NEH Application Cover Sheet (AE-256242)
Humanities Initiatives: Community Colleges

PROJECT DIRECTOR

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INSTITUTION

Dean College
Franklin, MA 02038-1994

APPLICATION INFORMATION

Title: *Making Humanities Matter: Enhancing Distribution Requirements for Students Pursuing Associate Degrees at Dean College*

Grant period: From 2017-11-01 to 2019-10-31
Project field(s): History of Science

Description of project: Dean College seeks funding to infuse the humanities into Core Distribution offerings by developing and piloting two courses in the history of science that incorporate hands-on labs: "History of Science" and "Henrietta Lacks: Medicine, Race, Class, and Gender in America." We aim to create opportunities for faculty members in the history and science departments to study together in order to improve their capacity to teach the humanities; support our humanities Core Distribution courses; support humanities contributions to nursing and medical professionals; and disseminate our findings. The courses will showcase the humanities and their impact across the disciplines—especially in the sciences—emphasizing experiential learning. If we can contextualize science via the humanities, using critical thinking skills and knowledge about historical context vital to the humanities, then we will demonstrate how integral the humanities are to other disciplines.

BUDGET

Outright Request	60,364.48	**Cost Sharing**	0.00
Matching Request	0.00	**Total Budget**	60,364.48
Total NEH	60,364.48		

GRANT ADMINISTRATOR

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Making Humanities Matter: Enhancing Distribution Requirements for Students Pursuing Associate Degrees at Dean College

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Making Humanities Matter: Enhancing Distribution Requirements for Students Pursuing Associate Degrees at Dean College

SUMMARY

Dean College seeks NEH Humanities Initiatives at Community Colleges two-year funding to infuse the humanities into Core Distribution offerings by developing and piloting two courses in the history of science that incorporate hands-on labs: "History of Science" and "Henrietta Lacks: Medicine, Race, Class, and Gender in America." Located in Franklin, MA, Dean offers two- and four-year degrees, and is known for educating underserved students, including first-generation students and students with learning challenges. We aim to create opportunities for faculty members in the history and science departments to study together in order to improve their capacity to teach the humanities; support our humanities Core Distribution courses; support humanities contributions to nursing and medical professionals; and disseminate our findings.

To strengthen our Core Distribution courses, we aim to weave together the sciences and the humanities in exciting ways through close reading of primary and secondary texts in the humanities; scientific labs that bring to life the humanities-based history of science; and analytic writing assignments. The courses will showcase the humanities and their impact across the disciplines—especially in the sciences—emphasizing experiential learning.

Hands-on learning serves all students, especially our at-risk population. The lab sections will be attractive to students with learning challenges, as studies demonstrate that such students succeed when visual and experiential learning complements traditional text-based classes.

We will develop our course "Henrietta Lacks" by exploring the story of Lacks and her forced contribution to cancer research. Cervical tumor cells were taken from Lacks without her knowledge. Lacks was an African-American woman who later died of cervical cancer. We will develop the course by examining *The Immortal Life of Henrietta Lacks,* (Rebecca Skloot, 2011), a biography, and humanities texts from history, African American studies, women's studies, and history of medicine. We will explore how labs can give all students a better understanding of scientific principles.

"History of Science," meanwhile, investigates how human beings have used reason and experimentation to explain and manipulate the natural world, from ancient history to the present. We will explore the multicultural and long-term development of scientific thought and technological development since the invention of agriculture. We will develop labs that will encourage students to reproduce key experiments from the history of science that will correspond to the historical era and topics under study in the lecture component of the course.

Working with consultants, our faculty, will create an engaging program that will model how the humanities can enrich the sciences for our campus and beyond. If we can contextualize science via the humanities, using critical thinking skills and knowledge about historical context vital to the humanities, then we will demonstrate how integral the humanities are to other disciplines.

Making Humanities Matter: Enhancing Distribution Requirements for Students Pursuing Associate Degrees at Dean College

Narrative. Intellectual rationale: Dean College seeks NEH Humanities Initiatives at Community Colleges two-year funding to **infuse the humanities into Core Distribution course offerings** by developing and piloting two courses in the history of science that incorporate hands-on labs: "History of Science" and "Henrietta Lacks: Medicine, Race, Class, and Gender in America" (hereafter "HeLa"). Located in Franklin, MA, Dean offers two- and four-year degrees, and is known for educating underserved students, including first-generation students and students with learning challenges. We aim to develop programs for at-risk students working toward their associate degrees; create opportunities for faculty members in the history and science departments to study together in order to improve their capacity to teach the humanities; support our humanities Core Distribution courses; support humanities contributions to nursing and medical professionals; make use of digital humanities; and disseminate our findings. Both courses fulfill requirements for general education Core Distribution courses that ensure all students are exposed to theme- and skill-based teaching in the humanities, math and sciences, social sciences, and arts. The College was awarded $300,00 in foundation funds to help support the equipment necessary for this project.

To fulfill core requirements, first- and second-year students must take one Core Distribution course in each of the four discipline categories. These courses deepen student understanding in the subject matter, capture interest, and motivate lifelong learning through learner-centered pedagogies. To strengthen our Core Distribution courses, we aim to weave together the sciences and the humanities in exciting ways through close reading of primary texts in the humanities, and secondary texts that contextualize those sources; hands-on scientific labs that bring to life the humanities-based history of science; and analytic writing assignments. The courses will showcase the humanities and their impact across the disciplines—especially in the sciences—emphasizing experiential learning.

Dean's current strategic plan includes experiential learning in three of its four schools (Arts, Dance, and Business). In 2016, our administration charged the School of Liberal Arts and Sciences with doing the same; our hands-on history of science courses with integrated labs are therefore supported by the college. In addition, hands-on learning serves all students, including our at-risk population. The lab sections will be attractive to students with learning challenges, as studies demonstrate that such students succeed when visual and experiential learning complements traditional text-based classes—an approach known as universal design.[1] Meanwhile, studies demonstrate that humanities students benefit from labs—and while very few studies have undertaken to demonstrate the success of science labs for humanities students, the success of those studies indicate to us that the practice has been undervalued on US campuses.[2] In addition, scholars of teaching and learning have argued for quantitative reasoning across the disciplines, and for the reinforcement of scientific data in humanistic learning.[3]

The humanities elements of the courses will serve to "humanize" and demystify the sciences. Research proves that future nurses, physicians, physical therapists, and research scientists need to be provided with the skills to treat patients as humans—not as numbers. If we can contextualize science via the humanities, using critical thinking skills and knowledge about historical context vital to the humanities, then we will demonstrate how integral the humanities are to other disciplines.

Current Iteration of HeLa: HeLa has been taught in the Biology Department as a lecture course by Pisano since 2014, exploring the story of Henrietta Lacks and her forced contribution to cancer research. Cervical tumor cells were taken from Lacks without her knowledge or consent. Lack was an African-American woman who later died of cervical cancer. These cells, now known as "HeLa" cells, were the first immortal cell line grown in a laboratory. Lacks' cells continue to contribute to modern medical discoveries today. Pisano's biology course consists of lectures on

cell biology and discussion of one humanities text: *The Immortal Life of Henrietta Lacks,* (Rebecca Skloot, 2011), a biography. The course currently does not include labs, although it has been taught from a science perspective. **Modification of HeLa with NEH funding:** The course will move from the Biology Department to the History Department, thereby emphasizing the historical analyses of humanities texts. We aim to add humanities texts from multiple disciplines, including history, African American studies, women's studies, and history of medicine. Labs will be included to give all students a better understanding of scientific principles. **Current Iteration of History of Science:** History of Science is a new three-credit lecture-based course, housed in the History Department, that was proposed and approved through the Curriculum Committee in spring 2016, but has not yet been offered. The course will investigate how human beings have used reason and experimentation to explain and manipulate the natural world, from ancient history to the present. Students will explore the multicultural and long-term development of scientific thought and technological development since the invention of agriculture. They will have the opportunity to examine the Scientific Revolution of the 1500s and 1600s—and the modern physical and mathematical sciences that it inspired—within this older, global story of science. In addition, they will gain a broad understanding of how the application of scientific ideas as technology fundamentally reshaped politics, economies, and societies in modern world history. The current iteration does not contain labs. **Modification of History of Science with NEH funding:** This course will stay in the History Department. NEH funding will be used to redesign and offer the course, integrating humanities and scientific learning in the classroom and the laboratory. The redesigned course will be delivered in a three-credit-hour lecture/discussion format focusing on the origins and development of modern science and technology (taught by a historian, David Dennis) and co-requisite experiential learning opportunities through a one-credit hour-lab component (taught by a scientist, Jessica Pisano). In lab, students will reproduce key experiments from the

history of science that will correspond to the historical era and topics under study in the lecture component of the course. These experiments will be from the fields of biology (including genetics, evolution, and cell theory), physics (including electromagnetism, nuclear physics, quantum physics), chemistry, astronomy, anatomy, physical anthropology, and climate science. Students will thereby be introduced to a range of humanities topics and methodologies. Dean College recently received a grant of $300,000 to improve science labs and equipment. We are requesting some additional funding in this grant for specific items needed for these experiments.

Content and design: Our content is based on humanist Thomas S. Kuhn's belief that scientific discovery is contingent upon the historical society and culture in which the scientist operates, through the cultural processes that he called "paradigm shifts."[4] We aim to fully modify and pilot two courses, "History of Science" and "HeLa," that seek to investigate the social and cultural worlds in which scientific experiments and discoveries take place. Our work builds on the research of Allchin, et al., who investigated the effect of integrating scientific labs in courses on the history of science with positive learning results.[5]

The lab component of both courses, our goal is to teach students that studying only the outcomes of scientific experiments precludes humanistic and scientific inquiries into the original reasons for the experiments, and the actions of the experimenters. The humanities portion of the course will situate those scientific experiments within the social, cultural, philosophical, and ethical contexts in which they appeared. We will use many online source materials, thereby making use of digital humanities.

The development phase of our project begins at the start of the grant period, when we will begin reading materials in our work plan (Oct/Nov 2017). During our Intersession (January 2018), we will conduct a kick-off seminar of two or three planning days prior to the semester's beginning. Project faculty (Dennis, Pisano, and Lawson) will meet with outside consultants who

have expertise in integrating the humanities and the sciences via teleconference. In spring 2018, project faculty will read all texts for both courses and meet biweekly to discuss them. In summer 2018 (July or August), project faculty will meet in person with outside consultants in a two-week seminar. Consultants will suggest themes, readings, and experiments. Also in summer 2018, project faculty will work individually and collaboratively to prepare syllabi, lectures, labs, and assignments for the courses. Faculty will visit the Paul S. Russell, M.D. Museum of Medical History and Innovation in Boston, MA—which presents the 200-year evolution of health care and medicine at Massachusetts General Hospital—and will discuss how the material will be integrated into the courses. (Students in each course will also visit the Museum during the semester.) Faculty will pursue other hands-on learning opportunities at locales in the geographic area, including visits to history museums, science labs, and companies that take a humanistic approach to the sciences. Both courses will be piloted in the second year of the grant.

