



March 8, 2024

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Via e-mail: seldenn@ohsu.edu

Dear Dean Selden:

Thank you in advance for your time. I'm writing on behalf of People for the Ethical Treatment of Animals—PETA entities have more than 9 million members and supporters globally. As Oregon Health & Science University (OHSU) School of Medicine (SoM) undergoes a leadership change following the departure of former dean Dr. David Jacoby—who recently resigned following allegations that he had mishandled the case of former Senior Associate Dean for Research Dr. Daniel Marks, who allegedly had secretly taken pictures of women in his class without their permission—we hope you will also disavow another disturbing practice that Jacoby allowed to continue for too long.

Specifically, we urge you to adopt a public policy prohibiting the use of live animals in OHSU's obstetrics and gynecology (OB/GYN) physician residency training program in favor of human-relevant, non-animal methods.

To emphasize the need for this lifesaving policy and in honor of International Women's Day on March 8, we have placed a full-page newspaper ad in today's *The Oregonian*¹ that lists more than 100 OB/GYN physician residency training programs that have confirmed that they don't use live animals as part of their curricula.² In addition, today we're launching a video via social media and a mobile billboard on OHSU's campus, featuring Dr. Donya Mand, a medical doctor who's calling on OHSU to ban its use of live animals in its OB/GYN physician residency training.³

Records Confirm Live Animal Use in OHSU's OB/GYN Residency

In a set of public records that PETA received from OHSU in response to our October 22, 2021, request,⁴ we learned that from 2019 to 2021 at least 64

¹PETA. Why Is OHSU Mutilating Pigs in OB/GYN Training? Accessed March 5, 2024.

<https://www.peta.org/wp-content/uploads/2024/03/ohsu-oregonian-ad.pdf>

²PETA. Animal Use in OB/GYN Physician Residency Training Programs in the U.S. Accessed March 5, 2024. <https://www.peta.org/action/animal-use-in-ob-gyn-physician-residency-training-programs/>

³PETA. OHSU Mutilates Live Pigs in OB/GYN Medical Training. YouTube. March 8, 2024. Accessed March 8, 2024. <https://www.youtube.com/watch?v=N1H5ueoPGes>

⁴PETA. Records Request. October 22, 2021. Accessed March 5, 2024.

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OB/GYN physician residents had participated in five training labs at OHSU^{5,6,7} that involved invasive and deadly procedures on up to 48 live female pigs.^{8,9,10,11}

OHSU Fails to Address Ethical and Scientific Critiques of OB/GYN Training on Live Pigs

On April 18, 2022, we sent a letter to Dr. Amy Stenson, OHSU's OB/GYN residency program director, outlining federal provisions that mandate a reduction in the use of live animals when possible, describing the poor translatability of skills from training on animals to performing procedures on human patients and detailing advanced animal-free methods that afford superior OB/GYN training.¹² Despite repeated follow-ups,^{13,14,15} we haven't yet received a response. On March 30, 2023, PETA, along with two board-certified fellows of The American College of Obstetricians and Gynecologists, Dr. Stephanie Singer and Dr. Rixt Luikenaar, also wrote to the OHSU Board of Directors about this matter, requesting that the board take action by ensuring the replacement of the use of live animals in OHSU's OB/GYN residency program.¹⁶

On April 17, 2023, representatives from PETA attended a meet-and-greet event featuring OHSU Executive Vice President and Dean of the School of Medicine Dr. David Jacoby, at which they had the opportunity to address this issue directly. Dr. Jacoby verbally informed PETA's representatives that the OB/GYN department chair, Dr. Aaron Caughey, had advised him that continuing to use pigs during OB/GYN residency training is still necessary—however, the evidence described in the enclosed brief confirms that using animals for this purpose is not only unnecessary but also counterproductive and it outlines the prevalence and superiority of animal-free OB/GYN training methods. On April 18, 2023, we wrote to Dr. Caughey about the matter, describing how animal-free methods for OB/GYN training are cost-effective, simulate real

https://www.peta.org/wp-content/uploads/2022/03/2021-10-22_OB-GYN_Residency_Records-Request_OHSU_OB-GYN.pdf

⁵OHSU. USDA and Porcine OB/GYN Data 2021. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2022/03/USDA-and-Porcine-ObGyn-Data-2021-redacted.pdf>

