



# What is the price of love?

## The ethics of ever-escalating medical care costs for companion animals

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**UNDERGRADUATE RESEARCH DAY**  
**APRIL 27, 2013**



# Changing face of US veterinary profession

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- Increasingly a female profession
- >50% new graduates enter small animal practice:
  - Major reversal from profession <1950s
    - ✦ → Sensitive to fluctuations in household income
  - 31% 2012 graduates plan specialty board certification:
    - ✦ Top 3: internal medicine; surgery; critical care
- Excess capacity in profession of 12.5%
- Education debt load:
  - \$147,518 (M); \$152,853 (F)
- Post-DVM education:
  - 55.4% of all 2012 graduates
  - Mostly residencies
  - Starting residency salary: \$29,628

# Changing face of US veterinary profession

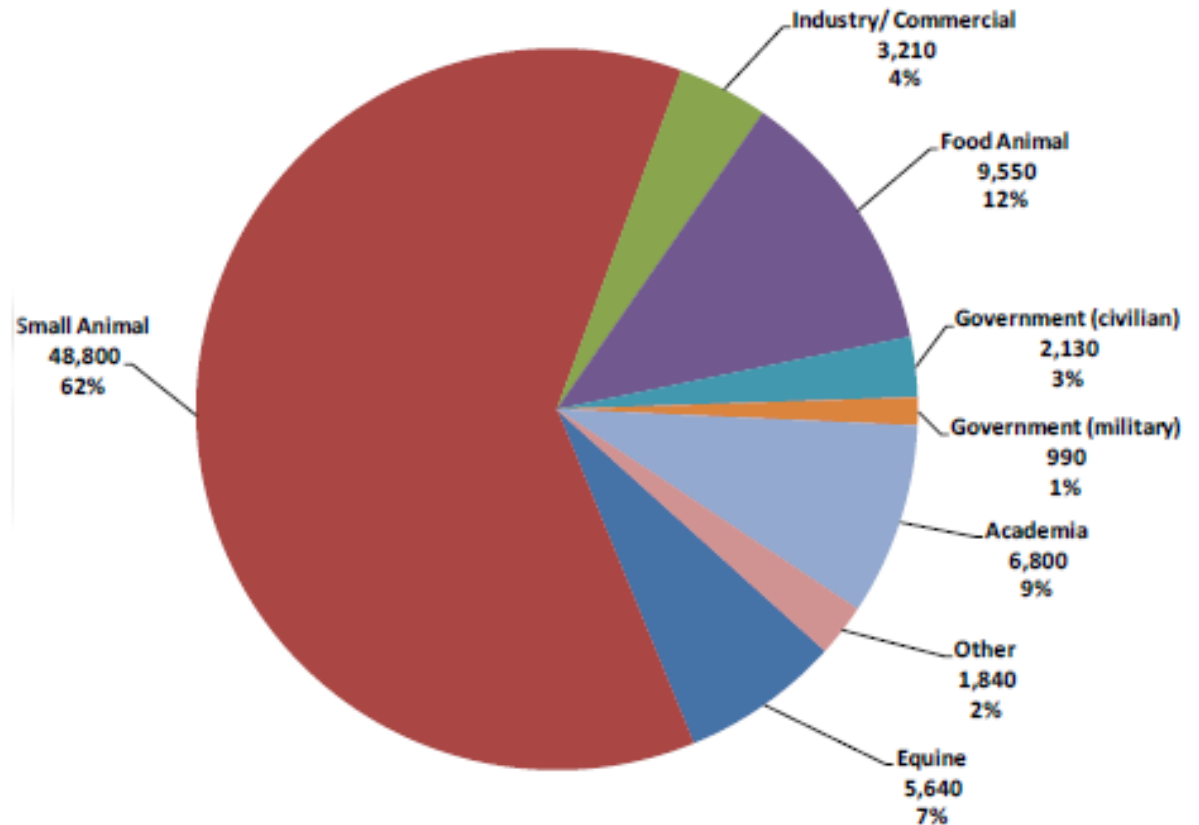
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# Animal patients in USA (2010)

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76.0M dogs  
81.1M cats  
13.5M birds  
8.1M horses  
81.5M beef  
9.2M dairy  
64.8M swine  
5.4M sheep