HIS 265 History of Science: Faculty Work Plan and Goals. The faculty will investigate primary source documents from the history of science (see examples below), and will integrate the expertise of outside consultants during the winter and summer of 2018. Topics include the pre-modern origins of scientific thinking, the scientific revolution, the formation of modern scientific disciplines, changing social role of scientists, technological advances, and the impact of science and technology on modern societies. We will explore technological development since the invention of agriculture, and have opportunities to ask how science has reshaped the human experience through new technologies such as industrialization, medicine, transport, and warfare. Biologist Jessica Pisano will lead the labs, and historian David Dennis will conduct discussions about humanities readings.

With NEH funding, History of Science will introduce actual scientific experiments that match up with the history of science topics outlined above (see Appendix A). During the

development phase in summer 2018, we hope to reproduce ten major historical experiments that changed science, including, for example, Koch's Germ Theory, Pasteur's Experiments to Disprove Spontaneous Generation, Mendelian Crosses, and Newtonian Physics. We will develop lab manuals. Faculty aim to design these labs so that students will collect data and reach conclusions on their own. The labs also will investigate multiple possible outcomes, and the ramifications of alternative conclusions on human history and understanding.

For example: In the years before the First World War German scientist Fritz Haber invented a method for making artificial ammonia. Scientist Carl Bosch adapted Haber's method (now called the Haber-Bosch process) for large-scale industrial use for BASF (the largest industrial chemical producer in the world). Artificial ammonia, in turn, revolutionized industrial farming and the production of munitions and explosives. The course will interweave a hands-on exploration of the Haber-Bosch process in lab with consideration of how developments in chemistry impact our humanistic understanding of ecology, farming, and warfare. Following the development of the lab, faculty will make assignments that reinforce the session's goals: to gain a historical and practical understanding the Haber-Bosch process. We will conduct about ten such experiments during the development period that will likewise be paired with humanist topics.

Methodologically, we hope to develop the course so that it demonstrates the diverse geographical, ethnic, and gendered origins of modern scientific thought. The faculty will discuss the contributions of medieval Indian mathematics to science through the Persian mathematician and astronomer Muhammad Al-Khwarizmi, whose key text *Al-Jabr* (ca. 825 CE) was fundamental to algebra (the basic mathematical language of modern science). We will highlight the challenges and contributions of women in science, through the examples of Marie Curie (chemistry, nuclear physics) and Rosalind Franklin (DNA). One of the three main texts for the course, *Rosalind Franklin: The Dark Lady of DNA* by Brenda Maddox (2002), deals with the gendered struggle to

recognize Franklin's contribution to Watson and Crick's groundbreaking discoveries in DNA science.

HIS Henrietta Lacks: Race, Class, Gender, and Medicine: Faculty Work Plan and Goals. With NEH funding, we will integrate into the course additional humanities readings and scientific labs. During the development phase in winter, spring, and summer of 2018, our faculty will explore the science of cell biology, focusing on cancer and on broader humanities questions of access to medical care, medical ethics, and the use of human subjects in medical research and clinical trials. The humanities portion of our work plan will enrich our understanding of race in the US, the history of medicine (particularly of cancer treatment), the history of gender in America, and medical ethics—all new topics to the modified course. Cultural historian Rob Lawson will lead the humanities-focused portion of the development phase, including (1) close readings of key primary sources from the Jim Crow-era US, including W.E.B. DuBois *Souls of Black Folk* (1905), a seminal text that that is vital to understanding African American oppression and desire for equality; (2) historical contextualization of the medical establishment and its fight against cancer, including Siddhartha Mukherjee's *Cancer: The Emperor of all Maladies* (2011), which argues for the humanity necessary in the professions related to cancer treatment, and includes chapters on humane end-of-life treatment; (3) examination of the operation of power, race, class, and gender in mid-twentieth century US; and (4) an historical overview of healthcare in the US.

The project faculty will discuss the ways that the humanities portions of the course inform the lab portions of the course, and will create lectures and assignments—and design lab manuals—that reflect that goal. For the lab portions, faculty will explore the structure, function, and diversity of eukaryotic cells in a lab setting; cell biology laboratory practices, with a focus on cell culture and cell lines, including hands-on experiences; the cellular mechanisms and pathology of cancer in a lab setting; medical research and clinical trials in both lecture and lab; and issues of

medical ethics including informed consent, human subjects, and privacy. We will pilot both courses in the second year of the grant period. The instructors will have weekly meetings to ensure fluidity between lectures and lab. Instructors will visit at least five of each other's course sections throughout the semester. Lessons learned during the development and teaching of History of Science will be applied to HeLa. At the end of the development period, we will have fully modified HeLa by integrating a roster of humanities texts and labs. History of Science will be fully developed by a thoroughgoing study of humanities texts in the history of science, and by the integration of labs. The courses will be capped at eighteen students, and multiple sections can be offered to meet enrollment. After the grant period, History of Science will be offered every fall, and HeLa every spring.

Project personnel: David Dennis, Ph.D., Assoc. Prof. of history and Humanities Program coordinator. His courses include Modern Germany; The Holocaust in History and Memory; Global Genocide; World Revolutions; Twentieth-Century Europe; World History to 1500; and World History Since 1500. Since 2014 he is the associate editor of *New England Journal of History.* He is preparing a manuscript on masculinity, political culture, and the shipping industry in the German Empire. His research has been funded by the DAAD (German Academic Exchange Service), the German Historical Institute, the Social Science History Foundation, and the Holocaust Education Foundation (Northwestern University). Dennis is a co-project director. He will teach the humanities section of History of Science (Dennis CV, see Appendix B). Prof. **Rob Lawson, Ph.D.,** is a cultural historian with expertise in the Jim Crow South and African American studies. He is director of the Honors Program at Dean College, and is associate editor of the *New England Journal of History*. He has published on the arts of the Harlem Renaissance. His book, *Jim Crow's Counterculture: The Blues and Black Southerners, 1890–1945* (Making the Modern South, series; LSU Press, 2010), won the Thomason Award for Best Book of 2010/2011 (Gulf South Historical

Association). Lawson will teach the humanities section of HeLa (Lawson CV, see Appendix C). Asst. Prof. of biology and mathematics **Jessica Pisano, Ph.D.** has a focus in molecular and cellular biology. She teaches applied biology and mathematics courses. She has published in *Journal of Neurobiology*, *Developmental Neurobiology*, and *Development*. Her research has been funded by fellowships at Harvard University and Brandeis University. As co-director for this project she will teach the lab portions of both History of Science and HeLa (Pisano CV, see Appendix D). Asst. Prof. of chemistry and mathematics, **Jeff Mallett, M.S.** is the science laboratory manager. He will be the lab manager for this project (Mallett CV, see Appendix E). **Consultants** with specialties in integrating humanities and science will advise in course redesign. We will invite two consultants for History of Science, one focusing on early modern history (ca. 1500–1800), and one on modern history (ca. 1800–present). We will invite two consultants for HeLa, one with expertise on history of medicine content, and one focusing on cell biology labs. **Institutional context:** Dean College has four schools—Performing Arts, Dance, Business and Liberal Arts and Sciences—serves 1,100 full-time students and 300 part-time students, and has 25,000 alumni. Students are from 33 states and more than 20 countries. In academic year 2014–2015, incoming students represented the following ethnicities: 49.3% Caucasian; 16.6% African American; 3.4% two or more races; 2% Asian; 0.5% American Indian; 6.5% Hispanic (21.7% undisclosed). 30.4% of incoming students were first-generation Americans, and 30% are under-prepared students with learning challenges. **Humanities program:** All students, must take our core general education requirements that serve both associate degrees and the BA. **Curricular history:** The Humanities major has been in place for over a decade. English and history became stand-alone majors in 2013. In 2013 we received a Davis Educational Foundation grant to revise the general education curriculum and create student-centered learning environments. **Faculty:** Dean has 33 full-time faculty, 60% with terminal degrees. **Resources:** The College Library was renovated in 2008. It has 32,000 books;

105 periodical subscriptions; hundreds of videos, DVDs, and compact discs; more than 40 research databases; and an interlibrary loan service. The Rooney Shaw Center for Innovation in Teaching has multimedia instructional technology. **Scientific laboratories:** Dean has three lab classrooms for chemistry and microbiology, anatomy, and physiology, and one multi-use lab. There are four professors staffing the labs. **Follow-up and dissemination:** If funded, we will publicly announce our award. After collecting data, we will compile half-yearly reports outlining successes and challenges. We will create and post a white paper on H-Net listservs. The College will host a workshop with Dean faculty to share knowledge. We will present at the American Historical Association, and will co-author at least one article for publication in *Chronicle of Higher Education* and in STEM and pedagogical journals. **Evaluation:** During the grant period we will determine whether the project is achieving its goals by having key faculty meet monthly to review progress, discuss challenges, and oversee the project. We will collect both qualitative and quantitative data: assignment grades, mid-term and final grades, and student evaluation of courses. After the grant period we will assess the impact of the project by analyzing the data collected. Grades will be compared year to year. Students will reflect on their experience, and surveys and interviews will be used to assess the impact of the courses. Faculty will report on conclusions and lessons learned, focusing on the effects of contextualizing science via the humanities, and using critical thinking skills and knowledge about historical context vital to the humanities.

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[1] See: Maryellen Weimer, *Learner-Centered Teaching* (NY: John Wiley & Sons, 2013); J. Lave & E. Wenger, *Situated Learning: Legitimate Peripheral Participation* (New York: Cambridge University Press, 1991) and L.S. Vygotsky, L.S., *Mind in Society: The Development of Higher Psychological Processes* (Cambridge, MA: Harvard University Press, 1978).
[2] Douglas Allchin, Elizabeth Anthony, Jack Bristol, Alan Dean, David Hall, and Carl Lieb, "History of Science – with Labs," *Science and Education* 8 (1999): 619–632.
[3] Nathan D. Grawe, "The Potential for Teaching Quantitative Reasoning across the Curriculum: Empirical Evidence," *International Journal for the Scholarship of Teaching and Learning* 5, no. 1 (2011): 1–12 and Howard Pollio, "The Two Cultures of Pedagogy: Teaching and Learning in the Natural Sciences and the Humanities," *Trace: Tennessee Research and Creative Exchange* (1996).
[4] Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1970).
[5] Allchin, et al. "History of Science," 619–632.

