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The management of a clinical trial requires the coordination of a number of tasks concurrently. Every study has its own individual difficulties and concerns that a research team must work around in order to get a study started and begin subject enrollment. The Baylor Research Institute is participating as a research site for both the CTSN and DEEP studies. Each study is funded by a different type of sponsor, which includes the National Institutes of Health and AtriCure. The two studies were followed from the early stage of site selection up until the point of subject enrollment. The CTSN and DEEP trials provided insight as to how to successfully manage the start-up of both types of studies, demonstrating the delays and difficulties that may arise as a clinical trial agreement approaches execution.

COMPARING SITE MANAGEMENT OF A NIH VERSUS INDUSTRY SPONSORED
STUDY: CTSN (SURGICAL INTERVENTIONS FOR MODERATE ISCHEMIC
MITRAL REGURGITATION) TRIAL VERSUS DEEP (DUAL EPICARDIAL
ENDOCARDIAL PROTOCOL FOR PERSISTENT AND LONGSTANDING ATRIAL
FIBRILLATION) TRIAL

INTERNSHIP PRACTICIUM REPORT

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By

Jennifer Ong, B.S., M.S.

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I. INTRODUCTION

Clinical research involves human subjects and is carried out because the investigators are attempting to find an answer to a biomedical question. Without these types of studies there would be marginal progression in the medical field. A clinical study has an extensive number of requirements to be completed and an even larger amount of paperwork that must be processed before a study can initiate. The start-up processes for clinical trials tend to differ depending on a number of factors, one of which is their source of funding. These trials can receive monetary support from various sponsors, which include federally run bodies such as the National Institutes of Health (NIH) or large corporate industries such as AtriCure. To understand the differences and similarities between studies funded by these two very different types of sponsors, the NIH funded Cardiothoracic Surgical Trials Network (CTSN) study will be compared with the AtriCure sponsored Dual Epicardial Endocardial Protocol for Persistent and Longstanding Atrial Fibrillation (DEEP) study. The start-up phase for both the CTSN and DEEP trials will be observed closely, making note of their similarities and differences.

Studies are typically designed to test the efficacy and feasibility of different treatments, such as a new device, drug, or surgical intervention. The NIH focuses its funding to support studies that attempt to learn more about treatments and the prevention of chronic illnesses that are common on a global scale.¹ In addition, the NIH is inclined to fund studies that focus on how to expand access of care to underserved patients, improving the livelihood of the overall population.¹ In order to obtain a NIH grant, the principle investigator (PI) must have some degree of scientific recognition and the research proposal must be developed by him or herself. An NIH grant application must include specific aims, rationale, a research strategy, an abstract and references. In addition, the PI must also write his or her own protocol. There are two types of

NIH exploratory/developmental research grant awards. They typically range from three to four million dollars which spans a two year period for R21 grants or a five year period for R01 grants.¹ Thus, NIH funded trials are highly competitive and more difficult to obtain compared to studies that are industry funded.

Industry sponsored studies refer to clinical trials that are financially supported by privately owned or publicly traded for-profit companies. Since they receive no financial aid from the government, these studies are concentrated on the more lucrative side of the clinical research field. They tend to focus on innovative interventions; i.e., new drugs or devices, which aim to alleviate diseases prevalent in high income countries, allowing their companies to make profit. Industry studies examine two key factors: the safety and efficacy of these new interventions. The amount of money granted to a site typically depends on how much it will cost for each patient to complete the study and how many subjects the study aims to enroll. The majority of industry clinical trials is competitive enrollment studies and may at times even include financial incentive for sites that enroll the most subjects. The sooner a company completes a study, the sooner it can apply for FDA approval of the drug or device, which equates to profit for the company once the product is on the market. The sponsor in this case provides its own study protocol. Unlike NIH studies which require a PI to develop their own research proposal, industry sponsored studies develop their clinical trial protocols and recruit investigative sites to conduct their study. On the other hand, a PI may directly contact a sponsor and discuss the possibility of participating in an industry sponsored clinical trial at his or her site.

The ***Regulation of Clinical Trials*** is one of the key elements that go into the ethical and responsible conduct of human research. With research that requires the use of human subjects, investigators and coordinators must not only respect the rights of their participants, but they must

actively protect their safety and dignity as well. The federal government serves as both a regulator and supervisor, ensuring that research staff upholds these responsibilities when conducting human research. Federal legislation and guidelines provide additional safeguards for study participants by holding research staff accountable should they abuse or mistreat study patients. Past cases of unethical human research such as the Tuskegee Syphilis Study, led to the implementation of new regulations and establishments for the protection of human subjects.¹⁹ The Office for Human Research Protections was established.¹⁹ In addition, the federal government expanded on existing regulations and protections by creating the Belmont Report along with requiring that all studies involving human subjects undergo review by an Institutional Review Board (IRB) before commencing.¹⁹ Each site that participates in a clinical study must follow the Food and Drug Administration (FDA) regulations and the International Conference on Harmonization (ICH) guidelines with regards to Good Clinical Practice (GCP). GCP is a general term in reference to a group of regulations that define the responsibilities of those conducting a clinical study. These regulations include the need to obtain informed consent from every study subject, to maintain accurate case histories for each subject and to maintain accurate records of the study drug distribution. Study personnel must notify the IRB of all protocol amendments, protocol deviations and adverse events. Research staff must also re-submit paperwork for any ongoing study annually to the IRB for its continuing review. Additionally, they must maintain a record of accreditation for all laboratories used during the study. All records that are study related must be retained by study personnel for two years following the review of the sponsor application by the FDA.

Additionally, every study requires approval from an IRB. There are local and central IRBs. A majority of IRBs are local; affiliated with a specific facility or institution, however,

there are a number of central IRBs that are independent and contract with investigators, sponsors, and Contract Research Organizations (CRO).¹² Each IRB has specific jurisdiction given to them by both federal regulations and local institutional policy.¹² A local IRB typically only has jurisdiction with its affiliated institution (i.e. a hospital or research facility) or with a particular location. All trials carried out through the Baylor Healthcare System (BHCS) must be reviewed and approved by the IRB of Baylor Research Institute (BRI), operating as a local IRB. Central IRBs, on the other hand, may review study protocols from different sponsors across the country, so long as the proper submission form is completed. An IRB is an administrative body that is composed of at least five members with varying backgrounds.¹² An IRB must demonstrate competence by including members that have both experience and expertise.¹² In addition to having a diverse group of members, an IRB must also have at least one member who is primarily invested in the field of science and at least one member who is primarily associated with a nonscientific field.¹² An IRB must also have one member who is not affiliated with the institution in any way, which includes any relations to a person affiliated with the institution.¹² The purpose of an IRB is to protect the rights and welfare of human subjects who are recruited to participate in research.¹² The IRB assesses the benefits that a study may present versus the risks that a subject may be exposed to, thus, evaluating the scientific rationale of the proposed study.¹² The IRB also reviews how the study will be conducted by reviewing its protocol. IRBs are given the role of regulator and have the ability to disapprove a study and to request modifications be made before further review.¹² With submissions to the IRB, study staff must include individual financial disclosures (IRB Form 14), the informed consent form (ICF) that subjects will be receiving, an application and project summary (IRB Form 1), and the protocol which a study will be following.¹² Most importantly, the IRB must review and approve all paperwork that a patient

receives, from the informed consent to an advertisement in the paper.¹² The IRB Form 1 provides an overview of the proposed study. It includes the study purpose, scientific rationale, the study procedures, the devices/drugs involved, the target population and lastly the potential risks and benefits. The Form 1, thus, allows IRB board members to efficiently review and evaluate the key points of a study protocol in a timely manner. Subject enrollment may commence only after all study material has been approved by the IRB.

Before any study candidate is enrolled in a study, he or she must be given the IRB approved ICF, which supplies the patient with a thorough explanation of the study's protocol and the potential risks and benefits involved.¹² After a patient is given the ICF, the investigator or study coordinator goes over the details of the study, providing a one-on-one verbal explanation.¹² During the informed consent process, the patient must be told that they will have the right to leave the study at any time and the entire conversation must be documented in the progress notes of the patient. The patient gives an informed consent when he or she voluntarily agrees to take part in the study. Patients may give their consent only after demonstrating that they fully understand how the study will be conducted and its risks and benefits.¹² The ICF must then be signed by the patient. A signed and dated copy is given to a patient, while the original is filed with the patient's chart. Subject recruitment then involves a screening process, where the study investigator must determine a patient's eligibility for a study based on the sponsor's inclusion and exclusion criteria.¹² These criteria minimize any extraneous data that may mask or amplify results, which in turn would cause the researcher to make incorrect conclusions regarding the study. Furthermore, an extensive screening process prevents any possible harm to patients that are not suited for the treatment employed in a particular study.

The PI and research staff initially determine if a trial is feasible and whether or not it will meet its objectives while minimizing risks to subjects. When conducting a study, the PI assumes all responsibility. Before a study may commence a PI must complete a Form 1572 or an investigator agreement from the sponsor depending on the type of study.¹³ All studies that involve the testing of a drug or biologic require the completion of a Form 1572, while device studies require the PI to sign an investigator agreement. The Form and investigator agreement are very similar. Both provide the sponsor with the contact information and current curriculum vitae of the investigator. Both the Form and investigator agreement include a number of statements that PIs agree to once they sign either document. They certify that they have read and understand the brochure for the investigator.¹³ They agree to personally conduct the trial according to its protocol; maintaining accurate records that are available at any time for inspection.¹³ They agree to inform patients about their participation in a clinical trial: proper consent shall be obtained before recruitment.¹³ The PI also agrees to report any adverse events to both the FDA and to his or her IRB.¹³ They are also required to report any changes in the protocol to the IRB. Lastly, the PI agrees to comply with regulations stipulated in GCP.¹³ They are responsible for every aspect of a clinical trial, including the actions of those working under their supervision. The PI, thus, must personally manage the finances and personnel of the study to ensure that study-conduct adheres to federal legislation and GCP guidelines.¹³ The investigator plays a pivotal role in subject recruitment and treatment, which includes assessing medical data and determining the appropriate course of action. Many of the previously mentioned tasks may be delegated to study staff, as long as they are qualified to perform the task. The PI must then have a written task delegation that includes signatures from both

parties.¹³ However, the PI ultimately remains responsible for any delineation from the study protocol or the failure to report adverse events.¹³

The *CTSN Trial* will examine which surgical intervention is the most effective and safest in treating moderate ischemic mitral regurgitation (IMR). In a normal working heart, blood always flows in one direction. The interior of the heart has valves located between different chambers that allow the entry or the exit of blood. These valves prevent blood backflow when the heart pumps blood through its chambers. In each of the ventricles of the heart there is an inlet valve from the atria and an outlet valve that leads to the arteries.² The direction of each valve is determined by its flaps, referred to as leaflets or cusps.² In patients with coronary artery disease (CAD), there is a narrowing or blockage of coronary arteries on the heart, creating an impediment of blood flow to the muscle tissue. The heart becomes deprived of oxygen, demonstrating signs of ischemia. This can lead to either myocardial infarction or deterioration of the overall structure of the heart.³ In some long term cases, the left ventricle of the heart experiences an alteration in its shape which results in the displacement of papillary muscles making it difficult for the valve flaps to come together.³ Thus, when the left ventricle attempts to pump blood into the systemic circulation some of the blood is pushed back up into the left atrium.⁵ This condition is known as regurgitation.⁵

The best method of treatment for CAD associated with IMR has become a debatable topic in recent years. Some patients are treated with coronary artery bypass grafting (CABG) with mitral valve repair/replacement (MVRR) or with CABG alone.⁴ CABG surgery involves the placement of a bypass graft, which can be a vein from the leg of the patient or an artery from their chest.⁴ The bypass creates new routes around the arteries which are either blocked or narrowed, allowing sufficient blood flow to resume. MVRR, on the other hand, encompasses two

types of treatment depending on the severity of the IMR.⁴ With moderate cases, valve repair surgery is typically employed.⁵ Repair varies from the removal of excess valve tissue, the placement of additional support at the valve base via added tissue or a collar, and lastly, attaching the valve to cordlike heart tissue.⁵

Typically the severity of IMR is correlated with the disruption of adequate circulation to the heart muscle, thus, it is often difficult for the clinician to determine the best method of treatment.⁴ Current information in regards to which treatment is optimal for patients with IMR is limited to observational studies and case series, where there is a large variation in patient baseline.⁴ These studies are also lacking in proper patient follow-up and information on secondary outcomes.⁴ There is a consensus from literature review that optimal treatment is not yet known and that a randomized clinical trial is necessary to fully understand the therapeutic outcomes of each type of treatment.⁵

On the other side of the funding spectrum is the *DEEP Trial*, which is funded by the medical device company AtriCure. This clinical study is aimed at assessing the safety and feasibility of treating subjects with persistent atrial fibrillation (AF) or longstanding persistent AF with a hybrid procedure that involves both a thoracoscopic ablation method employing the AtriCure Bipolar System and a catheter ablation in the same procedure. AF is characterized as a type of arrhythmia, where the heart contracts at an abnormal rate or rhythm.⁶

The primary function of the heart is to pump and deliver blood to different locations within the body. For example, oxygen poor blood is sent to the lungs in order to pick up oxygen, while oxygen rich blood is pumped to tissues in need of oxygen. The heart muscle coordinates these contractions through the conduction of an electrical signal.⁶ The signal starts at the sinoatrial (SA) node (a group of cells located in the right atrium) and then travels away from the

node through the right and left atria, which causes contraction of the atria.⁶ Blood is pumped into the ventricles and the electrical signal moves down to the atrioventricular (AV) node (a second group of cells found between the atria and ventricles).⁶ As the signal leaves the AV node, it travels to the ventricle and causes them, in turn, to contract, pumping blood into the pulmonary circulation and to the systemic circulation.

Arrhythmia arises when this internal electrical system is malfunctioning.⁶ When a patient has AF, the electrical signals of the heart no longer begin at the SA node and instead are initiated at another part of the atria or in the nearby pulmonary veins.⁷ The signals no longer travel normally and spread throughout the atria in a rapid disorganized way. These waves of electrical signals cause the atrial muscle to quiver, bringing about fibrillation.⁷ The AV node can no longer conduct signals to the ventricles because of the speed of their arrival, which causes the atria and ventricles to beat in an uncoordinated manner.⁷ Thus, the abnormal electrical signaling results in a fast and irregular or slow and irregular heart rhythm.⁷ Some of the electrical signals make it down the heart to the bottom chambers, making it squeeze and contract, thus, AF alone is not a life-threatening disorder.⁶

AF is treated by a variety of methods, such as cardioversion (electrical or pharmaceutical) or ablation (catheter or surgical).⁸ Cardioversion is considered to be the first choice of treatment when patients first present signs of AF.⁸ An electrical cardioversion involves the placement of two electrodes or paddles on the patient.⁸ Once synchronized with the cardiac wave of the patient, the defibrillator delivers an electrical shock to the heart, disrupting the abnormal electrical signaling.⁸ This interruption of the abnormal signal gives the normal electrical signaling of the heart a chance to take over and, thus, restore the heart to a normal rhythm.⁸ For a pharmaceutical cardioversion, that patient is prescribed anti-arrhythmic drugs (AADs), which

can be given alone or in conjunction with an electrical cardioversion.⁸ Patients that demonstrate no improvement after the administration of a cardioversion then become potential candidates for ablation procedures. Ablation techniques are typically used for treating persistent forms of AF.⁸ With catheter ablation, electrodes are employed to generate heat with radiofrequency energy; creating lesions on abnormal tissue within the heart.⁸ These electrodes are placed by an electrophysiologist at the site of arrhythmia, allowing the physician to create scar tissue and hopefully remove the source of AF.⁸ Catheter ablations generally isolate triggers found in the pulmonary veins.⁸ Surgical ablation, on the other hand, combines pulmonary vein isolation with a linear ablation to replicate a maze procedure.⁸

The Cox-Maze III procedure was developed in the 1980s by Dr. James Cox.⁹ This procedure is based on creating a set of surgical incisions in a pattern on the atria of the heart.⁹ These incisions are then sewn back together, which causes the patient to form scar tissue and therefore, removes the source of abnormal electrical signaling.⁹ When done correctly, the procedure has been demonstrated to be 90% effective at treating AF.⁹ Unfortunately, the procedure is associated with a significant number of co-morbidities due to the invasive nature of the process. The procedure itself is also very difficult for the majority of surgeons, which is why it was only performed at a small number of sites, and is not widely available to patients.⁹

The AtriCure Bipolar System, however, is in development to produce a minimally invasive approach to the Cox-Maze IV procedure. The proposed procedure involves a thoracoscopic method of producing lesions on the heart, removing the need of stopping the heart and placing the patient on a cardiopulmonary bypass. The lesions involve pulmonary vein isolation along with linear ablation (roof, floor and valvular lesions), closely following the Cox-Maze III. The Cox-Maze IV has been previously done using an open chest procedure with the

assistance of a cardiopulmonary bypass; success rates were reported to be as high as 95%.⁸ Being on bypass, however, still presents a number of risks for the patient. The thoracoscopic ablation instruments along with the use of videoscopic assisted techniques (VAT), give the cardiac surgeon the opportunity to perform a maze procedure without bypass. This minimally invasive thoracoscopic ablation procedure has wide ranging success in treating AF (35% to 90%) due to variations of the lesion set.¹⁰

Catheter ablation has also been used to treat individuals with persistent or longstanding persistent AF, however, this procedure demonstrated less successful outcomes.¹¹ Catheter ablation has been limited due to the current catheter technology and its ability to perform reliable transmural linear ablation.¹¹ The success of minimally invasive thoracoscopic ablation is also limited due to the mediocre mapping techniques and technologies used for verification of conduction block.¹¹ Thus, a hybrid procedure that combines the thoracoscopic ablation method with catheter mapping and ablation provides physicians with the opportunity to effectively produce the Cox-Maze IV lesion set while utilizing a minimally invasive off pump approach.

The surgical component of this procedure is based on the Cox-Maze IV lesion set. The lesions will consist of a pulmonary vein isolation, roof and inferior connecting lesions, and a lesion from the left superior pulmonary vein to the left atrial appendage. These lesions and surgical procedure are shown illustratively in the diagrams included in APPENDIX A. The catheter component of this procedure is employed for a number of purposes, which includes mapping and the confirmation of surgical ablation lines. The catheter will also be used for spot ablations to enhance the epicardial lesion set that may have failed to produce a conduction block and to create the tricuspid and mitral lesions of the Cox-Maze IV lesion set. The hybrid

procedure is being developed to provide a more effective option of treatment for patients suffering from persistent and longstanding persistent AF.

The products that the *DEEP Trial* will utilize include the Synergy Clamps, Isolator Transpolar Pen and Coolrail Linear Pen. The Navistar ThermoCool ablation catheter will be used as well. The purpose of this study is to assess the feasibility and safety of the AtriCure Bipolar System combined with catheter based ablation to treat subjects with persistent or longstanding persistent AF with lesion locations determined by 3D mapping.

II. SPECIFIC AIMS

The six month internship practicum provided exposure to the tasks that a study coordinator is responsible for when running a clinical trial. With this experience a number of goals were achieved:

1. Review all material for an upcoming NIH funded and industry funded study
2. Understand the differences of the start up phase for a NIH funded versus an industry funded study
3. Observe clinical team including research team and investigators
4. Observe cardiovascular research study process from initial consult through subject recruitment, consent, “treatment”, data collection, and follow-up
5. Review and learn other study specific processes which include:
 - Development of the study budget
 - Preparation of IRB documents
 - Study implementation and subject recruitment
 - The regulatory requirements of an ongoing study
 - Auditing the regulatory binder
 - Completing case report forms

III. SIGNIFICANCE

The objective of this practicum project was not necessarily to seek out an answer to a biomedical question. It is an in depth analysis of the discrepancies with which a research coordinator and an investigator must deal with when conducting a study sponsored by industry versus one that is sponsored by the NIH. The practicum project focused on the start-up phase for each respective type of study, pointing out the different steps and the different processes that each type of study presents to a coordinator. This report attempts to clarify these differences so that future coordinators know what to expect when undertaking the two different types of studies. They will have a better idea of how to allocate their time, and also be able to anticipate the different challenges in each study. One type of study may be more difficult at a certain step, requiring more attention and more manpower as compared to the other type. Coordinators will be able to focus more time on either a NIH study or an industry study depending on which part of the start-up phase they are currently undertaking.

The management and coordination of the CTSN and DEEP studies pose a unique and complicated challenge for both the investigator and study coordinator. The success of each study is reliant on proper management. By making note of the different requirements and difficulties that each type of study poses, our medical research will progress at a more efficient rate. The analysis provided in this paper provides a coordinator or investigator with a clear roadmap to follow, allowing the study to move on to site initiation as quickly as possible. Subject recruitment may then commence, bringing the study to completion in a timely manner. Investigators may then synthesize conclusions regarding the medical question at hand based on study results. Research has become a competitive field and the most successful sites tend to be the most time efficient ones without degrading the quality of their results. The site that

approaches each study with a clear strategy completes each study at a faster pace, and is, thus, contacted more often by sponsors to conduct their studies. Additionally, an abundance of successful studies assists with the progression of medicine, allowing the medical community to better treat future patients.

