Received: 7 November 2022 | Revised: 20 March 2023 | Accepted: 4 April 2023

DOI: 10.1111/bioe.13169

ORIGINAL ARTICLE

bioethics WILEY

Ethics of live uterus donor compensation

Ji-Young Lee

Department of Public Health, University of Copenhagen, Kobenhavn, Denmark

Correspondence
Ji-Young Lee, Department of Public Health, University of Copenhagen, Øster Farimagsgade 5 opg. B Bldg: 12.0.02, Kobenhavn 1017, Denmark.
Email: ji.young.lee@sund.ku.dk

Funding information
Velux Fonden, Grant/Award Number: 00026589

Abstract

In this paper, I claim that live uterus donors ought to be considered for the possibility of compensation. I support my claim on the basis of comparable arguments which have already been applied to gamete donation, surrogacy, and other kinds of organ donation. However, I acknowledge that there are specificities associated with uterus donation, which make the issue of incentive and reward a harder ethical case relative to gamete donation, surrogacy, and other kinds of organ donation. Ultimately, I contend that while reimbursement for the costs incurred by live uterus donors should be treated as a necessary ethical minimum, how much further we ought to remunerate uterus donations remains an open question.

KEYWORDS
assisted reproductive technologies, uterus donation, uterus transplantation

1 | INTRODUCTION

Uterus transplantation (UTx) is a surgery in which a healthy uterus is transplanted into an organism whose uterus is absent or diseased.[1] UTx is an emerging treatment option for women who have absolute uterine factor infertility (AUFI), a condition whereby conception and/or gestation is not possible because of uterine absence or underdevelopment[2] such as those with Mayer–Rokitansky–Küster–Hauser (MRKH) syndrome, which is a frequent cause of a congenital absence of the uterus.[3] Relative to options like adoption or even surrogacy, however, UTx remains a risky procedure for both recipients and donors. It involves several major surgeries (allotransplantation, C-section for the live birth, and graft hysterectomy),[4] which come with risks, and the immunosuppressive drugs that recipients must take throughout the process of gestation[5] present additional health risks.

The process of UTx begins with the creation of embryos using the recipients' gametes, which are fertilized in vitro (IVF) prior to the uterus graft.[6] Thereafter, a uterus from either a live or deceased donor is transferred to the recipient, after which graft function and viability in the recipient are established over many subsequent months.[7] Finally, when graft viability is established, the IVF-created embryo is implanted in the recipient in the hopes of establishing a successful pregnancy. If all goes well with the

[1]Evita, A. (2017). *What is a uterus transplant?* National Women's Health Network.
[2]Vali, S., Jones, B. P., Saso, S., Fertleman, M., Testa, G., Johanesson, L., Alghrani, A, & Smith, J. R. (2022). Uterine transplantation: Legal and regulatory implications in England. *BJOG*, *129*(4), 590–596; Jones, B. P., Ranaei-Zamani, N., Vali, S., Williams, N., Saso, S., Thum, M.-Y., Al-Memar, M., Dixon, N., Rose, G., Testa, G., Johannesson, L., Yazbk, J., Wilkinson, S., & Smith, J. R. (2021). Options for acquiring motherhood in absolute uterine factor infertility; adoption, surrogacy and uterine transplantation. *The Obstetrician & Gynaecologist*, *23*, 138–147.
[3]Weyers, S. (2022). 027 Uterine transplantation in women with MRKH. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, *273*, e11.
[4]Malasevskaia, I., & Al-Awadhi, A. A. (2021). A new approach for treatment of woman with absolute uterine factor infertility: A traditional review of safety and efficacy outcomes in the first 65 recipients of uterus transplantation. *Cureus*, 13(1), e12772.
[5]Wall, A., Testa, G., Axelrod, D., & Johannesson, L. (2021). Uterus transplantation-questions and answers about the procedure that is expanding the field of solid organ transplantation. *Proceedings (Baylor University Medical Center)*, *34*(5), 581–585.
[6]Penn Medicine. (2022). *Penn Uterus Transplant Program*. https://www.pennmedicine.org/for-patients-and-visitors/find-a-program-or-service/transplant-institute/uterus-transplant
[7]Brännström, M., Dahm Kähler, P., Greite, R., Mölne, J., Díaz-García, C., & Tullius, S. G. (2018). Uterus transplantation: A rapidly expanding field. *Transplantation*, *102*(4), 569–577.

birth, the uterine graft will then be *removed* (hysterectomy) afterward, thereby alleviating the immunosuppressive burden on the recipient.

The first live birth from UTx occurred in Gothenburg, Sweden, in 2014, using a live uterus donor. This event was part of the first clinical UTx trial following prior research done in small and large animals.[8] Since these uterus transplants were funded as part of a research program, neither donors nor recipients were compensated for "loss of income, travel, accommodation, or other costs…"[9] and recipients were expected to find their own donors. It is worth noting that most UTx procedures thus far, especially in Europe, have involved *directed* live uterus donation (donation to a specified recipient)—with mostly family members donating directly to their other family members in clinical trials.[10] In the United States, Baylor University Medical Center currently stands out as the first center in the world to offer uterus transplants outside of a clinical trial using *nondirected* donors who do not have a prior relationship with the potential recipients. In this instance, recipients are asked to take full responsibility for the medical costs involved.[11]

Given these modalities of uterus provision, it is imperative that we continue to discuss the ethics of using live donors for UTx, whether directed or nondirected. This topic is especially relevant given that UTx tends to be conceptualized as a highly desirable and acceptable treatment for the intended recipients of UTx; furthermore, the need for more *live* donors will continue given a shortage of suitable organs from deceased donors.[12] While there is a general consensus that uteri from deceased donors are *ethically* speaking preferably to living donors due to the comparative lack of harm done to the former,[13] the practical advantage of using live donors remains, since live donors can receive a thorough work-up and the timing of surgery can be elective.[14] I believe these circumstances call for a more explicit discussion regarding the *compensation* of live donors for UTx, as compensation may come to be utilized as a key strategy to increase recruitment of live donors and incentivize greater participation. I hope to encourage a more varied discussion about the recruitment and treatment of live uterus donors by creating a bigger conceptual space to discuss the possibility of compensating donors.