NATIONAL ENDOWMENT FOR THE Humanities

Budget Form

OMB No 3136-0134
Expires 6/30/2018

Applicant Institution: *Dean College*
Project Directors: *Dr. David Dennis, Dr. Jessica Pisano*
Project Grant Period: *11/01/2017–10/31/2019*

click for Budget Instructions

	Computational Details/Notes	(notes)	Year 1	(notes)	Year 2	(notes)	Year 3	Project Total
			11/01/2017-10/31/2018		11/01/2018-10/31/2019			
1. Salaries & Wages								
Co-project director: David Dennis	(b) (6) /day x 32 days	27 days	(b) (6)	5 days	(b) (6)			(b) (6)
Co-project director: Jessica Pisano	(b) (6) /day x 32 days	27 days	(b) (6)	5 days	(b) (6)			(b) (6)
Professor Rob Lawson	(b) (6) /day x 27 days	27 days	(b) (6)					(b) (6)
Lab Manager Jeffrey Mallett	(b) (6) /day x 5 days	5 days	(b) (6)					(b) (6)
2. Fringe Benefits								
								$0.00
3. Consultant Fees								
History of Science consultant Dr. Florence Hsia	$750/day	5.5 days	$4,125					$4,125.00
History of Science consultant Dr. Emily Redman	$750/day	5.5 days	$4,125					$4,125.00
Henrietta Lacks: RCGM in America consultant Dr. Susan Lederer	$750/day	5.5 days	$4,125					$4,125.00
Henrietta Lacks: RCGM in America consultant Dr. Liliana Busconi (Labs)	$750/day	5.5 days	$4,125					$4,125.00

4. Travel								
History of Science consultant Dr. Florence Hsia	estimate: $400 RT air, $200/night hotel, $100 ground transportation		$1,500					$1,500.00
History of Science consultant Dr. Emily Redman	estimate: $90 mileage, $200/night hotel		$1,090					$1,090.00
Henrietta Lacks: RCGM in America consultant Dr. Susan Lederer	estimate: $400 RT air, $200/night hotel, $100 ground transportation		$1,500					$1,500.00
Henrietta Lacks: RCGM in America consultant Dr. Liliana Busconi (Lab)	estimate: $50 mileage/day		$250					$250.00
Dr. Dennis travel to DC for project director meeting	Franklin to Washington DC for PD conference ($400 RT air, $250/night hotel, $59 per diem, $100 ground transportation)		$1,118					$1,118.00
Dr. Pisano travel to DC for project director meeting	Franklin to Washington DC for PD conference ($400 RT air, $250/night hotel, $59 per diem, $100 ground transportation)		$1,118					$1,118.00
Dr. Dennis dissemination	regional conference presentation		$600					$600.00
Dr. Pisano dissemination	regional conference presentation		$600					$600.00
5. Supplies & Materials								

Selected books for participants	5 books x 24 (students + faculty/consultants)		**$1,590**					$1,590.00
Science lab equipment			**$2,750**					$2,750.00
6. Services								
								$0.00
7. Other Costs								
Travel to Paul S. Russell, M.D. Museum of Medical History and Innovation, Boston	bus to museum (once/class)	$500/bus	$1,000					$1,000.00
Dissemination of results publication and website			$2,000					$2,000.00
8. Total Direct Costs	**Per Year**		**$52,454**		**$2,423**		**$0**	**$54,876.80**
9. Total Indirect Costs								
	Per Year		**$5,245**		**$242**		**$0**	**$5,487.68**
10. Total Project Costs	(Direct and Indirect costs for entire project)							**$60,364.48**
11. Project Funding		**a. Requested from NEH**					Outright:	$60,364.48
							Federal Matching Funds:	$0.00
							TOTAL REQUESTED FROM NEH:	**$60,364.48**
		b. Cost Sharing					Applicant's Contributions:	$0.00
							Third-Party Contributions:	$0.00
							Project Income:	$0.00
							Other Federal Agencies:	$0.00
							TOTAL COST SHARING:	**$0.00**
12. Total Project Funding								**$60,364.48**

Total Project Costs must be equal to Total Project Funding ---->	(	$60,364	=	$60,364	?)
Third-Party Contributions must be greater than or equal to Requested Federal Matching Funds ---->	(	$0	≥	$0	?)

Appendix A

Faculty Work Plan
Making Humanities Matter: Enhancing Distribution Requirements for Students Pursuing Associate Degrees at Dean College

Faculty participants:

Dr. David Dennis (lecture instructor, History of Science)
Dr. Rob Lawson (lecture instructor, Henrietta Lacks)
Dr. Jessica Pisano (lab instructor)

Objectives:

To develop the courses by integrating scientific labs with humanities lectures. To create time and space for faculty to fully understand and ask questions about both the humanities and lab sections. To generate lectures, learning activities, assignments, and assessments of student work that emphasize the connections between science and the humanities. Each faculty member will read and be ready to discuss all readings; humanities faculty will provide background and context for each reading. Each faculty member will be required to participate in each lab for their respective courses. Consultants will provide feedback in winter and summer of 2018.

Texts:

For Henrietta Lacks:
Siddhartha Mukherjee, *The Emperor of All Maladies.*
Rebecca Skloot, *The Immortal Life of Henrietta Lacks.*
Selection of primary and secondary sources available on the course website.
For History of Science:
James E. McClellan and Harold Dorn, *Science and Technology in World History*, 2nd ed. (Johns Hopkins University Press, 2006).
Jonathan Weiner, *The Beak of the Finch: A Story of Evolution in Our Time* (Vintage, 1995).
Brenda Maddox, *Rosalind Franklin: The Dark Lady of DNA* (Harper Perennial, 2013).

November – December 2017: Preparation

Meet one time per week to plan January kick-off. Read materials written by consultants who will be part of January kick-off.

January 2018: Kick-off Intensive

Three-day project kick-off to include one full day with all faculty, staff and consultants for the project. Faculty begin meeting one time per week to read and discuss reading materials.

January 2018 – August 2018: Develop the Courses

Faculty will read all materials at the start of the grant period and throughout the spring of 2018. They will meet to discuss these materials a total of 20 times (about one time per week). Faculty will meet 10 times from June through August 2018 to conduct all experiments and to meet with consultants. Note: faculty with expertise in their areas (humanities and labs) will facilitate discussion and prepare introductory materials.

Discussion topics and labs for Henrietta Lacks:

Faculty: Pisano, Dennis, Lawson
Lawson will introduce all humanities material. Pisano will lead all labs.

Topics	**Readings: Spring 2018**	**Lab Topics: Summer 2018**
Project Overview	http://www.radiolab.org/story/91716-henriettas-tumor/ *Prologue: The Woman in the Photograph* *Deborah's Voice*	Introduction to lab safety, the scientific method, with an emphasis on data and conclusions.
Cancer Treatment in the 19th and 20th Centuries	Mukherjee, *The Emperor of All Maladies*, Parts 1–2 Cooper, *In treating cancer*, 1839 Donne, "Love's Exchange," 1896 X-ray in Cancer Cure, LA Times, 1902	**Eukaryotic cells** Explanation of the function of the eukaryotic organelles and the fundamental of cell theory. Lab will utilize cell models, dissecting and compound microscopes, tissue slides and living cell cultures.
Cancer Treatment in the 19th and 20th Centuries	Mukherjee, *The Emperor of All Maladies*, Part 3 Jimmy Fund, Original Broadcast, 1948 Sidney Farber, Letter to Mary Lasker, 1955	**Model organisms and cell cultures** A simulation experience will help faculty understand how model organisms and cell cultures are essential for modern medical research, with a focus on oncology research.
Overview: Race, Class, and Gender in the South 1900–1950	Skloot, *The Immortal Life,* Ch. 1–4 W.E.B. Du Bois, *Souls of Black Folk*, 1903 (excerpts) More Slavery at the South, by a Negro Nurse, 1912	**Cell culture parameters** What is required to keep cells alive in culture?

Jim Crow Laws and Medicine	Skloot, *The Immortal Life,* Ch. 5–7 Plessy v. Ferguson, 1896 Alabama Healthcare Law of 1915 Mississippi Healthcare Law of 1917 Georgia Healthcare Law of 1935	**Cell culture challenges** Exploration of the challenges of scalability, contamination issues (with an emphasis on air-born contaminants) and the need for repeatability.
Race, Gender, and Access to Health Care	Skloot, *The Immortal Life,* Ch. 8–9 Ferebee, Oral History	**Cancer cells** A microscope-based exploration of what makes cancer cells different from non-cancerous cells, tumor growth, and the role of telomerase in cell immortality.
Race, Class, and Access to Health Care	Skloot, *The Immortal Life,* Ch. 11–14 Drew, The Negro Physician in the Present War Effort, 1943 Williams, Unhealthy Conditions in Black Area of a Segregated Hospital, ca. 1960	**DNA technologies** Isolate and image DNA using gel electrophoresis.
Tuskegee and Beyond: Racism and Experiment-ation on Human Subjects	Skloot, *The Immortal Life,* Ch. 15–17 Shafer, Usilton, Gleeson, Untreated Syphilis in the Male Negro, 1954 Syphilis Victims in U.S. Study Went Untreated for 40 Years, NYTimes, 1972 Brandt, Racism and Research, 1978	**Transformation** Transform cells to express recombinant DNA.
Media and Public Perceptions of Science	Skloot, *The Immortal Life,* Ch. 18–20 Mukherjee, *The Emperor of All Maladies*, Part 4–5	**Protein technologies** Proteins produced by the recombinant cells created in the prior week will be purified and detected.
Modern Consent and the	Skloot, *The Immortal Life,* Ch. 21–24 Gey, *Some Aspects of*	**Advanced microscopy**

Economics of Research	*the Constitution and Behavior of Normal and Malignant Cells in Continuous Culture,* 1955 (excerpts)	Use a range of dyes and immunofluorescent tools to experience advanced imaging.
Modern Consent and the Economics of Research	Skloot, *The Immortal Life,* Ch. 25–26 McKie, Henrietta Lack's Cells Were Priceless, But Her Family Can't Afford a Hospital, 2010 NIH, Lacks Family Reach Understanding to Share Genomic Data of HeLa Cells, 2013 NIH Director Explains HeLa Agreement, 2013	**Brainstorm Student Assignment:** Students will work together to propose an experiment using the tools and technologies to which they have been exposed.
Cultural Assumptions about Disease	Skloot, *The Immortal Life,* Ch. 27–31 Watson, Black Folk Medicine	
Medicine, Religion, and End-of-Life Decisions	Skloot, *The Immortal Life,* Ch. 32–38 Watson, Black Folk Medicine	
Review: Medicine, Race, Class, and Gender in 20th Century America	Skloot, *The Immortal Life,* Afterward	

Discussion topics and labs for History of Science:

Faculty: Dennis, Pisano, Lawson
Dennis will introduce all humanities material; Pisano will lead all labs.

