

# **Human Cadaver Laboratory Proposal**

As presented by the Department of Natural Science

prepared by Prof. Todd C. Shoepe 10-11-08

## **I. Executive Summary**

The Department of Natural Science believes that the mission of Loyola Marymount University is better served with the addition of human cadavers in the instruction of Human Anatomy and Physiology. To that end, two plans have been prepared such that describe all logistics of adopting this form of instruction. The current architectural plans for a new science building for the Seaver College of Science and Engineering can be slightly modified, while maintaining the current square footage, to include secure storage facilities at little to no additional cost. If plans are approved to implement a cadaver lab in existing facilities, slight modifications would need to be made to the existing storage facilities in Seaver and dissection tables with self-contained ventilation systems would need to be acquired. The proposed cost of adding cadaver instruction during the first year is estimated to be \$9586 (\$3191 annual recurring costs) if this lab is adopted into the most recent draft of the new science building. The proposed cost of adding cadaver instruction during the first year is estimated to be \$37,186 (\$3191 annual recurring costs) if this lab is to be accommodated into existing Seaver configurations. The much higher capital costs of the existing facilities option is due to more expensive dissection tables. Both of these plans can legally and logistically be managed by existing faculty and staff and do not require additional faculty or salaried professionals. The total recurring costs of both plans can be completely eliminated with the removal of current feline specimens and the adoption of a student lab fee of less than \$25 per semester.

## **II. Introduction**

As stated in the current Strategic Plan of the Seaver College of Science and Engineering (SCSE) at Loyola Marymount University, goals of the University include providing a high-quality, innovative educational experience dedicated to measurable student outcomes. This goal is complemented by the intent of developing and maintaining the infrastructure and facilities necessary to achieve the college's vision and mission.

In pursuit of these stated goals for the 2007-2012 time frame, construction of a new science building has been approved and is intended to house the currently existing Departments of Biology, Chemistry, Natural Science, and Physics. At present, discussions are underway to confirm and finalize the final footprints of architecture in order to meet the needs of the College for many years into the future.

In order to better meet the needs of students throughout the SCSE and in particular the Department of Natural Science (NTLS), designs are being drawn-up and will shortly be confirmed for laboratory space dedicated exclusively, or in large part to the instruction of human anatomy and physiology. It is imperative to ensure that such spaces become finalized only after careful scrutiny in order to guarantee the long term instructional and research needs of the SCSE are met.

### III. Purpose

In pursuit of this goal, the following document proposes the creation of further educational and experiential opportunities for students of the SCSE by the inclusion of facilities capable of housing a human cadaver lab on the campus of Loyola Marymount University within the scopes of the current SCSE 2007-2012 Strategic Plan as listed below:

- Goal 1: Provide a high-quality, innovative educational experience for students with a focus on personal growth, long-term success, and measurable learning outcomes.
- Goal 4: Develop and maintain the infrastructure, facilities, and staffing necessary to achieve the college's vision and mission.

**Specifically, this document provides a proposal for the inclusion of a human cadaver laboratory within the confines of the current footprint of the human Anatomy and Physiology Laboratory in a new science building for the SCSE to be completed by fall 2013. This proposal includes outlines of need, cost, benefit, utilization, and legal aspects of such an adoption.**

## IV. Department Endorsement

This proposal has been reviewed and is unanimously approved by the following members of the Department of Natural Science in the Seaver College of Science and Engineering, Loyola Marymount University.

---

|                       |   |
|-----------------------|---|
| Dr. John Dorsey Ph.D. | Associate Professor<br>Chair, Department of Natural Science |
|-----------------------|---|

---

|                           |  |
|---------------------------|--|
| Dr. Hawley Almstedt Ph.D. | Assistant Professor<br>Department of Natural Science |
|---------------------------|--|

---

|                   |   |
|-------------------|---|
| Jessica Lyon M.S. | Laboratory Technician<br>Adjunct Professor<br>Department of Natural Science |
|-------------------|---|

---

|                                     |   |
|-------------------------------------|---|
| Prof. David Ramirez M.S., ATC, CSCS | Assistant Professor<br>Director, Athletic Training Education Program<br>Department of Natural Science |
|-------------------------------------|---|

---

|  |   |
|--|---|
| Prof. Todd Shoepe M.S., ACSM-HFI, CSCS | Clinical Professor<br>Department of Natural Science |
|--|---|

---

|                              |   |
|------------------------------|---|
| Prof. Sarah Strand M.S., ATC | Assistant Professor<br>Athletic Training Education Program<br>Department of Natural Science |
|------------------------------|---|

---

|                           |   |
|---------------------------|---|
| Dr. Carolyn Viviano Ph.D. | Associate Professor<br>Director, Secondary Science Education Program<br>Department of Natural Science |
|---------------------------|---|

## **V. Rationale**

### ***A. Current Programs in Natural Science***

The department of Natural Science offers three degrees that comprise five different educational emphases: General Science (GNSC), Pre-Physical/Occupational Therapy (PPOT), Secondary Science Education (SSE), Athletic Training (ATEP), and Environmental Science (ENVS) and includes the enrollment of approximately 180 students as of the beginning of the fall semester in fall 2008. The department has demonstrated consistent, marked increase in student enrollments since its inception in 2001 with the largest increases occurring in the pre-allied health related fields. This growth has been such that there are 164/180 (91%) students pursuing BS degrees in either ATEP or Natural Science with an emphasis in PPOT or GNSC.

One of the foundational courses in NTLs is a year-long sequence of human anatomy and physiology lecture and lab courses where every one of the students in ATEP, PPOT, and GNSC, must successfully complete all of these courses (NTLS 151-154) as a pre-requisite prior to enrollment in their upper division NTLs which are requirements for graduation. A number of students in SSE and ENVS also complete at least a portion of these courses for foundational knowledge and application to further coursework in the human element. Lastly, these courses serve students from biology, chemistry, and various other academic departments across campus that are the completing pre-requisites or “highly recommended” courses for Medical, Dental, Optometry, Pharmacy, Nursing, and Physician Assistant programs. As a result of this cross-college instruction, these courses are serving the needs of 70 students in this fall semester of 2008.

Unlike the similar programs in biology where students are exposed to a myriad diversity to demonstrate both the similarities and differences between the species of the world, the human element integral to the ATEP, PPOT, and GNSC allows for a unique opportunity of focused instruction. The vast majority of our graduates will someday work directly with the health, well-being and life of humans and as such, require experience with the unique nature of real human anatomical and physiological models.

### ***B. Pedagogy***

There is innate difficulty in creating tightly controlled research projects on the efficacy of models, photos, and technology instruction in place of cadavers. Rhetorically speaking, how do you prevent a random half of a class from knowing whether they are in the experimental (cadaver) group or the control (alternative instruction) group? Numerous attempts have been made to classify the widely held belief that human cadaver specimens are superior to other methods of instruction with results that suggest all elements can provide similar results in the cognitive domain (2, 6, 9). Despite this, there is support from educators and medical professionals to continue the use of cadavers in instruction of human anatomy and physiology (3, 5, 8, 10, 11). One of the reasons for this is the acceptance that learning from illustrations and textbook figures provides a false sense of

consistency and invariance in this biological system. From book to book a “standard” image can be observed which most of the time reflects very poorly or not at all the actual structure, position, genetically programmed abnormalities of the human species (4, 8). It is far too common, when shown a real specimen, to hear students exclaim: “That doesn’t look anything like it does in the book.” Further benefits of cadavers include the association with 3-dimensional spatial orientation that simply cannot be digested by most students using computers and written documents and that the typical cadaver is one of advanced age with a modicum of pathologies often derived from a variety of factors. The resulting investigation of the interplay of genetic blueprinting, lifestyle choices and a prolonged development serves to deepen each young student’s exposure to the life spectrum and understanding of the development of pathologies (12).

Nonetheless, subjective student analysis does suggest greater interest and retention of material when utilizing human specimens (7) and as many as 89% of physical therapy schools nationwide have maintained the use of cadaver lab despite the technology explosion in anatomy in the past five years and up to 99% of physical therapy instructor respondents preferred the use of cadavers (1).

### ***C. Current Student Opinion***

A survey was distributed via email to the current students of NTLs during the fall of 2008. This survey was simplified and posited only the following four questions in order of appearance:

1. Have you taken anatomy (high school or other) prior to NTLs 151-154?
2. Have you had experience with mammalian dissections prior to NTLs 151-154?
3. Have you ever worked with human cadavers?
4. Would you prefer to work with human cadavers (in contrast to pigs or cats) in your collegiate education?