⁶OHSU. USDA and Porcine OB/GYN Data 2020. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2022/03/USDA-and-Porcine-ObGyn-Data-2020-redacted.pdf>

⁷OHSU. USDA and Porcine OB/GYN Data 2021. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2022/03/USDA-and-Porcine-ObGyn-Data-2021-redacted.pdf>

⁸OHSU. IACUC Protocol IP00817. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2022/03/IACUC-protocol-IP00817.pdf-redacted.pdf>

⁹OHSU. High Fidelity Simulation-Manikin Based ObGyn Post-Partum Skills. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2022/03/ObGyn-Curriculum-HighFidelity.pdf>

¹⁰OHSU. OB Skills. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2022/03/OB-Skills-2019-2021-Objectives-and-Equipment-redacted.pdf>

¹¹OHSU. Porcine Laboratory Surgical Tasks. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2022/03/Porcine-Laboratory-Surgical-Tasks-redacted.pdf>

¹²Swaminathan S. Letter to Dr. Amy Stenson. PETA. April 18, 2022. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2022/05/PETA-re-animal-use-in-UTHSCLife-Force-training.pdf>

¹³Swaminathan S. E-Mail Follow-Up With Dr. Amy Stenson. PETA. June 8, 2022. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2023/03/2022-06-08-follow-up-ohsu.pdf>

¹⁴Swaminathan S. E-Mail Follow-Up With Dr. Amy Stenson. PETA. October 11, 2022. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2023/03/2022-10-11-follow-up-ohsu.pdf>

¹⁵Swaminathan S. Letter to Dr. Amy Stenson. PETA. March 2, 2023. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2023/03/2023-03-02-letter-to-ohsu-re-obgyn-training-on-animals.pdf>

¹⁶Swaminathan S. Letter to OHSU Board of Directors. PETA. March 30, 2023. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2023/04/2023-03-30-letter-to-ohsu-bod.pdf>

medical situations, and provide students with vital opportunities to repeat procedures until they're proficient.¹⁷ We followed up on August 30, 2023, but haven't received a response.¹⁸

New Records Confirm OHSU Pigs Used for OB/GYN Training Suffered in Distress

According to recent records we received from OHSU, at least \$13,691.50 was spent to purchase and kill 14 female pigs between March 24, 2022, and April 20, 2023, for its OB/GYN physician residency training.^{19,20,21} The records also make it apparent that the pigs at OHSU who are being used for the OB/GYN "Skills Lab" are experiencing discomfort and distress.²² The medical records document numerous cases of scratches and abrasions on the pigs' bodies,²³ a fighting incident between pigs who were caged together,²⁴ "social incompatibility" among pigs,²⁵ and their inability to "coexist peacefully."²⁶ A "Surgery Anesthesia Log" reports that a pig experienced cardiac distress,²⁷ and another pig is reported to have had high levels of potassium in her serum, which likely caused her to experience arrhythmias. She also had a "large amount of urine" reported in her abdomen likely due to a ruptured urinary system.²⁸ One of the pigs was "euthanized" before the OB/GYN skills lab ended due to "sustained arrhythmia."²⁹ In another instance, a pig assigned to the OB/GYN skills lab was bled out from the abdomen and ultimately killed.³⁰

Several OB/GYN Residency Programs Do Not Use Live Animals

As we have mentioned above, according to PETA's ongoing survey of OB/GYN residency programs that are accredited by the Accreditation Council for Graduate Medical Education, more than 100 such programs have confirmed that they don't use live animals in their OB/GYN physician residency training.³¹ After hearing from PETA, the University of Texas Southwestern Medical Center wrote to us that "living animal models are no longer utilized in OB/GYN residency training program simulation activities."³² According to records we've received, that

¹⁷Swaminathan S. Letter to OHSU OB/GYN chair. PETA. April 18, 2023. Accessed March 5, 2024.

<https://www.peta.org/wp-content/uploads/2023/04/2023-04-18-letter-to-ohsu-ob-gyn-chair-with-brief.pdf>

¹⁸Swaminathan S. Follow-Up Letter to OHSU OB/GYN chair. PETA. August 30, 2023. Accessed March 5, 2024.

