

DIVISION OF EDUCATION PROGRAMS

Narrative Section of a Successful Application

The attached document contains the grant narrative and selected portions of a previously funded grant application. It is not intended to serve as a model, but to give you a sense of how a successful application may be crafted. Every successful application is different, and each applicant is urged to prepare a proposal that reflects its unique project and aspirations. Prospective applicants should consult the Humanities Connections guidelines at

https://www.neh.gov/grants/education/humanities-connections-planning-grants

https://www.neh.gov/grants/education/humanities-connections-implementation-grants

for instructions. Applicants are also strongly encouraged to consult with the NEH Division of Education Programs staff well before a grant deadline.

Guidelines have changed: this document from a previous grant cycle may diverge from current requirements in multiple ways (including narrative length and project design specifications). Humanities Connections grants now offer funding at two levels, <u>Planning</u> and <u>Implementation</u>. Previous sample narratives will not reflect this distinction: they may contain elements appropriate for current Planning grants as well as those called for in current Implementation grants.

Note: The attachment only contains the grant narrative and selected portions, not the entire funded application. In addition, certain portions may have been redacted to protect the privacy interests of an individual and/or to protect confidential commercial and financial information and/or to protect copyrighted materials.

Project Title: An Integrated Pathway for Medical Humanities

Institution: Earlham College

Project Director: Vincent A. Punzo

Grant Program: Humanities Connections

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Summary

Earlham College proposes the development of an interdisciplinary "medical humanities integrated pathway" that will be designed to help students develop a broader, deeper, and more holistic understanding of health care, healing and illness.

The pathway will consist of three components: 1) a constellation of interconnected humanities and social sciences courses focused on health, illness, and medicine, 2) civic engagements related to the medical allied health fields or public health, and 3) a culminating integrative project.

In their research and course work students will explore the cultural and psychological influences that shape experiences of health, healing, and illness as well examine global models and personal narratives of health care. Civic engagements will provide students the opportunity to experience the ways in which conceptual notions of empathy, understanding, care, and dignity are instantiated in health care settings.

All Earlham students will be eligible to participate in this initiative but it will be particularly targeted to those planning for careers in medicine, allied health fields or public health. Since many of the participating students will be majoring in the natural sciences, and faculty representing the humanities and social science divisions will teach the courses, this program necessitates close interdisciplinary collaboration. Further, it will provide the humanities division, at a time of declining enrollment and diminished staffing, a unique opportunity to reposition itself in the curriculum and ensure its future vitality.

This medical humanities pathway will join already established courses in the curriculum with newly developed and substantially revised courses. Students will be required to take a minimum of five courses selected from a broad menu of humanities and social science courses, engage in a co-curricular civic initiative, and successfully complete a culminating project articulating the coherence and interconnection among the components of the pathway.

Grant funds will be primarily used for summer stipends for seven faculty members to create, or substantially revise, the program's core classes. Funds are also requested for stipends for the project's co-directors, two faculty summer workshops, bringing two outside consultants to campus, hourly wages for an administrative assistant for social media dissemination, and the purchase of workshop texts for a total of \$97,607 spread over the two year duration of grant funding.

Evaluation of grant activities will consist of both a formative and summative evaluation. At the end of the grant period the medical humanities integrated pathway will continue as a self sustaining program under the auspices of Earlham's Center for Global Health.

Narrative

A) Intellectual Rationale

"The problem with medicine and the institutions it has spawned for the care of the sick and the old is not they have had an incorrect view of what makes life significant. The problem is that they have had almost no view at all. For more than half a century now, we have treated the trials of sickness, aging and mortality as medical concerns. It's been an experiment in social engineering putting our fates in the hands of people valued more for their technical prowess than for their understanding of human needs."

The preceding epigraph is from surgeon Atul Gawande's recent best selling book "Being Mortal" in which the author presents a sobering account of contemporary medical care in the United States. The nature and substance of Gawande's critique has been echoed in other contemporary works authored by physicians, social scientists, and medical ethicists.² These works contain recurring themes, which have played a significant role in Earlham College's proposal to develop and implement a medical humanities program uniquely tailored to the particulars of our institution. The themes which have shaped our proposed initiative are as follows:

First, the development of increasingly sophisticated and complex medical technology is proceeding at an exponentially dizzying rate, outstripping practitioners' and ethicists' ability to accurately assess the potential costs and benefits of its utilization. At the same time, transformative advances in the fields of genetic engineering, nanotechnology, and the neurosciences are poised to revolutionize the future of medical care at every stage of life. Substantive efforts are now being made to "cure" the natural processes of aging, meaningful distinctions between medical treatment and human

enhancement are being erased; and even the seemingly insuperable boundaries demarcating life and death have become blurred and indistinct due to increasingly effective life-sustaining technologies.

