Irene Castle: The Unsung Role of a Humanitarian Towards Fundamentals Defining the Operation of Modern IACUCs

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Abstract

Animal research is an evolutionary process where researchers subject themselves to strong competition for funding. Since 1985, the approval of such endeavors had envisioned the official incorporation of strict rules and regulations to assure humane animal use and care, falling under IACUCs regulation. In order to get their projects approved, researchers comply with their respective institutional organizations but they are rarely, if never exposed, to data involving the fundamentals resulting in the creation of modern IACUCs. Therefore, this paper intends to fill out an outstanding gap of information regarding the foundation of the first known animal ethics committee in the Chicago-area during 1945, and the struggles that characterized its genesis and the official implementation among medical organizations, while describing the early role played by distinct key characters involved that resulted in modern IACUCs.

Keywords : IACUCs; Origins; Antivivisectionists; Humanitarian; Tribute-Science

Introduction

The historical development of biomedical research and animal use has evolved notoriously in the last five decades, resting upon well-structured projects supported by governmental and private agencies worldwide. [1]. Thus, the funding of modern research is intensely competitive,[2,3] and despite close scientific scrutiny, the final approval of projects depends not only on their scientific merit, but also on bioethical concerns of animal welfare duly regulated by law in the U.S. and many countries[4-7] through modern IACUC’s, the institutional bodies responsible for the application of strict regulations [8], as the three R’s (reduction, refinement and replacement [9] and the implementation of alternative methods including the criteria of humane endpoints to avoid unnecessary distress and suffering of laboratory subjects [8,10,11].

Today, fostered by strict federal directives, animal care policies are commonly applied to oversee the compliance in accredited recipient institutions and enhance the even current needed professional training and education among veterinarians; this is supported by especial funding for the new or costly remodeled animal facilities to assure proper designs and high-quality operations, capable of meeting the strong demands of the research and society [12].

Despite today’s common knowledge on animal welfare on animal research and care by the scientists, the majority of the new generations of veterinarians are unaware of the vast deficiencies sustained by the early practitioners of Laboratory Animal Medicine [13,14], affecting animal husbandry and health leading to obtain unpredictable results. Conditions at the time were not only unfavorable, but it would often invalidate research results because of cross-contamination and the resulting spread of diseases.

It is then fair to assume, that today most colleagues ignore the notorious interventions of fierce animal advocates against vivisection and animal abuse or neglect during the beginnings of the 20th century in the U.S., [15-17] an era when research began seeking to promote human health and welfare. During 1945, The National Antivivisection Society of Chicago intensively fueled the antivivisection movement; this activity resulted in restless interventions becoming a boiling spot of harsh criticism towards any kind of animal use or experimentation, prompting the strong reaction of the organized medical community in defense of animal research [13,14,17].

The expected response involved measures from City Council members and medical authorities to satisfy public demands, giving
birth to a selected group of individuals responsible for creating incipient regulations deemed necessary for animal use, care and medical control in research and educational settings known then as the Animal Advisory Committee of the Arvey Ordinance, an ad hoc regulatory body emanating amid complex negotiations and heated controversies; it is just fair to assume that such transcendental development could only occur supported by the City officials, sympathetic to the politically connected activists and artist, Irene Castle-McLaughlin, founder of the animal shelter Orphans of the Storm, located in Lake Forest, Illinois (Figure 1). The shelter consisted of a humane society with a tough antivivisection stance aided by her close associate Grace Petkus and the own enchantment of Irene Castle who became a powerful driving force [18].

Further analysis of early facts [18] make conceivable that the initial scenario encountered by the newly created Advisory Committee, consisted of poorly managed animal facilities, where scientists were directly in charge with the daily care of their animals, while veterinarians lacked any formal education needed to establish proper standards and assure good animal care programs and consistent operations. The movement strongly supported by the persistent critical view of Mrs. Castle in favor of a noble cause, was a fact that allowed her to weave her way through the engine of bureaucracy up to the local City Council of Chicago, who appointed her to the Animal Advisory Committee of the Arvey Ordinance. The ordinance legalized the medical schools in Chicago to obtain unclaimed pets from the public pound to be used in research and teaching. A fact vigorously attached by Mrs. Castle.

In the most believable sense, since its inception, her efforts to create the new Advisory Committee resembled the basic structure of modern IACUCs, giving birth to a novel official body during 1945. Today, that early organization can be construed as the genesis of current IACUCs given that its original composition included a veterinarian (W.A. Young - Anti-Cruelty Society), the director of the animal facility and a layperson not related to research, in this case, the famous Mrs. Irene Castle and her associate Grace Petkus [8,11].