IV. LITERATURE REVIEW

The CTSN moderate IMR trial, which is sponsored by the NIH, is a prospective, multi-center, randomized, controlled clinical trial. The trial will be conducted at 17 clinical centers which are participating in the NIH supported Cardiothoracic Surgery Network. Three hundred subjects will be enrolled and randomized at a 1:1 ratio. All patients enrolled in the trial will undergo a CABG. The random assignment will designate which patient receives the CABG alone or a CABG and MV repair. The randomization will occur intra-operatively; after the sternal opening and before cannulation of the aorta. For the CTSN study neither the patient nor the investigator will be blinded in regards to treatment assignment due to the type of intervention undertaken in this study.

The enrollment period will run for 24 months. A survey of the clinical sites revealed that approximately 140-160 patients could be enrolled annually if each site actively screened for patients. Strategies for recruitment include letters to referring physicians at each respective site, symposia and health care events for members of the study population and lastly contacting nearby health care facilities. The target population for the CTSN trial is comprised of patients with moderate IMR and clinically significant coronary artery disease with a recommended treatment of CABG. The inclusion and exclusion criteria are as follows:

Inclusion Criteria:

1. Moderate mitral regurgitation in the judgment of the clinical site echocardiographer, assessed by transthoracic echocardiogram. Assessment of mitral regurgitation will be performed using an integrative method.¹⁸ Quantitative guidelines as proposed would be: ERO between 0.2 cmsq to 0.39 cmsq. If $ERO < 0.2$, then the degree of mitral

regurgitation will be guided by other color Doppler quantitative methods (jet area/left atrial area ratio, vena contracta, supportive criteria in an integrated fashion.

2. Coronary artery disease amenable to coronary artery bypass grafting and a clinical indication for revascularization
3. Age \geq 18 years
4. Able to sign Informed Consent and Release of Medical Information forms

Exclusion Criteria

1. Any evidence of structural (chordal or leaflet) mitral valve disease
2. Inability to derive ERO and ESVI by transthoracic echocardiography
3. Planned concomitant intra-operative procedures (with the exception of closure of patent foramen ovale [PFO] or atrial septal defect [ASD], or Maze procedure)
4. Prior surgical or percutaneous mitral valve intervention
5. Contraindication to cardiopulmonary bypass (CPB)
6. Clinical signs of cardiogenic shock at the time of randomization
7. Treatment with chronic intravenous inotropic therapy at the time of randomization
8. Severe, irreversible pulmonary hypertension in the judgment of the investigator
9. ST segment elevation MI requiring intervention within 7 days prior to randomization
10. Congenital heart disease (except PFO or ASD)
11. Chronic renal insufficiency defined by Cr \geq 2.5 or chronic renal replacement therapy (chronic hemo- or peritoneal dialysis)
12. Evidence of cirrhosis or hepatic synthetic failure
13. Recent history of psychiatric disease (including drug or alcohol abuse) that is likely to impair compliance with the study protocol, in the judgment of the investigator

14. Therapy with an investigational intervention at the time of screening, or plan to enroll patient in additional investigational intervention study during participation in this trial
15. Any concurrent disease with life expectancy < 2 years
16. Pregnancy at the time of randomization

After initial screening and baseline establishment, the patients will be followed for 24 months. Three follow-up visits will occur after the procedure: one at six months, one after 12 months, and lastly one after 24 months.

The AtriCure sponsored study, DEEP, is a prospective, multicenter, single-arm study. The study will enroll a maximum of 30 subjects. Its objective is to assess the safety and technical feasibility of treating subjects with persistent or longstanding persistent AF in a minimally invasive thoracoscopic ablation procedure, using both the AtriCure Bipolar System and approved catheter technology. The duration of the study will be approximately 30 months. The enrollment period will run for six months. Five centers will be selected; each site will recruit a maximum of ten subjects. The target population includes patients with persistent or longstanding persistent AF as defined in accordance to Heart Rhythm Society guidelines. The study defines persistent AF as AF lasting greater than seven days but not exceeding a year, or lasting less than seven days but necessitating the use of cardioversion treatment. Longstanding persistent AF, however, is defined simply as continuous AF which exceeds a one year period. Recruitment goals include a minimum of ten subjects with persistent AF and a minimum of ten subjects with longstanding persistent AF. The inclusion and exclusion criteria are as follows:

Inclusion Criteria:

1. Age > 18 years
2. Patients with symptomatic (e.g. palpitations, shortness of breath, fatigue) persistent or

longstanding persistent AF refractory to a minimum of one Class I or Class III AADs

(Note: Persistent AF or Longstanding Persistent AF must be documented as follows:

Persistent AF:

- *Physician's note indicating continuous AF > 7 days but no more than one year, or AF lasting < 7 days but necessitating pharmacologic or electrical cardioversion;*

AND

- *Two electrocardiograms (e.g. 12-lead ECG, Holter, event monitor, Implantable Loop Recorder (ILR), Pacemaker etc.) documenting AF, with electrocardiograms taken at least 7 days apart, for subjects with sustained AF > 7 days. Holter, event monitor, ILR or pacemaker recordings need to show continuous AF.*

Longstanding Persistent AF:

- *Physician's note indicating continuous AF > one year;*

AND

- *24 hour Holter or Implantable Loop Recorder or Pacemaker recording obtained within 3 months prior to the index procedure showing continuous AF;*

AND

- *AF documented by any electrocardiographic recording upon arrival to the procedure room.)*

3. Patients with previous failed attempts to treat AF using catheter ablation are eligible if

they are symptomatic and present with Persistent or Longstanding Persistent AF.

Previous catheter ablation must have occurred greater than three months prior to the index procedure. (Note: Patients who have not undergone previous failed catheter ablation are also eligible for study entry, if they meet all other eligibility criteria)

4. Patient is willing and able to provide written informed consent
5. Patient has a life expectancy of at least two years
6. Patient is willing and able to attend the scheduled follow-up visits

Exclusion Criteria:

1. Prior Cardiothoracic Surgery
2. Previous thorax trauma
3. Patient has NYHA Class IV heart failure
4. Patient has an uncorrected, reversible cause(s) of atrial fibrillation (e.g. hyperthyroidism, electrolyte imbalance)
5. Patient is currently being treated for arrhythmias other than atrial fibrillation (AF)
6. Evidence of underlying structural heart disease requiring surgical treatment (i.e.: CAD, CABG, valve disease requiring repair or replacement within 12 months following index procedure)
7. Any surgical procedure within the thirty days prior to index procedure
8. Ejection fraction < 30% (based on baseline transthoracic echocardiography)
9. Measured left atrial diameter > 6.0 cm in parasternal long axis view (based on baseline transthoracic echocardiography)
10. Renal Failure as defined by creatinine > 2.0 mg/dl and/or need for dialysis
11. Cerebrovascular accident within previous six months

12. Known carotid artery stenosis greater than 80%
13. Evidence of significant active infection or endocarditis
14. Patient unable or unwilling to undergo TEE
15. BMI > 40
16. Pregnant woman or women desiring to become pregnant in the next 24 months
17. Presence of thrombus in the left atrium determined by echocardiography (either at baseline TTE or intraoperative TEE)
18. History of blood dyscrasia (i.e. Idiopathic Thrombocytopenic Purpura (ITP) or Thrombotic Thrombocytopenic Purpura (TTP))
19. Contraindication to anticoagulation, based on Investigator's opinion
20. Documented thromboembolism in the past six months
21. Atrial myxoma.
22. Mural thrombus or tumor
23. Condition/Congenital anomaly which prevents required surgical or catheter access
24. Moderate to Severe Chronic Obstructive Pulmonary Disease (FEV1 or VC<70% predicted) or Patient is considered intolerant to single lung ventilation
25. Patient has co-morbid condition that in the opinion of the investigator poses undue risk of general anesthesia or port access cardiac surgery
26. Patient is enrolled in another investigational study which has not completed the required primary endpoint follow-up period (Note: Patients involved in a long-term surveillance phase of another study are eligible for enrollment in this study)
27. Psychiatric disorder which in the judgment of the investigator could interfere with provision of informed consent, completion of tests, therapy, or follow-up

After the procedure is complete, follow-up evaluations will be scheduled for one, three, six, nine, 12, and 24 months post-procedure. Up until 12 months, all patients will be observed for primary safety, and primary efficacy will be measured at the end of this period. The study will reach completion after the final follow-up visit at 24 months post procedure.

V. METHODOLOGY

The research internship with BRI took place at The Heart Hospital Baylor Plano (THHBP), which is a part of BHCS and located in Plano, Texas. THHBP is one of the few medical facilities in the Northern Texas area that is solely dedicated to heart and vascular care. The BRI department at THHBP conducts clinical trials which are oriented around the treatment of various cardiovascular diseases. Studies range from investigator initiated, industry sponsored and NIH funded. A majority of studies located at THHBP tend to focus on surgical interventions or devices that are geared towards treating moderate to severe heart conditions.

Over the course of the internship, two individual studies were followed under close observation. The NIH funded CTSN and AtriCure sponsored DEEP studies were both in the early stages of study start-up during June, 2010. Meetings concerning the feasibility and start-up of both studies were attended and recorded. From the months of June until October 2010, the weekly meetings between the research department management located at THHBP and the BRI Office of Sponsored Research (OSR) provided updates on the status of each study. The progression of the clinical trial agreement (CTA) and status of IRB approval were observed in close detail, making note of negotiations regarding contract language and the development of the budget. During the internship, start-up steps that were quick to complete and tasks that encountered road blocks were highlighted. An analysis was made from a timeline created for the start-up of each study. The unique progression of each study provided insight on the discrepancies seen in a NIH funded study as compared to an industry sponsored study.

Although the overall start-up process follows the same general road map; each study varied in regards to which specific step of that process was either exceptionally quick or extremely slow to complete. By studying the progression of each study side by side, conclusions

were made about each respective study. Different types of studies have tasks that require more attention or preparation time. The source of funding presents a different set of challenges for each respective study. The creation of a clear and concise blueprint for the start-up of each type of study will allow future investigators or coordinators to proceed to the site initiation step of a study in a time efficient manner.

VI. RESULTS AND DISCUSSION

The CTSN trial was approved by the National Heart, Lung and Blood Institute Data Safety and Monitoring Board in November, 2009. For this particular study, the grant was awarded to Mount Sinai Medical Center in New York, who was designated as the main site. BRI had contacted Mount Sinai, requesting consideration as a potential site. Mount Sinai, as the main awardee, took on the role of sponsor and sent a questionnaire to the site, inquiring about what aspects made BRI a suitable site. BRI replied with a proposal pointing out two fundamental traits that the site had to offer. BRI informed Mount Sinai that the site has a number of physicians with experience in treating valve disease, reflected in the number of cases that each physician has completed. Furthermore, the site will encompass multiple experienced facilities, which include THHBP and Baylor University Medical Center under the BHCS, along with the Cardiopulmonary Research Science and Technology Institute (CRSTI), at Medical City Dallas Hospital, ensuring that the site has a large patient population to screen from. In late May, BRI was selected as a site and study start-up was initiated. BRI is one of the 17 sub-sites selected to increase subject enrollment. As a sub-site, BRI must have its own IRB approve the study and its own contract negotiated with Mount Sinai. The legal office at BRI also drafted an institutional sub-agreement with CRSTI, as a sub-site under the BRI satellite. Although CRSTI was included as part of the BRI study site application, its institution is not considered to be a BHCS location and must have a contract with BRI and submit it to the Medical City IRB.

The DEEP study, on the other hand, had direct negotiations with the CRO that was contracted by the sponsor to conduct and oversee the study. The contract was established and developed via correspondence with the CRO, Boston Biomedical Associates (BBA). In accordance with ICH, a sponsor may transfer its trial-related duties to a CRO, however,

responsibility for the quality and integrity of the data remains with the sponsor. All duties and functions assigned to a CRO are specified in writing. The DEEP study was submitted to the FDA for review in 2009 and received approval as of September, 2010. Although AtriCure had not received FDA approval yet, BBA was aggressively moving forward with study start-up with BRI and its other clinical sites by negotiating a contract agreement and supporting submission of the protocol and documents for IRB approval. AtriCure initiated study start-up proceedings because they were confident that the study would receive FDA approval. This assumption, however, is not necessarily the wisest decision because it becomes a potential source of study delay. For example, the study may actually not receive FDA approval or upon approval require protocol modifications, and in this case, the revised protocol would have to be re-submitted to the IRB before the study could begin recruitment. This method of study initiation is hazardous and could potentially waste time and finances. For an industry sponsored study, a site must factor in the FDA approval status and whether or not they want to take on a study that has the potential of being held up by the FDA pending approval or not receive FDA approval at all.

Every clinical study requires a contract agreement between the sponsor and the site. The proposed contract is reviewed and negotiated by BRI OSR on behalf of the PI.¹⁴ BRI OSR generally serves as a liaison between BRI and research sponsors in regards to budget development, contract negotiations, and grant submissions.¹⁴ Contract negotiations are comprised of two components – the contract language and the budget.¹⁴ Both pieces must be agreed upon by the parties before the contract can be executed. For the DEEP study, the sponsor and the legal department within BRI negotiated the contract language within several months. Contracts for industry sponsored studies are typically between the site and the sponsor, with the CRO acting as the mediator, facilitating negotiations between legal departments to minimize any

appearance of conflict of interest. Although the DEEP study had legal negotiations between the CRO and the site rather than the sponsor and the site, the CRO, BBA corresponded quickly and efficiently on behalf of AtriCure. CROs are a for-profit private industry and in order to stay successful, they must complete trials for their customers in a timely way; otherwise sponsors will take their future studies to other CROs. Thus, BBA on behalf of AtriCure, assisted with editing the final contract language, allowing it to reach its completion without any unnecessary delays. Unfortunately, the contract between AtriCure and BRI could not be agreed upon due to a number of reimbursement concerns brought up by the PI. These concerns, however, do not constitute a significant delay, as the study has not been approved by the IRB. After BRI addresses these concerns with the investigator, a number of minor modifications will be made, and the contract agreement will be returned to the sponsor for its final approval. Once negotiations have been completed by both parties, the OSR contract specialist who conducted both the negotiations and review of the contract will sign and date the BRI Clinical Trial Agreement Checklist. OSR will then inform the sponsor that the agreement is sufficient, allowing the sponsor to submit a final CTA to BRI for execution. Contract execution includes the dated signatures by the PI, the Vice President of BRI, and the sponsor. Study enrollment will begin once the contract is executed and the study is approved by the IRB.

With the CTSN study, there was a delay with the contract agreement between BRI and Mount Sinai, which, in turn, delayed the sub-contract with the satellite site CRSTI. With the involvement of second and third parties, the negotiation of contract wording becomes a drawn out process due to the strict guidelines posed by different legal departments. The main site, Mount Sinai, has a large number of its own studies to deal with and as a result there were delays with returning contract edits, more than there would be with an industry sponsor. By August

2010, the contract had not yet been finalized; demonstrating a potential road block for a NIH funded study. Thus, a coordinator may want to factor in this potential problem and select a later date when asked by either a sponsor or investigator to provide an estimated date for the contract execution of a NIH sponsored study.

The second component a contract agreement consists of is the budget. The sponsor submits a proposed budget with the contract. Before a budget can begin to be drafted, the PI and research team must review the study protocol and determine its feasibility. The PI is responsible for providing BRI an assessment of the research related costs for a clinical study.¹⁴ This written assessment is submitted in the form of a budget, which summarizes the estimated research related costs for the protocol.¹⁴ These costs are estimated based on research procedures that are determined to be outside the standard of care. The budget not only summarizes but justifies the funding that a sponsor must provide in order for the site to successfully conduct the study to its completion.¹⁴ For both the CTSN and DEEP studies, the budgets were drafted by the research manager on behalf of the PI. While the CTSN budgets were firm from the sponsor with little negotiation, a complete budget was created to demonstrate areas that may have insufficient funding.

After all procedural costs that are considered to not be standard of care have been identified and costs quantified, the research manager must also factor in indirect costs which include institutional costs of research that cannot be specifically identified for each study. They include facility costs, employee compensation, legal and accounting services, and administrative costs. These hidden costs may be problematic for a new research manager and may cause a site to find itself in debt after the completion of a study. For federal government grants, BRI charges

a 56% indirect cost rate, while industry sponsors are charged a 25% indirect cost rate, an important discrepancy to be aware of when drafting study budgets.¹⁴

After the research manager completes the budget, it is submitted to the BRI OSR which reviews the budget. Budgets are also reviewed by the research service line director and the Vice President of Research Operations. At this point, any further negotiations with the sponsor are done through the OSR on behalf of BRI and the PI. BRI OSR also prepares an invoice which requests a negotiated up-front payment including an IRB fee from the sponsor before the final agreement is signed.¹⁴

For both the CTSN and DEEP studies, budget development had commenced as of mid-June 2010. The preparation and negotiation of the budget for each type of study was similar, and utilized the same template provided by BRI. Additionally, both types of budgets were developed based on a per-patient cost – the funding necessary for one patient to complete the entire trial. In this step of the start-up process, an NIH funded study is usually more manageable and quicker to complete. With a typical NIH study, a grant is awarded in a lump sum and once awarded there is very little room for negotiation in regards to additional funding. A NIH budget is generally prepared to establish the percentage of total funding that will be allotted at each milestone of the study. The industry study budget, on the other hand, is much more flexible and total funding can be negotiated with the sponsor once contract development commences. Once a per-patient cost is calculated for an industry sponsored study, the research staff may estimate a total sum based off of how many total patients are to be enrolled in the trial. Thus, this component of the start-up process is more time consuming for an industry sponsored study, as the site and sponsor negotiate and at times re-negotiate the total funding needed to complete a trial.

Both the CTSN and DEEP studies did undergo a number of budget modifications and the research manager revised the budget accordingly when a new cost revealed itself. For the CTSN study, revisions were made in the budget to make room for reimbursements in case of a screen failure and if an investigator or coordinator needed to travel for the study. The DEEP study, however, proved to be more of a challenge due to the nature of the intervention. The hybrid procedure had not been conducted at THHBP before and it was difficult to estimate how much would be covered under the medical insurance of a patient, especially for physician reimbursement. BRI and the hospital determined the appropriate method for billing early in the process in accordance with its diagnosis related group (DRG), following the standard medical insurance billing process. This decision created another budget concern; by billing under the DRG, it meant there would only be payment for one type of procedure. Patients are generally prescribed treatments that are considered to be either outpatient (allowed to go home the same day) or inpatient (required to stay overnight at the hospital) procedures. The hybrid procedure, however, employs two procedures that fall into different categories; catheter ablation is considered an outpatient intervention while the thoracoscopic surgical ablation is considered an inpatient intervention. The hospital will bill the study as an inpatient procedure, meaning that the surgeon is guaranteed compensation for his part in the study, leaving the electrophysiologist at risk of accruing unreimbursed expenses. The research manager resolved the issue by estimating a per-patient reimbursement fee for the electrophysiologist and implementing this amount into a budget revision that was sent to the sponsor.

After a contract is agreed upon and executed, a clinical trial is still not allowed to commence at a BHCS facility until after the BRI IRB reviews and approves the study. The new research protocol must be submitted to the IRB and if the study demonstrates scientific merit, an

IRB approval letter will be generated from the Office of Research Subject Protection and sent to both the OSR and PI. This step in the start-up process can at times provide some difficulty when attempting to initiate an industry sponsored study, seen in the case of the DEEP study. With industry sponsored studies they tend to investigate cutting edge technology or procedures, making it more difficult to demonstrate the scientific rationale of its proposed study. Studies that examine innovative methods of treatment tend to be the most profitable but also have the least amount of background information.

The DEEP study was tabled by the IRB in mid-August 2010, because its board members questioned the risks/benefits value assessment presented by the study protocol. The IRB, as a patient advocate, did not understand why a patient with AF would choose to undergo this type of extensive procedure. BRI made modifications to the IRB submission forms and submitted the study once more to the IRB in October 2010. At this meeting, the principle investigator was present and answered all questions posed by the IRB board members, allowing them to better understand the potential benefits that this treatment could provide patients. The study was then approved with minor modifications in October 2010.

The CTSN study in comparison was approved upon its initial review during the July 2010 IRB meeting, requiring only a few modifications. Since NIH studies typically deal with previously FDA approved interventions, these studies have a surplus of past cases and history which can support the scientific necessity of the proposed clinical trial. An investigator or coordinator should be aware of the fact that receiving IRB approval may prove to be more time consuming for an industry sponsored study. Therefore, an investigator should not assume that a study may commence as soon as the contract is agreed upon, especially an industry sponsored one due to delays in obtaining IRB approval. This notion can also be applied in reverse

situations, an investigator should not assume that a study may begin enrollment as soon as IRB approval is received, all components of a study start-up must be completed before further steps can be taken.

In addition to all the steps mentioned above, a NIH funded study has an additional requirement before the study may commence. For all federally funded research that involve human subjects, key personnel are required to complete and provide documentation of education on the protection of human subjects in research, otherwise funds will not be awarded to NIH applicants. BRI has developed online education modules that cover the protection of human subjects which satisfies this requirement.¹⁴ These online education modules are unique to BRI and not only are they a requirement for NIH funded research, but for all human research that is conducted under BRI.¹⁴ Once an investigator or coordinator completes the online modules via the Baylor Learning Network, they are ready to conduct any type of study, which includes both NIH and industry sponsored studies. Every institution or facility varies in the type of education and requirements that their research staff must undertake in order to participate in clinical trials. At institutions that do not have required education modules, the NIH Office of Extramural Research has an online course on the protection of human subjects that can be taken by research coordinators and investigators. Although this requirement is only a minor setback in the timeline to study opening, it is something to consider when preparing a site and its research staff for a NIH funded clinical trial.