2 | ON THE QUESTION OF COMPENSATION: INSIGHTS FROM GAMETE DONATION, SURROGACY, AND OTHER TYPES OF ORGAN DONATION

Before we can discuss why compensation should be treated as a crucial issue for the recruitment of live uterus donors, we must first understand how UTx has been justified as a mode of treatment. The features that make women with AUFI candidates for receiving a UTx are the following: first, she "lacks a biomedically functioning uterus." But the absence of a uterus is not sufficient to medically warrant UTx, because women are not necessarily *impaired* because of this[15] and some women may simply have no desire to gestate. She must therefore additionally have a strong "preference for becoming pregnant and giving birth to a child,"[16] and be significantly negatively affected by being *involuntarily childless*,[17] in order to be deemed as having a *treatment need* for a uterus transplant. Although it is still possible for these patients to become social mothers or social and genetic mothers through adoption or gestational surrogacy, UTx is currently the only option that offers the possibility of social, genetic, *and* gestational motherhood.[18]

With this in mind, we ought to reckon with the troubling possibility that those who have strong desires to conceive their own child, to gestate, *and* give birth themselves, *not* being able to do so can have a major negative psychological impact.[19] In a qualitative study conducted of participants in the Dallas Uterus Transplant study, for example, diagnosis of AUFI was found to have a negative impact on "self-identity in terms of perceiving themselves as less female,"[20] and so participants felt that alternative options like surrogacy and adoption as "solutions" did not offer the same value. Additionally, issues of control, cost, and bureaucratic challenges associated with alternatives like surrogacy and adoption may constitute factors that make UTx preferable to these potential recipients.[21]

Even in the case that alternative options were to be made more accessible, a Dutch survey revealed that if gestational surrogacy, adoption, or UTx were all options that could be reimbursed by health insurance, 60.6% of respondents would still prefer to opt for UTx.[22] Furthermore, a study of 40 women diagnosed with AUFI, conducted

[8]Tummers, P., Göker, M., Dahm-Kahler, P., Brännström, M., Tullius, S., Rogiers, X., Van Laecke, S., & Weyers, S. (2019). Meeting report: First state-of-the-art meeting on uterus transplantation. *Transplantation*, *103*(3), 455–458.

[9]Guntram, L., & Zeiler, K. (2019). The Ethics of the Societal Entrenchment-approach and the case of live uterus transplantation-IVF. *Medicine, Health Care and Philosophy*, 22, 557–571.

[10]Romanis, E. C., & Parsons, J. A. (2022). Directed and conditional uterus donation. *Journal of Medical Ethics*, *48*, 810–815.

[11]Baylor Scott White Health. (2023). Uterus Transplant. https://www.bswhealth.com/treatments-and-procedures/uterus-transplant

[12]Johannesson, L., & Järvholm, S. (2016). Uterus transplantation: Current progress and future prospects. *International Journal of Women's Health*, *8*, 43–51.

[13]Williams, N. (2016). Should deceased donation be morally preferred in uterine transplantation trials? *Bioethics*, *30*, 415–424.

[14]Tummers, P., et al., op. cit. note 8.

[15]Järvholm, S., Enskog, A., Hammarling, C., Dahm-Kähler, P., & Brännström, M. (2020). Uterus transplantation: Joys and frustrations of becoming a 'complete' woman-a qualitative study regarding self-image in the 5-year period after transplantation. *Human Reproduction*, *35*(8), 1855–1863.

[16]Sandman, L. (2018). The importance of being pregnant: On the healthcare need for uterus transplantation. *Bioethics*, 32, 519– 529.

[17]Lee, J. Y. (2023). Involuntary childlessness: Lessons from Interactionist and ecological approaches to disability. *Bioethics*, 1–8.

[18]Williams, op. cit. note 13.

[19]Sandman, op. cit. note 16.

[20]Wall, A. E, Johannesson, L., Sok, M., Warren, A. M., Gordon, E. J., & Testa, G. (2022). The journey from infertility to uterus transplantation: A qualitative study of the perspectives of participants in the Dallas Uterus Transplant Study. *BJOG*, *129*, 1095–1102.

[21]Wall, A., et al., op. cit. note 5.

[22]Peters, H. E., Juffermans, L. J. M., Lambalk, C. B., Dekker, J. J. M. L., Groenman, F. A., de Groot, C. J. M., Hoksbergen, A. W. J., Huirne, J. A. F., de Leeuw, R. A., van Mello, N. M., Nederhoed, J. H., Schates, R., Verhoeven, M. O., & Hehenkamp, W. J. K. (2020). Feasibility study for performing uterus transplantation in the Netherlands. *Human Reproduction Open*, *2020*, hoz032.

at Imperial College London, found that almost all would rather opt for UTx over surrogacy and adoption "in the full knowledge that the latter two options would be ultimately safer…and the fact that the graft could fail even prior to conception."[23] As Mianna Lotz suggests, what is actually sought with those who endeavor to undertake UTx is to "replicate as closely as possible the experience of non-assisted reproduction and parenthood."[24] Another qualitative study suggests that UTx is associated with motherhood, with the process being described as "a longing to be like other women in their wish to become pregnant."[25] It captures, essentially, what some women with AUFI might view as "the authentic motherhood experience,"[26] on which society also places a high value. The motivation to "treat" women with AUFI using UTx thus really only makes sense within these psycho-social contexts wherein AUFI is experienced as a negative condition and where the pregnancy experience is highly desired by the potential recipient as a solution, and where alternatives are not perceived as preferable. Although uterus transplants are not life-saving, then, they arguably "serve the well-being of recipients in substantial ways"[27] for those who desire to receive them. In this sense, UTx can be compared with something like Vascularized Composite Allografts (VCAs), which include transplantation of the face, limbs, and other non-lifesaving but life-enhancing organs.[28]

