber having an outflow passage,  
at least one pump regulating fluid flow in said separation chamber;

a light source in optical communication with said density centrifuge blood processing system, said light source providing an incident light beam for illuminating an observation region on said density centrifuge blood processing system and a viewing region on said outflow passage;

a first detector in optical communication with said separation chamber to receive and detect said light from said observation region;

a second detector in optical communication with said outflow passage;

a computational apparatus distinguishing one or more phase boundaries in said observation region and further distinguishing fluid composition in said viewing region as a function of light intensity received from said viewing region;

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<sup>1</sup> The real party in interest is CaridianBCT, Inc. (App. Br. 3.)

<sup>2</sup> Carter et al., U.S. Patent Application Publication 2005/0051466 A1, issued March 10, 2005.

a controller regulating speed of said at least one pump or of said separation chamber in response to signals from said computational apparatus, at least some of said signals being based on said fluid composition in said viewing region; and means for selectively controlling said controller in response to either said distinguished phase boundaries in said observation region or said fluid composition in said outflow passage, wherein said computational apparatus comprises means for selecting control of said phase boundaries based on said fluid composition in said outflow passage during steady-state flow conditions in said separation chamber.

(App. Br. 14, Claims App'x.)

The issue presented by the Examiner's rejection is whether Carter teaches each and every limitation of the claimed blood processing system.

The Examiner finds, and Appellants do not dispute, that Carter teaches a centrifuge blood processing system with a separation chamber, at least one pump, a light source, detectors, computation apparatus, and controller, as claimed. (Ans. 4.)

The Examiner construes the "means for selectively controlling said controller" in Appellants' claims as a computer and the necessary components to carry out a software program, because the claims are drawn to an apparatus. (Ans. 6.) The Examiner finds that Carter teaches a blood processing system with feedback controls that measure parameters such as the position of the phase boundaries and the flow rates of components out of the density centrifuge, in order to selectively adjust the blood processing parameters. (Ans. 3-4 and 6, citing Carter, ¶¶ [0014], [0131], and [0160]; *see also* Carter claims 89-90, 92, and 96.) The Examiner finds that Carter further teaches a "master-smart slave process control system for controlling blood processing," which is provided in hardware and software architecture

capable of directing the switching of modes and commands to the smart slave data acquisition and analysis system to examine different sets of parameters. (Ans. 4; Carter, ¶¶ [0141]-[0146].)

Appellants argue that Carter does not teach the control technique recited in Appellants' claimed system (App. Br. 10), but they do not provide any further explanation why the parameters and process control system taught by Carter are not encompassed within the claimed "means for selectively controlling." The preponderance of the evidence on the record presented here supports the Examiner's findings.

Appellants argue that the addition of a computer program, specifically the software application described in their Specification, to a pre-existing computer-controlled apparatus is a structural change to the apparatus.<sup>3</sup> (App. Br. 9.) Appellants' claims are not limited to the programs they present in their Specification. Under 35 U.S.C. § 112, sixth paragraph, when an element in a claim is expressed as a means for performing a function, the claim "shall be construed to cover the corresponding structure, material, or acts described in the specification *and equivalents thereof*." (Emphasis added.) Carter teaches hardware and software control in response to either said distinguished phase boundaries in said observation region or said fluid

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<sup>3</sup> We note that not all software creates a structural change to an apparatus. *See Leapfrog Enterprises, Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1160 (Fed. Cir. 2007) (rejecting Leapfrog's argument that "the court's finding that the [prior art] device has the same functionality as claim 25 was clearly erroneous because the components of [prior art's] device are mechanical, and thus different in structure and interrelation from the electronic components described in claim 25, and therefore cannot provide the same functionality.")

composition in said outflow passage, as claimed. In other words, the Examiner finds that Carter's hardware and software control has the same function required for the "means for selectively controlling" recited in claim 1 and is structurally equivalent to the hardware and software corresponding to such means described in the Specification. On this record, Appellants have not persuaded us that the teaching in Carter is not the equivalent of the support in Appellants' Specification for the claimed means. Thus, Appellants' argument is not persuasive.

Appellants rely on *In re Hayes Microcomputer Prods., Inc. Patent Litigation*, 982 F.2d 1527 (Fed. Cir. 1992), to argue that a prior art microprocessor platform capable of performing certain functions is not a bar against claims when the prior art does not describe a program to be implemented on the microprocessor. (App. Br. 12-13.) In contrast, the Examiner has presented persuasive evidence that Carter teaches elements of Appellants' claimed system. Accordingly, we are not persuaded by *In re Hayes* that Appellants' claimed system is novel.

Appellants also argue that the program described in their Specification is not "inherent" in the Carter apparatus. (App. Br. 11.) The Examiner's rejection is not based on inherency, but on the equivalence of the means for controlling taught in Carter to the claimed means for controlling. Thus, we are not persuaded by this argument.

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**Conclusion**

Upon consideration of the record and for the reasons given, we sustain the Examiner's rejection of claims 1-3, 5, and 7-17 under 35 U.S.C. § 102(b) as being anticipated by Carter.

Therefore, we affirm the decision of the Examiner.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136.

AFFIRMED

kmm/sld