Second, the grounding assumptions of contemporary medical care are built on a reductionist, technocratic worldview which too often impedes personalized encounters between patient and physician. Practitioners trained to employ data-driven, algorithmic responses to patient inquiries may become flummoxed by the need to help a patient frame their illness in a meaningful narrative. Too many patients experience a Kafkaseque sense of depersonalization as they attempt to navigate an institutional landscape in which bureaucratic powers they neither perceive nor understand direct their treatment under the guise of "patient management."

Finally, we are concerned that the current biomedical model of patient care facilitates a slow erosion of both interpersonal and cultural capacities of care and empathy. Biomedical principles of detachment, objectivity, autonomy, universality, and data driven decision making need to be tempered by an enriched understanding of, and appreciation for, values of empathy, subjectivity, relationship, cultural particularity, and narrative. Unless undergraduate medical and health education is reconfigured by the inclusion of these humanistic values, patients and practitioners will grow increasingly estranged both from each other and the healing process itself.

The scope and complexity of the issues defy simple solutions. But there appears to be widespread agreement that, beginning with the undergraduate experience, a more holistic, humane, and person centered model of medical education is desperately needed. Medical and post graduate allied health schools are increasingly receptive to the idea of

educating future health care practitioners through medical humanities programs. In fact, the Association of American Medical Colleges' recently developed list of "core competencies" for entering medical students includes cognitive and social virtues such as cultural awareness, empathy, principled ethical thinking, and service orientation that can be most fully developed in humanities-based course work augmented by experiential service activities.

Future practitioners must be given the opportunity to develop and deepen moral sensibilities as well as hone cognitive skills of discernment, perspective taking, and practical reason. In addition, they need to acquire an expanded awareness of the tacit cultural and institutional assumptions that underlie their own education and practice of patient care.

Most fundamentally what is needed, not just for future medical and health practitioners but for all who encounter those stricken with disease or illness, is the sharpening of one's compassionate moral vision. We want our students to develop a way of perceiving, and responding to, the fullness of the humanity of those burdened by illness and disability rather than reducing them to a constellation of physiological symptoms. We need to emphasize that professional competence and efficacy must always be augmented by ethical acuity, interpersonal sensitivity, and empathy. One must be able to intuit the persistent dignity of the sick and dying, even when hidden by the disfiguring mask of suffering, incapacitation, and pain.

Such qualities are not spontaneously engendered but require a lengthy gestation period. They are best understood as Aristotelian habits which first must be aspired to and then cultivated with repeated practice over time. We seek to cultivate these qualities in our

students through a medical humanities initiative. The goal of medical humanities programs is, as one author puts it, "to remind us that modern medicine should look beyond its technological fixation and reductionism to reconnect with the conditions of disease and the cultural contexts of illness, as well as the myriad ways people cope with them."

At the core of our program will be close engagement with a wide array of medically focused fiction, poetry, philosophical treatises, as well as autobiographical patient narratives. In reading and discussing these works students will intellectually engage the conceptual and existential realities of suffering, finitude, empathy, care, and human dignity. We will also provide the opportunity for students to explore sociological and cultural critiques of the biomedical model and discover alternative models of health care. These classroom experiences will be supplemented by sustained personal experiences in community health care settings and opportunities for personal reflection. Finally, students will be afforded the chance to pursue an integrative project that brings together these three strands of the program. We believe that this constellation of courses, experiences, reflections, and projects occurring over four years of a liberal arts education will provide students ample opportunity to begin to develop the ethical sensitivity and sensibilities that will allow them to someday flourish as health care practitioners.

B) Content and Design

Component #1: Humanities and Social Science Courses.

"Lost in a featureless wasteland of my own mortality, and finding no traction in the reams of scientific studies, intracellular molecular pathways, and endless curves of survival statistics, I began reading literature again:...I was searching for a vocabulary with which to make sense of death, to find a way to begin defining myself..."

A central theme of Paul Kalanithi's heart wrenching, and yet beautiful, account of being diagnosed with terminal lung cancer is the author's attempt to balance his data-driven scientific worldview with a more holistic, humanities-based perspective in order to find meaning, strength, and hope in the midst of suffering and affliction. Kalanithi's poignant work served as the inspirational catalyst for the development of our medical humanities curriculum.