Students were asked to provide these answers by responding to the email. Participation had no effect on the course requirements and the survey was considered voluntary. Table 1 provides the results.

|                                 | <b>Yes</b> | <b>%</b>  | <b>No</b> | <b>%</b> |
|---------------------------------|------------|-----------|-----------|----------|
| Prior anatomy?                  | 36         | 60        | 24        | 40       |
| Prior mammalian dissections?    | 53         | 88        | 7         | 12       |
| Prior human cadaver experience? | 3          | 5         | 57        | 95       |
| Prefer human cadavers in NTLs?  | <b>57</b>  | <b>95</b> | <b>3</b>  | <b>5</b> |

*Table 1 – Summary of an informal student survey of experience and opinion on cadavers*

These results demonstrate first that a majority of the students taking this sequence have had prior instruction with anatomy and physiology and have further experienced

dissection of similar species. However, other elements revealed how few of these students have had experience with human specimens previously and how many would like to have this experience as part of their education at LMU. Furthermore, this reflects an advancing state of education where high schools are increasingly providing anatomy and physiology with the inclusion of dissections. This contributes to our desire to move away from further from repeating learning experiences by providing a novel, advanced opportunity to our students that would allow, unquestionably, a more tangible and applied education on a topically relevant basis.

### ***D. Similar Program Offerings***

A catalog and online examination of nearby, local or similar institutions throughout the United States reveals a surprising number of educational institutions who are currently operating cadaver labs. Not surprisingly, medical related schools are at the top of this list and include schools such as UCLA, USC, UC Irvine, UCSD, Los Angeles Chiropractic, and Western University of Health Professions. Institutions more similar to LMU that use cadavers include Saint Mary's College, Pepperdine, University of Portland, Notre Dame, and Regis as well as catholic medical institutions such as Saint Louis, Loyola of Chicago, and Georgetown. Finally, even local two-year institutions in California are currently providing cadaver opportunities to their students. A partial listing of these includes the College of Marin, College of the Canyons, Crafton Hills College, Irvine Valley College, Los Angeles Pierce College, MiraCosta College, Moorpark College, Mount San Antonio College, Oxnard College, San Diego Miramar College, San Diego Mesa College, San Joaquin Delta College, Santa Ana College, Santiago Canyon College, Santa Barbara City College, Santa Monica College, and Ventura College.

The opportunity to students at each of these institutions varies widely. Cadaver labs are rarely accessible across campus and use is usually reserved only for majors in some element of human health field. These courses are offered to students pursuing opportunities in biology, kinesiology, medicine, chiropractic, nursing, athletic training, sports medicine, health, physical therapy, and paramedic education. Some of these universities provide hands on opportunities and others simply allow students to view prosected cadavers as a supplement to dissection experiences.

## **VI. Proposal**

***A. We propose the approval and subsequent creation of a human cadaver lab for the undergraduate instructional purposes of the SCSE.***

### **1. Mission Statement**

The Human Cadaver Laboratory as housed in the Seaver College of Science and Engineering strives to provide outstanding educational opportunities in science in a mentoring environment to an increasingly diverse student body. The lab emphasizes the direct examination of human specimens in order to provide the best possible educational opportunities for students entering into the medical and/or health related fields.

## 2. Requested Resources Overview

### Space:

We would like to acquire space to house two cadavers for the length of two years apiece in a yearly, alternating fashion. This space need only have the minimum requirements of being secure and providing an open 144 ft<sup>2</sup> space free of windows for confidentiality and security related issues. A *new building plan* (#1) would be approved in current footprint plans for the A&P Prep/Storage space. This would require the inclusion of a dividing wall in this storage room to provide a total of ~100 ft<sup>2</sup> for storage **with no additional alterations to the current building plans**. A *current facilities plan* (#2) would require no alterations to the existing Seaver 07 ventilation systems but would require the slight modifications of the current storage room to provide space for dissection table and specimen storage.

### Specimens:

We propose an affiliation with a local Willd Body Program (e.g. University of California Los Angeles) that will oversee all legal, documentation, embalming, handling, transportation, cremation, and final disposition of all remains. Affiliations with Willd Body Programs are the preferred and most common process of cadaver acquisition used by community colleges and similar four year-institutions. We further propose the maintenance of one female and one male specimen to be utilized by students in the NTLs 152 and NTLs 154 courses as prosected specimens that have been previously been prepared by a select group of students enrolled in independent project units (NTLS 499). One new cadaver will be transferred from the Willd Body Program to LMU each year such that at any one time here will be only two specimens in the custody of LMU.

### Capital Equipment:

A full breakdown of equipment needed to produce a cadaver lab is listed below in Section V. We will not enter into a complete cost analysis at this point because there are two levels of proposals detailed below. However, it is pertinent to mention here that necessary equipment will include: dissection tables, body drapes, storage bucket, dissection equipment, wetting solution containers, and protective devices for students and faculty. The amount and type of equipment necessary depends on what type of facility is approved with respect to size, ventilation, and storage potential.

### Recurring (disposables) Costs:

A full breakdown of equipment needed to maintain an active cadaver lab is listed in Section V. We will not enter into a complete cost analysis at this point because there are two levels of proposals detailed below. However, it is pertinent to mention here that



necessary recurring costs will be incurred on: solutions, gloves, disposal, and cleansers. The amount and type of equipment necessary depends on what types of facilities are approved with respect to size, ventilation, and storage potential.

**Position Title:**

In order to serve as a liaison between the sponsor Willed Body Program and Loyola Marymount University, a new position title will be created within SCSE referred to as the Director of the Human Cadaver Lab. A member of the current faculty of SCSE will be appointed to this title and this person will be charged with overseeing all aspects of management of the facility's operation. This title will hold no financial compensation above normal faculty/staff responsibilities and there will be no course remission for this role.

**VII. Regulations*****A. Anatomical Gift Act***

All activities, facilities, and practices will heretofore conform at all times to the current California Uniform Anatomical Gift Act (CA Health and Safety Code §7150) and all subsequent amendments as well as any mandates from the affiliated Willed Donor Program. The responsibility of this accordance lies with the Director of the Human Cadaver Lab.

***B. Willed Body Programs***

There are currently 10 Willed Body Programs operating in the State of California. All of these programs are run through institutions of higher learning and are associated with hospitals and/or advanced medical degree programs. While conforming to state law, these programs operate on a largely independent nature. Interested individuals complete a lengthy documentation process specific to the institution of their choice. An example of one of the Donor Application Packet is included in Appendix B. However, a packet typically includes each of the following items: vital statistics, worksheet for race/ethnicity, donation agreement, and an order form for body release. Further paperwork serves to disclose information regarding donor body programs, instructions to survivors, use of donated bodies, final disposition of bodies, privacy act notification, and health codes. Donors typically complete registration and documentation with a Willed Body Program within close to proximity to the residence of the donor however some may elect to donate their body to select institutions in accordance with other personal wishes.

***Current Willed Body Program in the State of California:***

- Loma Linda University
- Los Angeles College of Chiropractic
- Stanford University
- University of California at Davis

- University of California at Irvine
- University of California Los Angeles
- University of California at San Diego
- University of California at San Francisco
- University of Southern California
- Western University of Health Sciences

### ***C. Willed Body Program Affiliation***

Universities and colleges who maintain cadaver labs without personal Willed Body Programs do so by creating an affiliation with a nearby operating program. These programs maintain a relatively stable level of 50-300 donor cadavers per year (depending on the program).

It will be the responsibility of the Director to seek out and confirm such an affiliation with a regional Willed Body Program. Continued conformation and adherence to rules and regulations set forth by the affiliate Willed Body Program institution also lies with the Director.

### ***D. The Role of the Willed Body Program***

In California, these Willed Body Programs handle all documentation, registration, receipt of bodies, infectious disease testing, primary embalming, transportation to and from the affiliate institution (LMU), and cremation, and final internment of the remains in accordance with state law and the wishes of the donor.

In accordance with law, there can be no cost associated with the procurement of any donated specimens or parts thereof. However, a Willed Body Program is eligible to recoup costs associated with the transportation, preparation, testing, handling, and disposition of donor bodies and all associated parts. As per recent discussion with both USC and Western University, this reimbursement is currently estimated to be \$1500-\$2500 per specimen.

### ***E. Security***

The Human Cadaver Lab will be secured at all times where access to the facilities will be restricted to personnel crucial to the mission of the lab only. Student access to the lab will never be permitted in the absence of an approved teaching assistant or instructional faculty. The locking mechanisms should be electronic keyed to a security ID card with a time-lapse expiration that will require re-confirmation of permission every semester.

Individuals possessing access at any time should **NOT** include more than the following:

- President of Loyola Marymount University
- Dean of the Seaver College of Science and Engineering
- Director of the Human Cadaver Laboratory
- Instructors of NTLS 152 and NTLS 154. This will be restricted to the faculty only. Undergraduate Teaching Assistants are not to be given independent access to the facility
- Laboratory Technician for the Department of NTLS
- Only one properly approved custodial personnel

Under no circumstances, will any cadaver or part thereof be permitted to leave the Human Cadaver Lab at any time unless under a prior arranged transportation agreement with the Willed Body Program. This includes movement between labs or other rooms for any purpose. For any instructional purpose, dissectors and students will need to locate themselves in the cadaver lab. This will reduce the visual exposure of these specimens to non-vital staff and work to maintain confidentiality. All scraps or samples removed in the process of dissection will be kept in an individually labeled container kept with the body from which it was removed. All of the pieces will be returned in full with the body upon return to the Willed Body Program affiliate in two years time so that they might be included with final cremation.