VII. LIMITATIONS

Both types of studies faced a number of unpredicted challenges and delays. These difficulties were similar in certain steps of the start-up process, such as the protocol review and determining study feasibility. They were also at times different due to the nature of each type of study, such as the IRB approval process, formation of a thorough budget, and the drafting of the language in the contract.

For both NIH and industry sponsored trials, there is the complex process of role designation. Before study commencement, a site must determine who will be the primary coordinator, who will be the principle investigator and how other staff members come into play. Should there be one coordinator who handles all the regulatory paperwork or should all the responsibilities be delegated to the primary study coordinator? These questions are difficult to answer and not every site deals with them the same way. It depends on the facility; the resources that are available, the amount of manpower and the financial flexibility of its research department. An additional difficulty with this process is the sudden revelation of a conflict of interest amongst the research staff. In the past two decades, clinical research has undergone scrutiny due to past cases of inappropriate financial relationships between the PI of a study and its sponsor.¹⁵ The primary concern in regards to a financial conflict of interest is whether or not the PI or research staff may remain objective in a study which they have so much financial stake in. When the objectivity of an investigator becomes challenged, it may cause him or her to compromise the safety of study patients in order to obtain the desired results. Federal legislature requires all research staff to report financial interests with a sponsor, and once these interests are identified, the FDA will assess the reliability of the study data based on the financial disclosure and study protocol.¹⁶ At BRI its IRB follows FDA regulations by requiring all research staff that

participates in the study, to fill out an investigator financial disclosure statement.¹⁴ The IRB Financial Disclosure Form, which is also known as the IRB Form 14, is sent to the IRB for study review along with any other relevant paperwork.¹⁴ The signed financial disclosure statement will also be sent by BRI to the sponsor for each investigator involved in the study.¹⁴ A copy of the aforementioned form can be found at the end of this thesis under APPENDIX B.

BRI not only follows federal legislature but prides itself for being an accredited institution in the Association for the Accreditation of Human Research Protection Programs (AAHRP). AAHRP accredits institutions or facilities that demonstrate exceptional human research protection programs.¹⁷ These institutions not only meet federal regulations but they also follow the accreditation standards, which include the implementation of written policies and procedures that identify, manage or remove conflicts of interest which could damage the integrity of a study.¹⁷ The BRI complies with this standard and has protocols and procedures that stipulate the process for financial disclosures. In the case of the DEEP study, BRI was apprised of a conflict of interest during the start-up phase. The research site was determining the feasibility of the study and entering the contract negotiation process, when one of the investigators on the study revealed a significant investment with the sponsor on his financial disclosure. This investment was deemed a conflict of interest. The Conflict of Interest Committee at BRI provided a resolution plan to manage the perceived conflict by implementing a modification of roles of the research staff. The surgeon on the study was designated the role of sub-investigator, while the electrophysiologist was given the role of PI. Although this conflict did present some minor setbacks, it was resolved relatively easily. However, in situations where a facility does not have clearly written procedures on financial disclosures and how to manage

them, then the sudden appearance of a conflict of interest may pose as a serious delay for the study initiation.

VIII. INTERNSHIP EXPERIENCE

My preparation for the internship practicum differed from the tradition clinical research management student. I was initially enrolled in the medical sciences program and experienced a different curriculum during my time as a student. I did, however, share the same coursework for many of the core classes which helped me immensely during the internship. The knowledge that I had received in my physiology and introduction to clinical research management courses came in handy during the course of my practicum, especially when reading over study protocols. The actual implementation of this knowledge, however, differs drastically from simply learning about the concepts in a classroom. I believe this practicum is a vital component of the clinical research management program and has helped me personally as a student, to build a strong foundation. As a pre-medical student, I hope to one day take part in clinical research again as either a medical student during my summers off or as a physician investigator later in life. I have always felt that research is an exciting and fun part of science. It involves the uncovering of new truths; learning more about ourselves and the world that we all live in. With the completion of this internship, I have now had the opportunity to experience the full spectrum of research; from bench work in a bio-technology laboratory to clinical trials with human subjects. As a student of science, I am excited to see what the future holds for me and what new experiences in research await me.

I had a wonderful time at BRI. The research team was welcoming and helpful. They answered my questions and provided advice. In addition, they explained the different steps and processes that they were involved in and how it fit into the grand scheme of things in regards to coordinating a clinical study. After seeing the number of tasks and all the paperwork that each

coordinator had to deal with for each trial, it made me greatly respect and appreciate the hard work they put into each study. I hope my thesis can provide some assistance for future coordinators when attempting to get a new study up and running. I created a flow chart for the start-up processes for both a NIH funded and industry sponsored study which can be found at the end of my thesis under APPENDIX C.

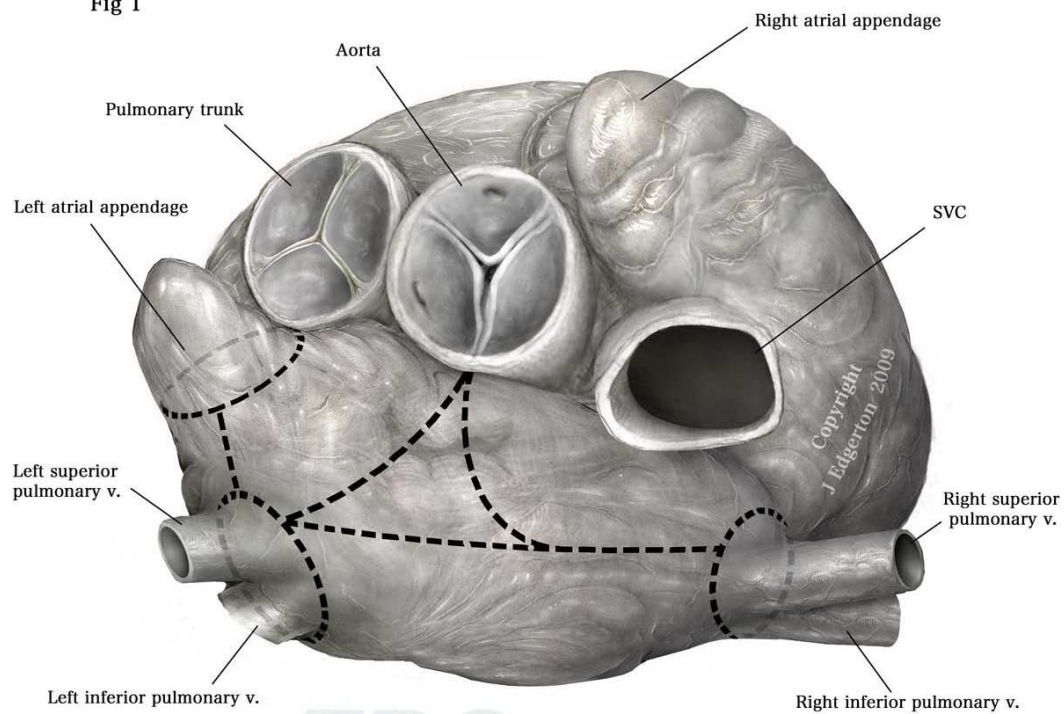
During the course of my internship, I kept a daily journal which recorded my tasks and experiences along with my personal thoughts and feedback regarding the internship. The entire journal can be found at the end of my thesis under APPENDIX D.

APPENDIX A

DEEP TRIAL SURGICAL PROCEDURE DIAGRAMS

DEEP Trial Surgical Procedure Diagrams

Fig 1



LEGEND:

SVC – Superior Vena Cava

Fig 3B

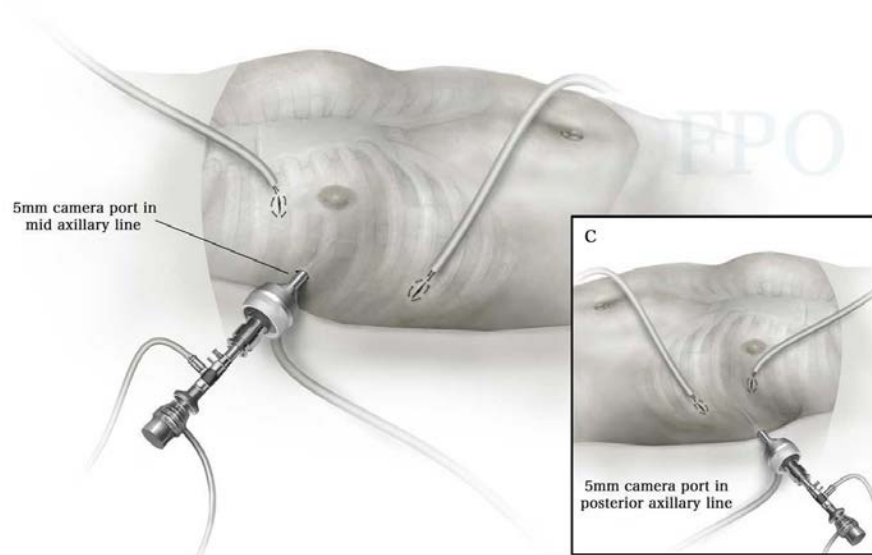
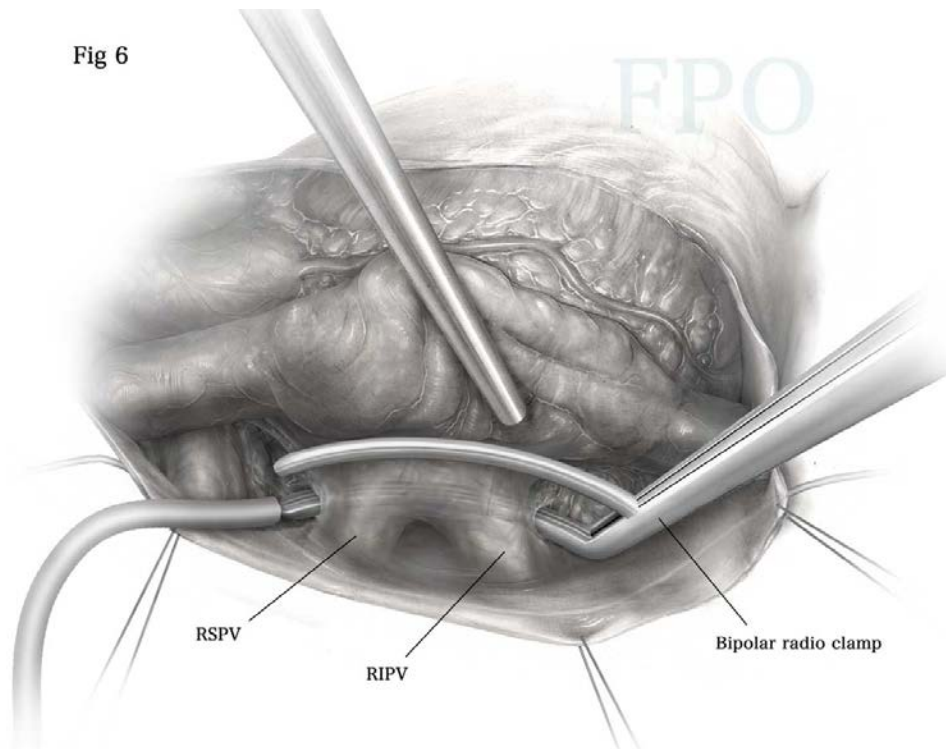


Fig 6

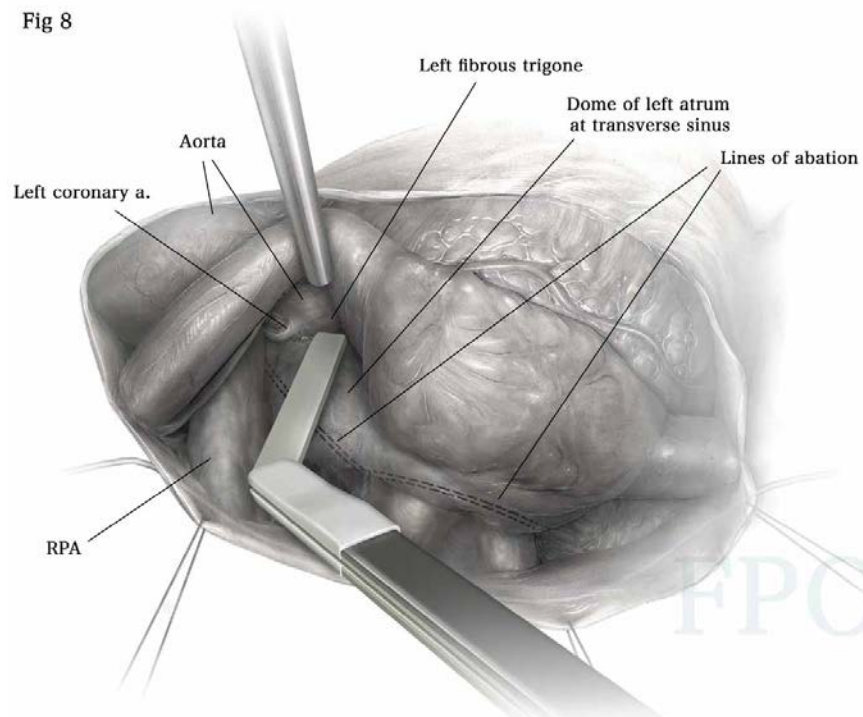


LEGEND:

RSPV – Right Superior Pulmonary Vein

RIPV – Right Inferior Pulmonary Vein

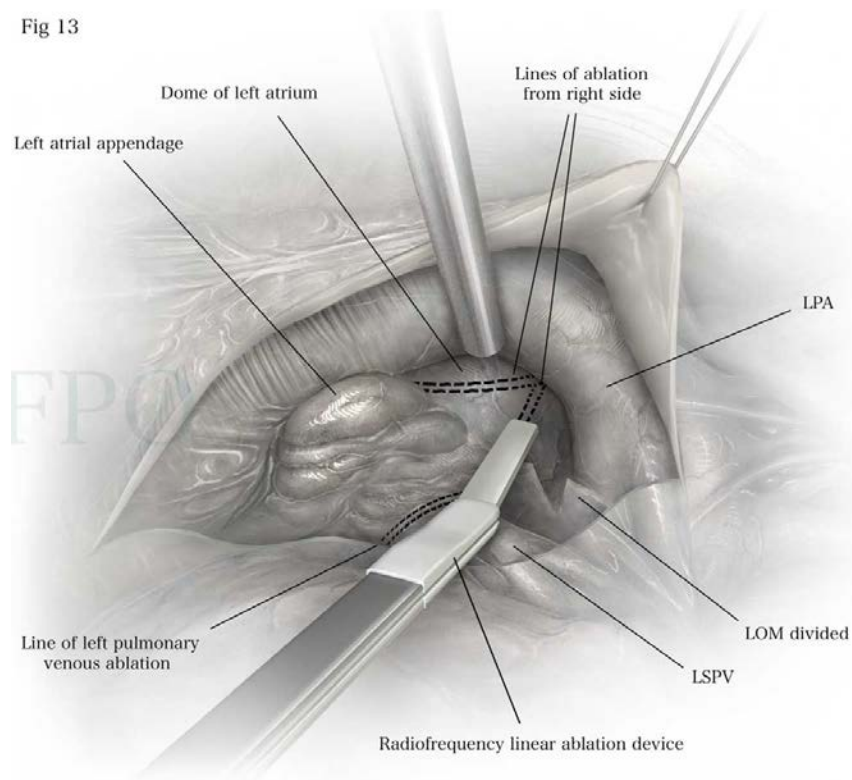
Fig 8



LEGEND:

RPA – Right Pulmonary Artery

Fig 13



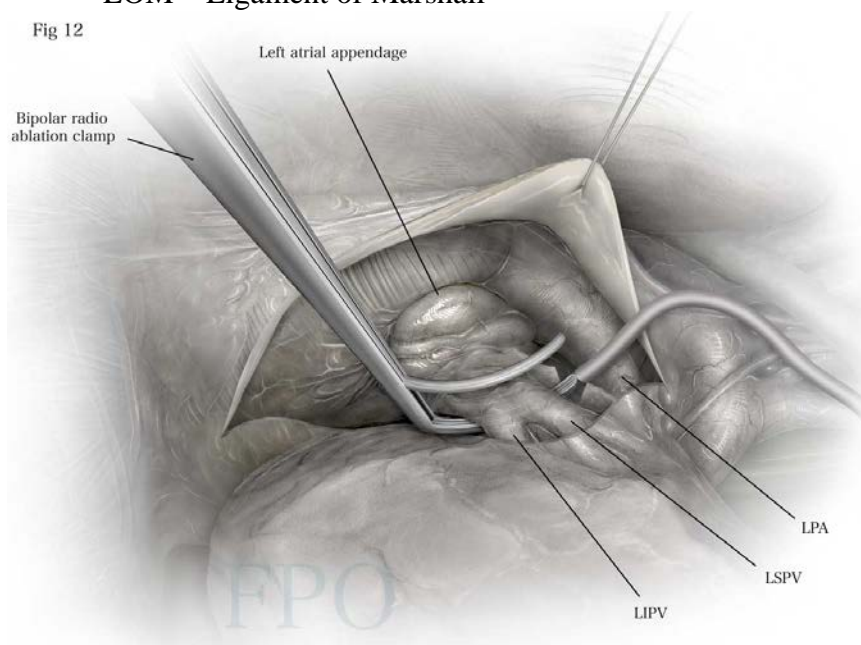
LEGEND:

LPA – Left Pulmonary Artery

LSPV – Left Superior Pulmonary Vein

LOM – Ligament of Marshall

Fig 12



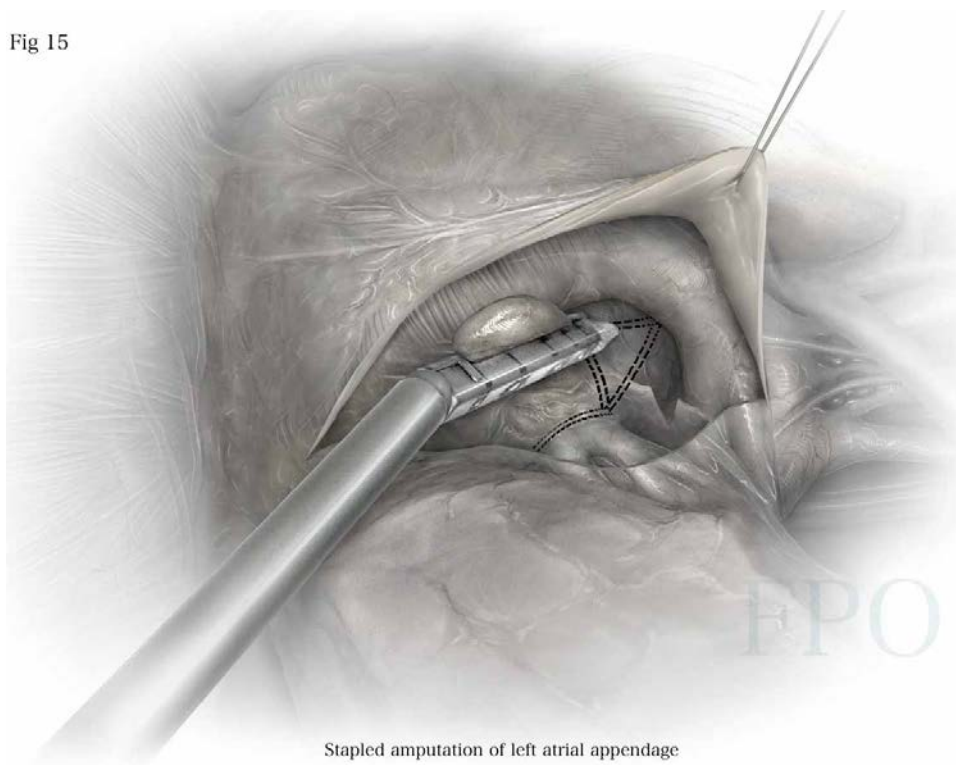
LEGEND:

LIPV – Left Inferior Pulmonary Vein

LSPV – Left Superior Pulmonary Vein

LPA – Left Pulmonary Artery

Fig 15



Stapled amputation of left atrial appendage

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APPENDIX B

IRB FORMS

**Baylor Research Institute
Institutional Review Board
Application and Project Summary – Form 1**
This form must be TYPED – Handwritten copies not accepted

Project Title: _____

Principal Investigator: _____

Telephone Extension: _____

Mailing Address: _____

Clinical Department: _____

FAX: _____

Email Address: _____

Contact Person (if different from PI): _____

Telephone Extension: _____

Mailing Address: _____

Department: _____

FAX: _____

Email Address: _____

<i>THIS BOX FOR IRB USE ONLY</i>	
DATE RECEIVED:	IRB MEETING ASSIGNMENT:
PRIMARY REVIEWER:	
PRIMARY REVIEWER:	

Instructions: All sections must be completed. All questions must be answered. It is NOT acceptable to answer *see attached* or *see protocol* – the one exception is that you may attach a copy of the schedule of events to the form to supplement the information provided in that section. This portion of the document is to summarize the protocol and provide supplemental information to the IRB to assist in conducting a thorough review. **DO NOT DELETE ANY QUESTIONS ON THIS FORM OR ALTER ANY OF THE TEXT WITHIN THE QUESTIONS.** If a question does not apply to your study – answer N/A.