Students will be required to take a minimum of five courses selected from a broad menu of humanities and social science courses (See pages 27-28 in the appendix for a full list of these courses). A few of these courses are already established in our curriculum whereas others (described below) will be new, or substantially revised, courses. Each of these courses will explore medical or health related topics utilizing humanities based perspectives and methodologies. Most of these classes will be interdisciplinary in nature; that is, infused with humanities readings and/or humanistic research methods.

The social science courses will primarily focus on the psychological and social forces that influence and shape individual and cultural experiences of health, illness, healing, and medical care. In contrast, the humanities courses will primarily focus on fictional and autobiographical narratives describing the lived experience of health and healing through the prism of literary, ethical, or theological frameworks.

A useful way to frame the relationship between they two types of courses is to view them in terms of expected outcomes. Generally speaking, the humanities courses, with their focus on personal narratives and lived experiences, will serve to facilitate the development of the students' ethical and moral reasoning as well as deepen their sense of empathy, care, and understanding of intrinsic human dignity. In contrast, the social science

courses will be primarily geared to the formation and development of cultural competency and developing a robust understanding of, and appreciation for, multiple dimensions of diversity in the context of medical and health care environments.

Further, two of the proposed courses and three existing courses are first year interdisciplinary seminar courses with significant humanities content, which would be ideal gateways to the pathway for incoming students. The remaining courses are upper level elective humanities and social science courses. The new and substantially revised courses are as follows:

Medical Humanities (new course)

Instructor: Dr. Vince Punzo; Professor of Psychology

This first year interdisciplinary seminar will explore the human side of medical care in which patients and their doctors confront, and grapple with, the existential realities of affliction, suffering, loss, and healing through the use of novels, short stories, and autobiographical narratives. Students will engage texts which provide a phenomenological view of the lived experience of being stricken with disease or trauma as well as finding empathy and care in the midst of affliction. The historical dangers of viewing human beings solely as means to scientific advancement will also be explored. Students will construct their own "patient narratives" by interviewing someone who has experienced a significant illness. Potential texts: Death of Ivan Illyich, Leo Tolstoy; The Plague, Albert Camus; Chekov's Doctors: A Collection of Chekov's Medical Tales; Breath of Air, Paul Kalanthi; Doctor's Stories, William Carlos Williams; Autobiography of a Face, Lucy Grealy; From Detached Concern to Empathy: Humanizing Medical Practice, Jodi Helpern. Medical

Apartheid: The Dark History of Medical Experimentation on Black Americans from Colonial Times to the Present, Harriet Washington.

Monsters and Marvels (revised course)

Instructor: Dr. Nate Eastman; Professor of English

This alternative first year seminar will focus on the ways that surgeons, doctors, scientists, and medical amateurs have recorded and interpreted extraordinary -- or simply unusual -- conditions and situations of the human body. These include rare diseases and spectacular abnormalities, as well as questions of medical and scientific curiosity: how do bodies respond to days, weeks, or months of zero gravity? What do people learn by working with cadavers, and how are they prepared? Potential texts: *Two-headed Boy, and Other Medical Marvels*, Jan Bodeson; *Of Monsters and Marvels*, Ambrose Pare; *Gulp*, Mary Roach; *Bloodchild*, Octovia Butler.

• The Anthropology of Diagnosis and Healing (new course)

Instructor: Dr. Dan Rosenberg; Professor of Sociology and Anthropology

Students will explore the dynamic and social nature of diagnostic and therapeutic reasoning, drawing on a wide scope of social science approaches to clinical interaction, especially social constructivist perspectives. The course will begin with a consideration of cultural and historical perspectives on medical classification systems, the uncertainties inherent (and resisted) in any diagnostic process, followed by exploration of patient-doctor relationships. The course will explore the extraordinary power conveyed by diagnostic labels, and how they are influenced by forms of authoritative knowledge related to status, gender, ethnicity, and the cultural background of healer and patient and examine contemporary issues, such as the increasing specialization of diagnosis, the distribution of

diagnostic capabilities among diverse medical professionals and patients themselves, and examining how this diffusion of medical authority influences the practice of healing.

Potential texts: *The Effectiveness of Symbols* and *The Sorcerer and his Magic,* Claude Lévi-Strauss; *Our Most Troubling Madness: Case Studies in Schizophrenia Across Cultures,* Tanya Luhrmann (Ed.); *The Anti-Witch,* Jeanne Favret-Saada; *Social Issues in Diagnosis,* Annemarie Goldstein.

