

## Anatomical Study Reflection Project

Submit a project illuminating reflections on your experience with cadaver dissection and anatomy lab by **Monday, August 19<sup>th</sup>**. This date is during the Cardiovascular (CV) System and is the Monday following the thorax anatomy practical exam.

Your project can take the form of a short narrative, short story, poem, drawing, photograph (not to be taken in a manner that violates anatomy lab rules), song, series of journal entries, painting, sculpture, video (not to be created in a manner that violates anatomy lab rules), etc. You should aim to employ creativity skills in completing your project – meaning you should create something original, meaningful, and useful to you by reflecting on aspects of your experiences during anatomical dissection. Choose a particular aspect and develop a project that is satisfying and meaningful to complete. You may work alone or in a small group.

Together with your project, submit a brief narrative describing your project – this can be a few sentences or a short paragraph and should be no longer than 1 page. If submitting a group project, each member of the group must submit a brief narrative – each individual narrative should include the names of all project partners.

If possible, **ATTACH** both your project and the project description to this email:

[Anatomy.xthruhd1ywrguuk@u.box.com](mailto:Anatomy.xthruhd1ywrguuk@u.box.com). **Only attachments can be received by this system, so don't attempt to write text in the email. Make sure both attachments include your name in the name of the uploaded files.**

If your final project cannot be submitted electronically, then submit your narrative description as an attachment to the email above and bring your completed project to the Anatomy Lab Classroom. We will have a table in the classroom on which you can place your project.

**Remember, you may submit your project at any time before Monday, August 19<sup>th</sup>. If you do not submit by this deadline, your grade on the CV practical exam will be decreased by 1 percent each school day after August 19<sup>th</sup>.**

### Opportunity to Share Student Projects

Many of the projects are displayed during the Anatomy Donor Convocation of Gratitude. In addition, some projects have been selected to be included in a booklet that is given to family members of our donors. Some classes have also arranged an exhibition in the Health Science Library. The Center for Biomedical Ethics and Humanities is happy to support a student-coordinated show if students are interested.

### Opportunity for Publication

Several journals accept student submissions, including two housed here at UVa — the nationally recognized, peer-reviewed, journal *Hospital Drive* and *Veritas*, UVa School of Medicine's student literary-arts publication. Faculty from the Center for Biomedical Ethics and Humanities are available to work with you if you wish to prepare your project for submission to a journal or other venue. Physician-writer Daniel Becker (Founding Editor, *Hospital Drive*; Director of the Center for Biomedical Ethics and Humanities) is happy to offer one-on-one consultation to folks trying their hand at creative writing – he will read a first or second or third draft and schedule time to discuss a fourth draft. Please contact him at [dmb2y@virginia.edu](mailto:dmb2y@virginia.edu).

## Brief responses to questions and comments from previous students (continued)

Both reflective and creative processes are critically important to medicine as a vital, innovative, humanistic and scientific practice. And yet, many commonly used methods in medical education contribute to an environment that downplays these higher level cognitive processes in favor of lower level ones, such as rote memorization, pattern recognition, and even the application of basic facts. While no one denies the importance of these abilities, many worry that largely ignoring the higher level cognitive skills required by reflective and creative endeavors while focusing on accumulating these more basic facts and cognitive skills during the early educational and professionalization processes does a disservice to future physicians, and ultimately is detrimental to the future vitality of the medical field.

The cognitive creativity processes and skills that completion of this project requires are those that every student accepted to UVa SOM has likely developed to some degree over time in other domains – whether in science, arts, humanities, sports, or leadership—since similar creativity skills are used in many domains. Although many creative skills generalize across domains, practicing and refining them within domains has recognized importance. Medical educators view anatomy lab as one place where these higher level cognitive processes can be nurtured, potentially staving off the feared atrophy of these skills. Open-ended, self-directed, reflective and creative projects like this one are designed to help students connect with and use these higher level cognitive processes while learning medicine.

