Anesthesia Care Team Committee
Howard Odom, MD – Chair
January 27, 2009

Overview:

Priority Items:
1. Revised ASA Statement on the Anesthesia Care Team (RECOMMEND)
2. GSA Task Force on AA Membership (RECOMMEND)

Informational Items:
1. Second AA educational program planned in Florida
2. Death of AA profession founder, Nik Gravenstein, MD

Reference Items:
1. ASA Statement on the Anesthesia Care Team
2. Gravenstein
   patriarch-of-uf-anesthesiology-dies-at-83

Priority Items:
1. Revised ASA Statement on the Anesthesia Care Team
   The ASA Anesthesia Care Team Committee completed a multiple year process of updating the
   ASA Statement on the ACT. The major additions were the hotly debated new sections on
   “Qualified Anesthesia Personnel/Practitioner” and “Non-Physician Anesthetist Students.”

   Objections to the Statement focused on its prohibition of using student anesthetists in the OR
   alone during the last few weeks / months in training. This practice is widespread in NA
   training programs but not in AA programs. The AA accreditation Standards and the long-held
   physician driven philosophy of AA education have expressly forbidden using student AAs to
   run more ORs than can be staffed by licensed graduate anesthetists. Contracts between the AA
   education programs and the clinical rotation sites specify that AA students must be placed in
   ORs with a continually present, licensed anesthesia provider.

   The issue in many cases where ASA members objected appears to be financial. Several of
   these physicians are in practices that operate NA training programs. Limiting (or prohibiting)
   the practice of “supervision from a distance” when student NAs are left alone would present a
   significant financial loss of clinical care reimbursement dollars. Also note that the student is
   also simultaneously paying tuition

   In a final decision by the ASA House of Delegates, the updated Statement was adopted
   although with remarkably more dissent than typical of most such actions.

   This item is listed as a Priority Item for the GSA Board of Directors due to the magnitude of
   AA & NA contribution to the Anesthesia Care Team mode of practice in Georgia and among
   GSA members. The Committee therefore RECOMMENDS that the GSA inform members of
   the updated Statement. Further, such information should include a full description of how the
   updated Statement reflects the established standard ACT mode of practice in Georgia and is
   fundamentally based on a solid historical foundation of a patient-centered, safety-focused,
   physician-led team.
2. **GSA Task Force on AA Membership**

Georgia enjoys the largest state level contribution in the nation to anesthesia care by Anesthesiologist Assistants. Our long association with AA education and practice has placed Georgia in a position to model AA participation as Educational Members in ASA Component Societies. This is a leadership role for GSA that is unrealized despite the over 30 years of AA practice in Georgia and the option to become involved in GSA since the class of membership was begun in 2004.

There have also been inquiries in the last few years regarding having a forum for AAs during our biannual meetings. Recently, a nucleus of AAs have been investigating formation of a AAAA Component Society in Georgia. Such a state component exists in Ohio and has been a primary channel of professional advocacy by AAs.

It is important to encourage and facilitate the professional development & individual involvement of this vitally needed type of non-physician anesthesia provider many GSA members employ and/or supervise. However in tandem with their representation of any self interests, it is also vital that we physicians are intimately aware of those efforts.

To the extent that these practitioners might also contribute some of their own support in the form of dues revenue, GSA should be actively investigating all means to attract AAs as Educational Members. Therefore, the Committee **RECOMMENDS** that the GSA President commission a Taskforce on AA Educational Membership.

**Informational Items:**

1. **Second AA educational program planned in Florida**
   
The existing AA program at Nova Southeastern University is to be duplicated in Tampa where the new program will have an affiliation with the Medical School of South Florida. The program will also be Nova branded and may open as early as the summer of 2010. No information on class size is currently available though it is likely that it will be similar to the 30 per class in the Fort Lauderdale program.

2. **Death of AA profession founder, Nik Gravenstein, MD**
   
Dr. Gravenstein was one of the three authors of the paper in Anesthesiology that launched the AA profession in the late 60's. Along with Drs. Steinhaus and Volpitto (MCG), the article is truly the founding document of the AA profession during the time when the PA concept was firing up at Duke under Dr. Eugene Stead. Emory opened the first AA education program followed shortly by Case Western Reserve where Dr. Gravenstein was chair.

