Detail from Diego Rivera *Detroit Industry* fresco cycle in the Garden Court, Detroit Institute of Arts. Image courtesy of the Detroit Institute of Arts.
The Medical Arts Program is an initiative of the University of Michigan Medical School and University Musical Society:

and the following campus partners:

The Medical Arts Program is made possible in part by a grant from:

Association of Performing Arts Presenters Creative Campus Innovations Grant Program, funded by the Doris Duke Charitable Foundation

and is supplemented by additional funds from:

Sanjay Saint, MD, MPH
James Stanley, MD
Joel Howell, MD, PhD
The University of Michigan Medical School Program in Society and Medicine
Executive Summary

Superb patient care requires much more than simply applying practice guidelines and insights from the natural sciences to the bodies of human beings. Excellent clinical medicine also includes an appreciation of the essential elements of humanity, a generous dose of empathy, and an understanding that the medical craft can be understood and practiced only within a specific social context.

One powerful way for clinicians to understand better the humanistic elements of healthcare is to consider the works of great artists in the musical, theatrical, literary, and visual arts. The arts can offer insight into the nexus between society and medicine with an intensity and fidelity that may be unavailable through other means. The Medical Arts Program intends to enhance medical students’ and house officers’ ability to provide high-quality clinical care through experiences with and analysis of the arts. To that end, The Medical Arts Program has four Specific Aims: (1) To develop a curriculum that enhances medical students’ and house officers’ ability to provide high-quality, humanistic clinical care through experiences and analysis of the musical, dramatic, and visual arts; (2) To evaluate the curriculum’s success in improving clinical care; (3) To achieve sustainability of the curriculum by means of continued external funding; and (4) To disseminate the results of this program.

We made substantial progress in fulfilling aims 1 and 3 in the Program’s first year of existence, which culminated in the University Musical Society and The Medical Arts program being awarded a 21-month grant from the Association of Performing Arts Presenters Creative Campus Innovations Grant Program, funded by the Doris Duke Foundation, in August 2010. With this funding, we were able to continue this progress and to widen our focus to aims 2 and 4.

Eight Medical Arts events took place in the 2010-2011 academic year, with 127 participants (including faculty learners) across all events. We assessed each event using both qualitative and quantitative metrics. In brief, learners found that the discussions enhanced their appreciation of the art and noted the close connections between the events they attended and their own work as physicians.

We spent much of the year developing a mixed-methods approach to more formally evaluate the impact of the Medical Arts Program on learners and plan to implement these evaluative tools next academic year.
Medical Arts learners studying the Diego Rivera frescoes in the Garden Court of the Detroit Institute of Arts

“[It is interesting to think about how we have to interpret patients similarly to unlocking a painting. Medicine becomes an art when we make it patient-centered.”

-- From a learner who visited the DIA

Introduction

Superb patient care requires much more than simply the careful, rigorous application of practice guidelines and insights from the natural sciences to the bodies of human beings. Excellent clinical medicine also includes an appreciation of the essential elements of humanity, a generous dose of empathy, and an understanding that the medical craft can be understood and practiced only within a specific social context.

One powerful way for clinicians to understand better the humanistic elements of healthcare is to consider the works of great artists in the musical, theatrical, literary, and visual arts. Many of these artists addressed issues central to healthcare, such as human joy and suffering, pestilence and prosperity, and devotion and despair. Some artists have also grappled with the sorts of profound questions that so often come to the fore when people are ill, such as the purpose of life, while other artists have powerfully reflected on their own sickness, disability, aging, and impending death. In short, the arts can offer insight into the nexus between society and medicine with an intensity and fidelity that may be unavailable through other means. The Medical Arts Program intends to enhance medical students’ and house officers’ ability to provide high-quality humanistic clinical care through experiences with and analysis of the musical, dramatic, and visual arts. To that end, the Medical Arts Program
(Medical Arts) has four specific aims: (1) To develop a curriculum that enhances house officers’ ability to provide high-quality, humanistic clinical care through experiences and analysis of the musical, dramatic, and visual arts; (2) To evaluate the curriculum’s success in improving clinical care; (3) To achieve sustainability of the curriculum by means of continued external funding; and (4) To disseminate the results of this program.

The Medical Arts Program is supported in part by the Association of Performing Arts Presenters Creative Campus Innovations Grant Program, funded by the Doris Duke Charitable Foundation. We were delighted to receive this highly competitive grant in August 2010.

Our funding from the Doris Duke Charitable Foundation is supplemented by additional funds from Sanjay Saint, MD, MPH, James Stanley, MD, and Joel Howell, MD, PhD, and through the Medical School Program in Society and Medicine.

The Creative Campus Grant enabled us to expand the program to include opportunities for learners to interact with visiting and local artists. We were gratified by the outpouring of support from internationally prominent artists who see great value in working with medical learners. The award also enabled us to enhance the quality of our evaluations. We will continue to document the impact of the program on medical students and house officers, and are currently designing a methodology to measure those effects.