<https://www.peta.org/wp-content/uploads/2023/08/2023-08-30-follow-up-with-ohsu-re-ob-gyn.pdf>

¹⁹OHSU. Responsive Records. April 6, 2023, Invoice. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2024/02/2023-04-06-invoice.pdf>

²⁰OHSU. Responsive Records. April 20, 2023, Invoice. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2024/02/2023-04-20-invoice.pdf>

²¹OHSU. Responsive Records. March 24, 2022, Invoice. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2024/02/2022-03-24-invoice.pdf>

²²OHSU. Responsive Records. Animal Medical Records. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2024/02/Animal-Medical-Records-ohsu-obgyn.pdf>

²³*Id.* Pages 5, 12, 20, 61, 67.

²⁴*Id.* Page 5.

²⁵*Id.* Page 20.

²⁶*Id.* Page 63.

²⁷*Id.* Page 80.

²⁸*Id.* Page 79.

²⁹*Id.* Page 87.

³⁰*Id.* Page 51.

³¹PETA. Animal Use in OB/GYN Physician Residency Training Programs in the U.S. Accessed March 5, 2024.

<https://www.peta.org/action/animal-use-in-ob-gyn-physician-residency-training-programs/>

³²UT Southwestern. Response Confirming No Live Animals Used. August 15, 2023. Accessed March 5, 2024.

<https://www.peta.org/wp-content/uploads/2023/08/2023-08-15-no-live-animals-used.pdf>

school had previously used at least 13 pigs in recent OB/GYN training to perform laparoscopic hysterectomies, retroperitoneal dissections, and tissue morcellations.³³ Similarly, Aurora Sinai Medical Center³⁴ and Rush University³⁵—the latter of which received virtual reality software donated by PETA—both ended their use of live animals following talks with us. Furthermore, after discussions with us, Henry Ford Hospital published a new public policy on its webpage stating, “The OB/GYN residency program at Henry Ford Hospital does not use animals for training purposes, and instead uses advanced human patient simulators and other non-animal methods.”³⁶ Even the U.S. Department of Defense has banned the use of live animals for its OB/GYN physician residency training, instead using superior, human-relevant simulators.³⁷

This evidence indicates the growing shift in the field away from relying on crude training methods using live animals and toward using more human-relevant, effective, ethical, and economical animal-free models. Numerous OB/GYN physician residency programs offer quality education and training without using live animals. We urge you to emulate this progress by swiftly banning the use of live animals in OHSU’s OB/GYN physician residency training program.

You can contact me at ShriyaS@peta.org. Thank you for your consideration. We look forward to your reply.

Sincerely yours,



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Enclosure

Supplemental Brief: Replacing Animal Use in OB/GYN Residency Training at OHSU

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³³UT Southwestern. Responsive Records. Accessed March 5, 2024. <https://www.peta.org/wp-content/uploads/2023/08/2022-12-14-responsive-records-ut-southwestern.pdf>

³⁴PETA. Hospital Swaps Live Pigs for Tech in OB/GYN Training After PETA Talks. July 29, 2021. Accessed March 5, 2024. <https://www.peta.org/blog/victory-aurora-sinai-medical-center-wisconsin-replaces-live-pigs-high-tech-simulators/>

³⁵PETA. OB/GYN Residents Trade Practice on Live Pigs for High-Tech Simulators. June 28, 2016. Accessed March 5, 2024. <https://www.peta.org/blog/obgyn-residents-trade-practice-live-pigs-high-tech-simulators/>

³⁶Henry Ford Health. Obstetrics & Gynecology Residency. Accessed March 5, 2024. <https://www.henryford.com/hcp/med-ed/residencies-fellowships/hfh/ob-gyn>

³⁷Kime P. Defense Department to Reduce Use of Live Animals for Medical Training. *Military Times*. November 13, 2014. Accessed March 5, 2024. <https://www.militarytimes.com/2014/11/13/defense-department-to-reduce-use-of-live-animals-for-medical-training/>

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Supplemental Brief: Replacing Animal Use in OB/GYN Residency Training at Oregon Health & Science University

March 8, 2024

Prepared by PETA

Most OB/GYN Residency Programs Use Animal-Free Training Methods

Based on PETA's ongoing survey of all OB/GYN residency programs accredited by the Accreditation Council for Graduate Medical Education (ACGME), an overwhelming majority of them have reported that they *don't* use live animals in their training. Instead, such programs, including those at Rush University¹ and Aurora Sinai Medical Center,² use advanced, human-relevant simulators, which are reported in the medical literature to be equal or superior to using live animals.