Some resources for interested students:

- Sawyer K. Explaining Creativity: The Science of Human Innovation. 2<sup>nd</sup> edition. Oxford University Press. 2012.
- Kaufman J, Sternberg R (eds). The Cambridge Handbook of Creativity. Cambridge University Press. 2010.
- Bronson P, Merryman A. The creativity crisis. Newsweek. July 10, 2010.
- Ness RB. Commentary: Teaching creativity and innovative thinking in medicine and the health sciences. Acad Med. 2011 Oct;86(10):1201-3
- Thompson T, Lamont-Robinson C, Younie L. 'Compulsory creativity': rationales, recipes, and results in the placement of mandatory creative endeavour in a medical undergraduate curriculum. Med Educ Online. 2010 Nov 26;15.
- Gauderer MW. Creativity and the surgeon. J Pediatr Surg. 2009 Jan;44(1):13-20.
- Shaywitz DA, Ausiello DA. Preserving creativity in medicine. PLoS Med. 2004 Dec;1(3):e34.
- Lachman N, Pawlina W. Integrating professionalism in early medical education: the theory and application of reflective practice in the anatomy curriculum. Clin Anat. 2006 Jul;19(5):456-60.
- Hammer RR. An education that pierces what the knife cannot: a student perspective. Anat Sci Educ. 2010 May-Jun;3(3):151-3.
- Landro L. Poetry, Painting to earn an MD. Wall Street Journal. 2011. (available at <http://online.wsj.com/article/SB10001424052748704680604576110240337491446.html>)

**I would like to use this opportunity to explore something that I don't want shared. Who sees my submission?**

Student projects are viewed by a limited number of faculty and the 3-4 second-year students who volunteer to plan the Anatomical Donor Convocation of Gratitude. **The ADCOG planning committee will send an email to the class asking who doesn't want their project displayed at the ADCOG or printed in the booklet given as a gift to family members of donors.**

## Published examples of student reflections on anatomical study and human dissection



### As published in Hospital Drive: Words, Sounds, Images

[Alexander Y. Kim](#) is a medical student at the University of Virginia who is undecided about a medical specialty and enjoys learning about music performance and composition during his free time. He has studied music theory, written a piece for an Indonesian Gamelan performance, and studied the composition and production of electro-acoustic music.

#### [Patient G](#)

This composition was written as part of a reflection exercise required of all first-year medical students during their cadaver dissection at the University of Virginia. In describing his piece, the composer said:

The musical reflection involves the idea that the anatomical gift enables medical students to learn about the human body and each of its parts. As we learn more and more, we can appreciate the delicate interplay between these parts (which is represented by the successive addition of musical layers). We may go on and focus our studies on a particular part or set (which is represented by a period in which one musical part dominates), but eventually as practicing doctors we will, in some way, draw upon our complete knowledge to help patients (represented by the full set of parts, with the addition of percussion). Ultimately, we will retire from practice, but the impact of what we have learned through anatomy lab and how we will have applied that knowledge will continue (represented by the lingering percussion part).

#### Under the Skin

“Just four months ago I met a new friend  
 For me the beginning, for her 'twas the end  
 For a death was incurred, her body she gave  
 It was awkward at first, scary it seemed  
 A room full of bodies, more than I dreamed  
 She remained nameless, her story untold  
 Her skin pale and wrinkled, her body was cold  
 Of course she'd not spoken, she'd not moved a bit  
 No words were emitted from these wiry lips  
 But this lifeless body told stories to us  
 Through arteries, veins, and the things that we touched  
 To see deep inside, we peeled back the skin  
 We cut and we chiseled and we ventured within  
 No need to use X-rays, no need to use scans  
 She was one giant blueprint, architectural plans  
 Future patients I'll see, but not the same way  
 From the outside I'll look, but I'll remember these days  
 'Cause I was searching for structures and tactilely found  
 The way bodies function and move all around  
 She taught me respect, and I learned what it means  
 To work with integrity, to work professionally  
 Her gift truly selfless, her choice such a gift  
 A hands-on experience to train a therapist  
 I'll carry this forward; I'll start my next class  
 She won't be forgotten, I'll remember the past  
 So in conclusion, thanks I must give  
 To someone who gave more even after she lived”

*Lindsay Dean*

at Des Moines University. *Anatomical Sciences Education*. 2010.

There was a song performed by my college choir, *Media Vita in Mortis Sumus*, which I always thought was a awful dirge to sing in the spring concert as the lyrics translate to “in the middle of life we are in death.” This monastic chant was the haunting tune that came to mind the moment we first stepped foot into the anatomy lab. The room had a buzzing florescent tinge so that yellows looked sickly green. Twelve stainless steel caskets sat upon tables, tombs we would daily open and close. Our instructions that morning were only, “be respectful.” That first time we were quiet as we donned aprons and gloves, as we slowly removed the plastic and exposed the skin of our cadaver’s taut, curiously pink back. I couldn’t make the first cut. It felt wrong to me. Strange that he was now a vivid part of my life, while I was absent from his. I was merely a character in the story of his death. Imagining myself one of the Greek Fates cutting threads of flesh, I went through the motions and did what I was told. But for both the formerly living and myself, respectfully, it was an out of body experience.