<i>Sponsor of Study - Resources</i>	
1	Funding Source:
	<input type="checkbox"/> Industry: Name of Sponsor: _____
	<input type="checkbox"/> NIH: Specific Institute: _____
	<input type="checkbox"/> National Science Foundation
	<input type="checkbox"/> Public (Federal, State or Local): _____
	<input type="checkbox"/> Baylor Department: _____
	<input type="checkbox"/> Baylor Foundation
	<input type="checkbox"/> Private Foundation: _____
2	Are resources for conducting this research being provided from other sources? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, please specify what resources are being provided: _____ If yes, please specify the source: _____

	<i>Contracts for industry sponsored studies must be negotiated through the BRI Office of Sponsored Research. Grants must be submitted through BRI Office of Sponsored Research. Funding from the BHCS Foundation or from within the Baylor department also require the completion of specific forms. These must be submitted to the BRI Office of Sponsored Research.</i>
	Purpose and Background
3	OBJECTIVES OF THE STUDY: _____
4	SUMMARIZE THE STUDY DESIGN: _____
5	PROVIDE THE SCIENTIFIC RATIONALE: _____
6	HISTORICAL INFORMATION – ANIMAL STUDIES: _____
7	HISTORICAL INFORMATION – HUMAN STUDIES: _____
	<i>This section applies only to studies involving drugs:</i> <input type="checkbox"/> Section N/A
8	Phase of the trial: <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> Other: _____
9	Provide the following information for each drug used in this study (If additional drugs are used, please attach separate list and check here <input type="checkbox"/> :
A	Drug name: _____ Is this drug approved by the FDA? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, is it being used in accordance with current approval? <input type="checkbox"/> Yes <input type="checkbox"/> No If the answer to either question is no, provide IND#: _____ IND number is indicated on which sponsor document (protocol, IB, Letter, etc.): _____ Where will drug be stored?* _____
B	Drug name: _____ Is this drug approved by the FDA? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, is it being used in accordance with current approval? <input type="checkbox"/> Yes <input type="checkbox"/> No If the answer to either question is no, provide IND#: _____ IND number is indicated on which sponsor document (protocol, IB, Letter, etc.): _____ Where will drug be stored?* _____
C	Drug name: _____ Is this drug approved by the FDA? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, is it being used in accordance with current approval? <input type="checkbox"/> Yes <input type="checkbox"/> No If the answer to either question is no, provide IND#: _____ IND number is indicated on which sponsor document (protocol, IB, Letter, etc.): _____ Where will drug be stored?* _____
D	Drug name: _____ Is this drug approved by the FDA? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, is it being used in accordance with current approval? <input type="checkbox"/> Yes <input type="checkbox"/> No If the answer to either question is no, provide IND#: _____ IND number is indicated on which sponsor document (protocol, IB, Letter, etc.): _____ Where will drug be stored?* _____
	*For all drugs stored in your facility, you are responsible for following guidelines set forth in BRI Policy 118 regarding storage and control of investigational drugs in outpatient settings.
	<i>This section applies only to studies involving devices:</i> <input type="checkbox"/> Section N/A
10	Provide the following information for each device being used in this study (If additional devices are used, please attach separate list and check here <input type="checkbox"/> :
A	Device name: _____ Is the device used in this study approved by the FDA? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, is the device being used in accordance with current approval? <input type="checkbox"/> Yes <input type="checkbox"/> No

	<p>If the answer to either question is no, provide IDE #: _____ HCFA Category: <input type="checkbox"/> A <input type="checkbox"/> B</p> <p>FDA Letter indicating IDE # and HCFA Category must be provided.</p> <p>Where will device be stored?*: _____</p>
B	<p>Device name: _____</p> <p>Is the device used in this study approved by the FDA? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes, is the device being used in accordance with current approval? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If the answer to either question is no, provide IDE #: _____ HCFA Category: <input type="checkbox"/> A <input type="checkbox"/> B</p> <p>FDA Letter indicating IDE # and HCFA Category must be provided.</p> <p>Where will device be stored?*: _____</p>
C	<p>Device name: _____</p> <p>Is the device used in this study approved by the FDA? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes, is the device being used in accordance with current approval?: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If the answer to either question is no, provide IDE #: _____ HCFA Category: <input type="checkbox"/> A <input type="checkbox"/> B</p> <p>FDA Letter indicating IDE # and HCFA Category must be provided.</p> <p>Where will device be stored?*: _____</p>
D	<p>Device name: _____</p> <p>Is the device used in this study approved by the FDA? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes, is the device being used in accordance with current approval? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If the answer to either question is no, provide IDE #: _____ HCFA Category: <input type="checkbox"/> A <input type="checkbox"/> B</p> <p>FDA Letter indicating IDE # and HCFA Category must be provided.</p> <p>Where will device be stored?*: _____</p>
<p>*You are responsible for control of investigational devices in accordance with BRI Policy 113 Investigational Device and Radiologic Accountability.</p>	
<p><i>Study Subjects</i></p>	
11	<p>Age Range: _____ to _____</p>
12	<p>Number of subjects: Locally: _____ Nationally/Internationally (multi-center trials): _____</p>
13	<p>Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Both</p>
<p><i>Special Populations</i></p>	
14	<p><input type="checkbox"/> Children (age<18) – Complete IRB Form 23 Authorization to Enroll Children.</p> <p>Are any (or all) of the potential subjects in this study considered to be Wards of the State? <input type="checkbox"/> Yes <input type="checkbox"/> No. If you answer yes to this question, special provisions must be made to comply with 45 CFR 46.409. Please contact the IRB Office Directly for further guidance.</p>
15	<p><input type="checkbox"/> Neonates – please check all that apply (See BRI Policy 856 for definitions)</p> <p><input type="checkbox"/> Viable Neonates – Complete IRB Form 23 Authorization to Enroll Children</p> <p><input type="checkbox"/> Non-Viable Neonates – Contact the IRB Office for Special Instructions</p> <p><input type="checkbox"/> Neonates of Uncertain Viability – Contact the IRB Office for Special Instructions</p>
16	<p><input type="checkbox"/> Pregnant women - Complete IRB Form 24 Authorization to Enroll Pregnant Women</p> <p>Are any (or all) of these pregnant woman under the age of 18? <input type="checkbox"/> Yes <input type="checkbox"/> No. If so, complete IRB Form 23 Authorization to Enroll Children.</p>
17	<p><input type="checkbox"/> Prisoners or parolees – NOT ALLOWED - If you have a research subject who becomes a prisoner while on the research study, they must be removed from the study, except for follow up activities to assure safety. Please contact the IRB Office immediately if this occurs during the study for guidance.</p>
18	<p><input type="checkbox"/> Spanish speaking subjects – please specify which document you will use</p> <p><input type="checkbox"/> Spanish translation of the entire consent document</p>

	<input type="checkbox"/> Spanish version of the short form document –bilingual witness required With either of these documents you must also have a translator available who will facilitate the translation process. This translator can NOT be a family member/friend of the research subject. It can be a member of the research team, physician practice group, certified translator from the hospital guest services department or other comparable individual. Translator: _____ <input type="checkbox"/> Other non-English speaking subjects – please specify which document you will use <input type="checkbox"/> Translation of the entire consent document <input type="checkbox"/> Translated version of the short form document –bilingual witness required Specify language(s): _____ With either of these documents you must also have a translator available who will facilitate the translation process. This translator can NOT be a family member/friend of the research subject. It can be a member of the research team, physician practice group, certified translator from the hospital guest services department or other comparable individual. Translator: _____
19	<input type="checkbox"/> Terminally Ill Protocol specific rationale for enrolling these subjects: _____ Special provisions to protect these subjects: _____
20	<input type="checkbox"/> Elderly (>64) Protocol specific rationale for enrolling these subjects: _____ Special provisions to protect these subjects: _____
21	<input type="checkbox"/> Cognitively Impaired (mentally challenged, alzheimers, etc) (See BRI Policy 857 for guidance) Protocol specific rationale for enrolling these subjects: _____ Special provisions to protect these subjects: _____ How will you assess the capacity of these individuals to provide informed consent: _____ Special Consent Requirements: <input type="checkbox"/> Informed consent will be obtained from legally authorized representative (See BRI Policy 857 for individuals who qualify under Texas Law) <input type="checkbox"/> Assent of the subject will be obtained. Provide specific information on method and timing: _____
22	<input type="checkbox"/> Medically Unable to Consent (comatose, head trauma, etc) (See BRI Policy 857 for guidance) Protocol specific rationale for enrolling these subjects: _____ Special provisions to protect these subjects: _____ Special Consent Requirements: <input type="checkbox"/> Informed consent will be obtained from legally authorized representative (See BRI Policy 857 for individuals who qualify under Texas Law) <input type="checkbox"/> Informed consent will be obtained from the subject as soon as they are physically able to provide such and they will be informed that they can withdraw from the study if they so choose. Provide specific information on method and timing: _____
23	<input type="checkbox"/> Employees (BHCS) Protocol specific rationale for enrolling these subjects: _____ Special provisions to protect these subjects: _____
24	<input type="checkbox"/> Students (this only applies to students from institutions working with BHCS) Protocol specific rationale for enrolling these subjects: _____ Special provisions to protect these subjects: _____

25	<input type="checkbox"/> Educationally/Economically Disadvantaged Protocol specific rationale for enrolling these subjects: _____ Special provisions to protect these subjects: _____
26	<input type="checkbox"/> Other (be specific): _____ Protocol specific rationale for enrolling these subjects: _____ Special provisions to protect these subjects: _____
<i>Inclusion/Exclusion Criteria</i>	
27	Inclusion Criteria: _____
28	Exclusion Criteria: _____
29	Protocol specific rationale for the exclusion of any group of individuals for whom this treatment could potentially benefit (i.e., women, children, non-English speaking): _____
<i>Recruitment of Subjects</i>	
30	Subjects will be recruited from the following sources (check all that apply): <input type="checkbox"/> my private practice <input type="checkbox"/> physician referral sources <input type="checkbox"/> posters/flyers within the local community <input type="checkbox"/> copies of these items are available and are included with this submission <input type="checkbox"/> copies of these items are NOT available and will be submitted prior to use <input type="checkbox"/> advertise with the local media (newspaper, radio, television) <input type="checkbox"/> copies of these items are available & are included with this submission <input type="checkbox"/> copies of these items are NOT available & will be submitted prior to use <input type="checkbox"/> listing on Baylor internet site <input type="checkbox"/> listing on www.clinicaltrials.gov <input type="checkbox"/> other (be specific): _____
31	Describe methods that will be used to identify potential subjects, obtain and record subject PHI (i.e. BCON search, medical records query, database query, etc). This section should specifically state what records will be searched, who will conduct the search, what (if any) data will be recorded for future contact with subjects, what relationship the individuals who review the data have with the potential subject: _____
32	Recruitment incentive offered: <input type="checkbox"/> Cash or Visa/American Express Gift Card How much?\$ _____ (total for entire study) How frequently will payments be made? _____ (Payments must be made to the subject at least every six months and bonus payments cannot be given for completion of the study.) <input type="checkbox"/> Store or Other type of Gift Card: _____ (location) How much?\$ _____ (total for entire study) How frequently will payments be made? _____ (Payments must be made to the subject at least every six months and bonus payments cannot be given for completion of the study.) <input type="checkbox"/> Other (be specific): _____
<i>Study Procedures</i>	
33	Procedures involved in the study – Be sure to include at least the following information: study schedule; study procedures; number of visits; duration of participation. Procedures, tests or activities that are not considered standard of care and are being done for research purposes only should be differentiated from any procedures, tests or activities that are already being performed for diagnostic or treatment purposes. _____

	Potential Risks to Research Subjects
34	Physical Risks: _____
35	Psychological Risks: _____
36	Social Risks: _____
37	Legal Risks: _____
38	Economic Risks: _____
39	RADIATION SAFETY ISSUES: If this study involves the use of any the following procedures for either <i>diagnostic</i> or <i>therapeutic</i> purposes, provide the following information: <input type="checkbox"/> Section N/A
A	Simple Diagnostic x-ray: <input type="checkbox"/> Yes <input type="checkbox"/> No Specify type (i.e. chest, abdominal, extremity): _____
	If yes, is it for Standard of Care* <input type="checkbox"/> or Research ** <input type="checkbox"/> (see definitions below)
	How many procedures will be done: _____ What is the estimated dose per procedure: _____
	Where (facility) will the above procedures be performed? _____
B	CT Scanning: <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, what part of body: _____
	If yes, is it for Standard of Care* <input type="checkbox"/> or Research ** <input type="checkbox"/> (see definitions below)
	How many procedures will be done: _____ What is the estimated dose per procedure: _____
	Where (facility) will the above procedures be performed? _____
C	Fluoroscopy: <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, what part of body: _____
	minutes of fluoroscopy per procedure _____ minutes of digital cine pre procedure _____
	If yes, is it for Standard of Care* <input type="checkbox"/> or Research ** <input type="checkbox"/> (see definitions below)
	How many procedures will be done: _____ What is the estimated dose per procedure: _____
	Where (facility) will the above procedures be performed? _____
D	Radionuclide Studies: <input type="checkbox"/> Yes <input type="checkbox"/> No Specify type (liver scan, bone scan, HIDA scan, PET, etc): _____
	If yes, is it for Standard of Care* <input type="checkbox"/> or Research ** <input type="checkbox"/> (see definitions below)
	How many procedures will be done: _____ What is the estimated dose per procedure: _____
	Where (facility) will the above procedures be performed? _____
F	Therapeutic Radiation (external beam or other): <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, what part of body: _____
	If yes, is it for Standard of Care* <input type="checkbox"/> or Research ** <input type="checkbox"/> (see definitions below)
	How many procedures will be done: _____ What is the estimated dose per procedure: _____
	Where (facility) will the above procedures be performed? _____
G	Other administration or use of Radioactive Substances: <input type="checkbox"/> Yes <input type="checkbox"/> No
	If yes, is it for Standard of Care* <input type="checkbox"/> or Research ** <input type="checkbox"/> (see definitions below)
	How many procedures will be done: _____ What is the estimated dose per procedure: _____
	Where (facility) will the above procedures be performed? _____
H	Will women of child-bearing potential be exposed to radiation (including any diagnostic or therapeutic radiology or nuclear medicine procedure) as part of this study? Yes <input type="checkbox"/> No <input type="checkbox"/>
	If YES, then pregnancy status might need to be evaluated prior to each radiation procedure. Please indicate what provisions for pregnancy status are proposed for your study. This should include (but is not limited to) such information as when study required pregnancy tests are done and what type of birth control is required per protocol.

	*Standard of Care: Use of radiation or radioactive substances that would be part of the <u>routine</u> care or follow-up of patients with disease as part of <u>current</u> standard of care (examples: radiation therapy for certain tumors, follow-up CT scans after chemotherapy, spiral CT scan of chest in patients with suspected pulmonary embolism). If the number or frequency of such procedures is greater than, or the manner in which such procedures are performed is different from, the same procedures that would be performed in these patients if they were not part of this research, then this does not qualify as Standard of Care.
	**Research: Use of radiation or radioactive substances in normal individuals or in patients that would <u>not</u> routinely be indicated or done as part of current standard of care (examples: fluoroscopy to place tube in small bowel in normal subjects for research study, additional heart catheterization to assess patency of coronary artery stent in asymptomatic patients, MUGA scans to evaluate cardiac function after novel chemotherapy, novel use of implanted radioactive seeds to treat tumor). This also includes standard of care procedures that would not be performed on these patients unless they were in this research or standard procedures that are done more often for research purposes.
	<i>Provisions to Minimize Risks</i>
40	Based on your knowledge of the subject matter, do you believe that this study involves the alternative of least risk for the potential subjects to be enrolled in the study? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, provide justification for conducting the study: _____
41	Have evaluations of less risky alternatives been done? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, summarize: _____
42	What provisions are in place for monitoring study related data to assure the protection of the rights, welfare and safety of the research subjects. This would include (but is not limited to) such information as protocol compliance, adverse events, serious adverse events, complaints by subjects, and other risks to subjects? If your study involves greater than minimal risk, at least one of these options must be chosen. Check all that apply: <input type="checkbox"/> Data Safety Monitoring Board (DSMB), Data Monitoring Committee or other committee _____ provided by sponsor. Process to provide reports to the PI and IRB: _____ <input type="checkbox"/> Medical Monitor, Data Monitor or other monitor _____ provided by sponsor. Process to provide reports to the PI and IRB: _____ <input type="checkbox"/> Review of AE's, problems and other data by investigator on a regular basis. Frequency of review: _____ <input type="checkbox"/> Review of AE's, problems and other data by another researcher or physician on a regular basis. Identify who will review the information: _____ and frequency of review: _____ <input type="checkbox"/> Other (provide details): _____
43	If the study has the potential for research related injuries or problems (physical or psychological) – please describe any procedures that are in place to provide medical/psychological care to the subjects if these problems occur. This explanation should not simply address who will pay for the care, but should address how the care will be provided: _____
	<i>Potential Benefits</i>
44	Potential direct benefits to research subjects: _____
	Potential future benefits to individuals with the condition being studied: _____
	Potential benefits to society in general: _____

	Potential benefits to others involved in the research: _____
	<i>Risk to Benefit Analysis</i>
45	Protocol specific information justifying the risks of the study in relation to the anticipated benefits and importance of the knowledge that may reasonably be expected to result from the study: _____
	<i>Privacy and Confidentiality</i>
46	Provisions in place to protect confidentiality of research related information: _____
47	Provisions in place to protect the privacy of the research subjects: _____
48	Provisions in place to protect the PHI collected during the study: _____
	<i>Key Personnel</i>
	<i>The Principal Investigator must be current on the IRB education modules on the Baylor Learning Network before this project will be put on the IRB agenda. All other members of the research team must be current on the lessons before the final approval will be granted. Provide name and credentials/qualifications (MD, PhD, CCRC, RN, etc.) of all members of the study team. If a CV/Resume is not on file with the IRB Office for an individual, one must be provided.</i>
49	Principal Investigator: _____
50	Other Investigators*: _____
51	Research Coordinators*: _____
52	Other Research Staff*: _____
53	Support Staff (no interaction with research subjects) *: _____
54	Collaborators with outside institution(s): _____ Will any of these individuals interact with BHCS subjects or have access to their BHCS PHI? <input type="checkbox"/> Yes <input type="checkbox"/> No
	*Please attach contact information for all individuals listed in 49 -52. This should include business address, phone number and email.
	<i>Location of Research Activities :</i>
55	<input type="checkbox"/> Baylor Facility a. Location: _____ Bldg: _____ Room: _____ Specific research activities to take place at this location: _____ b. Location: _____ Bldg: _____ Room: _____ Specific research activities to take place at this location: _____ c. Location: _____ Bldg: _____ Room: _____ Specific research activities to take place at this location: _____ d. Location: _____ Bldg: _____ Room: _____ Specific research activities to take place at this location: _____ e. Location: _____ Bldg: _____ Room: _____ Specific research activities to take place at this location: _____ <input type="checkbox"/> Non-Baylor Facility a. Address: _____ Specific research activities to take place at this facility: _____ b. Address: _____ Specific research activities to take place at this facility: _____ c. Address: _____ Specific research activities to take place at this facility: _____
	If additional locations, please attach separate list and check here <input type="checkbox"/>
	<i>Informed Consent Process</i>

56	Location of obtaining informed consent. <i>Provide a specific location, such as clinic office, surgical suite, and/or patient's hospital room. If more than one location is possible, please list a summary of the types of places that you would expect to obtain the informed consent:</i> _____
57	Timing of obtaining informed consent. <i>Include specifics and such details as when in relation to the beginning of the study procedures you will obtain informed consent, and the amount of time the subject has to make the decision. It is important that you allow the subject sufficient time to make an informed decision prior to beginning the study and that they have the opportunity to discuss this with family or other significant individuals in their lives. If the nature of the study requires that consent be obtained immediately prior to the beginning of the research, give the rationale:</i> _____
58	Individuals designated to obtain informed consent (all must be listed as key personnel): _____
59	Consent as an ongoing process: _____
60	Describe steps taken to minimize the possibility of coercion or undue influence. : _____
61	If additional tools, handouts, other written materials are used (other than the IRB approved consent forms) these must be listed here and provided to the IRB for review and approval prior to their use. If you will use these materials, please list here: _____
For Studies involving medications: <input type="checkbox"/> Section N/A	
62	Where will the medications be administered? (Check all that apply) <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> BUMC <input type="checkbox"/> Baylor All Saints Fort Worth <input type="checkbox"/> Baylor Garland <input type="checkbox"/> Baylor-Plano <input type="checkbox"/> Baylor Irving Coppel <input type="checkbox"/> Clinic <input type="checkbox"/> Physician's Office </div> <div style="width: 33%;"> <input type="checkbox"/> BIR <input type="checkbox"/> BSH <input type="checkbox"/> OCH <input type="checkbox"/> BHVH </div> <div style="width: 33%;"> <input type="checkbox"/> Baylor Irving <input type="checkbox"/> Baylor All Saints Cityview <input type="checkbox"/> Baylor Waxahachie <input type="checkbox"/> Baylor Grapevine </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <input type="checkbox"/> Outpatient <input type="checkbox"/> Other: _____ </div>
63	The sponsor will supply all medications for this study. <input type="checkbox"/> Yes <input type="checkbox"/> No
64	Some or all medications for this study will need to be purchased by the hospital pharmacy. <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, which medications will need to be purchased: _____
65	If inpatient, all medications will be dispensed from hospital stock. The patient or the insurance company will be billed for the product. <input type="checkbox"/> Yes <input type="checkbox"/> No
Supplemental Review – Other Committees	
66	Radiation Safety Committee: Radiation Safety Committee: If you answered yes to any of the questions outlined in #38, you must obtain approval from the Committee on Radiation Safety and Radioisotopes (CRSR). Please contact CRSR at 214-820-7133 for specifics on submission process. All protocols involving the following types of radiation exposure must be approved by the CRSR at a full Committee meeting: 1. use of novel (non-FDA approved) radioactive materials, devices, or therapies; 2. novel uses of approved radioactive materials; any type of radiation that exceeds 50 rem to any organ or body part and is delivered in a manner, dose, or frequency that is beyond that which would be employed in standard clinical practice if the patient were not on the protocol. The CRSR committee meets quarterly. Protocols involving radiation exposure that meets "Standard of Care" criteria and/or involves lower radiation doses MAY be approved at more frequent intervals by appropriate subcommittees of the CRSR.
67	Institutional BioSafety Committee: Does this study involve the use of recombinant DNA? <input type="checkbox"/> YES <input type="checkbox"/> NO