Topics	**Readings: Spring 2018**	**Lab Topics: Summer 2019**
Overview	McClellan and Dorn Part I	**Introduction**s Lab safety, the role of experiments in the

		development of scientific thinking
Ancient Origins: Greece and Rome	McClellan and Dorn Part I Lucretius, *On the Nature of Things*, 1st century BCE (excerpts)	**What is the world made from?** A set of experiments will be set up to demonstrate the conservation of matter.
Medieval Origins: China, India, and the Islamic World	McClellan and Dorn Part II Ibn Sina (Avicenna), On Medicine, 1020 (excerpts) Shen Gua, *Dream Pool Essays*, 1088 (excerpts)	**Medicine as Science** Anatomy of the human body as it was understood, early drug studies.
Scientific Revolution Origins and Controversies 16th–17th Centuries	McClellan and Dorn Part III Copernicus, *On the Revolutions*, 1543 (excerpts) Telesio, *On the Nature of Things According to Proper Principles*, 1565 (excerpts) Galileo, Letter to the Grand Duchess Christina of Tuscany, 1615 Cardinal Bellarmine, Letter on Galileo's Theories, 1615	**The Scientific Method** A series of assignments will be employed to break misconceptions about the scientific method and establish the rigors of the process. A multi-week **Astronomy Observation assignment** will be developed.
Scientific Revolution Newtonian Physics and Universal Laws 18th Century	McClellan and Dorn Part III Newton, Verses at the End of Basil Valentine's Mystery of the Microcosm, 1670 Newton, Principia Mathematica, 1687 (excerpts) Voltaire, Letters on Newton, 1778	**Newtonian Physics Lab** Demonstrations will be set up of several key experiments; emphasis on the importance of conclusion/principle to the experiment, and on justifying their answers.
Order and Classify: Enlightenment Origins of Biology and Chemistry	McClellan and Dorn Part IV Weiner, *The Beak of the Finch*	**Classification in Action** Explain and explore the Linnaean classification system; describe an array of hardware fasteners and brainstorm

18th Century	Letter from Robert Ramsay to Carl Linnaeus, 1773 Lavosier, *Elements of Chemistry*, 1789 (excerpts) Method of Chymical Nomenclature, 1787	assignment for having students develop their own criteria for classification.
Industrial Revolution: Humans as Masters of the Universe? 18th-19th Century	McClellan and Dorn Part IV Weiner, *The Beak of the Finch* Faraday, "Observations on the Filth in the Thames," Letter to the *Times*, 1855 Edison, Patent Application for the Light Bulb, 1880	**Faraday's Electromagnatism Lab** Using models and simulations to explore Faraday's experiments; brainstorm new applications of these principles.
Life Itself: Origins of Evolutionary Biology and Genetics 19th Century	McClellan and Dorn Part IV Weiner, *The Beak of the Finch* (finish) Darwin, *On the Origin of Species*, 1859 (excerpts) Mendel, Autobiography, 1850	**Genetics and Evolution Simulation** A simulation will be created through which participants "express" certain genes then experience how these "traits" are selected for or against and change in frequency in a population.
The Anthropological Human and Racial Thinking 19th Century	McClellan and Dorn Part IV Blumenbach, *On the Natural Variety of Mankind*, 1776 (excerpts) Morton, *Crania Americana*, 1839 (excerpts) Hollander, *Scientific Phrenology*, 1902 (excerpts)	**Taking a Wrong Turn: Correlating Traits with Personalities** Participants will re-create Morton's Phrenology experiments and discuss the flaws in his methodology; in particular, discussion will extend to the difference between correlation and causality and to the impact of social and political trends on scientific thinking.
Germ Theory of Disease	McClellan and Dorn Part IV	**Cell Biology / Pasteur Germ Theory Lab**

19th – 20th Centuries	Louis Pasteur, The German Theory and its Applications to Medicine and Surgery, 1878	Recreation of the famous germ theory experiments and examination of microscopic life forms.
Quantum Physics and Relativity 20th Century	McClellan and Dorn Part IV Maddox, *Rosalind Franklin* Einstein, What is the Theory of Relativity?, 1919 Obituary for Max Planck, New York Times, 1947	**Quantum Physics Lab** Simple experiments will be employed to show how quantum principles can be demonstrated in multiple ways.
Science, Inhumanity, and the World Wars 20th Century	McClellan and Dorn Part IV Maddox, *Rosalind Franklin* Biography of Fritz Haber von Richthofen, *Air Warfare*, 1918 Rudolf Hoess, Special Order on Gassing Precautiouns at Auschwitz, 1942 Testimony of Engineer Kurt Prufer on Crematorium Design, 1946	**Chemistry Lab: Fertilizer and Explosives: SIMULATION ONLY** A simulation of the Haber-Bosch Process will be created to demonstrate the significance of artificial ammonia; faculty will develop ways to link the lab to discussions of modern agriculture and warfare.
The Nuclear Era 20th – 21st Centuries	McClellan and Dorn Part IV Maddox, *Rosalind Franklin* Curie, On the Discovery of Radium, 1921 Einstein, Letter to President Roosevelt, 1939 Tomoyasu, Hiroshima Survivor Testimony, 1945 Rolling Stones, Gimme Shelter, 1969 New York Times, Radiation Is Released in Accident at Nuclear Plant in Pennsylvania, 1979	**Radiation** Geiger counters will be employed to experience and measure radiation found in our daily lives; calculations will be done on decay rates and exposures.

Life Decoded: DNA Life Imperiled: Climate Change 21st Century	Maddox, *Rosalind Franklin* (finish) U.N. Global Issues: Climate Change	**Data and Models** Participants will be given data and asked to create a physical structure which matches the data given; only one group will not be given complete and essential data; discussion of historical place of women in science and the role of Rosalind Franklin in discovering the structure of DNA.

September – December 2018: Pilot History of Science

In addition to teaching their sections of the course, faculty will visit at least five sessions of their co-instructor's lab or lecture. Faculty will meet on a weekly basis to review goals for the week. Faculty will meet on a monthly basis to assess the work accomplished and level to which goals were fulfilled.

December – January 2018/19: Assess History of Science

Using student assessments, faculty self-assessments, and feedback from consultants, we will re-visit our goals and objectives. Depending on the outcome of assessments, we will edit the syllabus for Henrietta Lacks.

January – May 2019: Pilot Henrietta Lacks

In addition to teaching their sections of the course, faculty will visit at least five sessions of their co-instructor's lab or lecture. Faculty will meet on a weekly basis to review goals for the week. Faculty will meet on a monthly basis to assess the work accomplished and level to which goals were fulfilled.

June – end October 2019: Assess Project and Write White Paper

Faculty will write a white paper outlining lessons learned and changes to integrate into the course.

Appendix B

CURRICULUM VITAE
DAVID BRANDON DENNIS

School of Liberal Arts and Sciences
Dean College
99 Main St.
Franklin, MA 02038
Tel: (508) 541-1728
E-mail: ddennis@dean.edu

Residence: (b) (6) [redacted]
Cell: (b) (6) [redacted]

EDUCATION

2011 **Ph.D. in History, The Ohio State University**
Dissertation: "Mariners and Masculinities: Gendering Work, Leisure, and Nation in the German-Atlantic Trade, 1884–1914"
Major Field: Modern European History
Minor Fields: Latin American History, Gender History
Dissertation Directors: Alan Beyerchen and Robin Judd

2005 **M.A. in History, The Ohio State University**
Master's Thesis: "Coming Out into Socialism: The Emergence of a Political *Schwulsein* in the German Democratic Republic."
Thesis Director: Alan Beyerchen

2003 **B.A. in German Language and Literature and Mathematics, Texas Tech University**
summa cum laude in Honors Studies

PROFESSIONAL EXPERIENCE

2016–present **Associate Professor of History, Dean College**
Courses Taught: Modern Germany; The Holocaust in History and Memory; Global Genocide; World Revolutions; Twentieth-Century Europe; World History to 1500; World History Since 1500.

2016–present **Humanities Program Coordinator, Dean College**

2014–present **Associate Editor, *New England Journal of History***
New England History Teachers Association.

2011–2016 **Assistant Professor of History, Dean College**

2008–10 **Lecturer, Department of History**, **The Ohio State University**
Courses: World History Since 1500, Western Civilization Since 1600.

2003–07 **Teaching Assistant, Department of History, The Ohio State University**
Courses: Western Civilization to 1600, Western Civilization Since 1600, 20th Century Germany, and History of the Holocaust.

2001–2003 **Research Assistant, Department of Mathematics, Texas Tech University**

PUBLICATIONS AND MANUSCRIPTS

Books

David Brandon Dennis, *Empire's Prodigal Sons: Maritime Manhood, Citizenship, and Globalization in Wilhelmine Germany* (manuscript under development).

Articles

"Coming Out into Socialism: Heiner Carow's Third Way." In *A Companion to German Cinema*. Edited by Terri Ginsberg and Andrea Mensch, p. 55–81. Malden, MA & Oxford: Blackwell, 2012.

"Seduction on the Waterfront: German Merchant Sailors, Masculinity, and the '*Brücke zu Heimat*' in New York and Buenos Aires, 1884–1914." *German History* 29, no. 2 (2011): 175–201.

Dennis, David and G. Brock Williams. "Layered Circle Packings." *International Journal of Mathematics and Mathematical Sciences* 2005, no. 15 (2005): 2429–40.

Reviews

Jürgen Elvert, Sigurd Hess and Heinrich Walle, eds. *Maritime Wirtschaft in Deutschland: Schifffahrt-Werften-Handel-Seemacht im 19. und 20. Jahrhundert*. Stuttgart: Franz Steiner, 2012. Reviewed for *German History* 32, no. 1 (2014), 176–178.

David H. Olivier. *German Naval Strategy 1856–1888: Forerunners of Tirpitz*. London: Frank Cass, 2004. Reviewed for H-German on 20 June 2007. Stable URL: http://www.h-net.org/reviews/showrev.cgi?path=178611189533522.

CONFERENCES, SEMINARS, AND INVITED LECTURES

"Empire's Prodigal Sons: World Politics, Mass Mobility, and Desertion in the Wilhelmine Merchant Fleet," American Historical Association, 130th Annual Meeting, Atlanta, GA, January 2016.

