COPPERSMITH
BROCKELMAN
LAWYERS

TO: Arizona Biospecimen Consortium Members

FROM: Kristen Rosati and Sam Coppersmith, Coppersmith & Brockelman PLC

DATE: October 11, 2016

RE: Legal Issues in the Transfer of Biospecimens for Commercial Research

---

I. Arizona Biospecimen Locator Background

The accessibility and acquisition of high quality biospecimens is key to advancing medical science and improving patient care through research. In an effort to increase the supply of biospecimens available to researchers, the Arizona Biomedical Research Commission ("ABRC"), a bureau of the Arizona Department of Health Services, established the Arizona Biospecimen Consortium, which includes Arizona healthcare institutions with biospecimen banks.

Beginning in March 2009, the consortium members met regularly to develop standards and governance for a web-based resource (the Arizona Biospecimen Locator or "ABL"), designed to allow researchers a centralized place to determine what samples are available in biospecimen banks participating in the Arizona Biospecimen Consortium. The original ABL software was taken off-line, but the Arizona Biospecimen Consortium currently is evaluating other software to host the ABL.

Before it was taken off-line, the ABL website had many visitors, including a number of researchers employed by for-profit entities, such as pharmaceutical companies and molecular diagnostic companies. Due to the terms of the Material Transfer Agreement ("MTA")—the contract that governs the use of the biospecimens obtained through the ABL—the biospecimens could not be used for commercial purposes. Specifically, the MTA provided:

> Use Only for Non-Commercial Research Project: RECIPIENT represents that RESEARCH project is for non-commercial research purposes only. RECIPIENT will not sell or transfer MATERIAL to a third party for commercial purposes.

Because of the non-commercial use restriction, the ABL could not support research and development activities by pharmaceutical companies, molecular diagnostic companies, and other for-profit entities.

Allowing ABL inventory to be released for commercial use will provide additional revenue to the Arizona Biospecimen Consortium members' biobanking programs. Limiting recipients to nonprofit organizations to use for non-commercial research is unlikely to result in sufficient revenue to cover operating costs for a biobank. Moreover, permitting for-profit companies access to ABL inventory will allow for an increase in the number of biospecimens requested through the ABL and help establish a path for self-sustainability of the ABL.

This memorandum discusses the legal issues involved in providing biospecimens to researchers at for-profit entities. This memorandum is provided for educational purposes and is not intended to be legal advice. We urge the Arizona Biospecimen Consortium members to consult with their legal counsel regarding these issues.

II. Legal Issues in the Transfer of Biospecimens for Commercial Research

A. No Prohibition on the Transfer of Biospecimens for Commercial Research, Except for Fetal Tissue

Federal law does not prohibit the transfer of biospecimens to for-profit entities for research. However, it is unlawful "for any person to knowingly acquire, receive, or otherwise transfer any human fetal tissue for valuable consideration if the transfer affects interstate commerce."[1] "Valuable Consideration" does not include "reasonable payments associated with the transportation, implantation, processing, preservation, quality control, or storage of human fetal tissue."[2]

Similarly, Arizona law does not regulate the commercial use of biospecimens for research, but does prohibit the sale of fetal tissue resulting from abortions.[3] A 50-state survey in 2004 examining state laws regulating the collection, storage, and use of human tissue specimens and associated data showed that, at the time of the survey, none of the states had laws prohibiting use of de-identified human tissue by for-profit entities for research.[4] To our knowledge, there has not been an updated 50-state survey on the issue, and we have not conducted research outside of Arizona regarding whether there are more recent state laws regulating the commercial use of biospecimens for research. Of course, many states regulate genetic testing, which may impact the type of research that may be conducted without informed consent.[5]

---

[1] 42 U.S.C. §289g–2(a).
[2] 42 U.S.C. §289g–2(e).
[3] See A.R.S. §36-2302.
[4] Hakimian R, Taube S, Bledsoe M, Aamodt R. (2004). 50-State Survey of Laws Regulating the Collection, Storage and Use of Human Tissue Specimens and Associated Data for Research. U.S. Department of Health and Human Services National Institutes of Health & National Cancer Institute [Survey]. Retrieved from (http://www.cancerdiagnosis.nci.nih.gov/pdf/50StateSurvey.pdf.
[5] Scott Smith, Platte S. Nielson, and Beth Kennedy, Genetic Privacy Laws: 50 State Survey, J. Health & Life Sci. L., October 2011, at 75. © 2011 University of Utah.