	<p>Does this study involve the use of Select Agents*? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>Does this study involve the use of Select Agent Toxins*? <input type="checkbox"/> YES <input type="checkbox"/> NO</p>
	<p>If you answered "YES" to any of the questions above, your study must be submitted to the Institutional Biosafety Committee (IBC) for review. Send a copy of the protocol and IRB Application to:</p> <p>Steven J. Phillips, Ph.D., BRI Biosafety Officer, Baylor Research Institute 214-820-9993 (Phone) 214-820-4952 (Fax) steveph@baylorhealth.edu</p>
	<p><i>*A list of Select Agents and Select Agent Toxins can be viewed at the website of the Centers for Disease Control. www.cdc.gov/od/sap/docs/salist.pdf</i></p>
68	<p>Tissue Bank Committee:</p> <p>Does this study involve the use and/or collection of human tissue, either in the form of glass slides or fresh/fresh-frozen tissue? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>If yes, further review may be required by the BRI Tissue Bank Utilization Committee. To facilitate this process, please complete the BHCS Tissue Bank/Fresh Tissue Procurement Application (ADM012) and submit to: BHCS Tissue Bank, Hoblitzelle Bldg., Suite 326</p>
69	<p>Nursing Research Committee:</p> <p>Does this project study nursing in the area of practice, professional issues, education, or management?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No If yes, this must be submitted to the Nursing Research Committee at: Susan Houston, PhD, Nursing Research, 8080 N. Central Expressway, Suite 500, Dallas, TX 75225</p>
70	<p>Credentials Committee</p> <p>Do all members of the research team hold appropriate medical staff and/or allied health professional credentials required to perform any standard procedures that are being done as a part of this study?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If no, please explain: _____</p>

INVESTIGATOR COMMITMENT:

I understand that as Principal Investigator, I have ultimate responsibility for the conduct of the study, the ethical performance of the project, the protection of the rights and welfare of human subjects, and strict adherence to the IRB approved protocol and any additional stipulations imposed by the IRB. I assure the IRB that I have sufficient time to conduct and complete the research in accordance with IRB guidelines. I agree to comply with all Baylor Research Institute IRB policies and procedures, as well as with all applicable federal, state, and local laws regarding the protection of human subjects in research. I certify that no similar proposal has been disapproved by another IRB. I agree to maintain strict confidence of information that may be disclosed including subject/patient, data, employee, institution proprietary, industry trade secrets, and any other form of confidential information.

I agree to report immediately to the IRB any non-compliance, unanticipated problems involving risks to subjects or others, complications or adverse incidents with respect to human subjects.

I agree to perform the project with qualified personnel according to the approved protocol. I agree that I am to implement no changes in the approved protocol or consent form without prior IRB approval (except in an emergency, if necessary to safeguard the well-being of human subjects). I agree to obtain the legally effective informed consent from human subjects or their legally responsible representative, and use only the currently approved, date-stamped consent form. I agree to evaluate on an individual subject basis, whether or not an individual subject understands the information presented during the informed consent process. I agree that informed consent is an ongoing process and it is my responsibility to determine over a period of time that all research subjects continue to be willing to participate.

I understand that I have the responsibility to make the Department Administrator aware of all protocols that are submitted to the IRB.

The Institutional Review Board of the Baylor Research Institute will suspend approval of all research projects of investigators who are non-compliant with the above requirements. The Chief-of-Service will be notified of the suspension as will the Chairman of the Medical Board and other Institutional Officials. Non-compliance of IRB requirements could result in Institutional Officials reporting these actions to the Office of Human Research Protections, the US Food and Drug Administration, the Study Sponsor or other agencies.

Investigator Signature

Date

STATEMENT OF BAYLOR ADMINISTRATOR:

I have reviewed the proposal to be submitted to Baylor Research Institute and understand that by signing below I have committed the resources needed by my department to conduct this study. It is my responsibility to assure that budget issues related to this study are resolved. If this study involves the resources of another Baylor department, I have contacted that department administrator for input regarding their department. If applicable, I will ask the investigator to obtain a second signature for said department administrator.

Baylor Administrator

Date

(If the study is funded solely by a Baylor department, must be signed by VP)

Name and Title of Baylor Administrator: _____

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Baylor Research Institute
Office of Research Subject Protection
Research Personnel Financial Disclosure Statement – Form 14

IRB/IACUC #: _____ Date: _____

Project Title: _____

Name: _____ Department: _____

Address: _____ Phone: _____ E-Mail: _____

Sponsor: _____

Significant Financial Interest includes the following:

- anything of monetary value of \$10,000 or more (aggregated for the immediate family), including but not limited to, salary or other payment for services (e.g., consulting fees or honoraria); equity interests (e.g., stocks, stock options or other ownership interests); and intellectual property rights (e.g., patents, copyrights and royalties from such rights)
- ownership interest less than \$10,000 whose value could not be referenced to publicly available prices or other measures of fair market value
- ownership interests of any value that could be affected by the outcome of the research
- ownership interests greater than 5% interest (aggregated for the immediate family) in any single entity
- compensation related to the research in any amount that would be affected by the outcome of the research
- board or executive relationship related to the research, regardless of compensation

Related to the research means a financial interest in the sponsor, product or service being tested

Family member means a spouse or dependent child or stepchild.

List below any relationships that constitute a significant financial interest related to the research in which you or your family members are involved that constitute a significant financial interest as defined above, with any institution sponsoring this research project.

Institution/Company	Relationship/Role (explain)	Amount of Financial Interest
		<input type="checkbox"/> \$10,000 - \$25,000 <input type="checkbox"/> \$25,001 - \$50,000 <input type="checkbox"/> \$50,001 - \$100,000 <input type="checkbox"/> >\$100,000 _____ (record amount)
		<input type="checkbox"/> \$10,000 - \$25,000 <input type="checkbox"/> \$25,001 - \$50,000 <input type="checkbox"/> \$50,001 - \$100,000 <input type="checkbox"/> >\$100,000 _____ (record amount)
		<input type="checkbox"/> \$10,000 - \$25,000 <input type="checkbox"/> \$25,001 - \$50,000 <input type="checkbox"/> \$50,001 - \$100,000 <input type="checkbox"/> >\$100,000-_____ (record amount)

If you have nothing to disclose, please confirm such by checking the below statement and sign at the bottom of the form.

☐ I hereby certify that none of the financial interest or arrangements listed above exists for myself, my spouse, or my dependent children.

Signature Acknowledgement

I have read the Financial Conflict of Interest requirements as outlined in 42 CFR 50, Subpart F. I hereby agree to report immediately in writing to the BRI Vice-President any new situation with the potential for a conflict of interest that may develop before the completion of my next Statement of Disclosure.

The answers above are true and accurate to the best of my knowledge as of the date of this disclosure.

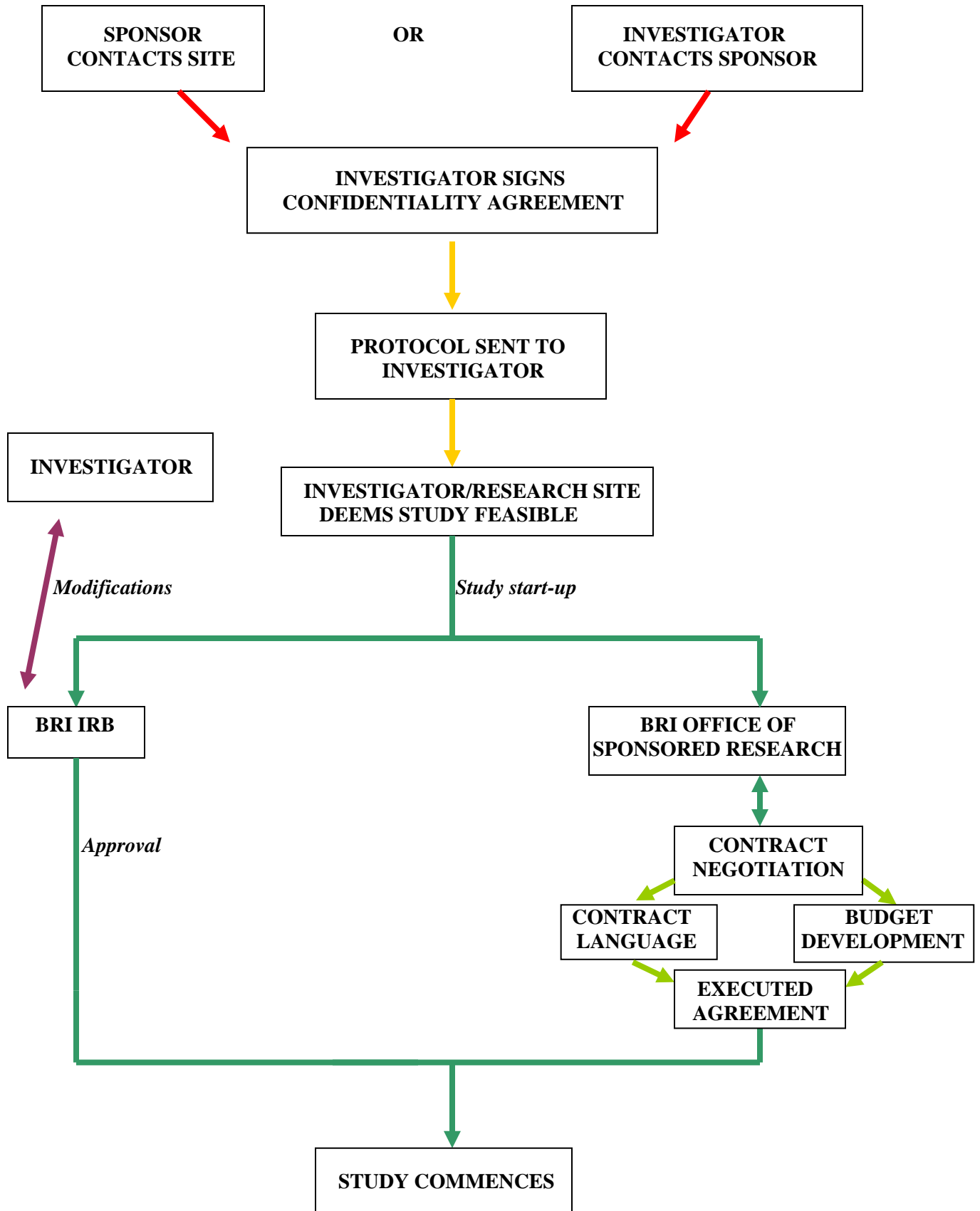
Signature: _____ Date: _____

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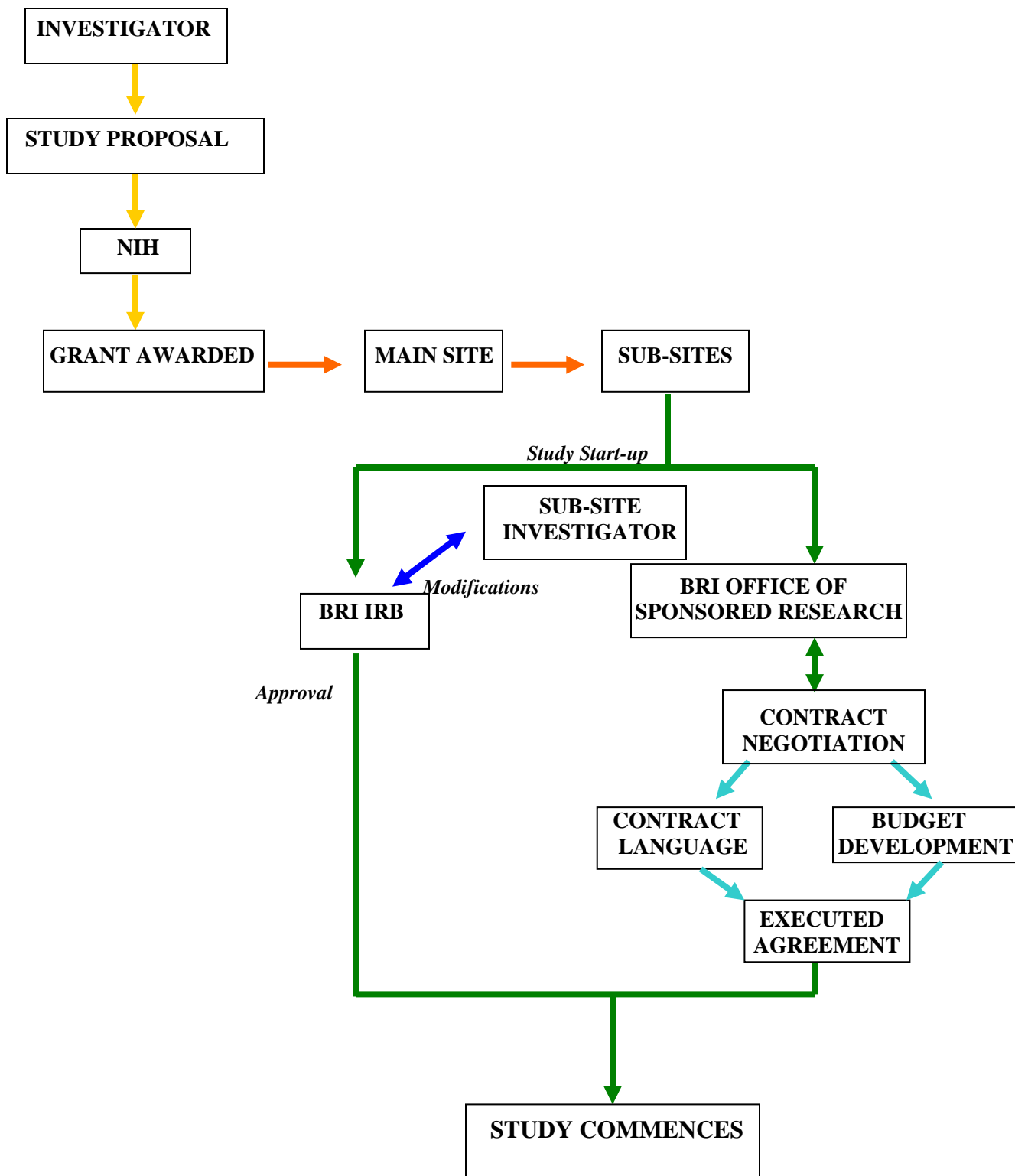
APPENDIX C

CLINICAL TRIAL FLOW CHARTS

Industry Sponsored Trial Flow Chart



National Institutes of Health Sponsored Trial Flow Chart



APPENDIX D
DAILY JOURNAL

Week 1

06/01/10: I attended my first committee meeting with Nanette, Mary, Dr. Gwartz, and Dr. Reeves. We discussed my topic proposal and went over the logistics of the internship. I later met last year's intern at Baylor, Jeremy Brown and he gave me a very thorough tour of the two hospital facilities. I was introduced to a number of people in the Heart Hospital. Afterwards Jeremy dropped me off at Nanette's office where she informed me that my employee ID and password were not yet established so I would not be able to start on any of my HIPAA or IRB training. Nanette let me leave early and told me tomorrow would be my official "first day".

06/02/10: I met up with Jeremy in the morning and shadowed him during his morning routine. Nanette had set up my user ID and password the day before. Jeremy received the information and helped me set up my employee account. Jeremy brought me over to the parking facility where I got my badge and parking permit. Afterwards I went back to my desk and got myself situated with my pit stop area. I managed to log into my computer and then I went over study protocols. I later attended the research team meeting and listened to their weekly discussion. After the meeting I went back to my desk to look over some clinical research books from Nanette's office and proceeded to look over additional documents regarding the CTSN studies.

06/03/10: This morning arrived bright and early for the THHP weekly research meeting with the physicians and research coordinators. Meeting included a research presentation by some of the nurses. Afterwards Dr. Mack and Dr. Brown proceeded to discuss issues pertaining to CTSN with the research group. After meeting with the physicians Nanette and Mary stayed after to finish discussing some issues on the agenda with the epidemiologists. I then shadowed Nanette and Mary as they had a contract meeting with Mark from BRI. They went over the logistics for a number of studies. After the phone conference I headed back to my desk to look over some of the industry sponsored studies that Nanette had suggested for me to incorporate into my paper. I looked over the Dissection protocol and read one of Nanette's books on coordinating a clinical study. I plan on contacting Jennifer to go over some questions I have concerning the Dissection study.

06/04/10: I wanted to attend my cousin's graduation ceremony on Saturday so I had asked Nanette if it would be possible for me to work from home on Friday, allowing me to leave with my aunt and uncle in the early afternoon. Nanette gave her permission and suggested that we would start our weekly meetings next week. At home I continued to look over the Dissection and Deep AF protocols. I also did some online research as to what an aortic dissection was and what causes an aortic valve to malfunction. I also looked over the NIH site to get some general ideas about NIH funded clinical research. I am still struggling as to how I should orient my paper and what the scope of it should be. I plan on talking to either Nanette or Dr. Gwartz about possible thesis ideas.

Week 2

06/07/10: Today Nanette informed me that my Baylor Learning Network account had been set up as of Friday and I could proceed with the modules. I was assigned the IRB modules to have completed by early July. I finished 6 out of 7 and I plan on completing the final one tomorrow. Nanette brought me to employee services where I got my TB test done. We also stopped by the hospital office where all the coordinators sit and asked if there was any work I could assist with. Ilene mentioned that she could use

my help for chart abstractions on the PRISM study. Unfortunately I have not been added as a member of the study yet. Nanette informed Ilene I would not be able to help until Sandy (the regulatory coordinator) got a chance to add me to the PRISM study, along with the Dissection and CTSN studies. I'm a bit worried about how to go about writing my paper and I plan on looking over Jeremy's thesis and paper from last year for ideas as to what type of format would be ideal.

06/08/10: Completed the final BLN module as of this morning and I notified Sandy so that she could go ahead with filing the IRB forms on my behalf. I looked over Jeremy's thesis and proposal from his internship last year to get a better understanding as to how to go about with starting my own paper. I had a few questions so I spoke with Nanette and we discussed how I should format my paper. She suggested that I make note of the different phases in the study process so I can compare any discrepancies in each phase when looking over the NIH funded study and the industry sponsored study. I wasn't sure how in depth I should go when setting up my background information so I emailed Dr. Gwartz who informed me that I should write the paper assuming the reader does not already know the ins and outs of clinical research. I proceeded to start my proposal and hashed out part of my introduction. I also emailed Mary asking if she needed any help with anything or if I could shadow her for any meetings this week. I plan on stopping by the Heart Hospital every morning from now on to offer any assistance to the research team over there.

06/09/10: Came into the office early in morning and continued to do background research on the two studies that I have decided to focus on. It would have been too difficult to discuss both CTSN studies so I decided to review only the CTSN study regarding moderate cases of IMR. I continued to write my paper proposal and combed over Jeremy's proposal to get a better idea as to how I should model mine. I did some research on the phases of a clinical trial by studying Nanette's books and magazines on the structure and process of clinical trials. Got the results of my TB exam and received a clean bill of health from Brenda at employee services. I signed a Form 14 so that Sandi could add me to the Dissection study. I then sat in on a meeting over the phone about contract budgets with Nanette, Mary, and Mark. I then went over to the hospital and sat in on the weekly staff meeting with the research team and Mary.

06/10/10: I arrived at the hospital early again and sat in for the 7am weekly physician meetings. Dr. Mack discussed grant issues with the epidemiologists, Giovanni and John. After the meeting I mentioned to Mary that Amy and I were planning to make the display board for our table at the nurse Magnet Fair some time later in the day. I offered to go and purchase the poster board and Mary agreed it would be a good idea. I headed over to Office Depot and bought a tri-fold poster board. Nanette had suggested that I make the inclusion/exclusion criteria cards for the physicians to use when recruiting subjects for the upcoming clinical studies. I agreed to start on them and headed over to Jennifer's desk to inquire about how I should go about it and if I could get a copy of the CABANA inclusion/exclusion criteria card. I spoke with Jennifer about what a coordinator has to deal with when working on an NIH funded study versus an industry sponsored study. She brought up a lot of good points and referred me to do some research on the FDA website. She recommended I use Microsoft Publisher so I emailed BIS to request the software be installed on my work computer. Later in the afternoon I headed over to the hospital and worked with Amy on the poster. Together we brainstormed on what it should include and how it should look. We then proceeded to decorate it.