Medical Arts learners studying "The Dead Soldier" (1789) by Joseph Wright of Derby, at the University of Michigan Museum of Art (UMMA)
“It reinforced the notion that in order to be a good physician one has to be a good listener first.”

-- From a learner who attended the UMMA tour

The events

Eight Medical Arts events took place in the 2010-2011 academic year.

Table 1: Medical Arts Events 2010-2011

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Venue</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tackàcs Quartet¹</td>
<td>October 13, 2010</td>
<td>East Conference Room (Fourth Floor), Rackham Graduate School; Rackham Auditorium</td>
<td>Panel Discussion with Quartet</td>
</tr>
<tr>
<td>UMMA Tour/ Dinner²</td>
<td>November 2, 2010</td>
<td>University of Michigan Museum of Art (UMMA)</td>
<td>Ruth Slavin, UMMA Director of Education; Pam Reister, Associate Curator for Education</td>
</tr>
<tr>
<td>Stephen Nachmanovich</td>
<td>December 5, 2010</td>
<td>UMMA</td>
<td>Stephen Nachmanovich, Violinist and Educator; U-M Professor Gary Hammer</td>
</tr>
<tr>
<td>Sequentia with Director Benjamin Bagby³</td>
<td>January 26, 2011</td>
<td>The Blue Nile restaurant; St. Francis of Assisi Catholic Church</td>
<td>Benjamin Bagby, Director of the medieval music group Sequentia</td>
</tr>
<tr>
<td>Merce Cunningham Dance Company⁴</td>
<td>February 16 and 18, 2011</td>
<td>UMMA; Power Center</td>
<td>Trevor Carlson, MCDC Executive Director; David Vaughn, MCDC Archivist; Christine Bratton, MCDC Physical Therapist; UM Professor Nicholas Delbanco; Joel Howell</td>
</tr>
<tr>
<td>Rae Armantrout</td>
<td>March 22, 2011</td>
<td>Vinology</td>
<td>Rae Armantrout, Poet</td>
</tr>
<tr>
<td>Propeller Theatre Company &amp; Richard III</td>
<td>March 30 and April 1, 2011</td>
<td>The Blue Nile; Power Center</td>
<td>University of Warwick Professor Carol Rutter and U-M Professor Carol Hodgdon</td>
</tr>
<tr>
<td>Detroit Institute of Arts</td>
<td>June 5, 2011</td>
<td>Detroit Institute of the Arts (tour) and Pegasus Taverna in Greektown (dinner)</td>
<td>Pam Reister &amp; Ruth Slavin, of UMMA; DIA Educators</td>
</tr>
<tr>
<td>Year-end evaluative discussion with frequent attendees</td>
<td>May 25, 2011</td>
<td>The Earle</td>
<td>Joel Howell, Victor Vaughan Professor of the History of Medicine; Sanjay Saint, Professor of Internal Medicine</td>
</tr>
</tbody>
</table>

¹ For event program, see Appendix 1.
² For list of works of art discussed, see Appendix 2.
³ For event program, see Appendix 3.
⁴ For event program, see Appendix 4.
Sequentia director Benjamin Bagby speaks to Medical Arts Program learners about medieval music at the Blue Nile

“(The artist’s) biggest challenge seemed to be the translation of an art form that is largely unfamiliar to the general public. In many ways this is what we have to do in medicine: take our medical information and language and translate in a way that is understandable to a lay person. We not only have to make the information understandable... but we have to make it something that our patients can easily adopt, understand and use in their own lives.”

– Learner at the Sequentia event
Attendance

There were a total of 127 learners across all events, with many attending more than one event. While several attendees came to these events having had previous experience as an artist, often at a relatively high level, others were relatively new to the arts. Many events were hugely oversubscribed – we tried to allow as many people as possible to participate in at least one event. The following figures provide further detail on event attendance.

**Figure 1: Total Attendees By Level** (HO: House Officer; M4, M3, M2, M1: fourth-, third-, second, and first-year medical students. “Other” includes faculty and special guests.)

![Total Attendees by Level](image)

**Figure 2: Attendance per event**

![Number of Learners](image)
Evaluation activities

Surveys: Surveys were distributed to learners following each event. Open-ended questions asked of learners included:

- What part of the event did they enjoy the most or find the most valuable?
- What connections did they perceive between their experiences at the event and their work as a physician (or their medical school experiences)?
- (For museum visits) Did the event make them want to spend more time at the museum?
- What suggestions did they have for future events?