Excerpt from piece written during a creative writing selective while the author was a first-year medical student at Mayo Medical School in Rochester Minnesota

From: Hammer RR. An education that pierces what the knife cannot: A student perspective. *Anatomical Sciences Education*. 2010.



**Figure 1.**

This color chalk pastel by first-year DPT student, Erin Behling, was titled “A Continuing Gift.” As described by its author, “This art piece demonstrates the honor involved in a person donating their remains to science, as well as the knowledge passed along from the donor to pupil. The blue individual represents the remains of the donor. The color represents the fact that this person is lifeless, but is in a posed position to remind the viewer that this person was once living, full of character and spirit. The two individuals hovering over the blue individual represent the pupils who gain an understanding and appreciation of the human body from the individual’s donation. The vast array of color in the background represents the knowledge with which the donor’s gift exudes.” This work of art is displayed in the Anatomy Department office.

From: Canby CA, Bush TA. (2010) *Anatomical Sciences Education*. Humanities in Gross Anatomy Project: A Novel Humanistic Learning Tool at Des Moines University.

## TO MY FIRST TEACHER IN MED SCHOOL

I was new and scared my first weeks in med school,  
 But you, anatomy teacher, taught me that worry is futile and life is here, right now.  
 I was overwhelmed with material, anastomoses, plexuses,  
 But you showed me that with patience I could tell an orifice from a hole in the ground.  
 I was afraid I was too old to keep up with the whiz kids in my class,  
 But you leveled the playing field and said age is a constraint of a shallow body.  
 You showed me lats and gluts, nerves and vessels, cancers and surgeries.  
 Your hands showed me a man, who'd made his own mistakes,  
 While your face told me that you were at peace with all you knew.  
 Like all good teachers you assured me that no question I asked was stupid,  
     you never rushed me, you let me set my pace, and nothing was off limits:  
 You said learn anatomy from me this block because I am here bursting to help you master  
     your craft!  
 I will never forget the tears I cried those first surreal weeks.  
 I will never forget how much I hated anatomy, how my entire body wretched with that  
     first whiff every time I walked into the lab.  
 I will never forget how impossible everything seemed and how my heart broke the day  
     we first used the saw,  
 And I asked myself then, *this is med school?*  
 I waited a lifetime to be there and some days all I knew was that the human body revolted  
     me,  
 And all the compassion was sucked out of my soul every time I sat on a sticky stool in  
     my sticky yellowed scrubs after just having slipped in a pool of cadaver fluid.  
 But you stayed the course, my teacher, patient and seeing to your own calling.  
 You were there for me every moment of every heart-wrenching, gut-twisting day.  
 You were there late at night, early in the morning, waiting to help me in extra study  
     sessions,  
 Whispering that I was worth it.  
 I just had to write to tell you that I am okay now, that my tears have stopped,  
     and that I am passing tests.  
 I had to tell you that I think of you all the time, especially when I walk through the  
     anatomy hall and I smell the odor of my first difficult days, the odor of my own self  
     doubts and failings.  
 I had to tell you that medical school is hard, and that everything you taught me about  
     bones and muscles and joints and nerves and organs has just about seeped out entirely  
     from my memory, as spring seeps into my first year.  
 But mostly what I had to say was that the lessons you taught me about compassion for  
     others, dignity in life, selflessness in death, and true beauty,  
 Keep my heart in my chest and my wits about me enough to get through each day,  
 So I can meet you again alive, in every man and woman I serve, and make your sacrifice  
     worth something.  
 I had to write to tell you that I fell in love with you, one human with another,  
 And that I *will* see you, my anatomy teacher, I will see you everyday I am a physician,  
 And I will always remember you, my loving, exquisite cadaver.

— *Josina M. Romero-O'Connell*

Essay written as part of a reflective writing exercise submitted at the end of an intense 8 weeks of dissection  
 in the Human Body Block at the University of Colorado Denver, School of Medicine.

From: Wagoner NE, Romero-O'Connell JM. Privileged Learning. *Anatomical Sciences Education*. 2010.