The many other accomplishments of Dr. Gravenstein may be found in the news item submitted with this report.
STATEMENT ON THE ANESTHESIA CARE TEAM

Committee of Origin: Anesthesia Care Team

(Approved by the ASA House of Delegates on October 18, 2006, and last amended on October 22, 2008)

Anesthesiology is the practice of medicine including, but not limited to, preoperative patient evaluation, anesthetic planning, intraoperative and postoperative care and the management of systems and personnel that support these activities. In addition, anesthesiology involves perioperative consultation, the prevention and management of untoward perioperative patient conditions, the treatment of acute and chronic pain, and the care of critically ill patients. This care is personally provided by or directed by the anesthesiologist.

In the interest of patient safety and quality of care, the American Society of Anesthesiologists believes that the involvement of an anesthesiologist in the perioperative care of every patient is optimal. Almost all anesthesia care is either provided personally by an anesthesiologist or is provided by a nonphysician anesthesia provider directed by an anesthesiologist. The latter mode of anesthesia delivery is called the Anesthesia Care Team and involves the delegation of monitoring and appropriate tasks by the physician to nonphysicians. Such delegation should be specifically defined by the anesthesiologist and should also be consistent with state law or regulations and medical staff policy. Although selected tasks of overall anesthesia care may be delegated to qualified members of the Anesthesia Care Team, overall responsibility for the Anesthesia Care Team and the patients’ safety rests with the anesthesiologist.

Core Members of the Anesthesia Care Team

The Anesthesia Care Team includes both physicians and nonphysicians. Each member of the team has an obligation to accurately identify themselves and other members of the team to patients and family members. Anesthesiologists should not permit the misrepresentation of nonphysician personnel as resident physicians or practicing physicians. The nomenclature below is appropriate terminology for this purpose.

Physicians:
ANESTHESIOLOGIST – director of the anesthesia care team - a physician licensed to practice medicine who has successfully completed a training program in anesthesiology accredited by the ACGME, the American Osteopathic Association or equivalent organizations.
ANESTHESIOLOGY FELLOW— an anesthesiologist enrolled in a training program to obtain additional education in one of the subdisciplines of anesthesiology.
ANESTHESIOLOGY RESIDENT – a physician enrolled in an accredited anesthesiology residency program.

Nonphysicians:
NURSE ANESTHETIST – a registered nurse who has satisfactorily completed an accredited nurse anesthesia training program.
ANESTHESIOLOGIST ASSISTANT – a health professional who has satisfactorily completed an accredited anesthesiologist assistant training program.
STUDENT NURSE ANESTHETIST – a registered nurse who is enrolled in an accredited nurse anesthesia training program.
ANESTHESIOLOGIST ASSISTANT STUDENT – a health professions graduate student who has satisfied the required coursework for admission to an accredited school of medicine and is enrolled in an accredited anesthesiologist assistant training program.
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Although not considered core members of the Anesthesia Care Team, other health care professionals make important contributions to the perianesthetic care of the patient (see Addendum A).

Definitions

ANESTHESIA CARE TEAM – Anesthesiologists supervising resident physicians in training and/or directing qualified nonphysician anesthesia providers in the provision of anesthesia care wherein the physician may delegate monitoring and appropriate tasks while retaining overall responsibility for the patient.

QUALIFIED ANESTHESIA PERSONNEL/PRACTITIONER - Anesthesiologists, anesthesiology fellows, anesthesia residents, oral surgery residents, anesthesiologist assistants and nurse anesthetists. An exception is made by some clinical training sites for non-physician anesthetist students (see “Non-physician Anesthetist Students” below).

SUPERVISION AND DIRECTION – Terms used to describe the physician work required to oversee, manage and guide both residents and nonphysician anesthesia providers in the Anesthesia Care Team. For the purposes of this statement, supervision and direction are interchangeable and have no relation to the billing, payment or regulatory definitions that provide distinctions between these two terms (see Addendum B).

Safe Conduct of the Anesthesia Care Team

In order to achieve optimum patient safety, the anesthesiologist who directs the Anesthesia Care Team is responsible for the following:

1. Management of personnel – Anesthesiologists should assure the assignment of appropriately skilled physician and/or nonphysician personnel for each patient and procedure.