### ***F. Confidentiality***

All specimens arrive to LMU from the Willed Body Program with only a numerical identification bracelet affixed to their wrists and ankles. Further paperwork may include age, gender, and cause of death. No other identifiable information will be included with any specimen.

At no time, will any photograph be taken of the face or any other identifiable feature (e.g. tattoos, scars, identification bracelets, etc) of any cadaver. At no time, for any reason, will students be permitted access to cell phones, cameras or other electronic devices capable of capturing an image while inside the confines of the cadaver laboratory. Photographic documentation for works of scholarship may be attained by the Director of the Cadaver Lab as per the restrictions and pre-arranged permission of the Director of the Willed Body Program affiliate in accordance with state law.

Except when being the subject of learning lessons, the faces of all cadavers will be draped at all times to reflect a respect and confidentiality for the donor's gift.

## **VIII. Academic**

### ***A. Utilization***

#### **1. Preparation**

Because cadavers will be transferred to LMU having been embalmed with previous dissection performed, the plan is to have one cadaver that has been dissected completely and one undergoing the dissection process. The entire integumentary system will be exposed along with most of the underlying subcutaneous tissue and residual fascia. Unilateral dissection will be performed in such a way as to provide a complete viewing of the muscular system. Superficial muscles will be cut at the origin and reflected when necessary to provide convenient viewing of the deeper musculature. The contralateral side will serve to provide an examination of the joints where the major synovial joints will be opened up to reveal the deeper musculature attachments, joint surfaces, and ligamentous architecture.

This multi-stage dissection plan that incorporates both male and female specimens will allow for optimal organ system investigation to efficiently maximize the learning opportunities of students.

#### **2. Existing Courses**

*For all of the following courses, students will not be permitted access to the cadaver lab without a member of the instructional team present in the room.*

##### **NTLS 152 - Human Anatomy and Physiology Lab I**

The cadavers will have been prosected by the instructional faculty and student teaching assistants and will be afterward available for visual, tactile, and manipulative observations. Cadavers will also be used for structural identification during quizzes and exams under the supervision of the instructional faculty. During this semester, lessons will focus on the integumentary, skeletal, muscular, and nervous systems.

##### **NTLS 154 - Human Anatomy and Physiology Lab II**

The cadavers will have been prosected by the instructional faculty and student teaching assistants and will be afterward available for visual, tactile, and manipulative observations. Cadavers will also be used for structural identification during quizzes and exams under the supervision of the instructional faculty. During this semester, lessons will focus on the lymphatic, respiratory, cardiovascular, urinary, digestive, and reproductive systems.

##### **NTLS 360 – Upper Extremity Evaluation**

The cadavers will have been prosected by the instructional staff and student teaching assistants and will be afterward available for visual, tactile, and manipulative observations. This class offered primarily to students in the ATEP and PPOT programs

focuses on the in depth instruction on anatomy and functional abilities of the upper extremity. Emphasis is placed on the assessment techniques for recognizing and evaluating athletic-related injuries. Additional concentration on the cervical region and postural issues of the spine will also be addressed.

### **NTLS 362 – Lower Extremity Evaluation**

The cadavers will have been prosected by the instructional staff and student teaching assistants and will be afterward available for visual, tactile, and manipulative observations. This class offered primarily to students in the ATEP and PPOT programs focuses on the in depth instruction on anatomy and functional abilities of the lower extremity. Emphasis is placed on the assessment techniques for recognizing and evaluating athletic-related injuries. Additional concentration on the thoracic, lumbar, and sacral regions of the spine and gait analysis will also be addressed.

## **3. New Courses/Opportunities**

### **NTLS 497– Human Cadaver Dissection (1 unit)**

The goal of this course is twofold: first, this will provide 4-6 students each year with an unparalleled personal experience in anatomy. Students will work four hours per week performing dissection exercises on the newer of the two cadavers. Each fall and spring semester, two-to-three students will each complete one unit of coursework such that progress is made on a consistent, predictable, and patient manner. All of this work dissection and coursework will be coordinated and supervised by the Director. Additional responsibilities of each student will complete personal logs of all activities, learning modules, and final concluding report to further enhance the retention and application of learning objectives.

Students will be selected from a pool of applicants similar to the process by which teaching assistants are selected for the upcoming academic year who will then enroll in NTLS 497. A competitive selection will be made with preference given to those students who have completed the anatomy and physiology series at LMU with exemplary marks and intend on applying to a medical or health profession field. Further character criteria will include those individuals who express maturity, professionalism, respect for the specimens, intellectual curiosity, and a responsible, independent work ethic.

## **4. Interdisciplinary Collaboration with the Departments of Theology and Psychology**

Some institutions of higher learning maintaining cadaver labs also provide interdisciplinary interaction with psychology and theology departments. Some of the current classes that provide obvious links to the cadaver use might include the following:

- PSYC 363 – Psychology of Death and Dying
- PSYC 364 – Psychology of Death and Dying Lab

- PSYC 415 – Lifespan Development
- THST 663 – Issues in Bioethics

It is also recommended by some institutions to incorporate an annual commemorative ceremony to symbolically thank the donor. As example of such a program in effect at UCLA can be found at the following link <<http://www.donatedbodyprogram.ucla.edu/>>. and selecting the “view our program video.”

## **IX. Budget**

### ***A. Overview***

In order to evaluate the far ranging magnitude of lab designs and applications, two plans at extreme ends of a development spectrum have been developed to outline the necessities involved with the launch of a cadaver lab at LMU. These plans are to be referred to below as the New Facilities Plan and the Existing Facilities Plan.

Currently, NTLs spends approximately \$1300 annually to provide feline dissecting opportunities. This cost would be partially, if not completely removed with the addition of a human cadaver lab. In addition, discussion should be had whether lab fees might be assessed on each student enrolled in NTLs 152 and NTLs 154 to offset the annual recurring costs of maintaining the lab. While the rising costs of education provide concern for administration, a lab fee of \$25 per student each semester would raise \$3500 and based on these current budgetary predictions, would totally offset the new costs of incorporating a cadaver lab following the initial capital investment.

### **1. Proposal #1 - New Facilities Plan**

#### **a) Facilities**

A space of approximately 100 ft<sup>2</sup> will be needed to house the cadavers. The optimal design might include a rectangular room with 12'x 24' dimensions where storage, dissections, and instruction could take place. However, the current laboratory plans can be modified to accommodate this need by the additional of dividing wall in the existing A&P Prep space. This room needs to be secured with access limited only to the essential individuals listed under section VII.e. This facility will adjacent to the instructional lab in order to provide convenient access and security for instructional efficiency. Hand washing stations, cabinetry, and collapsible stainless shelving can be included in the remainder of the room periphery to create a self-contained functioning lab where no aspect of maintenance or storage is necessary outside of the existing space footprint.

Proper ventilation is one of the most important safety issues when dealing with preserved specimens. Chemical compounds involved with the embalming and preservation process are noxious and must be monitored for ambient air concentration to ensure safe exposure

levels for all users. **Because the current lab schematic includes adequate ventilation for formaldehyde dissections of felines and other mammalian organs in the common instructional space, no additional ventilation is required.**

Additional benefits could be had from including a leak-proof industrial style linoleum material for the flooring. This allows for ease of cleaning and provides a safe environment when handling larger volumes of fluids. Another possibility is the inclusion of a floor drain plan with sloping appropriate for ease of rinsing and cleaning. Both of these options are considered luxuries and can easily be removed from the plans based on cost cutting measures.

A possible floor plan configuration is included in Appendix C.

### b) Initial Capital Investment

| Item                              | Qty. | Per Unit | Total Unit    |
|-----------------------------------|------|----------|---------------|
| dissection tables*                | 2    | \$2200   | \$4400        |
| bone/cast saw                     | 1    | \$100    | \$100         |
| dissection instruments            |      | \$250    | \$250         |
| lab coats                         | 10   | \$20     | \$200         |
| protective lab glasses            | 10   | \$5      | \$50          |
| dissecting visors                 | 4    | \$15     | \$60          |
| specimen scrap buckets            | 4    | \$21.25  | \$85          |
| removed organ specimen containers | 10   | \$5      | \$50          |
| wetting solution containers       | 2    | \$200    | \$400         |
| body bags for cadaver tables      | 2    | \$30     | \$60          |
| storage tubs*                     | 2    | \$370    | \$740         |
| <b>Total</b>                      |      |          | <b>\$6395</b> |

\*These items are priced as new. Many of these items are commonly available in a used state from mortuaries, morgues, and medical schools for reduced prices.