06/11/10: Attended the BRI new employee orientation this morning at the downtown Dallas office. We went over the history and structure of the BRI. Cheri then went over compliance, benefits, and rules that a Baylor employee must follow, then another speaker came in to talk about OSHA. Afterwards I drove back to the Plano location and made it in time for my 11am meeting with Mary and Nanette. We

discussed the topic of my thesis and possibly using the Deep AF study instead of Dissection. Mary pointed out that the number of eligible candidates for the Dissection study will most likely be a very small number due to the rarity of that specific diagnosis. I suggested that I could just follow the study and observe Jennifer as she undergoes a site assessment visit. I continued to shadow Mary and Nanette as they attended their 11:30am meeting with Leslie to discuss the budget for Deep AF. Since the study requires a hybrid procedure they will need to assess both the DRG and procedure codes for both cath ablations and maze procedures in order to fully determine what the research budget will be. Leslie agreed to draw data based on the past fiscal year for Mary and Nanette to look over. After that meeting I sat in on the next mini meeting about setting up a 1-800 number for the Deep AF study in case patients have questions. I then went back to my desk and finished making the Inclusion/Exclusion criteria cards for the CTSN studies. I then proceeded to find more articles and materials pertaining to my thesis. I also did background research on Deep AF.

Week 3

06/14/10: I received the protocol for the DEEP AF trial from Nanette this morning. I looked over it and reviewed it. I proceeded to do some online research about the disease, its methods of treatment, and the long term benefits of each treatment. The proposed procedure for the trial has a very long and complicated history so I made sure to carefully comb through its background information. After I finished with my research I decided to brush up on some of the general logistics of a clinical study by reading through the reading material that Nanette had previously supplied to me about clinical studies. I continued to work on the introduction of my proposal which will be due in a few weeks. I'm still having some trouble and I don't know for sure what I should and what I should not include in my proposal. I will continue to use Jeremy's previous proposal as a guideline and most likely submit what I have so far to both Dr. Reeves and Dr. Gwartz for their feedback.

06/15/10: Today I continued to work on my proposal which I hope to complete early to have Dr. Gwartz and Dr. Reeves look over. I finished the introduction section which took me longer than expected due to the length of information in the DEEP AF study. I tried to keep it concise but include all the key points so that a reader not familiar with the two components of the study procedure would understand what I was talking about. I re-read Jeremy's background and methodology. I should be able to finish both sometime later this week. After I finished the introduction I proceeded to comb through the study procedure in the DEEP AF protocol. I then looked over the code of federal regulations book that Sandi loaned me to make sure I fully understand all the study requirements when I write the background section of my proposal. I contacted Ilene to have her go over the PRISM study and we will do that together tomorrow morning.

06/16/10: This morning I shadowed Ilene at the Heart Hospital as she got information on patients to enroll for the PRISM study. I was able to watch a stent being placed in a patient at the Cath Lab. Ilene had me look over the PRISM powerpoint and after I had finished going over the study she explained it in further detail. She called PRISM headquarters to set up a training session over the phone for some time next week. I'll most likely have a conference call with Amy and the person who inputs the patient information into electronic records. After lunch I sat in for the weekly contract and budget meeting with Mark, Nanette, and Mary. Mary wanted me to make the inclusion and exclusion cards for the CTSN studies. She modified the cards a bit, which confuses me because Jennifer told me to use them verbatim. I got the approved document back from Mary and I proceeded to put the information into Microsoft Publisher. I had some difficulty because no one's laptop had it except for Amy so I had to

borrow her laptop to format the information. I wasn't too familiar with the program, with the color printer, or with the laminator, so Jeremy decided to help. We had to borrow the laminator from the Admin office in case they closed after 5pm. Jeremy was nice enough to stay after work with me for almost 3 hours to finish making the cards for tomorrow's meeting with Dr. Mack.

6/17/10: Woke up early for the weekly THHBP Research meeting. They did an overview of each study, discussing how many patients were enrolled and the current status of each study. Dr. Mack mentioned how the inclusion/exclusion criteria cards for the CTSN studies were missing details about how to categorize a MR from severe to moderate. The cards will have to be re-done before they can be distributed to other physicians and I'll most likely go ahead and change them once I have Microsoft publisher installed in my computer. After the meeting I shadowed Ilene as she tracked down potential patients to enroll in the PRISM study. I sat in during the consent process and I was able to observe the PRISM interview process as well. Afterwards Ilene demonstrated how a chart abstraction is done and for the second one she had me point out where the information was in the patient's binder so I would know how to locate the information when I did the abstraction on my own. I then went back to my desk and called BIS to schedule an appointment for installing Microsoft Publisher. I went over to the Heart Hospital and got a monitor cart for Jennifer and parked it in Pavilion I.

6/18/10: I came in the morning and did some more research until my 10am meeting. I went over to the Heart Hospital and had my weekly discussion with Nanette and Mary. I went over my concerns regarding how to find articles and literature to support my conclusions. I shadowed Jeremy for a bit as he went to consent a patient for IMPROVE. Jennifer let me look over the CABANA binder to understand the differences between the regulatory binders for a NIH funded study versus an industry sponsored one which typically supplies coordinators with one. Afterwards went over to the Heart Hospital again to pick up a supply cart for Jennifer and I dropped it off at Pavilion I.

Week 4:

6/21/10: Jeremy's patient for the IMPROVE study had his surgery scheduled for this morning so I came in early to observe the procedure. The patient underwent a CABG procedure and had 3 grafts placed on his heart. It was a very interesting experience and I'm very thankful to the staff for being so friendly and helpful while I observed in the OR. I shadowed Jeremy for a bit after the procedure was complete. After lunch I went to the bimonthly staff meeting where they discussed concerns about billing and dry ice for shipping samples.

6/22/10: I worked on the inclusion and exclusion cards for the CABANA surveillance study. I also made some adjustments and fixed the electronic copy of the CTSN inclusion and exclusion cards. I need to ask Mary what needs to be added to the cards. I remember Dr. Mack saying there were things that needed to be elaborated on but I forgot as to what. I then went over to the hospital a little before 10 am to complete the PRISM training with Amy. After lunch I went over how to input my first patient record into the Velos system. Amy and I continued to help Ilene input a couple of patients for practice. I shadowed Jeremy a bit as he consented a patient for the IMPROVE study.

6/23/10: I came in this morning and decided to try and put in some patient information into records that had already been created by Ilene. I had some difficulty using the Velos database and I plan on doing a few more patient records with Ilene before I decide to go it alone again. I shadowed Amy as she went to consent a patient for her tissue valve study. Unfortunately the patient refused. I sat in on the

weekly budget meeting between Nanette, Mark, and Mary. Mary and I discussed the meeting topics and some of the difficulties that come with managing the budget for a clinical study. I headed back to the hospital and assisted Ilene with making consent packets along with highlighting the NDCR numbers for each patient that she had interviewed in the past.

6/24/10: This morning's weekly physician meeting was cancelled on account of Dr. Mack being on vacation. I decided to start working on the inclusion and exclusion criteria cards for the ongoing studies in the department. I finished making cards for CABANA. Jeremy gave over helping me with the cards for EVALVE since the study has two sets of criteria; one for the Non-High Risk Arm and one for the High Risk Arm of the study. I sat in on a conference call meeting with BRI's Genomic department to get a feel of how they manage their funding and learn more about BRI's other departments. Afterwards I went back to the EVALVE cards and completed them before Jeremy's 1:00 meeting with Mary. I wasn't too sure which format they preferred so I modified the cards so that the Non-High Risk Arm differed from the High Risk Arm and Mary could give me her input as to which one she preferred. I then spent the rest of the afternoon reading over the revised DEEP protocol which Mary had emailed me yesterday afternoon.

6/25/10: I came in this morning and focused on finishing up my proposal so that I would have time before the due date to submit a draft for Mary and Nanette to look over. I attended a meeting with Dr. Leonard to go over the PRISM. Afterwards I had my weekly meeting with Mary and Nanette and we went over what the goal was for the Inclusion/Exclusion Criteria cards. Nanette provided me with an IRB pamphlet that physicians use as a reference and she scheduled a sit in for me with the IRB on their July 15th meeting. I went back to my desk and put the finishing touches on my paper. I plan on making a references page on Monday. I combed through the revised DEEP protocol and I skimmed the CTSN protocol once more to see if I missed anything in my paper. I proofread my paper and I plan to go thru one more reading before emailing it to Mary and Nanette.

Week 5:

6/28/10: I put the finishing touches on my proposal this morning. I proofread for grammatical mistakes and any inconsistencies. I talked it over with Nanette and emailed both her and Mary a copy. I also emailed a copy to Dr. Gwartz and scheduled an appointment to come see her at Fort Worth on Wednesday. I hope to get some good feedback from her so I'll be able to complete my proposal by the end of this week. I plan on leaving in the afternoon since Dr. Gwartz is busy in the morning and because I had wanted to attend the Dissection site initiation. Luckily there was no conflict in schedule since the site initiation will only take up my morning and be over by 11:30am. After I finished making changes to my proposal I got an email from Mary who gave me an assignment for DEEP AF. I will be helping with the Form 1 for IRB submission. I went over to the hospital and spoke with Ilene about what a Form 1 and what should be included. She forwarded me a revised version of the protocol and I proceeded to start on the form.

6/29/10: I came in this morning and looked over the DEEP AF revised protocol. I had some trouble with the scientific rationale section so I talked it over with Jeremy. He gave me some tips as how to edit and reword parts of it to make it into a concise synopsis. I reviewed the entire form to get a better understanding of what the form is asking and how it's formatted. I had a few questions about placing an additional list of devices for the study and emailed Sandi. Erin (coordinator in the Scoliosis center) printed out a packet pertaining to Baylor's IRB for me and I looked over that to get a better

understanding of the forms that are submitted for review. I'm about two thirds done with the form and I plan on working on it again on Thursday.

6/30/10: I attended the Dissection Study site initiation session. The training went over the study protocol and had the coordinators sign off on sponsor paperwork. After the training was completed I asked the coordinators if anyone needed help and they all replied no, so I decided to just head over to Fort Worth a bit earlier than planned. I met up with Dr. Gwartz and we went over corrections on my proposal. I got her up to speed on how my internship and my research were progressing. I stopped by the library to discuss the use of a reference manager for my paper. One of the library staff gave me crash course on how to use the software and how to import in sources. I then attended a meeting for the CRM and biotech students at 3pm. We discussed our internships and answered any questions that the first years had about the core courses.

7/01/10: I got to the hospital this morning and started to make revisions to my proposal. I still haven't gotten feedback from Dr. Reeves or my mentors at Baylor, so I probably won't submit my final copy until late next week. I set up my reference manager on my work computer since a majority of my writing will take place at work. I familiarized myself with the software. I met up with Ilene later in the day and shadowed her for a bit while she screened a few possible candidates for the VIRGO and VEST studies. I also helped her sort through some of the PRISM surveys. I helped Jennifer set up a patient binder for Sandi to consent a possible study candidate while she is out on vacation. I headed back to my desk and sorted through my sources. I finished making a references page for my proposal.

7/02/10: I shadowed Jennifer and Sandi this morning. Jennifer was showing Sandi the ropes for enrolling a patient in the EXPECT study due to her upcoming vacation. I got to see a patient undergo a cardioversion. The whole procedure took about 10 minutes only. Afterwards I went back to the 6th floor and filed some of Ilene's PRISM surveys. I then went back to my desk and finished putting in all my citations for my proposal. I emailed my final version with Dr. Gwartz's suggestions to both Nanette and Mary to look over. My weekly meeting with Mary and Nanette was cancelled because Mary was out of the office. I did some more work on the IRB Form 1. It is taking longer than I expected it would. I decided to skim through the protocol once more to make sure I included everything in the sections that I had already populated.

Week 6:

7/06/10: This morning I continued to work on the IRB Form 1 for the DEEP AF study. I completed it by the afternoon and proofread each section. I skimmed over the protocol as I proofread to make sure I didn't miss anything. There was one section which I had concerns about; the section about patient reimbursement. Sandi had recommended that I ask Mary for a copy of the study's budget so I could populate this section on my own. After completing the form I emailed Sandi to inform her that I'm ready to go over it. Afterwards I received an email from Dr. Reeves with an edited copy of my proposal. I looked over his changes and revised my paper. I still need Mary's signature on my proposal form and once I get that squared away I will be emailing a scanned copy to Dr. Gwartz, allowing both her and Dr. Reeves to also sign it. I also had to re-do the inclusion/exclusion criteria cards for the EXPECT study. I had made them in the wrong size and format. I then proceeded to start on the IMAGE cards by reading over the protocol.

7/07/10: I continued with working on the criteria cards this morning. I finished the IMAGE cards and went on to the other studies. I finished making cards for the MEMO 3D and the Mitroflow vs. Magna studies. I attended a staff meeting and took meeting minutes. I plan to type them into the appropriate format and forward it along to the research team. With Jeremy's departure there was a lot of time spent on delegating his tasks. I offered to help with obtaining patient samples for the IMPROVE study. I was informed by Ilene that I had officially been added to the PRISM study. I continued to help her with inputting the survey information into patient electronic records on the Velos database.

7/08/10: We had our weekly physician meeting this morning. Dr. Mack had returned from his vacation and needed updates on a number of upcoming studies. He also discussed grants with John the epidemiologist. After the meeting I shadowed Jeremy for a bit to get a better grasp of how to obtain samples for the IMPROVE study. I helped him with taking the sample from the anesthesiologist in the OR and spun down the samples. I will most likely have to sit down with him and write up a study guide for myself when I start to get samples on my own. I then helped Ilene with inputting some new surveys from patients that she had just enrolled into the PRISM study that morning. I had a meeting with Mary and Nanette later in the day and discussed what tasks were okay for me to do as an intern at the Baylor facility. After the meeting I went back to inputting patient information into the Velos system and I helped Ilene with prepping packets for the PRISM meeting tomorrow.

7/09/10: I came in the morning and shadowed Jeremy as he took a blood sample 24 hours post-procedure from one of the patients that had a CABG done the previous day. I helped him spin down the samples and placed them in the fridge. I attended the bi-monthly PRISM meetings with Ilene and Dr. Leonard. They discussed how they would implement the new consent process with the nurses and what complications they might encounter. Afterwards I continued to input patient information for the PRISM study into the electronic database for the rest of the day.

Week 7:

7/12/10: I started to sift through some of my saved articles for my paper. I want to start making notes as to which article to incorporate into my discussion for my thesis. Nanette finished going over my proposal and I had to contact Mary again to see if she finished reviewing it as well. We had a going away lunch for Jeremy since today was his last day. The department also celebrated because Jeremy had gotten into med school. Afterwards I went over to the 6th floor and put in some new patients for the PRISM study into the Velos electronic database.

7/13/10: This morning it felt a little weird not to have Jeremy around anymore but I am extremely happy for him and glad that he is finally moving forward with his career goal. I did some more literature review this morning to get some sources for my paper. It took me a bit longer than normal because I was trying to use my reference manager to keep track of all my references. I went over to the 6th floor before lunch and helped with putting in new NDCR numbers for patients in the PRISM study. After I hand wrote them into the CFRs, I proceeded to input them into the electronic database since we had previously only typed in a dummy number. I still need to write in the NDCR numbers for the new patients since I didn't get a chance to finish all of them. Afterwards I inputted the newest enrolled patients into the electronic database. I talked a bit with Sandi about the DEEP AF IRB Form 1 and put in the changes that she suggested.

7/14/10: I received Mary's feedback this morning in regards to my paper. She made a number of good points and corrected some errors that I had not noticed until she made note of them. I incorporated her changes into my revised proposal and did some research on the role of a principal investigator and the sub investigator in a clinical trial. I sent her my new revised copy and hopefully I can get it in to Dr. Gwartz by this Friday. I sat in on the weekly Budget meeting with Mary, Nanette, and Mark. Afterwards I headed over to the 6th floor and continued to input patients from the PRISM study into the Velos electronic database.

7/15/10: I came in this morning to the Plano location so that I could finish up some things in the morning before heading over to the downtown location for the IRB meeting. Ilene had previously given me a list of queries regarding missing information in the electronic files of the PRISM patients. I began to work my way through the list and filling in the missing information. Afterwards I headed over to the downtown Baylor location. I sat in on the IRB meeting. After the meeting agenda was completed I headed home and called Mary's office at 3pm for our weekly updates. I went over concerns I had regarding my paper and I also asked how the IMPROVE study was going to proceed now that Jeremy had left. I plan on combing through my proposal one last time to check for grammatical or syntax mistakes then I'll email it to Dr. Gwartz.

7/16/10: I emailed the final draft of my proposal to Dr. Gwartz this morning along with the master's proposal form. I decided to drop by the 6th floor in the morning to catch up on some things that I had left unfinished the day before. I finished inputting the patient files from Thursday afternoon into the electronic database and later that day I started putting in the patients that Ilene had recruited that day for the PRISM study. I had a meeting with Mary and we discussed some good resources for me to look over so that I can get a better grasp of the roles and responsibilities of each player in a clinical trial. She also suggested that I have Ilene look over a few of my inputs for the PRISM electronic system as a type of quality assurance. She recommended that I contact the epidemiologists John and Giovanni to have them discuss NIH grants; what it takes to get one and how they are conducted. I also brought up a few of my concerns such as my badge not working for the 3rd floor laboratory and a template for our meeting minutes.

Week 8:

7/19/10: I came in this morning and decided to do some of the research that Mary had suggested on Friday. I went into the BRI BLN lessons and proceeded to look thru the reporting responsibilities of the PI. I also began to read the BRI packet on the roles and responsibilities of the PI for research. Afterwards I attended the bi-monthly staff meeting. During the meeting they discussed the tasks that a research coordinator must complete in order to have a study run smoothly. I took meeting minutes. After the meeting was over I went back to my desk to look over comments and revisions to the DEEP IRB Form 1 that Mary had sent back to me. I made revisions and tried to answer all the questions at hand. I had difficulty answering some of the questions because I felt the DEEP protocol either did not address the concern specifically or not at all.

7/20/10: I went over to the 6th floor early in the morning to help Ilene with a couple of things. I made an enrollment log for all the PRISM subjects that completed a satisfactory survey. Then I filled in the NCDR number for patients that were missing it in their forms. Afterwards I helped Ilene sort through correspondence paperwork by date and study, so that she could file them at a later time in her study

binders. I inputted a few PRISM patients into the Velos electronic database. I then discussed a few queries with Ilene.

7/21/10: Jennifer had asked me to make inclusion/exclusion criteria cards for the Harvard DAPT study. She forwarded me a copy of the protocol and I proceeded to look over the patient eligibility criteria. I formatted the information into an index card with publisher and after formatting the file into a pdf, I emailed a copy for her to look over. Jennifer had approved the cards and I then printed out a color copy and took it over to the color copier in administration. At 1pm I walked back to Nanette's office and called in on a contract meeting with Mary, Nanette, and Mark. They discussed the ABLATE, OPTION, and DEEP AF studies. After the meeting, I headed back to the Heart Hospital and continued to laminate and cut the copies into criteria cards.

7/22/10: This morning I attended the weekly Heart Hospital Research Department meeting. There was some discussion about future research studies. The meeting also covered grant proposals and a possible quality of life survey. After the meeting I went over to the 6th floor and inputted some patient forms into the Velos electronic database for PRISM. Ilene also provided me with a list of queries from the sponsor and I went ahead and pulled out the old patient forms and looked up the missing information. I then looked them up on the database and filled in the missing information. I am almost done with all the queries and will most likely complete them on Friday.

7/23/10: In the morning I logged in the latest patient satisfaction surveys for Ilene's PRISM study. I then filed the patient report forms that I had pulled out previously for the sponsor queries. I helped set up a patient binder for Jennifer since she will be taking over the IMPROVE study. At 1pm I attended a DEEP AF meeting with Mary where they discussed different body positioning for the hybrid procedure. A key concern was elevating the patient's chest for one part of the procedure and then having the ability to lower the elevation once they were ready to proceed with the next step. The patient's safety was a key concern and without any formal agreement between the physicians no decision could be made and the meeting was adjourned. Afterwards I followed Mary back to her office for our weekly Friday meetings. We discussed how my internship was going so far and if there was anything else I wanted to be exposed to.

Week 9:

7/24/10: I came in and looked over some of the BRI packets. My first objective is to understand the packet pertaining to sponsored research. Afterwards I headed over to the 6th floor and Jennifer asked if I could help draw blood for the patient's sterna closing in the IMPROVE study. I was a bit hesitant because I was still a bit foggy about which tubes had to go where, so Jennifer accompanied me as I obtained the sample on my own. After getting a blood sample from the anesthesiologist I dropped off one tube at the lab and spun the other tube an hour later. I then completed all the queries for Ilene's PRISM study and proceeded to input patient information for the cases that Ilene had not yet completed.