"Selling Germany on the Water: The *Weltpolitik* of Shipping Company Advertisements," German Studies Association, 39th Annual Conference, Washington, D.C., October 2015.

"'*Navigare Necesse Est':* The Maritime Press and the State in Wilhelmine Germany," Southern Historical Association, 80th Annual Meeting, Atlanta, Georgia, November 2014.

"Remembering Resistance during the Holocaust," World of Ideas Series, Dean College, Franklin, Massachusetts, April 2014.

"Dimensions of German Public Life in the First Global Age: Citizenship," German Studies Association, 37th Annual Conference, Denver, Colorado, October 2013.

"Continuing to Think Outside the State" (panel chair), German Studies Association, 37th Annual Conference, Denver, Colorado, October 2013.

"From Imperial Outpost to Local Community Center: Nation, Religion, and Welfare at the Buenos Aires *Seemannsheim*, 1899–1931," German Studies Association, 36th Annual Conference, Milwaukee, Wisconsin, October 2012.

"Crossing the Line: Wilhelmine Germany, Maritime Manhood, and Violence South of the Equator," American Historical Association, 126th Annual Meeting, Chicago, Illinois, January 2012.

"Germany's Real Seaman: Nation, Manhood, and Sailing Education in the Wilhelmine *Handelsmarine*," German Studies Association, 35th Annual Conference, Louisville, Kentucky, September 2011.

"Preparing Civilian Seamen for War in Wilhelmine Germany," Social Science History Association, 35th Annual Meeting, Chicago, Illinois, November 2010.

"Germany's 'Future on the Water:' Making Merchant Seamen, 1897–1914," Social Science History Association, 34th Annual Meeting, San Diego, California, November 2009.

"*Brücke zu Heimat*: Globalizing Germany in the Protestant Deutsche *Seemannsmission*, 1884–1914," German Studies Association, 33rd Annual Conference, Washington, D.C., October 2009.

"Deserteurs, Syphilitic Sailors, and Prodigal Sons: Transnational Masculinities and the Foreign Port City," Transatlantic Doctoral Seminar in German History, German Historical Institute, Washington, D.C., April 2009.

"Seduction on the Waterfront: German Merchant Mariners and National Identity in New York and Buenos Aires, 1900–1914," German Studies Association, 32nd Annual Conference, St. Paul, Minnesota, October 2008.

AWARDS, FELLOWSHIPS, AND GRANTS

National and International

2012 **Summer Institute on the Holocaust and Jewish Civilization Fellowship**
Holocaust Education Foundation, Northwestern University

2009 **Transatlantic Doctoral Seminar Fellowship**
German Historical Institute, Washington, D.C. & BMW Center for German and European Studies at Georgetown University

2009 **SSHA-Rockefeller Graduate Student Travel Award**
Social Science History Association

2007–08 **DAAD Dissertation Research Fellowship**
German Academic Exchange Service (DAAD) & Free University of Berlin

2007–08 **Fulbright Research Award for Germany (declined)**
Fulbright Program, United States Department of State

The Ohio State University

2012 **Bradley Postdoctoral Research Travel Grant**
Department of History

2010–11 **Presidential Fellowship for Dissertation Completion**
Graduate School

2010 **Andreas Dorpalen Award**
Department of History

2009 **Alumni Grant for Graduate Research and Scholarship**
Graduate School

2008 **Mershon Research Travel Grant**
Mershon Center for International Security Studies

2006 **Graduate Student International Dissertation Research Travel Grant**
Office of International Affairs

2006 **Humanities Summer Research Award**
Department of History

2005 **Humanities Summer Research Award**
Department of History

2005 **Andreas Dorpalen Award**
Department of History

Texas Tech University

2003 **Highest Ranking Graduate**
College of Arts and Sciences

2001–03 **Undergraduate Research Fellowship**
Honors College

2001 **Theodor W. Alexander Scholarship for Excellence in German Language Study**
Department of Foreign Languages and Literatures

1998–2003 **Presidential Plus Five-Year Scholarship**

RESEARCH LANGUAGES

German (speaking, writing, and reading); Spanish (reading)

2007–08 German-language Colloquia, Free University Berlin, Germany
2007 Summer Intensive Course in Spanish, University of Buenos Aires, Argentina
2003 Summer Intensive German Language Course, Goethe Institute, Berlin, Germany
1998–2003 B.A. Degree in German Language and Literature, Texas Tech University

PROFESSIONAL AFFILIATIONS

American Historical Association
German Studies Association
New England Journal of History (New England History Teachers Association)

PROFESSIONAL AND COMMUNITY SERVICE

2015–present **Retention Work Team**
Dean College

2013–14 **Judicial Committee**
Dean College

2012–present **Honors Program Steering Committee**
Dean College

2012–15 **Academic Appeals Board**
Dean College

2012–13 **General Education Curriculum Institute**
Dean College

2011–present **Spectrum/Gay-Straight Alliance Faculty Advisor**
Dean College

2011–12 **History@Dean Film Series Sponsor**
Dean College

2006–07 **Graduate Student Advisory Committee**
Department of History, The Ohio State University

2006–07 **Diversity Committee**
Department of History, The Ohio State University

2004–05 **History Department Representative**
Council of Graduate Students, The Ohio State University

2004–05 **Selection Committee for the Ray Travel Award for Scholarship and Service**
Council of Graduate Students, The Ohio State University

Appendix C

CURRICULUM VITAE
ROB ALAN LAWSON, PH.D.

Professor of History and Director of the Honors Program, Dean College
99 Main Street, Franklin, MA 02038; Tel: (508) 541-1752; E-mail: rlawson@dean.edu

EDUCATION
Doctor of Philosophy in History, Vanderbilt University, 2003.
Master of Arts in History, Vanderbilt University, 1997.
Bachelor of Arts in History, *summa cum laude*, Louisiana State University, 1996.

PROFESSIONAL POSITIONS
Associate Editor, *New England Journal of History*, 2012 to present.
Director of the Honors Program, Dean College, 2011 to present.
Professor of History, Dean College, 2016 to present.
Associate Professor of History, Dean College, 2008 to 2016.
Visiting Associate Professor of Graduate Studies (American Studies), Trinity College, 2008–2010.
Assistant Professor of History, Dean College, 2004–2008.
Visiting Assistant Professor in Graduate Studies (American Studies), Trinity College, 2004–2008.
Visiting Lecturer, Salem State University, 2003–2004.
Visiting Assistant Professor, Rhodes College, 2003.
Lecturer, Vanderbilt University, 2003.

PUBLICATIONS
- "Visual Blues: Blues, Jazz, and the Visual Artists of the Harlem Renaissance," in Natalie Mault, ed., *Visual Blues* (Seattle: University of Washington Press, 2014).
- "Blues Music" in Griffin and Hargis, eds., *The New Encyclopedia of Southern Culture*, vol. 20: "Social Class" (Center for the Study of Southern Culture /UNC Press, 2012), 326–27.
- *Jim Crow's Counterculture: The Blues and Black Southerners, 1890–1945* (Making the Modern South, series; LSU Press, 2010). Winner of the Thomason Award for Best Book of 2010/2011 (Gulf South Historical Association).
- Review of David Evans, ed., *Ramblin' On My Mind: New Perspectives on the Blues*, in *Journal of Southern History* 75 (May 2009): 485–7.
- Review of Adam Gussow, *Journeyman's Road: Modern Blues Lives from Faulkner's Mississippi to Post-9/11 New York*, in *Southern Quarterly* 45 (Winter 2008): 176–9.
- "The First Century of Blues: One Hundred Years of Hearing and Interpreting the Music and Musicians," *Southern Cultures* (Fall 2007): 39–61.
- "William 'Big Bill' Broonzy," "Robert Johnson," "Riley 'B.B.' King," and "McKinley Morganfield (Muddy Waters)" in Steven Reich, ed., *Greenwood Encyclopedia of the Great Black Migration* (Westport, Conn.: Greenwood Publishing, 2006).
- "Harlem Renaissance," in Stanley Kutler, ed., *Dictionary of American History* (New York: Charles Scribner's Sons, 2003).
- Review of Fred Hay, *Goin' Back to Sweet Memphis: Conversations with the Blues* (Athens: University of Georgia Press, 2001), in H-AMSTDY (http://www2.hnet.msu.edu/~amstdy/), December 2002.
- "Music," in Veryan Khan, ed., *Beacham's Encyclopedia of Social Change: America in the Twentieth Century* (Nokomis, Fla.: The Beacham Group LLC, 2001), 1089–1134.

SCHOLARLY PAPERS AND CONFERENCE ACTIVITY
- Commenter, *McCrea, 1971* (a documentary film), Gulf South Historical Association Conference, 2013.

- Commenter, "Gendered Blues Subjectivities and Racial Politics across Southern History," Modern Language Association Conference, 2013.
- Commenter, "Southern Music in Black and White," Southern Historical Association Conference, 2012.
- "Jim Crow's Blues," special session at the Attleboro Arts Museum commemorating the 50th Anniversary of *To Kill a Mockingbird*, 2012.
- "Black History on a Flat World," Black History Month lecture & master class at Southeastern Louisiana University, 2012.
- "From Exclusion to Inclusion: Southern Blues Music's Chapter in the Story of American Freedom," New England Historical Association, 2006.
- Program Chair, "(Re)Creating the City: Brasília, New Orleans, and Paris in Comparative Perspective," a special session at Rhodes College, 2003.
- "'Leaving the Jim Crow Town': Black Migration and its Roots in the Blues Counterculture," Southern Historical Association, 2001.
- "'Uncle Sam Called Me': The Blues, Blacks, and World War II," Citadel Conference on the South, 2000.
- "'It Came from the Cotton Fields': The Downhome Blues Counterculture of the Black South, 1900-1945," joint Conference of the American Cultural Association and the Popular Culture Association, 2000.
- "'Workin' on the Project': The Blues and Changing Political Perceptions in the Black South, 1929-1945," Tennessee Conference of Historians, 1999.

ACADEMIC HONORS & AWARDS

Winner of the Gulf South Historical Association's Thomason Award for best book of 2010–2011.
Inaugural winner, Dean College Full-Time Teaching Excellence Award, 2006.
Léon Helguera Dissertation Fellowship, Department of History (Vanderbilt), 2001–2002.
College of Arts & Science Outstanding Graduate Teaching Assistant Award (Vanderbilt), 1999–2000.
Department of History (Vanderbilt) Graduate Fellowship, 1996–2000.
Phi Beta Kappa National Honor Society.
Phi Alpha Theta History Honor Society.
Phi Kappa Phi National Honor Society.
Sophomore Honors Distinction, LSU, 1994.