### c) Recurring Annual Costs

| Item                          | Qty.  | Per Unit | Total Unit    |
|-------------------------------|-------|----------|---------------|
| handling fees from WBP        | 1     | \$2500   | \$2500        |
| lab coat cleaning             | 4x/yr | \$4      | \$160         |
| hand cleanser                 | 1     | \$10     | \$10          |
| surface cleanser              | 2     | \$5      | \$10          |
| examination gloves            | 2000  | \$0.09   | \$180         |
| formaldehyde badge monitoring | 24    | \$4      | \$96          |
| phenoxyethanol                | 2 L   | \$75     | \$150         |
| glycerol                      | 1 L   | \$50     | \$50          |
| EDTA                          | 50 g  | \$5      | \$5           |
| formalin                      | 2 L   | \$30     | \$30          |
| <b>Total</b>                  |       |          | <b>\$3191</b> |

## 2. Proposal #2 – Current Facilities Plan

This plan has been created under the auspices of acquiring and resources to the creation of a functioning cadaver lab that would provide all necessary advantages of this instructional tool to students of LMU. It is important to note that this plan has been prepared with the idea of adding such a program to LMU in existing facilities without the requirement of new space resulting from the additional of a new science building in the fall of 2013.

### a) Facilities

A small storage area approximately 144 ft<sup>2</sup> will be needed to house the cadavers. This room needs to be secured with access limited only to the essential individuals listed under section VII.e. This facility will adjacent to the instructional lab in order to provide convenient access and security for instructional efficiency. In the current building scenario, the prep room between Seaver 07 and Seaver 05 might be converted to a storage area by removing the closet space and then securing the second doorway for security proposes. This would provide the necessary space for storage whole allowing for movement of the cadavers into the instructional spaces when student use or dissections are required.

Proper ventilation is one of the most important safety issues when dealing with preserved specimens. Chemical compounds involved with the embalming and preservation process are noxious and must be monitored for ambient air concentration to ensure safe exposure levels for all users. In this configuration, where a cadaver lab will be added to existing facilities, it might not be possible, either logistically or financially, to modify existing building space to provide adequate ventilation. Therefore, this plan does not require the modification of any existing circulation or ventilation systems. **This will require the acquisition of more expensive self-contained downdraft dissection tables as listed below.**

A possible floor plan configuration is included in Appendix D.

### b) Initial Capital Investment

| Item                              | Qty. | Per Unit | Total Unit |
|-----------------------------------|------|----------|------------|
| dissection tables*                | 2    | \$16,000 | \$32,000   |
| bone/cast saw                     | 1    | \$100    | \$100      |
| dissection instruments            |      | \$250    | \$250      |
| lab coats                         | 10   | \$20     | \$200      |
| protective lab glasses            | 10   | \$5      | \$50       |
| dissecting visors                 | 4    | \$15     | \$60       |
| specimen scrap buckets            | 4    | \$21.25  | \$85       |
| removed organ specimen containers | 10   | \$5      | \$50       |
| wetting solution containers       | 2    | \$200    | \$400      |
| body bags for cadaver tables      | 2    | \$30     | \$60       |
| storage tubs*                     | 2    | \$370    | \$740      |



|              |  |  |                 |
|--------------|--|--|-----------------|
| <b>Total</b> |  |  | <b>\$33,995</b> |
|--------------|--|--|-----------------|

\*These items are priced as new. Many of these items are commonly available in a used state from mortuaries, morgues, and medical schools for reduced prices.

### c) Recurring Annual Costs

| <b>Item</b>                   | <b>Qty.</b> | <b>Per Unit</b> | <b>Total Unit</b> |
|-------------------------------|-------------|-----------------|-------------------|
| handling fees from WBP        | 1           | \$2500          | \$2500            |
| lab coat cleaning             | 4x/yr       | \$4             | \$160             |
| hand cleanser                 | 1           | \$10            | \$10              |
| surface cleanser              | 2           | \$5             | \$10              |
| examination gloves            | 2000        | \$0.09          | \$180             |
| formaldehyde badge monitoring | 24          | \$4             | \$96              |
| phenoxyethanol                | 2 L         | \$75            | \$150             |
| glycerol                      | 1 L         | \$50            | \$50              |
| EDTA                          | 50 g        | \$5             | \$5               |
| formalin                      | 2 L         | \$30            | \$30              |
| <b>Total</b>                  |             |                 | <b>\$3191</b>     |

## X. Conclusion

We believe that the majority of our students who will largely be entering into post-graduate work and eventual professional opportunities would benefit from an implementation of a human cadaver lab in their undergraduate education. We further feel that now is an ideal time to promote the inclusion of this vital experiential learning opportunity to these students due to the confirmation of a new building to be completed in the fall of 2013. With proper planning and cooperation, space and resources should be allocated such that a cadaver lab can be established with initial and recurring costs that are reasonable and justifiable to the mission of the Loyola Marymount University and the Seaver College of Science and Engineering.

## XI. Appendices

### A. References Cited

1. **Berube D.** Cadaver and computer use in the teaching of gross anatomy in physical therapy education. *Journal of Physical Therapy Education* Fall, 1999.
2. **Blunt MJ and Blizard PJ.** Recall and retrieval of anatomical knowledge. *British journal of medical education* 9: 252-263, 1975.
3. **Dinsmore CE, Daugherty S, and Zeitz HJ.** Teaching and learning gross anatomy: dissection, prosection, or "both of the above?" *Clinical anatomy (New York, NY* 12: 110-114, 1999.
4. **Graney DO.** Clinical anatomy. *Clinical anatomy (New York, NY* 9: 61, 1996.
5. **Jones DG.** Reassessing the importance of dissection: a critique and elaboration. *Clinical anatomy (New York, NY* 10: 123-127, 1997.
6. **Jones NA, Olafson RP, and Sutin J.** Evaluation of a gross anatomy program without dissection. *Journal of medical education* 53: 198-205, 1978.
7. **Leung KK, Lue BH, Lu KS, and Huang TS.** Students' evaluation on a two-stage anatomy curriculum. *Medical teacher* 28: e59-63, 2006.
8. **Marks SC, Jr.** Clinical anatomy. *Clinical anatomy (New York, NY* 9: 60, 1996.
9. **Nnodim JO, Ohanaka EC, and Osuji CU.** A follow-up comparative study of two modes of learning human anatomy: by dissection and from prosections. *Clinical anatomy (New York, NY* 9: 258-262, 1996.
10. **Parker LM.** What's wrong with the dead body? Use of the human cadaver in medical education. *The Medical journal of Australia* 176: 74-76, 2002.
11. **Skandalakis JE.** Reflections on dissection: leave no student behind. *The American surgeon* 74: 1-3, 2008.
12. **Willan PL and Humpherson JR.** Concepts of variation and normality in morphology: important issues at risk of neglect in modern undergraduate medical courses. *Clinical anatomy (New York, NY* 12: 186-190, 1999.

***B. UCLA Willed Body Program Document***[Print Form](#)**Donor Registration Packet**

---

# **UCLA Donated Body Program**

---

Donor's Legal Name

---

|  |        |
|--|--------|
| General Instructions                       | 2      |
| Vital Statistics                           | 3      |
| Worksheet for Education and Race/Ethnicity | 4      |
| Donation Agreement                         | 5 – 10 |
| Order for Release                          | 11     |
| Privacy Act Notification                   | 12     |
| Change of Statistical Information          | 13     |
| Affidavit in Support of Claim              | 14     |

---

**General Instructions**

---

## UCLA Donated Body Program

University of California Los Angeles  
David Geffen School of Medicine at UCLA  
924 Westwood Blvd., Suite 335 • Los Angeles, CA 90095-7340



All donor application forms must be complete and signed where indicated. Some of the forms will require signatures witnessed by two people or a Notary Public. Mail the completed forms to the UCLA Donated Body Program in the envelope provided or to the address noted above. Once the forms have been reviewed and accepted, an acknowledgement will be sent along with a donor identification card and two copies for retention. Please feel welcome to call the Donated Body Program at (310) 794-0372 for questions or assistance in completing the forms. All information provided will remain confidential to the extent allowed by law.

### **Vital Statistics**

Complete the data sheet with as much detail as possible. The information provided is of great value to teaching and research and is also required to complete certain government forms. The information you provide will be used for completion and processing the death certificate with the health department and the State of California. All boxes must be completed to the best of your ability. If you do not have the information for an item, write "unknown" or "none" in that space. Do not leave any blank boxes. Please "PRINT" all information and double check for spelling errors.

### **Worksheet for Education and Race/Ethnicity**

This form is a guide when completing certain items found on the Vital Statistics form.

### **Donation Agreement**

Please sign this form in front of two witnesses or a Notary Public. This form includes authorization to biotest the body for certain contagious diseases. If the donation is made by the attorney-in-fact under a valid durable power of attorney that expressly authorizes the attorney-in-fact to make an anatomical gift of all or part of the principal's body, a complete legible copy of the durable power of attorney must accompany this form.

### **Order for Release**

Please sign where indicated. This form is used only when a signed release is required.

### **Privacy Act Notification**

Provided as required by State and Federal Law.

### **Change of Statistical Information**

To be returned to report a changes in your address or marital status.

### **Affidavit in Support of Claim**

To be completed if you are donating on behalf of another and you are not a spouse or Durable Power of Attorney for Healthcare.