Multiple-choice and Likert scale questions inquired into topics including:

- Whether dinner and discussion with the artists enabled learners to have a deeper understanding of the event;
- Whether learners perceived relationships between the artists’ performances or careers and their own work in medicine;
- To what extent learners thought the experience made them better physicians;
- What program formats learners were interested in;
- Whether they wanted to participate in another Medical Arts event; and
- What types of content they were interested in (dance, music, theater, book discussions, visual arts, or other)

We received a total of 108 evaluations. The responses evidenced some clear thematic patterns. Below we offer some selected quotations from learners’ qualitative responses.

In particular, the question “What connections did you perceive between your experience with the performance and your medical world?” elicited a number of interesting responses across multiple events. Consider these responses from learners at the Sequentia event, which relate to the important (and difficult) task of doctor-patient communication:

- “One connection may be a greater cultural appreciation of a genre of music from a group of individuals I knew next to nothing about. In my medical career, relating to people with different backgrounds will be a constant challenge.”
- “I thought a bit about how present-day notions of medical science might, after several centuries, be perceived with the same kind of benevolent condescension now afforded to ideas like... gem-based healing.”
- (Referring to the fact that the songs were in Latin) “At the concert I felt as if the audience shared a position similar to what patients must hold in the face of their physicians; the performers spoke another language, of which we had only a disembodied translation . . .”
Faculty and learners discussing “eye-opening” parallels between medical practice and string quartet playing at the Tackacs Quartet dinner discussion. The group attended the quartet’s concert the following evening.

And after a discussion of Shakespeare’s Richard III, perhaps unsurprisingly, many learners felt that the play’s depictions of disease and death struck close to home and reflected on their own process of learning to care for patients.

- One noted that “Shakespeare’s perspective on death enhances and deepens my own. As I encounter dying patients, Richard III will potentially offer insight into their experience.”
- Another commented on how important it was to “interpret all the signs patients present with . . . we as physicians must look past the explicit symptoms with which patients present.”

Learners at the Merce Cunningham Dance Company presentation heard discussions of movement, creativity, decline, and demise especially as experienced in the last years of the company’s founder:

- “Dinner discussion with Christine, the PT (physical therapist) for Merce’s company was very interesting, especially hearing about ways art was incorporated into healing. For instance, she was telling me about how dance was used as rehabilitation for people with Parkinson’s disease.”
- “The discussion gave me a new appreciation for how to approach older patients... It also emphasized the utility of movement - either through continuing exercise or physical therapy if necessary - that I think is key to maintaining independence for older individuals.”
- “I learned a lot from hearing about how Merce adapted to the changes in his ablebodiedness.” Another learner: “It was inspiring to hear how Merce kept working until the end of his life.”

The “lemon game” with improvisational violinist and creativity teacher Stephen Nachmanovitch helped train learners to hone their senses, an invaluable skill for a practicing physician. The game is described
by Medical Arts Program Administrator Michael Michelon at

- “(I)Just starting the session with such an involved and out of the ordinary activity, really forced us
to jump right into the questions and debates of the evening.”
- “The entire experience with the lemon was representative of a patient experience. Each patient
is an individual experience, and you can't blindly stereotype and categorize a patient without
identifying their individual characteristics. Each lemon has subtle differences that make their
existences unique, just like a patient.”
- “I felt that focusing the differences in each lemon beyond the general classification of lemon
was applicable to focusing on the individuality of patients despite classifying people into specific
diagnoses.” Or, as another student put it, “to try to understand patients in more than a
superficial sense, despite time and resource constraints.”

Learners enjoy the opportunity to learn over dinner from Pulitzer-prize winning poet Rae Armantrout

Learners at the UMMA and the DIA trips were asked to interpret art works and to provide evidence for
their conclusions. Several learners noted the connection between this exercise and their own work as
physicians:

- “We spent making observations of a painting where we needed to use clues to support our
ideas about the work of art. The process was similar to the process of evaluating a patient and
making choices based on evidence gathered during the encounter.”
- “(A)s physicians we will need to learn how to read people’s emotions and the first pieces of art
really focused on that.”
- “(S)eeing a piece of art as something that must be understood on a deeper level . . has
significant implications for practice as a physician.”
- “The station where we had to interpret the painting but provide evidence was a good exercise in
seeing how appreciating art would benefit us in the art of diagnosis.”
• “Taking the time to observe a work of art, & then to describe one’s impressions is a skill that is very useful in medicine and something that students & physicians do every day when describing a patient’s illness.”
• “During the tour we were asked to observe works of art and comment on things we saw as well as provide evidence for our observations. This is similar to what we must do as physicians on a daily basis.”
• “Approaching a work of art is just like approaching a patient; w/o knowledge of the artist’s background and motive, all the attempts at interpretation will be incomplete; w/o careful inspection of the a work of art, impression will be lacks; and if the above two are not synthesized, final “assessment and plan” will be missed. Luckily, in the arts, no one will be harmed.”