Medical Terminology (new course)

Instructor: Dr. Maxwell Paule; Assistant Professor of Ancient and Classical Studies

The Medical Terminology class aims to contextualize the development of Western medical science through an introduction to its Classical origins. It will familiarize students with Greek and Latin roots, suffixes and prefixes so that students will have a functional understanding of the terminology underpinning several anatomical systems, skeletal structures and muscular nomenclature, as well as the terms for related diseases and procedures. Additionally, students will delve into seminal Ancient Greek and Roman medical texts to examine the foundations of medical practice and theory. Potential texts: *Medical Terminology Systems*, Gylys and Wedding; *Greek and Roman Medicine*, Helen King; *Greek Medicine: A Sourcebook*, James Longrigg.

Religion, Mind, and Healing (new course)

Instructor: Dr. Lyn Miller; Professor of Religion

This course will explore a variety of approaches to health that emphasize the interweaving of mind, belief, culture, social relationships, and body in illness and cure.

Primary attention will be given to models that currently interact with and complement Western medicine. This exploration will awaken students to the inseparable connections

between spirit and body, self and other, and to the wisdom that spiritual traditions can bring to the "hard science" of healing. Potential texts: *The Spirit Catches You and You Fall Down: A Hmong Child, Her American Doctors, and the Collision of Two Cultures, Anne Fadiman; The Scalpel and the Silver Bear: The First Navajo Woman Surgeon Combines Western Medicine and Traditional Healing, Lori Arviso Alvord and Elisabeth Cohen Van Pelt; Train Your Mind, Change Your Brain: How a New Science Reveals Our Extraordinary Potential to Transform Ourselves, Sharon Begley.*

Bioethics (revised course)

Instructor: Dr. Marya Bower; Professor of Philosophy

Examining themes and issues in bioethics, like new genetic technologies and health care allocation, students will use theoretical discourse to understand the implications of such biomedical practices within a diverse and multicultural world. New texts will enable students to explore a bioethical theme in more depth from the perspective of an individual or group that has experienced it first-hand. Similar themes from a transnational and international perspective will also be explored. Potential texts: *Intervention & Reflection:*Basic Issues in Bioethics, Ronald Munson; The Immortal Life of Henrietta Lacks, Rebecca Skloot; Speed of Dark, Elizabeth Moon; My Stroke of Insight: A Brain Scientist's Personal Journey, Jill Bolte Taylor; Imbeciles: The Supreme Court, American Eugenics, and the Sterilization of Carrie Buck, Adam Cohen.

Narratives in Neuroscience (revised course)

Instructor: Dr. Kathy Milar; Professor of Psychology

Investigation of the behavior of individuals whose brains work differently whether due to accident, genetics, infectious disease, or environment, can help us understand the

normal functioning brain. A combination of readings of scientific works about the brain written for non-scientists and different types of narratives: poems, plays, novels, case studies and memoirs, will allow students a glimpse of the human impact of altered brain function. Potential texts: *Synaptic Self*, Joseph Ledoux; *Phantoms in the Brain*, V.S. Ramachandran & Sandra Blakeslee; *Pride and the Daily Marathon*, Jonathan Cole & Ian Waterman; *Molly Sweeney*, Brian Friel; *Fixing My Gaze*, Susan Berry.

Religion and Psychology: Mapping Selves (revised course)

Instructor: Dr. Lyn Miller; Professor of Religion

This course will be an experiment in collaborative learning and self-reflection. Some questions that will be explored include: is the self purely an effect of neurological processes in the brain? Is there a soul or consciousness that precedes and exceeds the brain? How might this be possible? Is the "I" primarily biological, or fully socially constructed, or a mere linguistic device to designate the subject of experience? Is the self enclosed within one's own skin or co-extensive with the ecosphere, our social environment, the divine? What difference does the rhetoric used for the self, reality, and truth make to human possibility and ethical conduct? Potential texts: *Becoming Animal: An Earthly Cosmology*, David Abram; *Mapping the Mind*, Rita Carter; *Consciousness Beyond Life: The Science of the Near-Death Experience*, Pim van Lommel; *The Immortal Life of Henrietta Lacks*, Rebecca Skloot.

Component # 2: Participation in civic engagements related to medical or allied health field. Students will be required to participate in a co-curricular activity that will provide an experiential component to the integrated pathway. These activities must meet the following criteria: They must be: a) active (that is, not simply attending a lecture or

conference); b) sustained (not simply participation in a one day event); c) public (a civic activity rather than privately reading a text or writing a paper); and d) reflective: (students must have the opportunity to review and reflect on their experience in a written format). Students will be given the option of selecting an opportunity from a pre-approved list or petitioning the program's director for approval of an alternative.