The U.S. Department of Defense (DOD) issued a policy on May 15, 2014, that bans the use of animals for OB/GYN residency training and several other medical education areas by all branches of the military, unequivocally, stating that "suitable simulation alternatives can replace the use of live animals."³

Federal Provisions Require the Replacement of Animal Use When Possible

Federal ethical provisions are in place regarding minimizing the use of animals in experiments and training:

- The eighth edition of the *Guide for the Care and Use of Laboratory Animals* states, "The *Guide* ... endorses the following principles: *consideration of alternatives (in vitro systems, computer simulations, and/or mathematical models) to reduce or replace the use of animals.*"⁴ [Emphasis added.]
- The *U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training* (1985) states, "The animals selected for a procedure should be of an appropriate species and quality and *the minimum number required to obtain valid results.*"⁵ [Emphasis added.]

¹People for the Ethical Treatment of Animals. "OB/GYN Residents Trade Practice on Live Pigs for High-Tech Simulators." June 28, 2016. Accessed March 18, 2022. <https://www.peta.org/blog/obgyn-residents-trade-practice-live-pigs-high-tech-simulators/>

²People for the Ethical Treatment of Animals. "Hospital Swaps Live Pigs for Tech in OB/GYN Training After PETA Talks." Accessed March 18, 2022. <https://www.peta.org/blog/victory-aurora-sinai-medical-center-wisconsin-replaces-live-pigs-high-tech-simulators/>

³Department of Defense. "Determination for the Use of Animals in Medical Education and Training." May 15, 2014. Accessed March 18, 2022. <https://www.peta.org/wp-content/uploads/2023/03/jonathan-woodson-2014.pdf>

⁴U.S. National Research Council Committee for the Update of the *Guide for the Care and Use of Laboratory Animals*. (2011). *Guide for the Care and Use of Laboratory Animals*. <https://grants.nih.gov/grants/olaw/guide-for-the-care-and-use-of-laboratory-animals.pdf>

⁵U.S. National Research Council Committee for the *Update of the Guide for the Care and Use of Laboratory Animals*. (2011). Appendix B: U.S. government principles for the utilization and care of vertebrate animals used in testing, research, and training. <https://www.ncbi.nlm.nih.gov/books/NBK54048/>

- The federal Animal Welfare Act was enacted to ensure minimal protection of animals in laboratories and to prevent redundant experimental studies, which waste precious resources and harm animals. Section 2143(e)(3) of the act calls for “improved methods of animal experimentation, including methods which could reduce *or replace animal use,*” and section 2143(d)(2) states the need for scientific training using “methods that minimize or *eliminate the use of animals* or limit animal pain or distress.”⁶ [*Emphasis added.*]

Combining the Accreditation Council for Graduate Medical Education’s (ACGME) requirement for “ethical, humanistic training” that uses “simulation,”⁷ with the federal provisions that compel the minimization of animal use—and in the case of OB/GYN residency training, the number of animals used should be zero, given the precedents set by the DOD, Rush University, Aurora Sinai Medical Center, and others in fully replacing their use of animals for this purpose—we urge Oregon Health & Science University (OHSU) to prohibit the use of animals in its OB/GYN residency training.

Anatomical Differences Between Species Restrict the Transferability of Clinical Skills

There are significant differences in anatomical structures and vasculature between humans and other animals. In medicine, where lifesaving decisions must often be made within seconds, familiarity with human anatomical structures is crucial. Pigs and other animals can’t accurately mimic human anatomy, and major anatomical variances exist between humans and other animals due to the differences between quadrupeds and bipeds.

For example, humans’ bipedal nature results in a thorax that’s vertically oriented and appears quite different from other mammals. A pig’s heart, as it sits in the thorax, is rotated counterclockwise as compared to a human heart, resulting in different locations for key structures, such as the left ventricle and atrium. The vasculature of the heart and lungs is also significantly different between pigs and humans, with pigs having a left azygous vein that drains into the coronary sinus and only two pulmonary veins, by comparison with up to five in humans.⁸

⁶U.S. Department of Agriculture Animal and Plant Health Inspection Service. (2017). *USDA Animal Care: Animal Welfare Act and Animal Welfare Regulations*. U.S. Department of Agriculture Animal and Plant Health Inspection Service.