2. Preanesthetic evaluation of the patient – A preanesthetic evaluation allows for the development of an anesthetic plan that considers all conditions and diseases of the patient that may influence the safe outcome of the anesthetic. Although nonphysicians may contribute to the preoperative collection and documentation of patient data, the anesthesiologist is responsible for the overall evaluation of each patient.

3. Prescribing the anesthetic plan – The anesthesiologist is responsible for prescribing an anesthesia plan aimed at the greatest safety and highest quality for each patient. The anesthesiologist discusses with the patient (when appropriate), the anesthetic risks, benefits and alternatives, and obtains informed consent. When a portion of the anesthetic care will be performed by another qualified anesthesia provider, the anesthesiologist should inform the patient that delegation of anesthetic duties is included in care provided by the Anesthesia Care Team.

4. Management of the anesthetic – The management of an anesthetic is dependent on many factors including the unique medical conditions of individual patients and the procedures being performed. Anesthesiologists should determine which perioperative tasks, if any, may be delegated. The anesthesiologist may delegate specific tasks to qualified nonanesthesiologist members of the ACT providing that quality of care and patient safety are not compromised, but should participate in critical parts of the anesthetic and remain immediately physically available for management of emergencies regardless of the type of anesthetic (see Addendum B).
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5. **Postanesthesia care** – Routine postanesthesia care is delegated to postanesthesia nurses. The evaluation and treatment of postanesthetic complications are the responsibility of the anesthesiologist.

6. **Anesthesia consultation** – Like other forms of medical consultation, this is the practice of medicine and should not be delegated to nonphysicians.

**Supervision of Nurse Anesthetists by Surgeons**

*Note: In this paragraph “surgeon(s)” may refer to any appropriately trained, licensed and credentialed nonanesthesiologist who may supervise nurse anesthetists.*

General, regional and monitored anesthesia care all expose patients to risks. Nonanesthesiologist physicians may not possess the expertise that uniquely qualifies and enables anesthesiologists to manage the most clinically challenging medical situations that arise during the perioperative period. While a few surgical training programs provide some anesthesiology specific education (e.g., some oral and maxillofacial residencies), no surgical, dental, podiatric or any other nonanesthesiology training programs provide enough training specific to anesthesiology to enable their graduates to provide the level of medical supervision and clinical expertise that anesthesiologists provide. However, surgeons can still significantly add to patient safety and quality of care by assuming medical responsibility for all perioperative care when an anesthesiologist is not present. Anesthetic and surgical complications often arise unexpectedly and require immediate medical diagnosis and treatment. Even if state law or regulation says a surgeon is not “required” to supervise nonphysician anesthesia providers, the surgeon may be the only medical doctor on site. Whether the need is preoperative medical clearance or intraoperative resuscitation from an unexpected complication, the surgeon, both ethically and according to training and ability, should be expected to provide medical oversight or supervision of all perioperative health care provided, including nonphysician nurse anesthesia care. To optimize patient safety, careful consideration is required when surgeons can be expected to be the only medical doctor available to provide oversight of all perioperative care. This is especially true in freestanding surgery centers and surgeons’ offices where, in the event of unexpected emergencies, consultation with other medical specialists frequently is not available. In the event of unexpected emergencies, lack of immediately available and appropriately trained physician support can reduce the likelihood of successful resuscitation. This should always be a consideration when deciding which procedures should be performed in these settings, and on which patients, particularly if the individual supervising the nurse anesthetist is not a medical doctor with training appropriate for providing critical perioperative medical management.

**Non-Physician Anesthetist Students**

**Definition:** AA students, SRNAs, dental anesthesia students, or possibly other student types satisfactorily enrolled in nationally accredited training programs. Anesthesiologists should be dedicated to providing optimal patient safety and quality of care to every patient undergoing anesthesia and also to education of anesthesia students that is commensurate with that dedication. The ASA Standards for Basic Anesthetic Monitoring sets forth the minimum conditions necessary for the safe conduct of anesthesia. Standard #1 of that document states that, “Qualified anesthesia personnel shall be present in the room throughout the conduct of all general anesthetics, regional anesthetics and monitored anesthesia care.” The definitions above are inadequate to address the issue of safe patient care during the training of non-physician anesthetist students. Further clarification of the issues involved is in the best interests of patients, students, and the anesthesia practitioners involved in the training of non-physician anesthetists.
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Distinction between situations where students may be alone with patients: During supervision of non-physician anesthetist students it may become necessary to leave them alone in operating rooms or procedure rooms (OR/PR) to accommodate needs of brief duration. This should only occur if judged to cause no significant increased risk to the patient.