The poet Rae Armantrout spent three days at the University of Michigan in a very special residency, co-sponsored by The Medical Arts Program, the Master’s in Fine Arts Program, and the Cancer Center. She discussed her own experiences with cancer at an event in the hospital and at a joint dinner with medical students and fine arts students. Learners enjoyed the opportunity to make linkages across campuses, one calling it a “chance to “expand beyond the bubble of the medical school community.” Learners from both groups asked for more such events. They also commented that:
• “We rely on narratives like Armantrout’s to guide us in understanding our patients.”
• Another said that “The event was a nice reminder that the emotional response to illness can be as important as the physiological response, if not more.”

“It was interesting to hear a lay person's account of their medical encounters and I think it will make me reflect more on how I interact with patients and families. There is more that occurs during a patient-physician encounter than the medical discussions. Our body language toward the patients' caregivers, our interactions with them can also have a significant impact on the relationship and this is something I will be more conscious of in the future.”

– Learner at the Merce Cunningham Dance Company event, February 2011
Website

To share updates and information about its activities with participants, other stakeholders, and the general public, we launched a website in fall 2010 at http://themedicalarts.med.umich.edu. The website features an up-to-date list and detailed descriptions of all Medical Arts events held to date; information about its leadership, funders, and purpose; slideshows of photos taken at each event; and links to the artists and performers featured at each event.

![Learners at the DIA tour](image)

Program goals: 2011-2012

Our principal goal for the 2011-2012 program year is to more precisely measure outcomes for learners using namely, validated survey instruments and qualitative analysis of learners’ prose. The Program received plentiful feedback from learners at this year’s events about how to improve future programming. We intend to assemble a schedule of events that reflects their suggestions. We are working with our partner UMS to take advantage of the remarkable talent featured on their 2011-2012 season roster, giving learners the opportunity to interact with more of the world-class artists UMS brings to Ann Arbor.
Learners at the Rae Armantrout event listen to Associate Professor of Internal Medicine and former Shakespearean actor Gary Hammer read a poem

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Appendices: Event details

Appendix 1: Tackàcs Quartet Program

Schubert: Quartettsatz in c minor, D. 703


Schubert: String Quartet in d minor, D. 810 (“Death and the Maiden”) (1824)

Appendix 2: Objects discussed at UMMA

Giulio Carpioni, "The Death of Leander," ca. 1655, oil on canvas

Charles Philips, “The Edwards Family on a Terrace," 1732, oil on canvas

Joseph Wright, "The Dead Soldier," 1789, oil on canvas

John Hoppner, "Nature, When Unadorn’d, Adorn’d The Most,” 1794-5, oil on canvas

Artist unknown, "Dysmas, The Good Thief on the Cross," ca. 1520, walnut

Juan de Valdés Leal, "The Annunciation," 1661, oil on canvas

Guglielmo della Porta, "The Deposition of Christ," ca. 1564, bronze

Defendente Ferrari, "Eve Tempted by the Serpent," 1520-5, tempera on panel mounted on panel


Théodore Géricault, "Studies of Grooms Restraining Horses," ca. 1817, graphite on off-white wove paper

Francois Boucher, "Sleeping Infant," 1703-1770, black and white chalk on grey paper

James Tissot, "Les... claireurs de la Seine," 1870-1, graphite and watercolor on off-white wove paper

Albrecht Durer, "The Four Avenging Angels from the 'Apocalypse'," 1496-8, woodcut

Salvator Rosa, "Democritus in Meditation," ca. 17th century, etching with drypoint on laid paper

Felix Gonzalex-Torres, "Untitled (March 5th) #2," 1991, 40-watt light bulbs, extension cords, porcelain light sockets
Appendix 3: Sequentia Program, “Voices from the Island Sanctuary: Ecclesiastical Singers in Paris (1180-1230)”

Philippe le Chancelier (d. 1236): Ave gloriosa virginum regina

Paris, Notre Dame (early 13th c.):
Aurelianis civitas
O varium fortune Iubricum
Initium Sancti evangeli
Currirtur ad vocem nummi
Anglia planctus itera
Bulla fulminante

le Chancelier: Minor natu filius

Paris, St, Victor (mid-12th c.): Zima vetus expurgetur

Appendix 4: Merce Cunningham Dance Company Program

Squaregame, 1976
First Performed: Adelaide, Australia; 24 Mar 1976
Music: Takehisa Kosugi
(2) Squaregame Video, videodance directed by
Charles Atlas and Merce Cunningham,
New York, NY; May 1976
Design: Mark Lancaster
Dancers: Merce Cunningham Dance Company

Split Sides, 2003
First Performed: BAM, Brooklyn, NY 14 October 2003
Music: Radiohead & Sigur Ros
Décor: Catherine Yass, Robert Heishman
Costumes: James Hall
Lighting: James F. Ingalls
Dancers: Merce Cunningham Dance Company