What all of this shows us is that an option like UTx *is* of supreme importance to many women with AUFI (irrespective of whether we *approve* of those desires) and why the discussion about the compensation of live donors is and will continue to be a relevant topic. I should acknowledge, however, that desires to experience pregnancy are obviously not generated in a vacuum but are rather actively enforced through oppressive "pronatalist, essentialist, and geneticist"[29] social norms. Thus, I do not necessarily view UTx itself as the most ideal fix for these pervasive social norms, and I believe we have independent reasons to combat such norms. Be that as it may, I want to recognize that "the mere presence alone of such social and cultural norms"[30] should not preclude ongoing discussion about the potential recruitment of live donors. After all, in the context of our world which by and large continues to reinforce the value of gestational parenthood, and in which UTx clinical trials are ongoing and conceptualized as a frontier biomedical intervention, it is not surprising that many who cannot conceive would develop a strong preference to opt for and seek UTx *despite* other options. We should also not assume in the first place that everyone who wants to access UTx will be able to get it anyway; the fact that UTx is estimated to cost between $100,000 to $300,000 and is "well known to have disparities in access by race and ethnicity"[31] invites the further concern that the alleged availability of the technology is in fact mediated by various inequalities between potential recipient groups.

Setting these ethical complications aside for the time being, I want to address how to *source* uteri, and in the case of potential live donors, how exactly donors ought to be recruited and treated, given that UTx continues to be practiced. In adjacent contexts discussing the recruitment of gamete donors, surrogates, and other live organ donors, arguments in favor of the compensation of the relevant third parties have been made positively, as a strategy to increase recruitment as well as for the goal of treating donors fairly for their service. Although there is not necessarily a consensus position in any case, if we think that potential arguments in favor of compensation are at the very least *defensible* in these adjacent cases, they plausibly apply also to the case of live uterus donors because many common features are shared between these interventions. For the rest of this section, then, I will draw on these various literatures to show that compensation is clearly a key issue for the question of how live uterus donors ought to be ethically recruited and treated as potential participants of UTx procedures.

2.1 | Gamete donation

Gamete donation (i.e., egg and sperm donation) is legal in many countries with varying kinds and degrees of remuneration policies (though indeed some countries may ban this practice). Many ethical concerns accompany gamete donation, such as issues regarding donor anonymity, the health of donor offspring,[32] whether becoming a gamete donor invokes responsibilities toward their offspring,[33] and so on. Despite this, the donation of gametes is arguably less controversial *relative* to other assisted reproductive technologies (e.g., surrogacy) because it is a worthwhile way to help those who are negatively affected by involuntary childlessness *in proportion* to the risks involved for the donor,[34] though it must be acknowledged from the outset that egg donation specifically (the majority of which are carried out by women) is much more *demanding* than sperm donation.

[23]Saso, S., Clarke, A., Bracewell-Milnes, T., Saso, A., Al-Memar, M., Thum, M. Y., Yazbek, J., Del Priore, G., Hardiman, P., Ghaem-Maghami, S., & Smith, J. R. (2016). Psychological issues associated with absolute uterine factor infertility and attitudes of patients toward uterine transplantation. *Progress in Transplantation*, *26*(1), 28–39.

[24]Lotz, M. (2018). Uterus transplantation as radical reproduction: Taking the adoption alternative more seriously. *Bioethics*, *32*, 499–508.

[25]Järvholm, S., Bokström, H., Enskog, A., Hammarling, C., Dahm-Kähler, P., & Brännström, M. (2022). Striving for motherhood after uterus transplantation: A qualitative study concerning pregnancy attempts, and the first years of parenthood after transplantation. *Human Reproduction*, 37(2), 274–283.

[26]O'Donovan, L. (2018). Pushing the boundaries: Uterine transplantation and the limits of reproductive autonomy. *Bioethics*, *32*, 489–498.

[27]Robertson, J. A. (2016). Other women's wombs: Uterus transplants and gestational surrogacy. *Journal of Law and the Biosciences*, *3*(1), 68–86.

[28]ASRM pages. (2018). American Society for Reproductive Medicine position statement on uterus transplantation: A committee opinion. *Practice Committee of the American Society for Reproductive Medicine, Fertility and Sterility*, *110*(4), 605–610.

[29]Lotz, M. (2021). Public funding of uterus transplantation: Deepening the socio-moral critique. *Bioethics*, *35*, 664–671.

[30]Segers, S., Pennings, G. & Mertes, H. (2019). Getting what you desire: The normative significance of genetic relatedness in parent–child relationships. *Medicine, Health Care and Philosophy*, *22*, 487–495.

[31]Forbes, R. C., & Karp, S. (2022). Uterine transplant—Progress, but concerns remain. *JAMA Surgery*, *157*(9), 797–798.

[32]Ethics Committee of the American Society for Reproductive Medicine. (2019). Interests, obligations, and rights in gamete and embryo donation: An Ethics Committee opinion. *Fertility and Sterility*, *111*(4), 664–670.

[33]Brandt, R. (2021). Gamete donation, the responsibility objection, and procreative responsibilities. *Journal of Applied Philosophy*, *38*, 88–103.

[34]Murphy, T. F. (2009). Ethics and the prohibition of donor gametes in fertility medicine. *Reproductive BioMedicine Online*, *18*(Suppl. 1), 60–67.