This practice must be distinguished from that of scheduling non-physician students to patients as the primary anesthesia provider, meaning no fully trained anesthesia practitioner also assigned to the case and expected to be continuously present monitoring the anesthetized patient. While the brief interruption of 1:1 student supervision may well be necessary for the efficient and safe functioning of a department of anesthesiology, the use of non-physician students in place of fully trained and credentialed anesthesia personnel is not endorsed as best practice by the American Society of Anesthesiologists. While the education of non-physician anesthetist students is an important goal, patient safety remains paramount. Therefore, the conduct of this latter type of practice must meet certain conditions intended to protect the safety and rights of patients and students, as well as the best interests of all other parties directly or indirectly involved (i.e. involved qualified practitioners, patients’ families, institutions, etc.).

1. All delegating anesthesiologists and the department chairperson must deem these non-physician student anesthetists fully capable of performing all duties delegated to them, and all students being delegated to must express agreement with accepting any responsibility delegated to them.

2. Privileging – A privileging process must precede this practice to officially and individually label each student as qualified to be supervised 1:2 by a qualified anesthesia practitioner who remains immediately physically available. Students must not be so privileged until they have completed a significant predetermined portion of both their didactic and clinical training that may reasonably be assumed to make this practice consistent with expected levels of safety and quality (if at all, at the earliest the last 3-4 months of student training). Privileging must be done under the authority of the Chief of Anesthesiology and in compliance with all federal, state, professional organization and institutional requirements.

3. Case Assignment and Supervision – These students must be supervised on a one-to-one or on a one-to-two ratio. Assignment of cases with regards to students must always be done in a manner that assures the best possible outcome for patients and the best education of students and therefore must be commensurate with the skills, training, experience, knowledge and willingness of each individual non-physician anesthesia student. Care should be taken to avoid placing students in situations that they are not fully prepared for. It is expected that most students will get their experience caring for high risk patients under the continuous supervision of fully trained anesthesia personnel. This is in the best interest of both education and patient safety. As students are incompletely trained, the degree of continuous supervision must be at a higher level than that required for fully trained and credentialed AAs and NAs. If an anesthesiologist is engaged in the supervision of non-physician students, he/she must remain immediately physically available throughout the conduct of the involved anesthetics, meaning not leaving the OR/PR suite to provide other services or clinical duties that are commonly considered appropriate concurrent activities while directing fully trained and credentialed AAs or NAs.
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4. **Backup support** – If an anesthesiologist is concurrently supervising two non-physician anesthetists students assigned as primary anesthesia providers (meaning the only anesthesia personnel continuously present with a patient), the anesthesiologist could be needed simultaneously in both rooms. To mitigate this potential risk, one other qualified anesthesia practitioner must also be assigned and must remain immediately physically available if needed (e.g., alone on call anesthesiologist should not be supervising more than one student without appropriately trained and credentialed back up immediately available).

5. **Informed Consent** – The Chief of Anesthesia is responsible for assuring that every patient (or their guardian) understands through a standardized departmental informed consent process that they may be in the OR/PR with only a non-physician student physically present, although still directed by the responsible anesthesiologist. As it is in the best interest of all involved parties, documentation of this aspect of informed consent must be included in the informed consent statement.

6. **Disclosure to Professional Liability Carrier** – To be assured of reliable professional liability insurance coverage for all involved (qualified anesthesia practitioners, their employers and the institution), the Chief of Anesthesia must notify the responsible professional liability carrier(s) of the practice of allowing non-physician anesthesia students to provide care without continuous direct supervision by a fully trained, credentialed and qualified anesthesia practitioner.

ADDENDUM A:

**Other personnel involved in perianesthetic care:**

POSTANESTHESIA NURSE – a **registered nurse** who cares for patients recovering from anesthesia.