## Vital Statistics



|  |
|--|
| <b>University of California Los Angeles</b><br><b>David Geffen School of Medicine at UCLA Donated Body Program</b><br>924 Westwood Blvd., Suite 335, Los Angeles, CA 90095-7340 • 310-794-0372 |
|--|

DONOR NAME:  FIRST  MIDDLE  LAST ☐ MALE ☐ FEMALE

AKA:

USUAL ADDRESS:  STREET  CITY  STATE/ZIP CODE

COUNTY OF RESIDENCE:  No. OF YEARS IN THIS COUNTY:

RACE/ETHNICITY:  SPANISH/HISPANIC: ☐ Yes ☐ No Specify   
 (PLEASE COMPLETE THE ATTACHED EDUCATION AND RACE IDENTITY WORKSHEET)

DATE OF BIRTH:  STATE OF BIRTH:  or FOREIGN COUNTRY:

FULL NAME OF FATHER:  FIRST  MIDDLE  LAST BIRTHPLACE OF FATHER:

FULL MAIDEN NAME OF MOTHER:  FIRST  MIDDLE  LAST BIRTHPLACE OF MOTHER:

SOCIAL SECURITY #:  -  -  US ARMED FORCES: ☐ Yes ☐ No ☐ Unknown

MARITAL STATUS: ☐ NEVER MARRIED, ☐ MARRIED, ☐ WIDOWED, ☐ DIVORCED, ☐ REGISTERED DOMESTIC PARTNER

NAME OF SURVIVING SPOUSE (If wife, enter maiden name):  FIRST  MIDDLE  LAST

USUAL OCCUPATION:  YEARS IN OCCUPATION:   
 (If you are now retired, please give occupation information BEFORE retirement)

KIND OF INDUSTRY OR BUSINESS:

EDUCATION (highest level/degree completed - see worksheet):

NAME OF PHYSICIAN:  PHONE No:

ADDRESS:  STREET  CITY  STATE/ZIP CODE

HEIGHT:  WEIGHT:  PRESENT STATE OF HEALTH:

ADDITIONAL HEALTH INFORMATION INCLUDING ILLNESSES, OPERATIONS, ACCIDENTS:

PARTICIPANT IN IMAGING STUDY (CT, MRI, ETC.):

HISTORY OF SURGERY ON KNEE, HIP, SHOULDER, SPINE OR OTHER JOINT?:

HYSTERECTOMY? ☐ Yes ☐ No PROSTATECTOMY? ☐ Yes ☐ No

(OPTIONAL) RELIGIOUS AFFILIATION:

MY SIGNATURE BELOW INDICATES THAT ALL OF THE INFORMATION ABOVE IS TRUE TO THE BEST OF MY KNOWLEDGE.

X  Signature  Date

Name Print  Relationship (IF SELF SO INDICATE)

State of California - Health and Human Services Agency

Department of Health Services

**Worksheet for Education and Race/Ethnicity (for Reference only)**

Notice to Informants (aka responsible party/survivor): The information requested is essential for determining the health problems of the population groups noted below and your cooperation is appreciated. Completion of this work sheet in conjunction with the "Certificate of Death" is mandatory.

**DECEDENT'S**

**EDUCATION** - Check the box that best describes the highest degree or level of school completed at the time of death.

Enter appropriate information on Page 3

☐ 0-11th grade.  
Enter highest year completed: \_\_\_\_\_

☐ 12th grade, but no diploma.  
Enter 12

☐ High school graduate or GED completed. Enter either HS GRADUATE or GED:

☐ Some college credit, but no degree. Enter SOME COLLEGE

☐ Associate degree (e.g., AA, AS). Enter ASSOCIATE

☐ Bachelor's degree (e.g., BA, AB, BS). Enter BACHELOR'S

☐ Masters degree (e.g., MA, MS, MEng, ME d, MSW, MBA). Enter MASTER'S

☐ Doctorate (e.g., PhD, EdD) or Professional degree (e.g., MD, DDS, DVM, LLB, JD). Enter either DOCTORATE or PROFESSIONAL.

**WAS DECEDENT  
SPANISH/HISPANIC/LATINO?**

If not Spanish/Hispanic, check "NO" on Page 3.

If Spanish/Hispanic check "YES" on Page 3 and enter specific origin.

- ☐ No  
☐ Yes, Mexican, Mexican American, or Chicano  
☐ Yes, Central American  
☐ Yes, South American  
☐ Yes, Cuban  
☐ Yes, Puerto Rican  
☐ Yes, other - Spanish/Hispanic

Specify:

**WHAT WAS DECEDENT'S RACE OR ETHNICITY?** (Check one or more races to indicate what the decedent considered himself or herself to be)

Enter text for up to 3 races on Page 3

- ☐ White  
☐ Black, African American, or Negro  
☐ American Indian or Alaska Native (North, South, and Central American Indian)  
Specify Tribe(s)   
☐ Native Hawaiian  
☐ Guamanian  
☐ Samoan  
☐ Other Pacific Islander  
Specify:   
☐ Asian Indian  
☐ Cambodian  
☐ Chinese  
☐ Filipino  
☐ Hmong  
☐ Japanese  
☐ Korean  
☐ Laotian  
☐ Vietnamese  
☐ Other Asian  
Specify:   
☐ Other  
Specify:

**Race Abbreviations:**  
American Indian = AMER IND  
Cambodian = CAMBODIA  
Guamanian = GUAMIAN

Asian Indian = SIA IND  
Vietnamese = VIETNAM  
Pacific Islander = PACIF IS

(REV 01/01/2008)

Page 4 of 16 Pages



---

Donation Agreement

UNIVERSITY OF CALIFORNIA, LOS ANGELES  
DONATED BODY PROGRAM  
DONATION AGREEMENT



**1. INFORMATION ON THE DONATED BODY PROGRAM**

The Donated Body Program (also known as willied body or anatomical materials program and hereafter referred to as the ("PROGRAM")) operates for the following purposes and under the following principles:

The Program accepts donations of human bodies for use by various individuals and institutions in connection with education and research. In doing so, the Program's goals are: (1) assisting in the education and continuing education of current and future health care practitioners, anatomists, forensic scientists, and mortuary technicians; and (2) biomedical, forensic, and other scientific research that will assist in the development of procedures and/or products with the general intent of improving the human condition.

A donated body will be used by the Program and others in a manner to be determined exclusively by the Program, pursuant to the policies and procedures that are in effect at the time of a donor's death or as they may be revised thereafter.

Upon proper completion of this donation agreement "AGREEMENT" as well as the vital statistics sheet and the Department of Health and Human Services Education and Race/Ethnicity worksheet, and thereafter by registration in the Program, donors will be provided with a Donor Card that contains the information necessary to assist in contacting the Program at the time of death. Donations are confidential. Once a donor's remains have been accepted into the Program and an acknowledgement has been sent to the person a donor may designate in this form, the Program will not provide any further information concerning the use and/or disposition of a donor body.

When a donor signs this form, or when an appropriate party signs on behalf of the donor, he/she specifically waives the provisions of California Health & Safety Code Section 7153.5(D) that provides for the return of cremated remains to certain individuals. Due to the nature and variability of uses for scientific research and education, cremated remains **WILL NOT** be returned.

**Initials** \_\_\_\_\_

**2. INSTRUCTIONS FOR SURVIVORS (RESPONSIBLE PARTY)**

Upon death, a donor must be delivered to the Donated Body Program as follows:

1. The Program is to be notified of the death immediately, as a delay can result in rendering the remains unusable to the Program.
2. The body is to be un-embalmed or otherwise unprepared for disposition.
3. Every effort will be made to accept a donor body; however, the Program may, at its sole discretion, reject a donation at the time of death. If this situation arises, the designated survivor/responsible party will be required to make alternative arrangements for the disposition of the remains.
4. If death occurs within 75 miles of the University of California, Los Angeles, the Program will arrange for and pay for the cost of transporting the body.
5. If death occurs more than 75 miles from the University of California, Los Angeles, the Program shall have the option of: (1) accepting the donation upon confirmed payment arrangement by the designated survivor/responsible party for the cost of transporting the body to the Program, via use of a transportation provider approved by the Program; (2) arranging for the body to be accepted by another University of California Donated Body Program closer to the place of death; or (3) declining to accept the donation of the body.
6. The Program will have an original certificate of death filed with the county where death occurs by means acceptable to the Registrar of Births and Deaths. It will be the responsibility of the survivor/responsible party to obtain all necessary copies of the certificate.
7. As determined by the local campus, third party donations (eg. Agent named on a Durable Power of Attorney for Health Care, spouse or registered domestic partner) may also be accepted. Individuals making third party donations must sign the required documentation at the conclusion of this document specifying that they are compliant with the criteria defined herein.

I, , hereby designate the following individual to receive acknowledgement of my donation upon my death. If you are signing on behalf of the donor, you may designate yourself as the survivor/responsible party.