B. Ownership of Samples

Currently, there appears to be just a handful of states that give individuals ownership rights over their biospecimens or the genetic information generated from the biospecimens.[6] In states that do not have statutes giving individuals ownership of their biospecimens or genetic information, courts to date have concluded that donors do not retain any property interest in donated biospecimens.

The first case was *Moore vs. the Regents of the University of California*,[7] where a physician created and patented a valuable cell line derived from Mr. Moore's tissues. When Mr. Moore became aware of this cell line, he sued to recover a portion of the profits, claiming that he had the right to share any profit derived from the use of his biological specimens. The California Supreme Court disagreed, holding that individuals do not retain any property interest or intellectual property rights when their tissue is used in the development of new products. However, the court also held that the physician's failure to reveal his financial interest in collecting plaintiff's biospecimens was a breach of informed consent and a breach of the physician's fiduciary duty to the plaintiff.

In *Greenberg vs. Miami Children's Hospital Research Institute*,[8] parents of children with Canavan disease (an inherited, rapidly fatal disease) voluntarily provided tissues from affected and unaffected family members, family histories, and funds to a researcher to develop a prenatal test for the disease. The researcher succeeded in developing the test, and when the University sought to charge the parents for the test, they sued the University. A Florida court ruled that individuals do not retain a property interest in specimens contributed for research and have no claim to intellectual property developed from the use of their specimens. Moreover, the court held that there was no violation of informed consent or fiduciary duty because there was not a treatment relationship between the researchers and the plaintiffs. However, the court ultimately found for the plaintiffs on an unjust enrichment claim, because the plaintiffs had assisted with and funded the research.

The third case, *Washington University v. Catalona*,[9] involved a researcher who, while working at Washington University, developed a large collection of human prostate samples for use in his research. This researcher decided to take a position at another university and sought to take his specimen bank with him. Washington University objected, claiming that it owned the collection because the collection had been assembled while Dr. Catalona was on the faculty and

---

[6] See Alaska Stat. § 18.13.010(a)(2) ("[A] DNA sample and the results of a DNA analysis performed on the sample are the exclusive property of the person sampled or analyzed."); Colo. Rev. Stat. Ann. § 10-3-1104.7(1)(a) ("Genetic information is the unique property of the individual to whom the information pertains."); Fla. Stat. Ann. § 760.40(2)(a) ("[T]he results of such DNA analysis, whether held by a public or private entity, are the exclusive property of the person tested, are confidential, and may not be disclosed without the consent of the person tested."); Ga. Code Ann. § 33-54-1(1) ("Genetic information is the unique property of the individual tested."). However, even in states where individuals own their biospecimens, those individuals may provide consent to the provision of biospecimens for research, including research conducted by for-profit entities. (See informed consent discussion in separate White Paper.)

[7] 51 Cal. 3d120; 271 Cal. Rptr. 146; 793 P.2d 479 (1990).

[8] 264 F. Supp. 2d 1064, S.D. Fla. (2003).

[9] 437 F. Supp 2d 985, E.D. Mo. (8th Cir. 2007).

that it was largely created using federal grant funding. Dr. Catalona asked his research subjects to sign a new consent to transfer ownership of the prostate samples to him. The federal court of appeals held that research subjects could not compel Washington University to transfer ownership to Dr. Catalona because they had "gifted" the biospecimens to the University and thus no longer owned them.[10] This decision emphasized the importance of the content of the informed consent document to clarify that the subject donated the biospecimens and no longer owned them.

C. Tax Implications for Tax-Exempt Biospecimen Sources

1. Unrelated Business Income

For charitable and community organizations exempt from tax under Section 501(c)(3) of the Internal Revenue Code (the "Code"), revenue directly earned from the organization's mission is exempt from tax. Tax-exempt organizations may set the charges above their costs, with use of those revenues restricted to payment of reasonable compensation and necessary expenses, and otherwise permanently dedicated to the entity's exempt purposes. The direct relationship between the activity and the organization's mission, and not the source of the funds, is what matters, and what keeps the revenue exempt.