⁷American Council for Graduate Medical Education (n.d.) *ACGME Program Requirements for Graduate Medical Education in Obstetrics and Gynecology*. https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/220_ObstetricsAndGynecology_2020.pdf

⁸Lelovas, P.P., Kostomitsopoulos, N.G., Xanthos, T.T. (2014) A comparative anatomic and physiologic overview of the porcine heart. *Journal of the American Association for Laboratory Animal Science*, 53(5), 432–438. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4181683/>

Differences in other organs, such as the shape and arterial supply of the spleen,⁹ orientation of the pelvis, and the shape of the liver¹⁰ limit the realism and utility of animals like pigs in surgical training. A 2016 study in the *Journal of the Royal Army Medical Corps* states the following regarding the use of pigs: “Training courses based on animal models and cadavers have been used extensively to prepare surgeons for deployment in recent conflicts. However, they are expensive and provide a one-off opportunity to practice advanced techniques in models that are either anatomically incorrect (pigs) or have altered tissue characteristics with no vascular perfusion (cadavers). [Instead, a]bdominal multivisceral organ retrieval [in clinical settings] is the ultimate laparotomy and takes the surgeon to parts of the retroperitoneum and thorax otherwise not seen during standard surgical training.”¹¹

With respect to the genitourinary structures, pigs possess a “bicornuate” uterine structure, wherein the uterine body elongates into two uterine horns. This increases the distance from the cervix to the entrance of the fallopian tubes when compared to the distance observed in women. Key structures, such as the cervix, vagina, and fallopian tubes, also have different lengths in pigs compared with humans. Pigs have a longer urogenital sinus that connects to the external genitalia through a common opening. However, adult women have only vestiges of the urogenital sinus, which is considered to be part of the external genitalia, and the urethra and vagina have separate external openings. In addition to these prominent differences, there are also many microscopic anatomical differences between pigs and humans within each organ.¹²

Human-Relevant OB/GYN Simulators Offer Many Benefits

Over the past several decades, technological advances in the medical simulation field, heightened institutional financial constraints, educators’ need for better teaching and assessment tools, and growing concerns about animal use in invasive and terminal laboratory experiments have all contributed to a paradigm shift in biomedical education, where simulation-based learning has become the medical best-practice standard. Unlike animal-based laboratories, innovations in biomedical simulation technology ranging from high-fidelity human-patient simulation to computer-assisted learning software and virtual reality programs for OB/GYN training have created important new cost-effective ways to model human anatomy and physiology accurately,¹³ create

⁹Pereira-Sampaio, M.A., Marques-Sampaio, B.P. (2006). Anatomical study and proportional analysis of the pig spleen arterial segments. *Cells Tissues Organs*, 182(1), 32–34.

¹⁰Nykonenko A, Vávra P, Zonča P. Anatomic peculiarities of pig and human liver. (2017). *Exp Clin Transplant*, 15(1), 21–26.

¹¹O’Reilly, D., Lordan, J., Streets, C., Midwinter, M., Mirza, D. (2016). Maintaining surgical skills for military general surgery: The potential role for multivisceral organ retrieval in military general surgery training and practice. *J R Army Med Corps*, 162(4), 236–238. <https://pubmed.ncbi.nlm.nih.gov/26243807/>

¹²Lorenzen E, Follmann F, Jungersen G, Agerholm JS. A review of the human vs. porcine female genital tract and associated immune system in the perspective of using minipigs as a model of human genital Chlamydia infection. *Vet Res*. 2015;46:116. Published 2015 Sep 28. doi:10.1186/s13567-015-0241-9

¹³Cook, J., Rao, V.V., Bell, F., Durkin, M., Cone, J., Lane-Cordova, A., Castleberry, L. (2020). Simulation-based clinical learning for the third year medical student: Effectiveness of transabdominal and transvaginal ultrasound for elucidation of OB/GYN scenarios. *Journal of Clinical Ultrasound*, 48(8), 457–461.

immersive scenarios that mimic real-world medical cases,¹⁴ provide students with vital opportunities to repeat medical procedures until proficiency,¹⁵ improve provider confidence and transference of learned skills to clinical practice,¹⁶ and allow educators to receive objective performance feedback.¹⁷

In obstetrics training, there are low- and high-fidelity hybrids composed of human simulators and computer software that can be used to simulate an operative vaginal delivery,¹⁸ breech vaginal delivery,¹⁹ shoulder dystocia,^{20,21} eclampsia,²² postpartum hemorrhage,²³ amniocentesis and fetal blood sampling,^{24,25} and more. A non-animal simulation curriculum has also been developed to address deficiencies in managing obstetric emergencies.²⁶

In gynecology training, simulators ranging from partial task trainers to virtual reality systems are available.²⁷ For instance, researchers have validated a cost-effective non-animal simulation model to teach vaginal hysterectomy,²⁸ and another study found that

¹⁴Nitsche, J., Morris, D., Shumard, K., Akoma, U. (2016). Vaginal delivery simulation in the obstetrics and gynaecology clerkship. *The Clinical Teacher*, 13(5), 343–347.

