## PLANTS, ANIMALS, AND OWNERSHIP INNOVATION AND INTELLECTUAL PROPERTY PROTECTION IN LIVING ORGANISMS SINCE THE 18<sup>TH</sup> CENTURY

An international workshop organized by

Daniel J. Kevles (Yale University) and Jean-Paul Gaudillière (INSERM, Paris) and Sponsored by The Yale Program in the History of Science and Medicine<sup>1</sup> with Assistance from CERMES

> to be held at Yale University, New Haven, CT, USA June 3-5, 2011

Announcement and Call for papers

The workshop will deal with the history of innovation in plants and animals, including fruit trees and vines, flowers, vegetables and grains, livestock and laboratory animals, race horses, and dogs. It will also inquire into the methods devised to construct markets and protect intellectual property (IP) in the products before living organisms were granted utility patent protection in the late twentieth century. It will address these topics in the evolving contexts of statutory and common law and of the public, private non-profit, and commercial enterprises of plant and animal innovation, including small breeding firms, public experiment stations, start ups and multinational corporations in agribiotechnology or pharmacy. Its scope will be international so as to encourage consideration of the global dimensions of this history, which go back to the early modern period, and to enable cross-national comparisons of its features.

The history of plant and animal innovation and of IP protection in living organisms is a relatively new field but one of rapidly increasing importance that is drawing a growing number of senior and, especially, junior scholars. This history forms the background to the contemporary global enterprise in biotechnology, yet little of it is yet known. The workshop thus aims to call attention to the rich variety of topics that await exploration and to acquaint the participants with each other and each other's work. An important goal is to foster the further development of an international network in the field whose formation has been stimulated in the last few years by several workshops and conferences in England, Europe, and the United States.

The workshop organizers will consider papers on a broad array of subjects related to the manipulation of living organisms in order to obtain variants of potential market value, to define

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or investigate their properties, to re/produce them for conservation as well as sale purposes. These include but are not limited to the multiple facets of innovation in plants and animals, notably exploration and importation of new species found in the wild as well as the selection of chance variations found in routine agricultural practice; the incentives to innovation represented by agricultural fairs, exhibits, and prizes; the knowledge and practices of plant and animal improvers before the rediscovery of Mendel's laws, in 1900; the knowledge of methods of plant and animal breeding in the era of classical genetics; the chemical and physical induction of mutations in the middle third of the twentieth century and the genetic engineering of plants and animals in the latter part of it. The subjects of interest also include the patronage of plant and animal improvement, agricultural experiment stations, royal botanical and zoological gardens, commercial nurseries and seed companies, bioprospecting firms and national and multinational corporations.

The aim of the workshop is to link the question of the changing ways of manipulating organisms and creating variation with the problem of property and market development. Also of interest are therefore papers on the various means devised since the 18<sup>th</sup> century to establish and protect what would become explicitly recognized as IP in living organisms. Topics here include the specification of living properties by attempts to establish methods of plant and animal identification with systems of nomenclature, botanical illustrations, and animal portraiture through the nineteenth century, and then increasingly through biochemical methods, expert analysis, and ultimately gene sequencing in the twentieth century. These topics also encompass the various arrangements constructed throughout the period for appropriating living beings, including breeding associations, pricing mechanisms, contracts, trademarks, and registries, all of which emerged by the late nineteenth century, and then in the twentieth century the establishment of an international system of plant variety protection and, finally, the extension of utility patent protection to living organisms other than human beings.

We invite proposals for papers to be delivered at the workshop. The proposals should be in the form of an abstract of the contents and should provide a brief statement about the author, including his/her research and publications. The proposed papers should not have been previously published. Please send proposals in electronic form as soon as possible but no later than November 30, 2010 to: to Daniel J. Kevles (daniel.kevles@yale.edu), Jean-Paul Gaudillière (gaudilli@vjf.cnrs.fr), and Helen Curry (helen.curry@yale.edu), the workshop's coordinator. Decisions as to acceptance will be made and communicated during the following weeks. The sponsoring institutions will cover necessary costs of attending the workshop for all designated participants.