SELECTED ACADEMIC SERVICE

- Member, Lawrence W. Levine Award Committee, Organization of American Historians, 2015–2016.
- Peer reviewer/referee for *Southern Cultures*, 2006 to present.
- Member, Curriculum Committee, Dean College, 2011 to 2014.
- Chair, History Faculty Search, Dean College, 2008–2009.
- Co-chair, Academic Rigor Task Force, Dean College, 2007–2011.
- Member, Honors Steering Committee, Dean College, 2008–2011.
- Contributing editor, *Shaking Like a Mountain* magazine for musical literature, 2007–2011.
- Academic Appeals Board member, Dean College, 2006–2007.
- Blues & Jazz Festival Week organizer & presenter, Dean College, 2006.
- Director of the Dean College Summer Bridge Program, 2004 & 2005.
- History curriculum consultant, Dept. of Humanities, Dean College, 2004–2007.
- Advisor, Dean College "Free Thinkers" student organization, 2006–2011.
- Inaugural Participant, Vanderbilt University – Rhodes College Faculty Exchange Program, 2003.
- Steering Committee member, Vanderbilt University Future Faculty Preparation Program ("PFF"-type program), 1999–2000.
- New Media Classroom Institute participant, *"Southern Culture in the New Media Classroom*, Vanderbilt University, 2000.
- Master Teaching Fellow, Vanderbilt University Center for Teaching, 1999–2000.

Appendix D

CURRICULUM VITAE
DR. JESSICA M. PISANO

EDUCATION

May 2000: **Ph.D. Molecular and Cellular Biology**

Brandeis University, Waltham, MA. "Developmental Divergence of the Enteric and Sympathetic Nervous Systems."

June 1992: **B.A. with Honors Biology**

University of California Santa Cruz, CA

TEACHING

Fall 2010 through present: **Assistant Professor of Biology and Mathematics**

Dean College, Franklin, MA
Developing and teaching applied biology and mathematics courses intended to expose students to the rigors of these disciplines.

January 2016 through present: **Math and Science Program Coordinator**

Dean College, Franklin, MA
Review and develop curriculum, manage course offerings, hire and oversee adjuncts, and serve as a representative for the programs of math, science, environmental studies, pre-nursing, and health sciences.

Spring and Fall 2004: **Instructor**

Mass Bay Community College, Wellesley, MA
Course: General Biology
A lecture/lab course. As the sole instructor for 30 students, developed syllabus, prepared all lectures, generated and graded problem sets, quizzes and exams. Ran weekly experimental lab sections, including lab reports.

Spring 2002: **Teaching Fellow**

Harvard University, Cambridge, MA
Course: Introduction to Cell Biology
A lecture/lab course. Prepared weekly reviews lectures, wrote and graded problem sets and quizzes. Ran experiments, graded lab reports.

Fall 2001: **Teaching Fellow**

Harvard University, Cambridge, MA
Course: Molecular Genetics of Neuronal Development
Material for this course was drawn from primary scientific papers. Prepared review lectures, ran discussions, wrote and graded quizzes and student papers.

Spring 2001: **Teaching Fellow**

Harvard University, Cambridge, MA
Course: Introduction to Cell Biology Lab
Prepared weekly quizzes, ran cell biology experiments, graded lab reports.

Spring 1995: **Teaching Assistant**

Brandeis University, Waltham, MA
Course: Molecular Biology Lab
Prepared weekly quizzes, ran cell biology experiments, graded lab reports.

Fall 1994: **Teaching Assistant**

Brandeis University, Waltham, MA
Course: Genetics
Worked closely with the professor to develop the textbook for this course. Prepared lectures for weekly review sections.

FREELANCE WRITING ASSIGNMENTS

2008: **Consultant, Conservation International**

Independent contracted consultant, working independently to prepare 20- to 35-page policy briefings on a range of topics. Duties include all research, compiling relevant data and authoring pieces. Briefings included:

- The current state of algae-derived biofuels
- Fisheries in West Africa
- The impacts of marine health on human health
- Compilation of prospective donors for global marine partnership fund

2004: **SpectruMedix**

As a contractor, worked independently to design promotional materials and software manuals for SpectruMedix, designers of nucleic acid sequencers and sequencing software.

2001: The Scientist

Working independently as a contractor, authored a number of technology review pieces for *The Scientist.*

PEER REVIEWED PUBLICATIONS

- Pisano, J.M. and Birren, S.J. (1999) Restriction of developmental potential during divergence of the enteric and sympathetic neuronal lineages. Development 126:2855–2868.
- Lockhart, S.T., Mead, J.M., Pisano, J.M., Slonimsky, J.D. and Birren, S.J. (2000) Nerve growth factor collaborates with myocyte derived factors to promote development of presynaptic sites in cultured sympathetic neurons. J. Neuro. Bio. 42: 460–476.
- Pisano, J.M., Colon, F. and Birren, S.J. (2000) Post-migratory enteric and sympathetic neural precursors share common, developmentally regulated, responses to BMP2. Dev. Bio. 227: 1–11.
- Worley, D.W.*, Pisano, J.M*., Choi, E.D., Walus, L., Hession, C.A., Cate, R.L., Sanicola, M. and Birren, S.J. (2000) Developmental regulation of GDNF response and receptor expression in the enteric nervous system. Development 127: 4383–4393.

INVITED LECTURES

***1998:* Symposium Speaker**

International Society for Developmental Neuroscience Biennial Meeting. University of British Columbia, Vancouver, BC.
Title: Developmental Restriction in the Enteric and Sympathetic Neuronal Lineages.

***2000:* Commencement Speaker**

Brandeis University Commencement. Waltham, MA.
Title: Applying Graduate School to the Real World.

RESEARCH

***2000–2002:* Post-doctoral Research Fellow**

Harvard University, Cambridge, MA
Supervisor: Dr. John Dowling
Project: A study of retinal ganglion cells: eye transplantation of the zebrafish archie mutant.

***1993–2000:* Doctoral Research**

Brandeis University, Waltham, MA
Supervisor: Dr. Susan Birren
Thesis: Developmental Divergence of the Enteric and Sympathetic Nervous Systems.

***1992–1993:* Research Technician**

Boston University School of Medicine, Boston, MA
Supervisor: Dr. Patricia Foster
Research: Directed mutations in *E. coli*

Appendix E

CURRICULUM VITAE
JEFFREY A. MALLETT

(b) (6)
(b) (6)
jmallett@dean.edu

EDUCATION

MS in Chemistry, August 2007
Brandeis University, Waltham, Massachusetts

BS in Chemistry with honors, May 2006
University of Massachusetts Lowell, Lowell, Massachusetts
Graduated Magna Cum Laude

PROFESSIONAL EXPERIENCE

Laboratory Manager, 2012 – Present
Dean College, Franklin Massachusetts
- Oversee daily operations of teaching laboratories for chemistry, biology, and anatomy courses
- Conduct faculty trainings on laboratory safety and chemical hygiene

Research Assistant, 2007
- Conducted multi-step organic syntheses of fragments used in the total synthesis of natural products (+/-) chaetominine and (+/-) platensin for the B.B Snider Research Group at Brandeis University
- Experienced in separation and purification by TLC and flash chromatography
- Experienced in ^{1}H NMR, FT-IR, and UV-VIS spectroscopy

Research Assistant, 2006
- Conducted enzymatic synthesis of micelles for use as drug delivery systems for the A. Waterson Research Group at the University of Massachusetts Lowell.
- Experienced in light scattering and ^{1}H NMR spectroscopy

TEACHING EXPERIENCE

Assistant Professor of Chemistry and Mathematics, 2012 – Present
Dean College, Franklin Massachusetts

Instructed multiple sections of the following courses:
- *CHM 151 – General Chemistry I. (Lecture / Laboratory)*
- *CHM 152 – General Chemistry I. (Lecture / Laboratory)*
- *MTH 241 – Calculus I.*
- *MTH 151 – Precalcuus I.*
- *MTH 111 – Quantitative Reasoning and Financial Literacy*

- *MTH 150 – Introduction to Financial Literacy*
- *BIO 165 – Science of TV Crime Scene and Medical Investigations - (Lecture / Laboratory)*

Adjunct Professor of Chemistry and Mathematics, 2009 – 2012
Dean College, Franklin Massachusetts

Instructed multiple sections of the following courses:

- *CHM 151 – General Chemistry I. (Lecture and Laboratory)*
- *CHM 152 – General Chemistry I. (Lecture and Laboratory)*
- *MTH 151 – Precalcuus I.*
- *MTH 111 – Quantitative Reasoning and Financial Literacy*
- *MTH 121 – College Algebra*
- *MTH 130 – Introductory Statistics*

PRESENTATIONS OR PUBLICATIONS

Mechanism of the decarboxylative rearrangement of α-(carbonyl)cyclopropane carboxylic acids to 2-substituted-4,5-dihydrofurans: ARKIVOC, 2007, (IX), 135-149.

WORKSHOPS OR PROFESSIONAL DEVELOPMENT

Trained by the Laboratory Safety Institute (LSI), 2013

COLLEGE OR COMMUNITY SERVICE

- Provided math tutoring for the Mathematics Center at Dean College.
- Conducted informational presentations for students on the use of graphing calculators and Microsoft Excel©.
- Conducted informational presentation on the CSI Effect.
- Organized and Participated in Pi day events.
- Worked with math/science majors on their math/science research practicum.

CAMPUS COMMITTEES

Faculty Personal Committee, FPPC.

Appendix F

Institutional History

Dean College has undergone many transformations since its founding in 1865 by Dr. Oliver Dean (1783–1871), a native of Franklin who began his career as a medical doctor but joined the industrial revolution, eventually managing the Amoskeag Mills in Manchester, New Hampshire. Upon retirement and returning to Franklin in the 1850s, Dr. Dean established the Universalist Church and then Dean Academy, a residential school educating boys and girls from New England and beyond.

During this time, the Academy thrived under the leadership of Arthur W. Peirce, affectionately known as "Awpie," for whom the main campus walkway and science center are named. During World War II, Dean transformed significantly by adding a junior college, which ran alongside the Academy until 1957, when the Academy was phased out. The 1950s–1960s was a period of great construction and growth as it was at so many American institutions of higher learning. Dean President William Garner oversaw the construction of four new dormitories, a gymnasium, a library, a science center, and a campus center.