FTE demand for veterinarians by species

# Pets in the United States

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- **Pets are popular in the United States**
  - >50% of American homes have a pet
- **Changed role in family life**
  - Property vs. companions vs. family members
- **Dangers vs. health benefits of companions**
- **Evolving technology in veterinary medicine**
  - Oncology
  - Organ transplantation
  - Corrective surgery
  - Animal cloning





# Cancer therapies

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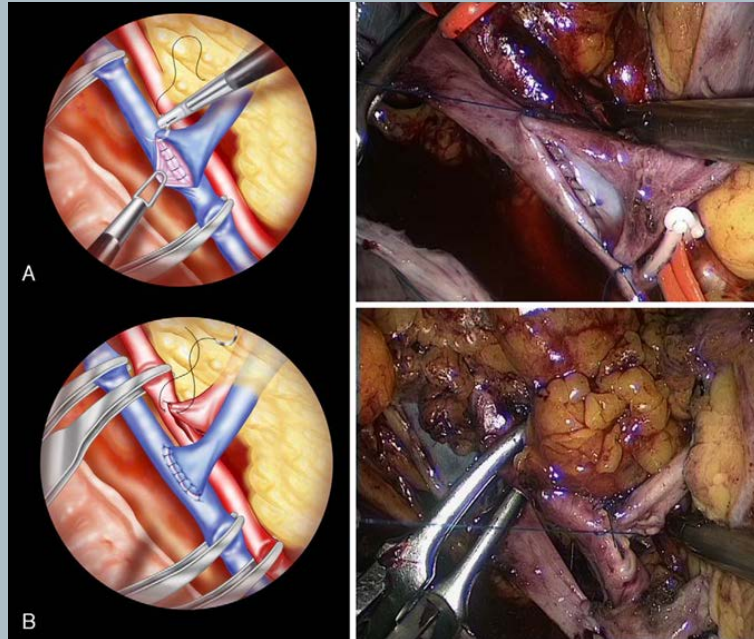
- **Chemotherapy + radiation**
  - More traditional
  - Use of chemicals
- **Diet regulation**
  - Homemade vs. commercial
- **Anti-angiogenic therapy**
  - Stop tumor growth by stopping blood vessel formation
- **Oncolytic virotherapy**
  - Use of viruses to target and kill cancer cells
- **Vaccines**



# Transplant surgery

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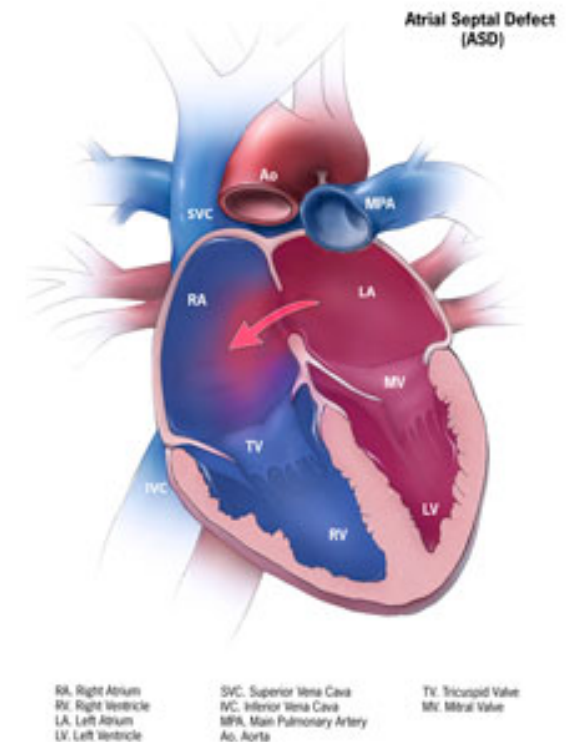
- Renal transplants
  - Chronic renal failure
  - Familial renal disease
  - End-to-side anastomosis vs. end-to-end
  - Survival rates



# Corrective surgeries

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- **Brachycephalic syndrome**
  - Post-operative oxygen supplementation
- **Patellar luxation surgery**
  - Complications
- **Cataracts surgery**
  - Restore vision- client perceptions
- **Heart surgery**
  - Atrial septal defect
- **Olfactory mucosal cell transplants**
  - Spinal cord injury





# Cloning your companion

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- **Industry mainly in South Korea**
  - 'Snuppy': world's first cloned puppy
- **Cost: \$100,000**
- **Mother dogs from dog farms**
- **Unwanted clones often produced**
- **Clones physical copies only**
  - Uncloned: character/personality