Discussion

For the most part of people in the early science scenario, Irene Castle was practically unknown. At the time, she was only considered no more than a classy woman and a highly respected ballroom dancer and teacher; married to Vernon Castle, this couple attracted considerable fame and attention in Broadway while being credited for reviving the popularity of modern dancing in the early 20th century. Without any doubt, Irene Castle was also a prominent trendsetter, although she became a strong animal activist [18], whose love for animals prompted her to mount incredible wild animal liberations and to propose herself to be expose to deadly diseases by acting as a human guinea pig: such strong-willed actions were followed by ferocious controversies against the medical research personnel of the Chicago-area in the 1940s.

Today it is most true the need to recognize that her relentless public demands forged a legacy that materialized with the enactment of the 1985 Health Research Extension Act (P.L.99-158), (HREA) and the 1985 amendments to the Animal Welfare Act (AWA) to improve the Standards for the Laboratory Animals Act (P.L. 99-198), establishing for the first time in the U.S. the functions and activities of IACUCs as we all know them today [19].

It remains of great interest for those veterinarians interested in the origins of their specialty, and future generations to elucidated how the basic structure of the emerging IACUC served as an example, or perhaps as a starting point worth to be considered by the modern scientists responsible of devising rules and regulations regarding animal care and use in research [4,8], to determine how such accomplishments resorted to establish basically the same historical framework, under which all costly research is regulated today in the U.S. and other countries [20]. It is our hope is that our readers might shed some light on the subject.

References

1. Franco NH (2013) Animal Experiments in Biomedical Research: A Historical Perspective. Animals 3(1): 238-273.
2. Anderson MS, Ronning EA, De Vries, R Martinson BC (2007) The perverse effects of competition on scientists’ work and relationships. Sci Eng Ethics 13(4): 437-461.
3. Fang FC, Casadevall A (2015) Competitive science: is competition ruining science? Infect Immun 83(4): 1229-1233.
4. National Research Council (2011) Guide for the Care and Use of Laboratory Animals: Eight Edition. Washington, DC: The National Academies Press.
5. NOM-062-200 (1999) Especificaciones técnicas para la producción, cuidado y uso de animales de laboratorio. México City (Mexico): Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación. Diario Oficial de la Federación.
6. Directiva Europea 86/669/CE de la Unión Europea Convenio ETS 123 del consejo de Europa de 1986 sobre los Animales Vertebrados Utilizados para Experimentación y otros fines científicos. August 2017.
7. Hagelin J, Hauu J, Carlsson HE (2003) The refining influence on animal experimentation in Sweden. Lab Anim 37(1): 10-18.
8. ARENA/OLAW (2012) Institutional Animal Care and Use Committee Guide-book. Second edition. 2012. Office of Laboratory Animal Welfare National Institutes of Health Bethesda, MD 20892-7982.
9. Russell WMS, Burch RL (1959) The Principles of Humane Experimental Technique. Methuen & Co. Ltd.; London, UK.
10. Russell WM (2005) The three Rs: Past, present and future. Anim Welf 14: 279-286.
11. Hansen LA, Goodman JR, Chandna A (2012) Analysis of Animal Research Ethics Committee Membership at American Institutions. Animals 2(1): 68-75.
12. National Need and Priorities for Veterinarians in Biomedical Research Committee on Increasing Veterinary Involvement in Biomedical Research, National Research Council. 2004. The National Academies Press, Washington, DC. August 2017.
13. Brewer NR (1980) Personalities in the Early History of Laboratory Animal Science and Medicine. Lab Anim Sci 30(2): 741-758.
14. Wolfe TL (2003) 50 Years of the Institute for Laboratory Animal Research (ILAR): 1953-2003. ILAR Journal 44(4): 324-337.
15. Maeterlinck and Irene Castle Helped Women's League 10,000 ANIMALS TREATED. The New York Times. Published May 12, 1921. Maeterlinck and Irene Castle Helped Women's League.pdf.
16. Irene Castle (1964) The War Against Surplus Breeding. In: The Humane Society of the United States, "The Humane Movement, 1964: Selected Discussion Papers of the National Leadership Conference of The Humane Society of the United States, September 26-29, 1963" 1964. National Leadership Conferences 3. August 2917.
17. Fox JG, Bennett T (2015) Laboratory Animal Medicine: Historical Perspectives. In: Laboratory Animal Medicine, 3rd edn, Fox JG, Anderson LC, et al. (Ed.), Academic Press, San Diego CA 92101-4495, USA p. 10-12.
18. Henderson LJ (2007) Irene Castle. In: More than Petticoats Series. Remarkable Illinois Women. The Globe Pequot Press. Guilford, Connecticut, 06437, USA pp. 113-123.
19. Cowan T (2010) The Animal Welfare Act: Background and Selected Legislation. The Animal Welfare Act: Background and Selected Legislation. Congressional Research Service.
20. Health Economics Research Group (2008) Office of Health Economics, RAND Europe. Medical Research: What's it worth? Estimating the economic benefits from medical research in the UK. London: UK Evaluation Forum.