Name  Relationship:

Address:

City/State/Zip code:

Phone number/E-mail:

**OR**

I elect not to name a recipient: ☐

**Initials**



### 3. USE OF DONATED BODIES

Whole body donors may be accepted by the Program and used in the following manner:

1. Upon receipt of the body, the Program will use the information furnished in this Agreement to send an acknowledgement notice to the person designated, if any, in the previous section. That notice will include the address of the appropriate county Department of Health where survivors can obtain certified copies of the death certificate. The notice as well as any future communications will not provide any specific information concerning the use, location, analysis or disposition of the body, or any part of the body.
2. Once received, if it is determined that, for any reason, a body cannot be used by the Program, or by any person or entity approved for use of anatomic material donated to the Program as described herein, it will be cremated and the cremated remains will be disposed of in any manner consistent with then-existing California law. Personal effects received with a body including eyeglasses, dentures or pacemakers may be donated or refurbished. Other items such as clothing or bedding will be discarded.
3. A donated body may be tested for Hepatitis B, Hepatitis, C and HIV upon receipt in the program. Results of tests will not be disclosed to the donor's designated survivor/responsible party but may be reported to the California Department of Health Services if mandated by law.
4. A donated body may be, but need not be, chemically preserved by the Program or may be used in an un-embalmed state as anatomical material.
5. A donated body may be dissected, examined, studied, preserved for a substantial period of time, and may be used for more than one purpose. Parts of the body such as organs or limbs may be removed and separated from the whole. Bodily fluids and tissues may be analyzed and destroyed.
6. A donated body and/or part of the body may be provided to educators, students, researchers or others at other University of California campuses, as well as to other educational institutions, researchers non-profit entities and for-profit entities. When making a donation, donors, survivors and/or responsible parties cannot designate the uses to which the body will be put nor the persons or entities that will use the same.
7. If a donated body, or parts thereof, are used by persons and/or entities not associated with the University of California campus at which the body is housed, the Program shall be entitled to recover all of its acquisition, preservation, storage, transportation and related costs (both fixed and non-fixed) from the end user.

**Initials** \_\_\_\_\_

#### 4. DISPOSITION OF DONATED BODIES

The following applies to the ultimate disposition of donor bodies by the Program. By signing this agreement, a donor or his/her responsible party authorizes the Program and its agents to dispose of the donation by cremation or by other legal manner that may be approved at the time of death:

1. Because parts of the body may be removed during its use, these parts may be disposed of at different times and at different locations.
  - Upon completion of the use of a body, or any part of a body, the material may be cremated and/or otherwise disposed of by any means permitted under state law in effect at the time.
2. Under certain circumstances, body parts, tissue, fluids, etc., may undergo disposition with such material from other donors in accordance with California law.
3. Survivors/responsible parties will not be notified of the time, place or manner of the disposition of a body or any part of a body, or of the final disposition of the remains. The cremation of some parts of the body may not result in the creation of any remains for disposition due to the composition of those body parts.
4. The donor or legally responsible person signing on behalf of the donor expressly waives the provisions of California Health & Safety Code Section 7153.5(D) that provides for the return of cremated remains to certain individuals. Due to the nature and variability of uses for scientific research and education, cremated remains **WILL NOT** be returned.
5. The Program undertakes no duty to survivors of the donor with respect to the handling, disposition, disposal, or return of the donor's remains.

Initials \_\_\_\_\_

#### 5. REVOCATION OF A DONATION

1. Self Donation

A donor as defined in the Health and Safety Code 7150.1, may revoke an anatomical donation at any time prior to death. After death, this donation cannot be revoked by survivors/responsible parties and survivors/responsible parties cannot change any term or condition of the gift. By signing this agreement, a donor intends for the University of California to have the exclusive right to control the use and disposition of their body upon death.

2. Donation made by other authorized person

An authorized person, other than the decedent, who has the legal right to make a donation according to California Health and Safety Code 7100, Code 7151, and Probate Code 4683 may revoke an anatomical donation at any time before procedures have begun for the removal of a part from the body of the decedent.

Initials \_\_\_\_\_

**Please complete this section when signing for your self. If you are signing on behalf of the donor, proceed to the next section.**

I, , hereby donate my body upon my death to the Program referenced above. It is my wish and my specific instruction that, upon my death, my body is to be donated to the Program pursuant to the terms and conditions set forth herein. I am at least 18 years of age. I adopt these descriptive and declarative terms and conditions as my own and make them my instructions as to the disposition of my body upon my death. I have read and considered all of the information contained in this Donation Agreement. I have initialed each section of the Agreement indicating my understanding of the information and my desire to donate my body pursuant to this agreement.

Signature  Date   
  
Print Name   
Address:   
  
City/State/Zip code   
  
Phone/E-mail

#### WITNESSES

We, the undersigned, have witnessed the signing of this document by the donor. "Disinterested witness" means a witness other than the spouse, child, parent, sibling, grandchild, grandparent, or guardian of the individual who makes, amends, revokes, or refuses to make an anatomical gift, or another adult who exhibited special care and concern for the individual. The term does not include a person to which an anatomical gift could pass under Section 7150.50.

Signature of Witness   
Print Name   
Address   
City/State/Zip

Signature of Disinterested Witness   
Print Name   
Address   
City/State/Zip

Please complete this section if you are the attorney in fact, spouse, registered domestic partner or claimant (as described in the attached affidavit) of the donor.

I have read and fully understood the policies set forth in this document. As the legally responsible party under this section for [redacted] (name of deceased) I wish to donate his/her remains to the UCLA Donated Body Program. I accept all terms and conditions set forth in this document.

- ☐ I am the spouse of the deceased donor.
- ☐ I am the registered domestic partner of the deceased donor.
- ☐ I am the agent for the deceased donor with power of attorney for health care and I have the right and duty of disposition under Division 4.7 (commencing with Section 4600) of the Probate Code.
- ☐ I am the declared claimant of the deceased donor and have completed the attached affidavit in support of this claim.

| Signature      | Relationship to Decedent | Date |
|----------------|--------------------------|------|
| <div></div>    |                          |      |
| Print Name     |                          |      |
| <div></div>    |                          |      |
| Address        |                          |      |
| <div></div>    |                          |      |
| City/State/Zip |                          |      |

#### WITNESSES

We, the undersigned, have witnessed the signing of this document by the donor. "Disinterested witness" means a witness other than the spouse, child, parent, sibling, grandchild, grandparent, or guardian of the individual who makes, amends, revokes, or refuses to make an anatomical gift, or another adult who exhibited special care and concern for the individual. The term does not include a person to which an anatomical gift could pass under Section 7150.50.

| Signature of Witness |
|----------------------|
| <div></div>          |
| Print Name           |
| <div></div>          |
| Address              |
| <div></div>          |
| City/State/Zip       |

| Signature of Disinterested Witness |
|------------------------------------|
| <div></div>                        |
| Print Name                         |
| <div></div>                        |
| Address                            |
| <div></div>                        |
| City/State/Zip                     |

---

**Order for Release**

|  |
|--|
| <b>University of California Los Angeles</b><br><b>David Geffen School of Medicine at UCLA Donated Body Program</b><br>924 Westwood Blvd., Suite 335, Los Angeles, CA 90095-7340 • 310-794-0372<br>FAX 310-794-0334 |
|--|

|                            |                      |                      |
|----------------------------|----------------------|----------------------|
| Donor's Legal Name – First | Middle               | Last                 |
| <input type="text"/>       | <input type="text"/> | <input type="text"/> |

I certify that pursuant to Section 7100, Health & Safety Code, State of California, it is my legal right to select any funeral director or disposition service. Therefore, please release the body of the above deceased to the custody of David Geffen School of Medicine at UCLA, Donated Body Program.

**Donor or Next of Kin**

|   |  |
|---|--|
| Signature:<br>X   | Relationship: <i>(Note: If self so indicate)</i><br><input type="text"/> |
| Print Full Name: <input type="text"/>                             |  |
| Address of Donor or Next of Kin:<br>Address: <input type="text"/> |  |
| City: <input type="text"/>  | State: <input type="text"/> Zip: <input type="text"/>                    |
| Phone: <input type="text"/>                                       |  |

**Responsible Party if NOT Next of Kin**

|   |   |
|---|---|
| Responsible Party Signature:                                    | Relationship:<br><input type="text"/>                 |
| Print Full Name of Responsible Party: <input type="text"/>      |   |
| Address of Responsible Party:<br>Address: <input type="text"/>  |   |
| City: <input type="text"/>                                      | State: <input type="text"/> Zip: <input type="text"/> |
| Phone: <input type="text"/>                                     |   |
| Reason for Handling if Not Next of Kin:<br><input type="text"/> |   |

(REV 01/01/2008)

Page 11 of 16 Pages

**Privacy Act Notification**

---



**University of California Los Angeles**  
**David Geffen School of Medicine at UCLA Donated Body Program**  
924 Westwood Blvd., Suite 335, Los Angeles, CA 90095-7340 • 310-794-0372  
FAX 310-794-0334

**STATE**

The California Information Practices Act of 1977 requires the University to provide information to the individual to whom the information pertains.