Examples of pre-approved engagements would include: On-campus leadership in the planning, development, implementation, and evaluation of events such as the Health Club Blood Drive, National Health Week, or Special Olympics; volunteering at regional health care settings such as Reid Hospital, Wayne County Health, Friends Fellowship, Premier Hospice, and Richmond State Hospital or job shadowing with doctor and nurse practitioners, physical therapists, or optometrists at regional health care settings (A table of pre-existing opportunities is provided on page 29 of the Appendix).

Component #3: Culminating Experience. This component will take various forms but it is essential that the project include a reflective and integrative component. That is, students must pull together the threads of their course work and civic initiative and articulate the coherence among them. More specifically, the culminating research experience will likely take one of four forms:

a) Participation in a summer research project under supervision of a faculty mentor followed by a formal presentation of the project – This option requires that a student work closely with a particular member of the medical humanities faculty to undertake a research project that may include both humanistic and empirical methodologies.

- b) A faculty supervised medical narrative project Many of the proposed new or revised courses will include medical narratives in which patients or their doctors describe an individual's experience with illness. Using qualitative interview methods and interweaving theories and concepts from previous course work, students can compose their own medical narrative.
- c) Final project for courses For students taking their final course within the pathway (after completing the civic initiative), the final course project could serve as the culminating research project. These projects may be formally presented at Earlham's Annual Research Conference or the Celebration of Scholar Days.
- d) Extensive community engagement project or internship A student could undertake an extensive (spanning multiple semesters) community engagement project that is supplemented with relevant humanities readings selected together by the student and their faculty director. Students would write multiple self-reflective papers incorporating their experiences with their reflections on the readings. The student's integrative project would be presented at our Celebration of Scholar Days.

C) Collaborative Team Roles and Responsibilities

Dr. Vince Punzo; Professor of Psychology: program co-director. Dr. Punzo's responsibilities will include scheduling, agenda setting, and convening workshops.

Primary responsibilities will include timely submission of NEH reports and conduct of program evaluations. He will serve as point person for inquiries about program and promote and publicize the integrated pathway to the student body and external audiences.

Dr. Michael Deibel; Professor of Chemistry: program co-director. Dr. Deibel is co-director of Earlham's newly established Center for Global Health and is also one of the

institution's pre-med and allied health field advisors. He will serve as the point person to the natural science division for this initiative. Responsibilities will include ensuring that the Medical Humanities initiative has an institutional home under the Center for Global Health. He will also take an active role in promoting and publicizing the integrated pathway to science, premed, and allied health students. Finally, he will assist in convening the summer workshop and serve as the point person for faculty/student and external inquiries about program.

Humanities Project Representative: Dr. Marya Bower; Professor of

Philosophy. Dr. Bower will serve as the project's humanities point person.

Responsibilities will include promoting humanities divisional interests in the initiative.

Jana Schroeder; Director of Community Engagement. Ms. Schroeder will help develop and maintain relationships with community partners and work with individual students to select a civic initiative which best fits their interests and abilities.

Visiting Scholars: Dr. Julia Nelson Hawkins; Associate Professor of Classics at The Ohio State University and Dr. William H. Schneider (Professor of History at Indiana University and founding director of the Medical Humanities and Health Studies Program). Dr. Nelson Hawkins' first visit to Earlham engendered the initial discussions which eventually led to this NEH proposal. Dr. Schneider has proved helpful to us as we began to plan out the scope of our program. We are delighted of their willingness to continue to work with us. We plan to have them both visit our campus at least once, and perhaps twice, during the grant period to provide us with continued guidance on establishing a strong medical humanities program.

Community Partners: Reid Hospital, Wayne County Health Department, Premier Hospice, Richmond State Hospital, Friends Fellowship, Quaker Heights Care Community, Cutting Edge Physical Therapy, Whitewater Eye and Surgical Center.

Stages of development, planning activities. The process that has led to this proposal has involved the close collaboration of faculty from the humanities, natural science, and social science divisions. In our outline of our activities contained in the appendix (see page 25-26) we begin by describing the foundational work already completed and then outline future steps contingent on the success of this proposal.