However, to prevent tax-exempt organizations from competing unfairly with for-profit businesses, the Code imposes corporate taxes on "unrelated business income." Revenue not directly related to the exempt entity's core purposes is subject to tax, as if the unrelated business income was earned by a regular for-profit entity. If the organization receives income from (1) a trade or business, (2) which is regularly carried on, and (3) which is not substantially related to the organization's exempt purpose, then the nonprofit has received unrelated business income, subject to unrelated business income tax ("UBI" or "UBIT") at regular corporate tax rates. If any of the three UBIT requirements are not met (i.e., the revenue is not from a trade or business, because it is a donation or passive; the activity is irregular or infrequent, and thus not regularly carried on; or the activity is substantially related to the exempt purpose), then the organization does not have UBIT liability. The UBIT determination generally comes down to the third test, whether the activity meets the "substantially related" test, which is a facts-and-circumstances analysis.

Recognized exempt purposes under Section 501(c)(3) include the promotion of health and scientific purposes. An organization furthers scientific purposes if its activities (1) are scientific; (2) constitute research; and (3) are conducted in the public interest.[11] The term "scientific" includes "the process by which knowledge is systematized or classified through the use of observation, experimentation, or reasoning."[12] An activity constitutes research "if professional skill is involved in the design and supervision of a project intended to solve a problem through a search for a demonstrable truth" or is "testing done to validate a scientific

[10] See http://prostatecure.wustl.edu/ for more information.
[11] Treas. Reg. § 1.501(c)(3)-1(d)(5).
[12] *IIT Research Institute v. United States*, 9 Cl. Ct. 13 (Cl. Ct. 1985).

hypothesis."[13] Scientific research is conducted in the public interest if it is directed toward benefitting the public, such as research carried on for the purpose of discovering a cure for a disease.[14] Participants should determine whether research activities fit within their exempt mission: the governing documents for nonprofit hospitals may not list scientific or research activities as part of the corporation's charitable purposes.

Unfortunately, the IRS has not directly addressed whether the provision of biospecimens by nonprofits to for-profit entities for research will result in UBIT. However, IRS rulings in related areas are instructive:

- The IRS approved transfers of excess research specimens from a tax-exempt research consortium to both commercial and non-commercial researchers. In one ruling, the IRS concluded that the excess research specimens would be used for "scientific" purposes because the activity involved compiling experimental data gathered from the recipients' use of the excess specimens into a central resource of information about the research conducted.[15] The IRS also noted that the excess specimens would be used for "research" because they would not be used for product testing or similar activities. The IRS also noted that "[w]hile these activities may provide the basis for commercial products or indicate further avenues of research, they will not constitute marketable products on their own." Finally, the research was in the public interest, because the research consortium would require the recipients to return their research results to the consortium, which then would be publicly available.

- For blood banks, the IRS has distinguished between sales of plasma to tax-exempt organizations and sales to commercial entities. Sales to exempt organizations are permitted, but sales to commercial, for-profit entities created UBIT liability.[16]

- The IRS has permitted an exception to the UBIT rules for the "disposition of products" of an exempt function. If an exempt organization sells leftover product in substantially the same state, the IRS may not consider the resulting revenue as UBI subject to tax. The IRS has approved sales to commercial firms of blood products nearing the end of their useful life or no longer useful for transfusions as not an unrelated trade or business.[17] The IRS also approved the sale of reclaimed silver used in processing X-ray film as not an unrelated trade or business.[18] There is some risk the IRS would not apply this exception to biobanking, where the biospecimens are not a wasting asset and can be retained nearly indefinitely until used for research. In addition, this exception may not apply if an institution collect more biospecimens than can normally be used for the institution's own research purposes.

---

[13] *Midwest Research Institute v. United States*, 554 F. Supp. 1379 (W.D. MO 1983), aff'd 744 F. 2d 635 (8th Cir. 1984).
[14] Treas. Reg. § 1.501(c)(3)-1(d)(5)(iii)(c).
[15] Private Letter Ruling (PLR) 201114035 (Jan. 10, 2011).
[16] Rev. Rul. 78-145, 1978-1 C.B. 169; Rev. Rul. 66-323, 1966-2 C.B. 216; PLR 9420042 (Feb. 25, 1994).
[17] Rev. Rul. 78-145.
[18] PLR 85011006 (Nov. 29, 1984).