PERIOPERATIVE NURSE – a **registered nurse** who cares for the patient in the operating room.

CRITICAL CARE NURSE – a **registered nurse** who cares for patients in a special care area such the intensive care unit.

OBSTETRIC NURSE – a **registered nurse** who provides care to laboring patients.

NEONATAL NURSE – a **registered nurse** who provides cares to neonates in special care units.

RESPIRATORY THERAPIST – an **allied health professional** who provides respiratory care to patients.

CARDIOVASCULAR PERFUSIONISTS – an **allied health professional** who operates cardiopulmonary bypass machines.

**Support personnel whose efforts deal with technical expertise, supply and maintenance:**

ANESTHESIA TECHNOLOGISTS AND TECHNICIANS
ANESTHESIA AIDES
BLOOD GAS TECHNICIANS
RESPIRATORY TECHNICIANS
MONITORING TECHNICIANS
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ADDENDUM B:

Commonly Used Billing Rules and Definitions

ASA recognizes the existence of commercial and governmental payer rules applying to billing for anesthesia services and encourages its members to comply with them whenever possible. Some commonly prescribed duties include:

• Performing a preanesthetic history and physical examination of the patient;
• Prescribing the anesthetic plan;
• Personal participation in the most demanding portions of the anesthetic, including induction and emergence, where applicable;
• Delegation of anesthesia care only to qualified anesthesia providers;
• Monitoring the course of anesthesia at frequent intervals;
• Remaining physically available for immediate diagnosis and treatment while medically responsible;
• Providing indicated postanesthesia care, and;
• Performing and documenting a post-anesthesia evaluation.

ASA also recognizes the lack of total predictability in anesthesia care and the variability in patient needs that can, in particular and infrequent circumstances, make it less appropriate from the viewpoint of overall patient safety and quality to comply with all payment rules in each patient at every moment in time. Reporting of services for payment must accurately reflect the services provided. The ability to prioritize duties and patient care needs, moment to moment, is a crucial skill of the anesthesiologist functioning safely within the anesthesia care team. Anesthesiologists must strive to provide the highest quality of care and greatest degree of patient safety to ALL patients in the perioperative environment at ALL times.

MEDICAL “DIRECTION” by anesthesiologists – A billing term describing the specific anesthesiologist work required in and restrictions involved in billing payers for the management and oversight of nonphysician anesthesia providers. This pertains to situations where anesthesiologists are involved in not more than four concurrent anesthetics. See individual payer manuals for specifics.

MEDICAL “SUPERVISION” by anesthesiologists – Medicare payment policy contains a special payment formula for “medical supervision” which applies “when the anesthesiologist is involved in furnishing more than four procedures concurrently or is performing other services while directing the concurrent procedures.” [Note: The word “supervision” may also be used outside of the Anesthesia Care Team to describe the perioperative medical oversight of nonphysician anesthesia providers by the operating practitioner/surgeon. Surgeon provided supervision pertains to general medical perioperative patient management and the components of anesthesia care that are medical and not nursing functions (e.g., determining medical readiness of patients for anesthesia and surgery, and providing critical medical management of unexpected emergencies).]
Patriarch of UF Anesthesiology dies at 83

By APRIL FRAWLEY BIRDWELL
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Joachim S. “Nik” Gravenstein, M.D. PHoto by Sarah Kiewel

Joachim S. “Nik” Gravenstein, M.D., a longtime University of Florida faculty member who founded the College of Medicine’s department of anesthesiology in 1958 and co-invented the Human Patient Simulator, died Friday (Jan. 16, 2009) after an extended illness.

He was 83.

“Nik Gravenstein was an exceptionally gifted and compassionate human being,” said Michael L. Good, M.D., interim dean of the College of Medicine and a former student of Gravenstein’s. “As a physician, he healed many. As a teacher, he helped students of all ages learn. As a mentor, he helped so many of us develop successful, rewarding and meaningful careers and lives. Nik Gravenstein leaves the world in a much better place than how he found it. I am so fortunate to have had the opportunity to know and learn from this great man.”