Gynecologists face difficulties recruiting gamete donors relative to demand.[35] This issue motivates the suggestion to offer payment to potential donors for their efforts, which may be seen as one way to mitigate the supply and demand disparity. Of course, it is not merely scarcity that matters ethically here but the *reasons* why incentivization and accelerating supply are seen as important in the first place. I take it that there are two major reasons to think incentivizing and recruiting gamete donors in this context is appropriate. First, we have a principle of respect for *reproductive* autonomy,[36] on which people's reproductive interests and desires ought to be taken seriously and which would, to an extent, justify various measures taken in the healthcare context to help people achieve their reproductive desires. Correspondingly, this assumes also that third parties wishing to help by providing their gametes can do so autonomously as well. While some feminist bioethicists have seriously questioned the value placed on reproductive autonomy because it may sometimes obscure and abstract away fine-grained issues regarding who can actually access and afford various ARTs,[37] others might adopt the very same concept to serve the plight of those who face barriers accessing ARTs,[38] including disadvantaged women. But it is *generally* accepted that aspiring parents (with the previous caveats in mind) should have at least a right not to be interfered with in their attempts to pursue "legal, available ARTs, which they have the resources to pursue for themselves."[39] Proponents of reproductive *justice* further highlight that, given the reproductive *marginalizing* as well as *privileging* of certain groups,[40] governments and other relevant entities ought to strive for "a safe and dignified context for these most fundamental human experiences"[41] as a moral baseline for all persons.

Second, we would need to presuppose that there are tangible moral benefits, relative to the potential risks of gamete donation, that may be gained by meeting the demand. In our current example, benefits are plausible because the ART at least holds a moderate chance of success, and to that extent would make the recipients of the intervention better off if they are helped to partake in opportunities to procreate as those who do not require assistance with procreation. These considerations together help to make sense of *compensatory* measures that might be made in the recruitment of gamete donors as a way to make participation more attractive to donors.

Those who are sympathetic to the view that donors should be compensated in some way largely believe that the donors' time, inconvenience, time taken off work, medical expenses, and especially for egg donors, the invasive burdens they undertake with egg extraction, are entirely fair to compensate.[42] Though some might still argue that payment would wrongfully "commodify" gametes,[43] in places like the United States, where there is a lack of regulation around assisted reproductive technologies, it is still possible to command some hundreds of dollars for sperm donations and significantly more for egg donations, anywhere between 5000$ and 10,000$,[44] which are, as mentioned, more invasive than sperm donations. The point I am making here is mainly that, despite criticisms, compensation measures are *already* practiced in the case of something like gamete donation and indeed cover not only reimbursement of costs but also more profitable payments. This gives us a starting point for discussion about reasons to favor compensation for other, comparable assisted reproductive technologies.

2.2 | Surrogacy

Similar ethical considerations apply in the case of surrogacy. Whether the surrogacy is paid or unpaid, the practice itself might be justified on the basis of the value placed on the aspirational value of reproductive autonomy and the potential well-being gains of the aspiring parents and third parties who wish to support aspiring parents. However, given the comparatively more *invasive* and prolonged process of surrogacy relative to something like gamete donation, and the fact that it is mostly women with female reproductive organs who participate as surrogates, concerns about the gendered harms and exploitation done to surrogates, especially in the context of trans-national commercial surrogacy, have been a mainstay feature of the legal and philosophical debates around the compensation of surrogacy.[45] Countries around the world are varied with respect to their surrogacy policies; while most countries do not allow for commercial surrogacy with a few exceptions, and some do not allow surrogacy at all, many allow for "altruistic" surrogacies (which are unpaid), supposedly circumventing the worry that surrogacy might end up exploiting surrogates. The idea would be that without a financial incentive, only women who can afford to do so and are motivated purely by the desire to help involuntarily childless people would step forward as volunteers.

[35]Daniels, K. R. (2000). To give or sell human gametes—The interplay between pragmatics, policy and ethics. *Journal of Medical Ethics*, *26*, 206–211.

[36]Huele, E. H, Kool, E. M., Bos, A. M. E., Fauser, B. C. J. M., & Bredenoord, A. L. (2020). The ethics of embryo donation: What are the moral similarities and differences of surplus embryo donation and double gamete donation? *Human Reproduction*, *35*(10), 2171–2178.

[37]Lee, J. Y. (2022). The limitations of liberal reproductive autonomy. *Medicine, Health Care and Philosophy*, *25*, 523–529.

[38]Cavaliere, G., & Palacios-González, C. (2018). Lesbian motherhood and mitochondrial replacement techniques: Reproductive freedom and genetic kinship. *Journal of Medical Ethics*, *44*, 835–842.

[39]Kirby, J. (2021). An ethics-informed, comparative analysis of uterus transplantation and gestational surrogacy for uterine factor infertility in high-income countries. *Bioethical Inquiry*, *18*, 417–427.

[40]Luna, Z., & Luker, K. (2013). Reproductive justice. *Annual Review of Law and Social Science*, *9*(1), 327–352.

[41]Ross, L. J., & Solinger, R. (2017). *Reproductive justice: An introduction* (pp. 9–57). University of California Press.

[42]Goedeke, S., Shepherd, D., & Rodino, I. S. (2020). Support for recognition and payment options for egg and sperm donation in New Zealand and Australia. *Human Reproduction*, *35*(1), 117–129; Samorinha, C., De Freitas, C., Baía, I., Machado, H., Vale-Fernandes, E., & Silva, S. (2020). Payment to gamete donors: Equality, gender equity, or solidarity? *Journal of Assisted Reproduction Genetics*, *37*(1), 133–140.

[43]Kenney, N., & McGowan, M. (2014). Egg donation compensation: Ethical and legal challenges. *Medicolegal and Bioethics*, *4*, 15–24.

