20 August 2007

To: Consortium on Law and Values in Health, Environment & the Life Sciences

From: C. Kenneth Waters, Director, Minnesota Center for Philosophy of Science

Re: Expenditure of Matching Funds for 2006 – 2007 Studies of Science and Technology Colloquium

The Studies of Science and Technology Program (SST) received support from the Consortium on Law and Values in Health, Environment & the Life Sciences to partially fund five visiting lectures in its weekly Colloquium for the 2006-2007 academic year. The SST Program is broadly interdisciplinary and includes thirty-three faculty from six colleges across the University. It offers a graduate minor and sponsors a weekly colloquium. The colloquium brings approximately 30 visiting scholars who are leading national and international representatives of diverse approaches and disciplines included within science studies, and keeps graduate students, postdoctoral fellows, and faculty abreast of the latest developments in the field. The Colloquium is jointly administered by the Minnesota Center for Philosophy of Science (CLA) and the History of Science, Technology, and Medicine Program (IT). Major funding of the SST Minor Program and Colloquium is provided by the Graduate School with substantial additional funding provided by various units across the University including the Consortium on Law and Values in Health, Environment & the Life Sciences.

The Consortium on Law and Values in Health, Environment & the Life Sciences was instrumental in bringing the following five visitors for the 2006-2007 SST Colloquium.

Carola Sachse, University of Vienna (September 15, 2006)

"On Men and Animals: The Vivisection Debate in 19th Century Germany"

The vivisection debate in Germany was one of the first public arguments between the so-called lay-public and specialized scientists about ethical boundaries to biosciences. The debate focused on the most spectacular of the new laboratory techniques: the physiological, pharmacological and surgical experiment on the living animal. In the background, however, rivaling medical worldviews, moral values and concepts over the relations between humans and animals were negotiated. . Sachse explained how gendered positions of men and women as well as gender metaphors played a highly ambivalent, but crucial role in the campaigns of vivisectors and their opponents. The outcome of this debate marked a successful power play of science and state. This alliance succeeded in defending its science-ethical defining power and marginalizing the science-critical public.

Robert Richards, University of Chicago (September 22, 2007)

"Did Ernst Haeckel Fraudulently Misrepresent His Embryo Illustrations? And Why Do the Creationists Care?"

It is now widely asserted that generations of biology students have been misled by a famous set of drawings of embryos published in 1874 by the German biologist Ernst Haeckel. The

drawings are commonly reproduced in modern textbooks to illustrate the idea that vertebrate embryos of different animals pass through identical stages of development. Contemporary molecular biologists claim that the idea is exaggerated and that the drawings are misleading. Contemporary creationists claim that the drawings are fraudulent. Richards examined how the debate first developed in the nineteenth century to and used contemporary photographic evidence to argue that although Haekel was overzealous, his use of the drawings was not fraudulent. He used this historical perspective to shed new light on contemporary debate about these drawings.

Daniel P. Steel, Michigan State University (November 17, 2006)

"Extrapolation, Capacities, and Mechanisms"

Important conclusions drawn in biology typically take the form of causal claims about the workings of complicated systems. Drawing such claims often requires extrapolating from the causal situation of a narrow model that can be carefully studied to a broader phenomenon that is the actual target of interest. Steel explained how any account of extrapolation in biology and social science must confront two basic challenges: (1) to show how extrapolation can be justified even when there are causally relevant differences between model and target, and (2) to show how the suitability of a model can be established without presupposing the claim that one wants to extrapolate. He argued that existing approaches to extrapolation—either in terms of capacities or mechanisms—do not adequately address these challenges. He then presented a new approach, which he developed with Megan Delehanty of the University of Calgari, which meets the challenges by tracing and comparing causal processes in models and targets

Lisa Gannett, St. Mary's University (January 26, 2007)

"Theodosius Dobzhansky, the Typological-Population Distinction, and the Question of Race"

Many biologists and students of biology seem to believe that contemporary biology can eliminate racist thinking. The basic idea is that biology has rejected “typological thinking” with “population thinking” and the concept of race relied on the discredited typological thinking of the past. Gannett traced the distinction between typological thinking and population thinking to a paper idea to a distinction Theodosius Dobzhansky drew in a paper delivered at a 1950 Cold Spring Harbor symposium. Dobzhansky sought to integrate physical anthropology and human genetics within the modern evolutionary synthesis. But, Gannett showed, Dobzhansky did not seek to eliminate the concept of human races. Instead, he distinguished between "races as types" and "races as populations." Gannett examined the question of race - especially the question of the reality of human races - in Dobzhansky’s work.

Jessica Wang, University of British Columbia (May 4, 2007)

C. KENNETH WATERS

"Social Science and the American State: From the Social Survey to the New Deal"

The fusion of social science and state power represents a dominant theme in the history of the modern American state. The meaning of the "science" in social science, however, has changed markedly throughout the decades, from the qualitative traditions of the early twentieth century to the scientism of the post-World War II period. The combination of social investigation and advocacy as represented in the various social survey movements of the 1900s and 1910s, in which the scientific identification of social facts did not rule out subjectivity and political engagement, persisted well into the New Deal years. Wang examined the path from the social survey movement, to reformist currents in legal thought in the 1910s and 1920s, to securities regulation within the Securities and Exchange Commission in the 1930s in order to explore the vitality of qualitative forms of social inquiry in the early decades of the twentieth century.