In the 1990s, under the leadership of current President Paula M. Rooney, the institution evolved once again, becoming Dean College. Soon Dean was offering bachelor's as well as associate degrees, and a new era of capital improvements was initiated—beautiful new dormitories and facilities for dining and performances have risen to grace our campus in the last twenty years. Today's students, faculty, and staff thrive in a learning and work environment that is a century and a half in the making. Fittingly, our college motto, inspired by Dr. Dean's family saying, is *Forti et Fideli Nihil Difficile*: "To the strong and faithful nothing is difficult."

Key Institutional Data

Dean College offers Associate in Arts, Associate in Science, Bachelor of Arts, and Bachelor of Science degrees, along with certificates, with a strong history of helping our students through either two or four years of education.

Number of faculty
33 full-time faculty
100 part-time faculty

Number of departments
Dean College offers the Bachelor of Arts and the Bachelor of Science degrees in thirteen majors, and an Associate in Arts and Associate in Science degrees in 22 majors. The academic disciplines and programs at Dean are organized into five schools: School of the Arts, School of Business, Joan Phelps Palladino School of Dance, School of Liberal Arts and Sciences (housing the Humanities Department), and School of Continuing Studies.

Student enrollment
Fall 2016: 1,144 total full-time enrollment

DEAN COLLEGE
SCHOOL OF LIBERAL ARTS AND SCIENCES

December 15, 2016

William D. Adams, Chairman
National Endowment for the Humanities
Division of Education Programs
Humanities Initiatives at Community Colleges
400 7th Street SW
Washington, DC 20506

Dear Dr. Adams:

I am pleased to support the attached proposal. Dean College seeks a grant from the NEH in the Humanities Initiatives for Community College program to infuse the humanities into Core Distribution Requirements. We will develop and pilot two courses in the history of science that incorporate hands-on labs: "History of Science" and "Henrietta Lacks: Medicine, Race, Class and Gender in America."

I am fully committed to this project and look forward to fulfilling my role as co-project director. Among my responsibilities, I will develop the courses by integrating scientific labs with humanities; generate lectures, learning activities, assignments and assessments of student work that emphasize the connections between science and the humanities; teach the "History of Science" course and visit sections of my co-instructor's laboratory classes. In addition, I will meet regularly with faculty to review goals, and assess the work accomplished. Finally, I will collaborate on a white paper outlining lessons learned and changes to make in the course.

This project has important implications for enriching humanities education, and I commit my full support to its success.

Please contact me if you require additional information.

David Dennis, Ph.D.
Associate Professor of History
Humanities Program Coordinator
Phone: 508-541-1728
ddennis@dean.edu

DEAN COLLEGE
SCHOOL OF LIBERAL ARTS AND SCIENCES

December 16, 2016

William D. Adams, Chairman
National Endowment for the Humanities
Division of Education Programs
Humanities Initiatives at Community Colleges
400 7th Street SW
Washington, DC 20506

Dear Dr. Adams:

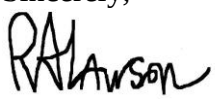
I am pleased to support the attached proposal. Dean College seeks a grant from the NEH in the Humanities Initiatives for Community College program to infuse the humanities into Core Distribution Requirements. We will develop and pilot two courses in the history of science that incorporate hands-on labs: "History of Science" and "Henrietta Lacks: Medicine, Race, Class and Gender in America."

I am committed to this initiative and look forward to fulfilling my role as faculty member on the project. Among my responsibilities, I will develop courses by integrating scientific labs with humanities; generate lectures, learning activities, assignments and assessments of student work that emphasize the connections between science and the humanities; teach the humanities section of Henrietta Lacks; and visit sections of my co-instructor's class. In addition, I will meet regularly with faculty to review goals, and assess the work accomplished. Finally, I will collaborate on a white paper outlining lessons learned and changes to make in the course.

This project has important implications for enriching humanities education, and I commit my full support to its success.

Please contact me if you require additional information.

Sincerely,



Rob Lawson, Ph.D.
Professor of History

DEAN COLLEGE
SCHOOL OF LIBERAL ARTS AND SCIENCES

December 15, 2016

William D. Adams, Chairman
National Endowment for the Humanities
Division of Education Programs
Humanities Initiatives at Community Colleges
400 7th Street SW
Washington, DC 20506

Dear Dr. Adams:

I am pleased to support the attached proposal. Dean College seeks a grant from the NEH in the Humanities Initiatives at Community College program to infuse the humanities into Core Distribution Requirements. We will develop and pilot two courses in the history of science that incorporate hands-on labs: "History of Science" and "Henrietta Lacks: Medicine, Race, Class and Gender in America."

I am fully committed to this project and look forward to fulfilling my role as co-project director. Among my responsibilities, I will develop courses by integrating scientific labs with humanities; generate lectures, learning activities, assignments and assessments of student work that emphasize the connections between science and the humanities; teach the lab portions of both "History of Science" and "Henrietta Lacks"; and visit sections of my co-instructor's class. In addition, I will meet regularly with faculty to review goals, and assess the work accomplished. Finally, I will collaborate on a white paper outlining lessons learned and changes to make in the course.

This innovative project will help strengthen Dean's humanities program and incorporate humanistic approaches in the field of science, and I am happy to commit my full support to its success.

Please contact me if you require additional information.

Sincerely,

Jessica Pisano, Ph.D.
Assistant Professor of Biology and Mathematics

DEAN COLLEGE
SCHOOL OF LIBERAL ARTS AND SCIENCES

December 19, 2016

William D. Adams, Chairman
National Endowment for the Humanities
Division of Education Programs
Humanities Initiatives at Community Colleges
400 7th Street SW
Washington, DC 20506

Dear Dr. Adams:

I am pleased to support the attached proposal. Dean College seeks a grant from the NEH in the Humanities Initiatives at Community Colleges program to infuse the humanities into Core Distribution Requirements. We will develop and pilot two courses in the history of science that incorporate hands-on labs: "History of Science" and "Henrietta Lacks: Medicine, Race, Class and Gender in America."

In my role as laboratory manager at Dean College, it is my responsibility to make sure our laboratories follow appropriate policies and procedures to ensure the safety of our students, faculty, and staff. I would like to formally support the addition of laboratory components to our "History of Science" and "Henrietta Lacks: Medicine, Race, Class and Gender in America" courses, and commit to working with the college to ensure that all pertinent OSHA and CDC guidelines/regulations are being followed, faculty are trained, and appropriate safety equipment is available to facilitate the additional needs of these courses.

I am fully committed to this project and look forward to fulfilling my role as laboratory manager on the project.

Sincerely,

Jeffrey A. Mallett
Assistant Professor, Mathematics and Chemistry
Laboratory Manager

DEAN COLLEGE **OFFICE OF THE PRESIDENT**

December 28, 2016

William D. Adams, Chairman
National Endowment for the Humanities
Division of Education Programs
Humanities Initiatives at Community Colleges
400 7th Street SW
Washington, DC 20506

Dear Dr. Adams:

I am pleased to support the attached proposal. Dean College is seeking a grant from the NEH in the Humanities Initiatives at Community Colleges program to infuse the humanities into Core Distribution Requirements. Our faculty will develop and pilot two courses in the history of science that incorporate hands-on labs: "History of Science" and "Henrietta Lacks: Medicine, Race, Class and Gender in America."

In 2016, I charged the School of Liberal Arts and Sciences with incorporating more experiential learning into the curriculum, believing that hands-on learning benefits all students, but especially our at-risk student population, including students with learning challenges. This innovative project will utilize our faculty, consultants, and lab equipment, to enrich the sciences for our students, and further, it will demonstrate to students how integral the humanities are to other disciplines. This project represents an investment in and dedication to enriching humanities education in a way that will benefit all students, especially those who are academically at-risk.

I am pleased to confirm the commitment of the resources summarized in the attached proposal. Please contact me if you require additional information.

Sincerely,

Paula M. Rooney, Ed.D.
President

THE UNIVERSITY of WISCONSIN MADISON

30 November 2016

David B. Dennis, Ph.D.
Associate Professor of History
Humanities Program Coordinator
Dean College
99 Main Street
Franklin, MA 02038

Dear Dr. Dennis,

I am delighted to write this letter of commitment in support of Dean College's NEH Humanities Initiatives for Community College proposal for a grant to support the integration of humanistic perspectives on the sciences into Dean's Core Distribution Requirements.

As a professor of history of science at the University of Wisconsin-Madison, my colleagues and I have worked extensively to bring humanistic approaches to bear on subjects studied in STEM fields and thus provide students with analytical tools with which to critically assess the historical development of scientific ideas and practices. I have also published a monograph and several articles which address, from a variety of perspectives, the early modern (1500-1800) "Scientific Revolution" that has served as a temporal and conceptual starting point for the modern scientific enterprise. I am ready to contribute this curricular experience and scholarly expertise in working with Dean College faculty in January 2018 and again in summer 2018 for an estimated total of 5.5 days to develop courses in the history of science and especially in my area of specialization by selecting readings, leading discussions, and providing examples of successful teaching modules.

I look forward to working with you and your colleagues on this important pedagogical initiative to make humanistic perspectives on the sciences an integral part of Dean's required core curriculum.

Sincerely,

Florence C. Hsia
Professor and Chair
608/262-3971
fchsia@wisc.edu

Department of the History of Science
210 Bradley Memorial Building 1225 Linden Drive Madison, Wisconsin 53706-1528
608/262-1406 Fax: 608/265-0486 mail@histsci.wisc.edu www.histsci.wisc.edu

December 6, 2016

David B. Dennis, Ph.D.
Associate Professor of History
Humanities Program Coordinator
Dean College
99 Main Street
Franklin, MA 02038

Dear Dr. Dennis:

I am pleased to commit to providing professional faculty development services to Dean College, as they endeavor to infuse the Humanities into Core Distribution Requirements. Dean College is seeking a grant from the NEH in the Humanities Initiatives for Community College program. The grant will infuse the humanities into Core Distribution Requirements by developing and piloting two courses in the history of science that incorporate hands-on labs: "History of Science" and "Henrietta Lacks: Medicine, Race, Class and Gender in America."

As assistant professor of the history of science at the University of Massachusetts Amherst I have consulted with numerous colleges and universities--including the University of California Berkeley and the University of Massachusetts Amherst--on instructional issues. In particular, as a graduate student at the University of California I worked closely with a program, Cal Teach, that worked to prepare undergraduate STEM majors for careers in K-12 teaching. My role in the program was twofold: I designed and taught semester-long courses in the history of science that included a component supervising students in the creation of science classroom curricula and laboratory projects that implemented history; I then used these course materials as the basis of a summer-long consulting project in which I designed curricular materials for future educators in the Cal Teach program. At the University of Massachusetts I was invited to help review and refine the Commonwealth Honor's College writing program, and was chosen by my department to take a leading role in developing a syllabus for a historical methods course we intend to make a requirement for all of our undergraduate majors. I also am directing the initiative to expand the University's Public History program by developing a certificate program in the Public History of STEMM. Finally, I have been an active member of the department's Undergraduate Studies Committee, which regularly reviews the undergraduate history course offerings. It should be noted, too, that prior to attending graduate school in history I was employed as a high school physics teacher. During my two years in this position I regularly integrated history into my lessons, and began developing laboratory modules with historical focus.