[44]Egg Donor America. (2022). *Prospective donors*. https://www.eggdonoramerica.com/become-egg-donor/egg-donor-compensation

[45]Sándor, J. (2018). Transnational surrogacy: An overview of legal and ethical issues. In S. Mitra, S. Schicktanz, & T. Patel (Eds.), *Cross-cultural comparisons on surrogacy and egg donation* (pp. 35–55). Palgrave Macmillan.

J. Y. Lee, however, has argued that this tendency to associate commercial surrogacy with exploitation, and altruistic surrogacy with "good" motives, is extremely problematic.[46] Emotional coercion used among family members and friends, which makes one feel pressured to become an *unpaid* surrogate, for example, is as equally morally problematic as exploitative *paid* surrogacies. Furthermore, Liezl Van Zyl and Ruth Walker have argued that *failure* to compensate surrogates for their labor and the risks they undertake is "unfair and exploitative"[47] and have proposed instead an alternative framework, which would allow surrogates to expect "reasonable compensation for her service" with the help of a regulatory body that takes care of the recruitment, training, and ethical standards of the surrogacy arrangements.[48] As Stephen Wilkinson says, those opposed to issues like exploitation should focus not on trying to *stop* commercial surrogacy altogether but rather on improving the conditions under which paid surrogates can work.[49]

I am sympathetic to these views: we should at least leave *open* the question of compensation and the possibility that there may be more ethical models of compensation, rather than simply ban all forms of commercial surrogacy by assuming that commercial surrogacy must necessarily be associated with corrupted motives, wrongfully exploitative relationships, and so on. Of course, people may be rightfully concerned that UTx, when it becomes more commonplace, will share commodification and exploitation issues, similar to surrogacy. For example, in the case where UTx is offered outside of funded clinical trials, we might think that women who cannot pay for their own and their donor's medical expenses in their home country, or who cannot find friends and family willing to donate a uterus, might look to other places or even seek to "purchase uteri from women who find themselves in such precarious economic positions that they are willing to sell their uteri."[50] As Gulzaar Barn says, it is plausible to think that uterine donation may grow to be regulated by market norms especially in "less economically developed countries with high poverty rates, creating a willing pool of vendors…"[51] While I do not dismiss this possibility, it is important to recognize here that these worries and potential outcome are much more complex and contextual than simply an issue of "compensation." As we have seen, it is possible for coercive and exploitative relationships to be generated *anyway* by pressures that do not involve financial factors or even as a result of *not* paying third parties fairly.

[46]Lee, J. Y. (2022). Surrogacy: Beyond the commercial/altruistic distinction. *Journal of Medical Ethics*, *49*, 196–199.
[47]Van Zyl, L., & Walker, R. (2015). Surrogacy, compensation, and legal parentage: Against the adoption model. *Bioethical Inquiry*, *12*, 383–387.
[48]Ibid.
[49]Wilkinson, S. (2017). The exploitation argument against commercial surrogacy. *Bioethics*, *2*, 169–187.
[50]Guntram, L., & Williams, N. J. (2018). Positioning uterus transplantation as a 'more ethical' alternative to surrogacy: Exploring symmetries between uterus transplantation and surrogacy through analysis of a Swedish government white paper. *Bioethics*, *32*, 509–518.
[51]Barn, G. (2021). Uterus transplants and the potential for harm: Lessons from commercial surrogacy. *Developing World Bioethics*, *21*(3), 111–122.

2.3 | Other kinds of living organ donation

Just like gamete donors and surrogates, there is a shortage of living solid organ donors compared to the recipients who have a need for them. Currently, solid organ transplantation is considered the best treatment for terminal and irreversible organ failure[52] and is often life-saving for terminal and chronic conditions or diseases associated with an impairment in the patient's quality of life.[53] Kidney and liver transplants are some of the most common kinds of organ transplants, and it is possible for both deceased and living donors to partake. Thanks to organ transplantation, public health can be improved and the socio-economic burdens associated with organ failures can be significantly mitigated.[54] One retrospective analysis of UNOS (United Network for Organ Sharing) data over a 25-year period from September 1, 1987 until December 31, 2012 establishes that over 2 million life years were saved over those 25 years of organ transplant, a mean of 4.3 life years per solid organ transplant recipient.[55]

It is also considered a "unique event in healthcare" given that the donor does not gain any physical benefits from undergoing major surgery.[56] However, because vital organ donations have this *life-saving* potential, the cost-to-benefit ratio might be perceived as more obviously favorable as compared with a non-life-saving uterus graft, though in another sense we might think that the "nonvital" nature of the uterus implies lower risk levels to the donor,[57] especially where post-menopausal donors who have already had children are recruited. In any case, imposing harm to donors in organ transplantation is often "justified by appeals to the value of respect for individual autonomy" and a "favorable balance of harm and benefit" for the donor as well as between the donor and the recipient.[58] In the case of solid organ transplantation, this would be about the life years saved; in the case of UTx, transplantation would aim to achieve "functional restoration" of the recipient who wishes to carry a pregnancy,[59] at least for the duration of a full pregnancy, as well the benefit of the experience itself to the recipient who desires it.

