

Opinion No. 2010-105

September 3, 2010

Dan Flowers, Director
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Dear Mr. Flowers:

This is my opinion on your question about the Arkansas State Highway and Transportation Department (AHTD) Living Donor Leave Policy (Policy).

The Policy provides paid leave for AHTD employees who donate organs or bone marrow. Organ donors may receive up to 30 days' leave; bone marrow donors up to seven. The Policy does not define "bone marrow."

Act 546 of 2003, codified as amended at A.C.A. § 21-4-215 (Supp. 2009), provides that state employees are eligible for 30 or seven days' paid leave to donate organs or bone marrow, respectively. Like the Policy, the Act does not define "bone marrow." The Policy appears to be AHTD's implementation of the Act, and I assume for purposes of this opinion that AHTD is subject to the Act.¹ See A.C.A. § 21-4-215(a)(6), (a)(7).

¹ Act 546 of 2003 is codified as part of a subchapter entitled "Uniform Attendance and Leave Policy Act." See A.C.A. § 21-4-201 (Repl. 2004). The UALPA was enacted as Act 567 of 1975 which, obviously, did not include Act 546's organ and bone marrow donation provisions. See A.C.A. §§ 21-4-201 to -213 (Repl. 2004, Supp. 2009). The UALPA, in a definition that purports to apply to terms "used in this subchapter," exempts AHTD from its provisions by excluding AHTD, by name, from the definition of "[s]tate agencies." See A.C.A. § 21-4-203(11)(D) (Repl. 2004). But Act 546 contains its own definition of "state agency" that does not exclude AHTD by name or otherwise. See A.C.A. § 21-4-215(a)(6). Accordingly, notwithstanding the Code Revision Commission's inclusion of Act 546 in the UALPA code subchapter, it appears that Act 546 applies to AHTD.

You ask whether “the retrieval of stem cells from blood [is] the equivalent of the retrieval of stem cells from bone marrow for purposes of” the Policy.

In my opinion, it is more likely than not that a court considering only the statutory language of Act 546 would hold that a peripheral blood² stem cell (PBSC) donor is not eligible for the leave required by Act 546. But there are substantial arguments supporting the opposite result and a significant chance that a court would reach that result. Legislative clarification would be useful.

It is also my opinion that the question presented is so close that a court would uphold AHTD’s determination that its own Policy either covers, or does not cover, PBSC donors.

Finally, it is my opinion that AHTD may, if it wishes, amend the Policy or adopt another rule to expressly provide paid leave to PBSC donors.

1. Act 546 of 2003

a. Why It Probably Does Not Cover PBSC Donors

Statutes should be interpreted to give effect to the legislature’s intent. *See, e.g., Smith v. Fox*, 358 Ark. 388, 193 S.W.3d 238 (2004). The legislature’s intent is normally found by construing the statute “just as it reads, giving the words their ordinary and usually accepted meaning in common language” *Brown v. State*, 375 Ark. 499, 502, 292 S.W.3d 288 (2009). Another fundamental rule of statutory interpretation is *expressio unius est exclusio alterius*, which means that the expression of one thing may be interpreted as the exclusion of another. *See, e.g., State v. Oldner*, 361 Ark. 316, 206 S.W.3d 818 (2005).

Applying these rules, I conclude that a court likely would hold that the legislature, in using the phrase “bone marrow donor” in Act 546, did not sufficiently articulate a legislative intent to include a PBSC donor. The word “marrow” means “[t]he soft vascular fatty substance in the cavities of bones (also *bone marrow*)” THE NEW SHORTER OXFORD ENGLISH DICTIONARY 1702 (1993). Another source

² Peripheral blood is merely the blood that circulates through the body in the bloodstream. *See American Cancer Society, Stem Cell Transplant (Peripheral Blood, Bone Marrow, and Cord Blood Transplants)* (last revision and medical review May 3, 2010) <<http://www.cancer.org/acs/groups/cid/documents/webcontent/003215-pdf.pdf>>.

describes it as “the soft, sponge-like material found inside bones.” National Cancer Institute, National Institutes of Health, *Bone Marrow Transplantation and Peripheral Blood Stem Cell Transplantation* (visited Aug. 25, 2010) <<http://www.cancer.gov/cancertopics/factsheet/Therapy/bone-marrow-transplant>>. Bone marrow is not PBSCs, and a donor of one is not a donor of the other. Bone marrow donors are expressly mentioned in the Act. PBSC donors are not mentioned even though it appears the General Assembly had adequate opportunity to consider and include them if desired.³

In addition, a PBSC donor’s preparation and recovery are fundamentally different from a bone marrow donors, as are the two donation procedures.⁴