In this project I will provide consultative services to Dean faculty in the area of focusing on the on rise of modern scientific disciplines, technologies, and societal impacts. My expertise in the field is evidenced by my publications –most notably by first book project, *The Math Mafia: How a Persistent Group of Reformers Standardized American Education*, which examines the mathematics education reform community in post-war America. This book is out to reviewers at both (b) (4) —as well as my courses (all of which I designed)—including both the graduate and undergraduate survey in the history of science, "Science, Technology, and War in the 20th

century U.S.," a seminar in the history of medicine (in which I specifically taught a unit on Henrietta Lacks, as well), a course on the history of scientific themes in *Frankenstein*, and other offerings in the history of science and technology, such as "Ideas that Changed History" and "Food, Water, Shelter." My formal training in the history of science, my research interest in curricular reform and pedagogy, my background in classroom teaching, my experience in building syllabi and new courses, and my record of excellent teaching all support my expertise as a consultant on this worthwhile project. I am active in my field, regularly contributing papers at history of science conferences such as the History of Science Society and 3S, and I have written numerous book reviews in my field, both of which help keep me engaged with current work in my field. I care deeply about education at all levels, which has driven my interest in publishing more "popular" pieces on the history of science, most recently a piece on Charles Lindbergh's biomedical research (*Smithsonian Magazine*) and Thomas Edison's technopolitical entanglements (*Commonplace*) I will work with Dean faculty in January 2018 and again during the summer of 2018, for an estimated total of 5.5 days in the capacity of providing my scholarly and pedagogical expertise, helping to select readings and activities for the team, leading discussions, and offering examples of relevant teaching modules used elsewhere.

I look forward to working with Dean College on this innovative Humanities initiative.

Sincerely,

Dr. Emily T. H. Redman
Assistant Professor of History
University of Massachusetts Amherst
161 Presidents Drive
Herter Hall
Amherst, MA 01003
eredman@history.umass.edu
413-545-6797

University of Wisconsin
SCHOOL OF MEDICINE
AND PUBLIC HEALTH

Medical History and Bioethics

December 9, 2016

R. A. Lawson, Ph.D.
Professor of History
Dean College
99 Main Street
Franklin, MA 02038

Dear Dr. Lawson:

I am pleased to commit to providing professional faculty development services to Dean College, as they endeavor to infuse the Humanities into Core Distribution Requirements. Dean College is seeking a grant from the NEH in the Humanities Initiatives for Community College program. The grant will infuse the humanities into Core Distribution Requirements by developing and piloting two courses in the history of science that incorporate hands-on labs: "History of Science" and "Henrietta Lacks: Medicine, Race, Class and Gender in Americ(a."

As Robert Turell Professor of Medical History and Bioethics at the University of Wisconsin-Madison, I will provide consultative services to Dean faculty in the area of History of Medicine, particularly 20th century U.S. medicine, with a thematic focus on race. My expertise in the field is evidenced by my publications (*Flesh and blood: Organ transplantation and blood transfusion in 20th century America*. Oxford University Press, 2008, which includes chapters on the segregation of the blood supply during World War II and the racial politics of heart transplantation), and courses ("Race, Medicine, and Public Health in America). In addition, in my historical work on human experimentation, I have published on the Tuskegee Syphilis Study and provided expert input to the President's Commision for the Study of Bioethical Issues about the context of the syphilis studies conducted by the Public Health Service in Guatemala in 1946-1948.

I will be happy to work with Dean faculty in January 2018 and again during the summer of 2018, for an estimated total of 5.5 days in the capacity of providing my scholarly and pedagogical expertise, helping to select readings and activities for the team, leading discussions, and offering examples of relevant teaching modules used elsewhere.

I look forward to working with Dean College on this innovative Humanities initiative.

Sincerely,

Susan E. Lederer
Robert Turell Professor of History of Medicine and Bioethics
Chair, Department of Medical History and Bioethics

Medical Sciences Center
1300 University Avenue
Madison, WI 53706-1532

Susan E. Lederer
Turell Professor of History of Medicine and Bioethics
Chair, Department of Medical History and Bioethics

608/262-4195
FAX 608/265-0486
email: selederer@wisc.edu

EMMANUEL COLLEGE

November 30, 2016

David B. Dennis, Ph.D.
Associate Professor of History
Humanities Program Coordinator
Dean College
99 Main Street
Franklin, MA 02038

Dear Dr. Dennis:

I am pleased to commit to providing professional faculty development services to Dean College, as they endeavor to infuse the Humanities into Core Distribution Requirements. Dean College is seeking a grant from the NEH in the Humanities Initiatives for Community College program. The grant will infuse the humanities into Core Distribution Requirements by developing and piloting two courses in the history of science that incorporate hands-on labs: "History of Science" and "Henrietta Lacks: Medicine, Race, Class and Gender in America."

As a Professor at the University of Mar del Plata-Argentina and Senior Lecturer in Biology at Emmanuel College, over the years I have developed several courses with a lab component in the areas of Biochemistry and Molecular and Cellular Biology. More recently, at Emmanuel College, I developed an advanced course in Cell Biology for students that will graduate with a Major in Biology. I will provide consultative services to Dean's faculty related to its cell biology laboratory. I will focus on the technical aspects of enhancing and developing the cell biology lab co-requisite. My expertise in the field of cell biology is evidenced by my years of research in this area (see attached a selected list of publications). In 2014, after eight years that Emmanuel College did not offer a Cell Biology course, I developed a new course that has been highly evaluated by students who took it. The Cell Biology course is inquiry-based and has two parts: lectures and lab component. The lectures address some selected topics in cell biology with a focus on data analysis and interpretation through class discussions. The lab component of the course exposes students to cell culture techniques, an experimental system that they have not used in previous years at EC. After three weeks, students develop a small project in which they analyze gene expression using techniques of molecular biology. The lab project ties with the some of the topics covered in lectures. At the end of the semester, students present their data in the form of a scientific paper. As part of my strong interest in the connection between science and society, I have taught the course Biology and Society for non–biology majors, and in some of the courses that I currently teach (Introduction to Organismic and Evolutionary Biology, Experimental Biology, Cell Biology) I include a class discussion about ethics in the sciences.

I will work with Dean faculty in January 2018 and again during the summer of 2018, for an estimated total of 5.5 days in the capacity of both technical consultant for the purchasing, installation, and initial trouble-shooting of lab equipment and as a consultant on the design of lab experiments, protocols and procedures.

EMMANUEL COLLEGE

I look forward to working with Dean College on this innovative Humanities initiative.
Sincerely,

Liliana Busconi

Liliana Busconi, PhD
Senior Lecturer
Emmanuel College
Biology Department
400 The Fenway-Room 209F
Boston MA 02115

SELECTED PUBLICATIONS (from a total of 40)

1. Avalos AM, Busconi L, Marshak-Rothstein. A. Regulation of autoreactive B cell responses to endogenous TLR ligands. *Autoimmunity* 2010 43: 76-83
2. Green NM, Laws A, Kiefer K, Busconi L, Kim YM, Brinkmann MM, Trail EH, Yasuda K, Christensen SR, Shlomchik MJ, Vogel S, Connor JH, Ploegh H, Eilat D, Rifkin IR, van Seventer JM, Marshak-Rothstein A.J Murine B cell response to TLR7 ligands depends on an IFN-beta feedback loop. *J. Immunol*. 2009 183(3):1569-76.
3. Lenert P, Yasuda K, Busconi L, Nelson P, Fleenor C, Ratnabalasuriar RS, Nagy PL, Ashman RF, Rifkin IR, Marshak-Rothstein A. DNA-like class R inhibitory oligonucleotides (INH-ODNs) preferentially block autoantigen-induced B-cell and dendritic cell activation in vitro and autoantibody production in lupus-prone MRL-Fas(lpr/lpr) mice in vivo. *Arthritis Res Ther*. 2009;11(3):R79.
4. Uccellini MB, Busconi L, Green NM, Busto P, Christensen SR, Shlomchick M, Marshak-Rothstein A, Viglianti GA. Autoreactive B cells discriminate CpG-rich and CpG-poor DNA and this response is modulated by IFN-□. *J.Immunol* 2008 181:5875-5884
5. Busconi L, Bauer JW, Tumang JR, Laws A, Perkins-Mesires K, Tabor AS, Lau C, Corley RB, Rothstein TL, Lund FE, Behrens TW, Marshak-Rothstein A. Functional Outcome of B Cell Activation by Chromatin Immune Complex Engagement of the B Cell Receptor and Toll-like Receptor 9. *J Immunol* 2007 179:7397-7405
6. Busconi L, Lau CM, Tabor AS, Uccellini MB, Ruhe Z, Akira S, Viglianti GA, Rifkin IR, Marshak-Rothstein A.DNA and RNA autoantigens as autoadjuvants.*J Endotoxin Res*. 2006;12(6):379-84.
7. Rifkin IR, Leadbetter EA, Busconi L, Viglianti G, Marshak-Rothstein A. Toll-like receptors, endogenous ligands, and systemic autoimmune disease. *Immunol Rev*. 2005 204:27-42
8. Marshak-Rothstein A, Busconi L, Lau CM, Tabor AS, Leadbetter EA, Akira S, Krieg AM, Lipford GB, Viglianti GA, Rifkin IR. Comparison of CpG s-ODNs, chromatin immunecomplexes, and dsDNA fragment immunecomplexes in the TLR9-dependent activation of rheumatoid factor B cells. *J Endotoxin Res.* 2004 10:247-51
9. Marshak-Rothstein A, Busconi L, Rifkin IR, Viglianti GA. The stimulation of Toll-like receptors by nuclear antigens: a link between apoptosis and autoimmunity. *Rheum Dis Clin North Am*. 2004 (3):559-74, ix. Review.
10. Martín M, Busconi L. A rice membrane-bound calcium-dependent protein kinase is activated in response to low temperatures. *Plant Physiol*. 2001 125:1442-1449
11. Martín M, Busconi L. Membrane localization of a rice calcium-dependent protein kinase (CDPK) is mediated by myristoylation and palmitoylation. *Plant J* 2000 24:429-435