Guiding Texts. The faculty involved in this initiative have a wide range of experiences, academic interests, and intellectual perspectives so there is no clear consensus on the foundational works that have led to each individual's participation in the initiative. However, the following texts have served as literary "touchstones" which we found ourselves repeatedly returning to during our discussions. If there is a shared premise in these works it is the focus on the central importance of ensuring that institutional systems provide treatment to the ill and sick that is in accordance with their dignity as human persons. Several of these works also emphasize the importance of being cognizant of how sociocultural factors shape patient care and its experience. *Humanitas*: Readings in the Development of the Medical Humanities by Brian Dolan; Breath of Air by Paul Kalanithi; Being Mortal: Medicine and What Matters in the End by Atul Gwande; Being *Human: Core Readings in the Humanities* edited by Leon Kass; *Human Dignity and Bioethics:* Essays commissioned by the President's Council on Bioethics; *Health Humanities Reader* edited by Therese Jones; Death of Ivan Illyich by Leo Tolstoy; The Spirit Catches You and You Fall Down by Ann Fadiman.

D) Institutional Context

In recent years the humanities division of Earlham College has undergone a period of significant transition. According to our Office of Institutional Research, divisional course enrollments in the last decade have shown significant decline from 19.1% in 2006 to 14.4% in 2015-16 (as percentage of student body). In that same time span, the percent of students graduating from Earlham with a humanities degree declined from 21% to 10%. Further, the English, philosophy, and religion departments have experienced significant reductions in faculty staffing. Finally, it should also be noted that Earlham's current general education requirements are divisionally rather than disciplinary based such that students are no longer required to take any Philosophy, Religion, English, or Ethics classes to fulfill graduation requirements.

At this time there does not exist a strong curricular relationship between the social science and humanities divisions. Students tend to perceive and experience these divisions as functionally discrete, non-overlapping entities. The exception to this rule is found in our interdisciplinary programs like Human Development/Social Relations and Peace and Global Studies. But even there, the influence of the humanities is waning as some departments are increasingly unable to contribute elective courses to these programs.

As a result of these institutional realities, as well as broader cultural trends, the humanities division is seeking innovative ways to become more fully integrated into the general curriculum. We believe that the best approach is to seek to capitalize on the already established widespread student interest in medicine and health by forging interdisciplinary links to those topics in both science and social science classes across the curriculum. As students experience a broader range of classes from the humanities, we

believe there is the potential of engendering more widespread interest in these courses.

Students who discover the benefits of humanities courses directly related to their majors may well be persuaded to explore other areas outside their initial field of interest.

Supporting Institutional Resources.

Center for Global Health: This center is under the directorships of Dr. Deibel and Dr. Peter Blair. The Center will play a vital role in publicizing the medical humanities initiative to both internal and external audiences as well as ensuring the long-term sustainability of the initiative. The Center will assume full ownership of the initiative and ensure its continuation after grant funding has expired.

Center for Career and Community Engagement: This center will serve as the primary resource in assisting students in finding civic engagements that fulfill the requirements for the integrated pathway. Our Career Counselors, Director of Community Engagement, and Director of Internships work in conjunction to develop and maintain relationships with community partners and work with students to select civic initiatives which best fit their individual abilities and interests. Debbie York (Indiana Pathways Assistant) and Jana Schroeder (Director of Community Engagement) will lead these efforts.

Earlham College Research Libraries: Research librarians familiar with the goals of the medical humanities program will work with individual students and their faculty supervisors on researching and completing the culminating research project.

E) Impact and Dissemination

A successful medical humanities pathway will: 1) provide students majoring in the natural sciences an opportunity to integrate humanities based perspectives into their field of interest; 2) strengthen the college's commitment to inter-disciplinarity; and 3) forge

sustained collaboration between the natural science, social science, and humanities divisions thus ensuring that we reverse the trend of disciplinary fragmentation and divisional isolation. Finally, we also aspire to another, perhaps more intangible, outcome. In the epilogue to "A Breath of Air" Lucy Kalanithi describes her late husband's book as "a culmination of his love for literature. . . . and his ability to forge from his life a cogent powerful tale of living with death." It is our hope that the students in our program may begin to glimpse, however tenuously, the ways in which those two seemingly incongruent qualities are, in fact, deeply and inextricably intertwined.

Disseminate project outcomes beyond institution: We have budgeted funds to be able to pay a part-time administrative assistant to establish a social media footprint for the program on Facebook, Twitter, and other social media sites. The co-directors of the program will also write and submit for publication an article detailing the unique structure, format, and goals of our undergraduate medical humanities program via the National Association of Advisors for the Health Professions on-line and paper journal titled "The Advisor." Finally, we will present the results of our efforts at a conference, for example the annual Western Michigan University Medical Humanities Conference.