# Morality in veterinary procedures

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**How can the most happiness be obtained?**

**Whose happiness matters?**

**Are high technology veterinary procedures at the expense of human patients?**

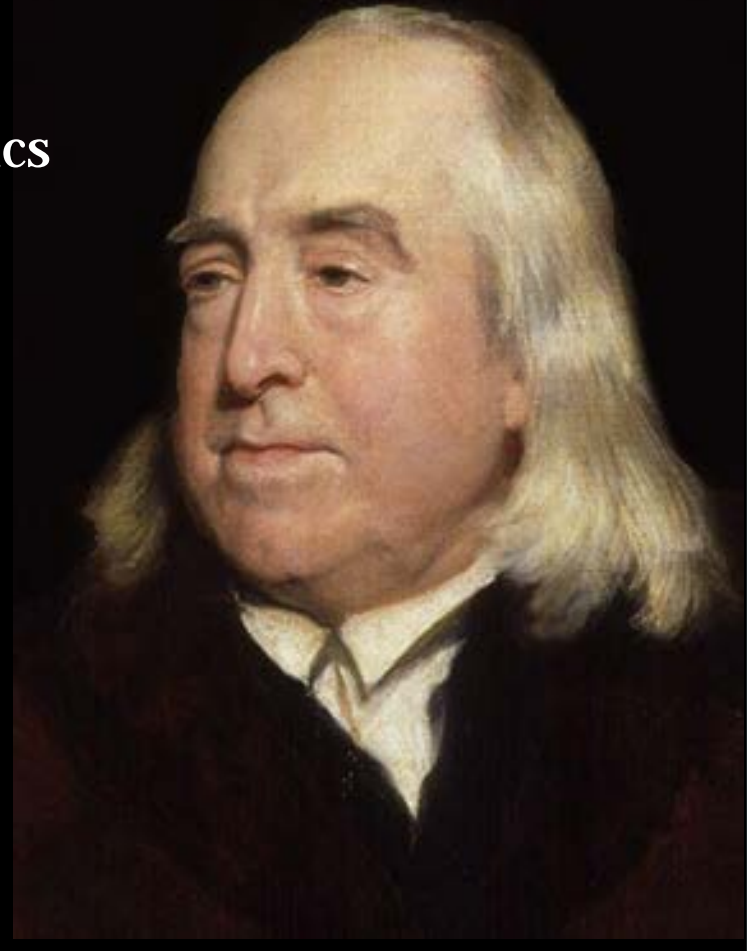
**Patient consent versus owner consent?**

**Do owners have discretion to do whatever is medically practical for their companions?**

# Morality and utilitarianism

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- **Other philosophical frameworks**
  - Religion, property rights, individual rights
- **Morality a framework for veterinary ethics**
- **Utilitarianism- 19<sup>th</sup> century England**
  - Jeremy Bentham
- **Based on happiness**
  - All individuals impacted have equal importance
  - Most overall happiness=best decision
- **“The question is not, ‘Can they reason?’ nor, ‘Can they talk?’ but rather, ‘Can they suffer?’”**



# Conclusions

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- **High-dollar/high-technology veterinary procedures can be morally acceptable**
- **In some circumstances, subjecting pets to advanced procedures can be selfish:**
  - Owner: unwillingness to accept terminal illness
  - Veterinarian: income stream/professional pride
- **Cloning to “bring pets back from the dead” is not morally acceptable:**
  - Too much suffering on part of bitch, unwanted clones, and other pets that could be adopted instead

# Image Sources

- <http://www.intechopen.com/books/understanding-the-complexities-of-kidney-transplantation/minimally-invasive-renal-transplantation>
- <http://www.nndb.com/people/639/000055474/bentham-sized.jpg>
- <http://www.namcvet.com/images/photo-chemotherapy.jpg>
- [http://news.nationalgeographic.com/news/2005/08/photogalleries/dogclone/images/primary/dog\\_clone1.jpg](http://news.nationalgeographic.com/news/2005/08/photogalleries/dogclone/images/primary/dog_clone1.jpg)
- [http://www.cdc.gov/ncbddd/heartdefects/images/asd-web\\_small.jpg](http://www.cdc.gov/ncbddd/heartdefects/images/asd-web_small.jpg)
- <http://www.aspca.org/adoption/~media/Files/adoption/lineup-pet-care-cost.ashx>