[52]Grinyó, J. M. (2013). Why is organ transplantation clinically important? *Cold Spring Harbor Perspectives in Medicine*, *3*(6), a014985.
[53]Black, C. K., Termanini, K. M., Aguirre, O., Hawksworth, J. S., & Sosin, M. (2018). Solid organ transplantation in the 21st century. *Annals of Translational Medicine*, *6*(20), 409.
[54]Vanholder, R., Domínguez-Gil, B., Busic, M., Cortez-Pinto, H., Craig, J. C., Jager, K. J., Mahillo, B., Stel, V. S., Valentin, M. O., Zoccali, C., & Oniscu, G. C. (2021). Organ donation and transplantation: A multi-stakeholder call to action. *Nature Reviews. Nephrology*, *17*, 554–568.
[55]Rana, A., Gruessner, A., Agopian, V. G., Khalpey, Z., Riaz, I. B., Kaplan, B., Halazun, K. J., Busuttil, R. W., & Gruessner, R. W. (2015). Survival benefit of solid-organ transplant in the United States. *JAMA Surgery*, *150*(3), 252–259.
[56]Mamode, N., Van Assche, K., Burnapp, L., Courtney, A., van Dellen, D., Houthoff, M., Maple, H., Moorlock, G., Dor, F. J. M. F., & Lennerling, A. (2022). Donor autonomy and self-sacrifice in living organ donation: An ethical legal and psychological aspects of transplantation (ELPAT) view. *Transplant International*, *35*, 10131.
[57]Bruno, B., & Arora, K. S. (2018). Uterus transplantation: The ethics of using deceased versus living donors. *The American Journal of Bioethics: AJOB*, *18*(7), 6–15.
[58]Williams, op. cit. note 13.
[59]Ledibabari, M., Ngaage, S. I., Elegbede, A., Vercler, C. J., Gebran, S., Liang, F., Rada, E. M., Cooney, C., Brandacher, G., Redett, R. J., Johannesson, L., & Rasko, Y. M. (2020). The changing paradigm of ethics in uterus transplantation: A systematic review. *Transplant International*, *33*(3), 260–269.

Fears about illegal organ sales and "transplant tourism"[60] frame the current and ongoing ethical controversies around the discussion of organ shortage. But we should again recall here that donors need not be framed as *entirely* altruistic nor *entirely* commercially driven. After all, in countries like the United States, it is recognized that other practices of exceptional self-sacrifice, which are partially altruistically motivated (e.g., voluntary military service), may at the same time be encouraged with promises of paid education and enlistment bonuses.[61] Furthermore, offering donors significant financial *incentives* is different from *removing* disincentives,[62] the latter of which might include reimbursement for travel costs, food, and accommodation, as well as replacing wages. As hinted at with our previous cases of gamete donation and surrogacy, there is less intolerance around forms of recompense that are considered fair and reasonable costs for partaking in these practices as a third party. Thus, according to Harbell and Mathur, financial neutrality is largely considered ethical;[63] it is *profit* that is considered more controversial. Still, there have been some discussions about pushing for more generous compensation programs to improve the recruitment of live organ donors. Within the U.S. context of kidney transplantation, some have suggested that the government should compensate living kidney donors $45,000 as an "expression of appreciation by society for someone who has given the gift of life to another"[64] and would include insurance policies against health issues that might develop from the donation. The compensation could be accrued gradually rather than as a lump sum, for example, in the form of tax credits or health insurance, to prevent worries of exploitation. As Amy Friedman says, exploitation should be preventable if payment for living donors "can be made legitimate and ethically consistent with other accepted medical practices."[65] Besides, the *existing* black market for organs "will not stop…just because we ignore it"; doing so will only exacerbate the very problems (exploitation, commodification, etc.) that might be anticipated by proposals to run a regulated market.[66]

3 | WHY UTX REMAINS A HARD CASE

What the survey above tells us, I think, is that despite legal bans on organ sales around the world, as well as continued restrictions on surrogacy and other ARTs, ethically speaking the idea of compensation, especially the removal of financial *dis*incentives, and perhaps increasingly, *incentivizing* rewards to make up for the short supply, is not entirely alien to people. Thus, we see that varying degrees and kinds of compensation for services involving human labor, tissue, and organs can be construed as *defensible under certain conditions*. In my view, the ethics of compensating live uterus donors for UTx is compatible with the logics instantiated in the three cases covered in the previous section. The scarcity of supply issue applies to UTx as much as it does to our other cases, and so does the question of the potential autonomy and well-being gains to be had by undertaking the procedure. If we think it at all appropriate to talk about motivating the compensation of our other cases along these lines, live uterus donors present no exception, and it seems appropriate to accordingly encourage and initiate discussion about the *possibility* of the compensation of live uterus donors. However, UTx is by no means a straightforward case, and there are remaining worries that we ought to acknowledge as complicating factors to be taken into account when we try to resolve questions regarding the appropriate compensation of uterus donors.

3.1 | Unique risks in UTx

The first reason why the issue of compensation remains thorny for uterus donors *relative* to other kinds of organ donors or third-party service providers in ART is because there are risks unique to UTx, compared with the anticipated benefits, which ought to give us pause when it comes to questions about monetary incentivization especially. Although uterus donation gives one the opportunity to help those who are involuntarily childless[67] like other ART methods, UTx carries greater health risks for donors compared to other ARTs. Although gamete donation also carries risks, especially for egg donors, and surrogates also face risks to health on the basis of gestation, we might still argue that both practices have temporary consequences. The donor's *own* long-term fertility, for example, would in principle stay intact in the case of egg donation and surrogacy. In the case of UTx, however, the picture is very different, because the process involves a double surgery involving two parties: donors and recipients. The donor essentially undergoes a hysterectomy, which is not medically beneficial to the donor,[68] through a risky, complex, and time-consuming surgery.[69] Once the surgery is carried out, it has a permanent outcome on the donor's own fertility, regardless of whether the result is a success for the recipient. Unlike in a surrogacy where it is possible for the donor to at least try again in the case of miscarriage and still have the chance to benefit or assist the intended parent (or opt out and retain whatever ability they have to gestate for themselves), this is not the case in UTx. The surgery has