¹⁵Larsen, C.R., Oestergaard, J., Ottesen, B.S., Soerensen, J.L. (2012). The efficacy of virtual reality simulation training in laparoscopy: a systematic review of randomized trials. *Acta obstetrica et gynecologica Scandinavica*, 91(9), 1015–1028.

¹⁶Pliengo, J.F., Wehbe-Janek, H., Rajab, M.H., Browning, J.L., Fothergill, R.E. (2008). OB/GYN boot camp using high-fidelity human simulators: enhancing residents' perceived competency, confidence in taking a leadership role, and stress hardiness. *Simulation in Healthcare*, 3(2), 82–89.

¹⁷Madsen, M.E., Konge, L., Nørgaard, L.N., Tabor, A., Ringsted, C., Klemmensen, Å.K., et. al. (2014). Assessment of performance measures and learning curves for use of a virtual-reality ultrasound simulator in transvaginal ultrasound examination. *Ultrasound in Obstetrics & Gynecology*, 44(6), 693–699.

¹⁸Dupuis O., Moreau R., Pham M.T., Redarce T. Assessment of forceps blade orientations during their placement using an instrumented childbirth simulator. *BJOG*. 2009 Jan;116(2):327–32.

¹⁹Deering S., Brown J., Hodor J., Satin A.J.. Simulation training and resident performance of singleton vaginal breech delivery. *Obstet Gynecol*. 2006 Jan;107(1):86–9.

²⁰Fahey J.O., Mighty H.E. Shoulder dystocia: using simulation to train providers and teams. *J Perinat Neonatal Nurs*. 2008 Apr–Jun;22(2):114–22.

²¹Deering S., Poggi S., Macedonia C., Gherman R., Satin A.J. Improving resident competency in the management of shoulder dystocia with simulation training. *Obstet Gynecol*. 2004 Jun;103(6):1224–8.

²²Ellis D., Crofts J.F., Hunt L.P., Read M., Fox R., James M. Hospital, simulation center, and teamwork training for eclampsia management: a randomized controlled trial. *Obstet Gynecol*. 2008 Mar;111(3):723–31.

²³Deering S.H., Chinn M., Hodor J., Benedetti T., Mandel L.S., Goff B. Use of a postpartum hemorrhage simulator for instruction and evaluation of residents. *J Grad Med Educ*. 2009 Dec;1(2):260–3.

²⁴Pittini R., Oepkes D., Macrury K., Reznick R., Beyene J., Windrim R. Teaching invasive perinatal procedures: assessment of a high fidelity simulator-based curriculum. *Ultrasound Obstet Gynecol*. 2002 May;19(5):478–83.

²⁵Tongprasert F., Tongsong T., Wanapirak C., Sirichotiyakul S., Piyamongkol W., Chanprapaph P. Experience of the first 50 cases of cordocentesis after training with model. *J Med Assoc Thai*. 2005 Jun;88(6):728–33.

²⁶Maslovitz S., Barkai G., Lessing J.B., Ziv A., Many A. Recurrent obstetric management mistakes identified by simulation. *Obstet Gynecol*. 2007 Jun;109(6):1295–300.

²⁷Hart R., Karthigasu K. The benefits of virtual reality simulator training for laparoscopic surgery. *Curr Opin Obstet Gynecol*. 2007 Aug;19(4):297–302.