³ Allogeneic (*i.e.*, using a separate individual as a donor) PBSC transplantation (allogeneic PBSCT) was by no means unknown in 2003, when Act 546 was adopted. *See, e.g.*, Albert K.W. Lie & L. Bik To, *Peripheral Blood Stem Cells: Transplantation and Beyond*, 1997:2 THE ONCOLOGIST 40, 44 (“Recently, allogeneic PBSCTs are being performed in greater number, and results of studies are appearing in the literature”); Martin Körbling, *Peripheral Blood Stem Cells: A Novel Source for Allogeneic Transplantation*, 1997:2 THE ONCOLOGIST 104, 104 (“The last two years have witnessed a dramatic increase in the use of peripheral blood stem cells (PBSCs) in lieu of bone marrow (BM) for allografting . . . in major marrow transplant centers worldwide”); Frederick R. Appelbaum, *Choosing the Source of Stem Cells for Allogeneic Transplantation: No Longer a Peripheral Issue*, 94:2 BLOOD 381, 381 (1999) (“The preferred source [*i.e.*, bone marrow or peripheral blood] of stem cells for allogeneic transplantation has become a central question among the transplant community”); William I. Bensinger et al., *Transplantation of Bone Marrow as Compared with Peripheral-Blood Cells from HLA-Identical Relatives in Patients with Hematologic Cancers*, 344 NEW ENG. J. MED. 175, 180-181 (2001) (“Our study indicates that for allogeneic hematopoietic-cell transplantation, the use of peripheral-blood cells rather than bone marrow results in higher rates of overall and disease-free survival. . . . Other studies have also shown that the use of peripheral-blood cells is associated with fewer days of hospitalization and lower overall costs”); Seema Singhal et al., *Hematopoietic Reconstitution by Transplantation of Stem Cells from Bone Marrow or Blood*, 344 NEW ENG. J. MED. 1641, 1641 (2001) (correspondence) (“We have reported a significantly lower rate of relapse of hematologic cancers after allogeneic blood-cell transplantation than after bone marrow transplantation in a double-blind, randomized study. . . . On the basis of these observations, we started using blood cells exclusively for allografts from HLA-matched siblings a few years ago”); Jan Jansen et al., *Peripheral Blood Progenitor Cell Transplantation*, 6:1 THERAPEUTIC APHERESIS 5 (2002) (abstract) (“Peripheral blood progenitor cells (PBPCs) have become increasingly popular over the last 15 years as the source of hematopoietic stem cells for transplantation. In the early 1990s, PBPCs replaced bone marrow (BM) as the preferred source of autologous stem cells, and recently the same phenomenon is seen in the allogeneic setting”). These sources appear to indicate that the General Assembly could easily have been aware in 2003 of the growing popularity of allogeneic PBSCT and its status as an alternative to bone marrow transplant.

⁴ The information in the two paragraphs in the text following this note is taken from National Cancer Institute, *Bone Marrow Transplantation*, *supra*; and American Cancer Society, *Stem Cell Transplant*, *supra* note 2.

A PBSC donor takes medications for four or five days to prepare for the donation procedure. The medications may cause “bone and muscle aches, headaches, fatigue, nausea, vomiting, and/or difficulty sleeping.” National Cancer Institute, *Bone Marrow Transplantation, supra*. These side effects may last as long as three days after the last dose. In the donation procedure, the donor’s blood is removed, usually from an arm, routed through a machine that removes the stem cells, and returned to the donor’s body. The procedure usually takes four to six hours and does not require anesthesia.

A bone marrow donor does not take preparatory medication other than general or regional anesthesia immediately before the procedure. One or more needles are inserted through the skin and into the pelvis or sternum. It takes about an hour to draw out the necessary amount of bone marrow. The donor may feel stiff, sore, and tired afterwards. It takes a few weeks for the body to replace the donated bone marrow. Some donors can return to their usual routines within a few days; “others may take up to 3 to 4 weeks to fully recover their strength.” *Id.*

These significant distinctions suggest that the General Assembly, in referring to bone marrow donation, did not intend to include a procedure as fundamentally different, in these respects, as PBSC donation.

1. Act 546 of 2003

b. Why It Might Cover PBSC Donors

While I believe a court probably would hold Act 546 inapplicable to PBSC donors, there are substantial arguments that it should apply, arguments that might be convincing to a court.

First, it is my understanding that allogeneic bone marrow transplantation is performed solely to transfer stem cells from donor to recipient, and not to transfer any other bone marrow component. *See, e.g., American Cancer Society, Stem Cell Transplant, supra* note 2. It is also my understanding that donated PBSCs are formed in the donor’s bone marrow and coaxed into the bloodstream by the preparatory medications mentioned above. *See id.* If these understandings are correct,⁵ then PBSC donation may reasonably be characterized as a form of bone

⁵ While we have read from certain medical literature in preparing this opinion, it should be noted that this Office has neither the specialized expertise nor, necessarily, access to all the relevant literature, to enable it

marrow donation. The useful material (*i.e.*, the bone marrow stem cells) is removed from the bone's interior and from the donor's body in two steps (in PBSC donation) rather than in one step (in bone marrow donation), but the end result is the same. A court that accepted that characterization likely would similarly interpret Act 546's reference to a bone marrow donor to refer to any donor of stem cells that originate in the bone marrow, regardless of their location in the donor's body when donated.