[60]Adair, A., & Wigmore, S. J. (2011). Paid organ donation: The case against. *Annals of The Royal College of Surgeons of England*, *93*(3), 191–192.
[61]Monaco, A. P. (2006). Rewards for organ donation: The time has come. *Kidney International*, *96*, 955–957.
[62]Harbell, J. W., & Mathur, A. K. (2019). Financial compensation for organ donors. *Current Opinion in Organ Transplantation*, *24*(2), 182–187.
[63]Ibid.
[64]Held, P. J., McCormick, F., Ojo, A., & Roberts, J. P. (2016). A cost-benefit analysis of government compensation of kidney donors. *American Journal of Transplantation*, *16*, 877–885.
[65]Friedman, A. L. (2006). Payment for living organ donation should be legalised. *BMJ (Clinical research ed.)*, *333*(7571), 746–748.
[66]De Castro, L. D. (2003). Commodification and exploitation: Arguments in favour of compensated organ donation. *Journal of Medical Ethics*, *29*, 142–146.
[67]Guntram, L. (2017). May I have your uterus? The contribution of considering complexities preceding live uterus transplantation. *Medical Humanities*, *47*, 425–437.
[68]Woessner, J. R., Blake, V. K., & Arora, K. S. (2015). Ethical considerations in uterus transplantation. *Medicolegal and Bioethics*, *5*, 81–88.
[69]Brännström, M., Belfort, M. A., & Ayoubi, J. M. (2021). Uterus transplantation worldwide: Clinical activities and outcomes. *Current Opinion in Organ Transplantation*, *26*(6), 616–626.

only one shot at success, and whatever the outcome may be, the donor as of yet must permanently give up their uterus.

Of course, this may be an acceptable risk to many people, and it is important to take note of the context and reasons for which potential donors might be motivated to provide their uterus. For example, Carbonnel et al. have conducted research, which suggests that transgender men who decide to have a hysterectomy as *part* of gender-affirming surgery may be willing future candidates for live uterus donation.[70] Such a group appears to have independent reasons for elective hysterectomy, beyond reasons of benefiting only the recipient. We might find this ethically more desirable relative to other groups of live donors who would not additionally benefit in the same way. Whatever one's personal circumstances, however, one might anyway contend that potential donors should be allowed to make choices about their own bodies when it comes to helping others with their reproductive endeavors. With life-saving organ donations, the anticipated benefit to the recipient has a huge role to play in explaining why it would even be worth asking potential donors to take the risk or to at least praise or admire those *willing* to take the risks. But this is where UTx differs, yet again, from a traditional vital organ donation. While UTx may certainly lead to significant well-being gains for the recipient (if successful) and alleviation of "…reproductive suffering, which may include ostracism, shame, depression, and sadness,"[71] the procedure falls short of "life-saving." This raises questions about whether recruiting donors for UTx carries the same sense of urgency as recruiting other, vital organ donors. It does not seem like the potential well-being gain, which might result from UTx, no matter how significant, is morally on par with *saving a life*. The cost–benefit ratio of UTx, then, is a unique one relative to gamete donation, surrogacy, and vital organ donation.

3.2 | Complexities of compensation for directed and nondirected donor–recipient relations

Although UTx is uniquely risky, *not* compensating live donors for uterus donation at all, which tends to be the case in many clinical trials, and expecting only *directed*, blood-related donors to volunteer to give away their uterus is not necessarily morally superior to narratives involving compensation. This is because family dynamics around uterus donation can be just as tense and potentially emotionally exploitative, if not monetarily so. Given this, one must wonder why it is mainly issues around money that evoke concerns about exploitation when this is in no way an *exceptional* issue. However, if compensation to varying degrees were to be permitted between donor–recipient units, other complications might arise for the donor–recipient relationship, perhaps especially for parties with prior intimacy and history. For example, paying one's own mother for her uterus as a way to persuade and/or to thank her will no doubt strike some as inappropriately transactional, precisely because of the history and the type of relationship that the donor–recipient pair already have. In this type of case, it is clear that emotional as well as financial pressure can be deployed to sway influence within close personal ties.

Alternatively, situations where only one party approves or disapproves of compensation may also generate friction: being in a position of having to pay for what one would rather receive as a freely given gift might generate resentment, whereas receiving compensation in return for one's self-perceived generosity might generate guilt. Whatever the case, we can anticipate that big decisions like these may well exacerbate or generate complex tensions between people who have established certain partial expectations of each other. In this sense, even if one were to find compensation of donors (whatever the format) an agreeable general principle for UTx, hesitancy over the relational contexts in which to introduce such possibilities may understandably remain.

Still, I would emphasize that the issue here is not so much about compensation itself but rather how introducing such an element might shift the dynamics of established relationships and their constellations of expectations as a consequence. We may have some ways to avoid negative effects on these established relationships, however, by expanding the pool of potential donors and pairing recipients with donors who are strangers and who have independent reasons to benefit from giving away their uterus. Plausible candidates for this group may include, for example, nondirected donors with strong desires to assist others who do not themselves wish (ever, or anymore) to gestate. When it comes to more general practices around the world for uterus donor inclusion/exclusion criteria, it is telling that women of childbearing age who have *not* yet had their own children but who may still wish to donate their uterus may be denied, even if it is legally permitted for them to do so.[72] Another group who may have strong reasons of their own to undergo something like an elective hysterectomy is transgender men, a group that I have already mentioned may benefit comparatively more than cisgender women with healthy uteri who might only undergo such a procedure to benefit the recipient.

3.3 | Removing disincentives versus incentivizing reward: A dilemma for the "compensation" of uterus donors

So far, I have used the wide banner of "compensation" as a general umbrella term so that my discussion can accommodate

[70]Carbonnel, M., Karpel, L., Corruble, N., Legendri, S., Pencole, L., Cordier, B., Racowsky, C., & Ayoubi, J.-M. (2022). Transgender males as potential donors for uterus transplantation: A survey. *Journal of Clinical Medicine*, *11*, 6081.

[71]Zaami, S., Di Luca, A., & Marinelli, E. (2019). Advancements in uterus transplant: New scenarios and future implications. *European Review for Medical and Pharmacological Sciences*, *23*, 892–902.