Until recently, Gravenstein, a graduate research professor emeritus of anesthesiology, was on campus by 7 a.m. most mornings to instruct residents on the Human Patient Simulator, a teaching tool he developed more than a decade ago with UF researchers Sem Lampotang, Ph.D., and Good, among others. The computerized mannequin is programmed to simulate real medical problems; it can breathe and die, allowing students to practice tackling medical crises before lives are at stake. UF’s Human Patient Simulator is now one of the most widely used medical simulators and is in thousands of institutions worldwide.

The invention of the simulator, known as Stan, was just one of many contributions Gravenstein made to improve patient safety during his more than five decades in medicine, said Jerome Modell, M.D., a
former chairman of anesthesiology in the UF College of Medicine. Gravenstein co-founded the Anesthesia Patient Safety Foundation and studied ways to improve patient safety in anesthesia, writing several books on the subject. Current national efforts in patient safety trace back to the APSF, and from there, to Gravenstein.

“He devoted his life to patient safety,” Modell said. “There is no question about that.

“When Dr. Gravenstein started the division of anesthesiology in 1958, the unexplained death rate from anesthesia was one in 2,000 patients. Now, it’s one in 200,000. Nik didn’t do it alone but he was the first person to really push it and advocate for safety in anesthesia. I think that is his greatest contribution.”

Gravenstein was the first, and only, member of the anesthesiology department when the teaching hospital, now Shands at UF, opened 51 years ago. Technically, he was still a medical student when he was hired, although he was working on his second medical degree. After earning his first medical degree in 1951 in his native Germany, Gravenstein was invited to train at Massachusetts General Hospital in Boston. Once there, he quickly realized there were gaps in his medical education, so he enrolled at Harvard Medical School while he completed his residency and completed clinical and research fellowships.

“German science, which was excellent pre-World War I, and internationally recognized, went downhill,” Gravenstein said during an interview in 2005. “Many of the teachers left, others had not returned from (World War II), they had been killed. The education suffered.”

During a 2005 interview, Gravenstein recalled his decision to come to UF as being an easy one. It was a sunny February day in Gainesville, and the excitement and idealism surrounding the new medical school was infectious. He stayed at UF until 1969, serving as chief of anesthesiology and then as the first chairman of anesthesiology when it was formally named a department in 1967. During that time, several of his eight children were born at Shands at UF, including Ruprecht, the first baby born at the hospital in 1958.

In 1969, Gravenstein left UF for Case Western Reserve University, where he served as a professor and director of anesthesiology until 1979, when Modell recruited him back to the UF College of Medicine. He had been a fixture at the college since then.

His research with his UF colleagues led to numerous findings and patents, including not only the Human Patient Simulator, but also the Virtual Anesthesia Machine and other devices to help improve anesthesia delivery and patient safety.

Among his many honors, Gravenstein had been named one of the Best Doctors in America, received a Distinguished Achievement Award from the Anesthesia Patient Safety Foundation and earned two Lifetime Achievement Awards from the UF College of Medicine.

He served on the editorial boards of several journals, including the Journal of Clinical Monitoring and
the Journal of Anesthesia, and was a diplomate of the American Board of Anesthesiology.

Gravenstein also was a longtime member of several medical societies, including the American Society of Anesthesiologists, the Association of University Anesthesiologists, the Society for Technology in Anesthesia, the Florida Medical Association and the International Anesthesia Research Society, among others.

“His dedication to patient safety has left the world a better place for his presence,” said Kayser Enneking, M.D., chair of anesthesiology. “We will miss him and do our best to live up to the ideals that he embodied in his daily life. It was our great privilege to have known ‘The Classic’ Gravenstein. He remains an inspiration to us all.”

Gravenstein is survived by his wife, Alix; his eight children, Nikolaus Gravenstein, Alix Gravenstein Pastis, Frederike Gravenstein, Dietrich Gravenstein, Stefan Gravenstein, Ruprecht Gravenstein, Constanza Gravenstein Goricki and Katarina Gravenstein Brient; and 16 grandchildren.

Persons who wish to honor the accomplishments and memory of Dr. Gravenstein may do so by making contributions to the I. Heermann Anesthesia Foundation Inc. (EIN 59-3349331). Checks should be made payable to the I. Heermann Anesthesia Foundation Inc. and mailed to P.O. Box 100254, Gainesville, FL 32610-0254.