Furnishing information requested in the Vital Statistic sheet is mandatory. Failure to provide such information will delay or may even prevent completion of the action for which the form is being filled out. Information furnished on this form will be transmitted to the state and federal governments if required by law.

Civil Code Section 1798.9 et seq. requires each state agency to provide notice to individuals completing this form (VS-11 Certificate of Death and VS 9 Application and Permit for Disposition of Human Remains). The information is being requested by: Department of Health Services, Office of Vital Records, 304 S Street, P.O. Box 730241, Sacramento, CA 94244-0241. The information requested on this certificate is authorized as required by Divisions 7 and 102 of the Health and Safety Code, and related provisions with the Civil Code, Code of Civil Procedure, and Government Code.

The principal purpose for this record is:

1. To establish a permanent record that is legally recognized as prima facie evidence of the facts stated therein for each death occurring in the State of California
2. To provide information, to health authorities and other qualified persons with a valid education or scientific interest, for demographic and epidemiological studies for health and social purposes.
3. To provide information to the National Center for Health Statistics for compiling national statistical reports, and to state and federal agencies for file clearance purposes.
4. To provide individuals with certified copies from the records to serve their personal needs, such as applying for social security or death benefits.

Individuals have the right to review their own records in accordance with the Information Practices Act and University policy. The record shall be open for examination during regularly scheduled office hours, except when access is specifically prohibited by statute or regulations.

The State of California Health and Safety Code Section 7054.6, 7117 and 10376, and related provisions in the Civil Code, Code of Civil Procedure, and Government Code authorize maintenance of this information. The director responsible for maintaining the information contained on this form is the Donated Body Program Director, University of California Los Angeles, David Geffen School of Medicine at UCLA, 924 Westwood Blvd., Suite 335, Los Angeles, CA 90095-7340.

**FEDERAL**

Pursuant to the Federal Privacy Act of 1974, you are hereby notified that disclosure of your social security number is mandatory. Disclosure of the social security number is required pursuant to the regulations of the State Registrar of Vital Statistics. The social security number is used to verify your identity.

**HIPAA** (Health Insurance Portability and Accountability Act) laws and how they relate to the reporting of vital event records.

The information necessary to complete the Certificate of Birth and Certificate of Death is required by California State law (Health & Safety Code Sections 102425 and 102875 respectively). The Privacy Rule permits covered entities to disclose PHI (Protected Health Information), without authorization, to public health authorities or other entities that are legally authorized to receive such reports for the purpose of preventing or controlling disease, injury, or disability. This includes the reporting of disease or injury and reporting of vital event records, such as births and deaths (Reference 45 Code of Federal Regulations (CFR) Section 164.512).

---

Change of Statistical Information

---



|  |
|--|
| <p><b>University of California Los Angeles</b><br/><b>David Geffen School of Medicine at UCLA Donated Body Program</b><br/>924 Westwood Blvd., Suite 335, Los Angeles, CA 90095-7340 • 310-794-0372<br/>FAX 310-794-0334</p> |
|--|

To report a change of address, marital status or other pertinent information, please complete this form and mail it to the UCLA Donated Body Program. Accuracy in your reporting changes helps ensure that data will be recorded correctly.

The Donor's name: \_\_\_\_\_

☐ Change in Donor's address:

Former Street: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_ Phone: \_\_\_\_\_

Current Street: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_ Phone: \_\_\_\_\_

☐ Change in Marital Status:

☐ Widowed ☐ Married ☐ Divorced ☐ Re-married ☐ Registered Domestic Partner

☐ Change in Name: \_\_\_\_\_

☐ Other: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Mail Original Signed Copies to:

**University of California Los Angeles**  
**David Geffen School of Medicine at UCLA Donated Body Program**  
924 Westwood Blvd., Suite 335  
Los Angeles, CA 90095-7340 • 310-794-0372  
FAX 310-794-0334

*Affidavit In Support of Claim to  
Control Disposition of Bodily Remains  
Pursuant to Health and Safety Code Section 7100*

Name of Decedent

Name of Claimant

Address of Claimant

Phone Number

Relationship to Decedent

***I claim the right to control the disposition of the Decedent's bodily remains because:  
(check all that apply)***

- ☐ The Decedent named me to control the disposition of his or her body in a will or other document (attach a copy of the document).
- ☐ I am the Decedent's (circle one) *child, parent, grandparent or nearest other relative*. (If you are the Decedent's child, you must have the approval of the majority of the Decedent's children to arrange the disposition of the body. By signing below, you represent that you have the approval of the majority of the Decedent's children or that you have made reasonable efforts to notify all of the Decedent's other children of your arranging the disposition of the Decedent's body).

I am not aware of any person who objects to my arranging the disposition of the body of the Decedent.

I am not aware of any written or oral instruction by the Decedent, or any contract for funeral services by the decedent, that give control of the disposition of the Decedent's remains to any other person.

I am aware of and have received a copy of Health and Safety Code Section 7100 and agree to comply with the provisions therein.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Signature \_\_\_\_\_ Date   last revision 10/28/05



**HEALTH AND SAFETY CODE  
SECTION 7100**

7100. (a) The right to control the disposition of the remains of a deceased person, the location and conditions of interment, and arrangements for funeral goods and services to be provided, unless other directions have been given by the decedent pursuant to Section 7100.1, vests in, and the duty of disposition and the liability for the reasonable cost of disposition of the remains devolves upon, the following in the order named:

(1) An agent under a power of attorney for health care who has the right and duty of disposition under Division 4.7 (commencing with Section 4600) of the Probate Code, except that the agent is liable for the costs of disposition only in either of the following cases:

(A) Where the agent makes a specific agreement to pay the costs of disposition.

(B) Where, in the absence of a specific agreement, the agent makes decisions concerning disposition that incur costs, in which case the agent is liable only for the reasonable costs incurred as a result of the agent's decisions, to the extent that the decedent's estate or other appropriate fund is insufficient.

(2) The competent surviving spouse.

(3) The sole surviving competent adult child of the decedent, or if there is more than one competent adult child of the decedent, the majority of the surviving competent adult children. However, less than the majority of the surviving competent adult children shall be vested with the rights and duties of this section if they have used reasonable efforts to notify all other surviving competent adult children of their instructions and are not aware of any opposition to those instructions by the majority of all surviving competent adult children.

(4) The surviving competent parent or parents of the decedent. If one of the surviving competent parents is absent, the remaining competent parent shall be vested with the rights and duties of this section after reasonable efforts have been unsuccessful in locating the absent surviving competent parent.

(5) The sole surviving competent adult sibling of the decedent, or if there is more than one surviving competent adult sibling of the decedent, the majority of the surviving competent adult siblings. However, less than the majority of the surviving competent adult siblings shall be vested with the rights and duties of this section if they have used reasonable efforts to notify all other surviving competent adult siblings of their instructions and are not aware of any opposition to those instructions by the majority of all surviving competent adult siblings.

(6) The surviving competent adult person or persons respectively in the next degrees of kinship, or if there is more than one surviving competent adult person of the same degree of kinship, the majority of those persons. Less than the majority of surviving competent adult persons of the same degree of kinship shall be vested with the rights and duties of this section if those persons have used reasonable efforts to notify all other surviving competent adult persons of the same degree of kinship of their instructions and are not aware of any opposition to those instructions by the majority of all surviving competent adult persons of the same degree of kinship.

(7) The public administrator when the deceased has sufficient assets.

(b) (1) If any person to whom the right of control has vested pursuant to subdivision (a) has been charged with first or second degree murder or voluntary manslaughter in connection with the decedent's death and those charges are known to the funeral director or cemetery authority, the right of control is relinquished and passed on to the next of kin in accordance with subdivision (a).

(2) If the charges against the person are dropped, or if the person is acquitted of the charges, the right of control is returned to the person.

(3) Notwithstanding this subdivision, no person who has been charged with first or second degree murder or voluntary manslaughter in connection with the decedent's death to whom the right of control has not been returned pursuant to paragraph (2) shall have any right to control disposition pursuant to subdivision (a) which shall be applied, to the extent the funeral director or cemetery authority know about the charges, as if that person did not exist.

(c) A funeral director or cemetery authority shall have complete authority to control the disposition of the

remains, and to proceed under this chapter to recover usual and customary charges for the disposition, when both of the following apply:

(1) Either of the following applies:

(A) The funeral director or cemetery authority has knowledge that none of the persons described in paragraphs (1) to (6), inclusive, of subdivision (a) exists.

(B) None of the persons described in paragraphs (1) to (6), inclusive, of subdivision (a) can be found after reasonable inquiry, or contacted by reasonable means.

(2) The public administrator fails to assume responsibility for disposition of the remains within seven days after having been given written notice of the facts. Written notice may be delivered by hand, U.S. mail, facsimile transmission, or telegraph.

(d) The liability for the reasonable cost of final disposition devolves jointly and severally upon all kin of the decedent in the same degree of kinship and upon the estate of the decedent. However, if a person accepts the gift of an entire body under subdivision (a) of Section 7155.5, that person, subject to the terms of the gift, shall be liable for the reasonable cost of final disposition of the decedent.