[72]Vali, S., et al., op. cit. note 2.

and be as inclusive of various compensatory measures as may become relevant, ranging from reimbursement of losses incurred to more profitable models. But, in virtue of the factors that make UTx a "hard case" when it comes to compensation, let me now make the distinctions more explicit. There is, I think, a favorable case to be made for *removing disincentives* for those already inclined to donate their uterus. This is both because the analogous cases of ART and organ transplantation already accept this cost-neutral model of "compensation" *and* because it seems plausible to say that the ethical *minimum* for the rather unique risks and challenges undertaken by live uterus donors should be at the very least to offset any costs incurred, notwithstanding potential complexities, which arise for recipient–donor relationships that double as intimate or family ties. We might plausibly claim that recompense for any time taken off work, for their travel costs, as well as for healthcare fees associated with the procedure prior to, during, and after surgery, is reasonable. While the topic of the "ability and willingness of patients, insurers, or the state, to pay"[73] for UTx is sure to spark debate as the latter becomes safer and more routine,[74] it seems plausible to take the stance that the question of what individual donors are owed should be treated consistently with models of compensation that have already been supported in analogous cases such as gamete donation, surrogacy, and other types of organ donation. This means, at the very least, that the removal of disincentives as an ethical minimum for willing uterus donors should not be viewed as a uniquely controversial suggestion.

What live donors "deserve" beyond reimbursement for their time, effort, and risks to health, however, remains an open, and more controversial, question. In my view, there does not appear to be any compelling arguments to outright *reject* the idea that live donors should potentially profit monetarily (or nonmonetarily) for their efforts, as a form of either benefit or reward. But here we need to make a further distinction between incentivizing people to participate and rewarding donors after the fact. This is because what donors may rightly deserve as a *result* of their provision is a different issue than the more troubling one of *incentivizing* their donation in the first place. Independently of whether our priorities around organ sourcing are in order, the unique risks associated with UTx already discussed would make it potentially problematic to offer monetary rewards if the *goal* or intent is effectively to lower the threshold at which people who would otherwise not opt to partake become incentivized to become live uterus donors and shoulder the burden of the associated risks. The recruitment practices used to persuade live donors should obviously not constitute an "autonomy-undermining inducement."[75] To offset such risks, some have proposed a health-for-health model applying to various kinds of organ provisions: a *non*monetary, nontransferable compensation in a bid to at least reduce risks of exploitation and coercion. In such a method, financial gains that might be transferred to others (e.g., a creditor) might be avoided. Nonmonetary compensation could involve, for example, healthcare prioritization or non-healthcare-related benefits (e.g., no military service in countries with conscription).[76]

Overall, determining the amount as well as the type of reward or profit (monetary or nonmonetary) remains morally ambiguous. Because UTx is a risky, non-life-saving procedure, already steeped in relational dynamics involving problematic gendered norms and family pressure in many cases, we may find it undesirable overall to lower the threshold at which people are inclined to donate their uterus (if indeed there are rewards that would induce this effect) via promises of financial reward, though we might try to find ways to mitigate this using (for example) nonmonetary rewards. At the same time, we might still believe that live donors who do end up providing their uterus can deserve rewards beyond simply recouping their losses, in virtue of the unique risks and challenges they undertook for the sake of someone else's benefit. This constitutes our current dilemma: there is a shortage of live uterus donors in comparison with the demand for them, which invites discussion about compensatory incentivization to increase recruitment. However, while removing disincentives for uterus donors to participate can be more plausibly construed as an ethical minimum, and even profitably *rewarding* donors after the fact may be acceptable, using compensation as a way to lower the participatory threshold of those who may not have otherwise opted to donate is a worrying factor. The appropriateness of compensation in any format, therefore, is contingent on our objectives and goals regarding the treatment of uterus donors.

4 | CONCLUSION

In this article, I claimed that the compensation of live uterus donors should be explicitly addressed. Arguments that defend compensation in comparable scenarios, such as gamete donation, surrogacy, and other types of organ donation, plausibly apply in the case of live uterus donors. However, because UTx is so risky for the donor, non-life-saving, and because as a practice UTx and other ARTs more generally are steeped in concerns about oppressive gendered reinforcement, it would not necessarily be desirable to push for compensation with a view to *incentivize* more live uterus donors to come forward who otherwise would not have been motivated to do so. At the same

[73]Wilkinson, S., & Williams, N. J. (2016). Should uterus transplants be publicly funded? *Journal of Medical Ethics*, *42*, 559–565.

[74]Lotz, op. cit. note 29.

[75]O'Donovan, L., Williams, N. J., & Wilkinson, S. (2019). Ethical and policy issues raised by uterus transplants. *British Medical Bulletin*, *131*(1), 19–28.

[76]Platz, T. T., Siersbaek, N., Østerdal, L. P. (2019). Ethically acceptable compensation for living donations of organs, tissues, and cells: An unexploited potential? *Applied Health Economics and Health Policy*, *17*(1), 1–14.

time, we might still accept that uterus donors may deserve rewards that go beyond reimbursement because of the exceptional risks they undertake in the process. Overall, the issue of whether compensation should be utilized, and to what extent, generates ethically ambivalent answers given these potentially conflicting considerations.

ACKNOWLEDGMENTS

This work was supported by a Velux-funded grant (00026589).

ORCID

Ji-Young Lee http://orcid.org/0000-0003-1573-7139

AUTHOR BIOGRAPHY

Ji-Young Lee obtained her PhD in philosophy from the University of Bristol and is currently an assistant professor at the University of Copenhagen. She works on various bioethical topics, including the ethics of assisted reproductive technologies.

How to cite this article: Lee, J.-Y. (2023). Ethics of live uterus donor compensation. *Bioethics*, 1–9. https://doi.org/10.1111/bioe.13169