- Appel, S. L. et al . (2006). Evaluation of client perceptions concerning outcome of cataract surgery in dogs. *JAVMA* 228(6), 870-875.
- Arendt, M., Morgan, I. M., & Nasir, L. (2009). Oncolytic gene therapy for canine cancers: Teaching old dog viruses new tricks [electronic resource]. *Vet Comp Oncology*, 7(3), 153-161. doi: <http://dx.doi.org/10.1111/j.1476-5829.2009.00187.x>
- ARTHURS, G. I., & LANGLEY-HOBBS, S. J. (2006). Complications associated with corrective surgery for patellar luxation in 109 dogs. *Veterinary Surgery*, 35(6), 559-566. doi: 10.1111/j.1532-950X.2006.00189.x
- Bacon, N. J., et al (2008). Use of alternating administration of carboplatin and doxorubicin in dogs with microscopic metastases after amputation for appendicular osteosarcoma: 50 cases (1999–2006) *JAVMA*, 232(10), 1504-1510. Davidson, G. (2005).
- Compounding antiangiogenic cancer therapy for animals. *International Journal of Pharmaceutical Compounding*, 9(3), 195-198.
- Davis, L. (2013). Why cloning is a terrible way to bring your pet dog back from the dead. Retrieved 1/28, 2013, from <http://io9.com/5949612/why-cloning-is-a-terrible-way-to-bring-your-pet-dog-back-from-the-dead>
- End-to-side anastomosis. (2013). Retrieved Feb 24, 2013, from <http://medicaldictionary.thefreedictionary.com/end-to-side+anastomosis>
- Gordon, S. G., et al. (2010). Open heart closure of an atrial septal defect by use of an atrial septal occluder in a dog. *JAVMA* 236(4), 434-439. doi: 10.2460/javma.236.4.434
- Granger, N et al . (2012). Autologous olfactory mucosal cell transplants in clinical spinal cord injury: A randomized double-blinded trial in a canine translational model. *Brain*, 135(11), 3227-3237. doi: 10.1093/brain/aws268
- Harris, D., & Janik, K. (2013). Cloning fido: South korea's dog cloning industry raises ethical red flags. Retrieved 1/28, 2013, from <http://abcnews.go.com/Technology/south-koreas-dog-cloning-industry-raises-ethical-red/story?id=15309415>
- Heinze, C. R., Gomez, F. C., & Freeman, L. M. (2012). Assessment of commercial diets and recipes for home-prepared diets recommended for dogs with cancer. *JAVMA* 241(11), 1453-1460. doi:10.2460/javma.241.11.1453
- Herzog, H. (2010). *Some we love, some we hate, some we eat*. New York, NY:HarperCollins.
- Øyen, O. (2011). Minimally invasive renal transplantation. In J. Ortiz, & J. Andre (Eds.), *Understanding the complexities of kidney transplantation* () doi: 10.5772/18736
- Patil, S., et al (2012). Oncolytic virotherapy in veterinary medicine: Current status and future prospects for canine patients. *Journal of Translational Medicine*, 10(1), 3.
- Phacoemulsification for cataracts. (2013). Retrieved February 24, 2013, from <http://www.surgeryencyclopedia.com/Pa-St/Phacoemulsification-for-Cataracts.html#b>
- Phillips, H., & Aronson, L. R. (2012). Use of end-to-side arterial and venous anastomosis techniques for renal transplantation in two dogs. *JAVMA* 240(3), 298-303.
- Rachels, J., & Rachels, S. (2012). *The elements of moral philosophy*. New York, NY:McGraw-Hill.
- Ramey, D. W., & Rollin, B. E. (2001). Ethical aspects of proof and "alternative" therapies. *JAVMA*, 218(3), 343-346.
- dog walks again after revolutionary treatment, offers hope to humans. Retrieved February 24, 2013, from <http://www.examiner.com/article/paralysed-dog-walks-again-after-revolutionary-treatment-offers-hope-to-humans>
- Senn, D., Sigrist, N., Forterre, F., Howard, J., & Spreng, D. (2011). Retrospective evaluation of postoperative nasotracheal tubes for oxygen supplementation in dogs following surgery for brachycephalic syndrome: 36 cases (2003?2007). *Journal of Veterinary Emergency and Critical Care*, 21(3), 261-267. doi: 10.1111/j.1476-4431.2011.00612.x