(e) This section shall be administered and construed to the end that the expressed instructions of the decedent or the person entitled to control the disposition shall be faithfully and promptly performed.

(f) A funeral director or cemetery authority shall not be liable to any person or persons for carrying out the instructions of the decedent or the person entitled to control the disposition.

(g) For purposes of this section, "adult" means an individual who has attained 18 years of age, "child" means a natural or adopted child of the decedent, and "competent" means an individual who has not been declared incompetent by a court of law or who has been declared competent by a court of law following a declaration of incompetence.

Print Form

### *C. New Facilities Human A&P Lab Adjacency Plan*

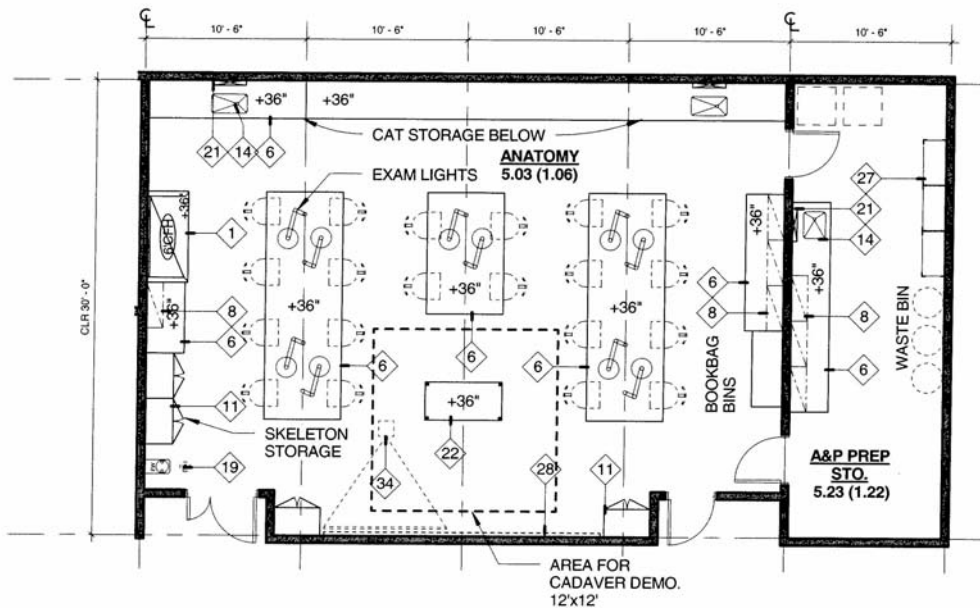
The following is a rough proposal for space allocation for a Cadaver Lab and Human A&P Lab. Tables will be wheeled out into the common lab area for dissection and instructional purposes. The addition of storage space and a cleaning station further enhances the independence of this lab such that all materials, equipment, solutions, and specimens associated with this lab are self contained for security and convenience purposes.

#### LABORATORY DIAGRAM

Nov. 10, 2008

Department: Biology (Shared with Natural Science)  
 Space Name: Anatomy + A&P Lab  
 Space ID: 5.03 + 5.23  
 Area: 1,260 NSF + 315 NSF + 165 NSF  
 Student Stations: 20

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.



#### FURNISHINGS

- |                                      |                                 |   |
|--------------------------------------|---------------------------------|---|
| 1. Chemical Fume Hood                | 13. Equipment Space             | 25. Autoclave                             |
| 2. Biological Safety Cabinet         | 14. Laboratory Sink             | 26. Movable Laboratory Table              |
| 3. Radiolotope Hood                  | 15. Cupsink                     | 27. Wire Shelving                         |
| 4. Vented Workstation                | 16. Processing Sink             | 28. White Markerboard                     |
| 5. Snorkel Exhaust                   | 17. Cylinder Rack               | 29. Black Chalkboard                      |
| 6. Laboratory Bench, Standing Height | 18. Gas Cabinet                 | 30. Tackboard                             |
| 7. Laboratory Bench, Sitting Height  | 19. Safety Shower/Eyewash       | 31. Desk                                  |
| 8. Wall Cabinet                      | 20. Overhead Service Carrier    | 32. Balance Table                         |
| 9. Adjustable Wall Shelves           | 21. Pipe Drop Enclosure         | 33. Writing Table                         |
| 10. Island Bench Shelves             | 22. Movable Demonstration Bench | 34. Multi-media Projector (Ceiling Mount) |
| 11. Tall Storage Cabinet             | 23. Glassware Washer            | 35. File Cabinet                          |
| 12. Vented Flammable Storage Cabinet | 24. Glassware Dryer             |   |

Loyola Marymount University  
 CO Architects

New Science Center  
 Research Facilities Design

**DETAILED SPACE REQUIREMENTS**

October 31, 2008

**Department:** Shared Facilities - (Biology & Natural Science)  
**Space Name:** Anatomy / A + P Teaching Laboratory  
**Space ID:** 5.03  
**Occupancy:** 20

**UTILIZATION**

Hours of Use

8 hours/day

14 hours/day

24 hours/day

Hours of Operation

8 hours/day

14 hours/day

24 hours/day

**MECHANICAL**

Temperature

72°F ± 2°F

68°-75° ± 2°F

Other

Humidity

50% ± 20%

Uncontrolled

10 Minimum Air Changes/Hour

6 Minimum Air Changes/Hour

4 Unoccupied Setback

100% Make-up Air

Recirculated Air

Air Pressure Positive

Air Pressure Negative

Air Filtration/Supply

Air Filtration/Exhaust

**HOODS/ EXHAUST DEVICES**

Chemical Fume Hood

Radiolotope Hood

Laminar Flow Hood

Biological Safety Cabinet

Snorkel

Canopy Hood

Student Station Exhaust

Other

**LABORATORY EQUIPMENT**

Vibration Sensitive

Light Sensitive

Vibration Producing

Heat Producing

Noise Producing

**PLUMBING**

Laboratory Gas (LG)

Laboratory Vacuum (LV)

Laboratory Air (LA)

Compressed Air, 100 psi (A)

Industrial Hot Water (HW)

Industrial Cold Water (ICW)

Potable Hot Water (HW)

Potable Cold Water (CW)

Basic Purified Water (PW)

Chilled Water (CHW S/R)

Steam

Carbon Dioxide (CO<sub>2</sub>)Nitrogen Gas (N<sub>2</sub>)

Manifolded Cylinder Gases

Inert

Flammable

Toxic

Floor Drain (FD)

Floor Sink (FS)

Safety Shower/Eyewash (SS)

Drench Hose (DH)

**ELECTRICAL**

110V, 20A, 1 Phase

208V, 30A, 1 Phase

208V, 30A, 3 Phase

480V, 100A, 3 Phase

Isolated Ground Outlet

DC Power

Standby Power

UPS (CFOI)

Phone

Data - Jacks

Data - Wireless

In Use Light

Lighting Level

80 fc at bench direct

50 fc at bench indirect

Task Lighting at bench

Safe Light (Darkroom Light)

Laser Warning Lights

Darkenable

Zoned Lighting (1/3, 2/3 for AV)

Other

**CHEMICALS**

Bases

Acids

Solvents

Radionuclides

Chemical Storage

Biological Storage

**ARCHITECTURAL**

Floor

VCT

Welded Seam Sheet Vinyl

Epoxy

Other

Partitions

Gyp Board, Epoxy Paint

Gyp Board, Cleanable Paint

Other

Base

4" Rubber

Integral w/floor

Ceiling

Open

Acoustic Tile

Gyp Board, Epoxy Paint

Min. Height

9'-0"

Doors

3' x 7'

(3' + 1'-6") x 7'

(3' + 3') x 7'

3'-6" X 7'

Vision Panel

Sliding Door

Card Key Access

Natural Daylight

**CASEWORK**

Cabinets

St. Stl.

Wood

Metal

Plastic Laminate

Countertops

St. Stl.

Epoxy

Plastic Laminate

**REMARKS:**

1. Consider Exhaust System Controls for On/Off Dissection Mode.
2. Consider Snorkel Exhaust at each Student Station
3. Exam Lights at each Student Station for detailed dissections.
4. Consider Garbage Disposals at Sinks

**EQUIPMENT:**

1. Microscopes
2. Overhead Dissection Camera  
Sky-Eye Mark III or IV
3. LCD Flat Screen(s) for viewing dissections
- 4.

Loyola Marymount University  
 CO Architects

New Science Building  
 Research Facilities Design

### ***D. Existing Plan Floor Schematic***

The following is a representative minimum space requirement of the human cadaver lab. The dissection tables are typically 84" long and 30" wide. Two cadavers on dissection tables will fit in this space and still provide a minimum of 24" in between dissection tables and 30" space from walls for working space and movement. Additional space for additional materials and possible ventilation units are located under the table. Removed specimen scraps, additional wetting solutions, and dissection equipment can conveniently be placed in these areas thus alleviating the need for additional storage space inside this lab room. The following schematic provides a working floor space of 144 ft<sup>2</sup>.