7/25/10: Jennifer had enrolled another IMPROVE study early this morning and asked me to help obtain blood for the baseline and sterna opening. I got over to OR 2 and met with Jennifer there. She went over the protocol and what I needed to do and left to prepare for a patient that was coming for a follow up. After I got the samples, I went over to the 8th floor and dropped off my samples into the refrigerator and pulled out some older tubes to obtain the times for a few case report forms that were missing the time. An hour had gone by and I decided to spin the blood and pipetted them into smaller sample sizes. Later in the afternoon I got the sample for the sterna closing and also dropped off a tube at the lab and spun

the second tube after an hour. I also inputted a few patient records into the Velos EDC for Ilene's PRISM study.

7/26/10: Today seemed to be a little less hectic and I stopped by my desk in the morning to continue reading up on the BRI and their procedures for my thesis. Nanette had cancelled the weekly budget meeting so my afternoon had a bit more free time. I went over to the 6th floor to see if anyone needed some help. Jennifer was busy since she was trying to wrap things up before going on vacation next week and a monitor for the CABANA study was in the office as well. I helped her with the IMPROVE study and took blood samples from one patient at his 48 hour post-op time and another patient with his 24 hour post-op time. I spun the samples for each an hour after obtaining the samples. Afterwards I helped Ilene with setting up some PRISM packets for patients and finished inputting some patient files into the EDC.

7/27/10: This morning we had our weekly research meeting. Unfortunately, Dr. Mack had cancelled earlier in the morning and thus would not be able to attend. We decided to carry on with the meeting since Dr. Smith had stopped by and quickly went through the progress of each study. I later went over to Pavilion 1 and picked up some signed paperwork for Ilene. I brought it back to Sandi at the hospital. I went through sponsor queries for Ilene's PRISM study and as of today have caught up with all the new ones. I also inputted the new patients that Ilene had consented in the morning into the Velos EDC. I went on a mini field trip with Sandi to the mailroom at the Heart Hospital to drop off a Fedex package. Afterwards I collected the last blood sample from an IMPROVE patient and spun the blood an hour later. I took some paperwork for Amy over to the Heart Hospital. Some patient charts had to be scanned at medical records and I dropped off a packet with Mary.

07/30/10: My weekly meeting with Nanette and Mary got moved to the morning and we discussed how my week was going. I brought up some of my past concerns such as my limited badge access and whether or not I would be able to start consenting patients. After we finished our meeting I went off with Mary to the meeting concerning Eclipsys and how PRISM's new consent form would fit into that. I then went over to the 6th floor and helped input more patients for Ilene into the Velos EDC. I also made photocopies and additional consent packets for Ilene's PRISM study.

Week 10

08/02/2010: I headed over to the 6th floor this morning to finish updating all the patient records in the Velos EDC. Some of them had been missing information and I had Ilene follow up on them on Friday. After I completed the records, I proceeded to work on the CVRRC clinicaltrials.gov submission form. Mary had asked to me to start on them as of last week but I had forgotten till she reminded me during our weekly Friday meetings. Later in the day I got an email from Mary asking me if I could assist Kate with the IMPROVE patient research registration forms. Apparently all the older patients still had a research account open and we were at risk of being charged for tests that were not research related. I headed over to the 4th floor and discussed with Kate how we should go about with completing the forms and asking for the accounts to be purged. I finished updating them around 4pm and headed over to Mary's office for her CTSN budget meeting with Nanette. I sat in during their discussion and took notes.

08/03/2010: I came early today so I could finish up the IMPROVE patients research registration forms. I had filled them all out yesterday and proceeded to check all of them today to make sure I didn't miss anything. Afterwards I scanned them to my email account and forwarded the pdf file to Mary. Unfortunately, she didn't get a chance to look them over due to the DISSECTION study. Kate had given

me permission to take the accounting binder out of the 4th floor office. Since I had it with me I decided to organize the patient files and re-organized the correspondence that Jeremy had printed out regarding each patient. I paper clipped all the emails regarding one patient with their account charge summary. I went back to working on the clinicaltrials.gov submission form for Dr. Brinkman's CVRRC and finished it in the afternoon. After lunch I helped Ilene input more patient forms into the Velos EDC.

08/04/10: Ilene had given me an updated list of the NCDR numbers so I proceeded to update the survey satisfaction and case report forms for the PRISM study. After inputting the numbers, I updated the subject enrollment log for PRISM I. I went over to the Heart Hospital to try and get some signatures for some paperwork that Sandi had given me. Kate emailed me and inquired about the IMPROVE accounting files. I went over to the 4th floor office and went over what I did. I emailed her an electronic copy of the completed patient registration forms and then I left the hardcopies in the accounting binder. I went over to Mary's office for the 1pm budget/contract discussion meeting with Nanette and Mark. They discussed the CTSN and DEEP AF studies. Mary went over the details of their discussion and explained the status of each study. Afterwards Sandi asked me to file new IRB correspondence for some of the older studies. I went over to Pavilion I and filed the paperwork into the old study binders. I, unfortunately, could not find the RESTORE regulatory binder and had to file away the IRB papers into the Investigator's brochure. I then looked around for an old ABLATE halter that has been MIA. I couldn't locate it so I headed back to the 6th floor and then I made copies of the PRISM satisfaction survey forms for Ilene. The copies will be sent out to Velos, while the originals were placed in the filing cabinet.

08/05/10: The Thursday morning meeting was cancelled and I came into the office at my usual time. Sandi asked for some help with the IMAGE study. A BRI auditor had come by last week and helped with auditing the IMAGE regulatory binder. She made note of a number of problems with the paperwork. I looked over her list and confirmed it for myself and made my own personal notes. She put in some helpful recommendations as to how to remedy the problems and I worked off of that when writing in my own suggestions. I made a list of what needed to be done and to which forms. I moved on to the PRISM study and helped Ilene input a patient into the EDC. I also realized that I had not yet updated some of the NCDR numbers for patients in the EDC, so I finished doing that as well. Afterwards I decided to read over Dr. Smith's study for CVRRC since I finished the clinicaltrials.org submission form for Dr. Brinkman's study. Once I finish both studies I plan on forwarding a copy of both submission forms to Mary to have her look over for me.

8/06/10: After my weekly meeting with Mary, I realized last week that I had been so focused on helping the coordinators that I began to neglect my final paper, which should be my primary focus as a student. I decided to shift gears this week and reported back to Pavilion I to continue on doing my literature review and begin drafting my thesis. I'm having a bit difficulty retaining what I have been reading these past two weeks so I plan on taking active notes off the BRI protocol packets and the books that Nanette had loaned to me. I did pop in at the 6th floor to see if they needed help. I helped Ilene input a few more patients into the EDC for PRISM. I started to look over the IMPROVE protocol so that I could work on the clinicaltrials.org submission form. I plan on talking about the form in more detail with Nanette once she has free time to.

Week 11:

8/09/10: I spent the morning taking notes off the BRI protocol for sponsored research. The information has been really helpful and some of the things that I've been seeing on a first hand basis are now

starting to make a lot more sense. I plan on finishing the packet sometime this week. Afterwards I went over to the 6th floor to see if they needed any additional help. I helped Ilene with inputting some more patients into the Velos EDC for PRISM and I followed up on cases that were missing information. Since we had a staff meeting scheduled for tomorrow, Amy decided to discuss the SOPs to bring to Mary for tomorrow's meeting. I offered to take notes on my computer as they discussed it. After their discussion was over I forwarded a copy to Jennifer for her to look over and add to it.

8/10/10: This morning I decided to take a break from reading BRI protocol and cracked open Nanette's "Investigator's Guide to Clinical Research." I think the first time around I just flipped through so I decided to take a closer look while looking through it this time. I found an entire chapter on the study initiation process and it describes each step in detail. The chapter was extremely helpful in explaining how the budget and contract are negotiated with the sponsor. I took notes so that I can use them to create a flow chart for my paper. I felt like I was making a lot of progress so I decided to continue with note taking and reading for the rest of the day. I also dropped by Mary's office at 9am when Mark called to discuss the CTSN contract with her and Nanette. I also attended the staff meeting at 1pm and took meeting minutes as they discussed updates. Since Kate was leaving in a few weeks, she went over billing compliance with the whole group and provided sample paperwork.

8/11/10: I came in the morning and began to work on the meeting minutes from yesterday's staff meeting. After I finished that I continued with taking notes off the Sponsored Research protocol for BRI. In the afternoon I headed over to the 6th floor to see if the coordinators needed help with anything. I inputted the newest patients into the Velos EDC for Ilene's PRISM study. After lunch I asked Mark to conference call me with Nanette and Mary so that I could listen in on the weekly budget meeting. They discussed concerns over the DEEP AF and CTSN studies again. Since the break room outside the coordinators' office is going to be converted into a patient waiting room, we were asked to move our lateral cabinets ASAP. Mary wanted to find a new home for them so I headed over to the Heart Hospital with her and we measured her office and the 4th floor office. The 4th floor office seemed like the best fit and Leslie gave us the green light so I headed back down with Mary and brought some regulatory things back to Sandi. I helped Mary make the agenda packets for Thursday morning's meeting.

8/12/10: I came in early for the weekly research meeting with the physicians. This time a few of the floor nurses joined us to discuss their potential pleural flow study. After Mary updated Dr. Mack our group disbanded and I headed up to the 6th floor. I continued with inputting some of the new patients that Ilene had given me yesterday for the PRISM study. Dr. Ramsey had come over to the Baylor Plano facility to give a talk about BRI and to provide the coordinators with new updates. The lecture was interesting and I really enjoyed the lunch they provided. After the lecture was over I went back to the 6th floor with the other coordinators and continued with inputting patient information for PRISM. Ilene had followed up on a number of patients that were missing information on their PRISM forms and I went back into the EDC and populated the skipped fields.

8/13/10: I came in this morning and spent the first half of my day doing more research for my paper. I finished reviewing and taking notes off of the BRI Sponsored Research protocol. I started to chip away at the packet regarding the Principal Investigator which discussed their roles and responsibilities. My weekly meeting with Nanette and Mary got moved up, so I walked over to Mary's office in the morning. We talked about how my week was going and they reminded me to bring up any suggestions for what I might like to do while interning at Baylor. After the meeting I went up to the 6th floor and checked in on the coordinators to see if they needed me to help with anything. I then inputted a few more patients from the PRISM study into the Velos EDC. I'll have a nice break from inputting information next week

since Ilene will be off. I helped Amy get some patient binders from the 8th floor for the CHOICE study and I brought back the RESTORE regulatory binder after finding its hiding spot on the 4th floor last week.

Week 12:

8/16/10: This morning I came in and continued with research for my paper. I finished reading the BRI packets regarding the roles and responsibilities of the PI and the one discussing general logistics of clinical research (e.g. studymanager and handling of patient records). I took notes as I read so that I can look back on the key points if I forget anything. Afterwards I headed over to the 6th floor to see if anyone needed help with anything. I helped Jennifer with organizing the IMPROVE patient binder. I followed up on some medical records that Amy needed for a patient and headed over to the 4th floor to pick up the fax. I also helped her de-identify some paperwork for the EVALVE study since the sponsor monitor was here auditing the study. I went over my clinicaltrials.gov submission form for Dr. Brinkman's CVRRC study once more and then I emailed the final version to Sherece Beasley who inputs BRI's study onto the site. I started on the IMPROVE study's submission form and plan on completing it tomorrow.

8/17/10: I wanted to finish reading one of the books that Nanette had loaned me. "The Investigator's Guide to Clinical Research" was proving to be very helpful, but I had some difficulty concentrating last week at the 8th floor office so I parked myself on the 1st floor of the hospital lobby this morning. I finished reading the sections about the investigator's agreement (FDA Form 1572), investigator's meeting, and good clinical practice. I also took notes to highlight key points that I want to include in my paper. These chapters helped a lot with my understanding of the responsibilities that a PI has once he or she signs the form 1572 and their obligations when conducting the study. I went over to the 6th floor to touch base with the research coordinators. I helped Jennifer organize her DISSECTION patient binder. I then finished the IMPROVE study's clinicaltrials.gov submission form. Jennifer asked if I could help with her EXPECT study's submission form. Sherece had sent back the form with comments and I plan on modifying the form according to her notes after I read the protocol.

8/18/10: This morning I read over the BRI's packet on Financial Management. I felt that the information was relevant but not extremely important so I decided to not take notes and to just read over it. Jennifer came over and informed me that she had enrolled a patient for IMPROVE earlier in the morning. I helped her spin the blood samples for the baseline and sterna opening. She had also brought over a large box that was sent to us from Mayo clinic that contained shipping boxes to run lab tests on our patient samples. I decided to try and find a good home for them so I spoke with Chantelle about where in the storage room would be the best spot to place them. Before I got a chance to move some things around we had to head over to BRMCP for the training session on StudyManager. I had to leave in the middle of the lecture to draw blood for the sterna closing. An hour later I had to spin the blood and while that was running I went back to rearranging things in the storage area. It seemed like there would be no room in the storage room for two large boxes so I offered to help the girls at the scoliosis center move the supplies out of the boxes and into the metal cabinet. After opening and clearing out their stuff I made an opening on top of their shelf and placed one of our boxes there. I placed the second box on top of the lateral cabinet in the hallway. I headed back to the 6th floor and read over the protocol for Jennifer's EXPECT study. I plan to revise her clinicaltrials.gov form and send that back to Sherece.

8/19/10: This morning I attended the weekly research meeting. The coordinators went over all the studies and updated the physicians on each study's status. After the meeting I went back with the coordinators to the 6th floor to see if any of them needed help. Jennifer needed to log in the lot numbers

for each of the DISSECTION devices so I went with her to the OR core and we moved the devices to a locked cabinet in the storage room. The cabinet's lock had not yet been fully assembled and the cabinet had arrived with its shelves already in place. In order to properly store the device we had to remove all the shelves and we had to go down to housekeeping to get a screwdriver to install the lock. Mary informed me that today was when DEEP AF would be reviewed by the IRB. I decided to go after I finished getting the 24 hour post-op blood sample from an IMPROVE patient. After I spun the blood and pipetted out the serum, I quickly joined Mary and Jennifer outside. After the IRB meeting I sat in on the weekly contract meeting with Mary, Mark, and Nanette. The CTSN and DEEP studies were further discussed and there were a few concerns that need to be followed up on for each study.

8/20/10: I came in this morning and it was Mary's birthday so I went over to her office to snack on some breakfast goodies. Since I was heading over to her office I decided to print out my journal entries and bring them over. We decided to have our weekly meeting at the same time since she didn't have any urgent issues and Nanette was out of the office. We discussed this week's past IRB meeting. Since I had a good discussion with her about the CTSN budget yesterday, I decided to cut the meeting short and I headed up to the 4th floor to see if the girls needed help with moving stuff over to Pavilion or to the 6th floor office. We shredded old paperwork and moved the lab kits over to the 8th floor. After the moving I helped Jennifer with getting the 48 hour post-op blood sample for the IMPROVE patient. After waiting an hour I spun the blood and pipetted them into 1 ml samples. After lunch I went back to the Heart Hospital to help Jillian with putting labels on Dr. Deville's CABANA posters.

Week 13:

8/23/10: Today I came in and decided to organize my notes from the various meetings that I attended during the first half of my internship. After my talk with Mary last week I realized I need to keep a better log of the changes in status for the CTSN and DEEP AF study so that I can depict an accurate picture of a study's start up process in my paper. I took out all my notes during the weekly contract/budget meetings between Nanette, Mary, and Mark and organized them by date. I plan on typing them into a timeline on my computer. Afterwards I read over the CTSN contract to get a better grasp of how the study will be conducted between us as a subcontractor and Mount Sinai. I plan on contacting Mark and setting up a time to talk with him about the CTSN study and how NIH budgets typically work. I'm still a bit confused as to how NIH grants are typically dispensed to research facilities. Nanette's book had mentioned "modular" and "lump sum" grants and I want to make a clear distinction before writing my paper. Afterwards I went over to the Heart Hospital to speak with Mary about taking time off tomorrow since I need to go to campus and submit my IRB paperwork. I then went over to the 6th floor to see if anyone needed help and Jennifer asked if I could check the status of Dr. Deville's case in the EP lab. She also asked if I could make an electronic version of her CABANA worksheet which I plan on starting on Wednesday.

8/24/10: I took the day off from work because I had to make a trip to UNTHSC at Fort Worth. I stopped by Dr. Gwartz's office and had her look over and sign off on my IRB submission form. Dr. Gwartz and I talked about how my internship was going so far. We discussed when I should have my paper ready and how I should prepare for my defense in November. Apparently I need to have all my paperwork submitted a month in advance, which means I need to have my final draft done by mid-October. I realized that meant I only had a month and a half before my paper needed to be completed. I think I may need to take a week off in September to get a majority of my paper writing done. It's a bit difficult for me to fully concentrate with the circulation of people at the hospital and I think I'll be able to get

more work done at a library. Afterwards I took the paperwork over to the IRB office. I also had to drop off a few forms to the school's registrar office.

8/25/10: I came in this morning and did some summer cleaning around my desk. I sorted through all the notes that I took during the weekly budget meetings and typed them up into a word document by chronological order. I think this will help me get a better idea of the study start up process. I also read some of the project proposals that Giovanni and John had written up for NIH grants. The proposals helped me understand the questions that the NIH poses when allotting grants. I started to hash out some ideas and I plan on beefing up my background later this week. Afterwards I headed over to the 6th floor to check up on everyone. It was my first time seeing Ilene after her trip so I caught up with her. I finished making the electronic worksheet for Jennifer's CABANA study.

8/26/10: We had our weekly meeting this morning. Jennifer had asked me to bring over some IMPROVE kits so she could go draw blood after the meeting. She had enrolled a total of 3 patients on the previous day. I went with her in the morning to check on the status of each case. I spent most of my morning taking notes from my books while Jennifer obtained the samples for each patient's baseline and sterna opening. I went and got the sample for the sterna closing for the 2nd patient. I spun the blood for that patient and for the previous patient. I helped Jennifer bring some more IMPROVE kits over to the 6th floor and I exchanged the test tubes that were in the kits for the ones that Mayo clinic had sent. I also prepped the kits by adding green test tubes.

8/27/10: This morning I finished reading a book that Nanette had loaned to me. I proceeded to look through my notes on the study initiation process for my flow chart. I drew a couple of drafts and by the third flow chart I think I'm happy with my final product. Afterwards I decided to re-read my proposal's background, highlighting statements that I felt were a bit weak and could use more support. I started to revise my paragraph that discussed the investigator's role. Jennifer called me and asked if I could get blood samples for her IMPROVE patients. Since their windows overlapped, I got both patients at the same time. An hour later I spun the samples together. I then had my weekly meeting with Mary. I went over my questions regarding the discussions that occurred during the previous budget meetings with Mark and Nanette. Afterwards I discussed my plans of next week and how I plan to go about working on my paper. Jennifer had one last patient for the IMPROVE study so I offered to stay later to get the blood sample.

Week 14:

8/30/10: I had a minor case of food poisoning Sunday night and I woke up this morning feeling really bad so I decided to stay in for the day. I called Mary's office number and left a voice message informing her of my absence. I worry that I may have developed a permanent aversion towards pizza.

8/31/10: I felt better this morning so I decided to come into the office. It was a bit of a slow start this morning since I still didn't feel like myself. I was still light headed and tired from the day before. By the mid-morning I was feeling better so I decided to work on the background section of my paper. I looked over my notes on the PI's role and responsibilities. I added key points to the paragraph I had previously written about the PI's role. I expanded on the paragraphs discussing the informed consent process and GCP. I read over some articles that I had saved on biomedical research funding. They provided an interesting fact here and there, but overall not very relevant to my paper. In the afternoon Mary had asked me if I could locate some articles online for Dr. Gable. After I found them via Google scholar, I

emailed them to Mary to print out. I went over to the 6th floor to see if anyone needed help. Everyone seemed to be doing fine so I moseyed on back to the 8th floor and continued to read over my paper.

9/01/10: This morning I reviewed Jeremy's thesis to figure out how I should I format my paper. I made an outline of how I plan to layout my paper content. Under each section I made bullet points on what I should expand upon for each topic. I drew out two flow charts for a study start up; one for industry sponsored and one for NIH funded. I also wrote out what I wanted to include in my paper's appendix. I may need to ask Mary and Nanette for permission for certain pieces that belong to BRI. I then did some internet research to find some good pictures of a catheter ablation and a mini maze procedure. I discussed it with Mary last week and I had personally felt that the DEEP procedure would be too difficult to understand without a good visual included. After I found a number of good pictures, I read the different descriptions of the procedures on the sites to get a better grasp of the DEEP protocol. Anne Louise had moved over to the 8th floor due to the construction in the Heart Hospital so I showed her how to get from Pavilion I to the Heart Hospital and to BRMCP. Afterwards I went over to the 6th floor to check in on the team. I inputted some missing data for Ilene's PRISM study.

9/02/10: Our weekly physician meeting was cancelled this morning so I came to work at my usual time. I had initially planned to spend the day helping Jennifer with two IMPROVE patients, however, she texted me this morning that it wouldn't be necessary since she missed one and the other declined. I decided to make the flow charts for my paper so I could get Nanette and Mary to look over them. I re-worked the structure of my paper and shifted some paragraphs around. It still sounded choppy so I re-worded and removed some sentences. I initially planned on keeping a good portion of my proposal but after a second run through I think I'll have to re-write most of it. Afterwards I went over to the 6th floor to help Ilene with inputting some more patients into the EDC for PRISM. Then I rushed back over for my meeting with Nanette and Mary. I discussed some BRI paperwork that I would like to attach to my paper and Nanette recommended that I talk to Elizabeth about getting permission to attach an IRB form 1 to my appendix.