Federal law provides a second reason that a court might interpret Act 546 to include PBSC donors. A federal provision very similar to Act 546 allows up to seven days' leave for a federal employee to serve as a "bone-marrow donor." 5 U.S.C. § 6327. Like Act 546, the federal law does not define "bone-marrow." It is my understanding, however, that the federal Office of Personnel Management, expressly authorized to administer the statute, informally interprets 5 U.S.C. § 6327 to provide leave for PBSC donation. Similarities between Act 546 and 5 U.S.C. § 6327 make the federal interpretation somewhat persuasive authority, but it should be noted that 5 U.S.C. § 6327 was enacted in 1994, when allogeneic PBSC was much less prevalent than in 2003, when Act 546 was adopted. Congress's failure to refer expressly to PBSC donation in 1994 might be explained by its rarity at that time,⁶ while the General Assembly's omission of PBSC donation in 2003 may more plausibly be argued to be an intentional omission of a then-established procedure.⁷

to determine all the relevant facts concerning PBSC donation and related matters. Neither is the Opinions Department of this Office equipped to make factual determinations in general.

⁶ *See supra* note 3.

⁷ Another federal law concerns bone marrow and PBSC donation but is less relevant to your question. The National Marrow Donor Program operates the Bone Marrow Coordinating Center component of the C.W. Bill Young Cell Transplantation Program established under 42 U.S.C. § 274k by the Stem Cell Therapeutic and Research Act of 2005, Pub. L. No. 109-129. The Research Act defines "bone marrow" to mean "the cells found in adult bone marrow and peripheral blood." 42 U.S.C. § 274i-1(2). In my opinion, the Research Act equates bone marrow and peripheral blood in a context significantly different from the one involved in your request. The Research Act establishes the Transplantation Program in two broad areas, bone marrow and umbilical cord blood. The distinction between the two for purposes of the Program appears to relate to the significant differences in collection and distribution of donated material from bone marrow and peripheral blood, on the one hand, and material from umbilical cord blood, on the other. The Research Act's equating marrow and peripheral blood for this purpose does not, in my opinion, compel the conclusion or even strongly suggest that the two must be equated for paid leave purposes or that the General Assembly, when it referred to only one, necessarily intended to cover both. To some extent, however, the provision reinforces the argument that the phrase "bone marrow donor" might reasonably be read as a shorthand reference to a "donor of stem cells originating in the bone marrow."

A published OPM comment indicates that 5 U.S.C. § 6327 was enacted to encourage federal employees to act as bone marrow donors. *See* Office of Personnel Management, *Frequently Asked Questions, Pay & Leave, Bone Marrow/Organ Donation Leave* (visited Aug. 30, 2010) <<http://www.opm.gov/faqs/topic/payleave/index.aspx?cid=964c0e1f-38e7-41f2-bb99-cd4562c5c2b8>>. If we assume that Act 546 was enacted for the same purpose and if, as appears to be the case, PBSC donation is the functional equivalent of bone marrow donation, those facts offer a third ground on which to argue that Act 546 should be interpreted to cover PBSC donation.

A fourth reason that a court might interpret Act 546 to include PBSC donors is that both bone marrow donation and PBSC donation may involve significant, and apparently quantitatively similar, temporary disability to work. As discussed above, preparation for and recovery from the donation procedures, and the procedures themselves, differ significantly between PBSC and bone marrow donation. But each may ordinarily be expected to make a donor unable to work for a similar period of time. The General Assembly expressly determined a period of up to seven days to be an appropriate leave time for bone marrow donors. It appears that a similar leave period would generally be appropriate for PBSC donors. The facts that PBSC donation and bone marrow donation appear to be functional equivalents and may be expected to involve similar periods of temporary disability suggest that Act 546 might be interpreted to cover PBSC donors.

2. *The AHTD Policy*

Courts defer to an agency's interpretation of its own rule unless that interpretation is clearly wrong. *See, e.g., Cyphers v. United Parcel Serv.*, 68 Ark. App. 62, 3 S.W.3d 698 (1999). It is up to AHTD in the first instance to interpret the Policy. As discussed above, I see the appropriate statutory interpretation to be a close question. I believe that a court probably would interpret the language of Act 546 not to apply to a PBSC donor, but that the arguments to the contrary are substantial and might prevail. Because the question is close, I believe that a court probably would uphold AHTD's reasoned interpretation that the Policy applies, or does not apply, to a PBSC donor. In other words, I believe the question is so close that a court would be unlikely to find either Policy interpretation to be clearly wrong.

3. *AHTD's Authority To Amend The Policy Or Adopt A Separate Policy*

As noted above, AHTD is exempt from the general attendance and leave rules of the UALPA. *See supra* note 1. In my opinion, accordingly, Act 546 merely establishes a floor that AHTD is free to exceed. In other words, AHTD must, under Act 546, afford its employees at least the donor leave described in the Act. But because AHTD is exempt from the UALPA, it may, if it so desires (and if it interprets the Policy not to apply), amend the Policy or institute a separate leave policy to apply to PBSC donors.

Assistant Attorney General J. M. Barker prepared this opinion, which I approve.

Sincerely,

DUSTIN McDANIEL
Attorney General

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