²⁸Greer J.A., Segal S., Salva C.R., Arya L.A. Development and validation of simulation training for vaginal hysterectomy. *J Minim Invasive Gynecol*. 2014 Jan-Feb;21(1):74–82.

high-fidelity simulators were “cheaper than practicing on laboratory animals” in the long term.²⁹ A low-cost, low-fidelity, animal-free simulator was also shown to have significantly improved OB/GYN trainee confidence in performing abdominal hysterectomies.³⁰ The use of pigs to teach *in utero* stenting has been described as “cumbersome,” but a non-animal trainer constructed out of simple materials was concluded to be “efficient,” it was “reutilised more than 30 times,” and it “replicate[d] the sensation of piercing through the uterine cavity during a clinical scenario.”³¹ A laparoscopic training curriculum for gynecology residents has also been developed to teach common surgical tasks, such as bead and peg manipulation, passing of a specially designed “key,” cutting of lines and circles on a two-layer latex glove, suturing, and intra- and extracorporeal knot tying.³²

A retrospective study at the Department of Obstetrics and Gynecology at the University of Texas Medical Branch at Galveston reported that “simulator-based training may play an integrative role in developing the residents’ surgical skills and thus improving the surgical outcomes of hysterectomy.”³³ This conclusion arose from clinical outcomes of patients who had undergone total abdominal hysterectomy, vaginal hysterectomy, total laparoscopy-assisted hysterectomy, or robot-assisted hysterectomy that was performed by residents before and after a simulation lab training. This animal-free simulation training included the dV-Trainer (Mimic Technologies) for robotic surgery, the 3-Dmed Trainer platform as a laparoscopy trainer, and the Surgical Female Pelvic Trainer with Advanced Surgical Uterus (Limbs & Things) as an open surgery trainer. Furthermore, an abdominal laparotomy training curriculum using exclusively non-animal methods demonstrated construct validity and improved the performance of residents in the study.³⁴

Request for Action

PETA and physicians from Harvard Medical School noted the following in a 2018 paper published in the journal *Simulation in Healthcare*:

Scientific, legal, ethical, and economic factors have prompted curricular reforms around the world that have led to a dramatic decrease in the use of

²⁹Van de Ven J., Houterman S., Steinweg R.A., Scherpier A.J., Wijers W., Mol B.W., Oei S.G. TOSTI-Trial Group. Reducing errors in health care: cost-effectiveness of multidisciplinary team training in obstetric emergencies (TOSTI study); a randomised controlled trial. *BMC Pregnancy Childbirth*. 2010 Oct 8;10:59.

³⁰Stickrath E., Alston M. A novel abdominal hysterectomy simulator and its impact on obstetrics and gynecology residents’ surgical confidence. *MedEdPORTAL*. 2017;13:10636. Published 2017 Sep 29. doi:10.15766/mep_2374-8265.10636

³¹Codsi E., Nitsche J.F., Faksh A., et al. Op13.09: Development of a non-animal task trainer for in utero stenting. *Ultrasound in Obstetrics & Gynecology*. 2015;46:93. doi:10.1002/uog.15226

³²Kirby T.O., Numnum T.M., Kilgore L.C., Straughn J.M. A prospective evaluation of a simulator-based laparoscopic training program for gynecology residents. *J Am Coll Surg*. 2008 Feb;206(2):343–348.

³³Asoğlu M.R., Achjian T., Akbilgiç O., Borahay M.A., Kılıç G.S. The impact of a simulation-based training lab on outcomes of hysterectomy. *J Turk Ger Gynecol Assoc*. 2016;17(2):60–64. Published 2016 Jan 12. doi:10.5152/jtgga.2016.16053

³⁴Greenawald L., Uribe J., Shariff F., et al. Construct validity of a novel, objective evaluation tool for the basics of open laparotomy training using a simulated model. *Am J Surg*. 2017;214(1):152–157. doi:10.1016/j.amjsurg.2015.12.022

live animals for training in biomedical fields in favor of simulation-based education. Facilities that continue to use animals for these purposes will have less ethical and legal justification given that comparable courses are taught in many locations elsewhere without animal use.

The choice of which medical training modalities to use should be based on key metrics such as what method improves provider knowledge, confidence, proficiency, and accuracy and for all of these criteria studies and government regulatory decisions confirm that providers trained via human simulation meet or exceed the standard set by those trained using live animals for coursework in ... obstetrics and gynecology.³⁶

Based on the information we've presented, we urge OHSU to replace its use of live animals for OB/GYN residency training with more effective, ethical, and economical non-animal methods.

³⁶Pawlowski, J.B., Feinstein, D.M., Gala, S.G. (2018). Developments in the transition from animal use to simulation-based biomedical education. *Simulation in Healthcare*, 13(6), 420–426.