E) Evaluation

It is important to note that the overall efficacy of our program will be best assessed a few years after the conclusion of the grant period. Nevertheless, at the conclusion of the 24-month grant initiative, we will be able to assess its initial trajectory. To do so, we will conduct both formative and summative evaluations of our project. The formative evaluation will take place after one year of grant activities (summer of 2018) at which time we will compile the following information: number of students enrolled in the pathway;

number of students enrolled in newly developed or substantially revised courses; student participation in civic engagement activities; number of students on track to complete the pathway by their date of graduation; and number of civic engagement activities undertaken by students. We will also assess the progress faculty members have made in creating or revising courses for the program.

At the end of the second year of grant activities (summer of 2019), we will compile the same information that was part of the formative evaluation for comparison purposes within the summative evaluation. Project co directors will also write a "Lessons Learned White Paper" which will focus on curricular impact, student impact, institutional impact, level of collaboration and integration among faculty, and perhaps most importantly, an estimation of future trajectory of the program. We believe the real impact of this initiative will be fully known four to six years after implanting program initiatives.

We end with a final reflection. In perhaps the most well known and widely used text in Medical Humanities programs, Leo Tolstoy's classic novella "The Death of Ivan Illyich," Ivan's physical suffering is exacerbated by the hubris of his physician and the callousness of his daughter, Lisa, who Tolstoy depicts as "impatient with illness and suffering which interfered with her happiness." However in his final moments Ivan is released from his psychic pain through a single consoling gesture of care. We hope that our students discover essential life lessons in such narratives, which so indelibly portray the healing power of the empathic touch.

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¹ Atul Gawande, *Being Mortal: Medicine and what matters in the end.* (New York: Metropolitan Books, 2014), 128.

² Ira Byock *Dying Well*, (New York: Riverhead Books, 1998); Jeffrey Bishop, *The Anticipatory Corpse*, (Notre Dame: University of Notre Dame Press, 2011); Julian Savulesu

Enhancing Human Capacities, (New York: Wiley Blackwell, 2011), James Giordano (ed). *Neurotechnology: Premises, Potential and Problems*, (Florida: CRC Press, 2012).

- ³ Brian Dolan; *Humanitas: Readings in the Development of the Medical Humanities*; p. 2.
- ⁴ Paul Kalanithi, When Breath Becomes Air, (New York: Random House, 2016), 148.
- ⁵ Ibid. 221
- ⁶ Leo Tolstoy, *The Death of Ivan Illyich*, (Bantam Classics, 1981), 95.

Plan of Work

Completed Planning Activities

- October 6, 2015: Dr. Julia Nelson Hawkins, Associate Professor of Classics from The
 Ohio State University, delivers a presentation at Earlham College titled "Medicine
 and Humanities: Ancient and Modern."
- May 11-12, 2016: Medical Humanities summer workshop convened by Dr. Deibel and Dr. Punzo and supported by funding obtained from Earlham's Office of Academic Affairs and the Center for Global Health. Eleven faculty members representing three divisions and six academic departments endorsed establishing a medical humanities integrated pathway and agreed upon some fundamental principles for the program. Discussion of possibility of submitting a NEH Humanities Connections grant proposal focused on a medical humanities initiative.
- September 1-December 15, 2016: With funding secured from Earlham College, Dr. Punzo and Dr. Deibel institute a Medical Humanities Teaching and Reading Collaborative.

Grant-funded Activities

- Summer of 2017: Multiday workshop for team members, including planning activities and exploring best practices of undergraduate medical humanities programs across the country. Faculty members develop and revise courses to be offered in academic year 2017-2018.
- August: 2017: Implementation of the Integrated Pathway within the curriculum with the first offerings of new or substantially revised courses. All grant proposed courses will be developed and offered by Spring 2019.

Fall 2017 or Spring 2018: Dr. Nelson Hawkins returns to Earlham as a consultant on establishing a successful Medical Humanities program. Dr. William Schnieder also visits Earlham to provide his perspective and work with faculty affiliated with the initiative.

Summer of 2018: Multiday workshop for team members and outreach to new faculty who may want to be involved in the program. Faculty members develop and revise courses to be offered in academic year 2018-2019.

Fall 2018 or Spring 2019: Dr. William Schnieder returns to Earlham to continue work with faculty affiliated with the initiative.

May of 2018: First Formative Evaluation

July of 2019: Summative Evaluation Submitted to NEH

List of Medical Humanities Integrated Pathway Courses

Earlham College's Integrated Pathway in Medical Humanities will be comprised of New, Revised, and Established courses. New and Revised courses will be developed with funding from the NEH Humanities Connection grant and are described in the Narrative. Brief descriptions of the Established that are currently being taught are given below.