9/03/10: A bit of a slow day today. Everyone was very laid back since it was the day before Labor Day weekend. I seemed to have a very bad case of writer's block. I read over some sections in my paper to reorganize my thoughts and write out the format for my thesis. Since I was struggling to write my paper I decided to read some more literature and find some articles that may be relevant to my project. I read one article that I found to be very helpful. It discussed the lack of new grants in recent years within the NIH, making applications for research funding more competitive in recent years. It also had some good background on how NIH funding is dealt out in the form of R01 grants.

Week 15:

9/06/10: Labor Day Holiday

9/07/10: I came in earlier this morning to attend the monthly Nursing Research Council meeting. During the meeting they discussed the status of a number of nursing studies, which include one on the noise levels in patient rooms due to the construction, patient's ability to sleep, patient's preference of a pillow or a heart hugger after bypass surgery, music therapy to soothe patients and lastly the status for the pleural flow study. After the meeting concluded Mary asked me to scan some documents for Dr. Brinkman and Dr. Smith. I forwarded them to her and proceeded to look over my paper's introduction. Later in the morning Jennifer needed help with obtaining a physician signature. She had to step away to

enroll a patient for a different study. After loitering for about an hour I was able to catch Dr. Hollowell. I brought the paperwork over to the 6th floor and checked on the coordinators. I helped Ilene input some more patients for PRISM. We had our weekly staff meeting and I recorded the meeting minutes.

9/08/10: I got in the office a bit later than usual due to the hurricane like weather outside. I typed up the meeting minutes for yesterday's Research Coordinator Meeting and emailed a copy to the entire team. Afterwards I input some missing information into the patient records on Velos's EDC for the PRISM study. Jennifer stopped by to see if I could spin a sample for the IMPROVE study tomorrow. Unfortunately I will be taking the day off tomorrow to see an instructor regarding a letter of recommendation. I offered to spin the blood for today's sample and after that I pipetted the samples for her. I sat in for the weekly budget/contract meeting between Mark, Nanette and Mary. After the meeting I headed back to my desk to finish with inputting patients for PRISM.

9/09/10: I took the day off today to go to Fort Worth and see a faculty member.

9/10/10: This morning Jennifer had called me and asked for help spinning the blood for a patient in the Harvard DAPT study. I let it sit for an hour and went to see Mary and Nanette for our weekly meeting. They made some modifications my flow charts which I plan on fixing later today and Nanette sent me swim lane flow chart to look over and to see if my chart was missing anything. I headed over to the 6th floor and brought a cart back to the 8th floor office and while spinning the blood I proceeded to update the enrollment log for Ilene's PRISM study. I also wrote in the NCDR numbers since Ilene had printed me out an updated list. Nanette had asked me to modify the current research study evaluation tool and after I changed the percentages I sent the revised version to her. Jennifer had a meeting with Mary and asked if I could spin an IMPROVE patient's blood. Afterwards I pipetted it and went back to working on my paper.

Week 16:

9/13/10: I started off this morning with some reading. I looked over an issue of the Monitor that Nanette had loaned me. The issue focused on conflict of interests and discussed methods of how to address and resolve these conflicts. Afterwards I went over to the 6th floor to see if any of the coordinators needed help. I helped Ilene package and ship some consent surveys to the sponsor for PRISM. I got back to the office and Jennifer had another package for DAPT so I dropped that off on my way to the Heart Hospital since Sandi needed me to bring some IRB paperwork to Mary. I also checked in the lab for some test tubes that Jennifer and I were planning to use for IMPROVE. Unfortunately the lab didn't have the kind we were looking for so Jennifer will have to continue asking BRI to make IMPROVE kits for us. Ilene had a new list of NCDR number so I updated the PRISM CRFs with the numbers and added these patients to her enrollment log.

9/14/10: Nanette had printed out a "swim-lane" flow chart from BRI for me and left it at my desk so I decided to look over it and see if any key steps were missing from my own personal flow chart. Afterwards I made modifications to it and put in the changes that Mary and Nanette had suggested last Friday. Mary called me over and asked if I could prep a new employee binder for our new recruit Sonia who will be starting next Monday. The copy machine was being used by someone who needed to make a large number of copies so I decided to leave and come back. After lunch I headed back to administration and proceeded to make copies for the new binder. I dropped it off with Mary and then I headed over to the 6th floor to check on everyone. Ilene had some patients for me to input into the EDC

for PRISM and Jennifer needed a package to be dropped off for DAPT. I took the package and brought it to receiving and headed back to my desk with the PRISM CRFs. I plan to input them tomorrow morning.

9/15/10: Ilene had a large stack of PRISM patients that needed to have their missing information put in the EDC, so I spent a majority of my morning finishing that up. Afterwards I headed over to Mary's office for the weekly budget meeting. They discussed the CTA for PRISM, budget modifications for DISSECTION, and the need to include payment for patients who screen fail in DEEP AF. After the meeting I went over to the 6th floor to check on everyone and filed some PRISM packets for Ilene. Amy needed me to check on some IRB paperwork that required physician signatures. I picked one up at the Heart Hospital and one at Pavilion I, so I picked them both up and brought them back to Amy. Ilene had some more patients for me to follow up on and I brought the files with me to the 8th floor. I started at the top and I plan on finishing tomorrow morning.

9/16/10: We had our weekly research meeting this morning but rather than go over the current studies we had a teleconference site initiation for the CTSN study. The initiation went over the study protocol and they answered questions. After the presentation Dr. Mack discussed concerns regarding ECG readings and which physician would be ideal for the job. When they concluded their discussion I headed over to the 8th floor to finish inputting patient information for Ilene's PRISM study. After lunch I headed over to the 6th floor to check on the coordinators and drop off Ilene's case report forms. The coordinators didn't need anything so I headed back to my desk to finish reading the magazine that Nanette had loaned me on conflict of interests in clinical research.

9/24/10: I spent the morning prepping for my week off and compiled all my research articles and study protocols. I read over the protocols and articles that I had saved on my computer to determine what was still relevant and needed to be incorporated into my paper. Afterwards I began to work on the electronic worksheets for Jennifer's CABANA study. I went over to the 6th floor to check on the coordinators and Jennifer asked if I could get the patient blood samples for IMPROVE. Unfortunately, one of the patients had his central line removed earlier that day. We asked if he would be willing to allow us to get a blood sample from him through a new source but he refused so Jennifer had to report it as a deviation. Ilene was leaving the department and her last day would be next Wednesday so I said goodbye to her. I hope she's happier and less stressed at her new job.

Week 18:

9/27/10 – 10/01/10: I took the week off to focus on completing my thesis. I plan on finishing a rough draft by the end of the week in order to give my advisory board time look over it and provide feedback.

Week 19:

10/04/10: Today was my first day back and I wanted to focus on polishing up my paper and sending out a copy to my entire advisory board ASAP. I updated my references, cleaned up a number of my citations and proofread for grammatical and spelling mistakes. After I combed through it I sent a copy to Dr. Gwartz, Dr. Reeves, Mary, and Nanette so they would have at least a week and a half to provide me with feedback. I finished reading an issue of The Monitor that Nanette had loaned to me. I wanted to skim through all the articles because its focus on conflicts of interest was relevant to a section in my paper. I drafted a letter asking BRI for permission to use their IRB forms for my paper.

10/05/10: I focused most of my day on making a power point for my thesis presentation. I combed through my paper and highlighted key points to include in my slides. I think I might change the order of how I present the material as compared to the paper. In a paper there's more flexibility to move around from topic to topic. In a presentation, however, it may come off as disorganized or confusing. I took a break from working on the power point and moved onto making more CABANA eCRF worksheets for Jennifer. I attended the research coordinator meeting and took meeting minutes. They discussed the continuing review flow sheet. Mary also updated everyone regarding study status and employee recruitment.

10/06/10: I spent most of my day finishing up the eCRF worksheets for Jennifer's CABANA study. I didn't want to hold off any longer and just kept working on them. It took me longer than I thought it would because of the large number of worksheets that the study uses. After I completed that I headed over to the 6th floor and checked on everyone. Amy asked me to bring over a VIRGO lab kit for her since she's planning on obtaining a patient sample tomorrow. Since Ilene left the department Amy has taken over the VIRGO study.

10/07/10: This morning our weekly research meeting with the physicians was cancelled so I came into the office at my normal time. I wrote up the meeting minutes for this past Tuesday's Coordinator meeting. Afterwards I typed up the continuing review flowsheet since Amy mentioned that she couldn't find the original electronic copy. Jennifer had a second batch of CABANA worksheets for me to work on so I started on those. I finished the rest of the handouts by the end of the day. I plan on going back to working on my power point tomorrow.

10/08/10: This morning Nanette gave me a letter signed off by Bernard from BRI, giving me permission to use their IRB Forms 1 and 14 in my thesis. I had her read over my journal entries since we won't be meeting until next Monday. Nanette had emailed me a copy of my paper with corrections for the first half of it. I made some modifications to my paper and plan on sending a revised version for both Mary and Nanette to look over. Jennifer wanted to sort through the IMPROVE samples in the -80 freezer so she came by the 8th floor office. We slowly took the samples out and divided them by patient numbers. We logged in the times for all the blue top tubes that have not been sent out yet. Unfortunately with all the opening and closing of the freezer, some of the ice that had built up on the front panels prevented the freezer from reforming the vacuum seal. We had finished sorting and were going to start on the 3rd floor samples but the freezer was defrosting. According to the technician it would take the freezer 4-6 hours to fully recover. We decided to stop and desist until Monday.

Week 20:

10/11/10: Today I had my meeting with Mary and Nanette. I was pushed back to Monday last Friday because Nanette had to head over to the Dallas office. We discussed how the week was progressing and what they read so far from my thesis rough draft. Mary and Nanette clarified for me that a study can begin its start up before receiving FDA approval. I was under the impression that DEEP AF's hybrid procedure had already received FDA approval before contacting THHBP as a potential study site. Afterwards I headed over to the 6th floor to check on Sandi and Jennifer. Sandi had some PRISM patients that Ilene had left for me to input into the EDC. I also received the queries as of September. I finished inputting the patients and started on the queries. Nanette emailed me, notifying me that Dr. Edgerton

gave me permission to use his illustrations in my thesis. I plan on making a legend and placing them in the appendix of my paper and on a number of my power point slides.

10/12/10: Mary had sent me a pdf file yesterday afternoon that she had found in the Y drive. It discussed atrial fibrillation and answered frequently asked questions from patients. I found it helpful for my presentation and I plan to incorporate it when I discuss the physiology of the heart. Nanette had also finished reading my rough draft and I looked over them today, making the appropriate changes in my paper. I stopped by the 6th floor to see if any of the coordinators needed anything. Sandi asked if I could input some patient information for PRISM because one of the patients was missing their contact information. I updated a spreadsheet for Jennifer's IMPROVE study. After I finished up with that I headed back to my desk to follow up on the rest of the PRISM queries.

10/13/10: This morning Mary asked if I could help scan a number of documents for one of our studies and email the pdf files to her. I went over to the 6th floor to scan them and to check on the research coordinators. I scanned the packets and emailed the files to Mary. Afterwards I helped Sandi input some patient information for PRISM and informed her that I had finished the queries. Jennifer wanted to finish sorting the IMPROVE patient samples so I went over to the 3rd floor of THHBP to get the samples that Jeremy left over the weekend and to drop off the documents in Mary's office. We sorted through the samples and made an inventory of what we have and made note of what was missing. I did some more work on my power point and added on images from Dr. Edgerton for the surgical portion of the DEEP study. I sat in on a contract/budget meeting between Nanette and Mark. They discussed CTSN, DEEP AF and PRISM.

10/14/10: This morning we had our weekly research meeting with the physicians. They discussed the new team dynamic for the research department, with a new hire starting soon and a potential one that may come on next month. Mary also discussed a number of new proposed studies and the restructuring of future research meetings. Dr. Gwartz had sent me a scanned copy of her corrections so that I wouldn't have to drive all the way down to Fort Worth. I looked over it and made revisions to my paper.

10/15/10: Today Mary emailed me asking if I could make some inclusion/exclusion criteria cards and a flyer for the OPTION study. Fortunately I've gained some experience in making criteria cards while interning here so it only took me a few hours as compared to an entire day when I first attempted to make them. I took them over to Mary and checked to see if she needed any help. Afterwards I went back to my desk and looked over corrections that Dr. Reeves made. Dr. Gwartz was nice enough to email me the scanned copies of both hers and Dr. Reeves's corrections, saving me the hassle of driving down to Fort Worth. I made some minor changes and clarified a few points on my paper.

Week 21:

10/18/10: I spent a good portion of my day today working on my paper. I incorporated all of Dr. Reeves's suggestions and began combing through the paper to look for grammatical mistakes and get a feel for the overall flow of it. I made a number of modifications and I cleaned up the paper. I added in an acknowledgements section, table of contents and a brief synopsis as a cover page. I plan on talking to Mary about the DEEP study diagrams. I want to get a better grasp of what the diagrams are pointing out so that I can explain it properly during my presentation.

10/19/10: I continued with proofreading the final draft of my paper today. I corrected more grammatical mistakes and moved a number of statements here and there. I hope I improved the flow of my paper and smoothed out the transitions for each sub-section. I created a folder to hold all my appendix documents. I saved copies of the IRB forms off of BRI's website. I formatted Dr. Edgerton's surgery illustrations into a word document. I saved an electronic copy of the permission to use BRI materials that Nanette had sent me. I need to have Mary look over my final flowcharts for both the industry and NIH sponsored studies. I also want to discuss which parts of the budget template I would like to include in my appendix. I plan to bring up these topics during our meeting on Friday.

10/20/10: Today involved a lot of consolidating. I wanted to compile all my documents into one word document and prepare it for final review. I inserted cover pages for each section of my appendix and added in the supplemental material as well. There were some formatting issues, so I had to modify the forms, flow charts and my journal entries accordingly so that they matched the overall page setup that was default in my paper. I also wrote in a legend for all the diagrams that Dr. Edgerton let me borrow. Jennifer stopped by with some samples from two IMPROVE patients that she had enrolled earlier today. I helped her spin the blood samples and pipetted them. Afterwards I sat in for the weekly budget/contract meeting between Mark, Mary and Nanette. I then went back to my desk and highlighted sections that I would like to include from a sample budget that Mary had given me.

10/21/10: This morning Mary emailed me and asked if I could help photocopy and set up some packets for a meeting she had coming up regarding PRISM. After I finished copying those I headed over to the 6th floor to check on the coordinators. Jennifer needed help with obtaining blood samples for the two IMPROVE patients that she had enrolled earlier in the week. I got those done and brought the samples over to Pavilion and spun them after an hour. I also took the DAPT study samples and spun them for Amy. Afterwards I headed back over to see if they needed anything else. Both Amy and Jennifer needed to drop something off for an outgoing FedEx package. I had to get some ice packets on the 3rd floor research room to place in Jennifer's package. After dropping off the packages I brought some empty IMPROVE boxes over to the 8th floor so we can bring them back to BRI when they assemble new kits for us.

10/22/10: Mary had asked me to look into ordering some lab supplies that our department would need for a number of upcoming studies. I did some online research on Cardinal Health's site. Before I could finish Jennifer called me asking if I could help with the 48 hour post-op blood samples for the two IMPROVE patients. She was busy enrolling a patient and would not be able to make the window period. I headed over to the Heart Hospital and got the samples. I had to postpone my weekly meeting with Mary since I was busy getting blood samples. After I spun the blood samples I headed over to BIIR in downtown Dallas because Mary had scheduled a tour for me. The facility was pretty impressive. I was surprised at how much they could fit in such a compact space. I then had a chat with one of the employees there who brought me some RNA later and test tubes in case we had a sudden study case before our own supplies arrived.

Week 22:

10/25/10: I finished doing my research on all the laboratory items that our department needed to order. I brought the list over to Mary and we went over it. Afterwards Nanette stopped by and we had our weekly meeting. We discussed the first half of my paper. Mary made a lot of good points and provided me with some great feedback. I took the RNAlater and test tubes from BIIR to the 6th floor and dropped

them off on Jennifer's desk. Sandi had a few NI PRISM patients that needed to be input into the Velos EDC. After I finished with that I headed back to my desk to look over a few of Mary's revisions. Later in the afternoon I headed back to Mary's office to help with some filing for the Fabry's study. I then got some supplies from the 6th floor for Mary and picked up some handouts that she had printed out in administration. After Mary looked over them I brought them back down to Lynn to pass on to Dr. Leonard.

10/26/10: Today I wanted to focus on finishing up my paper with Mary's suggestions and revamping the introduction. I plan on adding a budget template to my appendix once Mary gives me an electronic copy of it. I did some research on atrial fibrillation (AF) treatments after Mary pointed out to me that electrical cardioversion was typically the first method of treatment. I had initially assumed that pharmaceutical cardioversion was the first choice of treatment when a patient was diagnosed with AF.

10/27/10: This morning I came into the office and continued with my paper revisions. Mary had requested a meeting to go over the second half of my paper. She pointed out parts of my paper that were unclear or did not make sense. Her feedback was extremely helpful and I'm glad that she took the time to go over it with me. Unfortunately, I was a bit stressed because the paper would be due for final submission on Friday and I had a long list of things to change. I still needed to polish my paper by doing a final once over for grammatical mistakes and finalizing the page numbers in my table of contents. I asked Mary if it would be alright for me to work from home for the rest of the day and for Thursday. I am usually more productive in a quiet environment and I personally felt it was difficult at times to maintain my concentration at my desk. I stopped by the 6th floor to check on the coordinators. Amy asked if I could drop off a Fedex package for her DAPT study. I dropped it off at receiving and picked up a package for VEST. After I passed that along to Amy I went home for the day.

10/28/10: I continued to work from home, re-writing and editing my paper. I sent pieces of my paper to Mary via email for her to re-read so that I could make edits on my final draft throughout the day. I appreciated her timely responses and was able to finish my writing by the evening.

10/29/10: I came in to the office this morning to discuss any last minute things with Mary and Nanette before I submitted my final draft. I had not received a reply from Mary regarding the budget template so I made the decision to take it out of my paper. I spoke with Nanette and she suggested that I include it in my power point so that the committee can get a better understanding of the budget formation process. I continued to polish off my paper and inserted a cover page. I plan on submitting my paper later today and scheduling a one-on-one session with Dr. Gwartz to practice my seminar.

APPENDIX E

COPYRIGHT NOTICE FROM DR. JAMES EDGERTON

Fw: Dallas Lesion Set Illustrations
[Myers, Nanette](#)

You replied on 10/11/2010 3:46 PM.

Sent: Monday, October 11, 2010 3:44 PM
To: [Ong, Jennifer](#)

[Nanette Myers, MBA](#)
[Baylor Research Institute](#)

From: edgertonjr@aol.com <edgertonjr@aol.com>
To: Myers, Nanette
Sent: Mon Oct 11 15:43:50 2010
Subject: Re: Dallas Lesion Set Illustrations

Yes

Sent via BlackBerry by AT&T

From: "Myers, Nanette" <NanetteM@BaylorHealth.edu>
Date: Mon, 11 Oct 2010 14:52:10 -0500
To: 'edgertonjr@aol.com' <edgertonjr@aol.com>
Subject: Dallas Lesion Set Illustrations

Hi Dr. Edgerton,

Our research intern, Jennifer Ong, is working on her thesis to complete a Masters in Clinical Research Management. The title of her thesis is: *COMPARING SITE MANAGEMENT OF A NIH VERSUS INDUSTRY SPONSORED STUDY: CTSN (SURGICAL INTERVENTIONS FOR MODERATE ISCHEMIC MITRAL REGURGITATION) TRIAL VERSUS DEEP (DUAL EPICARDIAL ENDOCARDIAL PROTOCOL FOR PERSISTENT AND LONGSTANDING ATRIAL FIBRILLATION) TRIAL*

As you can see one of the studies is DEEP AF. I showed her the lesion set illustrations and she would like to include a few of them in her thesis, if you approve. Since these have a patent pending and a copyright are you okay with her including them?

Please let me know your thoughts.

Thank you,

Nanette

Nanette Myers, MBA
Director, Clinical Research
Baylor Research Institute - North
NanetteM@BaylorHealth.edu
~~~~~

BRI - North  
4708 Alliance Blvd., Suite 800  
Plano, TX 75093  
Phone: 469-814-4801  
Fax: 469-814-4808

## APPENDIX F

### COPYRIGHT NOTICE FROM THE BAYLOR RESEARCH INSTITUTE



October 4, 2010

Jennifer Ong

Dear Jennifer,

Baylor Research Institute grants permission for use of the BRI IRB Form 1 and Form 14 for the sole use of the BRI copyrighted documents in your thesis. No other rights are granted to you and all rights are reserved to Baylor Research Institute for the above documents. Please be sure that the Baylor Research Institute copyright notice is reproduced on each document you include in your thesis.

Sincerely,

A handwritten signature in dark ink, consisting of a series of loops and a long horizontal stroke extending to the right.

Bernard Brigonnet  
Chief Operating Officer

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