We think a number of factors support a claim that participating in the ABL does not result in UBIT: (1) as research-oriented institutions, furthering scientific and health purposes by providing biospecimens to researchers (whether nonprofit or commercial) is part of the institutions' exempt mission; (2) the MTA requires researchers to report summaries of research results to the ABL, and to give credit to the ABC and the ABC member in publications; and (3) the ABC member retains ownership of the specimen, and the researcher either returns the specimen or, more likely, destroys it at the end of the specified research project. However, other factors cut against that conclusion: (1) biospecimens generally are not a wasting asset, thus making it less likely that the IRB will support the use of the "disposition of products" exception; and (2) some for-profit companies will be using biospecimens for product testing and product development, not basic research. In sum, it is not possible to predict how the IRS or the courts will treat the issue. Thus, each ABC-participating institution should make its own call whether to treat revenue from the transfer of biospecimens as mission-related or UBIT.

Note that, if an ABL transaction is structured as a sale of *services*, the sale of services to for-profit entities almost certainly would result in UBIT. To the IRS, providing services to non-exempt customers is disqualifying.[19] Moreover, even providing services to tax-exempt entities may result in UBIT, depending on (1) the relationship of the service provider to the recipient; (2) the nature of the services provided (i.e., whether the service is available commercially, and whether the nonprofit is offering something otherwise unavailable to other nonprofits); and (3) most significantly, whether the fee charged is substantially below the nonprofit's cost. Thus, selling services, even if limited to exempt organizations, cannot be a "profit center"; the exempt entity must provide the service not just at a discount, but at a loss.[20] If the provision of biospecimens is treated as a "service" versus a "product" to avoid transaction privilege (sales) taxes, any provision of that service to a for-profit entity would result in UBIT and any provision of that service to a tax-exempt entity would result in UBIT unless that service is provided at a loss.[21]

However, keep in mind that UBIT is a tax on income, which is revenue in excess of expenses. In general, institutions structure charges for specimens to cover the substantial costs of obtaining, storing, and delivering specimens, without any income or profit. If the exempt organization does not have any income from the activity – if the activity only recovers its costs, properly counted – then the organization has no income to tax. The IRS will insist on allocation of income and expenses on a reasonable basis, particularly where an activity serves both exempt and unrelated purposes.[22]

---

[19] See *Zagfly, Inc. v. Comm'r*, T.C. Mem. 2013-29 (internet flower sales, at market prices, was a business not substantially related to an exempt activity).

[20] See *BSW Group, Inc. v. Comm'r*, 70 T.C. 352 (1978).

[21] Under A.R.S. §42-5061(A)(4), sales of tangible personal property by a tax-exempt 501(c)(3) organization are exempt from Arizona transaction privilege taxes. However, sales by for-profit organizations most likely would be subject to transaction privilege tax. The statute exempts many types of medical-related items from tax, but not biospecimens.

[22] *See* Internal Revenue Service, *Colleges and Universities Compliance Project Final Report*, available at http://www.irs.gov/pub/irs-tege/CUCP_FinalRpt_042513.pdf (Apr. 25, 2013), at 12-13. On the other hand, if an exempt organization has continuous losses, the IRS may disallow those losses and loss carry-forwards for continually unprofitable activities, but which may not be relevant for exempt organizations anyway. There is not "bright line" guidance on the extent of the "sweet spot" between making too much and too little, but in the UBIT area, the IRS pays more attention to extreme cases, such as where the commercial activity is huge compared to the

Finally, even if an exempt organization pays UBIT on unrelated business activity income, the IRS will not revoke or deny exempt status if the business generally furthers the organization's exempt purpose and does not become the entity's primary purpose. The IRS may revoke or deny exempt status only where the commercial trade or business is unrelated to the organization's charitable purpose and where the unrelated activity will require "substantial attention" from the organization.

The key takeaways are:

- An exempt health care institution should determine whether its biobanking activities constitute "scientific research in the public interest" that fall within the mission of the institution, making the resulting revenue mission-related or potentially a "disposition of products" of an exempt function not subject to UBIT.