Students must take at least 5 courses from the following list to earn the Medical Humanities Integrated Pathway designation.

First Year Seminars

Psychology	Medical Humanities	Vince Punzo	New
English	Monsters and Marvels	Nate Eastman	Revised
English	Stories of the Body: Medicine and Literature	Shena McAuliffe	Established

This first year seminar posits that illness, dying, and healing are central to the human experience and explores the intersection of humanities and medicine through poetry, fiction, and essays.

Upper Level Courses

Sociology/	The Anthropology of Diagnosis and	Dan Rosenberg	New
Anthropology	Healing		
Classical	Medical Terminology	Maxwell Paule	New
Studies			
Religion	Religion, Mind, and Healing	Lyn Miller	New
Philosophy	Bioethics	Marya Bower	Revised
Psychology	Narratives in Neuroscience	Kathy Milar	Revised
Religion	Religion and Psychology: Mapping Selves	Lyn Miller	Revised
Psychology	Behavior, Health Care and Society	Rachael Reavis	Established

This introductory course is designed to help students interested in health professions realize how psychological and social factors may influence the type of care they might provide. They explore the influence of behavior on physical and mental health, how values guide decision-making, and ethical issues that health care professionals face.

Sociology/	Biotechnology in the Context of Global	JoAnn Martin	Established
Anthropology	Capitalism		

This course raises questions related the unequal distribution of health care and how changes in patent law make it possible to interpret cells as waste material from which researcher can profit.

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Psychology	Brain and Behavior	Kathy Milar	Established
	dy the mechanisms of learning and memory to the mechanisms of learning and memory to the mechanisms of learning and memory to the memory to the mechanisms of learning and memory to the memory of the memory o		n dissection,
Psychology	Cradle and Grave	Vince Punzo	Established
switches to the include prena acquisition, a covers the ph	covers infant development from conception to he psychology of death and dying. Topics dur atal development, neurological and motor de and cognitive and socio-emotional growth. The aysiological and psychological aspects of the of a grief and loss.	ring the first part of velopment, langua te second half of th	the course ge e semester
Environment al Studies	Environmental Racism and Community Health	Deb Jackson	Established
disproportio	nsiders how pollution from industrial activiti nately borne by some, i.e. environmental inju onsidered, health problems are at the center o	stice. While a rang	
Sociology/ Anthropology	Health, Medicine and Society	Dan Rosenberg	Established
	mine health, illness and medical care with a f of health and health care institutions, and on		
Psychology	Health Psychology	Beth Mechlin	Established
	s an introduction to health psychology, which ehavior and health.	n explores connecti	ons between
Psychology	Psychoactive Drugs and Behavior	Beth Mechlin	Established
Students investigate the psychological, physiological and pharmacological aspects of both legal and illegal drug use as well as abuse and then examine the effects of drugs on both an individual level as well as a societal level.			
Psychology	Stress and Health	Beth Mechlin	Established
	amines the physiological stress response, mees, chronic stress, and the effects stress has or		

List of Medical Humanities Civic Engagement Opportunities

Opportunity Type	Medical Area	Community Partner	
8-week Internship	Biomedical Research	Herman B. Wells Center for Pediatric Research	
8-week Internship	Public Health	IU Fairbanks School of Public Health	
8-week Internship	Biomedical Research	Stark Neuroscience	
Job Shadowing	Veterinary	Animal Care Alliance	
Job Shadowing	Physical Therapy	Cutting Edge	
Job Shadowing	Drs. & Nurse Practitioners	Reid Health	
Job Shadowing	Clinical Area Environmental Area	Wayne County Health Department	
Job Shadowing	Optometry & Ophthalmology	Whitewater Eye & Surgical Center	
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Leadership/Organization	Health Club Blood Drive	Red Cross	
Leadership/Organization	National Health Week	Joseph Moore Museum	
Leadership/Organization	Disability Services	Special Olympics	
Volunteering	Veterinary	Animal Care Alliance	
Volunteering	Hospice	Friends Fellowship	
Volunteering	Hospice	Premier Hospice	
Volunteering	Cancer Care Cardiac Rehab Health Information Management Medical Education Orthopedics Outpatient Rehabilitation Physical Therapy Transitional Care Volunteer Organization	Reid Health	
Volunteering	Mental Health	Richmond State Hospital	
v orunicering	Michai Heath	Memmona state mospital	