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**AMERICAN MEDICAL STUDENT ASSOCIATION  
HOUSE OF DELEGATES 2016  
RESOLUTION: C13**

INTRODUCED BY:	Patrice Green
SCHOOL:	At Large
SUBJECT:	Amendment to Principles Regarding Vivisection in Medical Education
TYPE:	Resolution of Principles

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1 WHEREAS the U.S. Department of Defense (DOD) conducts “live tissue training” (LTT) that involves inflicting gunshot  
2 wounds, limb fracture, dismemberment, propane torch burn, laceration and hemorrhage on thousands of live animals each  
3 year so personnel can attempt to practice human emergency medical procedures; and  
4

5 WHEREAS U.S. military physicians have criticized LTT, stating animals are “poor surrogates for human anatomy ...  
6 [and] ... the use of animals raises ethical issues, as well as not allowing for repetitive practice, due to logistics and  
7 expense;” [1] and  
8

9 WHEREAS realistic human patient simulators accurately replicate human anatomy and physiology and can fully replace  
10 animal use in LTT; and  
11

12 WHEREAS studies show U.S. military personnel taught emergency medical procedures on human simulators are as  
13 proficient as, or moreso than, those taught using animals;<sup>i,iii,iv,v</sup> [2,3,4,5] and  
14

15 WHEREAS a U.S. military researcher who conducts studies comparing the efficacy of human simulation versus LTT  
16 recently wrote that “the military should make the move away from all animal simulation when effective equivalent  
17 artificial simulators exist for a specific task,” noting that “[f]or emergency procedures, this day has arrived” since  
18 “artificial simulator models are at least equivalent to, if not superior to, animal models;”<sup>vi</sup> [6] and  
19

20 WHEREAS U.S. DOD regulations require the use of non-animal medical training methods, stating that the “[u]se of live  
21 animals in medical readiness training shall occur ... only when alternatives such as commercial training manikins,  
22 moulaged actors, cadavers, or virtual simulators are not appropriate to the training task;”<sup>vii</sup> [7] and  
23

24 WHEREAS more than 98 percent of U.S. and Canadian facilities teaching the most widespread civilian trauma training  
25 course,<sup>viii</sup> [8] and military medical training programs in nearly 80 percent of NATO nations,<sup>ix</sup> [9] have ended animal use in  
26 trauma training in favor of using exclusively human simulators and other non-animal teaching methods; and  
27

28 WHEREAS in 2015 the U.S. Congress introduced the “Battlefield Excellence through Superior Training (BEST)  
29 Practices Act” (S. 587/H.R. 1095) to fully phase out the U.S. military’s animal use in LTT and require the use of human  
30 simulation-based training methods by October 1, 2020;  
31

32 **THEREFORE BE IT RESOLVED** that the Principles Regarding Vivisection in Medical Education (p. 101) be  
33 AMENDED to read:

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35 6. Regarding alternatives to animal laboratories:

- 36 a. Strongly ENCOURAGES the replacement of animal laboratories with non-animal alternatives in undergraduate  
37 medical education (2007)  
38 b. URGES a directory of such alternative educational materials be produced. (1986)  
39 c. ENCOURAGES the utilization of non-animal teaching materials and methods in Continuing Medical Education.  
40 (1993)  
41 d. **STRONGLY URGES the U.S. Department of Defense to fully phase out the use of animals in trauma training**  
42 **exercises and require the use of human simulation-based training by October 1, 2020.**  
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45 Fiscal note: None

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- [1] Ritter ME, Bowyer M. Simulation for trauma and combat casualty care. *Minimally Invasive Therapy*. 2005; 12(4-5): 224–34.  
[2] Sweet R. Comparing live animal and simulator alternatives for training and assessing hemorrhage and airway procedures in a tactical field situation. Presented at the Military Health System Research Symposium in Fort Lauderdale, FL (August 18-21, 2014).  
[3] Savage E. et al. A comparison of live tissue training and high-fidelity patient simulator: A pilot study in battlefield trauma training. *Journal of Trauma and Acute Care Surgery*. 2015; 79(4): S157-63.  
[4] Ali J, Sorvari A, Pandya A. 2012. Teaching Emergency Surgical Skills for Trauma Resuscitation-Mechanical Simulator versus Animal Model. *ISRN Emergency Medicine*, 2012.  
[5] Hall AB, Riojas R, Sharon D. 2014. Comparison of self-efficacy and its improvement after artificial simulator or live animal model emergency procedure training. *Military Medicine*; 179 (3): 320–3.  
[6] Hall A. Letter to the editor. *Military Medicine*. 2014; 179(7): vii.  
[7] U.S. Department of Defense. Department of Defense instruction number 1322.24: Medical readiness training. October 6, 2011. Available at: <http://www.dtic.mil/whs/directives/corres/pdf/132224p.pdf>; Accessed: December 4, 2015.  
[8] DeMuth R. Doing what’s BEST for the troops. *The Hill*. November 21, 2013. Available at: <http://thehill.com/blogs/congress-blog/healthcare/191087-doing-whats-best-for-the-troops#>; Accessed: December 4, 2015.  
[9] Gala SG, Goodman JR, Murphy MP, Balsam MJ. Use of animals by NATO countries in military medical training exercises: an international survey. *Military Medicine*. 2012; 177(8): 907-10.