- The Code treats services more strictly than sales of goods or retail activities. To avoid UBIT for services, an exempt organization must provide services only to other exempt entities, and only at a loss; consulting services cannot be a "profit center" for an exempt organization or compete with for-profit enterprises.

- State transaction privilege tax liability is the same for exempt ABC members whether the ABL process is a sale of product or a sale of services; exempt organizations are exempt from tax on retail sales and services are not taxed in Arizona. (For-profit entities would pay transaction privilege tax on sales of biospecimens, but no tax on sales of services.)

- UBIT is a tax on income, which is revenue in excess of expenses. If the exempt organization does not have any income from the activity – the activity only recovers its costs, properly counted, and does not make a profit – then the organization has no income to tax.

- UBIT is a tax liability issue, and within limits, does not jeopardize an exempt organization's tax status. The IRS will not revoke or deny exempt status if the unrelated business generally furthers the organization's exempt purpose and does not become the entity's primary purpose or requires "substantial attention" from the organization.

2. Private Use of Tax-Exempt Bonds

In addition to UBIT liability, exempt providers that have space, equipment, and facilities financed with tax-exempt bonds need to make sure that "private use" of those facilities do not represent more than 5% of direct or indirect use of any bond issue. While there is a "safe

---

other parts of the exempt organization, or where the deviation from break-even, in either direction, is in double, or even triple, digit percentages See TAM 9636001 (Jan. 4, 1996) (scope of publishing activities went beyond what was needed to educate students); Iowa State Univ. of Science & Tech. v. U.S., 500 F.2d 508 (Ct. Cl. 1974) (television station insufficiently integrated into university's educational operations.

harbor" for certain "basic science" research contracts that do not result in private use,[23] the safe harbor is limited to basic research (defined as the original investigation for advancement of scientific knowledge, not having a specific commercial objective), and would not fit the provision of biospecimens for research by for profit entities.

Providers with tax-exempt bond financing need to keep records and report information on tax-exempt bonds on Schedule K of Form 990 annually. Exceeding the 5% "de minimus" private use limit on any bond issue could result in revocation of the exempt status of the bonds, and major financial liabilities to the facility, the bond issue, and others involved in the financing, unless the provider pays the amount of bond allocable to the private use, either directly or through a defeasance escrow. Particularly extreme cases could result in revocation of exempt status.

Private use may not be an issue if any of the assets used in storing, maintaining, and delivering biospecimens are not bond financed. It may be relatively simple to show that equipment and operations were not financed with tax-exempt bonds, but it is more likely that some providers may have their biospecimen activities in a building financed with such bonds. In that event, the provider must add up, on an asset-by-asset and bond-issue-by-bond-issue basis, the total amount of private use. The 5% limitation only applies to each bond issue; however, the provider must determine the percentage of private use of each asset, the portion of the asset's original cost paid through the bond, and the percentage of the bond issue represented by that asset, to determine the percentage of private use of the bond issue.

The collection, storage and deliver of biospecimens likely represents a small part of the use of bond-financed building. If equipment used in biospecimen activities was purchased with tax-exempt financing, then the provider could defease or pay off those bonds, or refinance the debt using taxable debt. Also, some exempt entities purposefully fund at least 8% of capital project cost with equity to provide additional "margin" for private use activities, such as corporate sponsored research. In any case, exempt providers with tax-exempt debt need to make sure that the UBIT does not push any particular bond issue above the 5% limit.

We attach the previous memorandum dated May 26, 2013 from Lauren Mack at Polsinelli, PC, which provides additional details.

III. Conclusion

Currently, no law prohibits the transfer of biospecimens to for-profit entities for research, except for fetal tissue. With clear language in informed consent documents to ensure transparency to individuals deciding whether to permit the use of their biospecimens for for-profit research, and attention paid to issues for tax-exempt organizations, the risks to nonprofit biobanks are reduced. The Arizona Biospecimen Consortium members should consider whether permitting the use of the ABL inventory for commercial research is advised given the need to develop the long term financial sustainability of the ABL and the participants' biobanks.

KBR and SGC/

[23] Rev. Proc. 2007-47.